# A REVISION OF THE AUSTRALASIAN GROUND SPIDERS OF THE FAMILY PRODIDOMIDAE (ARANEAE: GNAPHOSOIDEA) 

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#### Abstract

The Australasian ground spiders belonging to the family Prodidomidae are monographed; although only ten species were previously known from the region, the fauna is extraordinarily diverse, encompassing at least seven genera and 138 species. Two generic names are newly synonymized: Hyltonia Birabén with Prodidomus Hentz, and Honunius Simon with Molycria Simon. The type species of the family, Prodidomus rufus Hentz, although originally described from Alabama, is apparently synanthropic and hence widespread; Prodidomus gulosus (Simon) from New Caledonia, Prodidomus imaidzumii Kishida from Japan, and Hyltonia scottae Birabén from Argentina are newly synonymized with P. rufus, and the species is newly recorded from Chile and St. Helena. Seven new species of Prodidomus are described from Western Australia, the Northern Territory, and Queensland. The females of Molycria mammosa (O. P.-Cambridge) and Molycria quadricauda (Simon) are described for the first time, and 34 new species of Molycria are described. The new genus Wydundra is described for 40 new Australian species, and Molycria voc Deeleman-Reinhold, from Malaysia and the Moluccas, is transferred to Wydundra. Molycria splendida Simon is transferred to the new genus Wesmaldra, its male is described for the first time, and 13 new species of Wesmaldra are described from Western Australia and the Northern Territory. Molycria flavipes Simon is transferred to the new genus Nomindra, its male is newly described, Molycria alboplagiata Simon is newly synonymized with that name, and 15 new species of Nomindra are described. The male of Cryptoerithus occultus Rainbow is described for the first time, and 18 new species are assigned to Cryptoerithus. Adult males and females of Myandra cambridgei Simon are described for the first time, as are two new species of Myandra.


## INTRODUCTION

This paper, the third in a series of monographs on Australasian gnaphosoids, deals with the surprisingly large and diverse prodidomid fauna of the region. Most of the fauna consists of molycriines (fig. 1), easily recognized by the position of the anterior lateral spinnerets, which are situated far in advance of the other spinnerets (figs. 12-17, $242,243)$. The only other gnaphosoids described to date that share this unusual spinneret arrangement belong to the synanthropic prodidomine genus Zimiris Simon (see Platnick and Penney, 2004).

The limits of the Prodidomidae have varied greatly over recent decades. Roewer (1955) included within the current prodidomid subfamilies some genera that actually belong to other groups. Within the Molycriinae, he included Ceryerda Simon (1909) from Western Australia, which is not a prodidomid (the placement of this genus will be discussed in detail in a forthcoming revision by Vladimir Ovtsharenko), as well as the Asian genera Jacaena Thorell (1897) and Sphingius Thorell (1890), which were transferred to the Liocranidae by Deeleman-Reinhold (2001). Brignoli (1983) included within the subfamily "Anagraphinae" the Western Australian
genus Encoptarthria Main (1954), which, like Ceryerda, is not a prodidomid and will also be discussed in the forthcoming paper by Vladimir Ovtsharenko.

With the redefinition of the family Prodidomidae to include just those gnaphosoids with greatly elongated piriform gland spigot bases accompanied by highly plumose setae (Platnick, 1990), a number of genera that had traditionally been placed in the family Gnaphosidae were transferred to the Prodidomidae and assigned to the subfamilies Molycriinae and Anagraphidinae. The latter subfamily was construed to include four tribal groupings established by Simon (1893a: 349-354): the Theumeae, Anagraphideae, Lygrommateae, and Tricongieae.

As treated by Simon, each of those four tribal groups was monotypic, being based on the genera Theuma Simon (1893a), Anagraphis Simon (1893a), Lygromma Simon (1893b), and Tricongius Simon (1893b), respectively. Subsequent authors amalgamated some or all of these taxa; for example, Petrunkevitch (1928:52) considered the Anagraphidinae to include the Anagraphideae, Theumeae, and Lygrommateae (but not Tricongieae, which he placed in his ill-defined subfamily Drassodinae). Bonnet (1955: 307) followed Petrunkevitch's arrangement, as did


Fig. 1. Molycria stanisici, new species, male, dorsal view; collected by M. Rix, photograph by Jeff Wright, Queensland Museum.

Roewer (1955: 353-355) and Brignoli (1983: 560-561), although the latter two catalogers erroneously used the spelling Anagraphinae (see Bonnet, 1955: 307, footnote 110; Dr. H. D. Cameron, personal commun., has confirmed that Bonnet's argument for the spelling Anagraphidinae is correct).

Thus, Platnick (1990) transferred the Anagraphidinae from the Gnaphosidae to the Prodidomidae, and that arrangement has been followed in subsequent catalogs (e.g., Platnick, 2005). However, Platnick's (1990) results were based on scanning electron microscopy of representatives of Theuma, Lygromma, and Tricongius; he did not examine the spinnerets of Anagraphis, and subsequent authors who have dealt with that genus, such as Levy (1999) and Chatzaki et al. (2002a, 2002b), have instead considered Anagraphis to be a member of the Gnaphosidae, without explicitly discussing that placement.

The identity and affinities of Anagraphis have been obscured by what we suggest has been a long-standing error with regard to the
distribution of the genus. In his original description of the type species, Simon (1893c: 308) cited Anagraphis pallens from "Caput Bonae-Spei!" (the Cape of Good Hope in South Africa). Earlier (Simon, 1889: 384), he had described the genus Scylax (which was preoccupied and subsequently replaced by Theuma) for the type species $S$. walteri, supposedly from "Mor Kaln" in central Asia (now Kalaymor in southern Turkmenistan, per Vladimir Ovtsharenko).

Theuma is a commonly collected genus, but in modern collections it is known only from southern Africa. Anagraphis is less well known, but the recent work by Levy (1999) and Chatzaki et al. (2002a, 2002b) has helped greatly to clarify the identity of at least the type species of the genus; that species and its close relatives are now known to range from the eastern Mediterranean to central Asia. Theuma has never been re-collected in central Asia (Vladimir Ovtsharenko, personal commun.), and we know of no modern specimens of Anagraphis in any collections from south-
ern Africa. We suspect that in the process of comparing his first specimens of these two genera, Simon accidentally exchanged the locality data associated with them. In other words, we suggest that the type specimen of Theuma walteri (Simon) was actually collected in the Cape of Good Hope, rather than central Asia, and that the type specimen of Anagraphis pallens Simon was actually collected in central Asia, and not southern Africa.

A considerable collection of central Asian specimens belonging to Anagraphis has kindly been made available to us by Vladimir Ovtsharenko, and we have taken the opportunity to examine the spinnerets of these spiders in detail, using an ingenious new technique, suggested by Michael Roberts, in which hot lactic acid is used to expand the spinnerets. Expansion of the anterior lateral spinnerets indicates that in Anagraphis the piriform gland spigots are greatly enlarged, relative to the major ampullate gland spigots; this feature is a putative synapomorphy of the Prodidomidae plus Gnaphosidae, with homoplasy, in males only, in some clubionoids (Platnick, 1990). However, in Anagraphis, the piriform gland spigots are widened, have a short base bearing a longer shaft, and have no setae closely associated with their bases, as is typical of gnaphosids rather than prodidomids.

The anterior lateral spinnerets of Anagraphis are unusual, in that there is a distinct sclerotized strip, bearing setae, on both the prolateral and retrolateral sides of the spinneret tip, outside the area of the piriform gland spigots. These strips are presumably remnants of the distal ring representing the second segment of the spinneret that is found in the more plesiomorphic gnaphosoid families and their outgroups (Platnick, 2000, 2002). Although many gnaphosids have a row of setae extending prolaterally and retrolaterally from the area of the major ampullate gland spigots, which are presumably also remnants of that more primitive distal ring, we have so far found a similar pair of sclerotized strips only in the genus Talanites Simon. We therefore here formally transfer Anagraphis (and hence the subfamily Anagraphidinae) from the Prodidomidae to the Gnaphosidae, and also include within the

Anagraphidinae the gnaphosid genus Talanites.

This leaves the remaining "anagraphidines" that are actually prodidomids rather than gnaphosids in need of a subfamilial name, and as first revisers we here follow page priority and choose Theuminae, based on Simon's Theumeae rather than Lygrommateae or Tricongieae (all of which first appeared in the same publication by Simon, 1893a).

All specimen measurements presented below are in millimeters, and where both sexes of a species are known, characters of females not repeated in the descriptions are identical to those of males. Standard abbreviations of morphological terms follow those of Platnick and Shadab (1975); in the species descriptions, the anterior lateral spinnerets are abbreviated as ALS. The descriptions were generated with the aid of DELTA and Intkey (and shortened where possible); the keys to species were also generated with Intkey (Dallwitz et al., 1998). The maps were created with BioLink (2003).

## Collections Examined

AMNH American Museum of Natural History
AMS Australian Museum, Sydney, M. Gray, G. Milledge
ANIC Australian National Insect Collection, Canberra, R. Halliday
CAS California Academy of Sciences, San Francisco, C. Griswold, D. Ubick
CDFA California Department of Food and Agriculture, M. Moody
CJM J. Murphy, Hampton, U.K.
CVIC Central Victoria Regional Insect Collection, La Trobe University, Bendigo, Victoria, J. Shield
IBU Instituto Butantan, A. Brescovit
MCZ Museum of Comparative Zoology, Harvard University, G. Giribet, L. Leibensperger
MNHN Muséum National d'Histoire Naturelle, Paris, C. Rollard
MLP Museo de La Plata, E. Arrozpide
MNT Museum and Art Gallery of the Northern Territory, Darwin, G. R. Brown, G. Dally
MONZ Museum of New Zealand, P. Sirvid

| Genus | 0 | 1 | Character Number |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 1 |
| Lampona | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Centrothele | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gnaphosa | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 |
| Zelotes | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Prodidomus | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Cryptoerithus | 0 | I | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| Wesmaldra | 0 | 1 | 0 | 0 | 1 |  | 1 | 1 | 1 | 1 | 1 | 0 |
| Wydundra | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| Molycria | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Nomindra | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| Myandra | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |

Fig. 2. Character matrix for 11 genera; see text for character descriptions.

NMV Museum of Victoria, Abbotsford, G. Milledge

OGU Ohtemon Gakuin University, Y. Nishikawa
QMB Queensland Museum, Brisbane, R. Raven
QVM Queen Victoria Museum, Launceston, L. McGowan
SAM South Australian Museum, Adelaide, D. Hirst
TMH Tasmanian Museum, Hobart, E. Turner
UCR University of California, Riverside, R. Vetter

WAM Western Australian Museum, Perth, M. Harvey, J. Waldock

ZMB Museum für Naturkunde, Berlin, M. Moritz, J. Dunlop

ZMH Zoologisches Museum, Hamburg, H. Dastych

## RELATIONSHIPS

The Prodidomidae, along with the Lamponidae and Gnaphosidae, form the "higher gnaphosoids". These families share anterior lateral spinnerets consisting of only a single article (Platnick, 2002: fig. 2, node 59). The "lower gnaphosoid" families (Ammoxenidae, Cithaeronidae, Gallieniellidae, and Trochanteriidae) retain a separate, complete distal article that is represented by an entire, subdistal ring of sclerotized cuticle.

The Australasian prodidomid fauna includes representatives of two subfamilies (the Prodidominae and Molycriinae, with one and six genera, respectively). To reconstruct the relationships among these genera, a data matrix was compiled that includes 11 taxa: the Australasian genera belonging to the Prodidominae (Prodidomus Hentz) and Molycriinae (Cryptoerithus Rainbow, Molycria Simon, Myandra Simon, and the new genera Nomindra, Wesmaldra, and Wydundra), plus four outgroup taxa. Two outgroup taxa representing the putative sister family Gnaphosidae were included: Gnaphosa nigerrima L. Koch and Zelotes subterraneus (C. L. Koch). Two members of the family Lamponidae, Lampona murina L. Koch and Centrothele coalston Platnick, were selected to help root the tree, because the Lamponidae is the putative sister taxon of the Gnaphosidae plus Prodidomidae (Platnick, 2000, 2002).

A search for characters that help resolve the relationships among these taxa resulted in only a simple matrix including just 11 characters (plus an initial all-zero dummy character; fig. 2) and displaying no homoplasy. Putative autapomorphies for the genera are not included in the matrix, as they could not contribute to the generic-level analysis and could serve only to inflate its consistency (if there were homoplasy in the data); those autapomorphies are instead discussed in the Results section below.

## Characters

The spinnerets contributed five characters. The complete loss of the sclerotized ring on the anterior lateral spinnerets, coded as character 1 , state 1 , is a putative synapomorphy of the Gnaphosidae plus Prodidomidae (Platnick, 2002: fig. 2, node 58; state 0 of this character, a partially reduced ring, is found in the lamponid genera). The greatly widened piriform gland spigot shafts bearing broad openings (character 2, state 1) are a putative synapomorphy for the true gnaphosids (Platnick, 2002: fig. 2, node 57). The greatly elongated piriform gland spigot bases, accompanied by highly plumose setae (character 4, state 1), are a putative synapomorphy for the prodidomids (Platnick, 2002: fig. 2, node 55; Platnick et al., 2005). Greatly elongated anterior lateral spinnerets, extending more than $22 \%$ of the abdominal length (character 5, state 1) and the anteriorly advanced position of those spinnerets, far removed from the other two pairs (character 6, state 1) are both features typical of the Molycriinae.

The pair of oval, invaginated posterior epigastric sclerites (character 3, state 1) is a putative synapomorphy of the Lamponidae (Platnick, 2000: fig. 2, node 54; 2002: fig. 2, node 54).

The legs provided two characters. Tarsal claws placed on an onychium (character 7, state 1 ) is found among these taxa only in the Prodidomidae. The presence of tarsal cuticular cracks, which allow that leg segment to bend, on at least leg IV (character 8, state 1), is here uniquely found in Molycria, Myandra, Nomindra, Wesmaldra, and Wydundra (although there is homoplasy elsewhere, most notably within the lower gnaphosoid family Gallieniellidae). The presence of such cracks on tarsi III as well unites all those genera except Wydundra, but the absence of cracks on tarsi III could be merely an autapomorphy of Wydundra and is therefore not coded here as a separate character.

A carapace narrowed in front to less than half its maximum width (character 9, state 1) occurs in some of the prodidomid genera. A female palpal femur with a lateroventral row of 7-9 long, strong spines (character 10, state 1) is found only in Wesmaldra and Wydundra (fig. 246). A complex male palpal conductor
with a longitudinal fold (character 11, state 1) is present only in Molycria, Myandra, and Nomindra; in the other genera the conductor is membranous and spatulate (state 0 ).

## Results

The matrix was analyzed using NONA (version 2.0, Goloboff, 1997), using the mult*max* option and holding 100 trees in memory, with 20 replications and 10 starting trees. The analysis resulted in a single cladogram, shown in figure 3 (length 11 steps, consistency and retention indices 1.0). The expected family-level relationships were obtained, but because further outgroups were absent the putative lamponid synapomorphy (postepigastric sclerites, character 3) is erroneously optimized in figure 3 as a synapomorphy of its sister group (the Gnaphosidae plus Prodidomidae). As expected, the prodidomids are united by the greatly elongated piriform gland spigot bases, accompanied by highly plumose setae (character 4, state 1) and also by having the tarsal claws situated on an onychium (character 7, state 1).

The Prodidominae are here represented only by Prodidomus, which is very distinctive, with several putative autapomorphies: the enlarged and canoe-shaped posterior lateral spinnerets, the (at least partially) divergent chelicerae, the lack of a serrula on the endites, the posterior lateral and posterior median eyes being contiguous, and the stout male palpal cymbium with a truncate tip.

The Australian Molycriinae are united at node A and differ from the Prodidominae in having anterior lateral spinnerets that are greatly elongated (character 5 , state 1 ) and far removed from the other pairs (character 6 , state 1 ), and a carapace narrowed in front to less than half its maximum width (character 9, state 1). The two anterior lateral spinneret characters are seemingly independent, as some other prodidomids (such as Theuma) have those spinnerets elongated but not situated so far in front of the other pairs.

The few data resolve three nodes within the Molycriinae, each with minimal (if uncontradicted) support. Cryptoerithus appears to be the most basal molycriine genus; in addition to lacking the cuticular cracks on the distal part of at least tarsi IV (character 8,


Fig. 3. Cladogram for 11 genera; see text for discussion.
state 1) that united the remaining genera at node B, the species of Cryptoerithus typically have relatively short anterior lateral spinnerets that are not as far removed from the other pairs as is typical of the remaining genera. Cryptoerithus species are also united by several putative autapomorphies: a band of long, bent setae on the dorsofrontal part of abdomen; two lines or bands of long, stiff, erect setae along the ventral surface of the abdomen; and the extremely large posterior median eyes that are situated posteriorly of the other eyes and contiguous along the midline.

Wesmaldra and Wydundra are united at node C by the lateroventral row of long spines on the female palpal femur (character 10, state 1). Molycria, Nomindra, and Myan$d r a$ are united at node D by the complex, longitudinally folded male palpal conductor (character 11, state 1). The species of

Wesmaldra have relatively short, narrow anterior lateral spinnerets, compared to the other molycriine genera but, despite that relative plesiomorphy, cluster with Wydundra. Wydundra species are united by several unique features: the cuticular cracks are present only on the distal half of tarsi IV (tarsi I-III lack cracks); the laterally flattened male palpal tibia; and the row of tiny denticles along the widely rebordered lateral margin of the carapace.

Among the remaining genera, the species of Molycria are united by two putative autapomorphies: a row of 4-7 strong, stout spines on the distoventral ridge of trochanters II and III in males, and a strongly ridged basal portion of the male palpal tegulum. Both Nomindra and Myandra contain relatively small species (males $1.5-2.3$ ) and also share an abdominal color pattern with pale horizontal bands or spots. The Nomindra
species are united by a quite distinctive abdominal color pattern of pairs of pale spots or chevrons dorsally, and by their large posterior median eyes. All species of Myan$d r a$ have two horizontal pale bands on the dorsal part of the abdomen, and males have a large orange scutum covering two-thirds of the abdomen (the scutum in all other genera is small and weak, or absent).

## KEY TO SUBFAMILIES AND GENERA OF AUSTRALASIAN PRODIDOMIDAE

1. Anterior lateral spinnerets in normal position (fig. 11), posterior lateral spinnerets much larger than others, canoeshaped (fig. 34); endites without serrula . . . . . . Prodidominae, Prodidomus

- Anterior lateral spinnerets situated anteriorly, far removed from others (as in figs. 12-17); endites with serrula . . . . . . . . . . . . . . Molycriinae, 2

2. Posterior median eyes small, subequal to posterior laterals (fig. 10) . . . Myandra

- Posterior median eyes larger than posterior laterals (figs. 5-9) 3

3. Posterior median eyes greatly enlarged, contiguous, situated posteriorly of other eyes (fig. 9); abdominal venter usually with two longitudinal rows or bands of stiff, erect setae (fig. 16); femora I, II dorsally strongly incrassate; tarsi without cracks

Cryptoerithus

- Posterior median eyes separated, usually smaller, in procurved row with posterior laterals (figs. 5-8); abdominal venter without longitudinal rows of erect setae; femora I, II dorsally only slightly incrassate; at least tarsi IV with cuticular cracks . . . . . . . . . . . . . . . . . . . . . . . 4

4. Anterior lateral spinnerets at least $1 / 2$ their diameter apart (figs. 13, 14), female palpal femur with a row of long, strong ventral setae (fig. 246)
. 5

- Anterior lateral spinnerets contiguous or slightly separated (figs. 12, 15); female palpal femur without a row of ventral setae


## 6

5. Anterior lateral spinnerets relatively small, very narrow (fig. 14); lateral margin of carapace without denticles; known only from Western Australia. . . . Wesmaldra

- Anterior lateral spinnerets larger (fig. 13); lateral margin of carapace with tiny denticles (fig. 6) . . . . . . . Wydundra

6. Small species (males $<2.2$ ), pars thoracica with median longitudinal pale band, abdominal dorsum with pairs of pale spots (fig. 8) . . . . . . . . . Nomindra

- Medium-sized species (males >2.5), without that color pattern, usually with single large white spot at posterior end of abdominal dorsum (fig. 5); males with trochanters III, IV bearing row of short, stout spines on distoventral ridge; basal portion of tegulum of male palp with series of parallel ridges (fig. 63).

Molycria

## Prodidomus Hentz

Prodidomus Hentz, 1847: 466 (type species by monotypy P. rufus Hentz).
Hyltonia Birabén, 1954: 13 (type species by original designation $H$. scottae Birabén). NEW SYNONYMY.

Diagnosis: Members of this genus can easily be distinguished from all other Australasian prodidomids by their short anterior lateral spinnerets and greatly enlarged posterior lateral spinnerets (fig. 34).

Description: Small spiders, total length of males 1.9-4.3, of females 1.8-5.0. Carapace broadly oval, frontally straight, weakly covered with gray setae or bare; longitudinal fovea absent or weak. Eight eyes, anterior row straight or weakly recurved, posterior row strongly procurved; four eyes of each side virtually contiguous, forming triangle (fig. 4); eyes subequal or PLE largest; ALE, PLE, and PME flat, oval, silvery, AME circular, dark; PME separated by their long diameter or less; median ocular quadrangle slightly wider in back than in front, slightly longer than wide (in Australian species). Clypeus low, shorter than ALE diameter, curved downwards. Sternum inverted drop-shaped, flat, without or with only small extensions between and to coxae (fig. 11); surface smooth with few long setae; posterior margin narrow, pointed between coxae IV. Pedicel composed of one weak dorsal and one broad ventral sclerite. Chelicerae widely divergent, geniculate in Prodidomus rufus, slightly divergent in Australian species, with setae bordering distal,


Figs. 4-10. Carapace and abdomen, dorsal view. 4. Prodidomus woodleigh, new species. 5. Molycria wrightae, new species. 6. Wydundra daunton, new species. 7. Wesmaldra talgomine, new species. 8. Nomindra leeuweni, new species. 9. Cryptoerithus quobba, new species. 10. Myandra cambridgei Simon.
mesial margins, without teeth. Endites long, convergent, anteriorly pointed, without serrula. Labium normally inverted u-shaped. Abdomen pale, with or without scattered, short, recumbent, gray setae; ALS 10-20\% of abdominal length, contiguous or slightly separated, with long piriform gland spigots; PMS small; PLS greatly enlarged, canoeshaped. Legs laterigrade, leg formula 4123, with sparse setae, few weak spines; coxae, trochanters I elongate; coxae I 1.4-2.0 times longer than III; trochanters weakly notched; femora I, II strongly incrassate; tarsi with two long claws, claws without teeth; claw tufts
dense, divided (fig. 18); trichobothria present or absent on dorsal surface of tibiae, metatarsi, tarsi. Male palpal cymbium stout, only 1.5 times longer than wide, apically truncate; conductor present or absent; median apophysis and terminal apophysis absent; sperm duct semicircular. Retrolateral tibial apophysis divided into three prongs. Epigynal atrium absent, epigynal ducts wide, sinuous, or extremely long, irregularly curved.

Synonymy: The type species of Hyltonia is treated below as a junior synonym of the type species of Prodidomus. The feature cited by Birabén (1954: 16) as unique to Hyltonia


Figs. 11-17. Carapace and abdomen, ventral view. 11. Prodidomus woodleigh, new species. 12. Molycria wrightae, new species. 13. Wydundra daunton, new species. 14. Wesmaldra talgomine, new species. 15. Nomindra leeuweni, new species. 16. Cryptoerithus quobba, new species. 17. Myandra cambridgei Simon.
("upper spinnerets much longer than the lower ones and bent downwards") is in fact typical of Prodidomus.

## Key to Australasian Species of Prodidomus

1. Males (those of $P$. yorke unknown) . . 2

- Females (those of P. bendee, P. flavus, P. seemani unknown) . . . . . . . . . . . . . . 9

2. Total length over 4.0, embolus flat, sinuous (fig. 25) . . . . . . . . . . . P. rufus

- Total length under 2.6, embolus not sinuous 3

3. Retrolateral tibial apophysis, in retrolateral view, with all three prongs on common mound (fig. 42) 4

- Prongs of retrolateral tibial apophysis not on mound (fig. 52) 7

4. Conductor absent (fig. 41) P. kimberley

- Conductor present (fig. 30) 5

5. Embolus thin, embolar base hidden behind tegulum (fig. 30) . . P woodleigh

- Embolus long, flattened, embolar base not hidden behind tegulum (fig. 36)

6
6. Embolus about as long as cymbium (fig. 36) . . . . . . . . . . . . . . P. sampeyae


- Embolus much longer than cymbium (fig. 56). . . . . . . . . . . . . . . P. seemani

7. Embolar base, in ventral view, hidden behind tegulum (fig. 51) . . . P. bendee

- Embolar base visible in ventral view (fig. 46)

8
8. Retrolateral tibial apophysis with three prongs separated by small semicircular incision (fig. 47). P. beattyi

- Retrolateral tibial apophysis with three prongs separated by large semicircular incision (fig. 60)
P. flavus

9. Total length over 4.5 mm , epigynum with two large, lateral, inverted u-shaped copulatory openings (fig. 27).
P. rufus

- Total length under 3.7 mm , copulatory openings smaller

10
10. Epigynum with copulatory opening not connected to epigastric fold (fig. 53), epigynal ducts thin throughout, extremely long, irregularly curved (fig. 54). . . . . . . . . . . . . . . P. yorke

- Epigynum with copulatory opening connected to epigastric fold (fig. 48), epigynal ducts at least partly thickened (fig. 49). . . . . . . . . . . . . . . . . . . . . 11

11. Epigynal ducts sinuous, m-shaped (fig. 49). . . . . . . . . . . . . . . P. beattyi

- Epigynal ducts irregularly curved (fig. 44). . . . . . . . . . . . . . . . . . . . . 12

12. Epigynum with two small copulatory openings (fig. 43), epigynal ducts anteriorly thin, curled (fig. 44)
P. kimberley

- Epigynum with copulatory openings larger (fig. 32), epigynal ducts anteriorly thickened (fig. 33)13

13. Epigynum with m -shaped copulatory opening (fig. 32). . . . . . . P. woodleigh

- Epigynum with two inverted u-shaped copulatory openings (fig. 38).
P. sampeyae


## Prodidomus rufus Hentz Figures 24-28

Prodidomus rufus Hentz, 1847: 467, pl. 12, fig. 3 (female holotype from Alabama, no specific locality, destroyed). - Banks, 1892: 259, figs. 12.1-4 (juvenile). - Bryant, 1935: 164, fig. 1 (female); 1949: 22, fig. 1 (male). - Cooke, 1964: 266, figs. 15, 29, 30 (male, female). Platnick, 1976: 38, figs. 4, 5 (female). - Hu and Wang, 1981: 51, figs. 1-8 (male, female). Song, 1987: 342, fig. 296 (male, female).
Miltia gulosa Simon, 1884: CLXI (female holotype from Nouméa, New Caledonia, in MNHN, examined). NEW SYNONYMY.
Prodidomus gulosus: Simon, 1893a: 333, figs. 296299 (female). -Dalmas, 1919: 318, fig. 26 (female).
Prodidomus imaidzumii Kishida, 1914: 324 (female holotype from Iyo, Ehime Prefecture, Skikoku, Japan, lost). - Yaginuma, 1960: 117, pl. 53, fig. 97 (female). - Platnick, 1976: 38, figs. 1-3 (female). - Chen and Zhang, 1991: 240, figs. 250.1-5 (male, female). - Song et al., 1999: 432, figs. 14E, $258 \mathrm{~L}-\mathrm{O}$ (male, female). NEW SYNONYMY.
Hyltonia scottae Birabén, 1954: 13, figs. 1-7 (male holotype from Posadas, Misiones, Argentina, in MLP, examined). NEW SYNONYMY.

Diagnosis: Specimens of this species can easily be separated from the other Australasian members of the genus by their widely divergent, geniculate chelicerae, as well as their very different genitalia (figs. 24-28).

Male: Total length 4.30. Carapace 2.00 long, 1.62 wide, 0.44 high, length/width 1.23 ; sternum 1.10 long, 0.90 wide, length/width 1.22; abdomen 2.30 long, 1.40 wide; coxa I 0.94 long; relative length of coxae I-IV 1.00:0.64:0.53:0.68. Carapace, sternum, mouthparts, legs orange; abdomen cinnamon brown, venter pale. Carapace flattened; sternum ovoid, reaching between coxae IV, with precoxal and intercoxal sclerites. PME, PLE procurved; AME, ALE straight; PLE largest, triangular; eye group width 0.56 of

Figs. 18-23. Left tarsus IV of female, showing claws and claw tufts. 18. Prodidomus woodleigh, new species, retrolateral view. 19. Molycria quadricauda (Simon), retrolateral view. 20. Wydundra carinda, new species, retrolateral view. 21, 23. Wesmaldra bidgemia, new species, retrolateral and ventral views. 22. Cryptoerithus occultus Rainbow, retrolateral view.


Figs. 24-28. Prodidomus rufus Hentz. 24. Left male palp, prolateral view. 25. Same, ventral view. 26. Same, retrolateral view. 27. Epigynum, ventral view. 28. Same, dorsal view.
head width; AME 0.14; ALE 0.14; PME 0.14; PLE 0.16; AME-AME 0.06; AME-ALE 0.02 ; PME-PME 0.14; PME-PLE 0.00 ; ALE-PLE 0.00; eye group AME-PME 0.40 ; AME-AME 0.34; PME-PME 0.44 . Clypeus 0.06 high. Chelicerae widely divergent, geniculate, without teeth; endites long, convergent, anteriorly pointed, without serrula; labium inverted u-shaped. Abdomen
covered with gray setae, ALS 0.13 of abdominal length, contiguous, with long piriform gland spigots; PLS greatly enlarged, canoe-shaped. Femora I, II dorsally incrassate. Palp (figs. 24-26): cymbium retrolaterally straight, with dorsoapical scopula; conductor, median apophysis, terminal apophysis absent; sperm duct semicircular; embolus thickened, sinuous, originating prolaterally,
embolar base hidden behind tegulum; most dorsal prong of retrolateral tibial apophysis long, sharply pointed.

Female: Total length 4.96. Carapace 2.04 long, 1.72 wide, 0.70 high, length/width 1.19; sternum 1.20 long, 0.96 wide, length/ width 1.25 ; abdomen 2.92 long, 1.80 wide; coxa I 0.82 long; relative length of coxae IIV 1.00:0.73:0.65:0.78. Coloration as in male. Eye sizes as in male, but eye group width 0.52 of head width; AME-AME 0.08; PME-PME 0.18; AME-AME 0.36; PMEPME 0.46. ALS 0.12 of abdominal length. Epigynum (figs. 27, 28) with two large, lateral, inverted u-shaped copulatory openings; epigynal ducts wide, spermathecae widely separated.

Material Examined: Argentina: Misiones: Posadas, Dec. 6, 1948 (M. Birabén, MLP), 10 (holotype). Chile: Región de Antofagasta (II): Antofagasta, 1989 (J. Vidal, IBU 4664), 1ọ. Japan: Honshu: Wakayama Pref.: Shirahama, Dec. 29, 1969 (H. Minato, OGU), 1o. Kyushu: Miyazaki Pref.: Miyazaki City, Aug. 6, 1959 (I. Kayashima, OGU), 1 ọ. New Caledonia: Nouméa (Savès, MNHN), 1̣ (holotype). St. Helena: no specific locality, Sept. 26, 2003 (P., M. Ashmole, CJM), 10, Oct. 29, 2003 (P., M. Ashmole, CJM), 1ọ. United States: California: Imperial Co.: San Felipe Creek, 1 mi W Harpers Well, July 11, 1968, dune association (M. Irwin, P. Rauch, UCR), 1 Q. Kings Co.: Kettleman Hills, Feb. 4, 1994, under rocks and boards (W. Tyson, CDFA), 1ot. Los Angeles Co.: possibly Claremont, late summer 1995 (UCR), 1 Q̣. Riverside Co.: 600 Central Ave., 0.25 mi W Sycamore Canyon Park, Riverside, May 27, 1995, on bathroom faucet (R. Vetter, AMNH), $10^{\circ}$, Feb. 19, 1996, on dining room wall at night during rainy weather (R. Vetter, AMNH), 1q. Texas: Bexar Co.: San Antonio, Nov. 18, 1939 (W. Kaller, AMNH), 1ọ. Dallas Co.: Bluff View, on N.W. Highway, Dallas, May 16, 1935, under stone (S. Jones, MCZ), 1 ㅇ. Denton Co.: Denton, Dec. 4, 1946, in house (S. Jones, MCZ), $10^{\circ}$.

Distribution: Widespread, probably synanthropic; recorded from China, Japan, New Caledonia, the United States, Cuba (Alayón, 1992), Argentina, and Chile, probably widespread from the Mediterranean to southern Africa as well (under such probable synonyms as $P$. hispanicus Dalmas, $P$. geniculosus Dalmas, and $P$. capensis Purcell).

Synonymy: Platnick (1976) commented on the remarkable similarity between the

Japanese species Prodidomus imaidzumii and the North American type species of the genus, $P$. rufus. Over subsequent years, additional material has become available, including modern specimens from California and Chile. These newly available females indicate that the slight epigynal differences observed among the few specimens available in 1976 all fall within the range of variation shown by Californian specimens alone. It now seems likely that this species is very widespread, that its presence in North America may be due only to human transport, and that other synonyms probably exist. Indeed, it is possible that most of the described taxa with widely divergent chelicerae (i.e., the members of the rufus group of Dalmas, 1919: 316, and group 4 of Cooke, 1964: 260) are actually synonyms of $P$. rufus. Surprisingly, though, the species described from Hawaii as Prodidomus singulus by Suman (1967) clearly belongs to a different species group.

## Prodidomus woodleigh, new species

Figures 4, 11, 18, 29-34; Map 1
Types: Male holotype and female allotype taken in pitfall traps at Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Western Australia (Aug. 22-Oct. 11, 1994; M. Harvey), deposited in WAM (T45022).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $P$. beattyi but have a shorter embolus (fig. 30); females also resemble those of $P$. beattyi but have more highly convoluted lateral epigynal ducts (fig. 33).

Male: Total length 1.90. Carapace 0.86 long, 0.60 wide, 0.20 high, length/width 1.43 ; sternum 0.60 long, 0.44 wide, length/width 1.36; abdomen 1.04 long, 0.80 wide; coxa I 0.30 long; relative length of coxae I-IV 1.00:0.66:0.47:0.66. Body, legs pale, abdomen covered with gray setae. PLE largest, triangular; eye group width 0.65 of head width; AME 0.06; ALE 0.10; PME 0.08; PLE 0.12; AME-AME 0.02; AME-ALE 0.00; PMEPME 0.02; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.26; AME-AME 0.14; PME-PME 0.18. Clypeus 0.02 high. Labium triangular. ALS 0.11 of abdominal length, contiguous. Palp (figs. 29-31): con-


Figs. 29-34. Prodidomus woodleigh, new species. 29. Left male palp, prolateral view. 30. Same, ventral view. 31. Same, retrolateral view. 32. Epigynum, ventral view. 33. Same, dorsal view. 34. Spinnerets, posterior view.
ductor originating distally, spatulate; embolus prolaterally situated, thin, straight, hidden behind tegulum; most dorsal prong of retrolateral tibial apophysis blunt, together with other two prongs on common mound.

Female: Total length 2.84. Carapace 1.24 long, 0.96 wide, 0.40 high, length/width 1.29; sternum 0.86 long, 0.62 wide, length/ width 1.38 ; abdomen 1.60 long, 1.34 wide; coxa I 0.40 long; relative length of coxae I-IV 1.00:0.65:0.60:1.00. Coloration as in male. Eye group width 0.58 of head width; AME 0.08 ; ALE 0.08 ; PME 0.10; PLE 0.10; AMEAME 0.04; eye group AME-PME 0.28; AME-AME 0.20; PME-PME 0.24. ALS 0.15 of abdominal length. Epigynum
(figs. 32, 33) with copulatory opening mshaped, connected to epigastric fold.

Other Material Examined: Western Australia: Barlee Range Nature Reserve, $23^{\circ} 06^{\prime} \mathrm{S}$, $116^{\circ} 00^{\prime}$ E, Sept. 1995, pitfall (S. van Leeuwen, B. Bromilow, WAM 99/650), 10'; Barrow Island, WAPET camp, $20^{\circ} 50^{\prime} \mathrm{S}, 115^{\circ} 27^{\prime} \mathrm{E}$, Nov. 5-Dec. 3, 1993, pitfalls (M. Harvey, J. Waldock, WAM T45045), 10', 1甲; Barrow Island, 1 km W Warehouse, $20^{\circ} 44^{\prime} \mathrm{S}, 115^{\circ} 26^{\prime} \mathrm{E}$, Nov. 4-Dec. 3, 1993, pitfalls (M. Harvey, J. Waldock, WAM T45046), 50'; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 40^{\prime}$ E, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44992), $10^{\circ}$, 2o ; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$, $113^{\circ} 41^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfall (A. Sampey, WAM T44993), 10', Sept. 30, 1994

Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44994), 1o; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 42^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfall (A. Sampey, WAM T44995), 1̣, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44996, 44997), 20*, 1¢, Jan. 15May 29, 1995, pitfall (J. Waldock, WAM T44998), 1o, May 29-Aug. 25, 1995, pitfall (N. Hall, WAM T44999), 1ơ; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 45^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfalls (A. Sampey, WAM T45000), $10^{\circ}$, 3o, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45001), 2Q, Jan. 15-May 31, 1995, pitfall (J. Waldock, WAM T45002), 2ơ; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$, $113^{\circ} 46^{\prime}$ E, Aug. 20-Sept. 30, 1994, pitfalls (A. Sampey, WAM T45003), 10', 2o; Bush Bay, $25^{\circ} 05^{\prime} \mathrm{S}, 113^{\circ} 43^{\prime} \mathrm{E}$, Aug. 16-Sept. 30, 1994, pitfalls (M. Harvey, WAM T45004), 30', Jan. 16-May 23, 1995, pitfall (P. West, WAM T45005), 10'; Cape Cuvier, Quobba Station, $24^{\circ} 13^{\prime} \mathrm{S}, 113^{\circ} 28^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfalls (P. West, WAM T45007), 20', 1 O; Cape Cuvier, Quobba Station, $24^{\circ} 13^{\prime} \mathrm{S}, 113^{\circ} 30^{\prime} \mathrm{E}$, Aug. 21-Sept. 28, 1994, pitfall (P. West, WAM T45006), 1o; NW Cape Peninsula, near cave C-163, $22^{\circ} 09^{\prime} \mathrm{S}, 114^{\circ} 09^{\prime} \mathrm{E}$, June 2, 1990 (J. Waldock, WAM 99/649), 10'; Kennedy Range National Park, $24^{\circ} 30^{\prime} \mathrm{S}, 115^{\circ} 01^{\prime} \mathrm{E}$, Aug. 18 -Oct. 6, 1994, pitfall (M. Harvey, WAM T45008), 1o, Oct. 6, 1994-Jan. 14, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45009), 10; Kennedy Range National Park, $24^{\circ} 31^{\prime}$ S, $114^{\circ} 58^{\prime} \mathrm{E}$, Aug. 18-Oct. 4, 1994, pitfall (M. Harvey, WAM T45010), 10', May 29-Aug. 28, 1995, pitfalls (N. Hall, WAM T45011), 2ǫ; Kennedy Range National Park, $24^{\circ} 33^{\prime}$ S, $114^{\circ} 58^{\prime}$ E, Aug. 18Oct. 4, 1994, pitfall (M. Harvey, WAM T45012), 1¢; Mardathuna Station, $24^{\circ} 26^{\prime} \mathrm{S}$, $114^{\circ} 30^{\prime}$ E, Jan. 14-May 24, 1995, pitfall (A. Sampey, WAM T45014), 1¢; Mardathuna Station, $24^{\circ} 27^{\prime} \mathrm{S}, 114^{\circ} 301 \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM T45013), 2o; Meedo Station, $25^{\circ} 37^{\prime} \mathrm{S}, 114^{\circ} 42^{\prime} \mathrm{E}$, Aug. 22Oct. 11, 1994, pitfall (N. Mckenzie, J. Rolfe, WAM T45016), 1ᄋ̣; Meedo Station, $25^{\circ} 39^{\prime}$ S, $114^{\circ} 38^{\prime}$ E, Oct. 11, 1994-Jan. 12, 1995, pitfall (P. West, WAM T45015), 1¢̣; Meedo Station, $25^{\circ} 41^{\prime} \mathrm{S}, 114^{\circ} 37^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfall (P. West, WAM T45017), 2ǫ; Nerren Nerren Station, $27^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, May $11-$ Aug. 18, 1995, pitfall (N. Hall, WAM T45019), 1̨̊; Nerren Nerren Station, $27^{\circ} 03^{\prime} \mathrm{S}, 114^{\circ} 34^{\prime} \mathrm{E}$, Oct. 16, 1994-Jan. 11, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45018), 1ǫ; Nerren Nerren Station, $27^{\circ} 03^{\prime}$ S, $114^{\circ} 36^{\prime}$ E, Oct. 16, 1994-Jan. 11, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45020), 1̊; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}$,
$114^{\circ} 25^{\prime} \mathrm{E}$, Oct. 10, 1994-Jan. 12, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45024), 1Q, Jan. 12-May 17, 1995, pitfall (P. West, WAM T45025), 19, May 17-Aug. 21, 1995, pitfall (N. Hall, WAM T45026), 1o; Woodleigh Station, $26^{\circ} 12^{\prime}$ S, $114^{\circ} 32^{\prime}$ E, Oct. 11, 1994-Jan. 12, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45023), 1̊; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}$, $114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 22-Oct. 12, 1994, pitfalls (M. Harvey, WAM T45021), 10, 1¢; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 118^{\circ} 58^{\prime} \mathrm{E}$, Feb. 10-17, 1989, pitfall (J. Dell, R. How, J. Waldock, WAM T45044), $10^{\circ}$; Zuytdorp, $27^{\circ} 16^{\prime} \mathrm{S}, 114^{\circ} 04^{\prime} \mathrm{E}$, Oct. 17, 1994-Jan. 11, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45027), 1 of.

Distribution: Known only from Western Australia (map 1).

Prodidomus sampeyae, new species Figures 35-39; Map 2

Type: Male holotype taken in pitfall trap at Bidgemia Station, Gasgoyne Junction, $25^{\circ} 13^{\prime} \mathrm{S}, 115^{\circ} 31^{\prime} \mathrm{E}$, Western Australia (Aug. 17-Oct. 4, 1994; A. Sampey), deposited in WAM (T45028).

Etymology: The specific name honors Miss Alison Sampey, the collector of the holotype.

DiAGNOSIS: Males can easily be recognized by the thickened embolus (fig. 36), females by the m -shaped posterior epigynal margin (fig. 38).

Male: Total length 2.14. Carapace 0.94 long, 0.66 wide, 0.26 high, length/width 1.42 ;


Map 1. Circle, Prodidomus woodleigh, new species. Triangle, Prodidomus kimberley, new species.


Figs. 35-39. Prodidomus sampeyae, new species. 35. Left male palp, prolateral view. 36. Same, ventral view. 37. Same, retrolateral view. 38. Epigynum, ventral view. 39. Same, dorsal view.
sternum 0.70 long, 0.54 wide, length/width 1.29 ; abdomen 1.20 long, 0.82 wide; coxa I 0.36 long; relative length of coxae I-IV 1.00:0.66:0.55:0.83. Body, legs pale yellow. Eye group width 0.71 of head width; AME 0.08; ALE 0.08; PME 0.10; PLE 0.10; AMEAME 0.02; AME-ALE 0.00; PME-PME 0.02; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.24; AME-AME 0.18; PME-PME 0.20. Clypeus 0.03 high. Abdomen covered with gray setae; ALS 0.16 of abdominal length, slightly separated. Palp (figs. 35-37): conductor originating prodistally, spatulate; embolus thickened, originating basally; most dorsal prong of retrolateral tibial apophysis blunt, on common mound together with other two prongs.

Female: Total length 3.20. Carapace 1.38 long, 1.10 wide, 0.40 high, length/width 1.25; sternum 0.84 long, 0.74 wide, length/ width 1.13; abdomen 1.82 long, 1.52 wide; coxa I 0.44 long; relative length of coxae I-IV 1.00:0.77:0.72:0.95. Coloration as in male. Eye group width 0.63 of head width; ALE 0.10 ; PME 0.12; PLE 0.14; AME-AME 0.06; PME-PME 0.06; eye group AME-PME 0.32; AME-AME 0.22; PME-PME 0.28. Clypeus 0.06 high. ALS 0.11 of abdominal length. Epigynum (figs. 38, 39) with two medium sized, lateral, inverted u-shaped copulatory openings, connected to epigastric fold; anterior epigynal ducts enlarged, spermathecae widely separated.

Other Material Examined: Western Australia: Bidgemia Station, Gasgoyne Junction,


Figs. 40-44. Prodidomus kimberley, new species. 40. Left male palp, prolateral view. 41. Same, ventral view. 42. Same, retrolateral view. 43. Epigynum, ventral view. 44. Same, dorsal view.
$25^{\circ} 13^{\prime} \mathrm{S}, 115^{\circ} 31^{\prime} \mathrm{E}$, Jan. 13-June 5, 1995, pitfall (J. Waldock, WAM T45029), 1ְ̊; Wiluna, $26^{\circ} 36^{\prime} \mathrm{S}, 120^{\circ} 13^{\prime} \mathrm{E}, 1997$, grazing, chenopod (H. Pringle, MNT A003361), 1 q.

Distribution: Known only from Western Australia (map 2).

Prodidomus kimberley, new species
Figures 40-44; Map 1
Type: Male holotype taken under rock in savanna woodland along Victoria Highway, 26.2 km E Kununurra, Kimberley Region, $15^{\circ} 53^{\prime} \mathrm{S}, 128^{\circ} 56^{\prime} \mathrm{E}$, Western Australia (May 26, 1999; M. Gray, G. Milledge, H. Smith), deposited in AMS (KS57258).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAGnosis: Males can easily be recognized by the long embolus which originates


Map 2. Circle, Prodidomus sampeyae, new species. Square, Prodidomus beattyi Platnick. Triangle, Prodidomus yorke, new species.
near the posterior edge of the tegulum (fig. 41), females by the similarly long and narrow median and lateral epigynal ducts (fig. 44).

Male: Total length 1.98. Carapace 0.78 long, 0.60 wide, 0.20 high, length/width 1.30; sternum 0.56 long, 0.46 wide, length/width 1.22; abdomen 1.20 long, 0.70 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.71:0.57:0.71. Body, legs pale. PLE largest, rectangular; eye group width 0.65 of head width; AME 0.06; ALE 0.08; PME 0.10; PLE 0.08; AME-AME 0.02; AME-ALE 0.00; PME-PME 0.02; PMEPLE 0.00; ALE-PLE 0.00; eye group AMEPME 0.22; AME-AME 0.16; PME-PME 0.18 . Clypeus 0.02 high. Carapace and abdomen covered with gray setae. ALS 0.15 of abdominal length, slightly separated. Palp (figs. 40-42): conductor and median apophysis absent; embolus long, thin, semicircular, originating basally, embolar base hidden behind tegulum; most dorsal prong of retrolateral tibial apophysis blunt, on common mound together with other two prongs.

Female: Total length 1.80. Carapace 0.90 long, 0.68 wide, 0.18 high, length/width 1.32; sternum 0.70 long, 0.44 wide, length/ width 1.59 ; abdomen 0.90 long, 0.64 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.61:0.53:0.77. Coloration as in male. Eye group width 0.68 of head width; PME 0.12 ; PLE 0.10 ; AME-AME 0.14. ALS 0.22 of abdominal length. Epigynum (figs. 43, 44) with two small, lateral, semicircular copulatory openings, connected to epigastric fold; anterior and median part of epigynal ducts thin, anteriorly curled, spermathecae widely separated.

Other Material Examined: Northern Territory: Mount Sanford Station, $17^{\circ} 18^{\prime}$ S, $130^{\circ} 45^{\prime}$ E, July 3-9, 1996, pitfall, loam soil (T. Churchill, MNT A000958), 10'; Mirrai, Mount Cahill, Kakadu National Park, $12^{\circ} 53^{\prime} \mathrm{S}$, $132^{\circ} 42^{\prime} \mathrm{E}$, July $5-7$, 1994, under stone (M. Harvey, D. Hyder, WAM T45040), 10'; Sherwin Creek, $14^{\circ} 43^{\prime} \mathrm{S}, 134^{\circ} 18^{\prime} \mathrm{E}$, May 1996, savanna (A. Hertog, MNT A000988), 10'. Western Australia: Great Northern Highway, 52 km N Turkey Creek, Kimberley Region, $16^{\circ} 38^{\prime} \mathrm{S}$, $128^{\circ} 12^{\prime} \mathrm{E}$, June 1-12, 1999, pitfall, savanna woodland, base of rocky outcrop (M. Gray, G. Milledge, H. Smith, AMS KS57263), 1̣;

Point Spring Nature Reserve, NNW Kununurra, Kimberley Region, $15^{\circ} 25^{\prime} \mathrm{S}, 128^{\circ} 53^{\prime} \mathrm{E}$, May 29-June 11, 1999, pitfall, savanna woodland, base of rocky outcrop (M. Gray, G. Milledge, H. Smith, AMS KS57253), $10^{\circ}$.

Distribution: Known only from Western Australia and the Northern Territory (map 1).

## Prodidomus beattyi Platnick

Figures 45-49; Map 2
Prodidomus beattyi Platnick, 1977: 72, figs. 1-4 (male holotype from Shoal Bay Road, NE Darwin, Northern Territory, in QMB, examined).

Diagnosis: Males resemble those of $P$. woodleigh but have a longer embolus (fig. 46); females also resemble those of $P$. woodleigh but have more highly convoluted lateral epigynal ducts (fig. 49).

Male: Total length 2.16. Carapace 1.00 long, 0.76 wide, 0.30 high, length/width 1.31; sternum 0.70 long, 0.48 wide, length/width 1.45; abdomen 1.16 long, 0.80 wide; coxa I 0.38 long; relative length of coxae I-IV 1.00:0.63:0.47:0.68. Body, legs pale. Eye group width 0.75 of head width; AME 0.07; ALE 0.10; PME 0.10; PLE 0.12; AME-AME 0.04; AME-ALE 0.00; PME-PME 0.01; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.24; AME-AME 0.18; PMEPME 0.20. Clypeus 0.03 high. Carapace and abdomen covered with gray setae. ALS 0.15 of abdominal length, slightly separated. Palp (figs. 45-47): conductor originating prodistally, thin, spatulate; embolus thin, straight, originating prolaterally; most dorsal prong of retrolateral tibial apophysis relatively small, sharply pointed.

Female: Total length 2.48. Carapace 1.02 long, 0.84 wide, 0.28 high, length/width 1.21; sternum 0.78 long, 0.58 wide, length/ width 1.34; abdomen 1.46 long, 1.04 wide; coxa I 0.32 long; relative length of coxae I-IV 1.00:0.75:0.62:0.93. Coloration as in male. Eye group width 0.68 of head width; ALE 0.11 ; PME 0.12; PLE 0.14; eye group AMEPME 0.26; PME-PME 0.22. ALS 0.16 of abdominal length. Epigynum (figs. 48, 49) with two small, lateral, semicircular copulatory openings connected to epigastric fold; epigynal ducts wide, sinuous, m-shaped, spermathecae widely separated.


Figs. 45-49. Prodidomus beattyi Platnick. 45. Left male palp, prolateral view. 46. Same, ventral view. 47. Same, retrolateral view. 48. Epigynum, ventral view. 49. Same, dorsal view.

Material Examined: Northern Territory: Jabiru Residency, $12^{\circ} 41^{\prime} \mathrm{S}, 132^{\circ} 53^{\prime} \mathrm{E}$, May 28 , 1992, under bark (M. Harvey, J. Waldock, WAM T45047), 19; Shoal Bay Road, few miles NE Darwin, $12^{\circ} 28^{\prime} \mathrm{S}, 130^{\circ} 50^{\prime} \mathrm{E}$, June 23, 1973, under rocks (J. Beatty, QMB S52), 10 ', 1 ¢ (types). Western Australia: 4 km W King Cascade, $15^{\circ} 38^{\prime} \mathrm{S}, 125^{\circ} 15^{\prime}$ E, June 12-16, 1988 (T. Weir, WAM 99/651), 10'; N Larryoo, $14^{\circ} 51^{\prime} \mathrm{S}, 126^{\circ} 49^{\prime} \mathrm{E}$, June 12, 1992, under rock (M. Harvey, J. Waldock, WAM T45039), 10'; Steep Head Island, vine thicket, under rocks, $14^{\circ} 27^{\prime}$ S, $126^{\circ} 00^{\prime}$ E, Sept. 6, 2002 (M. Harvey, R. Teale, WAM T60267), $10^{\circ}$.

Distribution: Known only from Western Australia and the Northern Territory (map 2).

Prodidomus yorke, new species
Figures 53, 54; Map 2
Type: Female holotype from Yorke Island, Torres Strait, $9^{\circ} 44^{\prime} \mathrm{S}, \quad 143^{\circ} 25^{\prime} \mathrm{E}$, Queensland (Nov. 27-28, 1986; J. Gallon), deposited in QMB (S12427).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females differ from those of P. beattyi and the other Australian species in having the epigynal ducts narrow throughout their length (fig. 54).

Male: Unknown.


Figs. 50-54. 50-52. Prodidomus bendee, new species. 53, 54. Prodidomus yorke, new species. 50. Left male palp, prolateral view. 51. Same, ventral view. 52. Same, retrolateral view. 53. Epigynum, ventral view. 54. Same, dorsal view.

Female: Total length 3.62. Carapace 1.40 long, 1.14 wide, 0.36 high, length/width 1.23; sternum 1.00 long, 0.66 wide, length/ width 1.51; abdomen 2.22 long, 1.40 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.63:0.55:0.70. Body, legs pale yellow. PME and PLE largest, rectangular; eye group width 0.62 of head width; AME 0.09 ; ALE 0.08; PME 0.14; PLE 0.14; AME-AME 0.04; AME-ALE 0.00; PME-PME 0.05 ;

PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.28; AME-AME 0.22; PMEPME 0.30. Clypeus 0.03 high. ALS 0.09 of abdominal length, slightly separated. Epigynum (figs. 53, 54) with two tiny, lateral, semicircular copulatory openings, situated anterior of epigastric fold; entire epigynal ducts thin, extremely long, irregularly curved, spermathecae widely separated.

Other Material Examined: None.

Distribution: Known only from the type locality (map 2).

## Prodidomus bendee, new species

Figures 50-52; Map 3
Type: Male holotype taken in intercept trap in Bendee scrub 6 km S Moranbah, $22^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 03^{\prime} \mathrm{E}$, Queensland (June $25-$ Dec. 20, 1997; G. Monteith, E. Kruck), deposited in QMB (S60029).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $P$. woodleigh and $P$. beattyi but have the embolus longer than in the former species and shorter than in the latter (figs. 50, 51); the retrolateral tibial apophysis resembles that of $P$. beattyi rather than $P$. woodleigh in having the most dorsal prong relatively small and sharply pointed (fig. 52). The close resemblance to those two species makes it unlikely that this could be the male of $P$. yorke.

Male: Total length 2.40. Carapace 1.10 long, 0.78 wide, 0.24 high, length/ width 1.41 ; sternum 0.68 long, 0.58 wide, length/width 1.17; abdomen 1.30 long, 0.80 wide; coxa I 0.40 long; relative length of coxae I-IV 1.00:0.70:0.60:0.90. Body, legs pale. Eye group width 0.74 of head width; AME 0.07; ALE 0.08; PME 0.10; PLE 0.10; AME-AME 0.04; AME-ALE 0.00; PMEPME 0.02; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.24; AME-AME 0.18 ; PME-PME 0.22 . Clypeus 0.03 high. ALS 0.15 of abdominal length, slightly separated. Palp (figs. 50-52): conductor originating prodistally, spatulate; embolus thin, straight, originating prolaterally, embolar base hidden behind tegulum; most dorsal prong relatively small, sharply pointed.

Female: Unknown.
Other Material Examined: None.
Distribution: Known only from the type locality (map 3).

## Prodidomus seemani, new species

Figures 55-57; Map 3
Type: Male holotype taken in pitfall trap in open woodland at Hellhole Creek, Barakula State Forest, $26^{\circ} 20^{\prime} \mathrm{S}, 150^{\circ} 42^{\prime} \mathrm{E}$,

Queensland (Oct. 13-15, 2004; C. Burwell), deposited in QMB (S67697).

Etymology: The specific name is a patronym in honor of Dr. Owen Seeman of the Queensland Museum.

Diagnosis: Males resemble those of $P$. sampeyae but have the embolus longer and the conductor thin and elongate (figs. 55, 56); the retrolateral tibial apophysis resembles that of $P$. sampeyae in having the most dorsal prong blunt and on a common mound together with other the two prongs (fig. 57). The close resemblance to those species makes it unlikely that this could be the male of $P$. yorke.

Male: Total length 2.52. Carapace 1.04 long, 0.86 wide, 0.24 high, length/width 1.21; sternum 0.72 long, 0.60 wide, length/width 1.20; abdomen 1.48 long, 0.98 wide; coxa I 0.38 long; relative length of coxae I-IV 1.00:0.74:0.57:0.84. Body, legs pale. Eye group width 0.82 of caput width; AME 0.09 ; ALE 0.10; PME 0.12; PLE 0.12; AME-AME 0.02; AME-ALE 0.00; PMEPME 0.02; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.26; AME-AME 0.18; PME-PME 0.24. Clypeus 0.02 high. Carapace and abdomen covered with gray setae. ALS 0.12 of abdominal length, slightly separated. Palp (figs. 55-57): cymbium with dorsoapical scopula; conductor originating distally, long, thin, spatulate; sperm duct


Map 3. Circle, Prodidomus bendee, new species. Square, Prodidomus seemani, new species. Triangle, Prodidomus flavus, new species.


Figs. 55-60. 55-57. Prodidomus seemani, new species. 58-60. Prodidomus flavus, new species. 55, 58. Left male palp, prolateral view. 56, 59. Same, ventral view. 57, 60. Same, retrolateral view.
semicircular; embolus long, flattened, sinuous, embolar base separated from tegulum, situated basally; tibia short, most dorsal prong of retrolateral tibial apophysis blunt, on common mound, together with other two prongs.

Female: Unknown.
Other Material Examined: None.

Distribution: Known only from the type locality (map 3).

Prodidomus flavus, new species Figures 58-60; Map 3
Type: Male holotype taken in a pitfall trap in a dry eucalypt woodland at

Thatch Creek, $19^{\circ} 06^{\prime} \mathrm{S}, 145^{\circ} 18^{\prime} \mathrm{E}$, Queensland (Dec. 1-Apr. 14, 1992; R. Raven, P., E. Lawless, M. Shaw), deposited in QMB (S59566).

Etymology: The specific name is taken from Latin flavus (yellow) and refers to the body color.

Diagnosis: Males resemble those of $P$. bendee but have the embolus longer and the two ventral prongs of the retrolateral tibial apophysis are in a widely u-shaped position (figs. 58-60). The close resemblance to that species makes it unlikely that this could be the male of P. yorke.

Male: Total length 1.78. Carapace 0.76 long, 0.60 wide, 0.14 high, length/width 1.26 ; sternum 0.58 long, 0.42 wide, length/width 1.38; abdomen 1.02 long, 0.78 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.71:0.57:0.71. Body, legs pale yellow. Eye group width 0.70 of caput width; AME 0.07; ALE 0.07; PME 0.10; PLE 0.10; AMEAME 0.02; AME-ALE 0.00; PME-PME 0.00 ; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.20; AME-AME 0.16; PME-PME 0.20. Clypeus 0.02 high. Carapace, abdomen covered with gray setae. ALS 0.20 of abdominal length, slightly separated. Palp (figs. 58-60): cymbium with dorsoapical scopula; conductor originating distally, thin, spatulate; sperm duct semicircular; embolus long, thin, embolar base separated from tegulum, hidden behind tegulum, situated prolaterally; tibia short, most dorsal prong of retrolateral tibial apophysis relatively small, sharply pointed, in widely u-shaped position with other prongs

Female: Unknown.
Other Material Examined: None.
Distribution: Known only from the type locality (map 3).

## Molycria Simon

Mutusca O. P.-Cambridge, 1874: 172 (type species by monotypy Mutusca mammosa O. P.-Cambridge); preoccupied in the Hemiptera.
Molycria Simon, 1887: 159 (replacement name).
Honunius Simon, 1908: 445 (type species by monotypy Honunius quadricaudus Simon). NEW SYNONYMY.

Diagnosis: Males have trochanters II and III with a comb, consisting of 4-7 strong
stout spines on a ventrodistal ridge, and a distinctive series of parallel ridges covering the basal portion of the palpal tegulum.

Description: Medium-sized spiders, total length of males 2.6-4.2, of females 2.9 5.2. Carapace rounded, narrowed in front to less than half its maximum width, with rebordered lateral margins, reflexed posterior margin; surface coated with recumbent, plumose or scaled setae, without tubercles; few long, dark, erect setae present on clypeus; thoracic groove short, longitudinal, deeply depressed, cephalic groove not pronounced. Eight eyes in two rows, anterior medians largest, circular, dark, other eyes subequal, laterals oval, light, posterior medians irregularly rectangular, flat; from above, anterior eye row slightly procurved, posterior row strongly procurved (fig. 5), from front, both rows strongly procurved; anterior medians separated by about their diameter, closer to anterior laterals; posterior medians separated by about half their width, about as far from posterior laterals; anterior and posterior laterals separated by about their radius; median ocular quadrangle slightly wider in back than in front and than long. Chelicerae vertical, paturon with low boss and anterior, subdistal row of five strong macrosetae, promargin with row of long, curved setae, most basal seta greatly elongated, widened, distinctly bent toward midline at about onefifth its length; promargin with three closely spaced teeth, middle tooth largest, retromargin with two smaller, more widely separated teeth; chilum small, unipartite, triangular, apparently fused to carapace, accompanied by second, elongated, posterior chilum (narrow, I-shaped sclerite separating bases of chelicerae posteriorly). Labium wider than long, posteriorly depressed, evenly narrowed toward rebordered, medially shortened anterior margin. Endites rectangular, convergent, with oblique depression; serrula present, curved; anteromedian edges bearing wide patch of long, stiff, dark setae. Sternum shield-shaped, deeply depressed opposite intercoxal spaces, with rebordered, slightly depressed lateral margins, not expanded anteriorly, with only indistinct extensions between coxae but with large, triangular extensions to coxae; surface smooth, with few long setae, posterior margin rebordered,
widely separating coxae IV. Four weakly sclerotized epimeric sclerites on each side (one above palpi, fused one above coxae III and IV), not extending between coxae, not fused to carapace. Pedicel composed of two dorsal sclerites (anterior sclerite without posterior invagination) and strong, triangular ventral sclerite with anteriorly unexpanded head almost reaching posterior tip of sternum, accompanied laterally by smaller, triangular sclerites. Abdominal dorsum with narrow anterior scutum in males; cuticle with weak, recumbent setae; epigastric scutum weakly sclerotized, with well-marked booklung openings at sides but without postepigastric sclerites, booklung covers not ridged; colulus apparently absent but wide, recurved posterior spiracle apparently present just anterior of posterior median spinnerets. Six spinnerets, anterior laterals greatly elongated, equal to roughly half of total abdominal length, greatly advanced anteriorly, originating at position about one-fourth of distance between epigastric furrow and anal tubercle, point of origin marked by heavily sclerotized transverse strip bearing strong macroseta at midline (fig. 12); posterior medians small, narrow, situated anterior of posterior laterals, laterally compressed posteriorly, where separating posterior laterals, those of females apparently with two or three enlarged cylindrical gland spigots in single, longitudinal row; posterior laterals bisegmented, about twice as long as posterior medians. Legs elongate, leg formula 4123, coated with recumbent, dark setae; coxa I longest or equal to coxa IV; coxae and trochanters without dorsal tubercles, fourth trochanters slightly elongated; anterior coxae without protuberant posterolateral corners; trochanters very slightly notched, distal edges fitting inside proximoventral margins of femora, trochanters I-IV with comb consisting of $10-$ 15 long spines on ventrodistal ridge in females; trochanters II, III in males with comb consisting of about 4-7 strong stout spines on ventrodistal ridge; femora I, II long, proximally slightly incrassate; metatarsi and tarsi with weak scopula composed of short, straight setae; posterior metatarsi without distal preening brushes; tarsi elongated, with two slender or tiny claws on onychium, bearing no ventral teeth, weak
claw tufts composed of few pairs of distally widened setae (fig. 19); tarsi I, II without, III, IV with cuticular cracks at about threequarters of their length, tarsi distinctly bent at that point; dorsal surface of tarsi with modified proximal margin consisting of patch of unsclerotized cuticle followed by strong cuticular ridge, that ridge opposing distinct distal extensions situated at distal edge of metatarsi; trichobothria present, in two rows on tarsi, one on metatarsi and tibiae. Female palpal femur with short, strong dorsodistal spine, but without strong ventral setae, tibia and tarsus with longer spines; female palpal tarsus with long claw bearing few or no ventral teeth, without ventral scopula or dorsal pad of setae. Typical leg spination pattern (counts refer to morphological surfaces, only surfaces bearing spines listed): tibiae III, IV v0-2-0. Male palpal cymbium long, at least 2.2 times longer than wide, tip conical; palpal tibia ventrally invaginated, with distal, retrolateral apophysis and distal lateroventral clump of long setae; basal portion of tegulum strongly ridged, embolus situated prolaterally, tip nestled in complex, longitudinally grooved, sclerotized conductor with ventrally folded distal end; tegulum basally ridged; median apophysis large, ventrally excavated, without terminal apophysis. Epigynum with anterior atrium, spermathecae small, situated posteriorly.

Synonymy: Because Simon (1908) misidentified members of Wesmaldra and Nomindra as belonging to Molycria, it is unsurprising that he then described a new genus, Honunius, to contain his true Molycria.

Misplaced Species: Molycria voc Deele-man-Reinhold (2001), described from Perhentian Island (off the east coast of Malaysia) and Lonthoir Island (in the Moluccas), is clearly misplaced in this genus. Based on the widely separated anterior lateral spinnerets (Deeleman-Reinhold, 2001: figs. 963, 967), it is here transferred to Wydundra voc, NEW COMBINATION, where it shares an elongated retrolateral tibial apophysis and separate dorsal tibial apophysis only with $W$. flattery, new species, from northeastern Queensland.

Species Groups: Six informal species groups are recognized here. The first nine species treated below comprise the mammosa
group, easily recognized by the dorsally situated tibial apophysis of males (figs. 63, 68 ) and the wide, laterally depressed epigynal atrium of females (figs. 64, 69). The following six species comprise the stanisici group, united by the enlarged and arched conductor and diminutive retrolateral tibial apophysis of males (figs. 104, 105). The subsequent four species constitute the nipping group, characterized by a ventrally expanded tip of the male palpal tibia (figs. 135, 140). The next five species comprise the dalby group, easily recognized by the macrosetae on the dorsal surface of the male palpal tibia (figs. 158, 164). The next eight species, mostly from northern Queensland, are united as the isla group by the excavated retrolateral tibial apophysis of males (figs. 185, 190). The last four species constitute the quadricauda group, the males of which have a triangular retrolateral tibial apophysis bearing stiff setae (figs. 224, 229).

## Key to Species of Molycria

1. Males (those of M. wardeni unknown) 2

- Females (those of M. moranbah unknown) . . . . . . . . . . . . . . . . . . . . . 36

2. Tibial apophysis dorsally situated (fig. 63)
(mammosa group) 7

- Tibial apophysis retrolaterally situated (fig. 155)

3. Tibia with macrosetae on dorsal surface (fig. 158) . . . . . . . . . . (dalby group) 14

- Tibia without macrosetae on dorsal surface (fig. 224)

4. Retrolateral tibial apophysis triangular, bearing stiff setae (fig. 224)
(quadricauda group) 18

- Retrolateral tibial apophysis not triangular, without stiff setae (fig. 185) . . . 5

5. Retrolateral tibial apophysis excavated (fig. 185)
(isla group) 21

- Retrolateral tibial apophysis not excavated (fig. 105)

6. Retrolateral tibial apophysis diminutive; conductor enlarged and arched (fig. 105) (stanisici group) 28

- Retrolateral tibial apophysis larger; conductor otherwise; tibia with ventrally expanded tip (fig. 135)
(nipping group) 33


## Molycria mammosa group

7. Tibial apophysis tiny, less than $1 / 5$ of tibia length (fig. 88) . . . . . M. kaputar

- Tibial apophysis larger, about $1 / 2$ of tibia length (fig. 63)

8
8. AME largest . . . . . . . . . . . . . . . . . . 9

- AME equal to PME or smaller than PME.11

9. Embolus long straight; conductor with ventrally folded distal end (fig. 62). . .
M. mammosa

- Embolus with bent tip; conductor with distal end beak-shaped (fig. 77) . . . . 10

10. Conductor with a single distally produced lobe on the prolateral side (fig. 77).
M. grayi

- Conductor with squared protuberance on the base (fig. 72) . . . . . M. milledgei

11. AME equal to PME; conductor twisted, with retrolaterally directed tip (fig. 92) . . . . . . . . . . . . . . . . . . 12

- AME smaller than PME; conductor straight, with ventrally folded distal end (fig. 97) 13

12. Conductor with enlarged, beak-shaped tip (fig. 92)
M. goanna

- Conductor tip not enlarged, with squared protuberance on the base (fig. 82). . . . . . . . . . . . M. bundjalung

13. Embolus sickle-shaped, conductor tip broad, without lobes (fig. 97)
M. wrightae

- Embolus not sickle-shaped, conductor tip narrow, with two distal lobes (fig. 67)
M. smithae


## Molycria dalby group

14. Tibial macrosetae not in rows, forming a dorsal field of small, stout setae (fig. 182) 15

- Tibial macrosetae in dorsal rows (fig. 176) 16

15. Field of macrosetae large, covering about $1 / 2$ of tibia (fig. 182)
M. canonba

- Field of macrosetae small, covering less than $1 / 3$ of tibia (fig. 158) . . . M. dalby

16. Macrosetae in one dorsal line separated by retrolateral tibial apophysis (fig. 176)
M. raveni

- Macrosetae in four or more lines (fig. 164) . . . . . . . . . . . . . . . . . . . 17

17. Macrosetae in four lines, first one connects with retrolateral tibial apophysis (fig. 164). . . . . . . . M. broadwater

- Macrosetae in 7-9 lines, gap between those and field on retrolateral tibial apophysis (fig. 170)
M. cooki


## Molycria quadricauda group

18. Palpal femur ventrally incrassate . . . 19

- Palpal femur ventrally straight . . . . 20

19. Embolus twisted, with long, basal embolar projection (fig. 228) . . . M. vokes

- Embolus not twisted, without embolar projection (fig. 238) . . . . . . M. taroom

20. Conductor long, narrow (fig. 223) M. quadricauda

- Conductor broad, with greatly expanded tip (fig. 233)
M. amphi


## Molycria isla group

21. Retrolateral tibial apophysis divided into two apophyses (fig. 209) .
M. cleveland

- Retrolateral tibial apophysis not divided (fig. 214)

22
22. Cephalothorax and legs pale M. upstart

- Cephalothorax and legs orange grayish

23
23. Legs with at least femora grayish . . 24

- Legs orange. . . . . . . . . . . . . . . . . . 25

24. Retrolateral tibial apophysis long, with narrow distal extension (fig. 190) M. moffatt

- Retrolateral tibial apophysis with basal transverse ridge and deep invagination (fig. 185)
M. isla

25. Cymbial base with retrolateral invagination (fig. 195). . . . . . . . . . . M. robert

- Cymbial base without retrolateral invagination (fig. 205) . . . . . . . . . . . . 26

26. Retrolateral tibial apophysis short, with dorsal tibial projection bearing stiff setae (fig. 205)
M. moranbah

- Retrolateral tibial apophysis long, excavated, with narrow, recurved tip; tibia without projection (fig. 219) 27

27. Conductor long and elaborate (fig. 218)
M. daviesae

- Conductor shorter, not extending past cymbium (fig. 199) . . . M. . tooloombah


## Molycria stanisici group

28. Legs pale; conductor greatly expanded, distal part hood-shaped (fig. 104) M. stanisici

- Legs grayish orange; conductor distally not expanded or if expanded then not hood-shaped (fig. 124)

29
29. Median apophysis short, only 0.10 of cymbium length (fig. 124) . . . . . . . 30

- Median apophysis longer, at least 0.20 of cymbium length (fig. 114)

31
30. Retrolateral tibial apophysis rectangular, conductor tip arrow-shaped (figs. 124, 125) . . . . . . . . . . . M. thompsoni

- Retrolateral tibial apophysis triangular, conductor otherwise, base of conductor with two projections (figs. 119, 120)
M. burwelli

31. Conductor greatly expanded (fig. 129)

- ............................. 32
- Conductor narrow, distal part hoodshaped (fig. 114) . . . . . . . . M. mcleani

32. Conductor tip scythe-shaped (fig. 129)
M. bulburin

- Conductor tip only with retrolaterally bent tip (fig. 109) . . . . . M. monteithi


## Molycria nipping group

33. Palpal femur with ventral process, tibia with field of stiff setae (fig. 140)
M. dawson

- Palpal femur without ventral process, tibia without field of stiff setae (fig. 145)

34
34. Embolar base situated medially, conductor narrow (fig. 144). . . . M. drummond

- Embolar base situated prolaterally, conductor wider (fig. 149) . . . . . . . . . . 35

35. Embolus thin, semicircular; tibia about 1.5 times as long as wide (fig. 149)
M. wallacei

- Embolus finger-shaped; tibia twice as long as wide (fig. 134) . . . M. Mipping


## Females

36. Atrium broadly oval, at least twice as wide as long, laterally depressed, if not
laterally depressed, then broadly triangular (fig. 64). . . (mammosa group) 40

- Atrium not as above, or absent. . . . 45

37. AME largest . . . . . . . . . . . . . . . . . 38

AME equal to PME or smaller . . . . 40
38. Atrium anteriorly about half as wide as posteriorly (fig. 74). . . . . . M. milledgei

- Atrium anteriorly as wide as posteriorly (fig. 79)

39
39. Epigynal ducts almost touching, less than half of their diameter apart (fig. 80) . . . . . . . . . . . . . . . . M. grayi

- Epigynal ducts situated more laterally, about their diameter apart (fig. 65)
M. mammosa

40. Abdomen covered with recumbent scales; atrium triangular (fig. 89) .
M. kaputar

- Abdomen covered with plumose setae; atrium anteriorly as wide as posteriorly . . . . . . . . . . . . . . . . . . . . . . . 41

41. Epigynal ducts large, reaching anterior margin (fig. 95) . . . . . . . . . . . . . . . 42

- Epigynal ducts reaching only posterior margin of atrium (fig. 70) . . . . . . . . 43

42. Anterior portion of epigynal ducts not sshaped (fig. 95) . . . . . . . . . M. goanna

- Anterior portion of epigynal ducts sshaped (fig. 102) . . . . . . . M. wardeni

43. Epigynal ducts restricted to the median portion of the epigynum (fig. 70) M. smithae

- Epigynal ducts extending for the full width of the atrium (fig. 85) . . . . . . 44

44. Epigynal ducts with spermathecae in double s-shaped position (fig. 85) M. bundjalung

- Epigynal ducts laterally hooked, in xshaped position with spermathecae (fig. 100)
M. wrightae


## Other groups

45. Epigynal ducts parallel (fig. 132) . . . 46

- Epigynal ducts not parallel (fig. 117) 65

46. Epigynal ducts about their diameter apart; anterior margin with large, vshaped, prominent median projection, almost reaching median ledge (fig. 132)

## M. bulburin

- Epigynal ducts contiguous along midline; anterior margin less prominent (fig. 152)47

47. Anterior margin arched or v-shaped (fig. 151)

48

- Anterior margin rounded or rectangular (fig. 220)

53
48. Anterior margin narrow, about half of epigynal width (fig. 151) . . . . . . . . . 49

- Anterior margin as wide as epigynum width (fig. 111)

50
49. Anterior margin anteriorly situated, arched (fig. 151). . . . . . . . M. wallacei

- Anterior margin closer to spermathecae; v-shaped (fig. 141) . . . . . . . M. dawson

50. Copulatory opening not apparent (fig. 111). . . . . . . . . . . M. monteithi

- Copulatory opening obvious (fig. 240)

51. Copulatory opening medially situated, convex (fig. 240) . . . . . . . . M. taroom

- Copulatory opening laterally situated (fig. 106)

52
52. Anterior margin connected with epigynal ducts (fig. 106) . . . . . . M. stanisici

- Anterior margin not connected with epigynal ducts (fig. 201)
M. tooloombah

53. Posterior margin with elevated epigynal septum (fig. 220) . . . . . . . . . . . . . . 54

- Posterior margin without elevated epigynal septum (fig. 136)

59
54. Anterior margin tripartite (fig. 220) M. daviesae

- Anterior margin not tripartite (fig. 196)

55. Epigynal ducts long, reaching almost anterior margin (fig. 197) . . . M. robert

- Epigynal ducts shorter, not reaching anterior margin (fig. 216)

56
56. Epigynal ducts anteriorly greatly expanded, as large as spermathecae (fig. 216)
M. upstart

- Epigynal ducts anteriorly not greatly expanded, smaller than spermathecae (fig. 187)

57
57. Posterior epigynal septum T-shaped (fig. 186) . . . . . . . . . . . . . . . . . M. isla

- Posterior epigynal septum not T-shaped (fig. 191)

58
58. Epigynal ducts anteriorly w-shaped, with pair of small copulatory openings (fig. 191) . . . . . . . . . . . . . . M. moffatt

- Epigynal ducts anteriorly m-shaped, with pair of greatly expanded copulatory openings (fig. 175)
M. raveni

59. Anterior epigynal margin straight (fig. 136) . . . . . . . . . . . . . . . . . . . . . . 60

- Anterior epigynal margin curved (fig. 156)

60. Atrium with long lateral margins extending medially; epigynal ducts anteriorly strongly recurved (figs. 136, 137)
M. nipping

- Atrium with short lateral margins; epigynal ducts anteriorly slightly recurved (figs. 146, 147) . . . . . . . . M. drummond

61. Copulatory opening laterally directed (fig. 156) . . . . . . . . . . . . . . . . . . . 62

- Copulatory opening approximate, anteriorly directed (fig. 180) . . . . . . . . . 63

62. Spermathecae twisted, in $v$-shaped position, without dorsal diverticulum (fig. 157) . . . . . . . . . . . . . . M. dalby

- Spermathecae oval, in horizontal position, with dorsal diverticulum (fig. 211)
M. cleveland

63. Abdomen covered with shiny recumbent scales M. canonba

- Abdomen covered with plumose setae 64

64. Atrium anteriorly situated, reaching only to copulatory opening (fig. 235)
M. amphi

- Atrium larger, reaching spermathecae (fig. 225) . . . . . . . . . . M. quadricauda

65. Anterior margin with sharply pointed projection (fig. 116) . . . . . . . . . . . . 66

- Anterior margin without sharply pointed projection (fig. 126) . . . . . . . . . . . . 67

66. Copulatory opening not apparent; epigynal ducts in $x$-shaped position with spermathecae (fig. 117). . . . . M. mcleani

- With two copulatory openings, forming a cup; epigynal ducts not in x -shaped position (fig. 122). . . . . . . M. burwelli

67. Atrium large, about as wide as long, triangular (fig. 126) . . . . M. thompsoni

- Atrium absent or represented only by anterior margin (fig. 230) . . . . . . . 68

68. Abdomen with recumbent scales; copulatory openings widely separated (fig. 230)
M. vokes

- Abdomen with plumose setae; copulatory openings not widely separated (fig. 162) . 69

69. Epigynal ducts short, in v-shaped position (fig. 163). . . . . . . . M. broadwater

- Anterior portions of epigynal ducts displaced laterally (fig. 169). . . . M. cooki


## Molycria mammosa (O. P.-Cambridge)

Figures 61-65; Map 4
Mutusca mammosa O. P.-Cambridge, 1874: 173, pl. 17, fig. 2 (male holotype from "Shelley's Flats," New South Wales, Australia, in HDO, examined). Molycria mammosa: Simon, 1897: 158. - Deele-man-Reinhold, 2001: 555, figs. 953-957.

Diagnosis: Males resemble those of $M$. smithae but have a much flatter conductor tip (fig. 62); females also resemble those of $M$. smithae but lack the pronounced, posteriorly directed internal lobes on the posterior margin of the epigynal atrium that are characteristic of that species, having ducts that instead grade gently into the posterior atrial margins (fig. 65).

Male: Total length 3.24. Carapace 1.50 long, 1.44 wide, 0.42 high, length/width 1.04; sternum 0.98 long, 0.82 wide, length/width 1.19; abdomen 1.74 long, 0.96 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.71:0.68:0.96. Carapace, sternum, chelicerae, legs grayish orange; endites, labium orange, distally pale; abdominal dorsum gray, with weak orange scutum, spear tipshaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray, plumose setae. AME elevated, eye group width 0.77 of caput width; AME 0.16; ALE 0.11; PME 0.14; PLE 0.11; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.06; ALE-PLE 0.02; eye group AMEPME 0.34; AME-AME 0.34; PME-PME 0.32 . Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.53 of abdominal length, contiguous. Palp (figs. 6163): conductor originating distally, sclerotized, grooved longitudinally, with ventrally folded tip; median apophysis wide, ventrally excavated, with two distal tips, median one bifurcate; sperm duct u-shaped; embolus long, straight; retrolateral tibial apophysis long, triangular, dorsally directed.

Female: Total length 3.50. Carapace 1.50 long, 1.44 wide, 0.42 high, length/width 1.04; sternum 0.96 long, 0.88 wide, length/width 1.09; abdomen 2.00 long, 1.20 wide; relative length of coxae I-IV 1.00:0.78:
0.75:1.00. Coloration as in male but without dorsal scutum. Eye group width 0.73 of caput width; AME 0.15; PME 0.14; PME-PME 0.02; eye group AME-PME 0.30; AME-AME 0.32;


Figs. 61-65. Molycria mammosa (O. P.-Cambridge). 61. Left male palp, prolateral view. 62. Same, ventral view. 63. Same, retrolateral view. 64. Epigynum, ventral view. 65. Same, dorsal view.

PME-PME 0.30. Clypeus 0.08 high. ALS 0.48 of abdominal length. Epigynum (figs. 64, 65): atrium broadly rectangular, with arched posterior margin; epigynal ducts extremely short, in $x$-shaped position with spermathecae, spermathecae about their diameter apart, oval, twisted, with one dorsal diverticulum.

Material Examined: Australian Capital Territory: Lees and Blundells Creeks, Brindabella Ranges, $35^{\circ} 22^{\prime} \mathrm{S}, 148^{\circ} 50^{\prime} \mathrm{E}$, Oct. $10-\mathrm{Feb}$. 29, 1980-1981, pitfalls (C. Dickman, ANIC), $70^{\prime}, 5 \mathrm{p}$; Piccadilly Circus, $35^{\circ} 22^{\prime} \mathrm{S}, 148^{\circ} 48^{\prime} \mathrm{E}$, Jan. 1984, elev. 1240 m (J. Lawrence, T. Weir, M. Johnson, ANIC), 20; Tidbinbilla Nature Reserve, $35^{\circ} 28^{\prime} \mathrm{S}, 148^{\circ} 52^{\prime} \mathrm{E}$, Mar. 9, 1978 (P.

Ormay, AMS KS13882), 1ǫ; Wombat Creek, 6 km NE Piccadilly Circus, $35^{\circ} 19^{\prime} \mathrm{S}, 148^{\circ} 51^{\prime} \mathrm{E}$, Feb. 1984, elev. 750 m (J. Lawrence, T. Weir, M. Johnson, ANIC), 1Q. New South Wales: Arara East State Forest, 10 km N Coff's Harbour, ca. $30^{\circ} 18^{\prime} \mathrm{S}, \quad 153^{\circ} 07^{\prime} \mathrm{E}$, May 18 , 1979, under $\log$ (D. Hirst, SAM NN22281), 10; 2 km S Ballengarra Creek crossing on Grey's Road junction, Ballengarra State Forest, $31^{\circ} 14^{\prime} \mathrm{S}, 152^{\circ} 45^{\prime} \mathrm{E}$, Feb. 5-Apr. 9, 1993, pitfall, elev. 120 m (M. Gray, G. Cassis, AMS KS43229), 1 ¢ ${ }^{\circ}$; Beecroft, $33^{\circ} 45^{\prime} \mathrm{S}, 151^{\circ} 04^{\prime} \mathrm{E}$, Nov. 20, 1992 (J. Noble, AMS KS55259), 10', Nov. 22, 1993 (L. Maher, AMS KS57341), 1Q, June 16, 1994 (J. Noble, AMS KS53685), 10, June 24, 2001 (J. Noble, AMS KS76816), 19, July 4-25, 2001-2002 (J. Noble, AMS KS76827, 79752), 20́; Booti Booti National Park, $32^{\circ} 14^{\prime}$ S, $152^{\circ} 33^{\prime} \mathrm{E}$, Dec. 14, 1996, pitfall (L. Wilkie, AMS KS68359), 10', Nov. 25, 1997, pitfall (L. Wilkie, AMS KS60355), 10; Bulls Ground State Forest, near Wauchope, $31^{\circ} 33^{\prime} \mathrm{S}$, $152^{\circ} 38^{\prime} \mathrm{E}$, Feb. 21-25, 1999, pitfall (A. York, AMS KS57642), 1¢; Bungawalbin State Forest, $29^{\circ} 04^{\prime} \mathrm{S}, 153^{\circ} 07^{\prime} \mathrm{E}$, Feb. 1997, eucalypt forest pitfall (A. York, AMS KS73953), 10'; Bungawalbin State Forest, $29^{\circ} 05^{\prime} \mathrm{S}, 153^{\circ} 10^{\prime} \mathrm{E}$, Feb. 1997, eucalypt/paperbark forest pitfall (A. York, AMS KS73954), 10'; ridge between Camp Creek and Stydgy Creek, Leasehold land, $28^{\circ} 46^{\prime} \mathrm{S}, 152^{\circ} 18^{\prime}$ E, Feb. 4-Apr. 9, 1993, pitfall, elev. 640 m (M. Gray, G. Cassis, AMS KS37081), 20'; Cooperabung Range Road, c. 1.1 km S Narang Road, Ballengarra State Forest, $31^{\circ} 12^{\prime} \mathrm{S}, 152^{\circ} 42^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 200 m (M. Gray, G. Cassis, AMS KS43228), 2o; 0.3 km S along Coxs Fence Trail from Boundary Road, Nerong State Forest, $31^{\circ} 38^{\prime} \mathrm{S}, 152^{\circ} 09^{\prime} \mathrm{E}$, Feb. 5-Apr. 9, 1993, pitfall (M. Gray, G. Cassis, AMS KS43220), 10', 1¢; East Kunderang Trail, 2.1 km E West Kunderang Trail, $30^{\circ} 49^{\prime} \mathrm{S}$, $152^{\circ} 03^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 845 m (M. Gray, G. Cassis, AMS KS43212), 1̣̊; Enfield, $33^{\circ} 54^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$ (AMS KS17277), $10^{\circ} ; 1.2 \mathrm{~km}$ up track N Grey Gums Forest Road, 2.1 km from Doyles River Road, Bulga State Forest, $31^{\circ} 32^{\prime}$ S, $152^{\circ} 14^{\prime}$ E, Feb. 4-Apr. 9, 1993, pitfall, elev. 620 m (M. Gray, G. Cassis, AMS KS43235), 1ᄋ; ; Homewoods Road, 2.8 km W Knodingbul Road, Bulga State Forest, $31^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 07^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 690 m (M. Gray, G. Cassis, AMS KS43231), 3¢; 600 m N Homewoods Road, 2.8 km W Knodingbul Road, Bulga State Forest, $31^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 07^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 650 m (M. Gray, G. Cassis, AMS KS43232), 1̊; Hornsby, Waitara Creek, $33^{\circ} 42^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Nov. 2001 (G. Milledge, H. Smith, AMS KS74990), 10'; Horseshoe Road,
ca. 0.5 km N Scotchman Peak, Diehappy State Forest, $30^{\circ} 29^{\prime} \mathrm{S}, 152^{\circ} 40^{\prime} \mathrm{E}$, Nov. 11-24, 1999, pitfall (M. Gray, G. Milledge, H. Smith, AMS KS61692), 1Q; Jamieson Park, Narrabeen, $33^{\circ} 43^{\prime} \mathrm{S}$, $151^{\circ} 18^{\prime} \mathrm{E}$, Nov. 1995, pitfall, elev. 40 m , ridge top Angophora costata woodland (M. Gray, H. Smith, AMS KS49021), 10, Nov. 6-20, 1995, same except elev. 20 m (M. Gray, H. Smith, AMS KS49013), 1o, Mar. 5-19, 1996, same (M. Gray, H. Smith, AMS KS49053), 1̊; Jenolan, $33^{\circ} 49^{\prime} \mathrm{S}, 150^{\circ} 02^{\prime} \mathrm{E}$, Dec. 1979, in house (AMS KS9967), 10;; 2.3 km N Karuah River on Karuah River Road, Chichester State Forest, $32^{\circ} 05^{\prime} \mathrm{S}, 151^{\circ} 43^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 520 m (M. Gray, G. Cassis, AMS KS38896), 1o; Linton Nature Reserve, 350 m S road, on slope above small gulley, ca. 700 m W of reserve entrance, $30^{\circ} 28^{\prime} \mathrm{S}, 150^{\circ} 53^{\prime} \mathrm{E}$, Nov. 18-Dec. 9, 2001, pitfall (H. Doherty, M. Elliott, AMS KS82216), 10, 1̊; junction, Moonpar and Mills Roads, Moonpar State Forest, $30^{\circ} 15^{\prime} \mathrm{S}, 152^{\circ} 38^{\prime} \mathrm{E}$, Nov. 9-23, 1999, pitfall (M. Gray, G. Milledge, H. Smith, AMS KS61720), $1 \oplus ; 4.5 \mathrm{~km}$ NE from creek crossing, Morgans Creek, on Wheatly Creek Access Road, Leasehold land, $28^{\circ} 46^{\prime} \mathrm{S}, 152^{\circ} 18^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 590 m (M. Gray, G. Cassis, AMS KS37030), 20*, 1ᄋ; 5.9 km NE from creek crossing on Morgans Creek, Leasehold land, $28^{\circ} 46^{\prime} \mathrm{S}, 152^{\circ} 18^{\prime}$ E, Feb. 4-Apr. 9, 1993, pitfall, elev. 620 m (M. Gray, G. Cassis, AMS KS37083), 20*, 1̣̊; Mount Allyn Road, 2.3 km N Shellbrook Forest Road, Chichester State Forest, $32^{\circ} 08^{\prime} \mathrm{S}, 151^{\circ} 27^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 770 m (M. Gray, G. Cassis, AMS KS43213), 1o; Mount Boss State Forest, $31^{\circ} 12^{\prime}$ S, $152^{\circ} 24^{\prime}$ E, Oct. 1980 (AMS KS42863, 43562), 10*, 1¢; Mount Brown Road, 0.1 km N from Y intersection at Mount Brown, Richmond Range State Forest, $28^{\circ} 37^{\prime} \mathrm{S}$, $152^{\circ} 43^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 480 m (M. Gray, G. Cassis, AMS KS36024), 20', 1¢; Mummel Forest Road, 7.6 km N junction with Enfield Forest Road, Enfield State Forest, $31^{\circ} 17^{\prime} \mathrm{S}, 151^{\circ} 51^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, elev. 1340 m (M. Gray, G. Cassis, AMS KS41069), 1¢̣; Myall Lakes National Park, $32^{\circ} 29^{\prime} \mathrm{S}, 152^{\circ} 24^{\prime} \mathrm{E}$, Oct. 10, 1997, pitfall (L. Wilkie, AMS KS60398, 60401), 20'; Myrtle State Forest, $29^{\circ} 11^{\prime} \mathrm{S}, 152^{\circ} 59^{\prime} \mathrm{E}$, Feb. 1997, eucalypt/paperbark forest pitfall (A. York, AMS KS73947, 73955), 10², 2̊; Narraweena, $33^{\circ} 45^{\prime}$ S, $151^{\circ} 16^{\prime} \mathrm{E}$, July 25, 1997 (M. Robinson, AMS KS55253), 10'; Northern Fire Trail, Monga State Forest, $35^{\circ} 33^{\prime} \mathrm{S}, 149^{\circ} 53^{\prime} \mathrm{E}$, Mar. 16, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63894), 10; Oaky Creek Road, Richmond Range State Forest, $28^{\circ} 38^{\prime} \mathrm{S}, 152^{\circ} 45^{\prime} \mathrm{E}$, Feb. $4-$ Apr. 9, 1993, pitfall, elev. 230 m (M. Gray, G. Cassis, AMS KS36053), 20*, 2ó; Reids Creek

Road, Gladstone State Forest, $30^{\circ} 31^{\prime}$ S, $152^{\circ} 48^{\prime} \mathrm{E}$, Nov. 12-25, 1999, pitfall (M. Gray, G. Milledge, H. Smith, AMS KS61099), 1o'; Rivertree Fire Trail, on ridge ca. 2 km NNE from turnoff, Gilgurry State Forest, $28^{\circ} 45^{\prime} \mathrm{S}$, $152^{\circ} 15^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 770 m (M. Gray, G. Cassis, AMS KS37082), 1ᄋ; 1.9 km W along Sheas Nob Road from Boundary Creek Road, Boundary Creek State Forest, $29^{\circ} 59^{\prime} \mathrm{S}, 152^{\circ} 34^{\prime}$ E, Feb. 4-Apr. 9, 1993, pitfall, elev. 550 m (M. Gray, G. Cassis, AMS KS43216), 1¢; "Shelley's Flats" [=Shelleys Flat], $34^{\circ} 44^{\prime} \mathrm{S}, 149^{\circ} 56^{\prime} \mathrm{E}, 1874$ (H. Bradley, HDO), 10* (holotype); Stewarts Brook State Forest, $31^{\circ} 54^{\prime} \mathrm{S}, 151^{\circ} 23^{\prime} \mathrm{E}, \mathrm{Feb} .4-\mathrm{Apr} .9,1993$, pitfall (M. Gray, G. Cassis, AMS KS43154), 10; Turtle Creek Fire Trail, Monga State Forest, $35^{\circ} 38^{\prime} \mathrm{S}, 149^{\circ} 56^{\prime} \mathrm{E}$, Mar. 15, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63906), 1ᄋ; junction, Wattle Creek Road and Wattle Creek, Richmond Range State Forest, $28^{\circ} 38^{\prime}$ S, $152^{\circ} 46^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 130 m (M. Gray, G. Cassis, AMS KS36040), 10; 2 ; 2.8 km from Wheatly Creek Access Road on Camp Creek, Leasehold land, $28^{\circ} 47^{\prime}$ S, $152^{\circ} 18^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 435 m (M. Gray, G. Cassis, AMS KS37085), 2甲; 0.5 km from Wheatly Creek Road on Camp Creek Road, Leasehold land, $28^{\circ} 47^{\prime} \mathrm{S}$, $152^{\circ} 19^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 550 m (M. Gray, G. Cassis, AMS KS37084), 20'; headwaters, Wheatleys Creek, Leasehold land, $28^{\circ} 45^{\prime} \mathrm{S}, 152^{\circ} 19^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 550 m (M. Gray, G. Cassis, AMS KS37087), 50', 8ọ; Wild Cattle Creek, 400 m NE Spur Track, Bulga State Forest, $31^{\circ} 36^{\prime}$ S, $152^{\circ} 07^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 400 m (M. Gray, G. Cassis, AMSKS43233, 43234), 2 ㅇ.

Distribution: Widely distributed in New South Wales and the Australian Capital Territory (map 4).

## Molycria smithae, new species

Figures 66-70; Map 5
Types: Male holotype and female allotype from Brou Lake Road, Narooma, $36^{\circ} 07^{\prime} \mathrm{S}$, $150^{\circ} 03^{\prime} \mathrm{E}$, New South Wales (Mar. 9, 1999; L. Wilkie, R. Harris, H. Smith), deposited in AMS (male KS63896, female KS90086).

Etymology: The specific name is a patronym in honor of Helen Smith, of the Australian Museum, the collector of this species and many other interesting prodidomids.

Diagnosis: Males resemble those of $M$. mammosa but have two distally directed lobes on the tip of the palpal conductor,
separated by a sharply pointed, retrolaterally directed ridge (fig. 67); females have distinctive, heavily sclerotized, posteriorly directed internal protuberances at the sides of the epigynal atrium, overlying (in dorsal view) the epigynal ducts (fig. 70).

Male: Total length 3.28. Carapace 1.48 long, 1.30 wide, 0.50 high, length/width 1.14 ; sternum 0.84 long, 0.82 wide, length/width 1.02; abdomen 1.80 long, 0.88 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00: 0.78:0.70:0.92. Carapace, sternum, chelicerae, legs grayish orange; endites, labium orange, distally pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with gray, plumose setae. Eye group width 0.73 of caput width; AME 0.14; ALE 0.10 ; PME 0.15; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.03; PMEPLE 0.02; ALE-PLE 0.04; eye group AMEPME 0.32; AME-AME 0.31; PME-PME 0.32. Clypeus 0.12 high. Abdomen covered with gray, plumose setae; ALS 0.49 of abdominal length, slightly separated. Palp (figs. 6668): conductor originating distally, with ventrally folded tip and two distally directed lobes, separated by sharply pointed, retrolaterally directed ridge; median apophysis wide, ventrally excavated, with two distal tips, median one bifurcate; sperm duct weakly u-shaped; embolus long, with ventrally folded distal end


Map 4. Circle, Molycria mammosa (O. P.-Cambridge).


Figs. 66-70. Molycria smithae, new species. 66. Left male palp, prolateral view. 67. Same, ventral view. 68. Same, retrolateral view. 69. Epigynum, ventral view. 70. Same, dorsal view.
and retrolaterally bent tip; retrolateral tibial apophysis long, triangular, dorsally directed.

Female: Total length 4.06. Carapace 1.58 long, 1.50 wide, 0.56 high, length/width 1.05 ; sternum 1.00 long, 0.92 wide, length/width 1.07; abdomen 2.48 long, 1.40 wide; coxa I 0.62 long; relative length of coxae I-IV 1.00:0.80:0.71:0.97. Coloration as in male but without scutum. Eye group width 0.77 of caput width; AME 0.15; ALE 0.14; PME 0.15; PLE 0.12; AME-AME 0.04; PME-PME 0.04; AME-AME 0.34; PME-PME 0.34. Clypeus
0.10 high. ALS 0.48 of abdominal length. Epigynum (figs. 69, 70): atrium broadly rectangular, with arched posterior margin; epigynal ducts extremely short, in $x$-shaped position with spermathecae, spermathecae less than their diameter apart, oval, twisted, with one dorsal diverticulum.

Other Material Examined: New South Wales: Benandarah State Forest, near Benandarah, $35^{\circ} 38^{\prime} \mathrm{S}, 150^{\circ} 13^{\prime} \mathrm{E}$, Dec. 11, 1977-Feb. 18, 1978, pitfall, moist sclerophyll forest (M. Gray, AMS KS1250), 1¢ ; Benandarah State

Forest, 8 km N Batemans Bay, $35^{\circ} 40^{\prime} \mathrm{S}$, $150^{\circ} 14^{\prime}$ E, Nov. 30, 1978-Jan. 4, 1979, litter pitfall (C. Horseman, AMS KS2278), 10'; Blue Mountains, road to Ingar Picnic Area, $33^{\circ} 46^{\prime} \mathrm{S}$, $150^{\circ} 25^{\prime} \mathrm{E}$, Oct. 3, 1996, pitfall (AMS KS55254), 1ᄋ; Blue Mountains, road to Ingar Picnic Area, $33^{\circ} 46^{\prime} \mathrm{S}, 150^{\circ} 26^{\prime} \mathrm{E}$, Oct. 2, 1996, pitfall (AMS KS55256), $10^{*} ; 0.45 \mathrm{~km} \mathrm{E}$ along Boundary Road from Masonite Track, Nerong State Forest, $32^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 07^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfall, elev. 130 m (M. Gray, G. Cassis, AMS KS43219), 1ǫ; Bullaburra, Red Gum Park, $33^{\circ} 44^{\prime} \mathrm{S}, 150^{\circ} 25^{\prime} \mathrm{E}$, Oct. 4, 1996, pitfall (AMS KS55257), 1ᄋ; junction, Carls Mountain and North Head Roads, Murramarang National Park, $35^{\circ} 41^{\prime} \mathrm{S}, 150^{\circ} 16^{\prime} \mathrm{E}$, Mar. 17, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63908), 1̊; Coomerang Road, Dampier State Forest, $36^{\circ} 04^{\prime} \mathrm{S}, 149^{\circ} 55^{\prime} \mathrm{E}, \mathrm{Mar} .11,1999$ (L. Wilkie, R. Harris, H. Smith, AMS KS63902), 3o; Coomerang Road, Dampier State Forest, $36^{\circ} 07^{\prime} \mathrm{S}$, $149^{\circ} 59^{\prime}$ E, Mar. 10, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63911), 1¢̣; Fire Trail, 2.5 km WSW Durras, $35^{\circ} 40^{\prime} \mathrm{S}, 150^{\circ} 16^{\prime} \mathrm{E}$, Mar. 17, 1999 (J. Tarnawski, S. Lassau, AMS KS63899), 2̊; Forest Drive, Kioloa State Forest, 15 km N Batemans Bay, $35^{\circ} 36^{\prime} \mathrm{S}$, $150^{\circ} 16^{\prime} \mathrm{E}$, Sept. 7-Oct. 4, 1979, litter pitfall (C. Horseman, AMS KS3905), 1ᄋ; Forest Drive, Kioloa State Forest, 18 km N Batemans Bay, $35^{\circ} 37^{\prime} \mathrm{S}, 150^{\circ} 16^{\prime} \mathrm{E}$, Sept. 7-Jan. 4, 1978-1979, litter pitfall (C. Horseman, AMS KS2128, 2299, 2812), 30', Jan. 4-30, 1979, litter pitfall (C. Horseman, AMS KS2475), 1¢, Gilmore Lookout, Wallaroo State Forest, $32^{\circ} 37^{\prime} \mathrm{S}, 151^{\circ} 47^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfall, elev. 210 m (M. Gray, G. Cassis, AMS KS43217, 43218), 30; Gosford-Ourimbah, $33^{\circ} 24^{\prime} \mathrm{S}$, $151^{\circ} 21^{\prime} \mathrm{E}$, May 1993, rainforest, under logs (AMS KS35168), 1o; Highway 54, 32 km NW Batemans Bay, $35^{\circ} 33^{\prime} \mathrm{S}, 150^{\circ} 00^{\prime} \mathrm{E}$, Mar. 16, 1999 (J. Tarnawski, S. Lassau, AMS KS63912), 1̊; Jabarrah Point walking trail, Bodalla State Forest, $36^{\circ} 05^{\prime} \mathrm{S}$, $150^{\circ} 08^{\prime} \mathrm{E}$, Mar. 9, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63910), 1o; 7.5 km S Nelligen, Mogo State Forest, $35^{\circ} 43^{\prime} \mathrm{S}$, 15007'E, Mar. 8, 1999 (J. Tarnawski, S. Lassau, AMS KS63901), 1¢; No Name Fire Trail, Buckenbowra State Forest, $35^{\circ} 38^{\prime} \mathrm{S}$, $150^{\circ} 00^{\prime}$ E, Mar. 15, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63909), 1ó; North Head Road, Murramarang National Park, $35^{\circ} 42^{\prime}$ S, $150^{\circ} 1^{\prime}$ E, Mar. 17, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63907), 1̊; Orange Ridge Road, Bodalla State Forest, $36^{\circ} 17^{\prime}$ S, $149^{\circ} 54^{\prime} \mathrm{E}$, Mar. 12, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63897), 10', 4̣; 1.5 km W Potato Point, Bodalla State Forest, $36^{\circ} 06^{\prime} \mathrm{S}, 150^{\circ} 07^{\prime} \mathrm{E}$, Mar. 9,

1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63900), 1̧̊; Princess Highway, 1.5 km S Bodalla, Bodalla State Forest, $36^{\circ} 07^{\prime} \mathrm{S}$, $150^{\circ} 03^{\prime} \mathrm{E}$, Mar. 9, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63898), 2¢; Richmond Beach Road, Murramarang National Park, $35^{\circ} 41^{\prime} \mathrm{S}$, $150^{\circ} 17^{\prime} \mathrm{E}$, Mar. 17, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63903), 1ǫ; Ross Rixon Road, Dampier State Forest, $36^{\circ} 03^{\prime} \mathrm{S}, 149^{\circ} 58^{\prime} \mathrm{E}$, Mar. 11, 1999 (L. Wilkie, R. Harris, H. Smith, AMS KS63904), 5p; junction, Windywoppa and Lookout Roads, Boyne State Forest, $35^{\circ} 36^{\prime}$ S, $150^{\circ} 12^{\prime} \mathrm{E}$, Mar. 17, 1999 (J. Tarnawski, S. Lassau, AMS KS63895), 10; Wiola Creek Fire Trail, Badja State Forest, $36^{\circ} 07^{\prime} \mathrm{S}, 149^{\circ} 37^{\prime} \mathrm{E}$, Mar. 13, 1999 (J. Tarnawski, S. Lassau, AMS KS63905), 2¢; Woronora Dam Catchment, Princess Highway, ca. 0.1 km NW Southern Freeway Overpass, $34^{\circ} 12^{\prime}$ S, $150^{\circ} 58^{\prime}$ E, Dec. $8-$ 22, 1999, pitfall (M. Gray, G. Milledge, H. Smith, AMS KS63241), 1¢, Wyrrabalong National Park, $33^{\circ} 17^{\prime}$ S, $151^{\circ} 33^{\prime}$ E, June 2, 1997 (L. Wilkie, AMS KS63685), 10, Oct. 11, 1997, pitfall (L. Wilkie, AMS KS60363), 1̊, Nov. 27, 1997, pitfall (L. Wilkie, AMS KS60357), $10^{*}$.

Distribution: Known only from New South Wales (map 5).

## Molycria milledgei, new species <br> Figures 71-75; Map 5

Types: Male holotype and female allotype taken in pitfall trap in SW corner of Linton Nature Reserve, 60 m E from road, $30^{\circ} 28^{\prime} \mathrm{S}, 150^{\circ} 52^{\prime} \mathrm{E}$, New South Wales (Nov. 18-Dec. 9, 2001; H. Doherty, M. Elliott),


Map 5. Circle, Molycria smithae, new species. Square, Molycria milledgei, new species. Triangle, Molycria grayi, new species.


Figs. 71-75. Molycria milledgei, new species. 71. Left male palp, prolateral view. 72. Same, ventral view. 73. Same, retrolateral view. 74. Epigynum, ventral view. 75. Same, dorsal view.
deposited in AMS (male KS82209, female KS90087).

Etymology: The specific name is a patronym in honor of Graham Milledge, the collection manager for arachnids at the Australian Museum, who provided excellent technical assistance.

Diagnosis: Males can be recognized by the wide embolus and the squared protuberance on the base of the conductor (fig. 72), females by the long epigynal margins (fig. 74).

Male: Total length 4.06. Carapace 1.76 long, 1.58 wide, 0.48 high, length/width 1.11; sternum 1.02 long, 0.90 wide, length/width
1.13; abdomen 2.30 long, 1.16 wide; coxa I 0.70 long; relative length of coxae I-IV 1.00:0.83:0.60:0.94. Carapace, sternum, chelicerae, legs grayish orange; endites, labium grayish, distally pale; abdominal dorsum gray, with weak orange scutum, half ringshaped pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with gray, plumose setae. AME elevated, eye group width 0.79 of caput width; AME 0.16; ALE 0.14; PME 0.15; PLE 0.14; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.36; AME-AME 0.34; PME-PME 0.34. Clypeus 0.12 high. Abdomen covered with gray, plumose setae; ALS 0.54 of abdominal length, slightly separated. Palp (figs. 71-73): conductor originating distally, with ventrally folded distal end, retrolaterally directed, beak-shaped tip, squared protuberance on base; median apophysis about twice as long as wide, ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus long, straight, with retrolaterally bent tip; retrolateral tibial apophysis long, triangular, dorsally directed.

Female: Total length 4.14. Carapace 1.58 long, 1.54 wide, 0.42 high, length/width 1.02 ; sternum 0.98 long, 1.06 wide, length/ width 2.56 ; abdomen 1.32 long, 0.100 wide; coxa I 0.62 long; relative length of coxae I-IV 1.00:0.83:0.74:0.96. Coloration as in male but without scutum. Eye group width 0.74 of caput width; AME 0.16; ALE 0.12; PME 0.15 ; PLE 0.12; eye group AME-PME 0.30. Clypeus 0.10 high. ALS 0.48 of abdominal length. Epigynum (figs. 74, 75): atrium with rounded anterior margin, arched posterior margin; epigynal ducts short, in x-shaped position with spermathecae, spermathecae less than their diameter apart, oval, with one dorsal diverticulum.

Other Material Examined: New South Wales: Attunga State Forest, SE side, E road up slope, $30^{\circ} 57^{\prime} \mathrm{S}, 150^{\circ} 56^{\prime} \mathrm{E}$, Nov. $16-$ Dec. 7 , 2001, pitfall (G. Carter, AMS KS82217), 10'; Linton Nature Reserve, 300 m from reserve entrance from Warranbah, 800 m S road, $30^{\circ} 28^{\prime}$ S, $150^{\circ} 54^{\prime}$ E, Nov. 18-Dec. 9, 2001, pitfall (H. Doherty, M. Elliott, AMS KS82215), 19; Mount Kaputar National Park, ca. 50 m NE picnic area at end of Bullawa Creek Road, $30^{\circ} 14^{\prime} \mathrm{S}, 150^{\circ} 07^{\prime} \mathrm{E}$, Nov. 20-Dec. 11, 2001,
pitfall (L. Wilkie, H. Smith, AMS KS8221082212), $20^{\circ}, 1$ ºp Mount Kaputar National Park, N side Mount Coryah, 200 m S road to Mount Kaputar, $30^{\circ} 17^{\prime}$ S, $150^{\circ} 07^{\prime}$ E, Nov. 20-Dec. 11, 2001, pitfall (H. Doherty, M. Elliot, AMS KS82213, 82214), $10^{\circ}$, 1 ¢

Distribution: Known only from New South Wales (map 5).

## Molycria grayi, new species

Figures 76-80; Map 5
Types: Male holotype and female allotype taken in pitfall traps on trail to Intermediate Hill, North Hummock, Lord Howe Island, $31^{\circ} 33^{\prime} \mathrm{S}, 159^{\circ} 05^{\prime} \mathrm{E}$, New South Wales (Nov. 26-Dec. 3, 2000), deposited in AMS (male KS90088, female KS90089).

Etymology: The specific name is a patronym in honor of Dr. Michael Gray of the Australian Museum, in recognition of his important works on Australian spiders.

Diagnosis: Males resemble those of $M$. smithae, but have a single distally produced lobe on the prolateral side of the palpal conductor (fig. 77); females have the epigynal ducts restricted to the median portion of the epigynum (fig. 80).

Male: Total length 3.46. Carapace 1.62 long, 1.46 wide, 0.44 high, length/width 1.11; sternum 0.88 long, 0.86 wide, length/width 1.02; abdomen 1.84 long, 1.00 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.79:0.71:0.92. Carapace, sternum, chelicerae, legs grayish orange; endites, labium orange brown, distally pale; abdominal dorsum gray, with weak orange scutum, spear tip-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray, plumose setae. AME elevated, eye group width 0.79 of caput width; AME 0.16; ALE 0.10; PME 0.14; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.06; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.34; PME-PME 0.34. Clypeus 0.14 high. Abdomen covered with gray, plumose setae; ALS 0.55 of abdominal length, contiguous. Palp (figs. 76-78): conductor originating distally, with ventrally folded distal end bearing single distally produced lobe; median apophysis about twice as long as wide, ventrally excavated, with two


Figs. 76-80. Molycria grayi, new species. 76. Left male palp, prolateral view. 77. Same, ventral view. 78. Same, retrolateral view. 79. Epigynum, ventral view. 80. Same, dorsal view.
distal tips; sperm duct weakly u-shaped; embolus long, with bifid tip, prolateral part bent retrolaterally; retrolateral tibial apophysis short, dorsally directed.

Female: Total length 3.58. Carapace 1.54 long, 1.50 wide, 0.48 high, length/width 1.03; sternum 0.98 long, 0.88 wide, length/ width 1.11 ; abdomen 2.04 long, 1.06 wide;
coxa I 0.58 long; relative length of coxae I-IV 1.00:0.76:0.72:0.96. Coloration as in male but without scutum. AME 0.15; PME 0.14; PLE 0.12; PME-PME 0.04; AME-AME 0.32; PME-PME 0.32. Clypeus 0.10 high. ALS 0.61 of abdominal length. Epigynum (figs. 79, 80): atrium broadly rectangular, with arched posterior margin; epigynal ducts short, in x -shaped position with spermathecae, spermathecae less than their diameter apart, oval, twisted, with one dorsal diverticulum.

Other Material Examined: New South Wales: 25 m above coastal trail to Boat Harbour, 750 m from start, Lord Howe Island, $31^{\circ} 33^{\prime} \mathrm{S}, 159^{\circ} 05^{\prime} \mathrm{E}$, Dec. 3-13, 2000, pitfall (AMS KS76095), $1 \stackrel{q}{ } ; 300 \mathrm{~m}$ NW Gilgurry Mountain, Boorook State Forest, $28^{\circ} 47^{\prime} \mathrm{S}$, $152^{\circ}{ }^{1} 0^{\prime}$ E, Feb. 4-Apr. 9, 1963, pitfalls, elev. 980 m (M. Gray, G. Cassis, AMS KS37086), 19; Goanna Creek Road, Richmond Range State Forest, $28^{\circ} 36^{\prime}$ S, $152^{\circ} 41^{\prime}$ E, Feb. 4-Apr. 9, 1993, pitfall, elev. 545 m (M. Gray, G. Cassis, AMS KS36018), 3¢; Main Creek, track off Mount Tindal Road, Ramornie State Forest, $29^{\circ} 43^{\prime} \mathrm{S}, 152^{\circ} 38^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfalls, elev. 110 m (M. Gray, G. Cassis, AMS KS43222, 43223 ), $20^{*}, 19 ; 5.9 \mathrm{~km}$ NE from creek crossing on Morgans Creek, Leasehold land, $28^{\circ} 46^{\prime} \mathrm{S}, 152^{\circ} 18^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 620 m (M. Gray, G. Cassis, AMS KS37088), 1q; Mount Tindal Road, Ramornie State Forest, $29^{\circ} 41^{\prime}$ S, $152^{\circ} 35^{\prime} \mathrm{E}$, Feb. $4-\mathrm{Apr}$. 9, 1963, pitfalls, elev. 490 m (M. Gray, G. Cassis, AMS KS43225), 2中; Mount Tindal Road, Ramornie State Forest, $29^{\circ} 42^{\prime} \mathrm{S}, 152^{\circ} 35^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfalls, elev. 380 m (M. Gray, G. Cassis, AMS KS43227), 19; track off Mount Tindal Road, Ramornie State Forest, $29^{\circ} 42^{\prime}$ S, $152^{\circ} 37^{\prime}$ E, Feb. 4-Apr. 9, 1963, pitfalls, elev. 220 m (M. Gray, G. Cassis, AMS KS43226), 2o; North Hummock, trail to Intermediate Hill, Lord Howe Island, $31^{\circ} 33^{\prime} \mathrm{S}$, $159^{\circ} 05^{\prime}$ E, Nov. 26-Dec. 3, 2000, pitfall (AMS KS75973), 10', Feb. 18-27, 2001, pitfall (AMS KS79130), 10; Peach Tree Ridge, just below summit of Intermediate Hill, Lord Howe Island, $31^{\circ} 33^{\prime} \mathrm{S}, 159^{\circ} 05^{\prime} \mathrm{E}$, Nov. $26-$ Dec. 3, 2000, pitfall (AMS KS76030), 10', Dec. 3-13, 2000, pitfall (AMS KS76031), 10', Feb. 18-27, 2001, pitfall (AMS KS79131), 1op; Stephens Reserve, New Settlement, Lord Howe Island, $31^{\circ} 32^{\prime}$ S, $159^{\circ} 04^{\prime}$ E, Dec. $4-14,2000$, pitfall (AMS KS76252), 10'; Stevens Reserve, Lord Howe Island, $31^{\circ} 32^{\prime} \mathrm{S}, 159^{\circ} 04^{\prime} \mathrm{E}$, Feb. 25, 2001, fogging greybark and maulwood trunks (G. Milledge, AMS KS70599), 10; SE face, Transit

Hill, near summit, Lord Howe Island, $31^{\circ} 32^{\prime} \mathrm{S}$, $159^{\circ} 05^{\prime} \mathrm{E}$, Nov. 24-Dec. 1, 2000, pitfall (AMS KS75958, 75961, 75964, 75968), 40', Dec. 1-11, 2000, pitfall (AMS KS75971), 1̊; W slope, Transit Hill, Lord Howe Island, $31^{\circ} 32^{\prime} \mathrm{S}$, $159^{\circ} 02^{\prime} \mathrm{E}$, Nov. 24-Dec. 1, 2000, pitfall (AMS KS75940, 75943, 75952), 10', 4中; T-Ridge Road, Ramornie State Forest, $29^{\circ} 43^{\prime} \mathrm{S}, 152^{\circ} 33^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfalls, elev. 300 m (M. Gray, G. Cassis, AMS KS43224), 2q; Tributary Grasstree Creek, Nogrigar Road, Ewingar State Forest, $29^{\circ} 08^{\prime} \mathrm{S}, 152^{\circ} 25^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfalls, elev. 720 m (M. Gray, G. Cassis, AMS KS43214), $1 \stackrel{q}{ }$; headwaters, Valorem Creek, track off Mount Tindal Road, Ramornie State Forest, $29^{\circ} 42^{\prime} \mathrm{S}, 152^{\circ} 35^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1963, pitfalls, elev. 380 m (M. Gray, G. Cassis, AMS KS43221), $20^{\circ}$, 1ọ. Queensland: Stanthorpe, $28^{\circ} 39^{\prime}$ S, $151^{\circ} 56^{\prime} \mathrm{E}$, Aug. 15, 1987, woodland (W. McKenzie, QMB S26410), 10'.

Distribution: Southeastern Queensland and adjacent New South Wales, and also found on Lord Howe Island (map 5).

Molycria bundjalung, new species
Figures 81-85; Map 6
Types: Male holotype and female allotype taken in pitfall traps on hilltop on ridge between Big Marsh and Esk River, Bundjalung National Park, $29^{\circ} 17^{\prime} \mathrm{S}, 153^{\circ} 16^{\prime} \mathrm{E}$, New South Wales (Feb. 4-Apr. 9, 1963; M. Gray, G. Cassis), deposited in AMS (male KS43236, female KS90487).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be distinguished from those of the other mammosa group species by the distally bent tibial apophysis (fig. 83), females by the very wide epigynal atrium, with ducts extending for its full width (figs. 84, 85).

Male: Total length 3.42. Carapace 1.58 long, 1.42 wide, 0.54 high, length/width 1.11; sternum 0.90 long, 0.82 wide, length/width 1.09; abdomen 1.84 long, 0.94 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.84:0.76:0.96. Carapace, sternum, chelicerae, legs grayish orange; endites, labium orange brown, distally pale; abdominal dorsum gray, with weak orange scutum, spear tip-shaped pale spot in front of spinnerets, venter pale gray. Carapace weakly covered with shiny, plumose setae. AME elevated; eye group width 0.84 of caput


Figs. 81-85. Molycria bundjalung, new species. 81. Left male palp, prolateral view. 82. Same, ventral view. 83. Same, retrolateral view. 84. Epigynum, ventral view. 85. Same, dorsal view.
width; AME 0.16; ALE 0.12; PME 0.16; PLE 0.12 ; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.36; AME-AME 0.36; PME-PME 0.34. Clypeus 0.10 high. Abdomen covered with shiny, plumose setae; ALS 0.56 of abdominal length, contiguous. Palp (figs. 81-83): conductor originating medially, with ventrally folded distal end, retrolaterally directed tip,
squared protuberance on base; median apophysis short, ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus long, straight, with s-shaped tip; retrolateral tibial apophysis long, triangular, dorsally directed, with distally bent tip.

Female: Total length 3.38. Carapace 1.28 long, 1.24 wide, 0.46 high, length/width 1.03 ; sternum 0.90 long, 0.80 wide, length/ width 1.12 ; abdomen 2.10 long, 1.04 wide;
coxa I 0.52 long；relative length of coxae I－IV 1．00：0．77：0．73：0．92．Coloration as in male but without dorsal scutum．Eye group width 0.83 of caput width；AME 0．14；PME 0．14；AME－ AME 0．02；PME－PLE 0．02；eye group AME－PME 0．32；AME－AME 0．30；PME－ PME 0．30．ALS 0.50 of abdominal length． Epigynum（figs．84，85）：atrium broadly oval， with arched posterior margin；epigynal ducts extending for full width of atrium，in double s－shaped position with spermathecae，sper－ mathecae about their diameter apart，globu－ lar，with one dorsal diverticulum．

Other Material Examined：New South Wales：near gravel quarry，Bundjalung National park， $29^{\circ} 17^{\prime}$ S， $153^{\circ} 16^{\prime}$ E，Feb．4－Apr．9，1963， pitfall（M．Gray，G．Cassis，AMS KS43237）， 1 ； Devils Pulpit State Forest， $29^{\circ} 16^{\prime} \mathrm{S}, 153^{\circ} 12^{\prime} \mathrm{E}$ ， Feb．1997，eucalypt forest pitfall（A．York， AMS KS73952），2q；Doubleduke State Forest， $29^{\circ} 08^{\prime}$ S， $153^{\circ} 11^{\prime}$ E，Feb．1997，eucalypt forest pitfall（A．York，AMS KS73948），19；Double－ duke State Forest， $29^{\circ} 12^{\prime}$ S， $153^{\circ} 16^{\prime} \mathrm{E}$ ，Feb． 1997，eucalypt forest pitfall（A．York，AMS KS73956）， $10^{\circ}$ ；Giberagee State Forest， $29^{\circ} 20^{\prime}$ S， $153^{\circ} 06^{\prime} \mathrm{E}, \mathrm{Feb} .1997$ ，eucalypt forest pitfall（A． York，AMS KS73950），1甲；Giberagee State Forest， $29^{\circ} 22^{\prime} \mathrm{S}, 153^{\circ} 05^{\prime} \mathrm{E}$, Feb．1997，eucalypt forest pitfall（A．York，AMS KS73951），19； Jackybulbin Flat Road， 0.3 km S junction Range Road，Doubleduke State Forest， $29^{\circ} 14^{\prime}$ S， $153^{\circ} 09^{\prime}$ E，Feb．4－Apr．9，1963，pitfall， elev． 10 m （M．Gray，G．Cassis，AMS KS43240），1：MacFaydens Road， 2 km WSW junction of Pacific Highway and Glencoe Road， Doubleduke State Forest， $29^{\circ} 12^{\prime} \mathrm{S}, 153^{\circ} 14^{\prime} \mathrm{E}$ ， Feb．4－Apr．9，1963，pitfall（M．Gray，G． Cassis，AMS KS43238），1中；Morono State Forest， $29^{\circ} 19^{\prime} \mathrm{S}, 153^{\circ} 14^{\prime} \mathrm{E}$ ，Feb．1997，euca－ lypt／paperbark forest pitfall（A．York，AMS KS73949）， $10^{*}$ ；Range Road， 1.5 km W junction Lockleys Road，Doubleduke State Forest， $29^{\circ} 14^{\prime}$ S， $153^{\circ} 10^{\prime}$ E，Feb．4－Apr．9，1963，pitfall （M．Gray，G．Cassis，AMS KS43241）， $10^{\prime}$ ，2中； junction，Range and Lockleys Roads，Double－ duke State Forest， $29^{\circ} 14^{\prime} \mathrm{S}, 153^{\circ} 11^{\prime} \mathrm{E}$ ，Feb． $4-$ Apr．9，1963，pitfall（M．Gray，G．Cassis，AMS KS43239）， 1 ㅇ．

Distribution：Known only from north－ ern New South Wales（map 6）．

Molycria kaputar，new species
Figures 86－90；Map 6
TyPE：Male holotype taken in pitfall trap 1.5 km W Killarney Gap，just W of top of
low ridge，Mount Kaputar National Park， $30^{\circ} 09^{\prime} \mathrm{S}, 150^{\circ} 03^{\prime} \mathrm{E}$ ，New South Wales（Nov． 20－Dec．11，2001；H．Doherty，M．Elliott）， deposited in AMS（KS82231）．

Etymology：The specific name is a noun in apposition taken from the type locality．

Diagnosis：Males and females have not been collected together but are tentatively matched here on the basis of geography and their respective similarities to those of $M$ ． bundjalung（although the differences in ab－ dominal setation suggest that the match may prove to be incorrect）．Males can easily be distinguished from those of the other mam－ mosa group species by the long，narrow embolus（figs．86，87）and very short retro－ lateral tibial apophysis（fig．88），females by the diamond－shaped epigynal atrium（fig．89） and the relatively straight and long epigynal ducts（fig．90）．

Male：Total length 2．92．Carapace 1.34 long， 1.26 wide， 0.40 high，length／width 1.06 ； sternum 0.80 long， 0.76 wide，length／width 1．05；abdomen 1.58 long， 0.90 wide；coxa I 0.52 long；relative length of coxae I－IV 1．00：0．84：0．73：0．96．Cephalothorax，legs pale orange；abdomen pale．Carapace weakly covered with gray，plumose setae．Eye group width 0.73 of caput width；AME 0.13 ；ALE 0．10；PME 0．14；PLE 0．10；AME－AME 0．04； AME－ALE 0．02；PME－PME 0．02；PME－ PLE 0．03；ALE－PLE 0．02；eye group AME－ PME 0．28；AME－AME 0．30；PME－PME


Map 6．Circle，Molycria bundjalung，new spe－ cies．Square，Molycria kaputar，new species．Tri－ angle，Molycria wardeni，new species．


Figs. 86-90. Molycria kaputar, new species. 86. Left male palp, prolateral view. 87. Same, ventral view. 88. Same, retrolateral view. 89. Epigynum, ventral view. 90. Same, dorsal view.
0.30. Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.53 of abdominal length, contiguous. Palp (figs. 8688): conductor originating distally, with ventrally folded distal end, retrolaterally directed tip; median apophysis short, ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus long, thin, with sharp tip; retrolateral tibial apophysis tiny, triangular.

Female: Total length 3.94. Carapace 1.46 long, 1.40 wide, 0.40 high, length/width 1.04; sternum 0.90 long, 0.82 wide, length/ width 1.09 ; abdomen 2.48 long, 1.40 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.81:0.69:0.96. Coloration as in male. Eye group width 0.74 of caput width; AME 0.13; ALE 0.10; PME 0.14; PLE 0.10; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.03; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.30; PME-PME 0.30. Clypeus 0.08 high. Abdomen covered with shiny, recumbent scales; ALS 0.41 of abdominal length, contiguous. Epigynum (figs. 89, 90): atrium broadly triangular; epigynal ducts long, in $x$-shaped position with spermathecae, spermathecae about their diameter apart, globular, with one dorsal diverticulum.

Other Material Examined: New South Wales: Attunga State Forest, T-junction in track on back road, 50 m SW into forest, $30^{\circ} 56^{\prime}$ S, $150^{\circ} 56^{\prime}$ E, Nov. 16-Dec. 7, 2001, pitfall (G. Carter, AMS KS82218), 1 º.

Distribution: Known only from New South Wales (map 6).

## Molycria goanna, new species

Figures 91-95; Map 7
Types: Male holotype and female allotype taken in pitfall traps at an elevation of 575 m on Goanna Creek Road, 0.4 km from junction with Sandy Creek Road, Richmond Range State Forest, $28^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 42^{\prime} \mathrm{E}$, New South Wales (Feb. 4-Apr. 9, 1993; M. Gray, G. Cassis), deposited in AMS (male KS90485, female KS90486).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can be recognized by the beak-shaped tip of the palpal conductor (fig. 92), females by the arch-shaped anterior
epigynal margin (fig. 94) and anterolaterally recurved epigynal ducts (fig. 95).

Male: Total length 4.06. Carapace 1.82 long, 1.68 wide, 0.54 high, length/width 1.08 ; sternum 1.10 long, 0.98 wide, length/width 1.12; abdomen 2.24 long, 1.04 wide; coxa I 0.70 long; relative length of coxae I-IV 1.00:0.71:0.68:0.94. Carapace, sternum, chelicerae, legs orange; endites, labium orange brown, distally pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter grayish. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.78 of caput width; AME 0.18; ALE 0.14; PME 0.18; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.38; AME-AME 0.40; PME-PME 0.40 . Clypeus 0.10 high. Abdomen covered with cinnamon, plumose setae; ALS 0.56 of abdominal length, slightly separated. Palp (figs. 91-93): conductor originating medially, with ventrally folded distal end, retrolaterally directed tip; median apophysis about twice as long as wide, ventrally excavated, with two distal tips; sperm duct u-shaped; embolus long, thin, semicircular; retrolateral tibial apophysis long, triangular, dorsally directed.

Female: Total length 5.12. Carapace 1.84 long, 1.84 wide, 0.66 high, length/width 1.00 ; sternum 1.20 long, 1.04 wide, length/ width 1.15 ; abdomen 3.28 long, 1.68 wide; relative length of coxae I-IV 1.00:0.85: 0.80:0.97. Coloration as in male but without dorsal scutum. Eye group width 0.8 of caput width. Clypeus 0.12 high. ALS 0.43 of abdominal length. Epigynum (figs. 94, 95): atrium broadly, rectangular, with wide, arched anterior margin, arched median ledge; epigynal ducts sausage-shaped, in $x$-shaped position with spermathecae, spermathecae less than their diameter apart, oval, coiled.

Other Material Examined: New South Wales: Acacia Plateau and Wilson's Peak area, Korealah State Forest, $28^{\circ} 16^{\prime}$ S, $152^{\circ} 27^{\prime}$ E, Dec. 11, 1988, pitfall, dry subtropical rainforest, exposed slope, elev. 600-900 m (Smith, Hines, Pugh, Webber, AMS KS43898), 1ọ; Goanna Creek Road, 0.4 km from junction with Sandy Creek Road, Richmond Range State Forest, $28^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 42^{\prime}$ E, Feb. 4-Apr. 9, 1993, pitfall,


Figs. 91-95. Molycria goanna, new species. 91. Left male palp, prolateral view. 92. Same, ventral view. 93. Same, retrolateral view. 94. Epigynum, ventral view. 95. Same, dorsal view.
elev. 575 m (M. Gray, G. Cassis, AMS KS36000), 1ᄋ; top end, Tucker Box Road, Beaury State Forest, $28^{\circ} 28^{\prime}$ S, $152^{\circ} 24^{\prime}$ E, Feb. $4-$ Apr. 9, 1993, pitfall, elev. 740 m (M. Gray, G. Cassis, AMS KS36071), 1¢; Tweed Range, $28^{\circ} 21^{\prime} \mathrm{S}, 152^{\circ} 58^{\prime} \mathrm{E}$, Feb. 22, 1989, pitfall, dry sclerophyll forest, elev. 400-500 m (Smith, Hines, Pugh, Webber, AMS KS57738), 1ᄋ; Urbenville-Legume Road, gully in middle of Toolom Scrub Flora, Toolom Scrub Flora Reserve, $28^{\circ} 28^{\prime} \mathrm{S}, 152^{\circ} 23^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 715 m (M. Gray, G. Cassis,

AMS KS36124), 10'. Queensland: Mount Mitchell, $28^{\circ} 04^{\prime} \mathrm{S}, 152^{\circ} 24^{\prime} \mathrm{E}$, Dec. 2, 1991-Jan. 6, 1992, rainforest intercept trap, elev. 1060 m (D. Cook, QMB S30331), 10 .

Distribution: Southeastern Queensland and adjacent New South Wales (map 7).

## Molycria wrightae, new species

Figures 5, 12, 96-100; Map 8
Type: Male holotype from O'Reillys, Lamington National Park, $28^{\circ} 14^{\prime} \mathrm{S}, 153^{\circ} 08^{\prime} \mathrm{E}$,

Queensland (Sept. 24-26, 1986; R. Raven, J. Gallon), deposited in QMB (S26409).

Etymology: The specific name is a patronym in honor of Susan Wright of the Queensland Museum, the collector of many interesting prodidomids.

Diagnosis: Males and females have not been taken together, but are matched here as both clearly belong to the mammosa group. Males can easily be recognized by the short tibial apophysis (fig. 98) and sickle-shaped embolus (fig. 97), females by the laterally hooked epigynal ducts (fig. 100).

Male: Total length 4.02. Carapace 1.92 long, 1.80 wide, 0.60 high, length/width 1.07 ; sternum 1.12 long, 1.00 wide, length/width 1.12; abdomen 2.10 long, 1.02 wide; coxa I 0.72 long; relative length of coxae I-IV 1.00:0.81:0.75:0.94. Carapace orange, mottled with gray; sternum orange, with darker lateral margins; chelicerae orange, grayish; endites, labium orange, distally pale; abdomen dorsally gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale; legs orange, femora grayish. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.78 of caput width; AME 0.17; ALE 0.14; PME 0.18; PLE 0.14; AME-AME 0.06; AMEALE 0.02; PME-PME 0.06; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.36; AME-AME 0.40; PME-PME 0.42. Clypeus 0.12 high. Abdomen covered with cinnamon, plumose setae; ALS 0.63 of abdominal length, contiguous. Palp (figs. 9698): conductor with ventrally folded end; median apophysis short, ventrally excavated, with two distal tips; sperm duct u-shaped; embolus long, flattened, semicircular; retrolateral tibial apophysis short, dorsally directed.

Female: Total length 4.24. Carapace 1.64 long, 1.46 wide, 0.60 high, length/width 1.12; sternum 1.00 long, 0.90 wide, length/ width 1.11; abdomen 2.60 long, 1.40 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.80:0.73:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.79 of caput width; AME 0.14; ALE 0.12; PME 0.14 ; PLE 0.12; AME-AME 0.04; PMEPME 0.04; eye group AME-PME 0.32; AME-AME 0.32; PME-PME 0.32. Clypeus 0.10 high. ALS 0.50 of abdominal length.

Epigynum (figs. 99, 100): atrium broadly, oval, with arched posterior margin; epigynal ducts sausage-shaped, laterally hooked, in xshaped position with spermathecae, spermathecae sausage-shaped, twisted, with one dorsal diverticulum.

Other Material Examined: Queensland: Bahr's Scrub, $27^{\circ} 45^{\prime}$ S, $153^{\circ} 10^{\prime}$ E, Jan. 21-Mar. 9, 1992, rainforest pitfall, elev. 100 m (D. Cook, QMB S30329), 1 ¢ ; Burleigh Headland, $28^{\circ} 10^{\prime}$ S, $153^{\circ} 33^{\prime} \mathrm{E}$, May $25-$ Oct. 13, 1975, rainforest pitfall, elev. 10 m (G., S. Monteith, QMB S67234), 1¢; "Glen Witheren," Shelf Scrub, $28^{\circ} 03^{\prime}$ S, $153^{\circ} 10^{\prime} \mathrm{E}$, Oct. 3-Dec. 30, 1991, rainforest intercept trap, elev. 150 m (G. Monteith, QMB S30332), 1ᄋ; Mount Tamborine, $27^{\circ} 56^{\prime} \mathrm{S}$, $153^{\circ} 12^{\prime} \mathrm{E}$, Oct. 2, 1964, around house, elev. 2000 ft (A. Cottrell, MCZ), 1 Q .

Distribution: Known only from southeastern Queensland (map 8).

## Molycria wardeni, new species Figures 101, 102; Map 6

Type: Female holotype taken in pitfall trap at Wyandotte Creek, $18^{\circ} 29^{\prime} \mathrm{S}, 144^{\circ} 55^{\prime} \mathrm{E}$, Queensland (Nov. 6, 1991-July 26, 1992; P. Lawless, R. Raven, M. Shaw), deposited in QMB (S21789).

Etymology: The specific name is a patronym in honor of Jared Warden, in recognition of his contributions to the Queensland Museum collection.


Map 7. Circle, Molycria goanna, new species. Square, Molycria monteithi, new species. Triangle, Molycria thompsoni, new species.


Figs. 96-100. Molycria wrightae, new species. 96. Left male palp, prolateral view. 97. Same, ventral view. 98. Same, retrolateral view. 99. Epigynum, ventral view. 100. Same, dorsal view.

DiAgnosis: Females can easily be recognized by the elongated, anterolaterally directed, and medially bent epigynal ducts (fig. 102). Although it is conceivable that these could be the females of M. moranbah, which is known only from males, epigynal similarities suggest that they belong to the mammosa group instead.

## Male: Unknown.

Female: Total length 2.92. Carapace 1.22 long, 1.16 wide, 0.36 high, length/width 1.05 ; sternum 0.82 long, 0.76 wide, length/width 1.08; abdomen 1.70 long, 0.80 wide; coxa I 0.48 long; relative length of coxae I-IV 1.00:0.75:0.71:0.95. Carapace pale yellow, with marginal dark filigree net pattern;


Figs. 101, 102. Molycria wardeni, new species. 101. Epigynum, ventral view. 102. Same, dorsal view.
sternum yellow, with darker lateral margins; mouthparts pale; abdominal dorsum gray with half moon-shaped pale spot in front of spinnerets, venter pale; legs pale, mottled with gray. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.75 of caput width; AME 0.12; ALE 0.11; PME 0.14; PLE 0.11; AME-AME 0.04; AMEALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.28; PME-PME 0.30. Clypeus 0.10 high. Abdomen covered with cinnamon, plumose setae; ALS 0.54 of abdominal length, contiguous. Epigynum (figs. 101, 102): atrium broadly oval, with heart-shaped posterior margin; epigynal ducts long, in heart-shaped position, spermathecae less than their diameter apart, sausage-shaped, twisted, in horizontal position.

Other Material Examined: Queensland: 50 km W Mount Garnet, $17^{\circ} 41^{\prime} \mathrm{S}$, $144^{\circ} 39^{\prime}$ E, Apr. 14-July 19, 2002, pitfall (J. Hasenpusch, QMB S62434), 19; Wyandotte Creek, $18^{\circ} 29^{\prime}$ S, $144^{\circ} 55^{\prime}$ E, July 26-Dec. 1, 1992, pitfall, dry eucalypt woodland (R. Raven, P., E. Lawless, M. Shaw, QMB S24329), 1 T.

Distribution: Known only from northeastern Queensland (map 6).

## Molycria stanisici, new species

Figures 1, 103-107; Map 10
Types: Male holotype and female allotype taken in eucalypt forest at an elevation
of 80 m at Belmont Hills Bushlands, $27^{\circ} 31^{\prime} \mathrm{S}$, $153^{\circ} 07^{\prime} \mathrm{E}$, Queensland (male, pitfall trap, June 30-July 28, 2003, R. Raven; female, hand collected during day, Feb. 19, 2004, R. Raven), deposited in QMB (male S62261; female, S65673).

Etymology: The specific name is a patronym in honor of Dr. John Stanisic, Biodiversity Scientist at the Queensland Museum, and project leader of the Brisbane City Council invertebrate survey, during which the types were collected.

Diagnosis: Males resemble those of $M$. mcleani in having a very small, sharp, narrow


Map 8. Circle, Molycria wrightae, new species. Square, Molycria bulburin, new species. Triangle, Molycria nipping, new species.


Figs. 103-107. Molycria stanisici, new species. 103. Left male palp, prolateral view. 104. Same, ventral view. 105. Same, retrolateral view. 106. Epigynum, ventral view. 107. Same, dorsal view.
retrolateral tibial apophysis (fig. 105), but have a wider conductor tip (fig. 104); females have longitudinal, approximate median epigynal ducts (fig. 107).

Male: Total length 3.36. Carapace 1.60 long, 1.40 wide, 0.62 high, length/width 1.14; sternum 0.90 long, 0.86 wide, length/width 1.05; abdomen 1.76 long, 1.02 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.86:0.73:0.93. Carapace pale yellow, with dark filigree net pattern; sternum yellow, with darker lateral margins; chelicerae grayish; endites, labium, legs pale; abdominal dorsum gray, with half moon-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.76 of caput width; AME 0.12; ALE 0.12; PME 0.14; PLE 0.12; AME-AME 0.06; AME-ALE 0.02; PMEPME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.30 ; PME-PME 0.32. Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.47 of abdominal length, slightly separated, with heavily sclerotized transverse strip bearing strong macroseta at midline at origin. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 103-105): conductor originating distally, broad, with greatly expanded, hood-shaped distal part, retrolaterally directed beak-shaped tip; median apophysis scythe-shaped, ventrally excavated; sperm duct weakly u-shaped; embolus long, thin, semicircular, embolar base broad, separated from tegulum; tibia about 1.5 times as long as wide, retrolateral tibial apophysis short, triangular.

Female: Total length 2.94. Carapace 1.30 long, 1.22 wide, 0.52 high, length/width 1.07; sternum 0.84 long, 0.80 wide; abdomen 1.64 long, 0.96 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.76:0.72:0.96. Coloration as in male. Eye group width 0.77 of caput width; AME 0.13; ALE 0.10; PME 0.12; PLE 0.10; AME-AME 0.04; ALE-PLE 0.04; PME-PME 0.3. Clypeus 0.08 high. ALS 0.49 of abdominal length. Epigynum (figs. 106, 107): anterior margin with widely v-shaped projection, two medium sized, lateral, inverted u-shaped copulatory openings; epigynal ducts parallel along midline, forming basal triangles with spermathecae, spermathecae contiguous, sausage-shaped, twisted.

Other Material Examined: Queensland: Beerwah Forestry Reserve, $26^{\circ} 51^{\prime} \mathrm{S}, 152^{\circ} 57^{\prime} \mathrm{E}$, Oct. 10, 1990, heathland pitfall (M. Glover, QMB S32361), 1ᄋ, Apr. 24, 1991, heathland pitfall (M. Glover, QMB S32362), 19; Belmont Hills Bushlands, site 1, elev. $80 \mathrm{~m}, 27^{\circ} 31^{\prime} \mathrm{S}$, $153^{\circ} 07^{\prime}$ E, Sept.1-Oct. 1, 2003, pitfall, eucalypt forest (QMB S62385), 10', Oct. 30-Dec. 1, 2003, same (QMB S65671), 2o, Jan. 30-Mar. 1, 2004, same (QMB S65672), 2o', July 28-Sept. 1, 2003, same (QMB S62218), $1^{\circ}$, Jan. 2-29, 2004, same (QMB S65670), 20'; Benarkin School, $26^{\circ} 53^{\prime} \mathrm{S}$, $152^{\circ} 09^{\prime} \mathrm{E}$, Jan. 26-Apr. 20, 1995, vine scrub pitfall (G. Monteith, QMB S46442), 1p; Enoggera Reservoir, site $9,27^{\circ} 27^{\prime}$ S, $152^{\circ} 54^{\prime} \mathrm{E}$, Jan. 27-Mar. 15, 2000, open forest pitfall (G. Monteith, J. Holt, QMB S65719), 10'; Gatton, $27^{\circ} 34^{\prime} \mathrm{S}, 152^{\circ} 20^{\prime}$ E, Dec. 2001-Jan. 2002, pitfall, soybean crop (S. Pearce, QMB S66690), 1中; Gold Creek Reservoir, site $1,27^{\circ} 28^{\prime}$ S, $152^{\circ} 52^{\prime}$ E, Sept. 1-Oct. 1, 2003, pitfall, spotted gum, open forest, elev. 140 m (QMB S62416), 1p; Hamilton, $27^{\circ} 26^{\prime}$ S, $153^{\circ} 04^{\prime}$ E, Sept. 9, 1973 (R. Raven, QMB S65716), 10'; Laidley Creek, $27^{\circ} 31^{\prime} \mathrm{S}, 152^{\circ} 25^{\prime} \mathrm{E}$, Jan. 21, 1980, pitfall (M. Grant, QMB S65720), 20', 1o; Moreton Island, $27^{\circ} 11^{\prime} \mathrm{S}, 153^{\circ} 24^{\prime} \mathrm{E}$, Nov. 29, 1978, sweeping beach herbage (V. Davies, QMB S65717), 1中; 3 km S Mount Deongwar, site $1,27^{\circ} 14^{\prime} \mathrm{S}$, $152^{\circ} 15^{\prime}$ E, Oct. 14-Dec. 30, 1998, pitfall, wet sclerophyll forest, elev. 460 m (G. Monteith, D. Cook, QMB S49891, 50622), 20', Dec. 30, 1998Mar. 26, 1999, same (G. Monteith, QMB S50374), 1¢; 3 km S Mount Deongwar, site 2, $27^{\circ} 14^{\prime} \mathrm{S}, 152^{\circ} 15^{\prime} \mathrm{E}$, Oct. 14-Dec. 30, 1998, rainforest pitfall, elev. 450 m (G. Monteith, D.


Map 9. Circle, Molycria mcleani, new species. Square, Molycria dawson, new species. Triangle, Molycria drummond, new species.

Cook, QMB S49898), 2q; 3 km S Mount Deongwar, site 3, $27^{\circ} 14^{\prime} \mathrm{S}, 152^{\circ} 16^{\prime} \mathrm{E}$, Oct. 14 Dec. 30, 1998, rainforest pitfall, elev. 450 m (G. Monteith, D. Cook, QMB S49895), 1ọ; Ravensbourne National Park, $27^{\circ} 22^{\prime}$ S, $152^{\circ} 10^{\prime}$ E, Apr. 19, 2001, rainforest litter (M. Rix, QMB S67695), 10', 1̊; Woody Point, Brisbane, $27^{\circ} 28^{\prime} \mathrm{S}, 153^{\circ} 03^{\prime} \mathrm{E}$, Jan. 20, 1988, in washing (H. Austin, QMB S3624), 10'; 3 km E Yarraman, $26^{\circ} 50^{\prime} \mathrm{S}, 151^{\circ} 59^{\prime} \mathrm{E}$, pitfall (G., S. Monteith, QMB S65718), 1 ¢

Distribution: Known only from southeastern Queensland (map 10).

## Molycria monteithi, new species

Figures 108-112; Map 7
Types: Male holotype and female allotype taken in pitfall traps in open forest on the summit of Boat Mountain, $26^{\circ} 09^{\prime} \mathrm{S}$, $151^{\circ} 59^{\prime} \mathrm{E}$, Queensland (Dec. 14, 1994-Jan. 26, 1995; G. Monteith), deposited in QMB (male S47790, female S27930).

Etymology: The specific name is a patronym in honor of Dr. Geoff Monteith of the Queensland Museum, collector extraordinaire of many fascinating prodidomids.

Diagnosis: This seems to be the northern sister species of M. stanisici, differing only in minor genitalic features: males have a smaller, retrolaterally uninflated conductor tip (fig. 109), and females have a projecting anterior epigynal margin (fig. 111) and longer median epigynal ducts (fig. 112).

Male: Total length 2.88. Carapace 1.34 long, 1.22 wide, 0.46 high, length/width 1.10; sternum 0.86 long, 0.72 wide, length/width 1.19; abdomen 1.54 long, 0.80 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.92:0.69:0.96. Carapace orange, with dark filigree net pattern; sternum, chelicerae orange, grayish; endites, labium orange, distally pale; abdominal dorsum gray, with spear tip-shaped pale spot in front of spinnerets, venter pale; legs mottled with gray. Carapace weakly covered with gray, plumose setae. Eye group width 0.76 of caput width; AME 0.12; ALE 0.10; PME 0.12; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.28 ; PME-PME 0.28. Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.56 of abdominal length, contiguous.

Palp (figs. 108-110): conductor originating distally, broad, with greatly expanded, scytheshaped distal part, base of conductor, with large retrolateral, membranous lobe; median apophysis short, scythe-shaped, ventrally excavated; sperm duct weakly u-shaped; embolus long, thin, semicircular, embolar base broad, separated from tegulum; tibia about 1.5 times as long as wide, retrolateral tibial apophysis short, triangular.

Female: Total length 2.90. Carapace 1.26 long, 1.22 wide, 0.50 high, length/width 1.03; sternum 0.80 long, 0.74 wide, length/ width 1.08; abdomen 1.64 long, 0.90 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.80:0.68:0.96. Coloration as in male. Eye eye group width 0.72 of caput width. Clypeus 0.08 high. ALS 0.53 of abdominal length. Epigynum (figs. 111, 112): anterior margin with widely v-shaped projection; epigynal ducts long, parallel along midline, forming basal triangles with spermathecae, spermathecae contiguous, sau-sage-shaped, highly coiled, with one dorsal diverticulum.

Other Material Examined: None.
Distribution: Known only from the type locality in southeastern Queensland (map 7).

## Molycria mcleani, new species

Figures 113-117; Map 9
Types: Male holotype and female allotype taken in pitfall traps at an elevation of 40 m in scibbly gum and heath at Illawena State Forest, Drewvale, $27^{\circ} 38^{\prime} \mathrm{S}, 153^{\circ} 04^{\prime} \mathrm{E}$, Queensland (July 29-Sept. 2, 2004; S. Wright), deposited in QMB (male S65695, female S65696).

Etymology: The specific name is a patronym in honor of Mr. Stacey McLean, Senior Program Officer, Biodiversity Planning, Environment and Parks Branch, Brisbane City Council, who initiated the Brisbane habitat survey through which most of the specimens were found.

Diagnosis: Males resemble those of $M$. stanisici but have a narrower conductor (fig. 114); females also resemble those of $M$. stanisici but have the median epigynal ducts anterolaterally divergent rather than approximate (fig. 117).


Figs. 108-112. Molycria monteithi, new species. 108. Left male palp, prolateral view. 109. Same, ventral view. 110. Same, retrolateral view. 111. Epigynum, ventral view. 112. Same, dorsal view.

Male: Total length 3.20. Carapace 1.54 long, 1.40 wide, 0.54 high, length/width 1.10 ; sternum 0.88 long, 0.82 wide, length/width
1.07; abdomen 1.66 long, 0.96 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.78:0.62:0.84. Carapace orange, with


Figs. 113-117. Molycria mcleani, new species. 113. Left male palp, prolateral view. 114. Same, ventral view. 115. Same, retrolateral view. 116. Epigynum, ventral view. 117. Same, dorsal view.
dark filigree net pattern; sternum orange, with darker lateral margins; chelicerae orange, grayish; endites, labium orange brown, distally pale; abdominal dorsum gray, with
weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale, epigastric area orange grayish; legs grayish orange. Carapace weakly covered with gray,
plumose setae. Eye group width 0.7 of caput width; AME 0.15; ALE 0.14; PME 0.15; PLE 0.14 ; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.34; AME-AME 0.34; PME-PME 0.32. Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.59 of abdominal length, slightly separated, with heavily sclerotized transverse strip bearing strong macroseta at midline origin. Palp (figs. 113-115): conductor originating distally, long, with greatly expanded, hood-shaped distal part, retrolaterally directed beak-shaped tip; median apophysis about twice as long as wide, ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus long, thin, straight; tibia about 1.5 times as long as wide, retrolateral tibial apophysis short, triangular.

Female: Total length 3.64. Carapace 1.30 long, 1.22 wide, 0.46 high, length/width 1.07 ; sternum 0.88 long, 0.82 wide, length/ width 1.07 ; abdomen 2.34 long, 1.10 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.83:0.76:0.93. Coloration as in male but without dorsal scutum. AME 0.14; ALE 0.12 ; PME 0.14; PLE 0.12; AME-AME 0.02 ; PME-PME 0.04; eye group AMEPME 0.30; AME-AME 0.30; PME-PME 0.30. Clypeus 0.08 high. ALS 0.51 of abdominal length. Epigynum (figs. 116, 117): anterior margin with sharply pointed projection; epigynal ducts in x -shaped position with spermathecae, spermathecae contiguous, sausage-shaped, twisted.

Other Material Examined: Queensland: Buhot Creek, Burbank, $27^{\circ} 36^{\prime} \mathrm{S}, 153^{\circ} 10^{\prime} \mathrm{E}$, Dec. 1, 2003-Jan. 1, 2004, riparian forest, pitfall, elev. $50 \mathrm{~m}(\mathrm{QMB}$ S67110) 20*, Nov. 6, 2003, hand collected, same (QMB S67108), 10'; Camerons Scrub, top ridge, knoll top, $27^{\circ} 30^{\prime}$ S, $152^{\circ} 44^{\prime}$ E, Sept. 15, 1998-Jan. 13, 1999, vine scrub pitfall, elev. 90-160 m (G. Monteith, D. Cook, G. Thompson, QMB S49892, 50602, 50617, 51143), 20', 2ọ, Jan. 13-May 16, 1999, vine scrub pitfall, elev. $90-110 \mathrm{~m}$ (G. Monteith, QMB S50607, 52448), 4o; Camerons Scrub, snig track, $27^{\circ} 31^{\prime} \mathrm{S}, 152^{\circ} 44^{\prime} \mathrm{E}$, Sept. $15-$ Nov. 11 , 1998, vine scrub pitfall, elev. 120 m (G. Monteith, D. Cook, G. Thompson, QMB S51135), 20¹, 1̣, Nov. 11, 1998-Jan. 13, 1999, same (QMB S50609), 10'; Dutton Park, $27^{\circ} 29^{\prime} \mathrm{S}, 153^{\circ} 01^{\prime} \mathrm{E}$, July 1, 1995 , in silk sac
under pan on ground under house (P. Lawless, QMB S50584), 1ọ; 3 mi E Hatton Vale, $27^{\circ} 34^{\prime} \mathrm{S}$, $152^{\circ} 2^{\prime} \mathrm{E}$, Nov. 24,1962 , elev. 150 m (E. Ross, D. Cavagnaro, CAS), 1\%; Illawena State Forest, Drewvale, $27^{\circ} 38^{\prime} \mathrm{S}, 153^{\circ} 04^{\prime} \mathrm{E}$, July 1-29, 2003, scibbly gum, heath, pitfall, elev. 40 m (S. Wright, QMB S62668), 20', Oct. 2-31, 2003, same (QMB S65666), 1Q, Jan. 2-30, 2004, same (QMB S65661), $10^{\circ}$, $10^{\circ}$, Jan. 30-Mar. 1, 2004, same (QMB S65668), 30', 1̊, Feb. 17, 2004, same but hand collected (QMB S67109, 67111), $10^{*}$, 3̣, Mar. 1-31, 2004, same (QMB S65663), 1o, July 29-Sept. 2, 2004, same (S. Wright, QMB S62179), 10', 39, Karawatha Forest, $27^{\circ} 37^{\prime} \mathrm{S}, 153^{\circ} 05^{\prime} \mathrm{E}$, Dec, 17, 1994-Apr. 23, 1995, melaleuca forest pitfall (D. Stewart, QMB S65700), 1o ; Karawatha Forest, site 6, $27^{\circ} 37^{\prime}$ S, $153^{\circ} 05^{\prime} \mathrm{E}$, July $1-29$, 2003, pitfall, eucalypt woodland, elev. 60 m (QMB S62912), $10^{\circ}$; The Knobby, $27^{\circ} 30^{\prime} \mathrm{S}, 152^{\circ} 35^{\prime} \mathrm{E}$, Sept. $15-$ Nov. 11, 1998, vine scrub pitfall, elev. 240 m (G. Monteith, D. Cook, G. Thompson, QMB S51133), 4o', Nov. 11, 1998-Jan. 13, 1999, same (QMB S50620), $1 \stackrel{\text { o }}{ }$; Mount Cotton, $27^{\circ} 37^{\prime} \mathrm{S}$, $153^{\circ} 13^{\prime}$ E, Sept. 3-Dec. 12, 1997, rainforest pitfall, elev. 200 m (G. Monteith, QMB S32471), 19; North Stradbroke Island, Enterprise, Scribbly Gum \#3, $27^{\circ} 36^{\prime}$ S, $153^{\circ} 27^{\prime}$ E, Jan. 10, 2002, hand collecting, day, elev. 70 m (QMB S56495), 19; North Stradbroke Island, Enterprise, Scribbly Gum \#2, $27^{\circ} 37^{\prime}$ S, $153^{\circ} 27^{\prime}$ E, Jan. 8-22, 2002, pitfall, elev. 120 m (QMB S55567), 10', Jan. 10, 2002, hand collecting, night, elev. 120 m (QMB S56494), 19̣; North Stradbroke Island, Enterprise, Blackbutt \#3, $27^{\circ} 35^{\prime} \mathrm{S}, 153^{\circ} 28^{\prime} \mathrm{E}$, Jan. 8-22, 2002,


Map 10. Circle, Molycria stanisici, new species. Square, Molycria wallacei, new species. Triangle, Molycria dalby, new species.
pitfall, elev. 80 m (QMB S55578), 30, 1̣̊; North Stradbroke Island, Ibis Alpha, $27^{\circ} 38^{\prime} \mathrm{S}$, $153^{\circ} 6^{\prime} \mathrm{E}$, open forest, June 1997 (U. Nolte, QMB S40957), 10'; North Stradbroke Island, Yarraman, $27^{\circ} 27^{\prime} \mathrm{S}, 153^{\circ} 30^{\prime} \mathrm{E}$, Mar.-Sept. 1997, open forest (U. Nolte, QMB S41003, 41007, 41011), $10^{\prime}$, 3o; Perry's Knob, $27^{\circ} 36^{\prime}$ S, $152^{\circ} 36^{\prime}$ E, Sept. $15-$ Nov. 11, 1998, vine scrub pitfall, elev. 200 m (G. Monteith, D. Cook, G. Thompson, QMB S51139), 20', 2Q, Nov. 11, 1998-Jan. 13, 1999, same (QMB S49901, 50608), 40', 1̊, Jan. 13-May 16, 1999, same (G. Monteith, QMB S52461), 20', 3o; Rochedale State Forest, Brisbane, $27^{\circ} 37^{\prime} \mathrm{S}, 153^{\circ} 09^{\prime} \mathrm{E}$, Feb. 14-27, 1980, pitfall (V. Davies, R. Raven, QMB S65699), 1Q, Apr. 2, 1980, pitfall (V. Davies, R. Raven, QMB S65697), 1ó; Teviot Brook, $27^{\circ} 51^{\prime} \mathrm{S}, 152^{\circ} 57^{\prime} \mathrm{E}$, Oct. 21, 1973, under stone (V. Davies, QMB S65698), 1ǫ; Toowoomba, $27^{\circ} 34^{\prime} \mathrm{S}, 151^{\circ} 57^{\prime} \mathrm{E}$, Aug. 19, 1997, in house (B. Scholz, QMB S35406), 1 Q.

Distribution: Known only from southeastern Queensland (map 9).

## Molycria burwelli, new species

Figures 118-122; Map 11
Types: Male holotype and female allotype taken in rainforest at an elevation of 110 m at Enoggera Reservoir, $27^{\circ} 27^{\prime} \mathrm{S}$, $152^{\circ} 55^{\prime} \mathrm{E}$, Queensland (male, Aug. 7-Oct. 16, 1999, pitfall, G. Monteith, J. Holt; female, Mar. 15-May 18, 2000, malaise trap, C. Burwell, S. Evans), deposited in QMB (male S51638, female S39612).

Etymology: The specific name is a patronym in honor of Dr. Chris Burwell of the Queensland Museum, one of the collectors of the allotype.

DiAGnosis: Males of this distinctive species can easily be recognized by the long, semicircular embolus and wide conductor tip and the two membranous, spatulate projections at the retrolateral base of the conductor (fig. 119), females by the arched, projecting anterior epigynal margin (fig. 121).

Male: Total length 3.74. Carapace 1.66 long, 1.56 wide, 0.40 high, length/width 1.06 ; sternum 1.02 long, 0.92 wide, length/width 1.11; abdomen 2.08 long, 1.00 wide; coxa I 0.66 long; relative length of coxae I-IV 1.00:0.88:0.73:0.94. Carapace orange, with dark filigree net pattern; sternum orange, with darker lateral margins; chelicerae grayish; endites, labium orange brown, distally
pale; abdominal dorsum gray, with spear tipshaped pale spot in front of spinnerets, venter pale; legs mottled with gray. Carapace weakly covered with cinnamon, plumose setae. AME elevated, eye group width 0.77 of caput width; AME 0.15; ALE 0.14; PME 0.14 ; PLE 0.14; AME-AME 0.04; AMEALE 0.02; PME-PME 0.06; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.34; PME-PME 0.34. Clypeus 0.08 high. Abdomen covered with cinnamon, plumose setae; ALS 0.57 of abdominal length, contiguous. Palp (figs. 118-120): conductor originating distally, broad, with greatly expanded distal part, retrolaterally directed tip; base of conductor with two retrolateral, membranous, spatulate projections; median apophysis tiny, hooked, ventrally excavated, with two distal tips; embolus long, thin, semicircular, embolar base broad, separated from tegulum; tibia about 1.5 times as long as wide, retrolateral tibial apophysis short, triangular.

Female: Total length 4.84. Carapace 1.64 long, 1.62 wide, 0.50 high, length/width 1.01; sternum 1.06 long, 0.96 wide, length/ width 1.10 ; abdomen 3.20 long, 2.00 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.75:0.72:0.97. Coloration as in male. Eye eye group width 0.74 of caput width; AME 0.16; PME 0.15; PME-PME 0.04; eye group AME-PME 0.36; AME-AME 0.36. ALS 0.45 of abdominal length. Epigynum (figs. 121, 122): atrium with wide arched anterior margin, sharply pointed projection; two copulatory openings, forming cup; epigynal ducts short, spermathecae contiguous, sausage-shaped, twisted, in horizontal position.

Other Material Examined: Queensland: Cooloola, $26^{\circ} 12^{\prime} \mathrm{S}, 153^{\circ} 03^{\prime} \mathrm{E}$, Apr. 1978, pitfall (V. Davies, R. Raven, QMB S65728), 10', 4Q, Oct. 1978, high dune pitfall (K. Plowman, QMB S65729), 10'; Cooloola National Park, $25^{\circ} 57^{\prime} \mathrm{S}$, $153^{\circ} 07^{\prime} \mathrm{E}$, Jan. 8-Mar. 3, 1992, rainforest pitfall, elev. 140 m (D. Cook, QMB S25212), 1̊; Gallangowan, $26^{\circ} 26^{\prime} \mathrm{S}, 152^{\circ} 17^{\prime} \mathrm{E}$, Nov. $10-$ Dec. 29, 1974, rainforest pitfall, elev. 487 m (G., S. Monteith, QMB S65730), 10'; Lake Poona, Cooloola National Park, $26^{\circ} 12^{\prime} \mathrm{S}, 153^{\circ} 03^{\prime} \mathrm{E}$, Apr. 1978 (G. Monteith, QMB S65723), 1Q; Little Yabba Creek, $26^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 41^{\prime} \mathrm{E}$, Jan. $7-$ Mar. 2, 1992, rainforest pitfall, intercept, elev. 150 m (D. Cook, QMB S30317, 30318), 20';


Figs. 118-122. Molycria burwelli, new species. 118. Left male palp, prolateral view. 119. Same, ventral view. 120. Same, retrolateral view. 121. Epigynum, ventral view. 122. Same, dorsal view.


Mount Glorious, $27^{\circ} 20^{\prime} \mathrm{S}, 152^{\circ} 46^{\prime} \mathrm{E}$, Dec. 21, 1970, rainforest litter (H. Williams, QMB S15642), 1o, Dec. 1981 (A. Hiller, QMB S65725), 1¢, Dec. 14, 1981-Mar. 5, 1982, rainforest malaise trap (A. Hiller, QMB S65727), 1o, Dec. 21, 1982-Jan. 13, 1983, malaise trap (A. Hiller, QMB S65726), 19, Hiller property, Dec. 12, 1998-Jan. 28, 1999, malaise (N. Power, QMB S52460), 10; Mount Nebo, $27^{\circ} 23^{\prime} \mathrm{S}, 152^{\circ} 47^{\prime}$ E, Oct. 16, 1978, mixed sclerophyll pitfall (A. Rozefelds, QMB S65731), 1o, Nov. 6, 1978, under plastic sheeting near house, and pitfall (A. Rozefelds, QMB S65724), 2ǫ; Searys Scrub, Cooloola National Park, $26^{\circ} 12^{\prime} \mathrm{S}, 153^{\circ} 03^{\prime} \mathrm{E}$, Feb. 6, 1976, in or under bark (R. Raven, V. Davies, QMB S65733), 10', 2o, Feb. 3-7, 1976, pitfall (R. Raven, V. Davies, QMB S65732), 10'; Stony Creek, via Samford, $27^{\circ} 20^{\prime} \mathrm{S}, 152^{\circ} 48^{\prime} \mathrm{E}$, Feb. 2-Apr. 8, 1995, rainforest pitfall (G. Monteith, H. Janetzki, QMB S34502), $10^{\circ}$; Sunday Creek, $26^{\circ} 40^{\prime} \mathrm{S}, 152^{\circ} 34^{\prime} \mathrm{E}$, Dec. 18, 1996-Jan. 20, 1997, rainforest pitfall (G. Monteith, QMB S35374), 10 .

Distribution: Known only from southeastern Queensland (map 11).

## Molycria thompsoni, new species

Figures 123-127; Map 7
Type: Female holotype taken in a pitfall trap in rainforest at Lower Dry Creek, Kroombit Tops, site 9, 45 km SSW Calliope, $24^{\circ} 24^{\prime} \mathrm{S}, 151^{\circ} 01^{\prime} \mathrm{E}$, Queensland (Dec. 11-18, 1983; G. Monteith, V. Davies, J. Gallon, G. Thompson), deposited in QMB (S65736).

Etymology: The specific name is a patronym in honor of Geoff Thompson of the Queensland Museum, one of the collectors of the holotype.

Diagnosis: Males resemble those of $M$. burwelli but have an arrow-shaped conductor tip and shorter median tegular apophysis (fig. 124); females resemble those of M. amphi in having a triangular epigynal atrium, but have the atrium much longer, extending fully to the spermathecae (figs. 126, 127).

Male: Total length 3.10. Carapace 1.40 long, 1.34 wide, 0.46 high, length/width 1.04; sternum 0.90 long, 0.82 wide, length/width 1.10; abdomen 1.70 long, 0.90 wide; coxa I 0.56 long; relative length of coxae I-IV
1.00:0.93:0.82:0.96. Carapace orange, mottled with gray; sternum orange, with darker lateral margins; chelicerae grayish; endites, labium orange, distally pale; abdominal dorsum gray, with spear tip-shaped pale spot in front of spinnerets, venter grayish; legs orange-brown, femora grayish. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.83 of caput width; AME 0.12; ALE 0.12; PME 0.14; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.28; AME-AME 0.28; PME-PME 0.30 . Clypeus 0.08 high. Abdomen covered with cinnamon, plumose setae; ALS 0.6 of abdominal length, slightly separated. Palp (figs. 123-125): conductor originating distally, broad, ventrally folded distal end greatly expanded, tip arrow-shaped, retrolaterally directed; median apophysis tiny, hooked, ventrally excavated; sperm duct weakly u-shaped; embolus long, thin, semicircular; embolar base broad, separated from tegulum; tibia about 1.5 times as long as wide, retrolateral tibial apophysis short, rectangular.

Female: Total length 4.48. Carapace 1.60 long, 1.58 wide, 0.56 high, length/width


Map 11. Circle, Molycria burwelli, new species. Square, Molycria cooki, new species. Triangle, Molycria raveni, new species.

Figs. 123-127. Molycria thompsoni, new species. 123. Left male palp, prolateral view. 124. Same, ventral view. 125. Same, retrolateral view. 126. Epigynum, ventral view. 127. Same, dorsal view.
1.01; sternum 1.00 long, 0.90 wide, length/ width 1.11; abdomen 2.88 long, 1.68 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.84:0.72:0.97. Coloration as in male. Eye group width 0.82 of caput width; AME 0.14 ; PME-PLE 0.06; eye group AME-PME 0.32; AME-AME 0.32; PME-PME 0.34. ALS 0.43 of abdominal length. Epigynum (figs. 126, 127): atrium roughly triangular; epigynal ducts long, in v-shaped position, spermathecae contiguous, sausage-shaped, twisted.

Other Material Examined: Queensland: 0.5 km S Fairlies Knob, $25^{\circ} 31^{\prime} \mathrm{S}, 152^{\circ} 17^{\prime} \mathrm{E}$, July 21-Oct. 20, 2000, vine scrub pitfall, elev. 300 m (D. Cook, S. Wright, E. Vanderduys, QMB S61037, S65734, S66635), 40', 4̊, Dec. 20, 2000-Mar. 23, 2001, hoop pine scrub pitfall (D. Cook, G. Monteith, QMB S65735), $1 \xlongequal[\text { © }]{ } ; 3.5 \mathrm{~km}$ SE Fairlies Knob, $25^{\circ} 32^{\prime}$ S, $152^{\circ} 19^{\prime} \mathrm{E}$, July 21Oct. 20, 2000, vine scrub pitfall, elev. 120 m (D. Cook, S. Wright, E. Vanderduys, QMB), 1o; Mount Goonaneman, near Childers, $25^{\circ} 26^{\prime} \mathrm{S}$, $152^{\circ} 08^{\prime} \mathrm{E}$, Nov. 3-7, 1980, elev. 670 m (V. Davies, R. Raven, QMB S65738), $10^{\circ} ; 1 \mathrm{~km}$ N Mount Walsh, $25^{\circ} 34^{\prime} \mathrm{S}, 152^{\circ} 03^{\prime} \mathrm{E}$, June 26 Oct. 9, 1999, vine scrub pitfall, elev. 320 m (D. Cook, QMB S65737), 10 .

Distribution: Known only from mideastern Queensland (map 7).

## Molycria bulburin, new species

 Figures 128-132; Map 8Types: Male holotype and female allotype taken in pitfall traps in rainforest at an elevation of 609 m on the Bulburin Plateau, via Miriamvale, Bulburin State Forest, $24^{\circ} 30^{\prime} \mathrm{S}, 151^{\circ} 35^{\prime} \mathrm{E}$, Queensland (June 1-Oct. 5, 1974; G., S. Monteith), deposited in QMB (male S65722, female S65721).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a greatly expanded, scythe-shaped conductor tip (fig. 129), females have a prominent median protuberance on the anterior epigynal margin that reaches almost to a median ledge (fig. 131).

Male: Total length 3.40. Carapace 1.52 long, 1.50 wide, 0.60 high, length/width 1.01; sternum 0.94 long, 0.80 wide, length/width 1.17; abdomen 1.88 long, 1.20 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.80:0.73:0.90. Carapace orange, with dark filigree net pattern; sternum orange;
chelicerae grayish; endites, labium orange, distally pale; abdominal dorsum gray, with spear tip-shaped pale spot in front of spinnerets, venter grayish, epigastric area orange; legs orange, mottled with gray. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.77 of caput width; AME 0.14; ALE 0.14; PME 0.14; PLE 0.12 ; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.32. Clypeus 0.10 high. Abdomen covered with cinnamon, plumose setae; ALS 0.59 of abdominal length, contiguous. Palp (figs. 128-130): cymbium with retrobasal hook; conductor originating distally, broad, with greatly expanded, scythe-shaped distal part, retrolaterally directed tip; median apophysis wide, ventrally excavated; sperm duct straight; embolus long, thin, semicircular, embolar base broad, separated from tegulum; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis small, conical.

Female: Total length 3.88. Carapace 1.64 long, 1.60 wide, 0.44 high, length/width 1.02; sternum 1.00 long, 0.86 wide, length/ width 1.16; abdomen 2.24 long, 1.22 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.84:0.75:0.97. Coloration as in male. Eye group width 0.74 of caput width; AME 0.15; ALE 0.12; AME-AME 0.02. ALS 0.61 of abdominal length. Epigynum (figs. 131, 132): atrium with v-shaped, prominent median projection on anterior margin reaching almost to v -shaped median ledge; epigynal ducts short, parallel, spermathecae less than their diameter apart, sausage-shaped, twisted, in horizontal position.

Other Material Examined: None.
Distribution: Known only from the Bulburin Plateau, southeastern Queensland (map 8).

## Molycria nipping, new species <br> Figures 133-137; Map 8

Types: Male holotype and female allotype taken by pyrethrum fogging of trees and logs in a vine scrub forest at an elevation of 200 m at Nipping Gulley, site 2, $25^{\circ} 40^{\prime} \mathrm{S}$, $151^{\circ} 26^{\prime} \mathrm{E}$, Queensland (Oct. 9, 1998; G. Monteith), deposited in QMB (male S47757, female S67183).


Figs. 128-132. Molycria bulburin, new species. 128. Left male palp, prolateral view. 129. Same, ventral view. 130. Same, retrolateral view. 131. Epigynum, ventral view. 132. Same, dorsal view.

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a distinctively small conductor tip (fig. 134) and a short, wide retrolateral tibial apophysis (fig. 135);
females have long lateral epigynal margins extending medially (fig. 136).

Male: Total length 3.26. Carapace 1.44 long, 1.34 wide, 0.42 high, length/width 1.07; sternum 0.90 long, 0.78 wide, length/width

1.15; abdomen 1.82 long, 0.42 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.81:0.74:0.96. Carapace orange, mottled with gray, sternum orange, chelicerae, legs grayish; endites, labium grayish, distally pale; abdominal dorsum gray, with weak orange scutum, half ring-shaped pale spot in front of spinnerets, venter pale gray. Carapace weakly covered with gray, plumose setae. AME elevated, eye group width 0.71 of caput width; AME 0.15; ALE 0.10; PME 0.13; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.04; PME-PLE 0.06; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.32 ; PME-PME 0.30. Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.55 of abdominal length, contiguous. Palp (figs. 133-135): conductor originating distally, straight, with shallow groove; median apophysis scythe-shaped, with long median tip; embolus finger-shaped, with s-shaped sharp tip; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis rectangular, with distally bent tip.

Female: Total length 3.66. Carapace 1.36 long, 1.28 wide, 0.38 high, length/width 1.06; sternum 0.88 long, length/width 1.13; abdomen 2.30 long, 1.36 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.88:0.81:1.00. Coloration as in male but without dorsal scutum. Eye group width 0.81 of caput width; AME 0.13; PME 0.12; eye group AME-PME 0.28; AME-AME 0.28 ; PME-PME 0.28. Clypeus 0.08 high. ALS 0.44 of abdominal length. Epigynum (figs. 136, 137): atrium with long lateral margins extending medially; epigynal ducts parallel along midline, anterior part recurved, spermathecae nearly contiguous, oval, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Gurgeena Plateau, $25^{\circ} 27^{\prime} \mathrm{S}, 151^{\circ} 23^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1998, rainforest pitfall (G. Monteith, QMB S47753), 10', Jan. 27-June 2, 1999, rainforest pitfall (G. Monteith, G. Thompson, QMB S68058), 10, 1Q; Nipping Gulley, site 1, $25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 26^{\prime} \mathrm{E}$, Aug. 21-Oct. 9, 1998, pitfall, elev. 200 m (G. Monteith, QMB S47752), 50',

Oct. 9-Dec. 18, 1998, rainforest pitfall, elev. 200 m (G. Monteith, C. Gough, QMB S47761), 1O, Dec. 18, 1998-Jan. 26, 1999, rainforest pitfall, elev. 300 m (G. Monteith, C. Gough, QMB S49896), 2o', Jan. 26-June 2, 1999, same (G. Monteith, G. Thompson, QMB S52441), $10^{\prime}$; Nipping Gulley, site $2,25^{\circ} 41^{\prime} \mathrm{S}$, $151^{\circ} 26^{\prime}$ E, Jan. 25-June 2, 1999, rainforest pitfall, elev. 300 m (G. Monteith, G. Thompson, QMB S52446), 1o; Nipping Gulley, site $3,25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 25^{\prime} \mathrm{E}$, Aug. 21-Oct. 9, 1998, open forest pitfall, elev. 150 m (G. Monteith, QMB S47807), 30', 1¢ ; Nipping Gulley, site $5,25^{\circ} 42^{\prime} \mathrm{S}, 151^{\circ} 26^{\prime} \mathrm{E}$, Dec. 18 , 1998-Jan. 26, 1999, rainforest pitfall, elev. 240 m (G. Monteith, C. Gough, QMB S49893), 1ơ, 1Q, Jan. 25-June 2, 1999, same (G. Monteith, G. Thompson, QMB S52440), 10", 30.

Distribution: Known only from southeastern Queensland (map 8).

## Molycria dawson, new species

Figures 138-142; Map 9
Types: Male holotype and female allotype taken in pitfall traps $(7,8)$ in an open forest along Dawson River at Nathan Gorge, $25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 08^{\prime} \mathrm{E}$, Queensland (Sept. 12Nov. 13, 1996; P. Lawless), deposited in QMB (male S66624, female S66625).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. nipping in having a ventrally expanded tip of the palpal tibia, but have a low, hirsute ventral enlargement at the base of the palpal femur and a short, wide retrolateral tibial apophysis well separated from a dorsal patch of stiff setae (fig. 140); females have a distinctive epigynum, with a small atrium bearing a narrow $v$-shaped anterior projection (fig. 141) and approximate epigynal ducts (fig. 142).

Male: Total length 3.18. Carapace 1.38 long, 1.34 wide, 0.48 high, length/width 1.03 ; sternum 0.90 long, 0.78 wide, length/width 1.15; abdomen 1.80 long, 0.94 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.82:0.69:0.89. Carapace, sternum, chelicerae grayish orange, endites, labium orange

Figs. 133-137. Molycria nipping, new species. 133. Left male palp, prolateral view. 134. Same, ventral view. 135. Same, retrolateral view. 136. Epigynum, ventral view. 137. Same, dorsal view.


Figs. 138-142. Molycria dawson, new species. 138. Left male palp, prolateral view. 139. Same, ventral view. 140. Same, retrolateral view. 141. Epigynum, ventral view. 142. Same, dorsal view.
brown, distally pale; abdominal dorsum gray, with weak orange scutum, spear tip-shaped pale spot in front of spinnerets, venter pale; legs orange. Carapace weakly covered with shiny, plumose setae. Eye group width 0.75 of caput width; AME 0.14; ALE 0.10; PME 0.14 ; PLE 0.12; AME-AME 0.02; AMEALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.30; PME-PME 0.32. Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.51 of abdominal length, slightly separated. Palp (figs. 138140): apophyses and embolus situated on distal half of tegulum; conductor originating distally, broad, groove shallow; median apophysis scythe-shaped, ventrally excavated, with long median tip; sperm duct ushaped; embolus short, thin, sinuous, embolar base separated from tegulum, lobate; tibia about 1.5 times as long as wide, dorsally with field of short, stiff setae, retrolateral tibial apophysis short, rectangular; femur with ventral process.

Female: Total length 4.04. Carapace 1.44 long, 1.38 wide, 0.50 high, length/width 1.09; sternum 0.88 long, 0.80 wide, length/ width 1.10; abdomen 2.60 long, 1.32 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.75:0.64:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.83 of caput width; AME 0.13; PLE 0.10; AMEAME 0.04; eye group AME-PME 0.30. ALS 0.41 of abdominal length. Epigynum (figs. 141, 142): atrium small, anterior margin with narrow v -shaped projection; epigynal ducts short, parallel along midline, spermathecae contiguous, sausage-shaped, twisted, with one dorsal diverticulum.

Other Material Examined: Queensland: Cabbage Tree Creek, Taroom, $25^{\circ} 27^{\prime} \mathrm{S}$, $150^{\circ} 01^{\prime}$ E, Sept. 13, 1996 (P. Lawless, QMB S36464), 10; Dawson River at Nathan Gorge, traps 3, $4,25^{\circ} 27^{\prime}$ S, $150^{\circ} 08^{\prime}$ E, Sept. 12-Nov. 13, 1996, riverine rainforest pitfall (P. Lawless, QMB S30937), 80'; Dawson River at Nathan Gorge, traps 6, $7,25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 08^{\prime} \mathrm{E}$, Sept. 12Nov. 13, 1996, riverine rainforest pitfall (P. Lawless, QMB S30935), 1̊; Dawson River at Nathan Gorge, traps 7, $8,25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 08^{\prime} \mathrm{E}$, Sept. 12-Nov. 13, 1996, open forest pitfall (P. Lawless, QMB S30934), 30'; Hurdle Gully, 13 km WSW Monto, $24^{\circ} 51^{\prime} \mathrm{S}, 151^{\circ} 00^{\prime} \mathrm{E}$, Dec. 20, 1997-Apr. 26, 1998, vine scrub pitfall, elev.

350 m (G. Monteith, QMB S42456, 42457), 2̊; Kroombit Tops, Barracks, site 7, 45 km SSW Calliope, $24^{\circ} 25^{\prime} \mathrm{S}, 151^{\circ} 03^{\prime} \mathrm{E}$, open forest pitfall, Dec. 10-18, 1983 (G. Monteith, V. Davies, J. Gallon, G. Thompson, QMB S66628), 1o', 1中; Kroombit Tops, Northern Escarpment, 45 km SSW Calliope, site $11,24^{\circ} 22^{\prime} \mathrm{S}, 151^{\circ} 01^{\prime} \mathrm{E}$, Dec. 11-18, 1983, open forest pitfall (G. Monteith, V. Davies, J. Gallon, G. Thompson, QMB S66627), 10'; Kroombit Tops, Upper Dry Creek, 45 km SSW Calliope, $24^{\circ} 25^{\prime} \mathrm{S}$, $151^{\circ} 03^{\prime} \mathrm{E}$, Dec. $9-19,1983$, open forest (V. Davies, J. Gallon, QMB S66626), 19 ; 3 km NNE Mount Bassett, $26^{\circ} 25^{\prime} \mathrm{S}, 148^{\circ} 55^{\prime} \mathrm{E}$, Dec. 13, 2001-Mar. 5, 2002, vine scrub pitfall, elev. 520 m (G. Monteith, D. Cook, QMB S62437), $10^{\circ} ; 0.5 \mathrm{~km}$ NW Mount Beecher, $23^{\circ} 55^{\prime} \mathrm{S}$, $151^{\circ} 11^{\prime} \mathrm{E}$, Dec. 15, 1999-Mar. 20, 2000, vine scrub pitfall, elev. 20 m (G. Monteith, QMB S57265), 4中; 1 km S Mount Gavial, $23^{\circ} 36^{\prime} \mathrm{S}$, $150^{\circ} 29^{\prime}$ E, Dec. 17, 1998-Mar. 14, 1999, open forest pitfall, intercept, elev. 400 m (D. Cook, QMB S50604, 50605), 1o', 2ㅇ, Mar. 14-June 28, 1999, same (QMB S58557), 1o; 3 km SSE Mount Gavial, $23^{\circ} 37^{\prime} \mathrm{S}, 150^{\circ} 29^{\prime} \mathrm{E}$, Dec. 18, 1998-Mar. 14, 1999, open forest intercept, elev. 450 m (D. Cook, QMB S50603), 20'; Nathan Gorge, Taroom District, $25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 08^{\prime} \mathrm{E}$, Sept. 12-Nov. 13, 1996, riverine rainforest pitfall (P. Lawless, QMB S30941), $10^{\circ}$, Nov. 13, 1996-Jan. 13, 1997, same (QMB S37112), $30^{\circ}, 2$; ; Orchid Beach, Fraser Island, $24^{\circ} 58^{\prime} \mathrm{S}$, $153^{\circ} 19^{\prime} \mathrm{E}$, Mar. 7-Oct. 1, 1996, pitfall, heathland with banksias, eucalypts (R. Raven, QMB S31273), 10', 2¢, Aug. 20-21, 1997, night collecting (P. Lawless, QMB S38872, 38892), 10', 2o, Aug. 20-Dec. 17, 1997, pitfall (R. Raven, Fishburn, P. Lawless, QMB S41775, 43448, 43463, 51207), 7o, 8q; Taroom District, Boggomoss No. 12, Nathan Gorge, $25^{\circ} 27^{\prime} \mathrm{S}$, $150^{\circ} 08^{\prime}$ E, Nov. 13, 1996-Jan. 13, 1997, riverine rainforest pitfall (P. Lawless, QMB S36708), $20^{\prime}$, pitfall (D. Cook, G. Monteith, QMB S36347), 1q; Taroom, Boggomoss Station, $25^{\circ} 25^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, Nov. 11, 1996-Jan. 13, 1997, pitfall, ferns, eucalypts (P. Lawless, H. Janetzki, D. Cook, QMB S36781), 1 T.

Distribution: Known only from eastern Queensland (map 9).

## Molycria drummond, new species <br> Figures 143-147; Map 9

Types: Male holotype and female allotype taken in pitfall trap in open forest at an elevation of 920 m on the summit of the Drummond Range, $23^{\circ} 32^{\prime} \mathrm{S}, 147^{\circ} 18^{\prime} \mathrm{E}$, Queensland (Oct. 25-Dec. 17, 2002; D. Cook,
G. Monteith), deposited in QMB (male S65740, female S65739).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. wallacei but have a more gradually narrowed embolus (fig. 144); females also resemble those of $M$. wallacei but have a shorter epigynal atrium (fig. 146).

Male: Total length 2.78. Carapace 1.22 long, 1.14 wide, 0.40 high, length/width 1.07; sternum 0.80 long, 0.70 wide, length/width 1.14; abdomen 1.56 long, 0.72 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.83:0.78:0.87. Carapace orange, mottled with gray, sternum yellow, with darker lateral margin, chelicerae orange, endites, labium orange, distally pale; abdominal dorsum gray, with weak orange scutum, spear tip-shaped pale spot in front of spinnerets, venter pale gray; legs grayish orange. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.75 of caput width; AME 0.13; ALE 0.1; PME 0.12; PLE 0.1; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.28 ; AME-AME 0.28; PME-PME 0.28. Clypeus 0.08 high. Abdomen covered with cinnamon, plumose setae; ALS 0.53 of abdominal length, slightly separated. Palp (figs. 143-145): conductor originating distally, grooved longitudinally, distal part with sharp tip; median apophysis scythe-shaped, ventrally excavated, with long median tip; sperm duct weakly $u$-shaped; embolus fingershaped, with s-shaped, sharp tip, embolar base separated from tegulum, situated medially; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis rectangular, with distally bent tip.

Female: Total length 3.44. Carapace 1.30 long, 1.26 wide, 0.46 high, length/width 1.03; sternum 0.84 long, 0.76 wide, length/width 1.11; abdomen 2.14 long, 1.10 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.77:0.65:1.00. Coloration as in male but without dorsal scutum. Eye group width 0.76 of caput width; eye group AME-PME 0.30 . Clypeus 0.10 high . ALS 0.48 of abdominal length. Epigynum (figs. 146, 147): atrium short, with wide, rectangular anterior margin; epigynal ducts parallel along midline, anterior
part slightly recurved, forming basal triangles with spermathecae, spermathecae less than their diameter apart, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Drummond Range summit, $23^{\circ} 32^{\prime} \mathrm{S}, 147^{\circ} 18^{\prime} \mathrm{E}$, Oct. 25-Dec. 17, 2002, open forest pitfall, elev. 920 m (D. Cook, G. Monteith, QMB S55089), 10, 1¢, Dec. 18, 2000-Mar, 27, 2001, same (QMB S39983), 5¢.

Distribution: Known only from the Drummond Range in south-central Queensland (map 9).

## Molycria wallacei, new species

Figures 148-152; Map 10
Types: Male holotype and female allotype taken in pitfall traps in an open forest at an elevation of 650 m on Mount Archer, $23^{\circ} 20^{\prime} \mathrm{S}, 150^{\circ} 35^{\prime} \mathrm{E}$, Queensland (Sept. 4-Nov. 11, 1991; D. Wallace, R. Raven), deposited in QMB (male S66597, female S66596).

Etymology: The specific name is a patronym in honor of one of the collectors of the type series, Mr. Doug Wallace.

Diagnosis: Males have a distinctively shaped retrolateral tibial apophysis, bent and narrowed at its tip (fig. 150); females have a squared, anteriorly situated epigynal atrium (fig. 151).

Male: Total length 2.76. Carapace 1.30 long, 1.18 wide, 0.50 high, length/width 1.10; sternum 0.80 long, 0.72 wide, length/width 1.11; abdomen 1.46 long, 0.98 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.80:0.72:0.88. Carapace, sternum orange, with darker lateral margins, chelicerae orange, endites, labium orange, distally pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale; legs grayish orange. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.79 of caput width; AME 0.12; ALE 0.10; PME 0.12 ; PLE 0.12; AME-AME 0.04; AMEALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.28; PME-PME 0.28. Clypeus 0.12 high. Abdomen covered with cinnamon, plumose setae; ALS 0.57 of abdominal length, slightly separated. Palp (figs. 148150): conductor originating distally, broadly ellipsoid, groove shallow; median apophysis


Figs. 143-147. Molycria drummond, new species. 143. Left male palp, prolateral view. 144. Same, ventral view. 145. Same, retrolateral view. 146. Epigynum, ventral view. 147. Same, dorsal view.


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Figs. 148-152. Molycria wallacei, new species. 148. Left male palp, prolateral view. 149. Same, ventral view. 150. Same, retrolateral view. 151. Epigynum, ventral view. 152. Same, dorsal view.
scythe-shaped, ventrally excavated, with long median tip; sperm duct u-shaped; embolus semicircular, embolar base broad, lobate; tibia about 1.5 times as long as wide, retrolateral tibial apophysis rectangular, with distally bent tip.

Female: Total length 3.28. Carapace 1.34 long, 1.34 wide, 0.42 high, length/width 1.00 ; sternum 0.82 long, 0.76 wide, length/ width 1.08 ; abdomen 1.94 long, 1.02 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.80:0.70:0.93. Coloration as in male but without dorsal scutum. Eye group width 0.76 of caput width; AME 0.13 ; PME 0.13 ; PLE 0.10 ; eye group AME-PME 0.3; AME-AME 0.3 ; PME-PME 0.3. Clypeus 0.10 high. ALS 0.53 of abdominal length. Epigynum (figs. 151, 152): atrium roughly rectangular, anteriorly situated, with wide, arched anterior margin, two medial, convex copulatory openings; epigynal ducts parallel along midline, spermathecae large, about their diameter apart, globular.

Other Material Examined: Queensland: Boomer Range, Python Scrub, $23^{\circ} 12^{\prime} \mathrm{S}$, $149^{\circ} 44^{\prime}$ E, Dec. 16, 1999-Mar. 22, 2000, vine scrub pitfall, elev. 220 m (G. Monteith, QMB S59456), 10', July 1-Sept. 29, 1999, elev. 240 m (G. Monteith, D. Cook, QMB S57779), 19; Bouldercombe, $23^{\circ} 34^{\prime} \mathrm{S}, 150^{\circ} 28^{\prime} \mathrm{E}$, Oct. 22, 1990-Mar. 21, 1991, open forest pitfall (D. Wallace, R. Raven, K. Williams, QMB S32384), $10^{\circ} ; 10.7 \mathrm{~km}$ NNW Marlborough, $22^{\circ} 44^{\prime} \mathrm{S}$, $149^{\circ} 51^{\prime} \mathrm{E}$, Dec. 19,1999 , vine scrub, pyrethrum sampling of trunks and logs, elev. 120 m (G. Monteith, QMB S60448), 1¢; Dec. 19, 1999Mar. 24, 2000, vine scrub pitfall, elev. 120 m (D. Cook, G. Monteith, QMB S39998), $10^{\circ}, 1$ º; Mount Archer, $23^{\circ} 20^{\prime} \mathrm{S}, 150^{\circ} 35^{\prime} \mathrm{E}$, Sept. 4-Nov. 11, 1992, open forest pitfall, elev. 650 m (D. Wallace, R. Raven, QMB S30448), $20^{\circ}$.

Distribution: Known only from mideastern Queensland (map 10).

## Molycria dalby, new species <br> Figures 153-158; Map 10

TyPE: Male holotype and female allotype taken in pitfall trap at Lake Broadwater, via Dalby, site $1,27^{\circ} 21^{\prime} \mathrm{S} 151^{\circ} 06^{\prime} \mathrm{E}$, Queensland (May 23-Nov. 23, 1985), deposited in QMB (male S66636, female S66637).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. broadwater in having dorsal macrosetae on the male palpal tibia, but differ in having a gap between those setae and the retrolateral tibial apophysis (fig. 158); females differ in having approximate median epigynal ducts (figs. 156, 157).

Male: Total length 2.96. Carapace 1.32 long, 1.20 wide, 0.42 high, length/width 1.10 ; sternum 0.80 long, 0.72 wide, length/width 1.11; abdomen 1.64 long, 0.92 wide; coxa I 0.48 long; relative length of coxae I-IV 1.00:0.96:0.75:0.96. Carapace orange, with dark filigree net pattern; sternum, chelicerae, legs orange, endites, labium orange brown, distally pale; abdominal dorsum gray, with weak orange scutum, half ring-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.88 of caput width; AME 0.13; ALE 0.10; PME 0.14; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.04; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.28 ; PME-PME 0.32. Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.52 of abdominal length, contiguous. Palp (figs. 153-155, 158): conductor originating distally, short, broad, grooved longitudinally, with twisted distal part; tibia with small dorsodistal field of macrosetae; retrolateral tibial apophysis finger-shaped covered with macrosetae, gap between those fields, femur ventrally incrassate.

Female: Total length 3.16. Carapace 1.36 long, 1.26 wide, 0.44 high, length/width 1.08; sternum 0.86 long, 0.76 wide, length/ width 1.13 ; abdomen 1.80 long, 1.11 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.87:0.78:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.85 of caput width; AME 0.14; AME-AME 0.30. Clypeus 0.08 high. ALS 0.55 of abdominal length. Epigynum (figs. 156, 157): atrium with rounded anterior margin, two laterally directed, semicircular copulatory openings; epigynal ducts short, parallel along midline, spermathecae about their diameter apart, oval, twisted, in vshaped position.

Other Material Examined: New South Wales: 50 m E Boonal Road, 5.2 km NE junction with Moree-Boomi Road, $28^{\circ} 50^{\prime}$ S,


Figs. 153-158. Molycria dalby, new species. 153. Left male palp, prolateral view. 154. Same, ventral view. 155. Same, retrolateral view. 156. Epigynum, ventral view. 157. Same, dorsal view. 158. Male palpal tibia, dorsal view.
$149^{\circ} 42^{\prime} \mathrm{E}$, Nov. 29-Dec. 19, 1999, Casuarina cristata patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72568, 72569), 10*, 1ᄋ; road to Boyanga Station, just after Old Boyanga turnoff, $29^{\circ} 11^{\prime} \mathrm{S}, 149^{\circ} 16^{\prime} \mathrm{E}$, Nov. 27-Dec. 17, 1999, Casuarina cristata patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72567), 1ᄋ;

Darling River, Kalyanka, ca, 11 km E Wilcannia, $31^{\circ} 34^{\prime} \mathrm{S}, 143^{\circ} 29^{\prime} \mathrm{E}$, Dec. 2-22, 1999, Eucalyptus camaldulensis patch pitfall ( F . Christie, P . Flemons, M. Elliott, AMS KS72594-72596), 3o'; Darling River, 1.5 km S Trilby Station High School, $30^{\circ} 39^{\prime}$ S, $144^{\circ} 56^{\prime}$ E, Dec. 1-21, 1999, Eucalyptus camaldulensis patch pitfall
(F. Christie, P. Flemons, M. Elliott, AMS KS72591, 72592 ), $30^{\circ} ; 14.3 \mathrm{~km}$ on trail to Darling River from ranger's station, Kinchega National Park, $32^{\circ} 33^{\prime} \mathrm{S}$, $142^{\circ} 23^{\prime} \mathrm{E}$, Nov. 30Dec. 19, 1999, Eucalyptus largiflorens pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72602), $10^{\prime} ; 2.5 \mathrm{~km}$ NW Gin Gin on road to Riverview Station, $31^{\circ} 54^{\prime} \mathrm{S}, 148^{\circ} 04^{\prime} \mathrm{E}$, Nov. 22-Dec. 12, 1999, pitfall in Eucalyptus camaldulensis, Acacia pendula (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72572, 72573), 40*, 5 O ; 7.5 km NW Gin Gin, Wambianna Station, $31^{\circ} 52^{\prime} \mathrm{S}, 148^{\circ} 02^{\prime} \mathrm{E}$, Nov. $22-$ Dec. 12, 1999, pitfall in Eucalyptus camaldulensis, Acacia pendula (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72574-72578), 150 , 11 ¢; 100 m on access road to Iluka Station, ca. 48 km SW Moree, $29^{\circ} 39^{\prime} \mathrm{S}$, $149^{\circ} 26^{\prime}$ E, Nov. 28-Dec. 18, 1999, Eucalyptus populnea patch pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72587), 10'; 400 m on access road to Iluka Station, ca. 48 km SW Moree, $29^{\circ} 39^{\prime} \mathrm{S}, 149^{\circ} 25^{\prime} \mathrm{E}$, Nov. $28-$ Dec. 18, 1999, native grassland pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72588), 10'; E bank, Maynes (Yarrangooran) Lagoon, Parkdale Station, $28^{\circ} 40^{\prime} \mathrm{S}$, $150^{\circ} 20^{\prime}$ E, Nov. 29-Dec. 19, 1999, Eucalyptus camaldulensis pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72590), 10; Moppin-Aveymore Road, ca. 400 m S junction at Dolgelly Bore, $28^{\circ} 53^{\prime} \mathrm{S}, 149^{\circ} 52^{\prime} \mathrm{E}$, Nov. 29Dec. 19, 1999, Acacia pendula patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72570), $10^{*} ; 17.0 \mathrm{~km} \mathrm{~S}$ Narromine city limit sign on Tullamore Road, $32^{\circ} 21^{\prime} \mathrm{S}, 148^{\circ} 07^{\prime} \mathrm{E}$, Nov. 21Dec. 11, 1999, Acacia pendula patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72558), $10^{\prime} ; 3.8 \mathrm{~km} \mathrm{~N}$ on Narran Plains Road from junction with Narran Lake Road, $29^{\circ} 42^{\prime} \mathrm{S}$, $147^{\circ} 20^{\prime}$ E, Nov. 25-Dec. 15, 1999, Eucalyptus largiflorens pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72600), 10'; Omeo, $30^{\circ} 01^{\prime} \mathrm{S}$, $148^{\circ} 52^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS80098, 80115), $10^{\prime}, 1$; Omeo, $30^{\circ} 04^{\prime} \mathrm{S}$, $148^{\circ} 54^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS81095), 20*, 1¢ ; 2.7 km S past homestead, Trilby Station, Darling River, $30^{\circ} 39^{\prime} \mathrm{S}$, $144^{\circ} 55^{\prime} \mathrm{E}$, Dec. 1-21, 1999, Eucalyptus largiflorens pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72603), 20*, 2¢; Warrumbungles National Park, John Renshaw Parkway, 1.9 km W Camp Wambelong, $31^{\circ} 17^{\prime} \mathrm{S}$, $148^{\circ} 58^{\prime}$ E, Nov. 10, 2001, under rock (M. Gray, G. Milledge, H. Smith, AMS KS75205), 1ᄋ; Watercourse Road, ca. 200 m S Allambie Bridge, $29^{\circ} 21^{\prime} \mathrm{S}, 149^{\circ} 26^{\prime} \mathrm{E}$, Nov. 28-Dec. 18, 1999, Eucalyptus largiflorens, E. microthreca
pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72584-72586), 30', 1̊. Queensland: Lake Broadwater, via Dalby, site 1, $27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 18, 1985, pitfall (QMB S66644), 1ᄋ, Mar. 25-May 16, 1985, pitfall (QMB S66643), 10', May 16-Nov. 23, 1985, pitfalls (QMB S66638), 120*, 10¢, Nov. 24, 1985-Jan. 3, 1986, pitfalls (M. Bennie, QMB S66639), 30', 8¢, Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S66640), 13o', 23오, Feb. 25Apr. 22, 1986, pitfalls (M. Bennie, QMB S66641), 30', 69, Apr. 22-June 12, 1986, pitfalls (M. Bennie, QMB S66642), 40*, 2 . .

Distribution: Known only New South Wales and southeastern Queensland (map 10).

## Molycria broadwater, new species

 Figures 159-164; Map 12Types: Male holotype and female allotype taken in pitfall trap at Lake Broadwater, via Dalby, site $8,27^{\circ} 21^{\prime} \mathrm{S} 151^{\circ} 06^{\prime} \mathrm{E}$, Queensland (Feb. 19-Mar. 26, 1985; M. Bennie), deposited in QMB (male S66613, female S30873).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. dalby in having dorsal macrosetae on the male palpal tibia, but differ in having a line of those setae that connects with the retrolateral tibial apophysis (fig. 164); females differ in having separated median epigynal ducts (figs. 162, 163).

Male: Total length 3.08. Carapace 1.32 long, 1.24 wide, 0.50 high, length/width 1.06 ; sternum 0.78 long, 0.70 wide, length/width 1.11; abdomen 1.76 long, 0.90 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.74:0.70:0.88. Carapace yellow orange, with dark margin, dark chevrons on top; sternum yellow, with darker lateral margins; chelicerae, endites, labium pale grayish; abdominal dorsum gray, with half ringshaped pale spot in front of spinnerets, venter pale; legs orange. Carapace weakly covered with shiny, plumose setae. AME elevated, eye group width 0.89 of caput width; AME 0.14; ALE 0.10; PME 0.14; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.30; PME-PME 0.30. Clypeus 0.08 high. Abdomen covered with


Figs. 159-164. Molycria broadwater, new species. 159. Left male palp, prolateral view. 160. Same, ventral view. 161. Same, retrolateral view. 162. Epigynum, ventral view. 163. Same, dorsal view. 164. Male palpal tibia, dorsal view.
shiny, plumose setae; ALS 0.46 of abdominal length, slightly separated. Palp (figs. 159-161, 164): conductor originating distally, long, straight, grooved longitudinally; median apophysis about twice as long as wide, ventrally excavated; tibia with four dorsal lines of stiff macrosetae, first one connecting with triangular retrolateral tibial apophysis.

Female: Total length 3.08. Carapace 1.30 long, 1.18 wide, 0.42 high, length/width 1.10; sternum 0.80 long, 0.76 wide, length/ width 1.05 ; abdomen 1.78 long, 1.02 wide; coxa I 0.48 long; relative length of coxae I-IV 1.00:0.79:0.75:0.92. Coloration as in male. Eye group width 0.75 of caput width; AME 0.12 ; PME 0.12; PLE 0.12; AME-AME 0.04;

AME-AME 0.28; PME-PME 0.28. Clypeus 0.06 high. ALS 0.47 of abdominal length. Epigynum (figs. 162, 163) with two small, lateral, semicircular copulatory openings; epigynal ducts short, in v-shaped position, spermathecae contiguous, sausage-shaped, with one dorsal diverticulum.

Other Material Examined: New South Wales: Attunga State Forest, SE side, E road up slope, $30^{\circ} 57^{\prime} \mathrm{S}, 150^{\circ} 56^{\prime}$ E, Nov. ${ }^{-}$-Dec. 7, 2001, pitfall (G. Carter, AMS KS82237), 10'; Attunga State Forest, T-junction in track on back road, 50 m SW into forest, $30^{\circ} 56^{\prime} \mathrm{S}$, $150^{\circ} 56^{\prime} \mathrm{E}$, Nov. 16-Dec. 7, 2001, pitfall (G. Carter, AMS KS82238), 10'; Crown Reserve, ca. 8-9 km N along Bukkulla-Ashford Road, ca. 100 m E road, $29^{\circ} 26^{\prime} \mathrm{S}, 151^{\circ} 04^{\prime} \mathrm{E}$, Nov. 22-Dec. 13, 2001, pitfall (H. Doherty, M. Elliott, AMS KS82224), 1 º; Crown Reserve, ca. 2.5 km along Gibraltar Road off Bruxner Highway, ca. 20 m W road, $29^{\circ} 02^{\prime} \mathrm{S}, 151^{\circ} 42^{\prime} \mathrm{E}$, Nov. $22-$ Dec. 13 , 2001, pitfall (L. Wilkie, H. Smith, AMS KS82222, 82223), $10^{\prime}$, 1 ¢ ; Kelvin State Forest, ca. 8 km N Kelvin, 850 m directly into forest, $30^{\circ} 45^{\prime}$ S, $150^{\circ} 20^{\prime}$ E, Nov. 23-Dec. 14, 2001, pitfall (H. Doherty, M. Elliott, AMS KS82225), 19; Mount Kaputar National Park, ca 40 m NE carpark at beginning of Mount Waa walking trail, $30^{\circ} 04^{\prime} \mathrm{S}, 150^{\circ} 05^{\prime} \mathrm{E}$, Nov. 21-Dec. 12, 2001, pitfall (L. Wilkie, H. Smith, AMS KS8222782229), 20', 2o; 1.7 km on access track off Narran Lake Road, Narran Lakes Reserve, $29^{\circ} 41^{\prime} \mathrm{S}$, $147^{\circ} 27^{\prime}$ E, Nov. 24-Dec. 14, 1999, Eucalyptus populnea patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72598, 72599), 2 ; $; 14.6$ km along track to New Chum from highway junction, Trilby, $30^{\circ} 32^{\prime} \mathrm{S}, 144^{\circ} 49^{\prime} \mathrm{E}$, Dec. $1-21$, 1999, Casuarina cristata patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72598, 72593), 19; Oaky Creek Nature Reserve, up tributary on W range, ridge on footslopes on NE side of Figtree Mountain, $31^{\circ} 06^{\prime}$ S, $150^{\circ} 37^{\prime} \mathrm{E}$, Nov. $17-$ Dec. 8, 2001, pitfall (L. Wilkie, H. Smith, AMS KS82230), 10 '; Oaky Creek Nature Reserve, base of E side of Melville range, $31^{\circ} 07^{\prime} \mathrm{S}, 150^{\circ} 37^{\prime} \mathrm{E}$, Nov. 17-Dec. 8, 2001, pitfall (L. Wilkie, H. Smith, AMS KS82226, 82223, 82224, 82233, 82234, 82235, 82236), 90; Severn State Forest, Atholwood Loop Road, 500 m N road at point opposite Retford Springs, $29^{\circ} 07^{\prime} \mathrm{A}, 151^{\circ} 08^{\prime} \mathrm{E}$, Nov. 22-Dec. 13, 2001, pitfall (L. Wilkie, H. Smith, AMS KS82219, 82220), 3q; Severn State Forest, Atholwood Loop Road, ca. 6.7 km from Ashford-Bonshaw Road, ca. 100 m S road, $29^{\circ} 07^{\prime} \mathrm{A}, 151^{\circ} 08^{\prime} \mathrm{E}$, Nov. 22-Dec. 13, 2001, pitfall (L. Wilkie, H. Smith, AMS KS82221), 10'; Tamworth, private property, W side of top of

Bald Hill behind radio tower, $31^{\circ} 04^{\prime} \mathrm{S}, 150^{\circ} 59^{\prime} \mathrm{E}$, Nov. 15-Dec. 6, 2001, pitfall (H. Doherty, M. Elliott, AMS KS82232), 10 '; ca. 15 km S Texas (Qld.), $29^{\circ} 00^{\prime} \mathrm{S}, 151^{\circ} 00^{\prime} \mathrm{E}$, Jan. 26, 2002, vibration (N. Platnick, R. Raven, B. Baehr, AMNH), $10^{\circ}$, 3o. Queensland: Keysland, $26^{\circ} 12^{\prime} \mathrm{S}$, $151^{\circ} 44^{\prime}$ E, Sept. 29-Dec. 15, 1994, open forest pitfall (G. Monteith, QMB S37733), 10', 1¢; Lake Broadwater, via Dalby, site 2, $27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 18, 1985, pitfalls (M. Bennie, QMB S66609), 20', 1甲, Mar. 26-May 17, 1985, pitfall (M. Bennie, QMB S66608), 10, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S66606), 10', Nov. 24, 1985-Jan. 3, 1986, pitfall (M. Bennie, QMB S66610), 1op, Feb. 25-Apr. 22, 1986, pitfalls (M. Bennie, QMB S66603), 10', 2\%, Apr. 22-June 12, 1986, pitfall (M. Bennie, QMB S66607), 19; Lake Broadwater, via Dalby, site 3, $27^{\circ} 21^{\prime} \mathrm{S}$, $151^{\circ} 06^{\prime}$ E, Jan. 26-Feb. 18, 1985, pitfalls (M. Bennie, QMB S30910), 40', 59, Feb. 19-Mar. 26, 1985, pitfalls (M. Bennie, QMB S30912), 1ơ, 19, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S34375), 30¹, 1o, Nov. 24, 1985-Jan. 3, 1986, pitfall (M. Bennie, QMB S30917), 3o, Jan. 3Feb. 25, 1986, pitfalls (M. Bennie, QMB S30901), 20'; Lake Broadwater, via Dalby, site $4,27^{\circ} 21^{\prime} \mathrm{S}$, $151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 19, 1985, pitfalls (M. Bennie, QMB S30872), 90, 3ọ, Feb. 19-Mar. 26, 1985, pitfalls (M. Bennie, QMB S30875), 1o', 19, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S30931), 30', 1q, Nov. 24, 1985-Jan. 3, 1986, pitfalls (M. Bennie, QMB S30880), 20', 19, Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S30877), 40', 5¢̣, Feb. 25-Apr. 22, 1986, pitfall (M. Bennie, QMB S30915), 10', Apr. 22-June 12, 1986, pitfalls (M. Bennie, QMB S30923), 30';


Map 12. Circle, Molycria broadwater, new species. Square, Molycria isla, new species. Triangle, Molycria moffatt, new species.

Lake Broadwater, via Dalby, site 5, $27^{\circ} 21^{\prime} \mathrm{S}$, $151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 19, 1985, pitfalls (M. Bennie, QMB S30907), 50', 1̊, Feb. 19-Mar. 26, 1985, pitfalls (M. Bennie, QMB S30911), 10', 1ᄋ, Mar. 26-May 17, 1985, pitfall (M. Bennie, QMB S30926), 10, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S30929), 20² 5o, Nov. 24, 1985Jan. 3, 1986, pitfalls (M. Bennie, QMB S30918), 10', 1̨, Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S30900), 50*, 2o, Feb. 25-Apr. 22, 1986, pitfalls (M. Bennie, QMB S30914), 3o, Apr. 22June 12, 1986, pitfalls (M. Bennie, QMB S30921), $10^{\prime}$, 3中; Lake Broadwater, via Dalby, site 6, $27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 19, 1985, pitfalls (M. Bennie, QMB S30906), 10*, 19, Feb. 19-Mar. 26, 1985, pitfalls (M. Bennie, QMB S30913), 20', 1̊, Mar. 26-May 17, 1985, pitfall (M. Bennie, QMB S30925), 10*, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S30930), 30*, 19, Nov. 24, 1985-Jan. 3, 1986, pitfall (M. Bennie, QMB S66604), 1̊, Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S30902), 20', 1ᄋ, Feb. 25-Apr. 22, 1986, pitfalls (M. Bennie, QMB S30916), 20', 2̊; Lake Broadwater, via Dalby, site 7, $27^{\circ} 21^{\prime} \mathrm{S}$, $151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 19, 1985, pitfalls (M. Bennie, QMB S30909), $10^{*}$, 1ơ, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S30892), 50', 2ᄋ, Nov. 24, 1985-Jan. 3, 1986, pitfall (M. Bennie, QMB S30881), 20', Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S30879), 80', Feb. 25-Apr. 22, 1986, pitfalls (M. Bennie, QMB S30883), 20, 2o, Apr. 22-June 12, 1986, pitfalls (M. Bennie, QMB S30886), 20*, 1ó; Lake Broadwater, via Dalby, site $8,27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 18, 1985, pitfall (M. Bennie, QMB S30871), 10', Mar. 26May 17, 1985, pitfall (M. Bennie, QMB S30928), 10', Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S30905), 10*, 1ᄋ, Feb. 25-Apr. 22, 1986, pitfalls (M. Bennie, QMB S30887), 3o ${ }^{\circ}$ 2Q, Apr. 22-June 12, 1986, pitfalls (M. Bennie, QMB S30922), 10', 1ᄋ; Lake Broadwater, via Dalby, site $9,27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 26-Feb. 18, 1985, pitfalls (M. Bennie, QMB S30908), 1o ${ }^{\circ}$, 4Q, Feb. 19-Mar. 26, 1985, pitfalls (M. Bennie, QMB S30874), 3op, Mar. 26-May 17, 1985, pitfall (M. Bennie, QMB S30927), 10’, May 17-Nov. 24, 1985, pitfalls (M. Bennie, QMB S30981), 4o ${ }^{\circ}$, 1ᄋ, Nov. 24, 1985-Jan. 3, 1986, pitfall (M. Bennie, QMB S30882), $10^{*}$, Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S66605), 10', 1ᄋ, Feb. 22-25, 1986 (G. Monteith, G. Thompson, QMB S25364), 10, Feb. 25-Apr. 22, 1986, pitfalls (M. Bennie, QMB S30884), 30', Apr. 22-June 12, 1986, pitfalls (M. Bennie, QMB S30888), 30'; Lake Broadwater, via Dalby, site $10,27^{\circ} 21^{\prime} \mathrm{S}$, $151^{\circ} 06^{\prime} \mathrm{E}$, Jan. 3-Feb. 25, 1986, pitfalls (M. Bennie, QMB S30878), 10', 2@; Mount Gayndah, summit, $25^{\circ} 36^{\prime} \mathrm{S}, 151^{\circ} 32^{\prime} \mathrm{E}$, Dec. 18, 1998-Jan.

27, 1999, open forest pitfall, elev. 340 m (G. Monteith, C. Gough, QMB S50612), 1¢; Nipping Gulley, site $7,25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 26^{\prime} \mathrm{E}$, Dec. 18 , 1998Jan. 25, 1999, open forest pitfall, elev. 320 m (G. Monteith, C. Gough, QMB S49897, S68060), 20', 2̊; 3 km SW Wetheron, $25^{\circ} 34^{\prime} \mathrm{S}, 151^{\circ} 42^{\prime} \mathrm{E}$, Oct.-Dec. 19, 1998, open forest pitfall, elev. 150 m (G. Monteith, C. Gough, QMB S66612), 2q, Dec. 19, 1998-Jan. 27, 1999, open forest pitfall, elev. 150 m (G. Monteith, C. Gough, QMB S49899), 10'; Windermere, near Glenmorgan, $27^{\circ} 17^{\prime} \mathrm{S}, 149^{\circ} 45^{\prime} \mathrm{E}$, Dec. 1990-Sept. 1991 (R. Raven, B. Smyth, QMB S66611), 10'.

Distribution: Known only from New South Wales and southeastern Queensland (map 12).

## Molycria cooki, new species

Figures 165-170; Map 11
Types: Male holotype and female allotype taken in pitfall trap in brigalow at an elevation of 240 m in the south end of Mazeppa National Park, $22^{\circ} 16^{\prime} \mathrm{S}, 147^{\circ} 16^{\prime} \mathrm{E}$, Queensland (Oct. 24-Dec. 18, 2000; D. Cook, G. Monteith), deposited in QMB (male S67185, female S67184).

Etymology: The specific name is a patronym in honor of Douglas Cook of the Queensland Museum, one of the collectors of this species and many other interesting prodidomids.

DiAgnosis: Males resemble those of $M$. broadwater but have a much shorter and wider retrolateral tibial apophysis (fig. 167); females also resemble those of M. broadwater but have the anterior portions of the epigynal ducts displaced laterally (fig. 169).

Male: Total length 2.68. Carapace 1.24 long, 1.16 wide, 0.44 high, length/width 1.07 ; sternum 0.78 long, 0.68 wide, length/width 1.15; abdomen 1.44 long, 0.72 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.77:0.65:0.88. Carapace pale yellow, mottled with gray; sternum yellow, with darker lateral margin; mouthparts, legs pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray setae. AME elevated; eye group width 0.82 of caput width; AME 0.14; ALE 0.12; PME 0.15; PLE 0.12; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group


Figs. 165-170. Molycria cooki, new species. 165. Left male palp, prolateral view. 166. Same, ventral view. 167. Same, retrolateral view. 168. Epigynum, ventral view. 169. Same, dorsal view. 170. Male palpal tibia, dorsal view.

AME-PME 0.30; AME-AME 0.30; PMEPME 0.32. Clypeus 0.08 high. Abdomen covered with dark, slightly plumose setae; ALS 0.63 of abdominal length, contiguous. Palp (figs. 165-167, 170): cymbium long, slender, at least 2.2 times longer than wide, tip elongate; conductor originating distally, long, grooved longitudinally; median apoph-
ysis scythe-shaped; sperm duct weakly ushaped; embolus long, thin, straight, embolar base separated from tegulum, lobate; tibia about 1.8-2.0 times as long as wide, with about seven dorsal lines of stiff macrosetae, gap between those setae and field on retrolateral tibial apophysis; retrolateral tibial apophysis short, triangular; femur ventrally incrassate.

Female: Total length 3.12. Carapace 1.32 long, 1.22 wide, 0.38 high, length/width 1.08; sternum 0.88 long, 0.82 wide, length/ width 1.07 ; abdomen 1.80 long, 0.98 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.77:0.70:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.81 of caput width; AME 0.13; ALE 0.10; PLE 0.11 ; AME-AME 0.04. ALS 0.57 of abdominal length. Epigynum (figs. 168, 169) with two medially directed, bold, semicircular copulatory openings; epigynal ducts sinuous, sausage-shaped, spermathecae less than their diameter apart, oval, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: S end, Mazeppa National Park, $22^{\circ} 16^{\prime} \mathrm{S}$, $147^{\circ} 16^{\prime}$ E, Dec. 18, 2000-Mar. 26, 2001, brigalow pitfall, elev. 240 m (D. Cook, G. Monteith, QMB S67186), 1 T.

Distribution: Known only from Mazeppa National Park in south-central Queensland (map 11).

## Molycria raveni, new species

Figures 171-176; Map 11
Type: Male holotype taken in a pitfall trap in a dry eucalypt woodland at Thatch Creek, $19^{\circ} 06^{\prime}$ S, $145^{\circ} 18^{\prime}$ E, Queensland (July 26-Dec. 1, 1992; R. Raven, P., E. Lawless, M. Shaw), deposited in QMB (S25290).

Etymology: The specific name is a patronym in honor of Dr. Robert Raven of the Queensland Museum, one of the collectors of the holotype.

Diagnosis: Males can easily be recognized by one line of stiff setae situated on both the distomedial and dorsal sides of the retrolateral tibial apophysis (figs. 173, 176); females resemble those of M. tooloombah in the shape of the median epigynal ducts but differ in having the anterior margin of the atrium rounded (fig. 174).

Male: Total length 2.78. Carapace 1.24 long, 1.12 wide, 0.46 high, length/width 1.11; sternum 0.78 long, 0.68 wide, length/width 1.15; abdomen 1.54 long, 0.84 wide; coxa I 0.48 long; relative length of coxae I-IV 1.00:0.79: 0.71:0.92. Carapace pale yellow, with marginal dark filigree net pattern; sternum yellow, with darker lateral margins; chelicerae, endites, labium pale; abdominal dorsum gray, with
half moon-shaped pale spot in front of spinnerets, venter pale; legs pale, mottled with gray. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.79 of caput width; AME 0.12; ALE 0.12; PME 0.15; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02 ; eye group AME-PME 0.30; AME-AME 0.28 ; PME-PME 0.32. Clypeus 0.08 high. Abdomen covered with cinnamon, plumose setae; ALS 0.53 of abdominal length, contiguous. Palp (figs. 171-173, 176): conductor originating distally, broad, grooved longitudinally, distal part with sharp tip; median apophysis scythe-shaped, ventrally excavated, with long median tip; sperm duct weakly ushaped; embolus thin, straight; embolar base broad, separated from tegulum, triangular; tibia about 1.8-2.0 times as long as wide, with one dorsodistal and distomedial line of stiff macrosetae separated by short retrolateral tibial apophysis.

Female: Total length 3.50. Carapace 1.20 long, 1.14 wide, 0.44 high, length/width 1.05 ; sternum 0.82 long, 0.70 wide, length/width 1.17; abdomen 2.30 long, 1.20 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.87:0.78:0.91. Coloration as in male. Eye group width 0.80 of caput width; AME 0.12 ; ALE 0.10; PME 0.13; PLE 0.10; AMEAME 0.02; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.26; AME-AME 0.26; PME-PME 0.28. Clypeus 0.08 high. ALS 0.36 of abdominal length. Epigynum (figs. 174, 175): atrium with rounded anterior margin, two greatly expanded copulatory openings, elevated posterior median epigynal septum; epigynal ducts parallel along midline, spermathecae contiguous, oval, twisted, in vshaped position, with one dorsal diverticulum.

Other Material Examined: Queensland: Eight Mile Creek, $18^{\circ} 41^{\prime}$ S, $144^{\circ} 43^{\prime}$ E, Dec. 1, 1992-Apr. 14, 1993, pitfall, dry eucalypt woodland (R., J., S. Raven, P., E. Lawless, QMB S22885), 10; Gregory Developmental Road, 31.8 km NW Greenvale, $1^{\circ} 00^{\prime} \mathrm{S}, 144^{\circ} 42^{\prime} \mathrm{E}$, May 2000, rocky outcrop (G. Milledge, H. Smith, AMS KS57807), 1̊; Broken River, crossing, $19^{\circ} 32^{\prime} \mathrm{S}, 144^{\circ} 45^{\prime} \mathrm{E}$, Sept. 20, 1995, pitfall (P. Lawless, QMB S67856), $10^{\circ}, 2$ oq.

Distribution: Known only from northeastern Queensland (map 11).


Figs. 171-176. Molycria raveni, new species. 171. Left male palp, prolateral view. 172. Same, ventral view. 173. Same, retrolateral view. 174. Epigynum, ventral view. 175. Same, dorsal view. 176. Male palpal tibia, dorsal view.

Molycria canonba, new species
Figures 177-182; Map 13
TYpes: Male holotype and female allotype taken in pitfall trap in Eucalyptus populnea patch 23.6 km NW from Warren on road to Canonba, $31^{\circ} 35^{\prime} \mathrm{S}, 147^{\circ} 37^{\prime} \mathrm{E}$, New South Wales (Nov. 22-Dec. 12, 1999; L. Wilkie, J. Tarnawski, H. Doherty, H. Smith), deposited in AMS (male KS72579, female KS90629).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAGNOSIS: Males resemble those of $M$. dalby but have a differently shaped conductor (fig. 177), a larger median apophysis (fig. 178), and stiff setae on the palpal tibia that extend almost all the way to the retrolateral tibial apophysis (fig. 182); females resemble those of $M$. broadwater but have a more distinct, triangular epigynal atrium


Figs. 177-182. Molycria canonba, new species. 177. Left male palp, prolateral view. 178. Same, ventral view. 179. Same, retrolateral view. 180. Epigynum, ventral view. 181. Same, dorsal view. 182. Male palpal tibia, dorsal view.
(fig. 180) and larger median epigynal ducts (fig. 181).

Male: Total length 3.36. Carapace 1.46 long, 1.28 wide, 0.62 high, length/width 1.14; sternum 0.86 long, 0.80 wide, length/width 1.07; abdomen 1.90 long, 1.02 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.78:0.67:0.92. Carapace, sternum, che-
licerae, legs orange; endites, labium orange, distally pale; abdominal dorsum gray, with half ring-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.77 of caput width; AME 0.14 ; ALE 0.12; PME 0.18; PLE 0.12; AMEAME 0.04; AME-ALE 0.02; PME-PME
0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.32; PME-PME 0.38. Clypeus 0.10 high. Abdomen covered with shiny, recumbent scales; ALS 0.47 of abdominal length, slightly separated. Palp (figs. 177-179, 182): conductor originating distally, grooved longitudinally, distal part with fan-shaped tip; median apophysis scythe-shaped, ventrally excavated, with long median tip; sperm duct weakly u-shaped; embolus long, thin, straight, embolar base broadly triangular, separated from tegulum; tibia about 1.8-2.0 times as long as wide, with triangular dorsal field of macrosetae almost reaching field on tiny retrolateral tibial apophysis; femur ventrally incrassate, with field of short, stout setae.

Female: Total length 3.24. Carapace 1.38 long, 1.34 wide, 0.48 high, length/width 1.03 ; sternum 0.90 long, length/width 1.12; abdomen 1.86 long, 0.94 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.88:0.76:1.00. Coloration as in male. Eye group width 0.83 of caput width; AME 0.12; PME 0.16; AMEAME 0.06; eye group AME-PME 0.28; AME-AME 0.30; PME-PME 0.34. Clypeus 0.08 high. ALS 0.54 of abdominal length. Epigynum (figs. 180, 181): atrium with rounded anterior margin, two approximate, anteriorly directed, semicircular copulatory openings; epigynal ducts short, parallel, paramedian, forming basal triangles with spermathecae, spermathecae less than their diameter apart, sausage-shaped, twisted, with one dorsal diverticulum.

Other Material Examined: New South Wales: 150 m W gate to Bills Waterhole Tank, Bairnkine Station, $29^{\circ} 53^{\prime} \mathrm{S}, 148^{\circ} 13^{\prime} \mathrm{E}$, Nov. 26Dec. 16, 1999, native grassland pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72566), 10 ; 10.6 km on road to Dirrinbandi from junction with Collarenebri-Angledool Road, $29^{\circ} 09^{\prime}$ S, $148^{\circ} 08^{\prime}$ E, Nov. 22-Dec. 12, 1999, Casuarina cristata pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72597), 10'; ca. 150 m N bridge over Gingham Watercourse, S Weemelah, $29^{\circ} 14^{\prime} \mathrm{S}, 149^{\circ} 16^{\prime} \mathrm{E}$, Nov. 26-Dec. 16, 1999, Casuarina cristata pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72582, 72583), 10*, 1̣; Girilambone Road, 5.4 km S junction with Monkey Bridge, $30^{\circ} 54^{\prime} \mathrm{S}, 147^{\circ} 04^{\prime} \mathrm{E}$, Nov. 23-Dec. 13, 1999, Casuarina cristata patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72561), 10'; Green
and Banders Road, 3.7 km N junction with Carinda-Brewarrina Road, $30^{\circ} 24^{\prime} \mathrm{S}, 147^{\circ} 29^{\prime} \mathrm{E}$, Nov. 25-Dec. 15, 1999, Acacia pendula patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72565), 10’; E bank, Marthaguy Creek, opposite Quilbone Bore \#2 track, $30^{\circ} 46^{\prime} \mathrm{S}$, $147^{\circ} 42^{\prime}$ E, Nov. $24-$ Dec. 14, 1999, Eucalyptus camaldulensis patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72562), 10'; E bank, Maynes (Yarrangooran) Lagoon, Parkdale Station, $28^{\circ} 40^{\prime} \mathrm{S}, 150^{\circ} 20^{\prime} \mathrm{E}$, Nov. 29-Dec. 19, 1999, Eucalyptus camaldulensis pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72589), 10'; Menindee to Broken Hill, ca. $32^{\circ} 10^{\prime} \mathrm{S}, 141^{\circ} 56^{\prime} \mathrm{E}$, July 13-Aug. 1980 (D. Hirst, SAM NN22279), 10'; bank of Merri Merri Creek, 2.5 km N Quambone, $30^{\circ} 55^{\prime} \mathrm{S}$, $147^{\circ} 52^{\prime}$ E, Nov. 24-Dec. 14, 1999, Eucalyptus camaldulensis, E. largiflorens patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72563, 72564), 2̊; junction, Mobigamy Creek and Carlton-Brewarrina Road, $30^{\circ} 55^{\prime} \mathrm{S}, 147^{\circ} 52^{\prime} \mathrm{E}$, Nov. 23-Dec. 13, 1999, Eucalyptus largiflorens patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72560), 20; Morella Watercourse, 3 km S Boggabilla, $28^{\circ} 39^{\prime} \mathrm{S}, 150^{\circ} 22^{\prime} \mathrm{E}$, Dec. 18, 1997-Jan. 10, 1998, open paddock pitfall (K., D. Krebs, QMB S46727), 40, 2ᄋ; Pleasant View Lane, 4.8 km W junction with CollieGular Road, $31^{\circ} 37^{\prime}$ S, $148^{\circ} 14^{\prime}$ E, Nov. 21-Dec. 11, 1999, Eucalyptus populnealCasuarina cristata pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72571), 1̊; SE corner, Torquay Station, Narromine, $32^{\circ} 08^{\prime} \mathrm{S}$, $147^{\circ} 37^{\prime}$ E, Nov. 22-Dec. 12, 1999, Eucalyptus largiflorens patch pitfall (L. Wilkie, R. Harris,


Map 13. Circle, Molycria canonba, new species. Square, Molycria robert, new species. Triangle, Molycria cleveland, new species.
T. Moulds, AMS KS72559), 1@; 23.6 km NW from Warren on road to Canonba, $31^{\circ} 35^{\prime} \mathrm{S}$, $147^{\circ} 37^{\prime} \mathrm{E}$, Nov. 22-Dec. 12, 1999, Eucalyptus populnea patch pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72580), 1ᄋ; 700 m N turnoff to Wyndabyne Station on Warren-Quambone Road, $31^{\circ} 08^{\prime} \mathrm{S}, 147^{\circ} 51^{\prime} \mathrm{E}$, Nov. 23-Dec. 13, 1999, Casuarina cristata patch pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72581), 10*. Queensland: Braemar Forest Station, $27^{\circ} 11^{\prime} \mathrm{S}, 150^{\circ} 47^{\prime} \mathrm{E}$, Mar. 24, 2000, brigalow and open forest, dung pitfall, elev. 380 m (D. Cook, QMB S67966), 1Q; Callide Mine, near Biloela, $24^{\circ} 18^{\prime} \mathrm{S}, 150^{\circ} 34^{\prime} \mathrm{E}$, Sept. 1999 (B. Hoffmann, QMB S67728), 1ᄋ; Springfield, $27^{\circ} 40^{\prime} \mathrm{S}, 152^{\circ} 55^{\prime} \mathrm{E}$, Sept. 26, 1998 (K. Walker, G. Robinson, QMB S42658), 1 ¢q.

Distribution: Known only from New South Wales and southeastern Queensland (map 13).

## Molycria isla, new species <br> Figures 183-187; Map 12

Type: Male holotype taken in pitfall trap in vine scrub at an elevation of 250 m at a site 3.6 km NE Isla Gorge Lookout, $25^{\circ} 10^{\prime} \mathrm{S}$, $150^{\circ} 00^{\prime} \mathrm{E}$, Queensland (Sept. 21-Dec. 15, 1997; G. Monteith, D. Cook), deposited in QMB (S44201).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males have a distinctive retrolateral tibial apophysis, with a basal transverse ridge just proximal to a deep invagination (fig. 185); females have an elevated, Tshaped, median epigynal septum (fig. 186).

Male: Total length 2.92. Carapace 1.34 long, 1.24 wide, 0.46 high, length/width 1.08 ; sternum 0.86 long, 0.72 wide, length/width 1.19; abdomen 1.58 long, 0.88 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.85: 0.74:0.96. Carapace, sternum, mouthparts, legs grayish orange; abdominal dorsum gray, with weak orange scutum, half ring-shaped pale spot in front of spinnerets, venter pale; booklungs pale. Carapace weakly covered with cinnamon, plumose setae. AME elevated; eye group width 0.79 of caput width; AME 0.13; ALE 0.10; PME 0.14; PLE 0.12; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02;

PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.28; PMEPME 0.30. Clypeus 0.10 high. Abdomen covered with cinnamon, plumose setae; ALS 0.56 of abdominal length, slightly separated. Palp (figs. 183-185): conductor originating medially, long, grooved longitudinally, with greatly expanded, twisted distal part, sharp prolaterally directed tip; median apophysis scythe-shaped; sperm duct weakly u-shaped; embolus long, thin, straight, embolar base separated from tegulum, semicircular; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, excavated, triangular.

Female: Total length 3.20. Carapace 0.78 wide, 0.44 high; length/width 1.10 ; abdomen 1.96 long, 1.06 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.77:0.73:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.81 of caput width; AME 0.12; PLE 0.10; PME-PLE 0.04; eye group AME-PME 0.26; AME-AME 0.26. Clypeus 0.08 high. Epigynum (figs. 186, 187): atrium with rounded anterior margin, elevated, T-shaped, posterior median epigynal septum; epigynal ducts parallel along midline, spermathecae less than their diameter apart, oval, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Dawson Highway, top of Expedition Range, $24^{\circ} 38^{\prime}$ S, $149^{\circ} 01^{\prime} \mathrm{E}$, Dec. 17, 2000-Mar. 27, 2001, open forest pitfall, elev. 445 m (D. Cook, G. Monteith, QMB S68063), 10', 3 of; 3.6 km NE Isla Gorge Lookout, $25^{\circ} 10^{\prime} \mathrm{S}, 150^{\circ} 00^{\prime} \mathrm{E}$, Dec. 15, 1997-Mar. 4, 1998, vine scrub pitfall, elev. 250 m (G. Monteith, D. Cook, QMB S44199, 44200), 2 Oְ; 8.4 km SSW Isla Gorge Lookout, $25^{\circ} 16^{\prime}$ S, $149^{\circ} 56^{\prime}$ E, Sept. 21-Dec. 19, 1997, vine scrub pitfall, elev. 360 m (G. Monteith, QMB S44203), 20*, Dec. 19, 1997-Mar. 3, 1998, vine scrub pitfall, elev. 360 m (G. Monteith, D. Cook, QMB S44206), 10; Isla Gorge National Park, $25^{\circ} 10^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, July 12 -Sept. 22, 1997, bottletree scrub pitfall (D. Cook, QMB S43878), 10; Mount Rose, via Taroom, $25^{\circ} 25^{\prime}$ S, $149^{\circ} 58^{\prime}$ E, Dec. 16, 1997-Mar. 4, 1998, vine scrub pitfall, elev. 260 m (D. Cook, QMB S44210), 20; 0.6 km SSW Mount Zamia,

Figs. 183-187. Molycria isla, new species. 183. Left male palp, prolateral view. 184. Same, ventral view. 185. Same, retrolateral view. 186. Epigynum, ventral view. 187. Same, dorsal view.

$24^{\circ} 06^{\prime}$ S, $148^{\circ} 05^{\prime}$ E, Oct. 27-Dec. 17, 2000, vine scrub pitfall, elev. 360 m (D. Cook, G. Monteith, QMB S55065), 20, 1o, Dec. 17, 2000Mar. 27, 2001, softwood scrub pitfall, elev. 360 m (D. Cook, G. Monteith, QMB S39976), $10^{\circ}, ~ 1$; Taroom District, BS 24, $25^{\circ} 25^{\prime} \mathrm{S}$, $149^{\circ} 58^{\prime}$ E, Sept. 10-Nov. 12, 1996, vine thicket on hill, pitfall (P. Lawless, QMB S30940), 30', Nov. 12, 1996-Jan. 1997, same (QMB S37221), $10^{\circ}, 2$.

Distribution: Known only from southeastern Queensland (map 12).

## Molycria moffatt, new species Figures 188-192; Map 12

Types: Male holotype and female allotype from Foleys Yards, Mahogany Forest, Mount Moffatt National Park, $25^{\circ} 01^{\prime} \mathrm{S}$, $147^{\circ} 57^{\prime} \mathrm{E}$, Queensland (Dec. 11, 1987; J. Gallon), deposited in QMB (male S65741, female S65742).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a distinctive retrolateral tibial apophysis, with a narrow distal extension (fig. 190); females resemble those of $M$. isla in having an elevated median epigynal septum (fig. 191), but have distinctive, w-shaped anterior epigynal ducts (fig. 192).

Male: Total length 3.10. Carapace 1.40 long, 1.24 wide, 0.44 high, length/width 1.13; sternum 0.88 long, 0.80 wide, length/width 1.10; abdomen 1.70 long, 0.90 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.90:0.76:0.93. Carapace, sternum, mouthparts grayish orange; abdominal dorsum gray, with spear tip-shaped pale spot, half moon-shaped pale spot in front of spinnerets, venter pale gray; legs orange, femora grayish. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.72 of caput width; AME 0.12; ALE 0.10; PME 0.12; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.28; AME-AME 0.28; PME-PME 0.28 . Clypeus 0.08 high. Abdomen covered with cinnamon, plumose setae; ALS 0.51 of abdominal length, slightly separated. Palp (figs. 188-190): conductor originating medially, long, elaborate, grooved longitudinally, distal part with sclerotized strip paralleling
embolus; median apophysis scythe-shaped, ventrally excavated, with long median tip; sperm duct semicircular; embolus long, thin, straight, embolar base separated from tegulum, triangular, situated basally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, with distally bent tip.

Female: Total length 3.72. Carapace 1.40 long, 1.36 wide, 0.46 high, length/width 1.03; sternum 0.90 long, 0.82 wide; abdomen 2.32 long, 1.24 wide; relative length of coxae I-IV 1.00:0.86:0.76:0.96. Coloration as in male. Eye group width 0.63 of caput width; PME-PME 0.04. ALS 0.44 of abdominal length. Epigynum (figs. 191, 192): atrium with rounded anterior margin, two small, lateral, semicircular copulatory openings, elevated posterior median epigynal septum; epigynal ducts anterior part w-shaped, spermathecae less than their diameter apart, sausage-shaped, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Foleys Yards, Mahogany Forest, Mount Moffatt National Park, $25^{\circ} 01^{\prime}$ S, $147^{\circ} 57^{\prime} \mathrm{E}$, Dec. 11, 1987 (J. Gallon, QMB S14566), 19; Mahogany Forest, Mount Moffatt National Park, $25^{\circ} 01^{\prime} \mathrm{S}$, $147^{\circ} 57^{\prime}$ E, Sept. $26-$ Nov. 21, 1995, open forest intercept trap (G. Monteith, QMB S30604), $10^{\circ}$, 2q; Top Shelter Shed, Mount Moffatt National Park, $25^{\circ} 01^{\prime} \mathrm{S}, 147^{\circ} 57^{\prime} \mathrm{E}$, Dec. 11-13, 1987, pitfall, elev. 1000 m (J. Gallon, QMB S14567), 19.

Distribution: Known only from Mount Moffatt National Park in southeastern Queensland (map 12).

## Molycria robert, new species <br> Figures 193-197; Map 13

Types: Male holotype and female allotype taken in pitfall trap at an elevation of 300 m in brigalow, 5 km SW of Mount Robert, $21^{\circ} 24^{\prime} \mathrm{S}, \quad 148^{\circ} 27^{\prime} \mathrm{E}$, Queensland (Dec. 18, 2000-Mar. 25, 2001; D. Cook, G. Monteith), deposited in QMB (male S66614, female S66615).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. isla but have a wider retrolateral tibial apophysis (fig. 195); females also resemble those of M. isla but have longer median


Figs. 188-192. Molycria moffatt, new species. 188. Left male palp, prolateral view. 189. Same, ventral view. 190. Same, retrolateral view. 191. Epigynum, ventral view. 192. Same, dorsal view.
epigynal ducts that reach almost to the anterior epigynal margin (figs. 196, 197).

Male: Total length 2.92. Carapace 1.28 long, 1.18 wide, 0.52 high, length/width 1.08; sternum 0.82 long, 0.72 wide, length/width 1.14; abdomen 1.64 long, 0.86 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.84:0.72:0.96. Carapace orange, mottled with gray, sternum, chelicerae, legs orange, endites, labium orange brown, distally pale; abdomen dorsally gray, with weak orange scutum, spear tip-shaped pale spot in front of spinnerets, venter pale gray. Carapace weakly covered with shiny, plumose setae. Eye group width 0.77 of caput width; AME 0.13; ALE 0.10; PME 0.14; PLE 0.12; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.28 ; PME-PME 0.30. Clypeus 0.08 high. Abdomen covered with shiny, plumose setae; ALS 0.51 of abdominal length, slightly separated. Palp (figs. 193-195): cymbial tip extremely elongate; conductor originating medially, long, grooved longitudinally, with greatly expanded, twisted, distal part; median apophysis scythe-shaped; sperm duct weakly u-shaped; embolus long, thin, semicircular; embolar base separated from tegulum, triangular; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis excavated, rectangular.

Female: Total length 3.24. 0.46 high, sternum 0.84 long, length/width 1.17 ; abdomen 1.96 long, 0.96 wide; coxa I 0.48 long; relative length of coxae I-IV 1.00:0.79: 0.71:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.75 of caput width; AME 0.12; PLE 0.1; eye group AME-PME 0.3; AME-AME 0.26. Clypeus 0.06 high. ALS 0.50 of abdominal length. Epigynum (figs. 196, 197): atrium with rounded anterior margin, with two copulatory openings, forming cup, elevated posterior median epigynal septum; epigynal ducts long, along midline, anterior part sinuous, recurved, reaching almost to anterior epigynal margin, spermathecae contiguous, oval, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Blackdown Tableland National Park, $23^{\circ} 47^{\prime}$ S, $149^{\circ} 03^{\prime} \mathrm{E}$, May 8,2000 , rock face along loop
road (G. Milledge, H. Smith, AMS KS66508), $10^{\prime}$; Bondoola, $23^{\circ} 11^{\prime} \mathrm{S}, 150^{\circ} 40^{\prime} \mathrm{E}$, Mar. 21Apr. 4, 1991, open forest pitfall (D. Wallace, R. Raven, QMB S30356), 10;; Bushley Station, $23^{\circ} 32^{\prime} \mathrm{S}, 150^{\circ} 15^{\prime} \mathrm{E}$, July 19-Oct. 22, 1990, open forest pitfall (D. Wallace, R. Raven, K. Williams, QMB S66616), 10; Coowonga, $23^{\circ} 18^{\prime} \mathrm{S}, \quad 150^{\circ} 44^{\prime} \mathrm{E}$, Mar. 22, 1991, open forest pitfall (D. Wallace, R. Raven, K. Williams, QMB S30417), 1¢̣; Mount Etna, $23^{\circ} 10^{\prime} \mathrm{S}, 150^{\circ} 27^{\prime} \mathrm{E}$, Oct.-Feb. 1995 (I. Robson, QMB S60185), 1¢; 5 km SW Mount Robert, $21^{\circ} 24^{\prime} \mathrm{S}, \quad 148^{\circ} 27^{\prime} \mathrm{E}$, Oct. 22-Dec. 18, 2000, brigalow pitfall, elev. 300 m (D. Cook, G. Monteith, QMB S55070), 10', Dec. 18, 2000Mar. 25, 2001, same (QMB S39993), 5p; Nob Creek, $22^{\circ} 41^{\prime} \mathrm{S}, 149^{\circ} 58^{\prime} \mathrm{E}$, Aug. 1994, pitfall (D. Wallace, Healy, QMB S57988), 70', 2o; Nob Creek, $22^{\circ} 52^{\prime} \mathrm{S}, 150^{\circ} 37^{\prime} \mathrm{E}$, Jan. 1994, pitfall (D. Wallace, Healy, QMB S30942), 10'; Rainbow Creek Road, Blackdown Tableland, via Dingo, $23^{\circ} 50^{\prime} \mathrm{S}, 149^{\circ} 03^{\prime} \mathrm{E}, \mathrm{Feb} .1-6,1981$ (R. Raven, QMB S66617), 10'.

Distribution: Known only from mideastern Queensland (map 13).

## Molycria tooloombah, new species

Figures 198-202; Map 14
Types: Male holotype and female allotype taken in pitfall trap in dry acacia/ eucalypt woodland at Tooloombah Creek, $22^{\circ} 43^{\prime} \mathrm{S}, 149^{\circ} 34^{\prime} \mathrm{E}$, Queensland (Nov. 10, 1991-July 29, 1992; P. Lawless, R. Raven, M. Shaw), deposited in QMB (male S24077, female S66601).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. isla and M. robert, but have a much narrow retrolateral tibial apophysis with a recurved tip (fig. 200); females resemble those of $M$. robert but have the median epigynal ducts extending almost to the sides of the epigynum (fig. 201).

Male: Total length 2.62. Carapace 1.16 long, 1.02 wide, 0.42 high, length/width 1.14; sternum 0.74 long, 0.66 wide, length/width 1.12; abdomen 1.46 long, 0.72 wide; coxa I 0.44 long; relative length of coxae I-IV 1.00:0.77:0.68:0.95. Carapace, sternum, chelicerae, legs orange, endites, labium orange brown, distally pale; abdominal dorsum gray, with half ring-shaped pale spot in front of


Figs. 193-197. Molycria robert, new species. 193. Left male palp, prolateral view. 194. Same, ventral view. 195. Same, retrolateral view. 196. Epigynum, ventral view. 197. Same, dorsal view.

spinnerets, venter pale. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.85 of caput width; AME 0.12 ; ALE 0.10; PME 0.12; PLE 0.10; AME-AME 0.04 ; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.26; AME-AME 0.28; PMEPME 0.26. Clypeus 0.07 high. Abdomen covered with cinnamon, plumose setae; ALS 0.53 of abdominal length, contiguous. Palp (figs. 198-200): cymbial tip extremely elongate; conductor originating medially, long, grooved longitudinally, with greatly expanded, twisted distal part; median apophysis scythe-shaped; sperm duct semicircular; embolus long, thin, straight; embolar base separated from tegulum, long, conical, situated basally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, narrow, excavated, with recurved tip.

Female: Total length 3.18. Carapace 1.16 long, 1.12 wide, 0.40 high, length/width 1.04; sternum 0.80 long, 0.72 wide, length/ width 1.11; abdomen 2.02 long, 1.02 wide; relative length of coxae I-IV 1.00:0.81:0.72:0.95. Coloration as in male. Eye group width 0.79 of caput width; ALE 0.12 ; PME 0.14; eye group AME-PME 0.3; PME-PME 0.3. Clypeus 0.06 high. ALS 0.41 of abdominal length. Palpal tarsus extremely elongate. Epigynum (figs. 201, 202): atrium with wide, arched anterior margin, two small, lateral, semicircular copulatory openings; epigynal ducts long, along midline, anterior part sinuous, recurved, spermathecae contiguous, oval, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Boomer Range, site 8, $23^{\circ} 12^{\prime}$ S, $149^{\circ} 46^{\prime}$ E, Sept. 30-Dec. 16, 1999, open forest intercept (D. Cook, QMB S68064), 1 º

Distribution: Known only from mideastern Queensland (map 14).

## Molycria moranbah, new species

Figures 203-206; Map 14
TyPE: Male holotype taken in pitfall trap in scrub 5 km S of Moranbah, $22^{\circ} 02^{\prime} \mathrm{S}$,
$148^{\circ} 03^{\prime} \mathrm{E}$, Queensland (June 25-Dec. 20, 1997; G. Monteith, E. Kruck), deposited in QMB (S66602).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. tooloombah in having a short, wide median apophysis, but have a shorter retrolateral tibial apophysis and a dorsal tibial projection bearing stiff setae (figs. 205, 206).

Male: Total length 2.66. Carapace 1.24 long, 1.08 wide, 0.42 high, length/width 1.15 ; sternum 0.70 long, 0.68 wide, length/width 1.03; abdomen 1.42 long, 0.82 wide; coxa I 0.42 long; relative length of coxae I-IV 1.00:0.86:0.76:0.95. Cephalothorax, legs orange; abdominal dorsum gray, with half ringshaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.78 of caput width; AME 0.13; ALE 0.10; PME 0.14 ; PLE 0.10; AME-AME 0.02; AMEALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.3; AME-AME 0.28; PME-PME 0.30. Clypeus 0.08 high. Abdomen covered with cinnamon, plumose setae; ALS 0.42 of abdominal length, contiguous. Palp (figs. 203-206): conductor originating medially, long, grooved


Map 14. Circle, Molycria tooloombah, new species. Square, Molycria moranbah, new species. Triangle, Molycria upstart, new species.

Figs. 198-202. Molycria tooloomba, new species. 198. Left male palp, prolateral view. 199. Same, ventral view. 200. Same, retrolateral view. 201. Epigynum, ventral view. 202. Same, dorsal view.


Figs. 203-206. Molycria moranbah, new species. 203. Left male palp, prolateral view. 204. Same, ventral view. 205. Same, retrolateral view. 206. Male palpal tibia, dorsal view.
longitudinally, with greatly expanded, twisted, distal part, sharp prolaterally directed tip; median apophysis scythe-shaped; sperm duct semicircular; embolus long, thin, semicircular, embolar base separated from tegulum, conical; tibia about 1.5 times as long as wide, with dorsal field of macrosetae on dorsal tibial projection; retrolateral tibial apophysis short, excavated, rectangular, with distally bent tip.

Female: Unknown.
Other Material Examined: Queensland: 5 km S Moranbah, $22^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 03^{\prime} \mathrm{E}$, June 25-Dec. 20, 1997, scrub pitfall (G. Monteith, E. Kruck, QMB S44218), $30^{\circ}$.

Distribution: Known only from the type locality in central Queensland (map 14).

## Molycria cleveland, new species

Figures 207-211; Map 13
TyPE: Male holotype taken in pitfall trap on Cape Cleveland Road, $19^{\circ} 21^{\prime} \mathrm{S}, 147^{\circ} 01^{\prime} \mathrm{E}$, Queensland (Oct. 25, 1991-July 27, 1992; P.

Lawless, R. Raven, M. Shaw), deposited in QMB (S22760).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the distinct dorsal tibial apophysis (fig. 209), females by the sinuous epigynal openings (fig. 210).

Male: Total length 2.64. Carapace 1.24 long, 1.10 wide, 0.40 high, length/width 1.13; sternum 0.78 long, 0.70 wide, length/width 1.11; abdomen 1.40 long, 0.80 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.80:0.64:0.84. Carapace, sternum, mouthparts, legs pale yellow; abdominal dorsum gray, with weak orange scutum, half ring-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with shiny, plumose setae. Eye group width 0.81 of caput width; AME 0.13; ALE $0.10 ;$ PME 0.14; PLE 0.10; AME-AME 0.02 ; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.3; AME-AME 0.28;


Figs. 207-211. Molycria cleveland, new species. 207. Left male palp, prolateral view. 208. Same, ventral view. 209. Same, retrolateral view. 210. Epigynum, ventral view. 211. Same, dorsal view.

PME-PME 0.3. Clypeus 0.10 high. Abdomen covered with shiny, plumose setae; ALS 0.64 of abdominal length, slightly separated. Palp (figs. 207-209): conductor originating medially, long, grooved, with twisted distal part; median apophysis scytheshaped, ventrally excavated; sperm duct weakly u-shaped; embolus thin, straight, embolar base separated from tegulum, long, triangular; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis divided into two triangular apophyses.

Female: Total length 3.38. Carapace 1.28 long, 1.12 wide, 0.46 high, length/width 1.14; sternum 0.84 long, 0.80 wide, length/ width 1.05 ; abdomen 2.10 long, 1.04 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.84:0.69:0.92. Coloration as in male but without dorsal scutum. AME 0.12; AMEAME 0.04. Clypeus 0.08 high. ALS 0.47 of abdominal length. Palpal tarsus extremely elongate. Epigynum (figs. 210, 211): atrium with rounded anterior margin, two sinuous copulatory openings; epigynal ducts parallel, paramedian, spermathecae oval, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Cape Cleveland Road, $19^{\circ} 21^{\prime} \mathrm{S}, 147^{\circ} 01^{\prime} \mathrm{E}$, July 27-Dec. 2, 1992, pitfall (R. Raven, P., E. Lawless, M. Shaw, QMB S19864), 1 ọ.

Distribution: Known only from the type locality in mideastern Queensland (map 13).

## Molycria upstart, new species Figures 212-216; Map 14

Type: Male holotype taken in pitfall trap at Cape Upstart, E of Station Hill, $19^{\circ} 21^{\prime}$ S, $147^{\circ} 01^{\prime} \mathrm{E}$, Queensland (Oct. 25, 1991-July 27, 1992; P. Lawless, R. Raven, M. Shaw), deposited in QMB (S21702).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAGnosis: Males and females have not been collected together but are tentatively matched here because of their respective similarities to those of M. isla (although the differences in size and color suggest that the
match may prove to be incorrect); males resemble those of $M$. isla in conductor shape, but have a longer embolar base (fig. 213); females resemble those of $M$. isla in having an elevated, median epigynal septum, but have the median epigynal ducts greatly expanded anteriorly (fig. 216).

Male: Total length 2.62. Carapace 1.24 long, 1.10 wide, 0.50 high, length/width 1.13 ; sternum 0.74 long, 0.68 wide, length/width 1.09; abdomen 1.38 long, 0.74 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.82:0.65:0.95. Cephalothorax, legs pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.84 of caput width; AME 0.12 ; ALE 0.10; PME 0.14; PLE 0.10; AMEAME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.26; PME-PME 0.30. Clypeus 0.10 high. Abdomen covered with shiny, recumbent scales; ALS 0.53 of abdominal length, contiguous. Palp (figs. 212-214): conductor originating medially, long, grooved longitudinally, with greatly expanded, twisted, distal part, sharp prolaterally directed tip; median apophysis scythe-shaped; sperm duct weakly u-shaped; embolus long, thin, straight, embolar base separated from tegulum, conical; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis excavated, triangular, with distally bent tip.

Female: Total length 4.58. Carapace 1.66 long, 1.60 wide, 0.76 high, length/width 1.03; sternum 1.08 long, 0.94 wide, length/ width 1.15 ; abdomen 2.92 long, 1.80 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.78:0.72:0.96. Carapace orange brown; sternum orange, with darker lateral margin; chelicerae grayish orange; endites, labium grayish orange, distally pale; abdominal dorsum gray, with half ring-shaped pale spot in front of spinnerets, venter pale; legs orange brown, femora grayish. Carapace weakly covered with shiny, slim, recumbent scales.

Figs. 212-216. Molycria upstart, new species. 212. Left male palp, prolateral view. 213. Same, ventral view. 214. Same, retrolateral view. 215. Epigynum, ventral view. 216. Same, dorsal view.



Figs. 217-221. Molycria daviesae, new species. 217. Left male palp, prolateral view. 218. Same, ventral view. 219. Same, retrolateral view. 220. Epigynum, ventral view. 221. Same, dorsal view.

Eye group width 0.71 of caput width; AME 0.15; ALE 0.12; PME 0.14; PLE 0.12; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.04 ; PME-PLE 0.06; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.34; PME-PME 0.32. Clypeus 0.10 high. Abdomen covered with shiny, recumbent scales; ALS 0.45 of abdominal length, contiguous. Epigynum (figs. 215, 216): atrium with rounded anterior margin, with two small, lateral, semicircular incisions, elevated posterior median epigynal septum; epigynal ducts parallel along midline, anterior part greatly expanded, spermathecae contiguous, oval, twisted, in inverted v-shaped position.

Other Material Examined: Queensland: Paluma Dam Road, $18^{\circ} 57^{\prime} \mathrm{S}, 146^{\circ} 09^{\prime} \mathrm{E}$, Sept. 2, 1988, open forest/rainforest ecotone (R. Raven, J. Gallon, T. Churchill, QMB S14091), 1 ㅇ.

Distribution: Known only from northeastern Queensland (map 14).

## Molycria daviesae, new species <br> Figures 217-221; Map 15

Types: Male holotype and female allotype taken in pitfall trap 50 km W of Mount Garnet, $17^{\circ} 41^{\prime} \mathrm{S}, 144^{\circ} 39^{\prime} \mathrm{E}$, Queensland (Apr. 14-July 2002; J. Hasenpusch), deposited in QMB (male S66599, female S66600).

Etymology: The specific name is a patronym in honor of Dr. Valerie Davies of the Queensland Museum and her exceptional work on Australian spiders.

Diagnosis: Males resemble those of $M$. tooloombah in having a very narrow retrolateral tibial apophysis, but have a longer and more elaborate conductor (fig. 218); females have a pair of rounded, anterior enlargements on the median epigynal ducts (fig. 221).

Male: Total length 2.74. Carapace 1.26 long, 1.12 wide, 0.40 high, length/width 1.12 ; sternum 0.76 long, 0.72 wide, length/width 1.05; abdomen 1.48 long, 0.64 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.78:0.65:0.95. Carapace, sternum, chelicerae grayish orange, endites, labium orange brown, distally pale; abdominal dorsum gray, with weak orange scutum, half ring-shaped pale spot in front of spinnerets, venter grayish; legs orange. Carapace weakly covered with gray, plumose setae. AME elevated, eye group width 0.85 of caput width;

AME 0.13; ALE 0.12; PME 0.14; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.30; PME-PME 0.30. Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.51 of abdominal length, slightly separated. Palp (figs. 217-219): conductor originating medially, sclerotized, long, elaborate, grooved longitudinally, distal part twisted with prolaterally directed, sharp tip; median apophysis scythe-shaped; embolus long, finger-shaped, with sharp tip, embolar base separated from tegulum, situated basally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, excavated, with distally bent tip.

Female: Total length 3.16. Carapace 1.22 long, 1.11 wide, 0.34 high, length/width 1.11; sternum 0.80 long, 0.68 wide, length/ width 1.17 ; abdomen 1.94 long, 0.94 wide; coxa I 0.42 long; relative length of coxae I-IV 1.00:0.85:0.71:0.95. Coloration as in male but without dorsal scutum. Eye group width 0.88 of caput width; AME 0.12; ALE 0.11; PME 0.12; PLE 0.11; PME-PME 0.04; eye group AME-PME 0.28; AME-AME 0.28; PMEPME 0.28. Clypeus 0.06 high. ALS 0.43 of abdominal length. Epigynum (figs. 220, 221): atrium with tripartite anterior margin, two semicircular copulatory openings, rounded enlargements; epigynal ducts along midline, spermathecae sausage-shaped, twisted, in


Map 15. Circle, Molycria daviesae, new species. Square, Molycria quadricauda (Simon). Triangle, Molycria amphi, new species.
horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Davies Creek National Park, $17^{\circ} 00^{\prime} \mathrm{S}$, $145^{\circ} 34^{\prime}$ E, Oct. 29, 1991-July 23, 1992, pitfalls (P. Lawless, R. Raven, M. Shaw, QMB S19855, 22716, 25085), 4o', 1̊; Forty Mile Scrub, SW Mount Garnet, $18^{\circ} 05^{\prime} \mathrm{S}, 144^{\circ} 51^{\prime} \mathrm{E}$, Apr. 10-14, 1978, in litter (V. Davies, R. Raven, QMB S66598), 10'; Innot Springs, near Running Creek, $17^{\circ} 19^{\prime}$ S, $145^{\circ} 18^{\prime}$ E, July $25-$ Nov. 30, 1992, pitfall (R. Raven, P., E. Lawless, M. Shaw, QMB S24290), $10^{\prime}$.

Distribution: Known only from northeastern Queensland (map 15).

## Molycria quadricauda (Simon), new combination

Figures 19, 222-226; Map 15
Honunius quadricauda Simon, 1908: 445 (male holotype from Harvey, Western Australia, in ZMB, examined).

Diagnosis: Males can be recognized by the retrolaterally directed embolar tip (fig. 223), females by the epigynal atrium reaching spermathecae (fig. 225) and leafshaped anterior expansions on the medial epigynal ducts (fig. 226).

Male: Total length 3.06. Carapace 1.40 long, 1.30 wide, 0.52 high, length/width 1.08; sternum 0.90 long, 0.74 wide, length/width 1.21; abdomen 1.66 long, 0.98 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.81:0.70:0.93. Carapace orange, with dark margin, one pair of darker, longitudinal patches between fovea and eye region; sternum, chelicerae, legs orange; endites, labium orange brown, distally pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.80 of caput width; AME 0.12 ; ALE 0.10; PME 0.13; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.28; PMEPME 0.32. Clypeus 0.09 high. Abdomen covered with cinnamon, plumose setae; ALS 0.53 of abdominal length, contiguous. Palp (figs. 222-224): conductor originating distally, long, narrow, with retrolaterally directed beak-shaped tip; median apophysis about
twice as long as wide, scythe-shaped; sperm duct weakly s-shaped; embolus long, triangular, with sharp, retrolaterally directed tip, embolar base broad, separated from tegulum; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis short, triangular.

Female: Total length 3.40. Carapace 1.30 long, 1.24 wide, 0.50 high, length/width 1.05; sternum 0.80 long, 0.76 wide, length/ width 1.05 ; abdomen 2.10 long, 1.10 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.80:0.72:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.81 of caput width; AME 0.11; AME-AME 0.26; PME-PME 0.28. Clypeus 0.08 high. ALS 0.47 of abdominal length. Epigynum (figs. 225, 226): atrium with rounded anterior margin, two medial, concave copulatory openings; epigynal ducts short, parallel, along midline, spermathecae contiguous, sausage-shaped, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: New South Wales: Boree Plains Station, Lower MurrayDarling region, $33^{\circ} 42^{\prime} \mathrm{S}, 143^{\circ} 18^{\prime} \mathrm{E}$, Sept. $21-$ Oct. 1, 1998, pitfall, mallee spinifex shrubland (M. LeBreton, AMS KS71434), 10'; Coleambally Irrigation Area, $34^{\circ} 45^{\prime} \mathrm{S}, 146^{\circ} 04^{\prime} \mathrm{E}$, Dec. 15, 1998 (L. Wilkie, S. Priday, AMS KS65104), 1op; Coleambally Irrigation Area, $34^{\circ} 49^{\prime} \mathrm{S}$, $145^{\circ} 53^{\prime} \mathrm{E}$, Dec. 15 , 1998, pitfall (L. Wilkie, S. Priday, AMS KS67335), 10'; Coleambally Irrigation Area, $34^{\circ} 49^{\prime} \mathrm{S}, 146^{\circ} 06^{\prime} \mathrm{E}$, Dec. 16, 1998, pitfall (L. Wilkie, S. Priday, AMS KS67105, 68944), 20'; Coleambally Irrigation Area, $34^{\circ} 54^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$, Dec. 14, 1998, pitfall (L. Wilkie, S. Priday, AMS KS65081, 67685, 90630), $50^{\circ}$, 1 ¢; Coleambally Irrigation Area, $34^{\circ} 55^{\prime} \mathrm{S}, 145^{\circ} 52^{\prime} \mathrm{E}$, Dec. 14,1998 , pitfall (L. Wilkie, S. Priday, AMS KS58148), 19; Glen Tilt Station, Murray-Darling region, $33^{\circ} 42^{\prime} \mathrm{S}$, $143^{\circ} 36^{\prime} \mathrm{E}$, Dec. 14-18, 1998, pitfall, mallee spinifex shrubland (M. LeBreton, AMS KS66652), 1 º ; Gubatta, $33^{\circ} 38^{\prime} \mathrm{S}, 146^{\circ} 33^{\prime} \mathrm{E}$, Oct. 12-18, 1999, pitfall (D. Driscoll, QMB S53649), 19 ; Guthul Station, 30 km N Euston, $34^{\circ} 11^{\prime}$ S, $142^{\circ} 57^{\prime}$ E, Nov. 9-16, 1994 (L. Gibson, AMS KS57349), 1 ¢; 8 km W Hay, $33^{\circ} 30^{\prime} \mathrm{S}$, $144^{\circ} 45^{\prime} \mathrm{E}$, Dec. 19, 1997-Jan. 9, 1998, grassland pitfalls (K., D. Krebs, QMB S46733), 20', 1o; Jarrahdale Mine, $32^{\circ} 16^{\prime}$ S, $116^{\circ} 06^{\prime}$ E, Apr. 1998, pitfall (K. E. C. Brennan, WAM T54779, T54780), 20, 1p; Menindee to Broken Hill, ca. $32^{\circ} 10^{\prime}$ S, $141^{\circ} 56^{\prime}$ E, July 13-Aug. 1980 (D. Hirst, SAM NN22280), 1̊; Pulletop, $33^{\circ} 56^{\prime} \mathrm{S}$,

$146^{\circ} 06^{\prime}$ E, Nov. 3-8, 1999, woodland pitfall (D. Driscoll, QMB S52813), 20'; Pulletop, $33^{\circ} 59^{\prime} \mathrm{S}$, $146^{\circ} 03^{\prime} \mathrm{E}$, Oct. 12-18, 1999, grazed spinifex pitfall (D. Driscoll, QMB S53573), 2Q; Road Reserve, $30^{\circ} 29^{\prime} \mathrm{S}$, $148^{\circ} 33^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS80099), 10'; Round Hill Nature Reserve, $32^{\circ} 59^{\prime} \mathrm{S}, 146^{\circ} 03^{\prime} \mathrm{E}$, Nov. 2-8, 1999, uncleared mallee without spinifex, pitfall (D. Driscoll, QMB S52752), 10 ${ }^{\circ}$, 1¢; Round Hill Nature Reserve, $32^{\circ} 59^{\prime} \mathrm{S}, 146^{\circ} 06^{\prime} \mathrm{E}$, Nov. 2-8, 1999, uncleared mallee with spinifex, pitfall (D. Driscoll, QMB S52599), 10'; Round Hill Nature Reserve, $33^{\circ} 04^{\prime} \mathrm{S}, 146^{\circ} 13^{\prime} \mathrm{E}$, Nov. 2-8, 1999, spinifex, uncleared mallee (D. Driscoll, QMB S52840), $10^{\prime}$; Taleeban, $33^{\circ} 58^{\prime}$ S, $146^{\circ} 27^{\prime}$ E, Nov. 3-8, 1999, pitfall, no spinifex (D. Driscoll, QMB S52563), $10^{\prime} ; 12.7 \mathrm{~km}$ W on road to Wanaaring from junction with Mitchell Highway, $30^{\circ} 02^{\prime} \mathrm{S}$, $145^{\circ} 47^{\prime} \mathrm{E}$, Nov. 27-Dec. 19, 1999, Acacia cambagei patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72601), 10'; Waverley Downs, $29^{\circ} 01^{\prime} \mathrm{S}, 143^{\circ} 53^{\prime} \mathrm{E}$, Nov. 1994, mulga, on sandplain, pitfall (J. Landsberg, C. James, MNT A000968), 1ơ. Queensland: Merigol, $26^{\circ} 47^{\prime} \mathrm{S}, 145^{\circ} 49^{\prime} \mathrm{E}$, Apr. 2001, mulga, pitfall (T. Beutel, QMB S63408, S63410, S63417), 3Q.

South Australia: Aldinga Scrub Conservation Park, Mount Lofty Ranges, $35^{\circ} 18^{\prime} \mathrm{S}, 138^{\circ} 27^{\prime} \mathrm{E}$, Dec. 3-8, 2000, pitfall (SAM NN11800), 10'; Arcoona Tablelands, $31^{\circ} 02^{\prime} \mathrm{S}, 137^{\circ} 03^{\prime} \mathrm{E}$, Aug. 2001, pitfall (Brown, Root, SAM NN11789), 10'; Billiat Conservation Park, $34^{\circ} 58^{\prime} \mathrm{S}$, $140^{\circ} 7^{\prime}$ E, Nov. 9-18, 1996, pitfall (D. Hirst, SAM NN11783-11785), 2o, 1¢̣; 9.5 km NNW Bonnys Camp, Pitlochry Homestead, $36^{\circ} 09^{\prime} \mathrm{S}$, $139^{\circ} 50^{\prime} \mathrm{E}$, Oct. 6-15, 2000, pitfall (SAM NN11806), 10;; Bunyeroo Creek, ABC Range, $31^{\circ} 25^{\prime}$ S, $138^{\circ} 34^{\prime} \mathrm{E}$, May 17, 1990 (D. Hirst, SAM NN11797), 1¢̣; Burnside, Adelaide, $34^{\circ} 56^{\prime}$ S, $138^{\circ} 39^{\prime}$ E, Aug. 1935 (H. Womersley, SAM N1987/41), 1ó; Clements Gap Conservation Park, $33^{\circ} 29^{\prime} \mathrm{S}, 138^{\circ} 04^{\prime} \mathrm{E}$, June 14-July 20, 1997, pitfall (D. Hirst, SAM NN11798), 1Q; Dudley Conservation Park, Kangaroo Island, $35^{\circ} 48^{\prime}$ S, $137^{\circ} 52^{\prime}$ E, Nov. 11-12, 1987 (D. Hirst, SAM N1989/135), 10 ; 6.5 km ENE Freeling Heights, Arkaroola, $30^{\circ} 07^{\prime} \mathrm{S}$, $139^{\circ} 27^{\prime} \mathrm{E}$, Oct. 20-23, 1999, open shrubland pitfall (SAM NN11826), $10 ;$; 13 km N Keilira Station, W Marcollat, $36^{\circ} 37^{\prime} \mathrm{S}, 140^{\circ} 10^{\prime} \mathrm{E}$, Mar.-Apr. 1978 (D. Hirst, SAM NN22268-70), 20', 1ᄋ; Mambray Creek, $32^{\circ} 50^{\prime} \mathrm{S}, 137^{\circ} 59^{\prime} \mathrm{E}$, Apr. 19-30, 1973, in litter (M. Gray, AMS KS50909, 71708), 2o'; 1.4-1.6 km SW Middle Dam, Taylorville Station, $33^{\circ} 55^{\prime} \mathrm{S}, 140^{\circ} 12^{\prime} \mathrm{E}$, Oct. 8-13, 2000, pitfalls (SAM NN11779, 11781), 2o'; 12 km E Naracoorte, $36^{\circ} 58^{\prime}$ S, $140^{\circ} 44^{\prime}$ E, Feb. 8, 1992 (A. Baynes, WAM T45322), $10^{\circ} ; 1 \mathrm{~km} \mathrm{~N}$ Point

Tinline, Cape Gantheaume, Kangaroo Island, $35^{\circ} 59^{\prime} \mathrm{S}, 137^{\circ} 37^{\prime} \mathrm{E}$, Nov. 10, 1987, under stones (D. Hirst, SAM N1989/127-131), 10', 3o; 19 km N Renmark, $34^{\circ} 00^{\prime} \mathrm{S}, 140^{\circ} 47^{\prime} \mathrm{E}$, Dec. 14 , 1995Jan. 25, 1996, flight intercept trap (K. Pullen, QMB S32501), 10'; 31 km NW Renmark, $33^{\circ} 59^{\prime} \mathrm{S}, 140^{\circ} 30^{\prime} \mathrm{E}$, Sept. 5-Oct. 12, 1995, flight intercept trap (K. Pullen, QMB S30944), 10'; 79 km NNW Renmark, $33^{\circ} 31^{\prime} \mathrm{S}, 140^{\circ} 24^{\prime} \mathrm{E}$, May 3-June 6, 1995, flight intercept trap (K. Pullen, ANIC), 10; junction, River Torrens and Fourth Creek, Felixstowe, Adelaide, $34^{\circ} 46^{\prime} \mathrm{S}$, $138^{\circ} 36^{\prime}$ E, Sept. 7, 1985 (D. Hirst, SAM NN22287), $10^{\circ}$; Sellicks-Aldinga Scrub, $35^{\circ} 17^{\prime} \mathrm{S}, 138^{\circ} 29^{\prime} \mathrm{E}$, June 26, 1987, in rotting log containing termites (D. Hirst, SAM N1989/ 117), $10^{\prime}$, Sept. 15, 1987 (D. Hirst, SAM N1989/ 115), 10'; 3 km N Tomahawk Dam, Danggali Conservation Park, $33^{\circ} 20^{\prime}$ S, $140^{\circ} 43^{\prime}$ E, Nov. 26, 1996, pitfall (D. Hirst, SAM NN11809), 10'; 4.1 km SE Turkey Nest Dam, Taylorville Station, $33^{\circ} 56^{\prime} \mathrm{S}, 140^{\circ} 09^{\prime} \mathrm{E}$, Oct. 8-13, 2000 (SAM NN11780), 1ó; E Wanilla, Eyre Peninsula, $34^{\circ} 31^{\prime} \mathrm{S}, 135^{\circ} 40^{\prime} \mathrm{E}$, Dec. 19, 1981, in old two inch burrow in ground (D. Hirst, SAM NN22284), $1 \odot ; 10.5 \mathrm{~km}$ SE Wares Peak, $29^{\circ} 39^{\prime}$ S, $135^{\circ} 46^{\prime}$ E, Sept. 29-Oct. 5, 1995, pitfall (H. Owens, SAM NN11823), 1¢; Windsor Gardens, Adelaide, $34^{\circ} 47^{\prime} \mathrm{S}, 138^{\circ} 40^{\prime} \mathrm{E}$, Dec. $1-$ 16, 1990 (D. Hirst, SAM NN11799), 1o; Woakwine Forest, $37^{\circ} 16^{\prime} \mathrm{S}, 139^{\circ} 56^{\prime} \mathrm{E}$, Jan. 8, 1997, mallee pitfall (A. McArthur, SAM NN11804, 11805), 10*, 1 Q . Victoria: Barr Creek, Cohuna, $35^{\circ} 49^{\prime} \mathrm{S}, 144^{\circ} 10^{\prime} \mathrm{E}$, Apr. 9, 2000, watering (J. Hooper, D., J. Shield, CVIC 740), $10^{\prime}$; Barr Creek, Cohuna, $35^{\circ} 50^{\prime} \mathrm{S}, 144^{\circ} 11^{\prime} \mathrm{E}$, Apr. 18, 1998, watering (J. Hooper, CVIC 505), 1̊; Cohuna, $35^{\circ} 50^{\prime} \mathrm{S}, 144^{\circ} 11^{\prime} \mathrm{E}$, Nov. 16-21, 1996, shelterbelt pitfall (J. Shield, J. Hooper, CVIC), $10^{\prime} ; 5 \mathrm{~km}$ W Cullulleraine, $34^{\circ} 17^{\prime} \mathrm{S}$, $141^{\circ} 32^{\prime} \mathrm{E}$, Dec. 19, 1997-Jan. 9, 1998, pitfall, open forest (K., D. Krebs, QMB S46749), 2o'; 14.6 km S Hattah, $34^{\circ} 54^{\prime} \mathrm{S}, 142^{\circ} 16^{\prime} \mathrm{E}$, Jan. 1987, drift fence pitfall (A. Yen, NMV K8807), 1̊; McDonalds Road, 1.8 km S Shepparton-Barmah Road, $36^{\circ} 04^{\prime} \mathrm{S}, 145^{\circ} 02^{\prime} \mathrm{E}$, Jan. 17-22, 1994, pitfall (G. Milledge, NMV K8824), 10'; Schwenkes Road, Cohuna, $35^{\circ} 46^{\prime} \mathrm{S}, 144^{\circ} 05^{\prime} \mathrm{E}$, Nov. 16-21, 1996, pitfall (J. Shield, J. Hooper, CVIC 600), 10'; Skeleton Creek Crossing, Murray Valley Highway, $36^{\circ} 07^{\prime} \mathrm{S}, 145^{\circ} 11^{\prime} \mathrm{E}$, Jan. 17-22, 1994, pitfall (G. Milledge, NMV K8825), 10. Western Australia: Balganup River, Muradup, $33^{\circ} 51^{\prime} \mathrm{S}$, $116^{\circ} 59^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51642), 20; Bold Park, $31^{\circ} 56^{\prime} \mathrm{S}, 115^{\circ} 46^{\prime} \mathrm{E}$, Nov. 18, 1993-Jan. 6, 1994, pitfalls (J. Waldock, K. Goodsell, J.

Webb, WAM T45090), 3o , 1ᄋ; Bold Park, $31^{\circ} 57^{\prime} \mathrm{S}, 115^{\circ} 46^{\prime} \mathrm{E}$, Mar. 18-May 19, 1994, pitfall (M. Harvey, J. Waldock, WAM T45089), 10; Boyup Brook-Arthur River Road, $33^{\circ} 29^{\prime}$ S, $116^{\circ} 53^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51645), 4o; 1 km N junction Boyup Brook and Franklin Roads, W Cranbrook, $34^{\circ} 18^{\prime} \mathrm{S}, 117^{\circ} 33^{\prime} \mathrm{E}$, Nov. 18, 1992, under $\log$ (A. Longbottom, WAM T45265), 1ᄋ; Brookton HighwayNature Reserve, $32^{\circ} 24^{\prime} \mathrm{S}, 116^{\circ} 44^{\prime} \mathrm{E}$, Apr. 24, 1999, marri tree bark trap (R. Graham, WAM T51811), 10', 1̊; Bunce-King Road, E Darkan, $33^{\circ} 19^{\prime} \mathrm{S}$, $116^{\circ} 48^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51646), 1ᄋ; Camel Lake Nature Reserve, $34^{\circ} 18^{\prime} \mathrm{S}, 117^{\circ} 59^{\prime} \mathrm{E}$, Oct. 15, 1999-Oct. 30, 2000, pitfall (B. Durrant, WAM T51763), 1o; Coyrecup Lake Nature Reserve, $33^{\circ} 43^{\prime}$ S, $117^{\circ} 51^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49528), $10^{\prime}$; Cranbrook water supply reserve, $34^{\circ} 19^{\prime} \mathrm{S}$, $117^{\circ} 34^{\prime}$ E, Oct. 15, 1999-Oct. 30, 2000, pitfalls (B. Durrant, WAM T51765), 10¹, 1O; Dead Mans Swamp Nature Reserve, $33^{\circ} 30^{\prime} \mathrm{S}$, $116^{\circ} 5^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T49534, 51117, 51770), 170, 7̊; Dongolocking Nature Reserve, $33^{\circ} 05^{\prime} \mathrm{S}$, $117^{\circ} 42^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51771), 1̊; Dryandra State Forest, $32^{\circ} 44^{\prime} \mathrm{S}, 116^{\circ} 53^{\prime} \mathrm{E}$, Oct. 26, 1998, marri bark trap (C. Norwood, WAM T45145), 10'; Dryandra State Forest, $32^{\circ} 46^{\prime} \mathrm{S}, 116^{\circ} 53^{\prime} \mathrm{E}$, Oct. 26, 1998, jarrah bark trap (C. Norwood, WAM T45144), 1ᄋ, Oct. 27, 1998, powderbark wandoo intercept (C. Norwood, WAM T51828), 1o'; Dryandra woodland, E Wandering-Narrogin Road, $32^{\circ} 46^{\prime} \mathrm{S}$, $117^{\circ} 07^{\prime} \mathrm{E}$, Apr. 16, 1997, under rock, granite outcrop (M. Harvey, J. Waldock, A. Desmond, WAM T63056), 1ǫ; Dumbleyung Lake, $33^{\circ} 23^{\prime} \mathrm{S}, \quad 117^{\circ} 39^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51660, 51661), 30', 1̊; Dwellingup, $32^{\circ} 43^{\prime} \mathrm{S}, 116^{\circ} 04^{\prime} \mathrm{E}$, Dec. 12, 1975, pitfalls (J. Majer, WAM T45275, 45276), 10', 1̣, Jan. 29, 1976 (J. Majer, WAM T45278), 10', Jan. 12, 1978 (S. Curry, WAM T45279), 10'; Dec. 21, 1979 (S. Curry, WAM T45280), 10; Fitzgerald River Nature Park, 0.6 km WNW Twertup Field Study Centre, $34^{\circ} 01^{\prime} \mathrm{S}, \quad 119^{\circ} 22^{\prime} \mathrm{E}$, Nov. 1996, pitfall (A. Sanders, WAM T45100), 1¢; Gura Road, NW Narrogin, $32^{\circ} 45^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997Feb. 23, 1998, pitfall (E. Ladhams, WAM T51731), 10'; Haddleton Nature Reserve, $33^{\circ} 36^{\prime} \mathrm{S}, \quad 116^{\circ} 38^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49543), 1우; Harvey, $33^{\circ} 04^{\prime} \mathrm{S}, 115^{\circ} 53^{\prime} \mathrm{E}$ (Michelsen, Hartmeyer, ZMB 28234), 10' (holotype); Hill-
man Nature Reserve, $33^{\circ} 18^{\prime} \mathrm{S}, 116^{\circ} 46^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51787), $10^{\circ}$, 1ᄋ; Julimar Conservation Park, $31^{\circ} 26^{\prime}$ S, $116^{\circ} 10^{\prime}$ E, Sept. 15, 1998-Nov. 4, 1999, pitfall (N. Guthrie, WAM T51789), 1o; Kodj Kodjin Nature Reserve, $31^{\circ} 27^{\prime} \mathrm{S}$, $117^{\circ} 46^{\prime}$ E, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T63055), 1ᄋ; Lake Magenta Nature Reserve, $33^{\circ} 37^{\prime}$ S, $119^{\circ} 12^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49552), 10'; 30 km W Madura, ca. $31^{\circ} 54^{\prime} \mathrm{S}, 127^{\circ} 01^{\prime} \mathrm{E}$, Aug. 22, 1985, under rock (M. Harvey, T. Doeg, NMV K8810), 19; Mount Barker, Lookout, $34^{\circ} 39^{\prime}$ S, $117^{\circ} 39^{\prime} \mathrm{E}$, Nov. 17, 1992, under log (A. Longbottom, WAM T45294), 1̊; Mount Hampton Nature Reserve, $31^{\circ} 44^{\prime} \mathrm{S}, 119^{\circ} 05^{\prime} \mathrm{E}$, Apr. 29 Sept. 22, 1998, pitfall (P. Van Heurck, WAM T49361), 1¢̣; Mundaring, $31^{\circ} 54^{\prime} \mathrm{S}, 116^{\circ} 10^{\prime} \mathrm{E}$, Jan. 3, 1979 (WAM T45296), 1¢\%; Nallan Nature Reserve, $33^{\circ} 14^{\prime} \mathrm{S}, 117^{\circ} 26^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49566), 1¢; Rasmussen Road, 25 km NNE Nyabing, $33^{\circ} 20^{\prime} \mathrm{S}, 118^{\circ} 16^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51681), 1甲; N Rollond Road, near junction with Neds Corner Road, $33^{\circ} 15^{\prime} \mathrm{S}, 121^{\circ} 06^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51684), 1ᄋ; Shark Lake Road, Helms Arboretum Reserve, $33^{\circ} 45^{\prime} \mathrm{S}, 121^{\circ} 49^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51665), 1ᄋ; State Forest, 17 km SW Darkan, $33^{\circ} 28^{\prime} \mathrm{S}$, $116^{\circ} 38^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51654, 51655), 10', 2̊; Stirling Range National Park, $34^{\circ} 18^{\prime} \mathrm{S}$, $118^{\circ} 04^{\prime} \mathrm{E}$, Oct. 15, $1999-$ Oct. 30, 2000, pitfalls (L. King, WAM T51137, 51689), 40² 2甲; Sukey Hill, $34^{\circ} 18^{\prime} \mathrm{S}, 117^{\circ} 36^{\prime} \mathrm{E}$, Nov. 18, 1992, under silicified sandstone (A. Longbottom, WAM T45299), 10'; E Tone Road, SW Kojonup, $34^{\circ} 05^{\prime} \mathrm{S}, 116^{\circ} 52^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51138, 51690), 10", 2ó; Torndirrup National Park, 9 km S Albany, $35^{\circ} 10^{\prime} \mathrm{S}, 117^{\circ} 50^{\prime} \mathrm{E}$, May $25-$ Nov. 9, 1983, pitfall (P. Dyer, J. Lyon, WAM 88/187), $10^{\prime}$; Wandering Road East, $32^{\circ} 51^{\prime} \mathrm{S}, 116^{\circ} 50^{\prime} \mathrm{E}$, Oct. 30, 1997-June 2, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51142), 1¢; Wave Rock, Hyden, $32^{\circ} 27^{\prime}$ S, $118^{\circ} 54^{\prime}$ E, Oct. 2, 1981, under stone (D. Hirst, SAM NN22283), 1ᄋ; Westdale Reserve, $32^{\circ} 18^{\prime} \mathrm{S}, 116^{\circ} 33^{\prime} \mathrm{E}$, Oct. 23, 1999, marri bark trap (R. Graham, WAM T51822), 10; Wittenoom Hill Nature Reserve, $33^{\circ} 28^{\prime} \mathrm{S}, 122^{\circ} 07^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49593), 10; 7.5 km N Woogenilup, $34^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 50^{\prime} \mathrm{E}$, Nov. 15, 1992, under rock in sandstone pit (A. Longbottom, WAM T45307), 20*, 5q.

Distribution: Widespread across southern Australia (map 15).

## Molycria vokes, new species <br> Figures 227-231; Map 16

TyPE: Holotype male taken in pitfall trap 1 km W of Vokes Hill Corner, Great Victoria Desert, $28^{\circ} 34^{\prime} \mathrm{S}, 130^{\circ} 41^{\prime} \mathrm{E}$, South Australia (Apr. 14-19, 1994; J. Forrest, D. Hirst), deposited in SAM (NN11762).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can be recognized by the elongated retrolateral tibial apophysis (fig. 229) and twisted embolus (fig. 228), females by the long epigynal ducts (fig. 231).

Male: Total length 4.14. Carapace 1.80 long, 1.66 wide, 0.52 high, length/width 1.08 ; sternum 1.08 long, 0.98 wide, length/width 1.10; abdomen 2.34 long, 1.26 wide; coxa I 0.70 long; relative length of coxae I-IV 0.1.00:0.83:0.71:0.91. Body, legs pale yellow. Carapace weakly covered with gray setae. Eye group width 0.69 of caput width; AME 0.14; ALE 0.12; PME 0.13; PLE 0.12; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.04; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.34. Clypeus 0.08 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.47 of abdominal length, slightly separated. Palp (figs. 227-229): apophyses, embolus situated on distal half of tegulum; conductor originating distally, straight, longitudinal groove shallow; median apophysis about twice as long as wide, ventrally excavated, with two distal tips, median one elongated; sperm duct u-shaped; embolus finger-shaped, twisted; embolar base separated from tegulum, with long, conical, basal embolar projection, situated distally; tibia about 1.5 times as long as wide; retrolateral tibial apophysis long, triangular, with bent tip; femur ventrally incrassate.

Female: Total length 4.92. Carapace 2.16 long, 1.88 wide, 0.60 high, length/width 1.15 ; sternum 1.16 long, 1.10 wide, length/width 1.05; abdomen 2.76 long, 1.40 wide; coxa I 0.72 long; relative length of coxae I-IV 1.00:0.83:0.77:0.92. Coloration as in male. Eye group width 0.67 of caput width; PME 0.16 ; AME-AME 0.08; PME-PME 0.06;

PME-PLE 0.04; AME-AME 0.36; PMEPME 0.38. Clypeus 0.10 high. ALS 0.48 of abdominal length. Epigynum (figs. 230, 231): atrium with wide, arched anterior margin, two small, lateral, semicircular copulatory openings; epigynal ducts long, in v-shaped position, spermathecae oval, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Northern Territory: Umbeara Station, $25^{\circ} 44^{\prime} \mathrm{S}, 133^{\circ} 42^{\prime} \mathrm{E}$, Oct. 1994, sandplain, mulga pitfall (J. Landsberg, C. James, MNT A000965), 19. South Australia: 20 km N Mount Cooperinna, $26^{\circ} 18^{\prime}$ S, $130^{\circ} 09^{\prime}$ E, May 6,1994 , pitfall (SAM NN10939), 10; Serpentine Lakes, Great Victoria Desert, $28^{\circ} 30^{\prime}$ S, $129^{\circ} 00^{\prime}$ E, Apr. 15-18, 1994, pitfall (J. Forrest, D. Hirst, SAM NN11764, 11765), $20^{\circ} ; 25 \mathrm{~km}$ E Vokes Hill Corner at Park boundary, Great Victoria Desert, $28^{\circ} 34^{\prime} \mathrm{S}$, $130^{\circ} 55^{\prime}$ E, Apr. 14, 1994 (D. Hirst, SAM NN11763), 1op. Western Australia: Ajana Back Road, $28^{\circ} 00^{\prime}$ S, $114^{\circ} 38^{\prime}$ E, Sept. 15, 1998-Mar. 30, 1999, pitfalls (N. Guthrie, WAM T51144), 6 ¢ ; Badjaling, $31^{\circ} 59^{\prime} \mathrm{S}, 117^{\circ} 30^{\prime} \mathrm{E}$, Oct. 15 , $1997-$ May 27, 1998, pitfalls (P. Van Heurck, WAM T49516), 20'; Ballock Road, SE Darkan, $33^{\circ} 39^{\prime}$ S, $116^{\circ} 56^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51643), 1ᄋ; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 07^{\prime} \mathrm{S}$, $115^{\circ} 6^{\prime}$ E, June 6-Aug. 20, 1995, pitfall (N. Hall. WAM T45349), 1o'; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 11^{\prime} \mathrm{S}, 115^{\circ} 29^{\prime} \mathrm{E}$, Jan. 13June 4, 1995, pitfall (J. Waldock, WAM T45348), 10’; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 13^{\prime} \mathrm{S}, 115^{\circ} 31^{\prime} \mathrm{E}$, Aug. 17-Oct. 4, 1994, pitfall (A. Sampey, WAM T45346), 19, Jan. 13-June 5, 1995, pitfalls (J. Waldock, WAM T45347), $20^{\circ}$, 1 ¢ ; Bold Park, $31^{\circ} 57^{\prime}$ S, $115^{\circ} 46^{\prime}$ E, Nov. 18, 1993-Jan. 6, 1994, pitfall (J. Waldock, WAM T45093), 1p; Boolading Nature Reserve, $33^{\circ} 21^{\prime} \mathrm{S}, 116^{\circ} 37^{\prime}$ S, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49517), 19; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 40^{\prime} \mathrm{E}$, Jan. 15-May 29, 1995, pitfall (J. Waldock, WAM T45351), 10'; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$, $113^{\circ} 41^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfall (A. Sampey, WAM T45352), 1o, Jan. 15-May 30, 1995, pitfall (J. Waldock, WAM T45353), 1o ${ }^{\circ}$, May 30-Aug. 25, 1995, pitfall (N. Hall, WAM T45354), $10^{\circ}$; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$, $113^{\circ} 42^{\prime}$ E, Sept. 27-Oct. 2, 1994, dry pitfall (A. Sampey, WAM T45355), 1̊; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 45^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfalls (A. Sampey, WAM T45356), 2q; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 45^{\prime} \mathrm{E}$, Aug. $20-$ Sept. 30, 1994, pitfalls (A. Sampey, WAM T45357), 20, Jan. 15-May 31, 1995, pitfall (J.


Figs. 227-231. Molycria vokes, new species. 227. Left male palp, prolateral view. 228. Same, ventral view. 229. Same, retrolateral view. 230. Epigynum, ventral view. 231. Same, dorsal view.

Waldock, WAM T45358), 10, May 31-Aug. 25, 1995, pitfall (N. Hall, WAM T45359), 30', 2o; Boundain Nature Reserve, $32^{\circ} 55^{\prime} \mathrm{S}, 117^{\circ} 21^{\prime} \mathrm{E}$, Oct. 15, 1997-May 14, 1998, pitfalls (P. Van Heurck, WAM T49518), 30, 3o; Bruce RockDoodlakine Road, $31^{\circ} 51^{\prime} \mathrm{S}, 118^{\circ} 06^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51112), 2̊; Bunce-King Road, E Darkan, $33^{\circ} 19^{\prime} \mathrm{S}, 116^{\circ} 48^{\prime} \mathrm{E}$, Oct. 15, 1999Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51761), $10^{\prime}$; Buntine Nature Reserve, $29^{\circ} 58^{\prime} \mathrm{S}$, $116^{\circ} 35^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49519), 10', 1o; Buntine Nature Reserve, $29^{\circ} 59^{\prime} \mathrm{S}, 116^{\circ} 34^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T63045), 20'; Buntine Nature Reserve, $29^{\circ} 59^{\prime} \mathrm{S}, 116^{\circ} 37^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T49521), 20', 2O; Burracoppin-Campion Road, $31^{\circ} 09^{\prime} \mathrm{S}$, $118^{\circ} 29^{\prime}$ E, Oct. 30, 1997-May 21, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51113, 51710), $10^{\prime}, 4{ }^{\circ}$; Bush Bay, $25^{\circ} 07^{\prime} \mathrm{S}, 113^{\circ} 48^{\prime} \mathrm{E}$, Jan. 16-May 23, 1995, pitfall (P. West, WAM T45360), 10', May 23-Aug. 23, 1995, pitfall (N. Hall, WAM T45361), 1ᄋ; Canna Nature Reserve, $28^{\circ} 53^{\prime} \mathrm{S}, 115^{\circ} 51^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T49522), 1̊; Coalseam Conservation Park, $28^{\circ} 56^{\prime} \mathrm{S}$, $115^{\circ} 35^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49525), 10', 2o; Commonwealth Road, SE Kulin, $32^{\circ} 44^{\prime} \mathrm{S}$, $116^{\circ} 1^{\prime}$ E, Oct. 30, 1997-May 15, 1998, pitfall (N. Guthrie, WAM T49445), 30'; Cunderdin Road, NE Mukinbudin, $30^{\circ} 40^{\prime} \mathrm{S}, 118^{\circ} 29^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49327), 50', 2ǫ; E Darkin Road, 19 km SW Beverley, Oct. 30, 1997-May 29, 1998, pitfall (B. Durrant, WAM T49448, 51717, 51766), 20*, 2¢; Dead Mans Swamp Nature Reserve, $33^{\circ} 30^{\prime} \mathrm{S}$, $116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 2, 2000, pitfalls (L. King, WAM T49532), $50^{\circ}, 2$; $; 10 \mathrm{~km}$ NW Doodlakine on Woolundra North Road, $31^{\circ} 34^{\prime} \mathrm{S}, 117^{\circ} 49^{\prime} \mathrm{E}$, Apr. 14, 1992, bushland remnant, pitfalls (G. Smith, WAM T60330), 10'; Doogue Road, W Mullewa, $28^{\circ} 30^{\prime}$ S, $115^{\circ} 15^{\prime}$ E, Sept. 15, 1998-Jan. 1999, pitfall (N. Guthrie, WAM T49536), 1ᄋ, Sept. 15, 1998-Oct. 18, 1999, same (WAM T51156), 10'; Dragon Rocks Nature Reserve, $32^{\circ} 41^{\prime} \mathrm{S}, 118^{\circ} 59^{\prime} \mathrm{E}$, Oct. 30, 1997-May 20, 1998, pitfalls (N. Guthrie, WAM T49470, 49537), 20'; Dragon Rocks Nature Reserve, Pingaring-Varley Road, $32^{\circ} 46^{\prime} \mathrm{S}, 119^{\circ} 00^{\prime} \mathrm{E}$, May $20-$ Sept. 22, 1998, pitfall (N. Guthrie, WAM T49571), 10'; Dryandra woodland, E Wandering-Narrogin Road, $32^{\circ} 46^{\prime} \mathrm{S}, 117^{\circ} 07^{\prime} \mathrm{E}$, Apr. 16, 1997, under rock, granite outcrop (M. Harvey, J. Waldock, A. Desmond, WAM T45106), 1 ¢ ; water reserve
on railway line SW Dudinin, $32^{\circ} 54^{\prime} \mathrm{S}, 117^{\circ} 53^{\prime} \mathrm{E}$, Oct. 15, 1997-May 15, 1998, pitfall (N. Guthrie, WAM T51140), 10'; NW side, Dunn Rock Nature Reserve, $33^{\circ} 17^{\prime} \mathrm{S}, 119^{\circ} 30^{\prime} \mathrm{E}$, Oct. 15, 1999-Oct. 25, 2000, pitfall (N. Guthrie, WAM T49538), 1̊; Durokoppin Nature Reserve, $31^{\circ} 24^{\prime}$ S, $117^{\circ} 46^{\prime}$ E, Feb. 26-Mar. 7, 1989, pitfall (G. Friend, WAM T51832), 10', Oct. 30, 1997May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T45689, 45691, 51721), 10³ 30; Durokoppin Nature Reserve, $31^{\circ} 30^{\prime} \mathrm{S}$, $117^{\circ} 44^{\prime} \mathrm{E}$, Nov. 1-Dec. 21, 1987-1988 (D. Mitchell, WAM T45269-45272, 45274), 6¢; East Yorkrakine Nature Reserve, $31^{\circ} 28^{\prime} \mathrm{S}, 117^{\circ} 41^{\prime} \mathrm{E}$, Mar. 16-26, 1989, pitfall (G. Friend, WAM T45211), 10*, Nov. 17-27, 1989, same (WAM T45285), 1ᄋ, Mar. 24-Apr. 3, 1990, same (WAM T45284), 10; East Yorkrakine Nature Reserve, $31^{\circ} 31^{\prime} \mathrm{S}, 117^{\circ} 37^{\prime} \mathrm{E}$, Mar. 16-26, 1989, pitfall (G. Friend, WAM T45212), 10; East Yuna Nature Reserve, $28^{\circ} 25^{\prime} \mathrm{S}, 115^{\circ} 12^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49539, 51159), 5¢; E Fields Road, SE Lake King, $33^{\circ} 07^{\prime} \mathrm{S}, 121^{\circ} 12^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51792), 1 © ; Gardner Reserve Road, $31^{\circ} 47^{\prime} \mathrm{S}, 117^{\circ} 28^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (P. Van Heurck, N. Guthrie, E. Ladhams, WAM T45690, 51726), 1ơ, 1̣̊; Gardner Reserve Road, $31^{\circ} 47^{\prime} \mathrm{S}, 117^{\circ} 30^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (E. Ladhams, N. Guthrie, WAM T49540, 51134), $10^{\prime}$, $1 \circ$; Gleneagle, $32^{\circ} 15^{\prime} \mathrm{S}$, $116^{\circ} 10^{\prime} \mathrm{E}, 1971$ (J. Springett, AMS KS17280), 1우; Goongarrie Station, $29^{\circ} 57^{\prime} \mathrm{S}, 121^{\circ} 05^{\prime} \mathrm{E}$, May $1-5,1996$, dry pitfall (P. West, WAM T51815), $10^{\prime}, 1 \circ$; Goongarrie Station, $29^{\circ} 58^{\prime} \mathrm{S}, 121^{\circ} 04^{\prime} \mathrm{E}$, May 1-5, 1996, dry pitfall (P. West, WAM T51814), 10'; Gura Road, NW Narrogin, $32^{\circ} 46^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997-May 12, 1998, pitfall (E. Ladhams, WAM T49459, 49542), 2¢; Heirisson Prong, Shark Bay, $26^{\circ} 05^{\prime} \mathrm{S}, 113^{\circ} 22^{\prime} \mathrm{E}$, June 1999, pitfall (R. Visser, WAM T51816), 10'; Heitmans Scrub, $31^{\circ} 31^{\prime}$ S, $117^{\circ} 37^{\prime} \mathrm{E}$, Mar. 16-26, 1989, pitfall (G. Friend, WAM T45214), 10', Sept. 15-25, 1989 (G. Friend, WAM T51825), 1ᄋ, Mar. 24-Apr. 3, 1990, pitfalls (G. Friend, WAM T45215, 45216), 20'; Hepburn Heights, $31^{\circ} 49^{\prime}$ S, $115^{\circ} 46^{\prime} \mathrm{E}$, Nov. 28, 1995-Jan. 29, 1996, pitfall (M. Harvey, J. Waldock, WAM T45640, 45643), 2中, Jan. 29Mar. 28, 1996, pitfall (J. Waldock, P. West, A. Wheeler, WAM T45645), 50'; Hillman Nature Reserve, $33^{\circ} 18^{\prime} \mathrm{S}, 116^{\circ} 46^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49544), 1¢;adjacent to Holland Rock Nature Reserve, $33^{\circ} 22^{\prime} \mathrm{S}, 118^{\circ} 45^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51788), 1ᄋ; Indarra Spring Nature Reserve, $28^{\circ} 43^{\prime}$ S,
$115^{\circ} 20^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T49545), 1o; Jibberding Nature Reserve, $30^{\circ} 01^{\prime} \mathrm{S}, 116^{\circ} 49^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (N. Guthrie, WAM T49331, 49332), 20', 1ᄋ; Jilakin Lake, $32^{\circ} 40^{\prime}$ S, $118^{\circ} 20^{\prime}$ E, Oct. 30, 1997-May 15, 1998, pitfall (L. King, WAM T49548), 2̊; Julimar Conservation Park, $31^{\circ} 21^{\prime} \mathrm{S}, 116^{\circ} 13^{\prime} \mathrm{E}$, Sept. $15,1998-$ Nov. 4, 1999, pitfall (B. Durrant, WAM T51164), 1ᄋ; Karlgarin National Park, $32^{\circ} 31^{\prime}$ S, $118^{\circ} 33^{\prime}$ E, Oct. 30, 1997-May 19, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51733), 3O; Kellerberrin area, ca. $31^{\circ} 25^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime} \mathrm{E}$, Mar. 11, 1992, pitfall (G. Smith, WAM T51835), 10'; Kennedy Range National Park, $24^{\circ} 30^{\prime}$ S, $115^{\circ} 02^{\prime} \mathrm{E}$, Apr. 7-May 29, 1995, pitfalls (P. West, WAM T45362), 20', May 29-Aug. 28, 1995, pitfalls (N. Hall, WAM T45363), 20'; Kennedy Range National Park, $24^{\circ} 33^{\prime}$ S, $114^{\circ} 58^{\prime} \mathrm{E}$, May $29-$ Aug. 28, 1995, pitfall (N. Hall, WAM T45364), 1¢; Kennedy Range National Park, $24^{\circ} 34^{\prime}$ S, $114^{\circ} 57^{\prime} \mathrm{E}$, Aug. $1^{8-}$ Oct. 7, 1994, pitfall (M. Harvey, WAM T45365), 1Q, May 29-Aug. 28, 1995, pitfall (N. Hall, WAM T45366), 1ᄋ; Koolanooka Dam Road, SE Morawa, $29^{\circ} 15^{\prime}$ S, $116^{\circ} 06^{\prime}$ E, Sept. 15, 1998Oct. 18, 1999, pitfall (P. Van Heurck, WAM T51165), 10; Koorda Road Nature Reserve, $30^{\circ} 45^{\prime}$ S, $117^{\circ} 05^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfall (B. Durrant, WAM T49340), 1ǫ; Koorda Road Nature Reserve, $30^{\circ} 46^{\prime} \mathrm{S}, 117^{\circ} 03^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T51169, 51170), 40, 3¢; Kulja-Mollerin Rock Road, $30^{\circ} 32^{\prime}$ S, $117^{\circ} 34^{\prime}$ E, Sept. 15, 1998Oct. 25, 1999, pitfalls (L. King, WAM T51123. 51175), 100", 10¢ ; 10.8 km NNE Kulonoski East Well, Little Sandy Desert, $24^{\circ} 35^{\prime} \mathrm{S}, 120^{\circ} 16^{\prime} \mathrm{E}$, Oct. 1996, pitfall (S. van Leeuwen, B. Bromilow, WAM T49312), 1¢; Kwelkan, $31^{\circ} 08^{\prime} \mathrm{S}$, $118^{\circ} 00^{\prime} \mathrm{E}$, Mar. 30-June 29, 1999, pitfalls (M. Harvey, WAM T45157), 20*, Sept. 7-Nov. 30, 1999, pitfalls (J. Waldock, I. Studley, WAM T45158), 3ơ; Lake Fox, $32^{\circ} 55^{\prime}$ S, $119^{\circ} 29^{\prime}$ E, Oct. 30, 1997-May 20, 1998, pitfall (P. Van Heurck, WAM T51124), 10'; Lake Goorly, $29^{\circ} 50^{\prime} \mathrm{S}$, $116^{\circ} 5^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T51177), 2ǫ; Lake Magenta Nature Reserve, $33^{\circ} 26^{\prime} \mathrm{S}$, $118^{\circ} 54^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51794), 20², 2中; Lake Magenta Nature Reserve, $33^{\circ} 30^{\prime} \mathrm{S}, 119^{\circ} 03^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51674), $10^{\prime}$; Lake Moore, $30^{\circ} 20^{\prime}$ S, $117^{\circ} 30^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (N. Guthrie, WAM T63048), 2̊; Landsdale School, $31^{\circ} 49^{\prime} \mathrm{S}$, $115^{\circ} 51^{\prime} \mathrm{E}$, Jan. 29-Mar. 28, 1996, pitfall (J. Waldock, P. West, A. Wheeler, WAM T45649), $10^{\prime} ; 11 \mathrm{~km}$ E Latham Shire Reserve, $29^{\circ} 44^{\prime} \mathrm{S}$,
$116^{\circ} 34^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T49555), 1ơ; 39 km E Laverton, $28^{\circ} 28^{\prime} \mathrm{S}, 122^{\circ} 50^{\prime} \mathrm{E}$, Nov. 22-24, 1990, pitfall (E. Pianka, WAM 91/1044), 19+; Lochada Road Nature Reserve, $29^{\circ} 15^{\prime}$ S, $116^{\circ} 22^{\prime}$ E, Sept. 15, 1998-Apr. 1, 1999, pitfalls (L. King, WAM T63044), 2中; Lochada Road Nature Reserve, $29^{\circ} 16^{\prime}$ S, $116^{\circ} 23^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (L. King, WAM T49556, 51182), 20', 3@; Lorna Glen Station, $26^{\circ} 12^{\prime} \mathrm{S}, 121^{\circ} 18^{\prime} \mathrm{E}$, Apr. $2-$ 14,2002 , pitfall (M. Cowan, WAM T60327), $10^{\circ}$; Mackie Creek Reserve, $32^{\circ} 00^{\prime} \mathrm{S}, 117^{\circ} 01^{\prime} \mathrm{E}$, Oct. 30, 1997-May 26, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51742, 51744), 10', 2̊; Manmanning Dam Nature Reserve, $30^{\circ} 49^{\prime}$ S, $117^{\circ} 05^{\prime}$ E, Sept. $15,1998-$ Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49558), 2o; Manmanning Nature Reserve, $30^{\circ} 54^{\prime} \mathrm{S}, 117^{\circ} 05^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49358, 49360), 20*, 1; Manmanning Nature Reserve, $30^{\circ} 54^{\prime} \mathrm{S}, 117^{\circ} 06^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T51185, 51186), 3o, 1̊; Manmanning Town Reserve, $30^{\circ} 51^{\prime}$ S, $117^{\circ} 06^{\prime}$ E, Jan. 14-Apr. 21, 1997, pitfalls (J. Waldock, E. Volschenk, WAM T45159), 30'; Mardathuna Station, $24^{\circ} 24^{\prime}$ S, $114^{\circ} 27^{\prime}$ E, Oct. 5, 1994-Jan. 14, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45371), 1¢, May 24-Aug. 28, 1995, pitfalls (N. Hall, WAM T45372), 10, 1̊; Mardathuna Station, $24^{\circ} 26^{\prime}$ S, $114^{\circ} 30^{\prime}$ E, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM T45370), 1o; Mardathuna Station, $24^{\circ} 27^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM T45368), 1o, May 25-Aug. 26, 1995, pitfall (N. Hall, WAM T45369), 1ó; Mardathuna Station, $24^{\circ} 31^{\prime} \mathrm{S}$, $114^{\circ} 38^{\prime} \mathrm{E}$, May $23-28$, 1995, dry pitfall (A. Sampey, WAM T45367), 10; Martinjinni Nature Reserve, $30^{\circ} 18^{\prime} \mathrm{S}, 116^{\circ} 27^{\prime} \mathrm{E}$, Sept. 15, 1998Oct. 25, 1999, pitfall (L. King, WAM T51187), 10'; Midlands Road, Gunyidi Nature Reserve, $30^{\circ} 11^{\prime} \mathrm{S}, 116^{\circ} 02^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49541), 1ᄋ; Minnivale, $31^{\circ} 08^{\prime} \mathrm{S}, 117^{\circ} 11^{\prime} \mathrm{E}$, Apr. 14-May 6, 1984, pitfall (B. Main, WAM T49317), 10'; Mount Claremont, $31^{\circ} 58^{\prime} \mathrm{S}, 115^{\circ} 46^{\prime} \mathrm{E}$, Nov. 4, 1994-Jan. 19, 1995, pitfall (J. Waldock, M. Harvey, WAM T45656), 1?, Jan. 19-Mar. 21, 1995, same (WAM T63043), 10'; Mount Vernon, $32^{\circ} 47^{\prime} \mathrm{S}, 119^{\circ} 14^{\prime} \mathrm{E}$, Oct. 30, 1997-May 20, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51130), 10 ; 4.1 km N Mungada Road, along powerline, N. Penjori, $29^{\circ} 19^{\prime}$ S, $116^{\circ} 23^{\prime}$ E, Sept. 15, 1998-Apr. 1, 1999, pitfall (P. Van Heurck, WAM T49563), 1o; Mungarri Nature Reserve, $30^{\circ} 20^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T51188, 51189), 50', 5o; Mungarri Nature Reserve, $30^{\circ} 21^{\prime} \mathrm{S}$,
$117^{\circ} 45^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfall (L. King, WAM T63047), 10; Nanga Station, $26^{\circ} 29^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, Aug. 23-Oct. 16, 1994, pitfalls (P. West, WAM T45373), 10', 60, May 11-Aug. 30, 1995, pitfalls (N. Hall, WAM T45379), $10^{*}, 20$; Nanga Station, $26^{\circ} 31^{\prime} \mathrm{S}$, $114^{\circ} 00^{\prime} \mathrm{E}$, Jan. 19-May 12, 1995, pitfall (A. Sampey, WAM T45374), 10; Nanga Station, $26^{\circ} 33^{\prime} \mathrm{S}, 113^{\circ} 58^{\prime} \mathrm{E}$, Aug. 23-Oct. 16, 1994, pitfalls (P. West, WAM T45375), 2o, Jan. 19May 11, 1995, pitfalls (A. Sampey, WAM T45376), 50, May 11-Aug. 30, 1995, pitfalls (N. Hall, WAM T45377), 2ǫ; Nanga Station, $26^{\circ} 36^{\prime}$ S, $113^{\circ} 53^{\prime} \mathrm{E}$, Jan. 19-May 11, 1995, pitfall (A. Sampey, WAM T45378), 10'; NangettiWalkaway Road, $28^{\circ} 55^{\prime} \mathrm{S}, 115^{\circ} 26^{\prime} \mathrm{E}$, Oct. 15 , 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T51132), 20, 1¢ ; Nerren Nerren Station, $27^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Aug. 25-Oct. 15, 1994, pitfall (J. Waldock, WAM T45384), 1¢; Nerren Nerren Station, $27^{\circ} 03^{\prime} \mathrm{S}, 114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 25-Oct. 16, 1994, pitfall (J. Waldock, WAM T45380), 1o, Oct. 16, 1994-Jan. 11, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45381), 1o, May 11-Aug. 18, 1995, pitfalls (N. Hall, WAM T45382, 45383), 20'; Nerren Nerren Station, $27^{\circ} 03^{\prime} \mathrm{S}$, $114^{\circ} 36^{\prime} \mathrm{E}$, Aug. 25-Oct. 16, 1994, pitfall (J. Waldock, WAM T45385), 1Q, Jan. 11-May 11, 1995, pitfalls (P. West, WAM T45386), 20'; Newdegate-Ravensthorpe Road, W Lake King, $33^{\circ} 05^{\prime} \mathrm{S}, 119^{\circ} 38^{\prime} \mathrm{E}$, Oct. 15, 1999-Oct. 25, 2000, pitfall (N. Guthrie, WAM T51801), 10'; Noorajin Soak Nature Reserve, $30^{\circ} 45^{\prime} \mathrm{S}, 117^{\circ} 15^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T51190-51193), 50', 3o; North Baandee Nature Reserve, $31^{\circ} 22^{\prime} \mathrm{S}, 117^{\circ} 56^{\prime} \mathrm{E}$, Apr. 14, 1992, bushland remnant, pitfall (G. Smith, WAM T60320-60323), 60*, 1Q; North Bungulla Reserve, $31^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 35^{\prime} \mathrm{E}$, Aug. 1Sept. 28, 1983, pitfall (B. Main, WAM T45204), 1 19; Nullewa Lake, $29^{\circ} 07^{\prime} \mathrm{S}, 116^{\circ} 12^{\prime} \mathrm{E}$, Sept. 15 , 1998-Oct. 18, 1999, pitfall (N. Guthrie, WAM T51195), 1¢; Pintharuka Nature Reserve, $29^{\circ} 06^{\prime} \mathrm{S}, 116^{\circ} 00^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T49572, 51199), 20*, 1 ¢ ; Rasmussen Road, 25 km NNE Nyabing, $33^{\circ} 21^{\prime} \mathrm{S}, 118^{\circ} 16^{\prime} \mathrm{E}$, Oct. $15,1999-$ Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T49574), $10^{\circ}$, 1ᄋ; Red Sands, $7-8 \mathrm{~km}$ WNW Point Salvation, $28^{\circ} 12^{\prime} \mathrm{S}, 123^{\circ} 35^{\prime} \mathrm{E}$, Nov. 5-7, 1989, pitfall (E. Pianka, WAM 91/1050), 1¢; N Rollond Road, near junction with Neds Corner Road, $33^{\circ} 15^{\prime}$ S, $121^{\circ} 06^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51804), 1ᄋ; Salt River, Beverley Road, S Quairading, $32^{\circ} 05^{\prime} \mathrm{S}, 117^{\circ} 24^{\prime} \mathrm{E}$, Oct. 30, 1997-May 26, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51702), 1̊; Sandplains Nature Reserve,
$31^{\circ} 36^{\prime} \mathrm{S}$, $118^{\circ} 45^{\prime} \mathrm{E}$, Oct. 30, 1997-Apr. 29, 1998, pitfalls (P. Van Heurck, WAM T45688), 2ᄋ; Silver Wattle Hill Nature Reserve, $33^{\circ} 09^{\prime} \mathrm{S}$, $118^{\circ} 50^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51805), 19; Stirling Range Caravan Park, $34^{\circ} 19^{\prime}$ S, $118^{\circ} 12^{\prime} \mathrm{E}$, Mar. 29-Apr. 2, 1993, in swimming pool (M. Harvey, J. Waldock, WAM T45298), 10'; Talgomine Reserve, N. Merredin, $31^{\circ} 15^{\prime} \mathrm{S}, 118^{\circ} 24^{\prime} \mathrm{E}$, Oct. 10, 1997-Apr. 28, 1998, pitfall (N. Guthrie, WAM T49576), 10', Apr. 28-Sept. 22, 1998, same (WAM T51808), 1o; Tomingly Road, NW Narrogin, $32^{\circ} 47^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997May 12, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T49476), 20'; Trigg Dune Bush, $31^{\circ} 53^{\prime} \mathrm{S}, 115^{\circ} 45^{\prime} \mathrm{E}$, Jan. 29-Mar. 28, 1996, pitfall (J. Waldock, P. West, A. Wheeler, WAM T45663), 10'; Tutanning Nature Reserve, $32^{\circ} 32^{\prime} \mathrm{S}$, $117^{\circ} 17^{\prime} \mathrm{E}$, Oct. 15, 1997-May 11, 1998, pitfall (P. Van Heurck, WAM T51139), 1̊; Urawa Nature Reserve, $28^{\circ} 24^{\prime} \mathrm{S}, 115^{\circ} 35^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T49580), 10; Vermin Proof Fence, E Beacon, $30^{\circ} 14^{\prime}$ E, $118^{\circ} 18^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49582), 20*, 1¢; Vermin Proof Fence, 5 km E Angle Road, E Beacon, $30^{\circ} 14^{\prime} \mathrm{E}$, $118^{\circ} 20^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49584), 80*, 30; Wamenusking Nature Reserve, $32^{\circ} 08^{\prime} \mathrm{S}$, $117^{\circ} 31^{\prime}$ E, Oct. 30, 1997-May 26, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T49481), 1ᄋ, May 26-Oct. 5, 1998, pitfall (N. Guthrie, WAM T49374), 1ᄋ; Warwick Open Space, $31^{\circ} 51^{\prime}$ S, $115^{\circ} 49^{\prime}$ E, Sept. 25-Nov. 28, 1995, pitfall (M. Harvey, J. Waldock, WAM T45671), 1o, Jan. 29-Mar. 28, 1995, pitfalls (J. Waldock, P. West, A. Wheeler, WAM T45672, 45675), 20', 1ᄋ; Weelhamby Lake, $29^{\circ} 11^{\prime} \mathrm{S}$, $116^{\circ} 27^{\prime}$ E, Oct. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T63046), 1¢; West Perenjori Nature Reserve, $29^{\circ} 29^{\prime} \mathrm{S}, 116^{\circ} 13^{\prime} \mathrm{E}$, Sept. 15, 1998Oct. 25, 1999, pitfalls (B. Durrant, WAM T49375, 49589, 49590), 60', 2ǫ; White Cross, Rasmussen Road, NNE Nyabing, $33^{\circ} 21^{\prime} \mathrm{S}$, $118^{\circ} 19^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T49573), 1̊; Wilroy Nature Reserve, $28^{\circ} 38^{\prime} \mathrm{S}, 115^{\circ} 39^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T49378, T51212), 20', 1¢; Wongan Hills-Ballidu Road, $30^{\circ} 52^{\prime} \mathrm{S}, 116^{\circ} 43^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T49595), 1 º́ Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}$, $114^{\circ} 25^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfalls (M. Harvey, WAM T45391), 2o, May 17-Aug. 21, 1995, pitfall (N. Hall, WAM T45392), 10'; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Jan. 12-May 17, 1995, pitfall (P. West, WAM

T45390), $10^{\prime}$; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}$, $114^{\circ} 32^{\prime} \mathrm{E}$, May 17 -Aug. 21, 1995, pitfall (N. Hall, WAM T45389), 10'; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 22-Oct. 12, 1994, pitfall (M. Harvey, WAM T45388), 3¢; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 36^{\prime} \mathrm{E}$, May 17-Aug. 21, 1995, pitfall (N. Hall, WAM T45387), 10'; Woodline, Goldfields Survey, $31^{\circ} 57^{\prime} \mathrm{S}, 122^{\circ} 24^{\prime} \mathrm{E}$, Aug. 7-12, 1980, mallee, shrubs (W. Humphries, WAM 88/82), 1o; Woodman Point, $32^{\circ} 08^{\prime}$ S, $115^{\circ} 45^{\prime} \mathrm{E}$, Mar. 21May 4, 1995, pitfall (J. Waldock, M. Harvey, WAM T45677), 10'; Wroth Road Nature Reserve, $31^{\circ} 19^{\prime}$ S, $116^{\circ} 34^{\prime}$ E, Sept. 15, 1998-Nov. 4, 1999, pitfall (N. Guthrie, WAM T49379, 49380), 20'; Wubin Rocks Nature Reserve, $30^{\circ} 03^{\prime} \mathrm{S}$, $116^{\circ} 41^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49597), 10, 19; Yelbeni, $31^{\circ} 10^{\prime} \mathrm{S}, 117^{\circ} 40^{\prime} \mathrm{E}$, Mar. 30-June 29, 1999, pitfall (M. Harvey, WAM T45109), 10'; Yorkrakine Rock Nature Reserve, $31^{\circ} 25^{\prime} \mathrm{S}$, $117^{\circ} 30^{\prime} \mathrm{E}$, Mar. 29-June 28, 1999, pitfall (M. Harvey, WAM T45105), 20'; Yorkrakine Rock Nature Reserve, $31^{\circ} 25^{\prime} \mathrm{S}, 117^{\circ} 31^{\prime} \mathrm{E}$, Mar. 29-June 28, 1999, pitfall (M. Harvey, WAM T45104), 1 ¢; Yorkrakine Rock Nature Reserve, $31^{\circ} 26^{\prime} \mathrm{S}, 117^{\circ} 31^{\prime} \mathrm{E}$, Mar. 6-June 16, 2001, pitfalls (J. Waldock, T., I. Karanovic, M. Harvey, B. Main, WAM T45309, 51824), 30, 1ó; Yundamindra, $29^{\circ} 15^{\prime} \mathrm{S}, 122^{\circ} 24^{\prime} \mathrm{E}$, July 23-29, 1981 (W. Humphreys, WAM 88/83), 1ǫ; Zuytdorp, $27^{\circ} 15^{\prime} \mathrm{S}, 114^{\circ} 11^{\prime} \mathrm{E}$, Aug. 26-Oct. 16, 1994, pitfall (A. Sampey, WAM T45396), 1ᄋ, May 17Aug. 16, 1995, pitfalls (N. Hall, WAM T45397), 20'; Zuytdorp, $27^{\circ} 16^{\prime}$ S, $114^{\circ} 01^{\prime} \mathrm{E}$, Jan. 11-May 19, 1995, pitfall (M. Harvey, WAM T45393), $10^{\prime}$; Zuytdorp, $27^{\circ} 16^{\prime}$ S, $114^{\circ} 02^{\prime}$ E, Jan. 11-May 18, 1995, pitfalls (M. Harvey, WAM T45394, 45395), 1ơ, 1 ㅇ․

Distribution: Known only from Western and South Australia (map 16).

## Molycria amphi, new species <br> Figures 232-236; Map 15

Types: Male holotype and female allotype taken in pitfall traps in open forest at an elevation of 440 m at "Amphitheatre" yards, Expedition Range National Park, $25^{\circ} 13^{\prime}$ S, $149^{\circ} 01^{\prime} \mathrm{E}$, Queensland (Sept. 27-Dec. 19, 1997; G. Monteith, D. Cook), deposited in QMB (male S66629, female S66634).

Etymology: The specific name is an arbitrary combination of letters.

DiAgnosis: Males have a wide conductor tip, with a sclerotized strip paralleling the
embolus (fig. 233); females have an anteriorly situated epigynal atrium (fig. 235).

Male: Total length 2.60. Carapace 1.22 long, 1.12 wide, 0.46 high, length/width 1.09 ; sternum 0.80 long, 0.72 wide, length/width 1.11; abdomen 1.38 long, 0.80 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.84:0.76:0.96. Carapace, legs orange; sternum yellow, with darker lateral margins; chelicerae, endites, labium pale gray; abdominal dorsum gray, with weak orange scutum, half ring-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.70 of caput width; AME 0.12; ALE 0.10; PME 0.14; PLE 0.10; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.28; PME-PME 0.30. Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.56 of abdominal length, contiguous. Palp (figs. 232-234): conductor originating distally, broad, ventrally folded distal end, with greatly expanded, hood-shaped, twisted, retrolaterally directed beak-shaped tip; sclerotized strip paralleling embolus; median apophysis short, ventrally excavated, with long median tip; sperm duct weakly ushaped; embolus long, thin; embolar base separated from tegulum, lobate; tibia ventrally about $1.8-2.0$ times as long as


Map 16. Circle, Molycria vokes, new species. Square, Molycria taroom, new species.


Figs. 232-236. Molycria amphi, new species. 232. Left male palp, prolateral view. 233. Same, ventral view. 234. Same, retrolateral view. 235. Epigynum, ventral view. 236. Same, dorsal view.
wide，retrolateral tibial apophysis short，tri－ angular．

Female：Total length 3．60．Carapace 1.26 long， 1.22 wide， 0.46 high，length／width 1．03；sternum 0.84 long， 0.76 wide，length／ width 1．10；abdomen 2.34 long， 1.14 wide； relative length of coxae I－IV 1．00：0．84： 0．72：0．96．Coloration as in male but without dorsal scutum．Eye group width 0.73 of caput width．ALS 0.38 of abdominal length．Epigy－ num（figs．235，236）：atrium with rounded anterior margin，two medial，concave copu－ latory openings；epigynal ducts short，parallel along midline，spermathecae contiguous，sau－ sage－shaped，in v－shaped position．

Other Material Examined：Queensland： ＂Amphitheatre＂camp，Expedition Range Na－ tional Park， $25^{\circ} 12^{\prime}$ S， $148^{\circ} 59^{\prime}$ E，Sept． $25-$ Dec． 18，1997，open forest pitfalls，elev． 560 m （D． Cook，G．Monteith，QMB S44235）， $20^{\circ}, 1$ ， Dec．18，1997－Mar．5，1998，same（QMB S25341，S44231），20＇，3ọ；＂Amphitheatre＂ scrub，Expedition Range National Park， $25^{\circ} 13^{\prime}$ S， $148^{\circ} 59^{\prime}$ E，Sept．25－Dec．17，1997，vine forest pitfall，elev． 520 m （D．Cook，G．Mon－ teith，QMB S44232），1o；＂Amphitheatre＂yards， Expedition Range National Park， $25^{\circ} 13^{\prime} \mathrm{S}$ ， $149^{\circ} 01^{\prime}$ E，Sept．27－Dec．19，1997，open forest pitfall，elev． 440 m （G．Monteith，D．Cook， QMB S44226，44228，44796），5o＇，3오，Dec．19， 1997－Mar．4，1998，open forest pitfall，elev． 440 m （D．Cook，G．Monteith，QMB S44225）， 10＇；adjacent Boggomoss No．3，Taroom Dis－ trict， $25^{\circ} 26^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$ ，June $12-$ Sept． 9,1996, pitfall（P．Lawless，QMB S56827），10＇；Bottle Tree Scrub，Taroom－Cracow Road， $25^{\circ} 33^{\prime} \mathrm{S}$ ， $150^{\circ} 08^{\prime}$ E，Nov．14，1997－Jan．13，1997，pitfall （D．Cook，QMB S40136），10＇；Brigalow Re－ search Station， $24^{\circ} 48^{\prime} \mathrm{S}, 149^{\circ} 45^{\prime} \mathrm{E}$ ，Oct．29－Dec． 16，2000，vine scrub pitfall，elev． 160 m （D． Cook，G．Monteith，QMB S68062），10＇，Dec． 16，2000－Mar．28，2001，soft wood scrub pitfall （D．Cook，G．Monteith，QMB S68059），19；East Woodmillar，top， $25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 36^{\prime} \mathrm{E}$ ，Dec．18， 1998－Jan．25，1999，open forest pitfall，elev． 300 m （G．Monteith，C．Gough，QMB S66631）， 19\％；Expedition Range Road， $24^{\circ} 30^{\prime} \mathrm{S}, 149^{\circ} 05^{\prime} \mathrm{E}$ ， Dec．17，1997，on bare roadside（G．Monteith， D．Cook，QMB S59333），19；Gurgeena Plateau， $25^{\circ} 27^{\prime} \mathrm{S}, 151^{\circ} 22^{\prime}$ E，Oct．10－Dec．19，1998，open forest pitfall，elev． 360 m （G．Monteith，C． Gough，QMB S47769），10＊；Gurgeena Plateau， $25^{\circ} 27^{\prime}$ S， $151^{\circ} 23^{\prime}$ E，Dec．18，1998－Jan．27，1999， open forest pitfall，elev． 360 m （G．Monteith，C． Gough，QMB S49890）， $10^{\circ} ; 3.2 \mathrm{~km}$ NE Isla Gorge Lookout， $25^{\circ} 11^{\prime} \mathrm{S}, 150^{\circ} 00^{\prime} \mathrm{E}$ ，Sept． $22-$

Dec．15，1997，open forest pitfall，elev． 300 m （D．Cook，QMB S44198）， $10^{\circ} ; 8.4 \mathrm{~km}$ SSW Isla Gorge Lookout， $25^{\circ} 16^{\prime} \mathrm{S}, 149^{\circ} 56^{\prime}$ E，Sept． $21-$ Dec．19，1997，vine scrub pitfall，elev． 360 m （G． Monteith，QMB S66633），10＇；Isla Gorge Lookout turnoff， $25^{\circ} 12^{\prime} \mathrm{S}, 149^{\circ} 58^{\prime} \mathrm{E}$ ，Sept． $22-$ Dec．15，1997，open forest pitfall，elev． 380 m （D．Cook，QMB S47801），30＇；Isla Gorge National Park， $25^{\circ} 10^{\prime}$ S， $150^{\circ} 01^{\prime} \mathrm{E}$ ，July $12-$ Sept．22，1997，bottletree scrub pitfall（D．Cook， QMB S66630），1̣；Isla Gorge National Park， $25^{\circ} 11^{\prime}$ S， $150^{\circ} 00^{\prime}$ E，July $12-$ Sept．22，1997，open forest pitfall（D．Cook，QMB S43888），10＇， 1 ¢； NE corner，Isla Gorge National Park， $25^{\circ} 10^{\prime} \mathrm{S}$ ， $150^{\circ} 01^{\prime}$ E，Sept．22－Dec．15，1997，vine scrub pitfall，elev． 240 m （G．Monteith．D．Cook， QMB S44196，44530），10＇，4甲；Koy property at Brigooda，bottom site， $26^{\circ} 16^{\prime}$ S， $151^{\circ} 25^{\prime}$ E，Jan． 26－Apr．20，1995，vine scrub pitfall（G． Monteith，QMB S68061），10＇；Koy property at Brigooda，top site， $26^{\circ} 16^{\prime} \mathrm{S}, 151^{\circ} 25^{\prime} \mathrm{E}$ ，Dec， 15 ， 1994－Jan．26，1995，vine scrub pitfall（G． Monteith，QMB S46968），19，Jan．26－Apr．20， 1995，same（QMB S31601），19；Mount Pleasant， $25^{\circ} 22^{\prime} \mathrm{S}, 149^{\circ} 14^{\prime} \mathrm{E}$ ，Oct． 30 ， 1999 ，pitfall，tree clearing（D．Hannah，QMB S67719），10＇； Mudlo Gap，bottom， $26^{\circ} 01^{\prime} \mathrm{S}, 152^{\circ} 14^{\prime} \mathrm{E}$ ，Aug． 20－Oct．9，1998，rainforest pitfall，elev． 170 m （G．Monteith，QMB S47765），1¢；Nipping Gully，site $7,25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 26^{\prime} \mathrm{E}$ ，Dec． 18 ， 1998－Jan．25，1999，open forest pitfall，elev． 320 m（G．Monteith，C．Gough，QMB S50619）， 29；Oil Bore Road，Expedition Range National Park， $25^{\circ} 12^{\prime} \mathrm{S}, 149^{\circ} 11^{\prime} \mathrm{E}$, Sept．27－Dec．17， 1997，open forest pitfall，elev． 520 m （D．Cook， QMB S44238），10＇，2op；Pearlinga，via Mundub－ bera， $25^{\circ} 36^{\prime}$ S， $151^{\circ} 07^{\prime}$ E，July 22－Dec．20，2000， pitfall，vine scrub，elev． 160 m （D．Cook，G． Monteith，QMB S57729），1中； 9 km N Taroom， $\mathrm{BS} 15,25^{\circ} 35^{\prime} \mathrm{S}, 149^{\circ} 46^{\prime} \mathrm{E}$ ，pitfall（P．Lawless， QMB S36451），1o；Taroom District，BS24， $25^{\circ} 25^{\prime} \mathrm{S}, 149^{\circ} 58^{\prime} \mathrm{E}$ ，Sept． $10-$ Nov．12，1996， pitfall，vine thicket on hill（P．Lawless，QMB S66632），10，Nov．12，1996－Jan．1997，same （QMB S56825），10＇，1甲）；Taroom District，Ta－ room－Cracow Road， $25^{\circ} 33^{\prime} \mathrm{S}, 150^{\circ} 08^{\prime} \mathrm{E}$ ，Nov． 14，1996－Jan．13，1997，bottletree scrub pitfall （D．Cook，QMB S36336），30＇； 10 km ENE Wonga Hills， $26^{\circ} 03^{\prime} \mathrm{S}, 150^{\circ} 55^{\prime} \mathrm{E}$ ，Dec．11，2001－ Mar．4，2002，brigalow pitfall，elev． 320 m （G． Monteith，D．Cook，QMB S62433），20＊，19； Wonga Hills，site $1,26^{\circ} 04^{\prime} \mathrm{S}, 150^{\circ} 49^{\prime} \mathrm{E}$ ，Oct． $10-$ Dec．11，2001，vine scrub pitfall，elev． 480 m （G． Monteith，D．Cook，QMB S61027），19，Dec．11， 2001－Mar．4，2002，same（QMB S62436），19； Wonga Hills，site $3,26^{\circ} 04^{\prime} \mathrm{S}, 150^{\circ} 50^{\prime}$ E，Oct． $10-$ Dec．11，2001，vine scrub pitfall，elev． 520 m （G． Monteith，D．Cook，QMB S61026）， $10^{\circ}$ ．

Distribution: Known only from southeastern Queensland (map 15), where it is sometimes found sympatrically with $M$. isla.

## Molycria taroom, new species

Figures 237-241; Map 16
Types: Male holotype and female allotype taken in pitfall traps at Boggomoss No. 3, Taroom District, $25^{\circ} 26^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, Queensland (Nov. 12, 1996-Jan. 12, 1997; D. Cook, G. Monteith), deposited in QMB (male S66618, female S36360).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. amphi, especially in the shape of the retrolateral tibial apophysis (fig. 239), but have a narrower conductor tip (fig. 238); females have a distinctively short epigynum, with the anterior margin situated just in advance of the spermathecae (fig. 240).

Male: Total length 2.78. Carapace 1.24 long, 1.14 wide, 0.42 high, length/width 1.09 ; sternum 0.80 long, 0.70 wide, length/width 1.14; abdomen 1.54 long, 0.88 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.91:0.82:0.96. Carapace, sternum, chelicerae grayish orange; endites, labium orange, distally pale; abdominal dorsum gray, with weak orange scutum, half moon-shaped pale spot in front of spinnerets, venter pale; legs orange. Carapace weakly covered with gray, plumose setae. Eye group width 0.85 of caput width; AME 0.14; ALE 0.12; PME 0.13 ; PLE 0.12; AME-AME 0.02; AMEALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.30; PME-PME 0.32. Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.49 of abdominal length, slightly separated. Palp (figs. 237-239): conductor originating distally, long, narrow, grooved longitudinally, distal part with retrolaterally directed beak-shaped tip; median apophysis short, scythe-shaped, with scooped tip; sperm duct u-shaped; embolus thin, semicircular, embolar base separated from tegulum, lobate; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis short, triangular; femur ventrally incrassate.

Female: Total length 3.36. Carapace 1.26 long, 1.20 wide, 0.40 high, length/width
1.05; sternum 0.82 long, 0.74 wide, length/ width 1.11; abdomen 2.10 long, 1.16 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.80:0.72:0.96. Coloration as in male but without dorsal scutum. Eye group width 0.79 of caput width; AME 0.13; ALE 0.10; PME 0.14 ; PLE 0.10; AME-AME 0.04; PMEPME 0.30. Clypeus 0.06 high. ALS 0.45 of abdominal length. Epigynum (figs. 240, 241): atrium with wide, arched anterior margin, two medial, convex copulatory openings; epigynal ducts short, parallel along midline, spermathecae contiguous, sausage-shaped, twisted, with one dorsal diverticulum.

Other Material Examined: Queensland: Boggomoss No. 1, Taroom District, $25^{\circ} 26^{\prime} \mathrm{S}$, $150^{\circ} 02^{\prime} \mathrm{E}$, June $12-$ Sept. 9,1996 , open forest pitfalls (P. Lawless, QMB S66621), 10, 1o, Sept. 9-Nov. 12, 1996, same (QMB S66620, 30897, 30939), 30', 1\%; Boggomoss No. 3, Taroom District, $25^{\circ} 26^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, June $12-$ Sept. 9, 1996, open forest pitfall (P. Lawless, QMB S37192), 50', Sept. 9-Nov. 11, 1996, same (QMB S66619), 10', Nov. 11, 1996-Jan. 12, 1997, same (G. Monteith, D. Cook, P. Lawless, QMB S36324, 37170), 20', 1op; Boggomoss No. 4, Taroom District, $25^{\circ} 26^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, Sept. 9-Nov. 11, 1996, open forest pitfall (P. Lawless, QMB S30938), 1ơ; Boggomoss No. 4, via Taroom, Glebe Weir Road, $25^{\circ} 26^{\prime} \mathrm{S}$, $150^{\circ} 01^{\prime}$ E, June-Sept. 9, 1996, pitfall (H. Janetzki, P. Lawless, D. Potter, QMB S36648), 1̊; Boggomoss No. 15, Taroom district, $25^{\circ} 28^{\prime} \mathrm{S}$, $150^{\circ} 01^{\prime} \mathrm{E}$, Nov. 11, 1996-Jan. 12, 1997, pitfall in field (P. Lawless, QMB S36718), 1¢; Boggomoss No. 19, Taroom District, $25^{\circ} 25^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, Nov 11, 1996-Jan. 1997, pitfall (G. Monteith, D. Cook, QMB S36209), 10'; Boggomoss No. 21, Taroom District, $25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 03^{\prime} \mathrm{E}$, Sept. 9-Nov. 10, 1996, open forest pitfalls (P. Lawless, QMB S30896), $50^{\circ}$, 19, Nov. 11, 1996Jan. 1997, pitfall (D. Cook, G. Monteith, QMB S36216, 36366), 30', 1中; Endfield Station, 40 km W Westmar, $27^{\circ} 55^{\prime} \mathrm{S}, 149^{\circ} 43^{\prime} \mathrm{E}, \mathrm{Jan} .9-12$, 1979, mulga pitfall (R. Raven, V. Davies, QMB S66623), 10'; Meta Park, $23^{\circ} 44^{\prime} \mathrm{S}$, $146^{\circ} 54^{\prime} \mathrm{E}$, Oct. 20, 1998, brigalow, tree clearing (QMB S67724), 10'; NW Quilpie, $25^{\circ} 05^{\prime} \mathrm{S}$, $143^{\circ} 28^{\prime} \mathrm{E}$, Oct. 1995, mulga pitfall (J. Landsberg, C. James, QMB S67727), 19; Taloona Station, 70 km N Roma, ca. $25^{\circ} 50^{\prime} \mathrm{S}, 148^{\circ} 50^{\prime} \mathrm{E}$, Sept. 8, 1982 (A. Rozefelds, QMB S66622), 10'; Taroom, Boggomoss Reserve, $25^{\circ} 26^{\prime} \mathrm{S}$, $150^{\circ} 02^{\prime}$ E, Nov. 11, 1996-Jan. 12, 1997, pitfall (P. Lawless, H. Janetzki, D. Cook, QMB S37240), 19 ; 11.5 km N Taroom on Highway


Figs. 237-241. Molycria taroom, new species. 237. Left male palp, prolateral view. 238. Same, ventral view. 239. Same, retrolateral view. 240. Epigynum, ventral view. 241. Same, dorsal view.
$21,25^{\circ} 34^{\prime}$ S, $149^{\circ} 46^{\prime}$ E, Sept. 21-Dec.19, 1997, brigalow pitfall, elev. 240 m (G. Monteith, QMB S44211), $10^{\circ}$.

Distribution: Known only from Queensland (map 16).

## Wydundra, new genus

Type Species: Wydundra osbourne, new species.

Etymology: The generic name is an arbitrary combination of letters considered feminine in gender.

Diagnosis: Members of this genus can easily be recognized by the greatly enlarged and widely separated anterior lateral spinnerets, which are separated at their base by more than their diameter.

Description: Medium-sized spiders, total length of males 2.7-6.0, of females 3.7-7.5. Carapace rounded, narrowed in front to less than half its maximum width, with rebordered lateral margins, tiny denticles, reflexed posterior margin; surface coated with recumbent, dark setae, without tubercles, several long, dark, erect setae present in ocular area and on clypeus; thoracic groove long, longitudinal, deeply depressed, cephalic groove not pronounced. Eight eyes in two rows, anterior medians largest, circular, dark, posterior median eyes almost as large, light, irregularly triangular or egg-shaped, flat, laterals oval, light; from above and front, both eye rows strongly procurved, such that anterior medians are almost equidistant from anterior and posterior laterals (fig. 6); anterior medians separated by less than their radius, closer to anterior laterals; posterior medians separated by much less than their width, much farther from posterior laterals; anterior and posterior laterals separated by less than their radius; median ocular quadrangle about as wide in back as in front and as long. Chelicerae vertical, paturon with low boss, scattered erect setae, promargin with row of long, curved setae, most basal seta not elongated or widened; promargin with three closely spaced teeth, middle tooth largest, retromargin with two smaller, more widely separated teeth; chilum small, unipartite, triangular, apparently fused to carapace, accompanied by second, short, posterior chilum (narrow sclerite separating bases of chelicerae posteriorly). Labium
wider than long, posteriorly depressed, evenly narrowed toward rebordered, medially shortened anterior margin. Endites rectangular, convergent, with oblique depression; serrula present, curved; anteromedian edges bearing wide patch of long, stiff, light setae. Clypeus low about $1 / 3-3 / 4$ diameter of ALE, curved downwards. Sternum shield-shaped, slightly depressed opposite intercoxal spaces, with rebordered, slightly depressed lateral margins, not expanded anteriorly, with only indistinct extensions between coxae but with long, triangular extensions to coxae; surface smooth, with few long setae, posterior margin rebordered, widely separating coxae IV. Four weakly sclerotized epimeric sclerites on each side (one above palpi, fused one above coxae III and IV), not extending between coxae, not fused to carapace. Pedicel composed of two dorsal sclerites (anterior sclerite without posterior invagination) and narrow, triangular ventral sclerite with anteriorly unexpanded head almost reaching posterior tip of sternum, accompanied laterally by larger, triangular sclerites. Abdominal dorsum with anterior scutum in males (sometimes obscured by scales); cuticle coated with dark, recumbent scales; epigastric scutum weakly sclerotized, with well-marked booklung openings at sides but without postepigastric sclerites, booklung covers not ridged; colulus apparently absent but wide, recurved posterior spiracle apparently present just anterior of posterior median spinnerets. Six spinnerets, anterior laterals greatly elongated, equal to roughly half of total abdominal length, greatly advanced anteriorly, originating at position about onefourth of distance between epigastric furrow and anal tubercle, point of origin marked by heavily sclerotized transverse strip bearing strong macrosetae, where separating right and left spinnerets by at least their diameter (fig. 13); posterior medians small, narrow, situated anterior of posterior laterals, laterally compressed posteriorly, where separating posterior laterals, those of females apparently with two enlarged cylindrical gland spigots in longitudinal row; posterior laterals bisegmented, about twice as long as posterior medians. Legs elongate, leg formula 4123, coated with recumbent, dark setae; coxae and trochanters without dorsal tubercles, fourth coxae and trochanters slightly elongated; anterior coxae
without protuberant posterolateral corners; trochanters distinctly notched; femora I, II long, dorsoproximal part slightly incrassate; metatarsi and tarsi with weak scopula composed of short, straight setae; posterior metatarsi without distal preening brushes; tarsi elongated, on onychium, with two tiny claws bearing few strong ventral peg-shaped teeth, divided claw tufts consisting of few spatulate setae (fig. 20); tarsi I-III without, IV with cuticular cracks at about half their length, tarsi IV distinctly bent at that point; dorsal surface of tarsi with modified proximal margin consisting of patch of unsclerotized cuticle followed by strong cuticular ridge, that ridge opposing distinct distal extensions situated at distal edge of metatarsi; trichobothria present, in two rows on tarsi, one on metatarsi and tibiae. Female palpal femur with three dorsodistal spines, row of very long midventral spines (fig. 246), tibia, tarsus with very long spines; tarsus with long claw bearing few ventral teeth, without ventral scopula or dorsal pad of setae. Typical leg spination pattern (counts refer to morphological surfaces, only surfaces bearing spines listed): tibiae III, IV v0-0-2; metatarsi III, IV $\mathrm{v} 0-0-1 \mathrm{p}$. Male palpal tibia laterally flattened, with distal, retrolateral apophysis and distal lateroventral clump of long setae; cymbium long, at least 2.2 times longer than wide, tip conical; embolus situated prolaterally, tip accompanied by translucent, spatulate, distally situated conductor, median apophysis large, ventrally excavated. Epigynum with large protuberances, spermathecae complex.

Key to Australasian Species of Wydundra

1. Males (those of W. cunderdin, W. clifton, W. drysdale, W. fitzroy, W. lindsay, W. morton, W. webberae unknown)

- Females (those of $W$. charnley, $W$. ethabuka, W. flattery, W. lennard, W. lowrie unknown) . . . . . . . . . . . . . 34

2. Embolus coiled, at least twice around bulb (fig. 388) . . . . . . . . . W. kennedy

- Embolus not coiled 3

3. Abdomen covered with ordinary setae; retrolateral tibial apophysis basally excavated (fig. 394) . . . . . . . . W. barrow

- Abdomen covered with plumose setae or recumbent scales, retrolateral tibial apophysis different .4

4. Abdomen covered with plumose setae.

5

- Abdomen covered with recumbent scales

10
5. Palpal femur ventrally incrassate, or with ventral process . . . . . . . . . . . . . 6

- Palpal femur unmodified, ventrally not incrassate

6. Embolus corkscrew-shaped (fig. 413)
W. lennard

- Embolus straight, with long, triangular basal projection (fig. 343) . . . . W. kohi

7. Retrolateral tibial apophysis greatly elongated, with second dorsal apophysis (fig. 329)
W. flattery

- Retrolateral tibial apophysis shorter, without second dorsal apophysis (fig. 355).

8
8. Embolus base with short, basal projection (fig. 354). . . . . . . . . . . W. gibb

- Embolus base with long, triangular basal projection (fig. 313)

9. Embolus long, with bifid tips (fig. 313)
W. neinaut

- Embolus finger-shaped, with sharp tip (fig. 318) . . . . . . . . . . . . W. octomile

10. Base of conductor with large, chitinous conical projection (fig. 333). . W. undara

- Base of the conductor without large, chitinous conical projection (fig. 293)

11. Palpal femur ventrally incrassate, or with ventral process . . . . . . . . . . . . 12

- Palpal femur unmodified, ventrally not incrassate 14

12. Retrolateral tibial apophysis thick, curved dorsally, with lateral concavity (fig. 294) . . . . . . . . . . . . . . W. jabiru

- Retrolateral tibial apophysis triangular, without lateral concavity (fig. 289). . . 13

13. Terminal apophysis with triangular prolateral and blunt retrolateral portions (fig. 288) . . . . . . . . . . . W. newcastle

- Terminal apophysis with distal portion excavated, ventral portion small, hookshaped (fig. 374) . . . . . W. moondarra

14. Median apophysis absent (fig. 408) W. humbert

- Median apophysis present (fig. 273)... 15


15. Terminal apophysis absent (fig. 273) .

- Terminal apophysis present (fig. 369).

16. Embolar base situated basally or retrolaterally (fig. 273). 17

- Embolar base situated prolaterally (fig. 298)

20
17. Embolar base situated retrolaterally (fig. 273) . . . . . . . . . . . . . . W. carinda

- Embolar base situated basally (fig. 258)

18. Embolus without basal, embolar projection (fig. 258). . . . . . . . . W. windsor

- Embolus with basal, embolar projection (fig. 278)

19
19. Embolar projection triangular (fig. 278)
W. gunbiyarrmi

- Embolar projection lobate (fig. 249)
W. osbourne

20. Retrolateral tibial apophysis divided into two parts (fig. 299).

21

- Retrolateral tibial apophysis undivided (fig. 339)

23
21. Embolus with conical embolar projection (fig. 298).
W. cooper

- Embolar projection absent (fig. 308) 22

22. Retrolateral tibial apophysis with ventral process triangular; conductor short, not extending past tip of embolus (figs. 308, 309) . . . . . . . . W. moolooroo Retrolateral tibial apophysis with ventral process truncated; conductor longer, extending past tip of embolus (figs. 303, 304)
W. kalamurina
23. Embolus with basal embolar projection (fig. 338)

24

- Embolar projection absent (fig. 398) 25

24. Embolar projection long, triangular (fig. 338) . . . . . . . . . . . . . W. garnet

- Embolar projection short, lobate (fig. 323). . . . . . W. normanton

25. Median apophysis with single, retrolaterally directed tip; embolus straight, with sharp tip (fig. 398) . . . . . W. anjo

- Median apophysis excavated, with two distal tips; embolus not straight, with blunt or bifid tips (fig. 359) 26

26. Embolus scooped, with bifid tips, retrolateral tip with denticle (fig. 359) W. charnley

- Embolus finger-shaped, with blunt, indented tip (fig. 364)
W. daunton

27. Embolar base situated distally (fig. 369)
W. humptydoo

- Embolar base situated prolaterally (fig. 263)

28
28. Terminal apophysis with two large lobes (fig. 263)

29

- Terminal apophysis without two large lobes (fig. 351). . . . . . . . . . . . . . . . 30

29. Terminal apophysis with subequal lobes (fig. 263)
W. percy

- Terminal apophysis with larger prolateral and smaller retrolateral lobe (fig. 268) . . . . . . . . . . . . . . W. gully

30. Terminal apophysis finger-shaped; retrolateral tibial apophysis with bifid tip (figs. 351, 352) 31

- Terminal apophysis different; retrolateral tibial apophysis without bifid tip (figs. 348, 349)

32
31. Median apophysis scythe-shaped; tibia globose (figs. 351, 352) . . . W. ethabuka

- Median apophysis long, with scooped tip; tibia not globose (figs. 403, 404)
W. uluru

32. Retrolateral tibial apophysis with distally and dorsally directed process (fig. 349)
W. lowrie

- Retrolateral tibial apophysis without distally and dorsally directed process (fig. 284)

33
33. Retrolateral tibial apophysis narrow, with ventrally bent tip (fig. 284) W. solo

Figs. 242-247. 242, 243. Molycria wrightae, new species, anterior lateral spinnerets, with enlarged view of piriform gland spigots. 243. Molycria dawson, new species, left trochanter III of male, ventrodistal row of stout setae. 244. Nomindra kinchega, new species, female, left tarsus IV with claw and claw tufts, retrolateral view. 245. Myandra cambridgei Simon, female, same. 246. Wydundra carinda, new species, female palp, lateral view. 247. Myandra cambridgei Simon, same.

- Retrolateral tibial apophysis broad, triangular (fig. 380) . . . . W. churchillae


## Females

34. Posterior epigynal margin one or two anteriorly directed projections (fig. 251)

- Posterior epigynal margin without projections (fig. 395) . . . . . . . . . . . . . . 53

35. Posterior margin with a pair of long projections (fig. 251). . . . . . . . . . . . 36

- Posterior margin with only a single projection (fig. 345). . . . . . . . . . . . . . . 46

36. Projections extremely narrow, about 4 times as long as wide (fig. 290)
W. newcastle

- Projections wider, about 2 times as long as wide (fig. 260) . . . . . . . . . . . . . 37

37. Abdomen with plumose setae . . . . . 38

- Abdomen with recumbent scales . . . 41

38. Epigynum with two small anteriorlateral openings, widely separated from anteriorly rounded projections (fig. 260). . . . . . . . . W. windsor

- Epigynum without such openings; projections anteriorly pointed (fig. 280) . . . . 39

39. Projections contiguous for about $3 / 4$ of their length (fig. 280) . W. gunbiyarrmi

- Projections not contiguous (fig. 255) 40

40. Base of projections about their diameter apart (fig. 255). . . . . . . . . W. drysdale

- Base of projections close together (fig. 253) . . . . . . . . . . . . . W. fitzroy

41. Epigynum with two small anteriorlateral, hood-shaped openings, close to extremely long anteriorly rounded projections (fig. 270) . . . . . . . . W. gully

- Without such openings; projections anteriorly pointed (fig. 265) . . . . . . . . 42

42. Projections short, triangular, about as wide as long (fig. 265) . . . . . . . . . . 43

- Projections longer, about twice as long as wide (fig. 295) . . . . . . . . . . . . . . 44

43. Anterior epigynal margin with narrow hood and beak-shaped projection, only as wide as tips of posterior projections, spermathecae globular (figs. 265, 266)
W. percy

- Anterior epigynal margin rounded, spermathecae highly coiled (figs. 275, 276)
W. carinda

44. Anterior margin narrow, inverted ushaped, not extending over tips of posterior projections, spermathecae small (figs. 295, 296)
W. jabiru

- Anterior margin wider, extending over tips of posterior projections, spermathecae larger (figs. 251, 252). . . . 45

45. Atrium with wide margin, inverted ushaped hood; projections connected medially to epigastric fold (fig. 251)
W. osbourne

- Atrium with rounded anterior and long lateral margins; projections not connected medially to epigastric fold (fig. 285)
W. solo

46. Abdomen covered with plumose setae 47

- Abdomen covered with recumbent scales

47. Atrium broadly bottle-shaped, without small anterior lateral hood-shaped openings; posterior projection small, mshaped (fig. 345) . . . . . . . . . . W. kohi

- Atrium with two small anterior lateral hood-shaped openings; posterior margin with two transverse, projecting epigynal ledges (fig. 320)

48. Both ledges narrow, about half as wide as spermathecae (fig. 320)..... W. octomile

- Both ledges wider, nearly as wide as spermathecae (fig. 315) . . . W. Weinaut

49. Atrium long, at least 1.5 times longer than wide (fig. 335) . . . . . . . . . . . . 50

- Atrium wide, at least 1.5 times wider than long (fig. 376) . . . . . . . . . . . . 52

50. Atrium with inverted u-shaped posterior projection (fig. 335) . . . . . . W. undara

- Atrium with inverted $v$-shaped or small m-shaped posterior projection (fig. 330).

51. Atrium with inverted $u$-shaped anterior margin; posterior projection small mshaped (fig. 330) . . . . . . W. webberae

- Atrium with narrow, arched anterior margin; posterior margin wide, inverted v-shaped (fig. 325) . . . W. normanton

52. Posterior projection narrow, accompanied by pair of triangular lateral plates (fig. 376) . . . . . . . . . W. moondarra - Posterior projection wide, inverted v-shaped, without lateral plates (fig. 381) . . . . . . . . . W. churchillae
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- Atrium large, or absent (fig. 300) . . . 55

54. Epigynal ducts short, spermathecae large, globular, contiguous, separated from epigynal ducts (fig. 396)
W. barrow

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W. kennedy

55. Anterior epigynal margin with elevated scape or sharply pointed projection (fig. 300) . . . . . . . . . . . . . . . . . . . . 56

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- Anterior margin with sharply pointed projection (fig. 310) . . . . . . . . . . . . 57

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59. Lateral plates present (fig. 405) . . . . 60 Lateral projections present (fig. 356) . .

63
60. Lateral plates short, rectangular (fig. 405) . . . . . . . . . . . . . . . . . . . . 61

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62. Lateral plates anteriorly rectangular, with two posterior-lateral grooves (fig. 415) . . . . . . . . . . . W. cunderdin

- Lateral plates anteriorly concave, connected to copulatory opening, no grooves (fig. 385) . . . . . . . . W. clifton

63. Anterior margin widely beak-shaped (fig. 356) . . . . . . . . . . . . . . . W. gibb

- Anterior margin narrow, hood-shaped (fig. 361) . . . . . . . . . . . . . . . . . . . 64

64. Epigynum with two small, laterally directed copulatory openings (fig. 361)
W. morton

- Epigynum without copulatory openings (fig. 366) . . . . . . . . . . . . W. daunton

65. Anterior margin widely arched or rectangular (figs. 340, 383)

- Anterior margin rounded (fig. 371)67

66. Epigynum with median ledge (fig. 340)
W. garnet

- Epigynum without ledge, with small, m -shaped copulatory openings (fig. 383)
W. lindsay

67. Anterior epigynal margin wide (fig. 371) W. humptydoo

- Anterior epigynal margin narrow (fig. 400). . . . . . . . . . . . . . W. anjo


## Wydundra osbourne, new species

Figures 248-252; Map 17
TyPE: Male holotype taken in pitfall trap in open forest at Osbourne Mines, site 2A, SSE Mount Isa, $22^{\circ} 08^{\prime} \mathrm{S}, 140^{\circ} 34^{\prime} \mathrm{E}$, Queensland (Apr. 19-July 2, 1996; R. Raven, A. Nicholson), deposited in QMB (S31244).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the extremely long embolus bearing a lobate expansion near its base (fig. 249), females by the long, sharply pointed posterior epigynal projections (fig. 251).

Male: Total length 5.92. Carapace 2.72 long, 2.52 wide, 1.04 high, length/width 1.08; sternum 1.58 long, 1.40 wide, length/ width 1.13 ; abdomen 3.20 long, 1.80 wide; coxa I 0.94 long; relative length of coxae IIV 1.00:0.98:0.96:1.11. Carapace, sternum, chelicerae, legs orange, endites, labium orange, distally pale; abdomen gray, with small, pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.70 of caput width; AME 0.28; ALE 0.20 ; PME 0.24; PLE 0.20; AME-AME 0.06; AME-ALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.58; AME-AME 0.62; PME-PME 0.54. Clypeus 0.12 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.50 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 248-250): conductor originating prolaterally, membranous, long, spat-


Figs. 248-252. Wydundra osbourne, new species. 248. Left male palp, prolateral view. 249. Same, ventral view. 250. Same, retrolateral view. 251. Epigynum, ventral view. 252. Same, dorsal view.
ulate, s-shaped; median apophysis ventrally excavated, with two distal tips; terminal apophysis absent; embolus long, thin, semicircular, embolar base separated from tegu-
lum, with short, lobate, basal embolar projection, situated basally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis triangular.

Female: Total length 7.48. Carapace 2.84 long, 2.72 wide, 0.92 high, length/width 1.04; sternum 1.64 long, 1.42 wide, length/ width 1.15 ; abdomen 4.64 long, 2.56 wide; coxa I 1.10 long; relative length of coxae I-IV 1.00:0.85:0.78:0.94. Coloration as in male. Eye group width 0.71 of caput width; AME 0.26 ; PME 0.26; AME-AME 0.08; PMEPME 0.08; eye group AME-PME 0.56; AME-AME 0.60; PME-PME 0.60. Clypeus 0.10 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.43 of abdominal length. Palpal femur with seven long, ventral setae. Epigynum (figs. 251, 252): atrium with inverted u-shaped anterior margin; posterior margin with large, triangular, anteriorly pointed projections; epigynal ducts long, irregularly curved, spermathecae widely separated, globular.

Other Material Examined: Queensland: Mount Isa, E Leichhardt River, 1 km downstream of dam wall, $20^{\circ} 44^{\prime} \mathrm{S}, 139^{\circ} 29^{\prime} \mathrm{E}$, June 19-Aug. 1988 (Mitchell, W. Barton, AMS KS30259), 1 ; Osbourne Mines, SSE Mount Isa, site $5 \mathrm{~A}, 22^{\circ} 07^{\prime} \mathrm{S}, 140^{\circ} 34^{\prime} \mathrm{E}$, Dec. 1996 A . Nicholson, QMB S30936), 2 。 .

Distribution: Known only from westcentral Queensland (map 17).

## Wydundra fitzroy, new species

Figures 253, 254; Map 17
Type: Female holotype taken in litter on Fitzroy Island, $16^{\circ} 56^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$, Queensland (Jan. 19, 2004; B. Baehr, R. Raven), deposited in QMB (S64813).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females have a wide, arched anterior margin and relatively short, medially invaginated epigynal projections (fig. 253); the tips of the epigynal ducts extend into the epigynal projections (fig. 254).

Male: Unknown.
Female: Total length 4.94. Carapace 1.78 long, 1.68 wide, 0.56 high, length/width 1.06 ; sternum 1.10 long, 1.04 wide, length/width 1.06; abdomen 3.16 long, 1.80 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.96: 0.90:1.09. Carapace pale yellow, with dark margin; sternum, chelicerae, endites, labium pale; legs pale orange, mottled with gray on distal half of femora; abdomen gray, venter pale, booklungs orange. AME elevated; eye
group width 0.72 of caput width; AME 0.16; ALE 0.16; PME 0.16; PLE 0.14; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.06; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.38; AME-AME 0.36; PMEPME 0.38. Clypeus 0.04 high. Abdomen covered with dark, gray, slightly plumose setae; ALS 0.36 of abdominal length, about their diameter apart, with long, triangular spines. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with 5 long, ventral setae; tarsus with small claw, three tiny teeth. Epigynum (figs. 253, 254): atrium with wide arched anterior margin; posterior margin with triangular, medially invaginated, anteriorly blunt projections; epigynal ducts sausageshaped, in v-shaped position, spermathecae about their diameter apart, sausage-shaped, twisted, in horizontal position.

Other Material Examined: Queensland: Pine Creek CSIRO Tower, Yarrabah Road, $16^{\circ} 59^{\prime} \mathrm{S}, 145^{\circ} 50^{\prime} \mathrm{E}$, Sept. 12, 1991, pyrethrum, logs and trees (G. Monteith, H. Janetzki, QMB S46878), 1̣; Mount Finlay, site 29, $15^{\circ} 49^{\prime} \mathrm{S}$, $145^{\circ} 21^{\prime} \mathrm{E}$, Nov. 30, 1975. on schist in microphyll vineforest, elev. 800 feet (R. Monroe, V. Davies, QMB S64812), 1 º

Distribution: Known only from northeastern Queensland (map 17).

Wydundra windsor, new species
Figures 257-261; Map 18
Type: Female holotype taken in flight intercept trap in open forest at an elevation


Map 17. Circle, Wydundra osbourne, new species. Square, Wydundra fitzroy, new species. Triangle, Wydundra percy, new species.


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Figs. 253-256. 253, 254. Wydundra fitzroy, new species. 255, 256. Wydundra drysdale, new species. 253, 255. Epigynum, ventral view. 254, 256. Same, dorsal view.
of 900 m on the SE Windsor Tableland, $16^{\circ} 18^{\prime} \mathrm{S}, 145^{\circ} 05^{\prime} \mathrm{E}$, Queensland (Nov. 25, 1997-Feb. 9, 1998; G. Monteith, D. Cook), deposited in QMB (S43917).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females have a wide, rectangular anterior epigynal margin and anteriorly narrowed epigynal projections (fig. 260); the epigynal ducts form basal triangles (fig. 261). Males have not been collected with females but are tentatively matched on the basis of geography and their similarities to $W$. osbourne (despite their differences in abdominal setation); they differ from males of that species by their shorter embolus and anteriorly wider tegulum (figs. 258, 259).

Male: Total length 4.94. Carapace 2.26 long, 2.04 wide, 0.76 high, length/width 1.08 ; sternum 1.26 long, 1.18 wide, length/width 1.07; abdomen 2.68 long, 1.60 wide; coxa I 0.78 long; relative length of coxae I-IV 100:0.97:0.87:1.05. Carapace, sternum, chelicerae orange; endites, labium orange brown, distally pale; abdomen pale, venter pale, epigastric area orange; legs orange brown. Carapace weakly covered with gray, recumbent scales. AME elevated; eye group width 0.74 of caput width; AME 0.24 ; ALE 0.16 ; PME 0.24; PLE 0.18; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.50; AME-AME 0.50 ; PME-PME 0.52 . Clypeus 0.10 high. Abdomen covered


Figs. 257-261. Wydundra windsor, new species. 257. Left male palp, prolateral view. 258. Same, ventral view. 259. Same, retrolateral view. 260. Epigynum, ventral view. 261. Same, dorsal view.
with gray, recumbent scales; ALS 0.44 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 257-259): conductor originating distally, membranous, long, spatulate, s-shaped; median apophysis
ventrally excavated; terminal apophysis absent; sperm duct semicircular; embolus long, thin, semicircular, embolar base separated from tegulum, situated basally; tibia about 1.5 times as long as wide, dorsally excavated, retrolateral tibial apophysis triangular.


Figs. 262-266. Wydundra percy, new species. 262. Left male palp, prolateral view. 263. Same, ventral view. 264. Same, retrolateral view. 265. Epigynum, ventral view. 266. Same, dorsal view.

Female: Total length 5.50. Carapace 2.02 long, 1.96 wide, 0.72 high, length/width 1.03; sternum 1.32 long, 1.20 wide, length/ width 1.10; abdomen 3.48 long, 1.68 wide; coxa I 0.80 long; relative length of coxae I-IV 1.00:0.90:0.85:1.07. Carapace, sternum, mouthparts, legs pale orange; abdomen pale gray, venter pale, epigastric area orange. Carapace weakly covered with gray setae. Eye group width 0.68 of caput width; AME 0.19 ; ALE 0.14; PME 0.21; PLE 0.16; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.44; AME-AME 0.42; PME-PME 0.44. Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.35 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with seven long, ventral setae. Epigynum (figs. 260, 261) with wide, rectangular anterior margin; posterior margin with long, anteriorly rounded projections; epigynal ducts short, in v-shaped position, spermathecae about their diameter apart, twisted, in horizontal position.

Other Material Examined: Queensland: Dotswood, $19^{\circ} 28^{\prime} \mathrm{S}, 146^{\circ} 27^{\prime} \mathrm{E}$, Aug. 1999, pitfall (Woinarski, QMB S67714), 10'; Forty Mile Scrub, SW Mount Garnet, $18^{\circ} 05^{\prime} \mathrm{S}$, $144^{\circ} 51^{\prime} \mathrm{E}$, Apr. 10-14, 1978, in litter (V. Davies, R. Raven, QMB lost), 1 .

Distribution: Known only from northeastern Queensland (map 18).

Wydundra percy, new species
Figures 262-266; Map 17
TyPE: Male holotype taken in gutter trap at NW Bay, South Percy Island, $21^{\circ} 45^{\prime}$ S, $150^{\circ} 18^{\prime} \mathrm{E}$, Queensland (Nov. 26, 1992-mid Apr. 1993; G. Monteith, G. Thompson, D. Cook, H. Janetzki), deposited in QMB (S27509).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W$. gully but have smaller, subequal lobes on the terminal apophysis (fig. 263). Females have not been collected with males, and are matched here on the basis of geography; they have a wide, triangular anterior epigynal margin and relatively short epigynal projections (fig. 265); the right and left epigynal ducts are widely separated (fig. 266).

Male: Total length 3.66. Carapace 1.68 long, 1.58 wide, 0.58 high, length/width 1.06 ; sternum 0.98 long, 0.98 wide, length/width 1.00 ; abdomen 1.98 long, 1.20 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.97: 0.90:1.07. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, dorsally with weak orange scutum, small, pale spot in front of spinnerets, venter pale, epigastric area orange. AME elevated; eye group width 0.76 of caput width; AME 0.19; ALE 0.14; PME 0.20; PLE 0.12; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.03; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.38; AME-AME 0.40; PME-PME 0.44. Clypeus 0.08 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.44 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 262-264): conductor originating prolaterally; median apophysis about twice as long as wide, caneshaped; terminal apophysis with two subequal lobes, medially situated; sperm duct semicircular; embolus long, thin, semicircular, embolar base separated from tegulum, with short, triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis triangular.

Female: Total length 5.26. Carapace 2.06 long, 2.00 wide, 0.62 high, length/width 1.03 ; sternum 1.24 long, 1.16 wide, length/ width 1.07 ; abdomen 3.20 long, 1.52 wide;


Map 18. Circle, Wydundra windsor, new species. Square, Wydundra gully, new species. Triangle, Wydundra carinda, new species.
coxa I 0.62 long; relative length of coxae I-IV 1.00:0.97:0.93:1.19. Coloration as in male but without scutum. Eye group width 0.72 of caput width; AME 0.21; PME 0.22; PMEPLE 0.06; ALE-PLE 0.04; eye group AMEPME 0.46; AME-AME 0.44. Clypeus 0.06 high. Palpal femur with five long, ventral setae, tarsus with small claw, three tiny teeth. Epigynum (figs. 265, 266) with wide anterior margin, beak-shaped anterior epigynal hood; posterior margin with short, triangular, anteriorly blunt projections; epigynal ducts coiled, spermathecae about their diameter apart, globular.

Other Material Examined: Queensland: Carlisle Island, Whitsunday Group, $20^{\circ} 47^{\prime} \mathrm{S}$, $149^{\circ} 17^{\prime}$ E, Dec. 12-19, 1986 (M. Bennie, QMB S64810), $10^{\circ} ; H^{\prime}$. ${ }^{\circ}{ }^{\circ} 24^{\prime} \mathrm{S}, 148^{\circ} 33^{\prime} \mathrm{E}$, Apr. 1-7, 1975, litter (R. Kohout, V. Davies, QMB S64811), 10'; 5 km S Moranbah, $22^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 03^{\prime} \mathrm{E}$, Dec. 20, 1997-Apr. 26, 1998, flight intercept, bendee scrub, elev. 240 m (G. Monteith, QMB S42472), 1 ¢; 7 km NNE Mount Bluffkin, $22^{\circ} 36^{\prime} \mathrm{S}, 149^{\circ} 14^{\prime} \mathrm{E}$, Dec. 19, 2000-Mar. 25, 2001, pitfall, brigalow, elev. 160 m (D. Cook, G. Monteith, QMB S39992), $10^{\prime}$; Shute Harbour, $20^{\circ} 18^{\prime} \mathrm{S}, 148^{\circ} 47^{\prime} \mathrm{E}$, Feb. 16 , 1986, vine scrub on rock (R. Raven, J. Gallon, QMB S9966), $10^{\circ}$.
Distribution: Known only from mideastern Queensland (map 17).

## Wydundra gully, new species Figures 267-271; Map 18

TyPE: Female holotype taken in pitfall trap in open forest at an elevation of 240 m at Nipping Gully, site $3,25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 25^{\prime} \mathrm{E}$, Queensland (Dec. 18, 1998-Jan. 26, 1989; G. Monteith, C. Gough), deposited in QMB (S49894).

Etymology: The specific name is a noun in apposition taken from the type habitat.

Diagnosis: Females resemble those of $W$. windsor in having long, anteriorly narrowed epigynal projections, but differ in having a narrower anterior epigynal margin (fig. 270) and transversely oriented anterior epigynal ducts (fig. 271). Males have not been collected with females, and are matched here on the basis of geography; they resemble those of $W$. percy but have larger prolateral and smaller retrolateral lobes on the terminal apophysis (fig. 268).

Male: Total length 4.20. Carapace 1.80 long, 1.62 wide, 0.76 high, length/width 1.11; sternum 1.02 long, 0.96 wide, length/width 1.07; abdomen 2.40 long, 1.20 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:1.00:0.83:1.07. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, dorsally with weak orange scutum, small, pale spot in front of spinnerets, venter pale, epigastric area orange. AME elevated; eye group width 0.81 of caput width; AME 0.20 ; ALE 0.14 ; PME 0.20 ; PLE 0.14; AME-AME 0.04; AMEALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.42; AME-AME 0.44; PME-PME 0.42. Clypeus 0.10 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.43 of abdominal length, more than their diameter apart, with long, triangular spines. Tarsi III, IV ventrally with two rows of strong, stout setae. Palp (figs. 267-269): conductor originating prodistally; median apophysis ventrally excavated, with pointed tip; terminal apophysis with larger prolateral, smaller retrolateral lobes, medially situated; sperm duct semicircular; embolus long, thin, semicircular, embolar base separated from tegulum, with tiny, triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis triangular, with additional small basal hook.

Female: Total length 5.08. Carapace 1.84 long, 1.72 wide, 0.68 high, length/width 1.07; sternum 1.14 long, 1.08 wide, length/ width 1.05 ; abdomen 3.24 long, 1.60 wide; coxa I 0.62 long; relative length of coxae I-IV 1.00:0.96:0.93:1.06. Coloration as in male but without scutum. Eye group width 0.79 of caput width; AME 0.18; eye group AMEPME 0.4; AME-AME 0.4; PME-PME 44. Clypeus 0.08 high. ALS 0.36 of abdominal length. Palpal femur with four long, ventral setae, tarsus with small claw. Epigynum (figs. 270, 271) with two small anterolateral hood-shaped openings; posterior margin with long, anteriorly rounded projections; epigynal ducts short, in transverse position, spermathecae contiguous, sausage-shaped, twisted, in horizontal position, with two dorsal diverticula.

Other Material Examined: Queensland: 8 km N Ambrose, $23^{\circ} 43^{\prime} \mathrm{S}, 150^{\circ} 56^{\prime} \mathrm{E}$, Dec. 15 ,


Figs. 267-271. Wydundra gully, new species. 267. Left male palp, prolateral view. 268. Same, ventral view. 269. Same, retrolateral view. 270. Epigynum, ventral view. 271. Same, dorsal view.

1999-Mar. 20, 2000, pitfall, vine scrub, elev. 20 m (G., S. Monteith, QMB S59418), 10'; Bushley Station, $23^{\circ} 32^{\prime} \mathrm{S}, 150^{\circ} 15^{\prime} \mathrm{E}$, Oct. 20, 1990-Mar. 21, 1991, open forest pitfall (D.

Wallace, R. Raven, K. Williams, QMB S32375), $10^{\prime}$; Cabbage Tree Creek, $25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, June 20, 1996 (P. Lawless, QMB S59355), 1@; north corner, Isla Gorge National Park,
$25^{\circ} 10^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, Dec. 15 , 1997-Mar. 4, 1998, vine scrub intercept trap, elev. 240 m (G. Monteith, D. Cook, QMB S42447), $10^{\circ} ; 3 \mathrm{~km}$ SSE Mount Gavial, $23^{\circ} 37^{\prime} \mathrm{S}, 150^{\circ} 29^{\prime} \mathrm{E}$, Dec. 18 , 1998-Mar. 14, 1999, intercept, open forest, elev. 450 m (D. Cook, QMB S50603), 1¢; Mount Gayndah, $25^{\circ} 35^{\prime} \mathrm{S}, 151^{\circ} 32^{\prime} \mathrm{E}$, Nov. 16, 2000 (N. Platnick, R. Raven, B. Baehr, AMNH), 1o; "Separation," 8 mi NE Duaringa, $23^{\circ} 35^{\prime} \mathrm{S}$, $149^{\circ} 47^{\prime} \mathrm{E}$, June 12, 1994, pitfall (D. Wallace, A. Smith, QMB S59559), 1̣; Taroom District, Nathan Gorge, $25^{\circ} 27^{\prime} \mathrm{S}, 150^{\circ} 08^{\prime} \mathrm{E}$, Nov. 13 , 1996-Jan. 13, 1997, pitfall, riverine forest (P. Lawless, QMB S37074, 37109), 10, 1 ọ.

Distribution: Known only from southeastern Queensland (map 18).

## Wydundra carinda, new species

Figures 20, 246, 272-276; Map 18
Type: Female holotype taken in pitfall trap in Eucalyptus populnea patch on Car-inda-Brewarrina Road, 2.4 km W of Ginghet Station, $30^{\circ} 25^{\prime} \mathrm{S}, 147^{\circ} 23^{\prime} \mathrm{E}$, New South Wales (Nov. 25-Dec. 15, 1999; L. Wilkie, R. Harris, T. Moulds), deposited in AMS (KS72637).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W$. osbourne but have a longer embolus (figs. 272, 273); females have a sinuous anterior epigynal margin and medially separated epigynal projections (fig. 275); the highly coiled spermathecae are also distinctive (fig. 276).

Male: Total length 5.18. Carapace 2.10 long, 2.06 wide, 0.62 high, length/width 1.02; sternum 1.24 long, 1.22 wide, length/width 1.01; abdomen 3.08 long, 1.52 wide; coxa I 0.76 long; relative length of coxae I-IV 1.00:0.97:0.92:1.08. Carapace, chelicerae, legs orange brown; sternum orange, with darker lateral margins; endites, labium orange brown, distally pale; abdomen pale gray, dorsally with weak orange scutum, small, pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with gray, recumbent scales. AME elevated; eye group width 0.74 of caput width; AME 0.24; ALE 0.16; PME 0.20; PLE 0.14; AME-AME 0.02; AME-ALE 0.04; PME-PME 0.06; PME-PLE 0.08; ALE-PLE 0.04; eye group AME-PME
0.48; AME-AME 0.50; PME-PME 0.48. Clypeus 0.12 high. Abdomen covered with gray, recumbent scales; ALS 0.38 of abdominal length, more than their diameter apart, with long, triangular spines. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 272-274): cymbium long, slender, at least 2.2 times longer than wide, tip extremely elongate; conductor originating prodistally, membranous, long, spatulate, with blunt tip; median apophysis about twice as long as wide, cane-shaped; terminal apophysis absent; embolus long, thin, semicircular, embolar base separated from tegulum, situated retrolaterally; tibia dorsally slightly excavated, retrolateral tibial apophysis long, triangular.

Female: Total length 6.28. Carapace 2.40 long, 2.40 wide, 0.70 high, length/width 1.00; sternum 1.44 long, 1.30 wide, length/ width 1.10 ; abdomen 3.88 long, 2.20 wide; coxa I 0.86 long; relative length of coxae I-IV 1.00:0.95:0.93:1.11. Coloration as in males but without scutum. Eye group width 0.67 of caput width; AME 0.22; PME 0.22; PLE 0.16; AME-AME 0.04; PME-PME 0.04; PME-PLE 0.10; eye group AME-PME 0.50 ; AME-AME 0.48. Clypeus 0.10 high. ALS 0.42 of abdominal length. Palpal femur with seven long, ventral setae, tarsus with small claw, three tiny teeth. Epigynum (figs. 275, 276) with inverted u-shaped anterior margin; posterior margin with long, triangular, medially invaginated, anteriorly blunt projections; epigynal ducts long, irregularly curved, spermathecae about their diameter apart, sausage-shaped, highly coiled, in $v$-shaped position.

Other Material Examined: New South Wales: Coocoran Lake, 10 km N Lightning Ridge, $29^{\circ} 24^{\prime} \mathrm{S}, 147^{\circ} 53^{\prime} \mathrm{E}$, Oct. 17, 1997 (D. Hirst, SAM NN11743), 1̊; Darling River Banks, Tintinalogy Station, Menindee, $32^{\circ} 05^{\prime} \mathrm{S}, 142^{\circ} 49^{\prime} \mathrm{E}$, Apr. 6, 1981 (D. Hirst, SAM NN22285), 1o ; Girilambone Road, 5.4 km S junction with Monkey Bridge, $30^{\circ} 54^{\prime} \mathrm{S}, 147^{\circ} 04^{\prime} \mathrm{E}$, Nov. 23-Dec. 13, 1999, Casuarina cristata patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72636), 1̊; Gubatta, $33^{\circ} 32^{\prime} \mathrm{S}, 146^{\circ} 31^{\prime} \mathrm{E}$, Dec. 6-14, 1999, pitfall, spinifex (D. Driscoll, QMB S52886), 1q; Gubatta, $33^{\circ} 32^{\prime} \mathrm{S}, 146^{\circ} 32^{\prime} \mathrm{E}$, Dec. 6-14, 1999, pitfall, grazed spinifex (D. Driscoll, QMB S52597), 2 2 ; lower footslopes, Loxley Station,


Figs. 272-276. Wydundra carinda, new species. 272. Left male palp, prolateral view. 273. Same, ventral view. 274. Same, retrolateral view. 275. Epigynum, ventral view. 276. Same, dorsal view.
ca. 37 km NW Tottenham, $32^{\circ} 04^{\prime} \mathrm{S}, 147^{\circ} 01^{\prime} \mathrm{E}$, Nov. 1-6, 1999, pitfall (D. Shelley, AMS KS72638), 1ᄋ; Mullingar Station, Lower Mur-ray-Darling region, $33^{\circ} 21^{\prime} \mathrm{S}, 142^{\circ} 28^{\prime} \mathrm{E}$, Mar. $8-$

12, 1999, black box woodland pitfall (M. LeBreton, AMS KS66587), 1̊; Taleeban, $33^{\circ} 53^{\prime} \mathrm{S}, 146^{\circ} 25^{\prime} \mathrm{E}$, Nov. 3-10, 1999, pitfall, roadside spinifex (D. Driscoll, QMB S53527),


Figs. 277-281. Wydundra gunbiyarrmi, new species. 277. Left male palp, prolateral view. 278. Same, ventral view. 279. Same, retrolateral view. 280. Epigynum, ventral view. 281. Same, dorsal view.

1우; Taleeban, $33^{\circ} 56^{\prime} \mathrm{S}, 146^{\circ} 28^{\prime} \mathrm{E}$, Nov. 3-8, 1999, pitfall, no spinifex (D. Driscoll, QMB S53933), 10'. South Australia: 3 km N Tomahawk Dam, Danggali Conservation Park, $33^{\circ} 20^{\prime} \mathrm{S}, 140^{\circ} 43^{\prime} \mathrm{E}$, Nov. 26, 1996, pitfall (D. Hirst, SAM NN11808), $10^{\circ}$.

Distribution: Known only from South Australia and New South Wales (map 18).

Wydundra gunbiyarrmi, new species
Figures 277-281; Map 19
Type: Female holotype taken in sandstone cavern system at Gunbiyarrmi, Arnhemland, ca. $13^{\circ} 10^{\prime} \mathrm{S}, 134^{\circ} 30^{\prime} \mathrm{E}$, Northern Territory (Aug. 30, 1993; Webber), deposited in MNT (A002965).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAGNOSIS: Females have a relatively narrow anterior epigynal margin and very wide epigynal projections (fig. 280); the spermathecae are recessed under a wide flange (fig. 281). Males have not been collected with females but are matched by geography and their similarities to those of $W$. osbourne (despite their differences in abdominal setation); they differ from males of that species in the wider median apophysis (figs. 278, 279).

Male: Total length 6.88. Carapace 2.84 long, 2.60 wide, 0.88 high, length/width 1.09 ; sternum 1.48 long, 1.44 wide, length/width 1.02; abdomen 4.04 long, 2.00 wide; coxa I 1.04 long; relative length of coxae I-IV 1.00:0.88:0.84:1.04. Carapace, sternum orange, with darker lateral margins; chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, venter pale, epigastric area orange. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.7 of caput width; AME 0.27; ALE 0.20; PME 0.26; PLE 0.18; AMEAME 0.04; AME-ALE 0.04; PME-PME 0.04 ; PME-PLE 0.04; ALE-PLE 0.06; eye group AME-PME 0.56; AME-AME 0.58; PME-PME 0.56. Clypeus 0.12 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.41 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of longer setae, metatarsi I, II ventrally with two rows of longer setae. Palp (figs. 277-279): conductor originating distally, membranous, long, spat-
ulate; median apophysis short, ventrally excavated, with two distal tips; terminal apophysis absent; embolus long, thin, semicircular, embolar base separated from tegulum, situated basally, with tiny, triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, dorsally slightly excavated, retrolateral tibial apophysis short, triangular.

Female: Total length 3.74. Carapace 1.74 long, 1.64 wide, 0.62 high, length/width 1.06 ; sternum 0.90 long, 0.98 wide, length/ width 1.00 ; abdomen 2.00 long, 1.26 wide; coxa I 0.66 long; relative length of coxae I-IV 1.00:0.97:0.88:1.06. Body, legs pale. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.92 of caput width; AME 0.14; ALE 0.12; PME 0.16; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.04; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.34. Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.55 of abdominal length, more than their diameter apart. Tarsus I with two rows of short, stout setae, other tarsi broken off. Palpal femur with six long, ventral setae. Epigynum (figs. 280, 281): atrium with narrow, rounded anterior margin; posterior margin with long, triangular, anteriorly blunt projections; epigynal ducts long, irregularly


Map 19. Circle, Wydundra gunbiyarrmi, new species. Square, Wydundra solo, new species. Triangle, Wydundra drysdale, new species.
curved, spermathecae contiguous, sausageshaped, twisted, in horizontal position.

Other Material Examined: Northern Territory: Daly River, $14^{\circ} 18^{\prime} \mathrm{S}, 131^{\circ} 39^{\prime} \mathrm{E}$, July 12 , 1998 (O. Price, MNT A001562), $10^{\circ}$.

Distribution: Known only from the Northern Territory (map 19).

Wydundra solo, new species
Figures 282-286; Map 19
Type: Female holotype taken in dry pitfall trap at Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}$, $114^{\circ} 25^{\prime} \mathrm{E}$, Western Australia (Oct. 9-14, 1994; M. Harvey), deposited in WAM (T45259).

Etymology: The specific name is an arbitrary combination of letters.

Diagnosis: Males can easily be recognized by the short retrolateral tibial apophysis and more proximal dorsal apophysis (fig. 284), females by the anteriorly elongated epigynal ducts (fig. 286).

Male: Total length 5.92. Carapace 2.68 long, 2.48 wide, 0.90 high, length/width 1.08; sternum 1.52 long, 1.28 wide, length/width 1.18; abdomen 3.24 long, 1.76 wide; coxa I 0.92 long; relative length of coxae I-IV 1.00:0.83:0.80:1.07. Carapace orange brown, with dark filigree net pattern; sternum orange, with darker lateral margins; chelicerae grayish orange; endites, labium orange brown, distally pale; legs orange brown; abdomen gray, epigastric area grayish orange. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.69 of caput width; AME 0.24 ; ALE 0.16; PME 0.24; PLE 0.16; AME-AME 0.06; AME-ALE 0.02; PME-PME 0.06; PME-PLE 0.06; ALE-PLE 0.04; eye group AME-PME 0.54; AME-AME 0.54; PMEPME 0.54. Clypeus 0.12 high. Abdomen covered with gray, recumbent scales; ALS 0.43 of abdominal length, about half their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae; tarsi III, IV with cuticular cracks at about three-quarters of their length. Palp (figs. 282-284): conductor originating prolaterally, membranous, spatulate; median apophysis large, transversal, with small median hook; terminal apophysis cup-shaped, with sharp tip, prolaterally situated; sperm duct semicircular; embolus
thin, semicircular, embolar base hidden behind terminal apophysis, situated prolaterally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis narrow, with bent tip.

Female: Total length 5.96. Carapace 2.44 long, 2.36 wide, 0.90 high, length/width 1.03; sternum 1.44 long, length/width 1.12 ; abdomen 3.52 long, 2.16 wide; coxa I 0.92 long; relative length of coxae I-IV 1.00:0.84:0.82:1.07. Coloration as in male. Eye group width 0.67 of caput width; ALE 0.18 ; PME 0.22 ; PLE 0.18 ; eye group AMEPME 0.52; PME-PME 0.52. Clypeus 0.10 high. ALS 0.41 of abdominal length. Palpal femur with seven long, ventral setae. Epigynum (figs. 285, 286) with inverted u-shaped anterior margin; posterior margin with long, triangular, anteriorly pointed projections; epigynal ducts in $x$-shaped position, spermathecae about their diameter apart, oval, twisted, with one dorsal diverticulum.

Other Material Examined: Western Australia: Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfall (M. Harvey, WAM T45258), $10^{\circ}$.

Distribution: Known only from Western Australia (map 19).

## Wydundra drysdale, new species <br> Figures 255, 256; Map 19

Type: Female holotype taken on floor at night at Drysdale River Station, $15^{\circ} 42^{\prime} \mathrm{S}$, $126^{\circ} 23^{\prime} \mathrm{E}$, Western Australia (July 18, 1993; A. Longbottom), deposited in WAM (T45281).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females can easily be recognized by the sinuous epigynal projections (fig. 255).

Male: Unknown.
Female: Total length 6.88. Carapace 2.72 long, 2.56 wide, 0.76 high, length/width 1.06; sternum 1.52 long, 1.48 wide, length/width 1.03; abdomen 4.16 long, 2.02 wide; coxa I 1.06 long; relative length of coxae I-IV 1.00:0.90:0.86:1.03. Carapace, sternum orange, with darker lateral margins; chelicerae, legs orange; endites, labium orange brown, distally pale; abdomen gray, small, pale spot in front of spinnerets, venter pale, booklungs orange. Carapace weakly covered with gray,



Figs. 287-291. Wydundra newcastle, new species. 287. Left male palp, prolateral view. 288. Same, ventral view. 289. Same, retrolateral view. 290. Epigynum, ventral view. 291. Same, dorsal view.
plumose setae. AME elevated; eye group width 0.67 of caput width; AME 0.25 ; ALE 0.16; PME 0.24; PLE 0.16; AME-AME 0.06; AME-ALE 0.04; PME-PME 0.04; PME-

PLE 0.04; ALE-PLE 0.08; eye group AMEPME 0.56; AME-AME 0.56; PME-PME 0.58 . Clypeus 0.12 high. Abdomen covered with dark, slightly plumose setae; ALS 0.47 of
abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with nine long, ventral setae, tarsus with small claw, three tiny teeth. Epigynum (figs. 255, 256) with long, sinuous, anteriorly pointed, posterior projections; epigynal ducts long, coiled, spermathecae widely separated, globular.

Other Material Examined: Western Australia: Drysdale River Station, $15^{\circ} 42^{\prime} \mathrm{S}$, $126^{\circ} 23^{\prime}$ E, July 24, 1993, on floor at night (A. Longbottom, WAM T45282), 1 or.

Distribution: Known only from Western Australia (map 19).

## Wydundra newcastle, new species

Figures 287-291; Map 20
TyPE: Female holotype taken in pitfall trap E of Georgetown, Newcastle Range, $18^{\circ} 18^{\prime} \mathrm{S}, 143^{\circ} 32^{\prime} \mathrm{E}$, Queensland (Feb. 20June 29, 2002; J. Hasenpusch), deposited in QMB (S64956).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males and females have not been collected together but are tentatively matched here on the basis of their respective similarities to $W$. gully (males share a vshaped embolar base, females relatively narrow epigynal projections), despite their differences in coloration and abdominal setation. Males can be distinguished by the retrolaterally acuminate terminal apophysis (fig. 288), females by the extremely narrow epigynal projections (fig. 290).

Male: Total length 3.74. Carapace 1.62 long, 1.48 wide, 0.52 high, length/width 1.09 ; sternum 0.94 long, 0.88 wide, length/width 1.07; abdomen 2.12 long, 0.90 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.89:0.78:1.07. Carapace, sternum, mouthparts, legs pale yellow; abdomen pale gray, with small, pale spot in front of spinnerets, venter pale. Eye group width 0.74 of caput width; AME 0.17; ALE 0.12; PME 0.18; PLE 0.12; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.06; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.34; AME-AME 0.36; PME-PME 0.38 . Clypeus 0.06 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.46 of abdominal length, about their di-
ameter apart. Palp (figs. 287-289): median apophysis ventrally excavated, with pointed tip; terminal apophysis divided into two parts, with triangular prolateral, blunt retrolateral parts; sperm duct semicircular; embolus thin, semicircular, embolar base separated from tegulum, with tiny, triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, with bent tip; femur ventrally incrassate.

Female: Total length 5.64. Carapace 2.36 long, 2.36 wide, 0.50 high , length/width 1.00; sternum 1.38 long, 1.24 wide, length/ width 1.11 ; abdomen 3.28 long, 1.92 wide; coxa I 0.82 long; relative length of coxae I-IV 1.00:0.97:0.87:1.07. Carapace orange brown with dark margins; sternum, chelicerae orange; endites, labium orange, distally pale; legs orange brown; abdomen gray, venter pale gray. Carapace weakly covered with gray, recumbent scales. AME elevated; eye group width 0.7 of caput width; AME 0.24 ; ALE 0.18; PME 0.24; PLE 0.16; AME-AME 0.02; AME-ALE 0.04; PME-PME 0.01; PME-PLE 0.04; ALE-PLE 0.06; eye group AME-PME 0.52; AME-AME 0.54; PMEPME 0.5. Clypeus 0.10 high. Cheliceral promargin, retromargin with three tiny teeth. Abdomen covered with gray, recumbent scales; ALS 0.45 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with nine long, ventral setae.


Map 20. Circle, Wydundra newcastle, new species. Square, Wydundra jabiru, new species. Triangle, Wydundra cooper, new species.

Epigynum (figs. 290, 291): atrium broadly triangular, with rounded anterior margin, laterally constricted; posterior margin with long, extremely narrow projections; epigynal ducts short, in inverted $v$-shaped position, spermathecae about their diameter apart, globular.

Other Material Examined: Queensland: Magnetic Island, $19^{\circ} 08^{\prime} \mathrm{S}, 146^{\circ} 50^{\prime} \mathrm{E}$, July 1992 (J. Wunderlich, QMB S34482), 10'; Marsupial Creek, 94 km W Georgetown, $18^{\circ} 16^{\prime} \mathrm{S}$, $142^{\circ} 41^{\prime} \mathrm{E}$, May 19, 1999-Jan. 11, 2000, pitfall, elev. 200 m (J., P. Hasenpusch, QMB S61038), 1 © Thatch Creek, $19^{\circ} 06^{\prime} \mathrm{S}, 145^{\circ} 18^{\prime} \mathrm{E}$, Dec. 1 , 1992-Apr. 14, 1993, pitfall, dry eucalypt woodland (R., J., S. Raven, P., E. Lawless, QMB S64955), 1 ㅇ.

Distribution: Known only from northern Queensland (map 20).

## Wydundra jabiru, new species Figures 292-296; Map 20

Types: Male holotype and female allotype from Jabiru, $12^{\circ} 40^{\prime} \mathrm{S}, 132^{\circ} 54^{\prime} \mathrm{E}$, Northern Territory (July 5-9, 1977; R. Pengilley), deposited in MNT (male A003562, female A003563).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males can be recognized by the dorsally curved retrolateral tibial apophysis (fig. 294), females by the long, narrow epigynal ducts (figs. 295, 296).

Male: Total length 2.74. Carapace 1.34 long, 1.20 wide, 0.50 high, length/width 1.12; sternum 0.80 long, 0.78 wide, length/width 1.03 ; abdomen 1.40 long, 0.80 wide; coxa I 0.42 long; relative length of coxae I-IV 1.00:0.95:0.85:1.14. Cephalothorax, legs pale orange; abdomen pale gray, venter pale. Eye group width 0.78 of caput width; AME 0.14 ; ALE 0.12; PME 0.18; PLE 0.12; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.01; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.30; PMEPME 0.36. Clypeus 0.07 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.47 of abdominal length, more than their diameter apart. Tarsi III, IV ventrally with two rows of strong, stout setae. Male palp (figs 292-294): tegular apophyses, embolus situated on distal half of tegulum; median apophysis ventrally
excavated; terminal apophysis long, triangular, with medially bent tip, prolaterally situated; sperm duct u-shaped; embolus finger-shaped, with sharp tip, embolar base separated from tegulum; retrolateral tibial apophysis bold, curved, with lateral concavity; femur with ventral process.

Female: Total length 4.62. Carapace 1.98 long, 1.92 wide, 0.60 high, length/width 1.03; sternum 1.20 long, 1.06 wide, length/ width 1.13; abdomen 2.64 long, 1.56 wide; coxa I 0.70 long; relative length of coxae I-IV 1.00:0.91:0.83:1.11. Coloration as in male. AME elevated; eye group width 0.73 of caput width; AME 0.22; ALE 0.14; PME 0.22; PLE 0.14; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.48; AME-AME 0.46; PME-PME 0.48. Clypeus 0.09 high. ALS 0.50 of abdominal length. Legs broken off. Palpal femur with seven strong, ventral setae. Epigynum (figs. 295, 296) with inverted $v$-shaped anterior epigynal hood; posterior margin with long, anteriorly blunt projections; epigynal ducts long, thin, parallel, in m-shaped position, spermathecae widely separated, globular.

Other Material Examined: Northern Territory: Tindal, $14^{\circ} 30^{\prime}$ S, $132^{\circ} 23^{\prime}$ E, July 6, 1977, light (W. Vestjens, MNT A002963), $10^{\circ}$.

Distribution: Known only from the type locality in the Northern Territory (map 20).

## Wydundra cooper, new species

Figures 297-301; Map 20
Types: Male holotype and female allotype from Cullyamurra Waterhole, Cooper Creek, $27^{\circ} 42^{\prime} \mathrm{S}, 140^{\circ} 51^{\prime} \mathrm{E}$, South Australia (Oct. 25, 1991; D. Hirst), deposited in SAM (male NN11751, female NN11752).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W$. kalamurina in having two retrolateral tibial apophyses, but can easily be recognized by the prolaterally directed projection on the embolar base (figs. 297, 298); females can be recognized by the narrow, elevated epigynal scape (fig. 300).

Male: Total length 4.18. Carapace 1.80 long, 1.76 wide, 0.74 high, length/width 1.02 ;



Figs. 297-301. Wydundra cooper, new species. 297. Left male palp, prolateral view. 298. Same, ventral view. 299. Same, retrolateral view. 300. Epigynum, ventral view. 301. Same, dorsal view.
sternum 1.12 long, 1.10 wide, length/width 1.02; abdomen 2.38 long, 1.42 wide; coxa I 0.68 long; relative length of coxae I-IV 1.00:0.97:0.94:1.03. Body pale, epigastric area
orange; legs cinnamon brown. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.79 of caput width; AME 0.22; ALE 0.16; PME 0.20;

PLE 0.16; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.06; PME-PLE 0.02; ALE-PLE 0.04; eye group AME-PME 0.44; AME-AME 0.46; PME-PME 0.44. Clypeus 0.06 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.40 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae; tarsi III, IV with cuticular cracks at about three-quarters of their length. Palp (figs. 297-299): conductor originating distally, spatulate, with triangular tip; median apophysis short, wide, ventrally excavated; sperm duct straight; embolus long, semicircular; terminal apophysis absent; embolar base separated from tegulum, with small, conical, projection, prolaterally situated; tibia about 1.5 times as long as wide, retrolateral tibial apophysis divided into two tegular apophyses, ventral one triangular.

Female: Total length 5.22. Carapace 1.98 long, 1.90 wide, 0.68 high, length/width 1.04; sternum 1.18 long, 1.12 wide, length/ width 1.05 ; abdomen 3.24 long, 2.00 wide; coxa I 0.68 long; relative length of coxae I-IV 1.00:0.97:0.94:1.12. Coloration as in male. Eye group width 0.72 of caput width; AME 0.2; AME-AME 0.04; PME-PME 0.04; PME-PLE 0.04; AME-AME 0.44; PMEPME 0.42. Clypeus 0.06 high. ALS 0.31 of abdominal length. Palpal femur with six long, ventral setae. Epigynum (figs. 300, 301): atrium large, rectangular, laterally constricted, with narrow, elevated epigynal scape; epigynal ducts long, paramedian, sinuous, spermathecae contiguous, sausageshaped, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: New South Wales: Sturt National Park, $29^{\circ} 02^{\prime}$ S, $141^{\circ} 41^{\prime} \mathrm{E}$, Sept. 24, 1997, pitfalls, sandplains (M. Gillings, AMS KS79191, 79208), 20; Sturt National Park, $29^{\circ} 16^{\prime} \mathrm{S}, 142^{\circ} 17^{\prime} \mathrm{E}$, Sept. 23, 1997, pitfalls, tablelands (A. Holmes, AMS KS78635, 78657), 20*. South Australia: Coongie Lake, $27^{\circ} 12^{\prime} \mathrm{S}, 140^{\circ} 10^{\prime} \mathrm{E}$, Oct. 27-29, 1995, pitfall, sand dune (D. Hirst, SAM NN11757), 1̊; Cullyamurra Waterhole, Cooper Creek, $27^{\circ} 42^{\prime} \mathrm{S}, 140^{\circ} 51^{\prime} \mathrm{E}$, Sept. 21-24, 1990, pitfall (J. Shaw, SAM NN11753), 1 ¢ ; Toolache Waterhole region, $28^{\circ} 21^{\prime} \mathrm{S}, 140^{\circ} 25^{\prime} \mathrm{E}$, Sept. 1983 (M. Thompson, G. Medlin, SAM N1985/120), 1 ¢̣.

Distribution: Known only from South Australia and New South Wales (map 20).

## Wydundra kalamurina, new species <br> Figures 302-306; Map 21

Types: Male holotype and female allotype taken in pitfall traps on sand dunes $1 \mathrm{~km} E$ of Rat Hole Yard, Kalamurina Station, $27^{\circ} 56^{\prime} \mathrm{S}, 138^{\circ} 00^{\prime} \mathrm{E}$, South Australia (Oct. 2-8, 1999; D. Hirst), deposited in SAM (male NN11755, female NN11756).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males resemble those of Wydundra moolooloo in lacking a prolateral projection on the embolar base, but that base is wider (figs. 302, 304); females lack an elevated epigynal scape (fig. 305) and have parallel, longitudinal paramedian epigynal ducts (fig. 306)

Male: Total length 4.12. Carapace 1.56 long, 1.50 wide, 0.64 high, length/width 1.04 ; sternum 0.94 long, 0.94 wide, length/width 1.00; abdomen 2.56 long, 1.36 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.96:0.92:1.10. Body, legs pale yellow. AME elevated; eye group width 0.77 of caput width; AME 0.18; ALE 0.14; PME 0.18; PLE 0.14; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.06; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.38; AME-AME 0.38; PME-PME 0.40. Clypeus 0.06 high. Abdomen covered with shiny, recumbent scales; ALS 0.35 of abdominal length, more than their diameter apart. Tarsi III, IV ventrally with two rows of strong, stout setae. Palp (figs. 302-304): cymbium retrolaterally straight; median apophysis small, ventrally excavated; terminal apophysis absent; sperm duct weakly s-shaped; embolus long, semicircular, embolar base separated from tegulum, situated prolaterally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis divided into two tegular apophyses, ventral one rectangular.

Female: Total length 5.10. Carapace 1.94 long, 1.96 wide, 0.72 high, length/width 0.98 ; sternum 1.18 long, 1.16 wide, length/width 1.01 ; abdomen 3.16 long, 1.44 wide; coxa I 0.68 long; relative length of coxae I-IV 1.00:0.97:0.94:1.15. Coloration as in male. AME 0.20; PME 0.20; AME-AME 0.04; PME-PME 0.08; PME-PLE 0.04; eye group AME-PME 0.44; AME-AME 0.44; PMEPME 0.44. Clypeus 0.08 high. Palpal femur


Figs. 302-306. Wydundra kalamurina, new species. 302. Left male palp, prolateral view. 303. Same, ventral view. 304. Same, retrolateral view. 305. Epigynum, ventral view. 306. Same, dorsal view.
with seven thin, ventral setae. Epigynum (figs. 305, 306): atrium large, rectangular, with v-shaped median ledge; epigynal ducts parallel, paramedian, spermathecae contiguous, sau-sage-shaped, twisted, in horizontal position.

Other Material Examined: South Australia: Lake Ngapakaldi, 150 km N Marree, $28^{\circ} 18^{\prime} \mathrm{S}, 138^{\circ} 16^{\prime} \mathrm{E}$, Aug. 5, 1995 (J. Thurmer, SAM NN11750), 1ơ; E shore, Lake Ngapakaldi, Tirari Desert, $28^{\circ} 18^{\prime} \mathrm{S}, 138^{\circ} 16^{\prime} \mathrm{E}$, Aug. 6, 1984 (D. Lacis, SAM N1989/125), 1 ¢ $; 3 \mathrm{~km}$ NE Rat Hole Yard, Kalamurina Station, $27^{\circ} 54^{\prime} \mathrm{S}$, $137^{\circ} 58^{\prime}$ E, Oct. 2-8, 1999, pitfall (D. Hirst, SAM NN11754), $10^{\circ}$.

Distribution: Known only from South Australia (map 21).

## Wydundra moolooloo, new species

Figures 307-311; Map 22
Types: Male holotype and female allotype taken in pitfall trap 4.2 km SSE of North Moolooloo Station, $30^{\circ} 40^{\prime} \mathrm{S}$, $138^{\circ} 32^{\prime} \mathrm{E}$, South Australia (Dec. 9-12, 1997), deposited in SAM (male NN11745, female NN11746).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W y$ dundra kalamurina in lacking a prolateral projection on the embolar base, but have the base much narrower than in that species (figs. 307, 308); females lack an elevated epigynal scape (fig. 310) and have sinuous, recurved paramedian epigynal ducts and narrow spermathecae (fig. 311).

Male: Total length 3.54. Carapace 1.50 long, 1.48 wide, 0.44 high, length/width 1.01 ; sternum 0.88 long, 0.88 wide, length/width 1 ; abdomen 2.04 long, 1 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.96: $0.89: 1.03$. Body pale, epigastric area orange; legs pale, cinnamon brown. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.76 of caput width; AME 0.14; ALE 0.12; PME 0.14; PLE 0.12; AME-AME 0.06; AME-ALE 0.02; PME-PME 0.06; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.32; AME-AME 0.34; PME-PME 0.34. Clypeus 0.06 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.44 of abdominal length, more than their diameter apart. Tarsi III, IV ventrally with two rows of
stout setae. Palp (figs. 307-309): cymbium retrolaterally straight; conductor originating distally, membranous, short, spatulate, with blunt tip; median apophysis small, spatulate, with small median hook; terminal apophysis absent; sperm duct semicircular; embolus long, semicircular, embolar base separated from tegulum, situated prolaterally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis divided into two tegular apophyses, dorsal one bent, ventral one triangular.

Female: Total length 4.76. Carapace 1.76 long, 1.70 wide, 0.56 high, length/width 1.03; sternum 1.00 long, 1.00 wide; abdomen 3.00 long, 1.56 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.96:0.93:1.13. Coloration as in male. Eye group width 0.66 of caput width; PME-PME 0.38. ALS 0.33 of abdominal length. Palpal femur with five long, ventral setae. Epigynum (figs. 310, 311): atrium large, rectangular, anterior margin with sharply pointed projection, with v -shaped median ledge; epigynal ducts paramedian, sinuous, spermathecae contiguous, sausage-shaped, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: South Australia: 14.5 km WNW Backadinna Hill, $29^{\circ} 08^{\prime} \mathrm{S}$, $135^{\circ} 10^{\prime} \mathrm{E}$, Oct. 7, 1995, pitfall SAM NN11747), $10^{\prime} ; 10 \mathrm{~km}$ ENE Dulkaninna, $28^{\circ} 59^{\prime} \mathrm{S}, 138^{\circ} 33^{\prime} \mathrm{E}$, Nov. 4, 1994, pitfall (SAM NN11758), 1o; 0.9 km NE Four Hills Trig, Peake Station, $28^{\circ} 30^{\prime} \mathrm{S}, 136^{\circ} 30^{\prime} \mathrm{E}$, Mar. 1-5, 1996, pitfalls


Map 21. Circle, Wydundra kalamurina, new species. Square, Wydundra neinaut, new species. Triangle, Wydundra normanton, new species.


Figs. 307-311. Wydundra moolooloo, new species. 307. Left male palp, prolateral view. 308. Same, ventral view. 309. Same, retrolateral view. 310. Epigynum, ventral view. 311. Same, dorsal view.
(SAM NN10938, 11749), 20'; 3.3 km WNW Hurdle Creek, Nilpinna Station, $28^{\circ} 13^{\prime} \mathrm{S}$, $135^{\circ} 27^{\prime} \mathrm{E}$, Sept. 15-20, 1996, pitfall (SAM NN11759), 1 ¢ $; 4.6$ km S Macumba Homestead, Allendale Station, $27^{\circ} 18^{\prime}$ S, $135^{\circ} 39^{\prime} \mathrm{E}$, Nov. 1317, 1995, pitfall (SAM NN11748), $10^{*} ; 7.8 \mathrm{~km}$ SW Twin Hill, $29^{\circ} 43^{\prime} \mathrm{S}, 136^{\circ} 55^{\prime} \mathrm{E}$, Oct. 1, 1955, pitfall (SAM NN11761), 1 ?

Distribution: Known only from South Australia (map 22).

## Wydundra neinaut, new species

Figures 312-316; Map 21
Types: Male holotype and female allotype taken in pitfall trap on gravel ridge 5 km S of Moranbah, $22^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 03^{\prime} \mathrm{E}$, Queensland (June 25-Dec. 20, 1997; G. Monteith, E. Kruck), deposited in QMB (male S64520, female S64521).

Etymology: The specific name is an arbitrary combination of letters.

DiAgnosis: This species resembles $M$. octomile but males have a long, triangular basal embolar projection and a bifid embolar tip (figs. 312, 313); females have both a wider median and a wider posterior projecting epigynal ledge (fig. 315).

Male: Total length 2.94. Carapace 1.30 long, 1.22 wide, 0.50 high, length/width 1.06 ; sternum 0.76 long, 0.76 wide, length/width 1 ; abdomen 1.64 long, 0.88 wide; coxa I 0.42 long; relative length of coxae I-IV 1.00:0.95:0.85:1.04. Cephalothorax pale yellow, legs pale gray, abdomen gray, dorsum with weak orange scutum, small, pale spot in front of spinnerets, venter pale. AME elevated; PME oval; eye group width 0.77 of caput width; AME 0.12; ALE 0.12; PME 0.16; PLE 0.10 ; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.32; AME-AME 0.28; PME-PME 0.34. Clypeus 0.05 high. Abdomen covered with dark, slightly plumose setae; ALS 0.39 of abdominal length, about their diameter apart. Palp (figs. 312-314): median apophysis ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus long, with bifid tips, embolar base separated from tegulum, with long, triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, dorsally excavated, retrolateral tibial apophysis long, triangular.

Female: Total length 3.88. Carapace 1.58 long, 1.56 wide, 0.50 high, length/width 1.01 ; sternum 0.98 long, 0.96 wide, length/ width 1.02 ; abdomen 2.52 long, 1.36 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.96:0.86:1.03. Coloration as in male. Eye group width 0.71 of caput width; AME 0.13; PME 0.18; AME-AME 0.02; PMEPME 0.04; eye group AME-PME 0.36; AME-AME 0.32; PME-PME 0.36. Clypeus 0.06 high. ALS 0.37 of abdominal length. Palpal femur with seven strong, ventral setae, tarsus with small claw. Epigynum (figs. 315, 316): anterior margin arched, with two small anterior lateral hood-shaped openings, posterior margin with two wide, transverse, projecting epigynal ledges; epigynal ducts short, spermathecae about their diameter apart, sausage-shaped, twisted, in horizontal position, with two dorsal diverticula.

Other Material Examined: Queensland: Dotswood, $19^{\circ} 33^{\prime}$ S, $146^{\circ} 13^{\prime}$ E, Aug. 1999, pitfall (T. Churchill, Woinarski, QMB S64526, S64527), 30; Foxleigh, coordinates unknown, Feb. 2, 2000, pitfall (D. Hannah, QMB S67721), 1ᄋ; Mount Stuart, $23^{\circ} 12^{\prime} \mathrm{S}, 148^{\circ} 39^{\prime} \mathrm{E}$, Feb. 2, 2000, pitfall (D. Hannah, QMB S67718), 1o; Wycheproof, $23^{\circ} 59^{\prime} \mathrm{S}, 151^{\circ} 01^{\prime} \mathrm{E}$, Jan. 21, 1999 (T. Churchill, QMB S64528), 1 ? .

Distribution: Known only from northand mideastern Queensland (map 21).


Map 22. Circle, Wydundra moolooloo, new species. Square, Wydundra octomile, new species. Triangle, Wydundra webberae, new species.


Figs. 312-316. Wydundra neinaut, new species. 312. Left male palp, prolateral view. 313. Same, ventral view. 314. Same, retrolateral view. 315. Epigynum, ventral view. 316. Same, dorsal view.

## Wydundra octomile, new species

Figures 317-321; Map 22
Types: Male holotype and female allotype taken in pitfall trap in dry eucalypt woodland at Eight Mile Creek, $18^{\circ} 41^{\prime} \mathrm{S}$,
$144^{\circ} 43^{\prime} \mathrm{E}$ (Nov. 6, 1991-July 26, 1992; R. Raven, P. Lawless, M. Shaw), deposited in QMB (male S64762, female S35366).

Etymology: The specific name is an arbitrary combination of letters.


Figs. 317-321. Wydundra octomile, new species. 317. Left male palp, prolateral view. 318. Same, ventral view. 319. Same, retrolateral view. 320. Epigynum, ventral view. 321. Same, dorsal view.

DiAgnosis: Males resemble those of $W$. neinaut but have a single embolar tip, oriented at a more oblique angle (fig. 318); females resemble those of $W$. neinaut in having two transverse, projecting epigynal
ledges, but both ledges are much narrower than in that species (fig. 320).

Male: Total length 3.38. Carapace 1.48 long, 1.40 wide, 0.46 high, length/width 1.06 ; sternum 0.90 long, 0.86 wide, length/width
1.05; abdomen 1.90 long, 1.02 wide; coxa I 0.50 long; relative length of coxae IIV 1.00:0.96:0.88:1.12. Cephalothorax, legs orange; abdomen gray, dorsally with weak orange scutum, small, pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with gray setae. Eye group width 0.83 of caput width; AME 0.14; ALE 0.14; PME 0.18; PLE 0.12; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.38 . Clypeus 0.06 high. Abdomen covered with dark, slightly plumose setae; ALS 0.41 of abdominal length, about their diameter apart. Palp (figs. 317-319): tegular apophyses, embolus situated on distal half of tegulum; median apophysis ventrally excavated; sperm duct weakly s-shaped; embolus finger-shaped, with sharp tip, embolar base separated from tegulum, with long, triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, dorsally excavated, dorsally excavated, retrolateral tibial apophysis long, triangular, with bent tip.

Female: Total length 3.96. Carapace 1.60 long, 1.52 wide, 0.70 high, length/width 1.05 ; sternum 0.96 long, 0.96 wide, length/width 1.00 ; abdomen 2.36 long, 1.22 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.92: 0.88:1.11. Coloration as in male but without scutum. Eye group width 0.74 of caput width; ALE 0.16; PME-PLE 0.04; ALE-PLE 0.04 . ALS 0.45 of abdominal length. Palpal femur with seven strong, ventral setae. Epigynum (figs. 320, 321): anterior margin arched, with two small anterior lateral hood-shaped openings, posterior margin with two narrow, transverse, projecting epigynal ledges; epigynal ducts short, spermathecae oval, with one dorsal diverticulum.

Other Material Examined: Queensland: Eight Mile Creek, $18^{\circ} 41^{\prime}$ S, $144^{\circ} 43^{\prime}$ E, July $26-$ Dec. 1, 1992, dry eucalypt woodland pitfall (R. Raven, P., E. Lawless, M. Shaw, QMB S21833), 1 1op E Georgetown, Newcastle Range, $18^{\circ} 18^{\prime} \mathrm{S}$, $143^{\circ} 32^{\prime} \mathrm{E}$, Feb. 20-June 29, 2002, pitfall (J. Hasenpusch, QMB S64763), 10'; Thatch Creek, $19^{\circ} 06^{\prime}$ S, $145^{\circ} 18^{\prime}$ E, Dec. 1, 1992-Apr. 14, 1993, pitfall, dry eucalypt woodland (R., J., S. Raven, P., E. Lawless, QMB S59570), 50', 7o.

Distribution: Known only from northeastern Queensland (map 22).

## Wydundra normanton, new species

Figures 322-326; Map 21
Type: Male holotype taken on the banks of Norman Creek, Normanton, $17^{\circ} 40^{\prime} \mathrm{S}$, $141^{\circ} 05^{\prime} \mathrm{E}$, Queensland (Oct. 17, 1976; R. Kohout, M. Archer, H. Godthelp), deposited in QMB (S64518).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $M$. octomile but have a very short basal embolar projection, both parts of the bifid embolar tip elongated (fig. 323) and the retrolateral tibial apophysis with a bifid tip (fig. 324); females resemble those of $W$. neinaut but have a narrower anterior epigynal margin (fig. 325) and more rounded spermathecae (fig. 326).

Male: Total length 3.90. Carapace 2.40 long, 2.22 wide, 0.60 high, length/width 1.08 ; sternum 1.38 long, 1.28 wide, length/width 1.08; abdomen 1.50 long, 0.82 wide; coxa I 0.88 long; relative length of coxae I-IV 1.00:0.93:0.84:1.07. Carapace, sternum, legs orange; chelicerae brown; endites, labium orange, distally pale; abdomen pale. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.74 of caput width; AME 0.26; ALE 0.20 ; PME 0.26; PLE 0.19; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.56; AME-AME 0.56; PME-PME 0.56 . Clypeus 0.12 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.81 of abdominal length, more than their diameter apart. Tarsi III, IV ventrally with two rows of strong, stout setae. Palp (figs. 322-324): tegular apophyses, embolus situated on distal half of tegulum; median apophysis ventrally excavated, with two distal tips, basal part short, prolaterally situated; sperm duct u-shaped; embolus divided into two elongated parts, embolar base separated from tegulum, with short basal embolar projection; tibia about 1.8-2.0 times as long as wide, dorsally excavated, retrolateral tibial apophysis triangular, with bifid tip.


Figs. 322-326. Wydundra normanton, new species. 322. Left male palp, prolateral view. 323. Same, ventral view. 324. Same, retrolateral view. 325. Epigynum, ventral view. 326. Same, dorsal view.

Female: Total length 4.32. Carapace 1.60 long, 1.62 wide, 0.60 high, length/width 0.98 ; sternum 1.00 long, 0.94 wide, length/ width 1.06; abdomen 2.72 long, 1.68 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.93:0.86:1.06. Coloration as in male. Eye group width 0.77 of caput width; AME 0.15; ALE 0.14; PME 0.20; PLE 0.14; PMEPME 0.03; PME-PLE 0.03; ALE-PLE 0.03; eye group AME-PME 0.36; AME-AME 0.34 ; PME-PME 0.38. Clypeus 0.08 high. ALS 0.45 of abdominal length. Palpal femur with seven strong, ventral setae. Epigynum (figs. 325, 326) with two small anterior lateral hood-shaped openings; posterior margin with one inverted $v$-shaped projection; epigynal ducts short, spermathecae about their diameter apart, oval, twisted, in inverted vshaped position.

Other Material Examined: Queensland: Burke Developmental Road, $17^{\circ} 12^{\prime} \mathrm{S}, 141^{\circ} 39^{\prime} \mathrm{E}$, July 28, 1995, pitfall, grazed open woodland (J. Thompson, M. Tio, S. Cowan, AMS KS55252), 3o.

Distribution: Known only from northwestern Queensland (map 21).

## Wydundra webberae, new species <br> Figures 330, 331; Map 22

Type: Female holotype taken at Humpty Doo, $12^{\circ} 35^{\prime} \mathrm{S}, 131^{\circ} 05^{\prime} \mathrm{E}$, Northern Territory (Nov. 1993; J. Webber), deposited in MNT (A002962).

Etymology: The specific name is a patronym in honor of Jenni Webber of the Museum and Art Gallery of the Northern Territory, the collector of the holotype.

Diagnosis: Females resemble those of $W$. humptydoo in having an elongated epigynal atrium but the atrium is much smaller (fig. 330). Although it is possible that these are the females of $W$. ethabuka, the resemblances to $W$. humptydoo make that seem unlikely.

Male: Unknown.
Female: Total length 3.46. Carapace 1.50 long, 1.50 wide, 0.60 high, length/width 1.00; sternum 0.94 long, 0.90 wide, length/ width 1.04 ; abdomen 1.96 long, 1.20 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.92:1.12. Body, legs pale yellow. Carapace weakly covered with gray setae. AME elevated; eye group width 0.76 of caput
width; AME 0.15; ALE 0.14; PME 0.16; PLE 0.14; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.36; AME-AME 0.34; PME-PME 0.38. Clypeus 0.06 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.53 of abdominal length, about their diameter apart. Palpal femur with 4-7 strong, ventral setae. Epigynum (figs. 330, 331): atrium rectangular, with sinuous posterior margin; epigynal ducts short, spermathecae slightly apart, oval, twisted, in $v$-shaped position, with one dorsal diverticulum.

Other Material Examined: Northern Territory: Daly River, $14^{\circ} 16^{\prime} \mathrm{S}, 131^{\circ} 39^{\prime} \mathrm{E}$, July 11 , 1998 (O. Price, MNT A000986), 1 of.

Distribution: Known only from the Northern Territory (map 22).

## Wydundra undara, new species

Figures 332-336; Map 23
Types: Male holotype and female allotype taken in vine scrub at Undara National Park, $18^{\circ} 14^{\prime}$ S, $144^{\circ} 38^{\prime}$ E, Queensland (Dec. 8, 2002-Feb. 8, 2003; G. Monteith), deposited in QMB (male S68066, female S68065).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the large, chitinous conical projection at the base of the conductor (fig. 332) and the sinuous embolus (fig. 333); females resemble those of $W$. normanton in having the posterior epigynal margin with one projection but the projection is shaped like an inverted u (fig. 335).

Male: Total length 4.68. Carapace 2.20 long, 2.02 wide, 0.30 high, length/width 1.09 ; sternum 1.24 long, 1.22 wide, length/width 1.02; abdomen 2.48 long, 1.52 wide; coxa I 0.72 long; relative length of coxae I-IV 1.00:0.94:0.92:1.14. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen pale, gray, dorsally with weak orange scutum, venter pale, epigastric area orange. Carapace weakly covered with gray, recumbent scales. AME elevated; eye group width 0.78 of caput width; AME 0.24; ALE 0.18; PME 0.24; PLE 0.16; AME-AME 0.04; AME-ALE


Figs. 327-331. 327-329. Wydundra flattery, new species. 330, 331. Wydundra webberae, new species. 327. Left male palp, prolateral view. 328. Same, ventral view. 329. Same, retrolateral view. 330. Epigynum, ventral view. 331. Same, dorsal view.
0.04; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.50 ; AME-AME 0.52; PME-PME 0.50 . Clypeus 0.08 high. Abdomen covered with
gray, recumbent scales; ALS 0.51 of abdominal length, more than their diameter apart. Tarsi III, IV ventrally with two rows of stout setae; distal half of tarsi IV with cuticular


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Figs. 332-336. Wydundra undara, new species. 332. Left male palp, prolateral view. 333. Same, ventral view. 334. Same, retrolateral view. 335. Epigynum, ventral view. 336. Same, dorsal view.
cracks. Palp (figs. 332-334): cymbium long, slender, at least 2.2 times longer than wide, tip elongate; conductor originating distally, membranous, spatulate, base with large, chitinous, conical projection; median apophysis ventrally excavated, with two distal tips; terminal apophysis absent; sperm duct weakly u-shaped; embolus sinuous, with arched tip, embolar base separated from tegulum, with tiny, triangular basal projection, situated prolaterally; tibia laterally flattened, about 1.8-2.0 times as long as wide, dorsally excavated, retrolateral tibial apophysis long, triangular, with distally bent tip.

Female: Total length 3.92. Carapace 1.48 long, 1.40 wide, 0.44 high, length/width 1.06; sternum 0.92 long, 0.88 wide, length/ width 1.04; abdomen 2.44 long, 1.28 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.88:1.08. Coloration as in male but without scutum. Eye group width 0.8 of caput width; AME 0.14; ALE 0.12; PME 0.17; PLE 0.12; PME-PME 0; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.34 ; AME-AME 0.32; PME-PME 0.34. Clypeus 0.06 high. Abdomen covered with gray, slender, recumbent scales; ALS 0.41 of abdominal length. Palpal femur with seven long, ventral setae. Epigynum (figs. 335, 336): atrium long, rectangular, anterior margin widely arched; posterior margin with one inverted u-shaped projection; epigynal ducts short, spermathecae contiguous, globular, in horizontal position.

Other Material Examined: None.
Distribution: Known only from northeastern Queensland (map 23).

Wydundra garnet, new species
Figures 337-341; Map 24
Type: Male holotype from Mount Garnet, $17^{\circ} 41^{\prime} \mathrm{S}, 145^{\circ} 07^{\prime} \mathrm{E}$, Queensland (Feb. 24, 1972; N. Coleman), deposited in QMB (S64522).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a distally directed basal embolar projection and a long embolar tip with a dorsal tubercle (fig. 338); females have the median epigynal ledge concave rather than convex anteriorly (figs. 340, 341).

Male: Total length 2.80. Carapace 1.30 long, 1.20 wide, 0.54 high; sternum 0.80 long, 0.70 wide, length/width $1.14 ; 0.80$ wide; coxa I 0.40 long; relative length of coxae I-IV 1.00:0.95:0.90:1.10. Cephalothorax, legs orange; abdomen gray. Eye group width 0.79 of caput width; AME 0.13; ALE 0.10; PME 0.16; PLE 0.10; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.30; PME-PME 0.32. Clypeus 0.08 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.43 of abdominal length. Palp (figs. 337-339): median apophysis ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus triangular, with long tip, dorsal tubercle, embolar base separated from tegulum, with distally directed basal embolar projection; tibia dorsally excavated; retrolateral tibial apophysis long, triangular, with bifid tip, small, dorsal tooth.

Female: Total length 4.16. Carapace 1.56 long, 1.58 wide, 0.50 high, length/width 0.98 ; sternum 1.18 long, 0.90 wide, length/ width 1.31; abdomen 2.60 long, 1.40 wide. Coloration as in male. Eye group width 0.73 of caput width; AME 0.14; ALE 0.10; PME 0.18; PLE 0.10; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.32; PME-PME 0.36. Clypeus 0.08 high. ALS 0.39 of abdominal length. Palps broken off. Epigynum (figs. 340, 341): atrium with wide, arched anterior


Map 23. Circle, Wydundra undara, new species. Square, Wydundra flattery, new species. Triangle, Wydundra lowrie, new species.


Figs. 337-341. Wydundra garnet, new species. 337. Left male palp, prolateral view. 338. Same, ventral view. 339. Same, retrolateral view. 340. Epigynum, ventral view. 341. Same, dorsal view.
margin, concave median epigynal ledge; epigynal ducts short, in v-shaped position, spermathecae about their diameter apart, oval, twisted, in inverted v-shaped position, with one dorsal diverticulum.

Other Material Examined: Queensland: Amber Station, near Fossilbrook Creek, $17^{\circ} 45^{\prime} \mathrm{S}, 144^{\circ} 21^{\prime} \mathrm{E}$, Aug 17, 1979, grassy, low, open forest (K. McDonald, QMB S64523), 19; Mount Garnet, $17^{\circ} 41^{\prime} \mathrm{S}, 145^{\circ} 07^{\prime} \mathrm{E}$, Feb. 24, 1972 (N. Coleman, QMB S64525), 10', same date (J. Thompson, QMB), 10'; 50 km N Mount Garnet, $17^{\circ} 41^{\prime} \mathrm{S}, 145^{\circ} 07^{\prime} \mathrm{E}$, Apr. 14 July 9, 2002, pitfall (J. Hasenpusch, QMB S64524), $10^{\circ}$.

Distribution: Known only from northeastern Queensland (map 24).

## Wydundra kohi, new species

Figures 342-346; Map 25
TyPE: Male holotype taken in pitfall trap at Davies Creek National park, $17^{\circ} 00^{\prime} \mathrm{S}$, $145^{\circ} 34^{\prime} \mathrm{E}$, Queensland (Oct. 29, 1991-July 23, 1992; P. Lawless, R. Raven, M. Shaw), deposited in QMB (S25095).

Etymology: The specific name is a patronym in honor of Joseph Koh for his model of friendship, patience, and diplomacy.

Diagnosis: Males and females have not been collected together but resemble those of $W$. garnet; males have a longer basal embolar projection and a distinctively arched embolar tip (fig. 343), and females have a distally subdivided epigynal projection (fig. 345).

Male: Total length 3.16. Carapace 1.36 long, 1.30 wide, 0.50 high, length/width 1.05 ; sternum 0.80 long, 0.80 wide, length/width 1.00; abdomen 1.80 long, 0.88 wide; coxa I 0.40 long; relative length of coxae I-IV 1.00:1.00:0.95:1.15. Cephalothorax, legs pale yellow; abdomen gray, venter pale. PME oval; eye group width 0.8 of caput width; AME 0.12; ALE 0.11; PME 0.16; PLE 0.1; AME-AME 0.04; AME-ALE 0.04; PMEPME 0.02; PME-PLE 0.04; ALE-PLE 0.04 ; eye group AME-PME 0.3; AMEAME 0.28; PME-PME 0.34. Clypeus 0.04 high. Abdomen covered with dark, slightly plumose setae; ALS 0.39 of abdominal length, more than their diameter apart. Tarsi III, IV ventrally with two rows of strong, stout setae. Palp (figs. 342-344): tegular apophyses, embolus situated on distal half
of tegulum; median apophysis ventrally excavated, with two distal tips; sperm duct weakly u-shaped; embolus triangular, with arched tip, embolar base separated from tegulum, with long triangular, basal embolar projection; tibia about 1.8-2.0 times as long as wide, dorsally excavated; retrolateral tibial apophysis long, triangular, with bifid tip, small, dorsal tooth; femur with ventral process.

Female: Total length 6.96. Carapace 2.72 long, 2.52 wide, 0.66 high, length/width 1.08; sternum 1.62 long, 1.44 wide, length/ width 1.12; abdomen 4.24 long, 2.48 wide; coxa I 0.96 long; relative length of coxae I-IV 1.00:1.00:0.98:1.10. Coloration as in male. Eye group width 0.73 of caput width; AME 0.28; ALE 0.20; PME 0.30; PLE 0.18; PMEPME 0.04; PME-PLE 0.06; eye group AME-PME 0.60; AME-AME 0.60; PMEPME 0.60. Clypeus 0.10 high. ALS 0.21 of abdominal length. Palps broken off. Epigynum (figs. 345,346 ): atrium broadly bottleshaped; posterior margin with one slightly m shaped projection; epigynal ducts long, irregularly curved, spermathecae widely separated, globular.

Other Material Examined: Queensland: Einasleigh River, near Carpentaria Downs, $18^{\circ} 43^{\prime} \mathrm{S}, 144^{\circ} 20^{\prime}$ E, June 12-13, 1997 (B., M. Baehr, S64704), 1 ㅇ.

Distribution: Known only from northeastern Queensland (map 25).


Map 24. Circle, Wydundra garnet, new species. Square, Wydundra ethabuka, new species. Triangle, $W y d u n d r a$ gibb, new species.


Figs. 342-346. Wydundra kohi, new species. 342. Left male palp, prolateral view. 343. Same, ventral view. 344. Same, retrolateral view. 345. Epigynum, ventral view. 346. Same, dorsal view.

Wydundra flattery, new species
Figures 327-329; Map 23
Type: Male holotype taken in pitfall trap at site 2, Cape Flattery, $15^{\circ} 20^{\prime} \mathrm{S}, 145^{\circ} 18^{\prime} \mathrm{E}$,

Queensland (Aug. 13-Sept. 29, 1991; L. Smyth), deposited in QMB (S30635).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males of this bizarre species can easily be recognized by the greatly elongated retrolateral tibial apophysis and the presence of a second, dorsal tibial apophysis (fig. 329).

Male: Total length 2.70. Carapace 1.20 long, 1.16 wide, 0.40 high, length/width 1.03; sternum 0.78 long, 0.74 wide, length/width 1.05; abdomen 1.50 long, 0.78 wide; coxa I 0.40 long; relative length of coxae I-IV 1.00:1.00:0.90:1.10. Cephalothorax, legs orange; abdomen pale gray, dorsally with weak orange scutum, venter pale, epigastric area orange. Carapace weakly covered with gray, setae. Eye group width 0.72 of caput width; AME 0.12; ALE 0.10; PME 0.16; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.28 ; PME-PME 0.32. Clypeus 0.04 high. Abdomen covered with dark, slightly plumose setae; ALS 0.41 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 327-329): tegular apophyses, embolus situated on distal half of tegulum; median apophysis about twice as long as wide, cane-shaped; terminal apophysis long, finger-shaped, with medially bent tip, retrolaterally situated; sperm duct not visible; embolus with bifid tips, embolar base separated from tegulum, situated prolaterally; tibia about $1.8-2.0$ times as long as wide, retrolateral tibial apophysis greatly elongated, with second dorsal apophysis.

Female: Unknown.
Other Material Examined: None.
Distribution: Known only from northeastern Queensland (map 23).

## Wydundra lowrie, new species

Figures 347-349; Map 23
Type: Male holotype from Lowrie Island, Great Barrier Reef, $13^{\circ} 17^{\prime} \mathrm{S}, 143^{\circ} 36^{\prime} \mathrm{E}$, Queensland (Dec. 11, 1979; R. Buckley), deposited in QMB (S64519).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males of this bizarre species can easily be recognized by the small, bifid retrolateral tibial apophysis, which has both
distally and dorsally directed branches (fig. 349).

Male: Total length 3.22. Carapace 1.36 long, 1.26 wide, 0.52 high, length/width 1.08 ; sternum 0.80 long, 0.80 wide, length/width 1.00; abdomen 1.86 long, 0.90 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.95:0.82:1.08. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen pale, dorsally with weak orange scutum, half moon-shaped pale spot in front of spinnerets. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.83 of caput width; AME 0.14 ; ALE 0.12; PME 0.18; PLE 0.12; AME-AME 0.04; AMEALE 0.02; PME-PME 0.02; PME-PLE 0.02 ; ALE-PLE 0.02; eye group AMEPME 0.32; AME-AME 0.32; PME-PME 0.36 . Clypeus 0.06 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.39 of abdominal length, more than their diameter apart. Palp (figs. 347-349): tegular apophyses, embolus situated on distal half of tegulum; median apophysis ventrally excavated; terminal apophysis long, triangular, with medially bent tip, medially situated; sperm duct weakly u-shaped; embolus thin, straight, embolar base separated from tegulum, hidden behind terminal apophysis, situated prolaterally; tibia about $1.8-2.0$ times as long as wide, retrolateral


Map 25. Circle, Wydundra kohi, new species. Square, Wydundra charnley, new species. Triangle, Wydundra daunton, new species.


Figs. 347-352. 347-349. Wydundra lowrie, new species. 350-352. Wydundra ethabuka, new species. 347, 350. Left male palp, prolateral view. 348, 351. Same, ventral view. 349, 352. Same, retrolateral view.
tibial apophysis short, bifid, with distally, dorsally directed branches, small more basal hook.

Female: Unknown.
Other Material Examined: None.
Distribution: Known only from northeastern Queensland (map 23).

Wydundra ethabuka, new species
Figures 350-352; Map 24
TyPE: Male holotype taken in pitfall trap at Ethabuka Station, Simpson Desert, $23^{\circ} 46^{\prime} \mathrm{S}, 138^{\circ} 28^{\prime} \mathrm{E}$, Queensland (Mar 1995; C. Dickman), deposited in QMB (S34505).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males of this bizarre species can easily be recognized by the narrow basal terminal apophysis (fig. 350) and the relatively long, narrow median apophysis (fig. 351).

Male: Total length 3.32. Carapace 1.52 long, 1.44 wide, 0.48 high, length/width 1.05 ; sternum 0.96 long, 0.82 wide, length/width 1.17; abdomen 1.80 long, 1 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.93:0.81:1.07. Cephalothorax, legs orange; abdomen pale gray, venter pale, epigastric area orange. Carapace weakly covered with gray, setae. Eye group width 0.85 of caput width; AME 0.16; ALE 0.14; PME 0.22; PLE 0.12; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.40; AME-AME 0.36; PME-PME 0.42 . Clypeus 0.06 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.34 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 350352): conductor spatulate; median apophysis long, scythe-shaped; terminal apophysis straight, finger-shaped; sperm duct u-shaped; embolus finger-shaped, with sharp tip, embolar base separated from tegulum, situated prolaterally; tibia globose, retrolateral tibial apophysis triangular, with bifid tip.

Female: Unknown.
Other Material Examined: Northern Territory: between Frewena and Rockhampton Downs, ca. $1^{\circ} 57^{\prime} \mathrm{S}, 135^{\circ} 10^{\prime}$ E, Oct. 1,1976 (R. Penguilly, MNT A002964), $10^{\circ}$.

Distribution: Known only from southwestern Queensland and the Northern Territory (map 24).

Wydundra gibb, new species
Figures 353-357; Map 24
Type: Male holotype from campsite on river at Kalumburu turnoff, 51 km E Gibb River, $15^{\circ} 58^{\prime} \mathrm{S}, 126^{\circ} 51^{\prime} \mathrm{E}$, Western Australia (June 14, 1992; M. Harvey, J. Waldock), deposited in WAM (T45286).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the sinuous prolateral apophysis on the embolar base (fig. 354), females by the beak-shaped anterior epigynal hood (fig. 356).

Male: Total length 5.18. Carapace 2.30 long, 2.14 wide, 0.90 high, length/width 1.07 ; sternum 1.34 long, 1.20 wide, length/width 1.11; abdomen 2.88 long, 1.44 wide; coxa I 0.84 long; relative length of coxae I-IV 1.00:0.95:0.92:1.02. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen pale, dorsally with small, pale spot in front of spinnerets. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.76 of caput width; AME 0.26 ; ALE 0.16; PME 0.26; PLE 0.16; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.08; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.50; AME-AME 0.56; PME-PME 0.58 . Clypeus 0.10 high. Abdomen covered with gray, plumose setae; ALS 0.48 of abdominal length, more than their diameter apart, with long, triangular distal spines. Tarsi III, IV ventrally with two rows of strong, stout setae. Palp (figs. 353-355): cymbium with retrobasal hook; median apophysis ventrally excavated, with pointed tip, terminal apophysis absent; sperm duct weakly u-shaped; embolus finger-shaped, with sharp tip, short, embolar projection; embolar base separated from tegulum; tibia about 1.8-2.0 times as long as wide, dorsally excavated, retrolateral tibial apophysis triangular, with bifid tip.

Female: Total length 6.12. Carapace 2.40 long, 2.28 wide, 1.00 high , length/width 1.05 ; sternum 1.40 long, 1.24 wide, length/ width 1.12 ; abdomen 3.72 long, 1.60 wide;


Figs. 353-357. Wydundra gibb, new species. 353. Left male palp, prolateral view. 354. Same, ventral view. 355. Same, retrolateral view. 356. Epigynum, ventral view. 357. Same, dorsal view.
coxa I 0.80 long; relative length of coxae I-IV 1.00:1.00:0.95:1.20. Coloration as in male. Eye group width 0.74 of caput width; AME 0.23 ; ALE 0.18; AME-AME 0.06; PMEPME 0.02; AME-AME 0.52; PME-PME 0.54 . ALS 0.40 of abdominal length. Palpal femur with seven strong, ventral setae. Epigynum (figs. 356. 357): atrium with beak-shaped anterior epigynal hood, medially directed lateral projections; epigynal ducts short, flat, spermathecae widely separated, globular.

Other Material Examined: Northern Territory: Daly River, $14^{\circ} 46^{\prime}$ S, $131^{\circ} 39^{\prime}$ E, Sept. 28, 1998 (O. Price, MNT A000987), 1̊; Gregory National Park, 0.3 km S Humbert Junction, $16^{\circ} 07^{\prime} \mathrm{S}, 130^{\circ} 26^{\prime} \mathrm{E}$, June 1-16, 2001, flight intercept (L. Boutin, A. Calder, Oberprieler, ex QVM 13:39822), 19; Keep River National Park, $15^{\circ} 49^{\prime} \mathrm{S}, 129^{\circ} 02^{\prime}$, June 10, 2001, campground at night (L. Boutin, QVM 13:39833), 1 o. Western Australia: Dunham Hill, Great Northern Highway, 68 km N Turkey Creek, Kimberley region, $16^{\circ} 23^{\prime} \mathrm{S}, 128^{\circ} 13^{\prime} \mathrm{E}$, June $1-12$, 1999, pitfall, savanna woodland, triodia understory (M. Gray, G. Milledge, H. Smith, AMS KS57261), 1 ¢; Gibb River Crossing on Kalumburu Road, $16^{\circ} 06^{\prime}$ S, $126^{\circ} 31^{\prime}$ E, July 28, 1998 (D. Hirst, SAM NN11893), 10; Victoria Highway, 26.2 km E Kununurra, Kimberley region, $15^{\circ} 53^{\prime} \mathrm{S}, 128^{\circ} 56^{\prime} \mathrm{E}$, May $27-\mathrm{June} 11$, 1999, pitfall, savanna woodland, base of rocky outcrop (M. Gray, G. Milledge, H. Smith, AMS KS57259), 1 ㅇ.

Distribution: Known only from Western Australia and the Northern Territory (map 24).

## Wydundra charnley, new species

Figures 358-360; Map 25
Type: Male holotype taken in malaise, trough, or pitfall trap in closed forest at Charnley River, 2 km SW of Rolly Hill, $16^{\circ} 22^{\prime} \mathrm{S}, 125^{\circ} 12^{\prime} \mathrm{E}$, Western Australia (June 16-20, 1988; I. Naumann), deposited in WAM (T45264).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W$. gibb in having a prolateral projection on the embolar base, but that projection is angular (fig. 359) and the retrolateral tibial apophysis is narrower than in that species (fig. 360).

Male: Total length 3.12. Carapace 1.62 long, 1.46 wide, 0.54 high, length/width 1.11; sternum 0.96 long, 0.86 wide, length/width 1.11; abdomen 1.50 long, damaged 0 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.96:0.88:1.03. Body, legs pale yellow. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.77 of caput width; AME 0.15; ALE 0.14; PME 0.22 ; PLE 0.14 ; AME-AME 0.04 ; AMEALE 0.04; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04 ; eye group AME-PME 0.38 ; AME-AME 0.34; PME-PME 0.40. Clypeus 0.06 high. Abdomen covered with shiny, recumbent scales; ALS 0.54 of abdominal length, about their diameter apart, with long, triangular distal spines. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 358-360): cymbium long, slender, at least 2.2 times longer than wide, tip elongate; median apophysis ventrally excavated, with two distal tips; terminal apophysis absent; sperm duct semicircular; embolus scooped, with bifid tips, prolateral tip bent retrolaterally; embolar base separated from tegulum, with prolateral projection; tibia about $1.8-2.0$ times as long as wide, dorsally excavated, retrolateral tibial apophysis triangular.

Female: Unknown.
Other Material Examined: None.
Distribution: Known only from the type locality in Western Australia (map 25).

Wydundra daunton, new species
Figures 6, 13, 363-367; Map 25
Types: Male holotype and female allotype taken while night collecting at house at Daunton, via Ilfracombe, $23^{\circ} 16^{\prime} \mathrm{S}, 144^{\circ} 49^{\prime} \mathrm{E}$, Queensland (Feb. 11, 1996; E. McKenzie), deposited in QMB (male 30658, female S65691).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a distinctively wide embolar tip (fig. 364); females have a pair of medially directed, conical epigynal protuberances (fig. 366).

Male: Total length 4.46. Carapace 2.02 long, 1.88 wide, 0.70 high, length/width 1.07; sternum 1.14 long, 1.04 wide, length/width


Figs. 358-362. 358-360. Wydundra charnley, new species. 361, 362. Wydundra morton, new species. 358. Left male palp, prolateral view. 359. Same, ventral view. 360. Same, retrolateral view. 361. Epigynum, ventral view. 362. Same, dorsal view.


Figs. 363-367. Wydundra daunton, new species. 363. Left male palp, prolateral view. 364. Same, ventral view. 365. Same, retrolateral view. 366. Epigynum, ventral view. 367. Same, dorsal view.
1.10; abdomen 2.44 long, 1.40 wide; coxa I 0.70 long; relative length of coxae I-IV 1.00:0.97:0.85:1.11. Carapace orange, with dark filigree net pattern; sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, dorsally with weak orange scutum, small, pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with gray, recumbent scales. Eye group width 0.72 of caput width; AME 0.18; ALE 0.14; PME 0.21; PLE 0.14 ; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04 ; eye group AME-PME 0.44 ; AME-AME 0.4 ; PME-PME 0.44. Clypeus 0.10 high. Abdomen covered with gray, recumbent scales; ALS 0.43 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 363365): conductor originating distally, short, spatulate, with blunt tip; median apophysis ventrally excavated, with two distal tips; terminal apophysis absent; sperm duct ushaped; embolus finger-shaped, with blunt, indented tip, embolar base separated from tegulum, situated prolaterally; tibia about $1.8-$ 2.0 times as long as wide, retrolateral tibial apophysis triangular, with bent tip.

Female: Total length 5.26. Carapace 2.06 long, 1.90 wide, 0.86 high, length/width 1.08; sternum 1.20 long, 1.06 wide, length/ width 1.13; abdomen 3.20 long, 1.60 wide; relative length of coxae I-IV 1.00:0.94: $0.85: 1.14$. Coloration as in male but without scutum. Eye group width 0.69 of caput width; ALE-PLE 0.02; eye group AME-PME 0.4. Clypeus 0.08 high. ALS 0.40 of abdominal length. Palpal femur with five long, ventral setae. Epigynum (figs. 366, 367) with narrow, inverted u-shaped anterior epigynal hood, medially directed lateral projections; epigynal ducts short, coiled, spermathecae about their diameter apart, globular.

Other Material Examined: Queensland: Daunton, via Ilfracombe, $23^{\circ} 16^{\prime} \mathrm{S}, 144^{\circ} 49^{\prime} \mathrm{E}$, Feb. 11, 1996, house, night collection (E. McKenzie, QMB S65692), 2q, Aug. 24, 1996 (E. McKenzie, QMB S46999), 1o; Longreach, $23^{\circ} 27^{\prime}$ S, $144^{\circ} 15^{\prime}$ E, July 14, 1988 (L. Nicholson, SAM NN11890, 11891), 20'; May Downs Station, Mount Isa, $20^{\circ} 26^{\prime} \mathrm{S}, 139^{\circ} 04^{\prime} \mathrm{E}$, Feb.Apr. 1997 (R. Raven, QMB S49258), 1̊; Meta Park, $23^{\circ} 44^{\prime} \mathrm{S}, 146^{\circ} 54^{\prime} \mathrm{E}$, summer 1998 (QMB S67716), 20'; Mount Cameron Station, Winton,
$22^{\circ} 59^{\prime} \mathrm{S}, 142^{\circ} 34^{\prime}$ E, June 1977 (T. Tebble, QMB S66532), 1中; Wycheproof, $23^{\circ} 59^{\prime} \mathrm{S}, 151^{\circ} 01^{\prime} \mathrm{E}$, Jan. 21, 1999 (QMB S67715), 20'.

Distribution: Known only from central and northwestern Queensland (map 25).

## Wydundra morton, new species

Figures 361, 362; Map 26
Type: Female holotype taken in pitfall trap in brigalow vegetation at Morton Plains Station, 1.5 km by road N of south site, NE of Enngonia, $29^{\circ} 01^{\prime} \mathrm{S}, 146^{\circ} 13^{\prime} \mathrm{E}$, New South Wales (Oct. 15, 1991; H. Parnaby), deposited in AMS (KS32555).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females resemble those of $W$. daunton in epigynal morphology, but have a narrower anterior epigynal margin (fig. 361) and longer epigynal ducts, which extend anterior of the medially directed epigynal projections (fig. 362).

Male: Unknown.
Female: Total length 4.94. Carapace 2.08 long, 1.92 wide, 0.68 high, length/width 1.08; sternum 1.20 long, 1.02 wide, length/ width 1.18; abdomen 2.88 long, 1.88 wide; coxa I 0.74 long; relative length of coxae I-IV 1.00:0.94:0.89:1.13. Carapace orange, with dark filigree net pattern; sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, venter pale. Carapace weakly covered with gray, recumbent scales. Eye group width 0.70 of caput width; AME 0.20; ALE 0.14; PME 0.21; PLE 0.14; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.04; ALE-PLE 0.03; eye group AME-PME 0.40; AME-AME 0.44; PME-PME 0.44. Clypeus 0.08 high. Abdomen covered with gray, recumbent scales; ALS 0.49 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with seven long, ventral setae. Epigynum (figs. 361, 362) with narrow, inverted vshaped anterior epigynal hood, with two sharp, medially directed lateral projections, two small, lateral, semicircular copulatory openings; epigynal ducts short, sausageshaped, spermathecae about their diameter apart, globular.

Other Material Examined: None.

Distribution: Known only from New South Wales (map 26).

## Wydundra humptydoo, new species

Figures 368-372; Map 26
Types: Male holotype and female allotype taken at an elevation of 190 m at Humpty Doo, $12^{\circ} 37^{\prime} \mathrm{S}, 131^{\circ} 06^{\prime} \mathrm{E}$, Northern Territory (Dec. 8, 1996; N. Platnick, R. Raven, V. Ovtsharenko, K. Catley), deposited in MNT (A000490).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the prolonged prolateral process on the palpal tegulum (fig. 369) and bifid tip of the retrolateral tibial apophysis (fig. 370), females by the triangular epigynal atrium with sinuous posterior margins (fig. 371).

Male: Total length 4.54. Carapace 1.02 long, 0.96 wide, 0.76 high, length/width 1.06 ; sternum 1.18 long, 1.06 wide, length/width 1.11; abdomen 2.40 long, 1.12 wide; coxa I 0.80 long; relative length of coxae I-IV 1.00:0.92:0.82:0.95. Body, legs pale. Carapace weakly covered with shiny, slim, recumbent scales. AME; eye group width 0.68 of caput width; AME 0.22; ALE 0.16; PME 0.21; PLE 0.14; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALEPLE 0.04; eye group AME-PME 0.48; AME-AME 0.48; PME-PME 0.46. Clypeus 0.08 high. Abdomen covered with gray, recumbent scales; ALS 0.46 of abdominal length, more than their diameter apart. Palp (figs. 368-370): cymbium retrolaterally straight; tegular apophyses, embolus situated on distal half of tegulum; conductor originating distally, spatulate; median apophysis spatulate; terminal apophysis long, triangular, with medially bent tip, prolaterally situated; sperm duct weakly u-shaped; embolus long, finger-shaped, with sharp tip, embolar base separated from tegulum, hidden behind terminal apophysis, situated distally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, triangular, with bifid tip.

Female: Total length 4.98. Carapace 2.02 long, 1.86 wide, 0.70 high, length/width 1.08 ; sternum 1.20 long, 1.16 wide, length/ width 1.03; abdomen 2.96 long, 1.40 wide;
coxa I 0.70 long; relative length of coxae I-IV 1.00:0.97:0.94:1.20. Coloration as in male. AME 0.20 ; PME 0.24; eye group AME-PME 0.46 ; AME-AME 0.44; PME-PME 0.50. Clypeus 0.06 high. ALS 0.37 of abdominal length. Palpal femur with nine long, ventral setae. Epigynum (figs. 371, 372): atrium large, with inverted $u$-shaped anterior margin, sinuous posterior margin; epigynal ducts short, medially widened, spermathecae contiguous, globular.

Other Material Examined: Northern Territory: W Alligator Mouth, $12^{\circ} 11^{\prime} \mathrm{S}, 132^{\circ} 16^{\prime} \mathrm{E}$, Nov. 12, 1979 (R. Raven, QMB S65694), 10;; Berrimah, $12^{\circ} 25^{\prime} \mathrm{S}, 130^{\circ} 55^{\prime} \mathrm{E}$, May $7-14$, pitfall, lawn (T. Churchill, MNT A000957), 19; Darwin, $12^{\circ} 28^{\prime} \mathrm{S}, 130^{\circ} 50^{\prime} \mathrm{E}$, Feb. 9-13, 1945 (B. Malkin, AMNH), $10^{\prime}$; East Point, $12^{\circ} 25^{\prime}$ S, $130^{\circ} 49^{\prime} \mathrm{E}$, May 1-31, 1975 (R. Pengilley, MNT A002959), $10^{\prime}$; Humpty Doo, $12^{\circ} 37^{\prime} \mathrm{S}$, $131^{\circ} 06^{\prime} \mathrm{E}$, Dec. 8, 1996, elev. 190 m (N. Platnick, R. Raven, V. Ovtsharenko, K. Catley, AMNH), 3o; Kakadu National Park, Kapalga, $12^{\circ} 23^{\prime} \mathrm{S}, 132^{\circ} 18^{\prime} \mathrm{E}$, Nov. 5, 1986, pitfall, open forest (A. Anderson, WAM T45320), 1¢; Kakadu National Park, Kapalga, $12^{\circ} 29^{\prime} \mathrm{S}, 132^{\circ} 19^{\prime} \mathrm{E}$, Oct. 1, 1986, pitfall, woodland (A. Anderson, WAM T45312), 10'; Mary River, crossing of Arnham Land Road, $12^{\circ} 33^{\prime}$ 'S, $131^{\circ} 41^{\prime}$ E, Nov. 1, 1984 (M., B. Baehr, QMB S65693), 19; Wildman River, $12^{\circ} 20^{\prime}$ S, $131^{\circ} 56^{\prime} \mathrm{E}$, Dec. 20, 1989, cashew plantation (M. Malipatil, W. Houston, MNT A002960), $20^{\prime}$.


Map 26. Circle, Wydundra morton, new species. Square, Wydundra humptydoo, new species. Triangle, Wydundra moondarra, new species.


Figs. 368-372. Wydundra humptydoo, new species. 368. Left male palp, prolateral view. 369. Same, ventral view. 370. Same, retrolateral view. 371. Epigynum, ventral view. 372. Same, dorsal view.

Distribution: Known only from the Northern Territory (map 26).

Wydundra moondarra, new species
Figures 373-377; Map 26

Types: Male holotype taken in pitfall trap in open forest at Lake Moondarra, via Mount Isa, $20^{\circ} 41^{\prime} \mathrm{S}, 139^{\circ} 30^{\prime} \mathrm{E}$, Queensland (Apr. 17-July 25, 1996; R. Raven, R. McKay), deposited in QMB (S31206).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W$. churchillae but have a longer, narrower retrolateral tibial apophysis (fig. 375); females also resemble those of $W$. churchillae but have a pair of triangular, lateral epigynal plates (fig. 376). Specimens of W. moodarra have two irregular longitudinal rows of long spines on the dorsal surface of the abdomen and femora I and II.

Male: Total length 3.16. Carapace 1.48 long, 1.36 wide, 0.70 high, length/width 1.09 ; sternum 0.86 long, 0.82 wide, length/width 1.05; abdomen 1.68 long, 1.10 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.84:1.08. Carapace, sternum, chelicerae orange; endites, labium orange brown, distally pale; legs pale, orange; abdomen gray, dorsally with weak orange scutum, small, pale spot in front of spinnerets, venter pale, epigastric area orange. Eye group width 0.81 of caput width; AME 0.16; ALE 0.14 ; PME 0.18; PLE 0.14; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.36; AME-AME 0.34; PME-PME 0.36 . Clypeus 0.09 high. Abdomen dorsally covered with dark, slender, recumbent scales, two longitudinal rows of long setae; ALS 0.47 of abdominal length, about their diameter apart. Femora I, II long, dorsally with irregular row of long spines; tarsi I-IV ventrally with two rows of short, stout setae, metatarsi I, II ventrally with two rows of longer setae. Palp (figs. 373-375): cymbium long, slender, at least 2.2 times longer than wide, tip elongate; tegular apophyses, embolus situated on distal half of tegulum; conductor originating distally, broad, spatulate, with triangular tip; median apophysis about twice as long as wide, cane-shaped; terminal apophysis divided into two parts, distal part excavated, ventral part hookshaped, prolaterally situated; sperm duct ushaped; embolus thin, straight, embolar base separated from tegulum; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis triangular, with bifid tip; femur ventrally incrassate.

Female: Total length 4.26. Carapace 1.90 long, 1.84 wide, 0.56 high, length/width 1.03 ; sternum 1.12 long, 1.02 wide, length/
width 1.10 ; abdomen 2.36 long, 1.26 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.96:0.93:1.20. Coloration as in male but without scutum. Eye group width 0.75 of caput width; AME 0.15; AME-AME 0.04; AME-ALE 0.04; ALE-PLE 0.04. Clypeus 0.10 high. ALS 0.49 of abdominal length. Palpal femur with six long, ventral setae, tarsus with small claw. Epigynum (figs. 376, 377): anterior margin with widely $u$-shaped projection, with elevated, inverted v -shaped posterior projection, pair of triangular lateral plates; epigynal ducts in inverted v-shaped position, spermathecae contiguous, sausageshaped, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Queensland: Lake Moondarra, $20^{\circ} 35^{\prime} \mathrm{S}, 140^{\circ} 34^{\prime} \mathrm{E}$, Apr. 17 , 1996, snappy gum hillside (R. Raven, QMB S30701), 10'; Lake Moondarra, via Mount Isa, $20^{\circ} 41^{\prime}$ S, $139^{\circ} 30^{\prime}$ E, Apr. 17-July 25, 1996, open forest pitfall (R. Raven, R. McKay, QMB S64815, 31207), 4o , 4ọ; Ninu, site 3, $24^{\circ} 09^{\prime} \mathrm{S}$, $140^{\circ} 35^{\prime}$ E, Apr. 1997, pitfall (L. Gibson, QMB S64814), 1̊; Ninu, site 4, $24^{\circ} 09^{\prime} \mathrm{S}, 140^{\circ} 35^{\prime} \mathrm{E}$, Mar. 1996, pitfall (L. Gibson, QMB S40200), $10^{\circ}$.

Distribution: Known only from western Queensland (map 26).

Wydundra churchillae, new species
Figures 378-382; Map 27
Type: Male holotype and female allotype taken in pitfall trap at Helen Springs Station, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 26^{\prime}$ S, $133^{\circ} 52^{\prime}$ E, Northern Territory (Oct. 1995; A. Fisher, T. Churchill), deposited in MNT (A000959).

Etymology: The specific name is patronym in honor of Dr. Tracey Churchill, one of the collectors of the types and many other interesting prodidomids.

Diagnosis: Males resemble those of $W$. moondarra but have a shorter, wider retrolateral tibial apophysis (fig. 380); females also resemble those of $W$. moondarra but lack the lateral plates (fig. 381). Specimens of $W$. churchillae have a carapace covered with silvery scales.

Male: Total length 4.28. Carapace 1.88 long, 1.72 wide, 0.64 high, length/width 1.09 ; sternum 1.10 long, 1.02 wide, length/width 1.07; abdomen 2.40 long, 1.20 wide; coxa I


Figs. 373-377. Wydundra moondarra, new species. 373. Left male palp, prolateral view. 374. Same, ventral view. 375. Same, retrolateral view. 376. Epigynum, ventral view. 377. Same, dorsal view.


Figs. 378-382. Wydundra churchillae, new species. 378. Left male palp, prolateral view. 379. Same, ventral view. 380. Same, retrolateral view. 381. Epigynum, ventral view. 382. Same, dorsal view.


Figs. 383-386. 383, 384. Wydundra lindsay, new species. 385, 386. Wydundra clifton, new species. 383, 385. Epigynum, ventral view. 384, 386. Same, dorsal view.
0.66 long; relative length of coxae I-IV 1.00:0.97:0.88:1.06. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, venter pale, booklungs orange. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.74 of caput width; AME 0.16; ALE 0.14; PME 0.20; PLE 0.14; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.02; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.04; AME-AME 0.36; PME-PME 0.40. Clypeus 0.08 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.39 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two
rows of short, stout setae. Palp (figs. 378380): cymbium long, slender, at least 2.2 times longer than wide, tip elongate; tegular apophyses, embolus situated on distal half of tegulum; conductor originating distally, membranous, spatulate, with fan-shaped tip; median apophysis about twice as long as wide, cane-shaped; terminal apophysis large, divided into two parts, distal part excavated, ventral part hook-shaped, sperm duct weakly u-shaped; embolus thin, straight, embolar base separated from tegulum, situated prolaterally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis triangular.

Female: Total length 5.28. Carapace 1.96 long, 1.86 wide, 0.56 high, length/width 1.05 ; 1.04 wide, length/width 1.05 ; abdomen 3.32 long, 1.40 wide; coxa I 0.76 long; relative length of coxae I-IV 1.00:0.92:0.84:1.10. Coloration as in male. Eye group width 0.67 of caput width; eye group AME-PME 0.38 . ALS 0.40 of abdominal length. Palpal femur with seven strong, ventral setae. Epigynum (figs. 381, 382): atrium broadly, rectangular, with short, elevated posterior median epigynal septum; epigynal ducts short, in inverted v-shaped position, spermathecae contiguous, sausage-shaped, twisted, in horizontal position, with one dorsal diverticulum.

Other Material Examined: Northern Territory: Helen Springs Station, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 26^{\prime} \mathrm{S}, 133^{\circ} 52^{\prime} \mathrm{E}$, Mar. 1996, pitfalls (A. Fisher, T. Churchill, MNT A000960), $20^{\circ}$, Oct. 1995, pitfall (A. Fisher, MNT A00061), 1o; Rockhampton Downs, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 57^{\prime} \mathrm{S}, 135^{\circ} 12^{\prime} \mathrm{E}$, Oct. 1995, pitfalls (A. Fisher, MNT A000963, A000972), 2o, Mar. 1996, pitfall (A. Fisher, MNT A000964), 1¢; Soudan, Mitchell Grasslands, Barkly Tablelands, $18^{\circ} 14^{\prime} \mathrm{S}, 129^{\circ} 15^{\prime} \mathrm{E}$, Nov. 1996, pitfall (A. Fisher, MNT A000979), $10^{\circ}$.

Distribution: Known only from the Northern Territory (map 27).

## Wydundra lindsay, new species

Figures 383, 384; Map 27
Type: Female holotype taken in pitfall trap 3.1 km WNW of Mount Lindsay, $27^{\circ} 01^{\prime} \mathrm{S}, 129^{\circ} 51^{\prime} \mathrm{E}$, South Australia (Oct. 16-20, 1996), deposited in SAM (NN10941).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females can easily be recognized by the large, rectangular epigynal atrium and small m-shaped copulatory opening (fig. 383).

Male: Unknown.
Female: Total length 4.80. Carapace 1.98 long, 1.84 wide, 0.94 high, length/width 1.07; sternum 1.20 long, 1.08 wide, length/ width 1.13; abdomen 2.82 long, 1.56 wide; coxa I 0.66 long; relative length of coxae I-IV 1.00:0.97:0.91:1.21. Carapace pale yellow orange, with dark margin; sternum, chelicerae, legs orange; endites, labium orange,
distally pale; abdomen gray, with small, pale spot in front of spinnerets, venter pale, epigastric area orange. Carapace weakly covered with shiny, slim, recumbent scales. AME elevated; eye group width 0.66 of caput width; AME 0.18; ALE 0.16; PME 0.20; PLE 0.14; AME-AME 0.08; AME-ALE 0.04; PME-PME 0.04; PME-PLE 0.04; ALEPLE 0.04; eye group AME-PME 0.42; AME-AME 0.44; PME-PME 0.44. Clypeus 0.06 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.44 of abdominal length, about their diameter apart. Tarsi III, IV ventrally with two rows of strong, stout setae. Palpal femur with nine long, ventral setae, tarsus with small claw. Epigynum (figs. 383, 384): atrium large, rectangular, with elevated posterior median epigynal septum; copulatory opening mshaped; epigynal ducts short, coiled, spermathecae contiguous, oval.

Other Material Examined: None.
Distribution: Known only from the type locality in northwestern South Australia (map 27).

Wydundra kennedy, new species
Figures 387-391; Map 27
Types: Male holotype and female allotype taken in dry pitfall traps in Kennedy Range National Park, $24^{\circ} 30^{\prime} \mathrm{S}, 115^{\circ} 02^{\prime} \mathrm{E}$, Western Australia (Oct. 3-8, 1994; M.


Map 27. Circle, Wydundra churchillae, new species. Square, Wydundra lindsay, new species. Triangle, Wydundra kennedy, new species.

Harvey), deposited in WAM (male T45540, female T62551).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Members of this distinctive species can easily be recognized by the coiled embolus (figs. 387-389) and epigynal ducts (fig. 391).

Male: Total length 4.02. Carapace 1.96 long, 1.78 wide, 0.78 high, length/width 1.10; sternum 1.18 long, 1.04 wide, length/width 1.13; abdomen 2.06 long, 1.34 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.97:0.84:1.16. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, venter pale, booklungs orange. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.71 of caput width; AME 0.18 ; ALE 0.16; PME 0.20; PLE 0.14; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.42; AME-AME 0.40; PME-PME 0.44 . Clypeus 0.08 high. Abdomen covered with gray, recumbent scales; ALS 0.47 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 387-389): cymbium long, slender, at least 2.2 times longer than wide, tip extremely elongate; conductor originating distally, membranous, long, coiled; median apophysis tiny, hooked; terminal apophysis absent; sperm duct weakly u-shaped; embolus long, thin, coiled, embolar base separated from tegulum, situated distally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis long, with bent tip.

Female: Total length 4.50. Carapace 1.78 long, 1.62 wide, 0.54 high; sternum 1.08 long, 0.98 wide, length/width 1.10; abdomen 2.72 long, 1.44 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.97:0.90:1.27. Coloration as in male. Eye group width 0.77 of caput width; AME 0.16 ; PME-PME 0.02; eye group AMEPME 0.40; AME-AME 0.36; PME-PME 0.40 . Clypeus 0.06 high. ALS 0.4 of abdominal length. Palpal femur with 4-7 strong, ventral setae. Epigynum (figs. 390, 391): atrium small, inverted drop-shaped; epigynal ducts long, thin, coiled, spermathecae not separated from epigynal ducts.

Other Material Examined: Western Australia: Barlee Range Nature Reserve, $23^{\circ} 04^{\prime} \mathrm{S}$, $115^{\circ} 47^{\prime}$ E, June 1994, pitfall (S. van Leeuwen, B. Bromilow, WAM T45228), 10'; Barlee Range Nature Reserve, $23^{\circ} 05^{\prime}$ S, $115^{\circ} 47^{\prime} \mathrm{E}$, Jan. $15-18$, 1994, dry pitfall (P., G. Kendrick, WAM T63380), 1̊, June 15-18, 1994, dry pitfalls (P., G. Kendrick, WAM T45120), 1ó; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 40^{\prime}$ E, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45528), 1̊; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$, $113^{\circ} 41^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfall (A. Sampey, WAM T45529), 1o, Sept. 30, 1994 Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45530), 20*, Jan. 15-May 30, 1995, pitfall (J. Waldock, WAM T45531), $10^{\circ}$; Cape Cuvier, Quobba Station, $24^{\circ} 13^{\prime} \mathrm{S}, 113^{\circ} 30^{\prime} \mathrm{E}$, Aug. 21-Sept. 28, 1994, pitfall (P. West, WAM T45534), 10', Jan. 15-May 30, 1995, pitfalls (A. Sampey, WAM T45535), 20'; Cape Cuvier, Quobba Station, $24^{\circ} 15^{\prime} \mathrm{S}, 113^{\circ} 33^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, WAM T45532), $10^{\circ}$, Sept. 29, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45533), 1o; Cape Range, Exmouth Limestone Lease, $22^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 04^{\prime} \mathrm{E}$, May 14,2001 , pitfall (R. Brooks, WAM T45709), 1९; Cape Range, Exmouth Limestone Lease, $22^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 05^{\prime} \mathrm{E}$, May 14, 2001, pitfalls (R. Brooks, WAM T45703), 20*; Francois Peron National Park, $25^{\circ} 53^{\prime} \mathrm{S}, 113^{\circ} 33^{\prime} \mathrm{E}$, Aug. 24-Oct. 10, 1994, pitfalls (A. Sampey, WAM T45537), 20', Oct. 9-14, 1994, dry pitfall (A. Sampey, WAM T45536), 10', Jan. 18-May 25, 1995, pitfalls (M. Harvey, WAM T45538), 10', 2中; Francois Peron National Park, $25^{\circ} 59^{\prime} \mathrm{S}, 113^{\circ} 34^{\prime} \mathrm{E}$, Jan. 18-May 26, 1995, pitfall (M. Harvey, WAM T45539), $10^{\circ}$; Kennedy Range National Park, $24^{\circ} 30^{\prime}$ S, $115^{\circ} 01^{\prime} \mathrm{E}$, Aug. 18-Oct. 6, 1994, pitfall (M. Harvey, WAM T45541), 10; Kennedy Range National Park, $24^{\circ} 33^{\prime}$ S, $114^{\circ} 58^{\prime}$ E, Aug. 18-Oct. 4, 1994, pitfall (M. Harvey, WAM T45542), $10^{\prime}$; Kennedy Range National Park, $24^{\circ} 34^{\prime}$ S, $114^{\circ} 57^{\prime}$ E, Oct. 3-8, 1994, dry pitfall (M. Harvey, WAM T45543), $10^{\circ} ; 39 \mathrm{~km}$ E Laverton, Oct. 19-22, 1990, pitfall (E. Pianka, WAM 91/1042), 19; Mardathuna Station, $24^{\circ} 24^{\prime}$ S, $114^{\circ} 28^{\prime}$ E, Aug. 19-Oct. 5, 1994, dry pitfall (P. West, WAM T45547), 19, Jan. 14 May 24, 1995, pitfalls (A. Sampey, WAM T45548), $20^{\circ}$, May 23-28, 1995, dry pitfalls (A. Sampey, WAM T45549), 20'; Mardathuna Station, $24^{\circ} 26^{\prime} \mathrm{S}, 114^{\circ} 30^{\prime} \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM T45544), $10^{\circ}$, Jan. 14-May 24, 1995, pitfall (A. Sampey, WAM T45545), 10', May 24-Aug. 26, 1995, pitfall (N. Hall, WAM T45546), 1o; 7-8 km WNW Point Salvation, $28^{\circ} 12^{\prime}$ S, $123^{\circ} 36^{\prime}$ E, Sept.-Oct. 1998,


Figs. 387-391. Wydundra kennedy, new species. 387. Left male palp, prolateral view. 388. Same, ventral view. 389. Same, retrolateral view. 390. Epigynum, ventral view. 391. Same, dorsal view.
dry pitfall (D. King, E. Pianka, WAM T51821), 1̊; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 118^{\circ} 57^{\prime} \mathrm{E}$, May 3-9, 1988, pitfalls (J. Waldock, WAM 91/1047, T45306), 10¹ 1 , Feb. 16, 1989, in bag
(J. Waldock, WAM 91/1039), 1̊; Woodstock Station, $21^{\circ} 37^{\prime}$ S, $118^{\circ} 58^{\prime} \mathrm{E}$, Sept. 23-30, 1988, pitfall (J. Dell, WAM 91/1018), 10’, Feb. 10-17, 1989, pitfalls, hard spinifex sandplain (J.

Dell, R. How, J. Waldock, WAM 91/1021, 1033), $10^{*}, 1$; ; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}$, $118^{\circ} 59^{\prime} \mathrm{E}$, Oct. 27-29, 1990, pitfalls (M. Harvey, WAM 91/1040, 1041), 2o; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 119^{\circ} 01^{\prime} \mathrm{E}, \mathrm{Feb} .10-17$, 1989, pitfall, granite with sand next to Coorona Creek (J. Waldock, R. How, J. Dell, WAM 91/1037), 1中; Woodstock Station, $21^{\circ} 40^{\prime} \mathrm{S}, 119^{\circ} 03^{\prime} \mathrm{E}$, Sept. 23-30, 1988, pitfall (J. Dell, WAM 91/1020), 10 .

Distribution: Known only from Western Australia (map 27).

## Wydundra barrow, new species

Figures 392-396; Map 28
Types: Male holotype and female allotype taken by vehicle vibration near Sharp Point, Barrow Island, $20^{\circ} 52^{\prime} \mathrm{S}, 115^{\circ} 27^{\prime} \mathrm{E}$, Western Australia (Oct. 28, 1998; M. Harvey, V. Ovtsharenko), deposited in WAM (male T45134, female T62552).

ETYMOLOGY: The specific name is a noun in apposition taken from the type locality.

DiAGnosis: Males can be recognized by the short, ventrally excavated retrolateral tibial apophysis (fig. 394), females by the triangular epigynal midpiece and large, rotund spermathecae (figs. 395, 396).

Male: Total length 3.62. Carapace 1.58 long, 1.42 wide, 0.44 high, length/width 1.11 ; sternum 0.90 long, 0.84 wide, length/width 1.07; abdomen 2.04 long, 1.08 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.92:0.81:1.07. Carapace, sternum, chelicerae, legs orange; endites, labium orange brown, distally pale; abdomen gray, dorsally with weak orange scutum, venter pale, epigastric area orange. Eye group width 0.78 of caput width; AME 0.14 ; ALE 0.14 ; PME 0.20; PLE 0.14; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.44; AME-AME 0.32; PME-PME 0.38. Clypeus 0.06 high. Abdomen covered with gray setae; ALS 0.40 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 392-394): median apophysis about twice as long as wide, with retrolaterally directed, sharp tip; terminal apophysis absent; sperm duct u-shaped; embolus thin, straight, embolar base separated from tegu-
lum, situated prolaterally; tibia short, retrolateral tibial apophysis short, broad, excavated; femur ventrally incrassate.

Female: Total length 3.94. Carapace 1.70 long, 1.68 wide, 0.42 high, length/width 1.01; sternum 1.04 long, 0.92 wide, length/ width 1.13 ; abdomen 2.24 long, 1.12 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.96:0.82:1.07. Coloration as in male but without scutum. Eye group width 0.7 of caput width; AME-AME 0.02; PME-PME 0.01 ; eye group AME-PME 0.36; AMEAME 0.30. ALS 0.49 of abdominal length. Palpal femur with seven strong, ventral setae. Epigynum (figs. 395, 396): atrium inverted drop-shaped; epigynal ducts short, in $v$ shaped position, spermathecae large, contiguous, globular.

Other Material Examined: Northern Territory: Kidman Springs Station, $16^{\circ} 07^{\prime} \mathrm{S}$, $130^{\circ} 57^{\prime}$ E, Oct. 21-28, 1998, pitfall (T. Churchill, MNT A003360, 10; Mount Sanford Station, Barkly Tablelands, Mitchell Grasslands, $16^{\circ} 59^{\prime} \mathrm{S}, 130^{\circ} 33^{\prime} \mathrm{E}$, Dec. 1996, pitfall (A. Fisher, MNT A000983), 1ְ̊; Mount Sanford Station, $17^{\circ} 18^{\prime} \mathrm{S}, \quad 130^{\circ} 46^{\prime} \mathrm{E}$, Apr. 1998, pitfall (T. Churchill, MNT A000985), 10'; Victoria River, 11 km W Timber Creek, $15^{\circ} 46^{\prime} \mathrm{S}, 130^{\circ} 26^{\prime} \mathrm{E}$, Nov. 10, 1984 (M., B. Baehr, QMB S64944), 20'. Western Australia: Barlee Range Nature Reserve, $\quad 23^{\circ} 06^{\prime} \mathrm{S}, \quad 117^{\circ} 00^{\prime} \mathrm{E}$, June $19-22$, 1994, dry pitfall (P., G. Kendrick, WAM T45122), 19; Barlee Range Nature Reserve, $23^{\circ} 23^{\prime} \mathrm{S}, \quad 115^{\circ} 53^{\prime} \mathrm{E}$, June 11-14, 1994, dry pitfall (P., G. Kendrick, WAM T45123), 10'; Barlee Range Nature Reserve, $23^{\circ} 25^{\prime}$ S, $115^{\circ} 54^{\prime} \mathrm{E}$, June $11-14$, 1994, dry pitfall (P., G. Kendrick, WAM T45125), 1¢; Barrow Island, $20^{\circ} 44^{\prime} \mathrm{S}, 115^{\circ} 27^{\prime} \mathrm{E}$, Oct. 27, 1998, vehicle vibration (M. Harvey, V. Ovtsharenko, WAM T51826), 10’; Barrow Island, John Wayne Country, $20^{\circ} 45^{\prime} \mathrm{S}, 115^{\circ} 22^{\prime} \mathrm{E}$, Nov. 4-Dec. 2, 1993, pitfalls, rocky site (M. Harvey, J. Waldock, WAM T45129), 20'; Barrow Island, Sharp Point, $20^{\circ} 51^{\prime} \mathrm{S}, 115^{\circ} 25^{\prime} \mathrm{E}$, Oct. 27, 1998 (M. Harvey, WAM T45135), 1̊; Barrow Island, near Sharp Point, $20^{\circ} 52^{\prime} \mathrm{S}$, $115^{\circ} 25^{\prime} \mathrm{E}$, Oct. 28, 1998, vehicle vibration (M. Harvey, V. Ovtsharenko, WAM T45133), $10^{\prime} ; 14 \mathrm{~km} \mathrm{~S}$ by E of Kalumburu Mission, $14^{\circ} 25^{\prime} \mathrm{S}, 126^{\circ} 40^{\prime} \mathrm{E}$, June 3-6, 1988 (T. Weir, WAM T45289), 1 ¢ ; 175 km E Derby, 26 km E Napier Downs, $17^{\circ} 11^{\prime} \mathrm{S}, 124^{\circ} 51^{\prime} \mathrm{E}$, Nov. 23, 1984 (M., B. Baehr, QMB S64945), 10', 1ᄋ; 4 km W King Cascade, $15^{\circ} 38^{\prime} \mathrm{S}, 125^{\circ} 15^{\prime} \mathrm{E}$, June 12-16, 1988, Malaise trap with trough, closed


Figs. 392-396. Wydundra barrow, new species. 392. Left male palp, prolateral view. 393. Same, ventral view. 394. Same, retrolateral view. 395. Epigynum, ventral view. 396. Same, dorsal view.
forest, and open forest at night (T. Weir, WAM T45290-45292), 3o; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 119^{\circ} 01^{\prime} \mathrm{E}$, Sept. 23-30, 1988, pitfall, acacia, spinifex (J. Dell, WAM 91/1019), 1o, Feb. 10-17, 1989, pitfalls, spinifex (J.

Waldock, R. How, J. Dell, WAM 91/1034 1036), 20', 1 .

Distribution: Known only from Western Australia and the Northern Territory (map 28).


Figs. 397-401. Wydundra anjo, new species. 397. Left male palp, prolateral view. 398. Same, ventral view. 399. Same, retrolateral view. 400. Epigynum, ventral view. 401. Same, dorsal view.

## Wydundra anjo, new species <br> Figures 397-401; Map 29

Types: Male holotype and female allotype from Sir Graham Moore Island, near Anjo Peninsula, $13^{\circ} 53^{\prime} \mathrm{S}, 126^{\circ} 34^{\prime} \mathrm{E}$, Western Australia (Feb. 16-26, 1945; B. Malkin), deposited in AMNH.

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the narrow embolus and wide median apophysis (fig. 398), females by the wide epigynal midpiece (fig. 400).

Male: Total length 4.58. Carapace 2.24 long, 2.08 wide, 0.66 high, length/width 1.08; sternum 1.24 long, 1.16 wide, length/width 1.07; abdomen 2.34 long, 1.44 wide; coxa I 0.82 long; relative length of coxae I-IV 1.00:0.95:0.78:1.00. Carapace, sternum, chelicerae, legs orange; endites, labium orange brown, distally pale; abdomen gray, with half moon-shaped pale spot in front of spinnerets, venter pale, booklungs orange. AME elevated; eye group width 0.72 of caput width; AME 0.23; ALE 0.16; PME 0.26; PLE 0.16; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.04; ALE-PLE 0.40; eye group AME-PME 0.50; AME-AME 0.50 ; PME-PME 0.50. Clypeus 0.08 high. Abdomen covered with shiny, cinnamon, recumbent scales; ALS 0.50 of abdominal length, more than their diameter apart. Legs broken off. Palp (figs. 397-399): cymbium long, slender, at least 2.2 times longer than wide, tip elongate, retrolaterally straight; tegular apophyses, embolus situated on distal half of tegulum; median apophysis wide, spatulate, with retrolaterally directed, sharp tip; terminal apophysis absent; sperm duct weakly u-shaped; embolus finger-shaped, with sharp tip; embolar base separated from tegulum, situated prolaterally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis long, triangular.

Female: Total length 4.96. Carapace 2.00 long, 1.96 wide, 0.70 high, length/width 1.02 ; sternum 1.20 long, 1.10 wide, length/width 1.09; abdomen 2.96 long, 1.68 wide; coxa I 0.78 long; relative length of coxae I-IV 1.00:0.95:0.76:1.02. Carapace orange, with dark filigree net pattern; sternum, chelicerae, legs orange; endites, labium orange brown,
distally pale; abdomen gray, with small, pale spot in front of spinnerets, venter pale, booklungs orange. AME elevated; eye group width 0.7 of caput width; AME 0.22; ALE 1.16; PME 0.24; PLE 0.16; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.48; AME-AME 0.42; PME-PME 0.42 . Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.41 of abdominal length, more than their diameter apart. Legs broken off. Palpal femur with seven strong, ventral setae. Epigynum (figs. 400, 401) with narrow anterior epigynal hood, atrium triangular, with wide epigynal midpiece; epigynal ducts short, coiled, spermathecae about their diameter apart, globular.

Other Material Examined: None.
Distribution: Known only from the type locality in Western Australia (map 29).

Wydundra uluru, new species
Figures 402-406; Map 28
Type: Male holotype taken in pitfall trap 29 km ESE Uluru, Uluru-Kata Tjuta National Park, $25^{\circ} 21^{\prime} \mathrm{S}, 131^{\circ} 22^{\prime} \mathrm{E}$, Northern Territory (Oct. 1994), deposited in NMV (K8838).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by having the terminal apophysis


Map 28. Circle, Wydundra barrow, new species. Square, Wydundra uluru, new species. Triangle, Wydundra clifton, new species.


Figs. 402-406. Wydundra uluru, new species. 402. Left male palp, prolateral view. 403. Same, ventral view. 404. Same, retrolateral view. 405. Epigynum, ventral view. 406. Same, dorsal view.
closely appressed to the side of the embolar base (fig. 403), females by the rectangular, contiguous lateral plates (fig. 405) and obliquely oriented ducts (fig. 406).

Male: Total length 3.82. Carapace 1.58 long, 1.50 wide, 0.60 high, length/width 1.05 ; sternum 0.94 long, 0.84 wide, length/width 1.12; abdomen 2.24 long, 1.30 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.92:1.12. Carapace orange, with dark filigree net pattern; sternum, chelicerae orange; endites, labium orange, distally pale; abdomen gray, venter pale, epigastric area orange; legs orange brown. Eye group width 0.79 of caput width; AME 0.16; ALE 0.14; PME 0.20; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.36; AME-AME 0.36; PME-PME 0.40 . Clypeus 0.06 high. Abdomen covered with gray, recumbent scales; ALS 0.33 of abdominal length, about half their diameter apart. Tarsi III, IV ventrally with two rows, stout setae, with cuticular cracks at about three-quarters of their length. Palp (figs. 402404): median apophysis about twice as long as wide, with scooped tip; terminal apophysis long, finger-shaped, with medially bent tip; sperm duct u-shaped; embolus long, thin, with sharp tip, embolar base separated from tegulum, situated prolaterally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis triangular, with bifid tip.

Female: Total length 4.56. Carapace 1.68 long, 1.52 wide, 0.64 high, length/width 1.10; sternum 1.02 long, 0.94 wide, length/ width 1.08; abdomen 2.88 long, 1.64 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.96:0.88:1.11. Coloration as in male. Eye group width 0.74 of caput width; AME 0.14 ; PME 0.10; eye group AME-PME 0.38; AME-AME 0.32; PME-PME 0.38. ALS 0.31 of abdominal length. Palpal femur with five long, ventral setae. Epigynum (figs. 405, 406) with inverted $v$-shaped anterior epigynal hood, rectangular, contiguous lateral plates; epigynal ducts short, spermathecae widely separated, oval.

Other Material Examined: Northern Territory: Palm Plains, 17.7 km SW Hermansburg, Finke Gorge National Park, $24^{\circ} 04^{\prime} \mathrm{S}, 132^{\circ} 39^{\prime} \mathrm{E}$, Oct. 1994 (NMV K8814), 1o; 15 km ESE Uluru, Uluru-Kata Tjuta National Park,
$25^{\circ} 24^{\prime} \mathrm{S}, 131^{\circ} 12^{\prime} \mathrm{E}$, Oct. 1994, pitfall (NMV K8813), 19; Uluru-Kata Tjuta National Park, $25^{\circ} 23^{\prime} \mathrm{S}$, $131^{\circ} 11^{\prime} \mathrm{E}$, Oct. 1994, pitfall (NMV K8815), $10^{\prime}$. Western Australia: Red Sands, 78 km WNW Point Salvation, $28^{\circ} 12^{\prime} \mathrm{S}$, $123^{\circ} 35^{\prime}$ E, Nov. 5-7, 1989, pitfall (E. Pianka, WAM 91/1049), 1 ㅇ.

Distribution: Known only from Western Australia and the Northern Territory (map 28).

## Wydundra humbert, new species

Figures 407-411; Map 29
Type: Male holotype taken in flight intercept trap 0.3 km S of Humbert Junction, Gregory National Park, $16^{\circ} 07^{\prime} \mathrm{S}, 130^{\circ} 26^{\prime} \mathrm{E}$, Northern Territory (June 1-16, 2001; L. Boutin, A. Calder, Oberprieler), deposited in QVM (13:39822).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males and females have not been collected together and may be mismatched. Males can easily be recognized by the scooped embolus, with bifid tips and the prolateral tip bent retrolaterally (fig. 408), females by the rectangular lateral epigynal plates (fig. 410).

Male: Total length 5.30. Carapace 2.30 long, 2.14 wide, 1.00 high, length/width 1.07 ; sternum 1.32 long, 1.22 wide, length/width 1.08; abdomen 3.00 long, 1.52 wide; coxa I


Map 29. Circle, Wydundra anjo, new species. Square, Wydundra humbert, new species. Triangle, Wydundra cunderdin, new species. Diamond, Wydundra lennard, new species.


Figs. 407-411. Wydundra humbert, new species. 407. Left male palp, prolateral view. 408. Same, ventral view. 409. Same, retrolateral view. 410. Epigynum, ventral view. 411. Same, dorsal view.
0.84 long; relative length of coxae I-IV 1.00:0.98:0.85:1.04. Carapace orange, with dark margin; sternum, chelicerae orange; endites, labium orange, distally pale; abdomen gray, venter pale, epigastric area orange; legs orange brown. Carapace weakly covered
with gray, recumbent scales. AME elevated; eye group width 0.8 of caput width; AME 0.24; ALE 0.20; PME 0.26; PLE 0.16; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.06; ALE-PLE 0.04; eye group AME-PME 0.54; AME-AME 0.48;

PME-PME 0.54. Clypeus 0.10 high. Abdomen covered with gray, recumbent scales; ALS 0.41 of abdominal length, about their diameter apart. Tarsi III, IV ventrally with two rows, stout setae. Palp (figs. 407-409): conductor originating distally, short, spatulate, with blunt tip, median apophysis, terminal apophysis absent, sperm duct not visible, embolus scooped, with bifid tips, prolateral tip bent retrolaterally; tibia about $1.8-2.0$ times as long as wide, slightly excavated, retrolateral tibial apophysis short, triangular, with bent tip.

Female: Total length 5.04. Carapace 1.84 long, 1.76 wide, 0.82 high, length/width 1.04 ; sternum 1.12 long, 1.00 wide, length/width 1.12; abdomen 3.20 long, 1.56 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.93:0.87:1.12. Coloration as in male. Eye group width 0.72 of caput width; AME 0.18; ALE 0.18; PME 0.21; PLE 0.14; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.42; AME-AME 0.4; PME-PME 0.44. Clypeus 0.06 high. ALS 0.34 of abdominal length. Palpal femur with seven long, ventral setae. Epigynum (figs. 410, 411): atrium with wide inverted u-shaped anterior epigynal margin, rectangular lateral plates; epigynal ducts short, spermathecae about their diameter apart, oval, in v-shaped position.

Other Material Examined: Northern Territory: 2.7 km N Humbert Junction, Gregory National Park, $16^{\circ} 05^{\prime} \mathrm{S}, 130^{\circ} 26^{\prime} \mathrm{E}$, June $1-16$, 2001, flight intercept (L. Boutin, A. Calder, Oberprieler, QVM 13:39831), 10'; Kidman Springs Station, $16^{\circ} 07^{\prime} \mathrm{S}$, $130^{\circ} 57^{\prime} \mathrm{E}$, July 3-9, 1996, pitfall, loam site (T. Churchill, MNT A001486), 1 ¢

Distribution: Known only from the Northern Territory (map 29).

## Wydundra clifton, new species

Figures 385, 386; Map 28
TyPE: Female holotype taken in pitfall trap 8 km ENE of Clifton Hills Outstation, $26^{\circ} 35^{\prime} \mathrm{S}, 139^{\circ} 33^{\prime} \mathrm{E}$, South Australia (Nov. 1993), deposited in SAM (NN11744).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females resembles those of W. cunderdin but have more rounded anterolateral epigynal edges (fig. 385).

Male: Unknown.

Female: Total length 5.84. Carapace 2.40 long, 2.36 wide, 0.66 high, length/width 1.02; sternum 1.40 long, 1.28 wide, length/ width 1.09 ; abdomen 3.44 long, 1.92 wide; coxa I 0.84 long; relative length of coxae I-IV 1.00:0.95:0.90:1.12. Carapace, sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen pale, venter pale, booklungs orange. AME elevated; eye group width 0.73 of caput width; AME 0.22 ; ALE 0.16 ; PME 0.22 ; PLE 0.16 ; AME-AME 0.02; AME-ALE 0.04; PMEPME 0.06; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.46; AME-AME 0.46 ; PME-PME 0.48. Clypeus 0.10 high. Abdomen covered with shiny, recumbent scales; ALS 0.49 of abdominal length, more than their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with seven long, ventral setae. Epigynum (figs. 385, 386) long, with narrow anterior epigynal hood; lateral plates connected to small, lateral, semicircular copulatory opening; epigynal ducts long, irregularly curved, spermathecae not separated from epigynal ducts, oval.

Other Material Examined: None.
Distribution: Known only from the type locality in South Australia (map 28).

Wydundra cunderdin, new species
Figures 415, 416; Map 29
TyPE: Female holotype taken in pitfall trap at Cunderdin Road south, NE of Mukinbudin, $30^{\circ} 40^{\prime} \mathrm{S}$, $118^{\circ} 29^{\prime} \mathrm{E}$, Western Australia (Sept. 15, 1998-Oct. 25, 1999; P. Van Heurck), deposited in WAM (T62553).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females resembles those of W. clifton but have more angular anterolateral epigynal edges (fig. 415).

Male: Unknown.
Female: Total length 6.60. Carapace 2.60 long, 2.44 wide, 0.90 high, length/width 1.06; sternum 1.56 long, 1.30 wide, length/ width 1.20 ; abdomen 4.00 long, 2.28 wide; coxa I 0.84 long; relative length of coxae I-IV 1.00:1.00:0.98:1.31. Carapace, sternum orange, with darker lateral margins; chelicerae, legs orange; endites, labium orange brown,

distally pale; abdomen pale gray, venter pale, booklungs orange. Carapace weakly covered with shiny, slim, recumbent scales. Eye group width 0.71 of caput width; AME 0.22; ALE 0.18 ; PME 0.25; PLE 0.18; AME-AME 0.06; AME-ALE 0.02; PME-PME 0.06; PMEPLE 0.06; ALE-PLE 0.04; eye group AMEPME 0.48; AME-AME 0.50; PME-PME 0.56 . Clypeus 0.10 high. Abdomen covered with dark, slender, recumbent scales; ALS 0.39 of abdominal length, about their diameter apart. Tarsi III, IV ventrally with two rows of strong, stout setae. Palpal femur with 4-7 strong, ventral setae. Epigynum (figs. 415, 416) with wide anterior epigynal hood, atrium long, with widely separated, long, rectangular lateral plates, two posteriorlateral, hood-shaped grooves; epigynal ducts long, irregularly curved, spermathecae not separated from epigynal ducts, widely separated, globular.

Other Material Examined: None.
Distribution: Known only from the type locality in Western Australia (map 29).

## Wydundra lennard, new species

Figures 412-414; Map 29
TyPE: Male holotype taken in pitfall trap in riverine thicket at the Lennard River Crossing, Gibb River Road, $17^{\circ} 23^{\prime} \mathrm{S}$, $124^{\circ} 44^{\prime} \mathrm{E}$, Western Australia (July 17-20, 1988; T. Houston), deposited in WAM (90/ 513).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the corkscrew-shaped embolus (fig. 413), which may match the elaborate ducts of females like those of $W$. clifton and W. cunderdin.

Male: Total length 5.32. Carapace 2.28 long, 2.10 wide, 0.76 high, length/width 1.08 ; sternum 1.36 long, 1.22 wide, length/width 1.11; abdomen 3.04 long, 1.48 wide; coxa I 0.86 long; relative length of coxae I-IV 1.00:0.97:0.84:1.05. Carapace, sternum orange brown, with dark margins; chelicerae,
legs orange; endites, labium orange, distally pale; abdomen pale gray, dorsally with weak orange scutum, venter pale, epigastric area orange. AME elevated; eye group width 0.81 of caput width; AME 0.24; ALE 0.20; PME 0.30 ; PLE 0.16; AME-AME 0.04; AMEALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.54; AME-AME 0.52; PME-PME 0.58. Clypeus 0.10 high. Abdomen covered with dark, gray, slightly plumose setae; ALS 0.41 of abdominal length, about their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 412-414): conductor originating distally, membranous, thin, with sharp tip; median apophysis absent; terminal apophysis absent; sperm duct weakly ushaped; embolus corkscrew-shaped, embolar base separated from tegulum, situated prolaterally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis triangular; femur ventrally incrassate.

Other Material Examined: None.
Distribution: Known only from the type locality in the Kimberley region of Western Australia (map 29).

Wesmaldra, new genus
Type Species: Wesmaldra bidgemia, new species.

Etymology: The generic name is an arbitrary combination of letters considered feminine in gender.

Diagnosis: Members of this genus resemble those of Cryptoerithus is having relatively short anterior lateral spinnerets, but lack the greatly enlarged posterior median eyes typical of that genus.

Description: Small to medium sized spiders, total length of males 1.7-3.9, of females 1.9-5.0. Carapace subcircular, cephalic area constricted, narrowed in front to less than half its maximum width, with or without cover of gray setae or recumbent scales; fovea longitudinal, weak. Eight eyes in two strongly procurved rows (fig. 7); PME largest, flat, situated posteriorly of other

Figs. 412-416. 412-414. Wydundra lennard, new species. 415, 416. Wydundra cunderdin, new species. 412. Left male palp, prolateral view. 413. Same, ventral view. 414. Same, retrolateral view. 415. Epigynum, ventral view. 416. Same, dorsal view.
eyes, egg-shaped, not contiguous, silvery; AME second largest, circular, dark; ALE, PLE slightly oval, light; median ocular quadrangle slightly wider in back than in front, slightly longer than wide. Clypeus low, about $1 / 4-1 / 2$ diameter of ALE, curved downwards. Sternum subcircular, flat, with only indistinct extensions between coxae but with long, triangular extensions to coxae; surface smooth with few long setae; posterior margin wide, separating coxae IV. Pedicel composed of one weak dorsal, one small ventral sclerite. Chelicerae with setae bordering distal, mesial margin, promargin; retromargin with 2-3 small teeth. Endites slightly convergent, obliquely depressed, rectangular, with promarginal scopula and serrula. Labium normally inverted u-shaped. Abdomen with or without weakly sclerotized orange scutum in males; cuticle normally with dense cover of gray, recumbent, stout scales or plumose setae; ALS $1 / 5-1 / 2$ of abdominal length, separated by about their diameter at base (fig. 14), tip with extremely long piriform gland spigots, triangular ventral tubercle containing few gland spigots. PMS, narrow contiguous; PLS slightly longer. Legs laterigrade, leg formula 4123, with sparse setae, few weak spines, coxae IV longest, about 1.2-1.5 times longer than III; trochanters not notched; femora I, II long, only slightly incrassate; tarsi III, IV distally with cracks; tarsi I, II with or without band of scaled, or short, bent, ventral setae, or tarsi IIV ventrally with two rows of short, stout setae; tarsi with two relatively long claws bearing few or no teeth; claw tufts divided, consisting of few spatulate setae (figs. 21, 23), trichobothria present or absent on dorsal surface of patellae, tibiae, metatarsi, tarsi. Female palpal femur with line of 4-7 long, strong or thin, ventral setae. Male palpal cymbium long, slender, at least 2.2 times longer than wide, tip conical; conductor straight, distally situated; median apophysis reduced or cane-shaped, or longitudinal, rolled, with median pointed tip, or scoopshaped; terminal apophysis attached to median apophysis or embolus, triangular, or absent; embolus normally thin, straight, but can be with hooks or circular; sperm duct ushaped. Retrolateral tibial apophysis present or absent. Epigynal atrium normally present,
anterior margin with or without epigynal hood.

Distribution: The genus is known only from Western Australia and the Northern Territory.

Key to Species of Wesmaldra

1. Males (those of W. baynesi, W. wiluna unknown) . . . . . . . . . . . . . . . . . . . 2

- Females . . . . . . . . . . . . . . . . . . . . 13

2. Abdomen covered with plumose setae

- Abdomen covered with recumbent scales
.4

3. Body length more than 3.00 ; conductor absent (fig. 472) . . . . . . . W. bromilowi

- Body length less than 2.00; conductor present (fig. 477) . . . . . . . . W. kakadu

4. Retrolateral tibial apophysis absent (fig. 424) . . . . . . . . . . . . . . . . . . . . . 5

- Retrolateral tibial apophysis present (fig. 449) .6

5. Median apophysis connected to terminal apophysis, transverse (fig. 423)

> W. rolfei

- Median apophysis not connected to terminal apophysis, ventrally excavated (fig. 418).
W. bidgemia

6. Retrolateral tibial apophysis about half as long as cymbium, with deep dorsal concavity (fig. 449). 7

- Retrolateral tibial apophysis much shorter, without concavity (fig. 439). . . 8

7. Median apophysis about twice as long as wide, cane-shaped (fig. 448) . . W. urawa

- Median apophysis about as long as wide, not cane-shaped (fig. 443)
W. talgomine

8. Palpal patella with retrolateral apophysis (fig. 439). . . . . . . . . . W. waldockae

- Palpal patella without retrolateral apophysis (fig. 454) 9

9. Retrolateral tibial apophysis rectangular, median apophysis about as long as wide, saddle-shaped (fig. 454)
W. splendida

- Retrolateral tibial apophysis triangular, median apophysis at least twice as long as wide, not saddle-shaped (fig. 464) 10

10. Conductor and embolus extremely long, at least 5 times longer than wide (fig. 463) . . . . . . . . . . . . . W. nixaut

- Conductor and embolus much shorter about twice as long as wide (fig. 458) 11

11. Retrolateral tibial apophysis not bent, median apophysis cane-shaped (figs. 458, 459)
W. learmonth

- Retrolateral tibial apophysis sharply bent dorsally, median apophysis longitudinally rolled (figs. 428, 429) . . . . 12

12. Conductor spatulate (fig. 428) W. napier

- Conductor curled around embolus tip (fig. 433) . . . . . . . . . . . . . . . W. hirsti

13. Abdomen covered with plumose setae 14

- Abdomen covered with recumbent scales . . . . . . . . . . . . . . . . . . . . . 15

14. Body length more than 3.00 ; anterior epigynal margin with bifid projection (fig. 474) . . . . . . . . . . . W. bromilowi

- Body length less than 2.00; anterior epigynal margin narrow, rounded (fig. 479) . . . . . . . . . . . . . W. kakadu

15. Posterior epigynal margin with distinct projections (fig. 455). . . . . . . . . . . . 16

- Posterior epigynal margin without any projections (fig. 420). . . . . . . . . . . . 19

16. Posterior epigynal margin with a pair of small, anteriorly pointed projections (fig. 455) . . . . . . . . . . . W. splendida

- Posterior epigynal margin with one large inverted u-shaped projection (fig. 467) 17

17. Atrium situated at anterior part, covering $1 / 3$ of epigynum (fig. 467) W. baynesi

- Atrium covering at least $2 / 3$ of epigynum (fig. 460) . . . . . . . . . . . . . . . . . . . . 18

18. Spermathecae separated by less than their diameter (fig. 461)
W. learmonth

- Spermathecae separated by about twice their diameter (fig. 466) . . . W. nixaut

19. Epigynum with inverted u-shaped median ledge (fig. 420) . . . . . . W. bidgemia

- Epigynum without median ledge (fig. 469) . . . . . . . . . . . . . . . . . . . 20

20. Atrium hexagonal; epigynum with enlarged anterior epigynal ducts (figs. 469, 470)
W. wiluna

- Atrium not hexagonal, with inverted ushaped anterior margin (fig. 425). . . 21

21. Posterior margin of atrium connected to epigastric fold (fig. 425) . . . . . . . . . 22

- Posterior margin of atrium not connected to epigastric fold (fig. 440) . . . 24

22. Atrium broadly oval, wider than long (fig. 425)
W. rolfei

- Atrium bottle-shaped, at least as long as wide (fig. 445)

23
23. Atrium at least 1.5 times longer than wide (fig. 445) . . . . . . . . W. talgomine

- Atrium about as wide as long (fig. 450)
W. urawa

24. Lateral margin of atrium about twice as wide posteriorly as anteriorly (fig. 440) W. waldockae

- Lateral margin of atrium as wide posteriorly as anteriorly or only slightly wider (fig. 430)

25
25. Atrium laterally constricted; epigynal ducts short, curved (figs. 430, 431)
W. napier

- Atrium laterally straight; epigynal ducts long, parallel (figs. 435, 436)

> W. hirsti

## Wesmaldra bidgemia, new species

Figures 21, 23, 417-421; Map 30
Types: Male holotype and female allotype taken in pitfall traps at Bidgemia Station, Gasgoyne Junction, $25^{\circ} 03^{\prime} \mathrm{S}, 115^{\circ}$ 18'E, Western Australia (June 6-Aug. 20, 1995; N. Hall), deposited in WAM (male T45569, female T60059).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of the sympatric species $W$. rolfei in lacking a retrolateral tibial apophysis (fig. 419) and females resemble those of that species in having longitudinally arrayed epigynal ducts (fig. 421), but males have a shorter, more sinuous median apophysis (fig. 418) and females have a rounded, rather than tripartite anterior epigynal margin (fig. 420) and shorter epigynal ducts (fig. 421).

Male: Total length 2.92. Carapace 1.40 long, 1.22 wide, 0.36 high, length/width 1.15 ; sternum 0.86 long, 0.78 wide, length/width 1.10; abdomen 1.52 long, 0.90 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.96:0.91:1.09. Carapace, sternum, mouthparts, legs orange; abdomen pale, with weak orange brown scutum, half moonshaped pale spot in front of spinnerets. AME elevated; eye group width 0.82 of head width; AME 0.13; ALE 0.12; PME 0.16; PLE 0.12; AME-AME 0.04; AME-ALE 0.02;


Figs. 417-421. Wesmaldra bidgemia, new species. 417. Left male palp, prolateral view. 418. Same, ventral view. 419. Same, retrolateral view. 420. Epigynum, ventral view. 421. Same, dorsal view.

PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02 ; eye group AME-PME 0.34; AMEAME 0.3; PME-PME 0.32. Clypeus 0.05 high. Abdomen dorsally covered with gray, recumbent scales, ALS 0.28 of abdominal length. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 417-419): apophyses, embolus situated on distal half of tegulum; conductor finger-shaped; median apophysis scooped, with pointed tip; terminal apophysis cup-shaped; sperm duct u-shaped; embolus thin, straight, hidden behind tegulum, embolar base separated from tegulum.

Female: Total length 4.30. Carapace 1.64 long, 1.48 wide, 0.42 high, length/width 1.11; sternum 1.02 long, 0.90 wide, length/ width 1.13; abdomen 2.66 long, 1.48 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.92:0.88:1.04. Coloration as in male, but abdomen without scutum. Eye group width 0.68 of head width; AME 0.15; PME 0.18; PME-PME 0.04; eye group AMEPME 0.36; AME-AME 0.34; PME-PME 0.34 . Clypeus 0.06 high. ALS 0.2 of abdominal length. Epigynum (figs. 420, 421): atrium with rounded, anterior margin, median, inverted u-shaped ledge; epigynal ducts short, spermathecae contiguous.

Other Material Examined: Western Australia: Bidgemia Station, Gasgoyne Junction, $25^{\circ} 03^{\prime} \mathrm{S}, 115^{\circ} 18^{\prime} \mathrm{E}$, Aug. 17-Oct. 5, 1994, pitfalls (A. Sampey, WAM T45566), 3o, Oct. 3-8, 1994, dry pitfall (A. Sampey, WAM T45567), 10', Oct. 5, 1994-Jan. 13, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45568), $1^{\circ}$, 1 ; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 05^{\prime} \mathrm{S}$, $115^{\circ} 23^{\prime} \mathrm{E}$, Aug. 17-Oct. 5, 1994, pitfalls (A. Sampey, WAM T45565), $80^{\circ}$, 3¢ ; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 13^{\prime} \mathrm{S}$, $115^{\circ} 31^{\prime} \mathrm{E}$, Aug. 17-Oct. 4, 1994, pitfalls (A. Sampey, WAM T45608), 19, Oct. 4, 1994-Jan. 13, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45562), 10 ${ }^{\prime}$, 1o, Jan. 13-June 5, 1995, pitfall (J. Waldock, WAM T45563), 19, June 5-Aug. 20, 1995, pitfalls (N. Hall, WAM T45564), 2\%; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 41^{\prime} \mathrm{E}$, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45570), 10; Boologooro, $24^{\circ} 19^{\prime} \mathrm{S}, 114^{\circ} 01^{\prime} \mathrm{E}$, Nov. 1995, pitfall, chenopod gradient (J. Landsberg, C. James, MNT A001514), 1 ¢ ; Bush Bay, $25^{\circ} 08^{\prime} \mathrm{S}, 113^{\circ} 49^{\prime} \mathrm{E}$, Sept. 27-Oct. 2, 1994, dry pitfall (M. Harvey, WAM T45571), $10^{\circ}$, Sept. 29, 1994-Jan. 16, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45572), $10^{\circ} ; 20 \mathrm{~km}$ N Carnarvon, coordinates
unknown, Dec. 13, 1984 (B., M. Baehr, QMB S64463, S64464), $90^{\circ}$, 1p; Dales Gorge, Karijini National Park, $22^{\circ} 28^{\prime}$ S, $118^{\circ} 33^{\prime}$ E, July 24-25, 1998 (D. Hirst, SAM NN11894), 1o; Kennedy Range National Park, $24^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 58^{\prime} \mathrm{E}$, Apr. 7-May 29, 1995, pitfall (P. West, WAM T45574), 10, May 29-Aug. 28, 1995, pitfalls (N. Hall, WAM T45575), 3q; Mardathuna Station, $24^{\circ} 31^{\prime}$ S, $114^{\circ} 38^{\prime} \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfalls (P. West, WAM T45576), 60', 3q, Oct. 3-8, 1994, dry pitfall (P. West, WAM T45577), 10', Jan. 14-Apr. 7, 1995, pitfall (W. Muir, A. Sampey, WAM T45578), 19, Apr. 7May 26, 1995, pitfalls (A. Sampey, WAM T45579), $20^{\circ}, 5 p ;$ Meedo Station, $25^{\circ} 37^{\prime} \mathrm{S}$, $114^{\circ} 42^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (P. West, WAM T45584), 10', 3ip; Meedo Station, $25^{\circ} 38^{\prime} \mathrm{S}, 114^{\circ} 42^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (P. West, WAM T45580), 20', Jan. 12May 17, 1995, pitfall (A. Sampey, WAM T45581), 10', May 16-21, 1995, dry pitfall (A. Sampey, WAM T45582), $10^{\circ}$, May 17-Aug. 21, 1995, pitfalls (N. Hall, WAM T45583, 45585), $50^{\circ}$; Meedo Station, $25^{\circ} 39^{\prime} \mathrm{S}, 114^{\circ} 38^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (P. West, WAM T45586), 30', 8 ¢, Oct. 11, 1994-Jan. 12, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45587), $30^{*}, 49$, May 16-21, 1995, dry pitfall (A. Sampey, WAM T45588), 10'; Meedo Station, $25^{\circ} 43^{\prime} \mathrm{S}, 114^{\circ} 36^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfall (P. West, WAM T45589), 10', Jan. 12May 19, 1995, pitfall (A. Sampey, WAM T45590), $10^{\circ} ; \quad$ Nanga Station, $26^{\circ} 29^{\prime} \mathrm{S}$, $114^{\circ} 05^{\prime}$ E, Jan. 19-May 11, 1995, pitfall (A. Sampey, WAM T45591), 10'; Wiluna, $26^{\circ} 36^{\prime}$ S, $120^{\circ} 13^{\prime} \mathrm{E}$ (H. Pringle, MNT A001529), 1̊;


Map 30. Circle, Wesmaldra bidgemia, new species. Square, Wesmaldra napier, new species. Triangle, Wesmaldra hirsti, new species.


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Figs. 422-426. Wesmaldra rolfei, new species. 422. Left male palp, prolateral view. 423. Same, ventral view. 424. Same, retrolateral view. 425. Epigynum, ventral view. 426. Same, dorsal view.

Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 25^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfalls (M. Harvey, WAM T45604), 10', 1ᄋ, Oct. 9-14, 1994, dry pitfall (M. Harvey, WAM T45605), 1q, Oct. 10, 1994-Jan. 12, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45606), 1ᄋ, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T45607), 10', 2o; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Aug. 22-Oct. 10 , 1994, pitfalls (M. Harvey, WAM T45599), $10^{\circ}$, 2Q, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T45602), 2ó; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (M. Harvey, WAM T45592, 45598), 4o', 19, Oct. 9-14, 1994, dry pitfall (M. Harvey, WAM T45593), 10*, Oct. 11, 1994-Jan. 12, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45594), 10*, 4@, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T45595), 10', 1o, May 14-20, 1995, dry pitfall (P. West, WAM T45596), 10, May 17-Aug. 21, 1995, pitfalls (N. Hall, WAM T45597), 2 。

Distribution: Known only from Western Australia (map 30).

Wesmaldra rolfei, new species
Figures 422-426; Map 31
Type: Female holotype taken in dry pitfall trap at Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}$, $114^{\circ} 31^{\prime} \mathrm{E}$, Western Australia (Oct. 9-14, 1994; M. Harvey), deposited in WAM (T45600).

Etymology: The specific name is a patronym in honor of James Rolfe, a collector of this species and many other interesting prodidomids.

DiAGnosis: Males resemble those of the sympatric species $W$. bidgemia but have the carapace weakly covered with gray, recumbent scales and a longer, straighter median apophysis (fig. 423); females have a tripartite, rather than rounded, anterior epigynal margin (fig. 425) and longer epigynal ducts (fig. 426).

Male: Total length 2.66. Carapace 1.18 long, 1.08 wide, 0.42 high, length/width 1.09 ; sternum 0.78 long, 0.70 wide, length/width 1.11; abdomen 1.48 long, 0.88 wide; coxa I 0.38 long; relative length of coxae I-IV 1.00:0.95:0.89:1.16. Carapace orange, weakly covered with gray, recumbent scales; sternum, chelicerae, endites, labium orange; abdomen pale, dorsally covered with gray, recumbent scales, with half moon-shaped pale spot in front of spinnerets; legs orange,
covered with gray, recumbent scales. Eye group width 0.80 of head width; AME 0.12 ; ALE 0.10; PME 0.16; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.28; PMEPME 0.30. Clypeus 0.04 high. ALS 0.24 of abdominal length. Tarsi I-IV ventrally with two rows of short, stout setae, distal part of tarsi III, IV flexible. Palp (figs. 422-424): apophyses, embolus situated on distal half of tegulum; conductor finger-shaped; median apophysis transverse, with pointed tip; terminal apophysis small, connected to median apophysis; embolus thin, straight, hidden behind tegulum; palpal femur ventrally incrassate.

Female: Total length 4.14. Carapace 1.54 long, 1.48 wide, 0.46 high, length/width 1.04; sternum 1.06 long, 0.90 wide, length/ width 1.17 ; abdomen 2.60 long, 1.52 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.92:1.24. Coloration as in male. Eye group width 0.74 of head width; AME 0.14; ALE 0.13; PME 0.18; PLE 0.12; PMEPME 0.03; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.34. ALS 0.23 of abdominal length. Epigynum (figs. 425, 426): atrium with tripartite anterior margin; epigynal ducts long, parallel, spermathecae close together.


Map 31. Circle, Wesmaldra rolfei, new species. Square, Wesmaldra waldockae, new species. Triangle, Wesmaldra talgomine, new species. Diamond, Wesmaldra splendida (Simon).

Other Material Examined: Western Australia: Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfalls (M. Harvey, WAM T60058), 10', 49, Oct. 10, 1994-Jan. 12, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45601), 3o', 6¢, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T60055), 60*, 10op, May 17-Aug. 21, 1995, pitfall (N. Hall, WAM T45603), $10^{\circ}$.

Distribution: Known only from the type locality in Western Australia (map 31).

## Wesmaldra napier, new species

Figures 427-431; Map 30
Type: Male holotype taken on the ground in an open tropical savanna woodland 26 km E of Napier Downs, $17^{\circ} 11^{\prime} \mathrm{S}$, $124^{\circ} 36^{\prime}$ E, Western Australia (Nov. 23, 1984; B., M. Baehr), deposited in WAM (T59108).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $W$. hirsti in having a sharply bent retrolateral tibial apophysis and a prolaterally directed extension on the median apophysis, but have a much more sinuous embolar base (figs. 428, 429); females also resemble those of $W$. hirsti in having longitudinally arranged epigynal ducts, but the ducts are much shorter than in that species (fig. 431).

Male: Total length 3.44. Carapace 1.46 long, 1.40 wide, 0.36 high, length/width 1.04; sternum 0.92 long, 0.82 wide, length/width 1.12; abdomen 1.98 long, 1.28 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.88:1.20. Body, legs pale. Abdomen dorsally covered with gray, recumbent scales. AME; eye group width 0.71 of head width; AME 0.18; ALE 0.14; PME 0.20; PLE 0.12 ; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.38; AME-AME 0.40; PME-PME 0.40. Clypeus 0.08 high. ALS 0.38 of abdominal length. Palp (figs. 427-429): conductor originating distally, finger-shaped; median apophysis longitudinal, rolled, with median pointed tip; terminal apophysis short, joined to embolus; sperm duct weakly s-shaped; embolus hidden behind tegulum, tip small, hooked, originating prolaterally; tibia elongate, retrolateral tibial apophysis sharply
dorsally bent, with additional small, more basal bump.

Female: Total length 4.32. Carapace 1.60 long, 1.54 wide, 0.40 high; sternum 0.98 long, 0.92 wide, length/width 1.06 ; abdomen 2.72 long, 1.60 wide; relative length of coxae I-IV 1.00:0.96:0.92:1.20. Coloration as in male. Eye group width 0.80 of head width; ALE 0.16; PME 0.22; PLE 0.14; PME-PME 0.42. ALS 0.36 of abdominal length. Epigynum (figs. 430, 431): atrium laterally constricted with inverted u-shaped anterior, heart-shaped posterior margins; epigynal ducts short, spermathecae close together.

Other Material Examined: Western Australia: 26 km E Napier Downs, ca. $17^{\circ} 11^{\prime} \mathrm{S}$, $124^{\circ} 36^{\prime}$ E, Nov. 23, 1984, on ground in open tropical savanna woodland (B., M. Baehr, QMB S64370), 10'; Windjana Gorge, 150 km E of Derby, $17^{\circ} 18^{\prime} \mathrm{S}, 125^{\circ} 23^{\prime} \mathrm{E}$, Nov. 23, 1984 (B., M. Baehr, QMB S64369), 1 o.

Distribution: Known only from the Kimberley region of Western Australia (map 30).

## Wesmaldra hirsti, new species <br> Figures 432-436; Map 30

Type: Male holotype taken in roadside parking bay S of turnoff, Barn Hill, $18^{\circ} 25^{\prime}$ S, $122^{\circ} 07^{\prime} \mathrm{E}$, Western Australia (July 15, 1998; D. Hirst), deposited in SAM (NN11895).

Etymology: The specific name is a patronym in honor of the collector of the holotype, who discovered the vibration collection technique that has produced many fascinating spiders.

Diagnosis: Males resemble those of $W$. napier, but have a straighter embolar base (fig. 433); females also resemble those of $W$. hirsti but have longer epigynal ducts (fig. 436).

Male: Total length 3.40. Carapace 1.50 long, 1.34 wide, 0.54 high, length/width 1.12; sternum 0.88 long, 0.80 wide, length/width 1.10 ; abdomen 1.90 long, 1.10 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96: 0.92:1.12. Carapace, sternum, mouthparts, legs orange; abdomen pale. Eye group width 0.79 of head width; AME 0.15; ALE 0.14; PME 0.22; PLE 0.14; AME-AME 0.060; AME-ALE 0.02; PME-PME 0.03; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.38; AME-AME 0.36; PME-PME 0.40. Clypeus 0.04 high. Abdomen dorsally covered with


Figs. 427-431. Wesmaldra napier, new species. 427. Left male palp, prolateral view. 428. Same, ventral view. 429. Same, retrolateral view. 430. Epigynum, ventral view. 431. Same, dorsal view.


Figs. 432-436. Wesmaldra hirsti, new species. 432. Left male palp, prolateral view. 433. Same, ventral view. 434. Same, retrolateral view. 435. Epigynum, ventral view. 436. Same, dorsal view.
gray, recumbent scales; ALS 0.42 of abdominal length. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 432-434): conductor originating distally, rolled around embolus tip; median apophysis longitudinal, rolled, with median pointed tip; terminal apophysis short, joined to embolus; sperm duct strongly s-shaped; embolus prolaterally situated, tip straight, pointed, embolar base separated from tegulum; tibia elongate, retrolateral tibial apophysis sharply dorsally bent, with only tiny, additional basal bump.

Female: Total length 4.88. Carapace 1.76 long, 1.68 wide, 0.76 high, length/width 1.04; sternum 1.06 long, 0.98 wide, length/ width 1.08 ; abdomen 3.12 long, 1.76 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.96:0.93:1.16. Coloration as in male. Eye group width 0.73 of head width; AME 0.14; PME 0.18; PME-PME 0.04; PME-PLE 0.04; eye group AME-PME 0.40; AMEAME 0.34. ALS 0.32 of abdominal length. Epigynum (figs. 435, 436): atrium with inverted u-shaped anterior, heart-shaped posterior margins; epigynal ducts long, parallel, spermathecae close together.

Other Material Examined: Western Australia: 60 km SW Sandfire, $20^{\circ} 20^{\prime} \mathrm{S}, 121^{\circ} 05^{\prime} \mathrm{E}$, July 11, 1981, in log on ground (D. Hirst, SAM NN22282), 1 .

Distribution: Known only from Western Australia (map 30).

## Wesmaldra waldockae, new species Figures 437-441; Map 31

TyPE: Male holotype taken in pitfall trap at Bidgemia Station, Gasgoyne Junction, $25^{\circ} 05^{\prime} \mathrm{S}, 115^{\circ} 23^{\prime} \mathrm{E}$, Western Australia (June 6-Aug. 20, 1995; N. Hall), deposited in WAM (T45615).

Etymology: The specific name is a patronym in honor of Julianne Waldock, a collector of this species and many other interesting prodidomids.

Diagnosis: Males can easily be recognized by the presence of a retrolateral apophysis on the palpal patella (figs. 438, 439), females by the triangular epigynal atrium (fig. 440).

Male: Total length 3.36. Carapace 1.52 long, 1.44 wide, 0.32 high, length/width 1.05 ; sternum 0.96 long, 0.84 wide, length/width
1.14; abdomen 1.84 long, 1.20 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.92:1.16. Carapace, sternum, chelicerae orange; endites, labium orange; abdomen pale, dorsally covered with gray, recumbent scales, with weak orange brown scutum, half moon-shaped pale spot in front of spinnerets, venter pale; legs orange. AME elevated; eye group width 0.71 of head width; AME 0.14; ALE 0.12; PME 0.18; PLE 0.12; AME-AME 0.04; AME-ALE 0.04; PMEPME 0.04; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.34. Clypeus 0.04 high. ALS 0.28 of abdominal length. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 437-439): apophyses, embolus situated on distal half of tegulum; conductor with fan-shaped tip; median apophysis dorsoventrally flattened, with retrolateral hook; terminal apophysis straight, joined to embolus tip; sperm duct u-shaped; embolus tip curled; tibia elongate, retrolateral tibial apophysis narrow, straight, tip slightly bipartite; patella with retrolateral apophysis.

Female: Total length 4.90. Carapace 1.74 long, 1.74 wide, 0.56 high, length/width 1.00; sternum 1.18 long, 1.04 wide, length/ width 1.13 ; abdomen 3.16 long, 2.00 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.96:0.93:1.22. Coloration as in male, but abdomen without scutum. Eye group width 0.74 of head width; ALE 0.14; PLE 0.14; AME-AME 0.08; PME-PME 0.06; eye group AME-PME 0.38; AME-AME 0.36; PME-PME 0.40. ALS 0.26 of abdominal length. Epigynum (figs. 440, 441): atrium triangular; epigynal ducts parallel, spermathecae close together.

Other Material Examined: Western Australia: Bidgemia Station, Gasgoyne Junction, $25^{\circ} 05^{\prime} \mathrm{S}, 115^{\circ} 23^{\prime} \mathrm{E}$, Aug. 17-Oct. 6, 1994, pitfalls (A. Sampey, WAM T45612), 280', 7q, Oct. 3-8, 1994, dry pitfall (A. Sampey, WAM T45350), 10 ${ }^{\circ}$, Oct. 5, 1994-Jan. 13, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45613), 30', 3ọ, Jan. 13-June 6, 1995, pitfalls (J. Waldock, WAM T45614), 30'; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 07^{\prime} \mathrm{S}, 115^{\circ} 26^{\prime} \mathrm{E}$, Aug. $17-$ Oct. 6, 1994, pitfalls (A. Sampey, WAM T45611), 20; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 11^{\prime} \mathrm{S}, 115^{\circ} 29^{\prime} \mathrm{E}$, Aug. 17-Oct. 4, 1994, pitfalls (A. Sampey, WAM T45610), 1中; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 13^{\prime}$ S,


Figs. 437-441. Wesmaldra waldockae, new species. 437. Left male palp, prolateral view. 438. Same, ventral view. 439. Same, retrolateral view. 440. Epigynum, ventral view. 441. Same, dorsal view.
$115^{\circ} 31^{\prime} \mathrm{E}$, Aug. 17-Oct. 4, 1994, pitfalls (A. Sampey, WAM T60056), 10', 9p, Oct. 3-8, 1994, dry pitfall (A. Sampey, WAM T45616), 1o, Oct. 4, 1994-Jan. 13, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45609), 4o', 13\%; near Day Dawn, $27^{\circ} 27^{\prime}$ S, $117^{\circ} 51^{\prime} \mathrm{E}$, Nov. 3, 1998, under rock (J. Waldock, WAM T45103), 19?; Milly Milly, $26^{\circ} 04^{\prime} \mathrm{S}, 116^{\circ} 41^{\prime} \mathrm{E}$, Oct. 6, 1962, elev. 300 m (E. Ross, D. Cavagnaro, CAS), 1 ọ

Distribution: Known only from Western Australia (map 31).

## Wesmaldra talgomine, new species Figures 7, 14, 442-446; Map 31

Types: Male holotype and female allotype taken in pitfall traps at Talgomine Reserve, north of Merredin, SAP site MN10, $31^{\circ} 15^{\prime} \mathrm{S}, 118^{\circ} 24^{\prime} \mathrm{E}$, Western Australia (Apr. 28-Sept. 22, 1998; N. Guthrie), deposited in WAM (male T49370, female T60065).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: This seems to be the southern sister species of $W$. urawa, sharing with it an excavated male palpal tibia and an elongated epigynum; males differ in the shape of the median apophysis (fig. 443), females in having shorter epigynal ducts (figs. 445, 446).

Male: Total length 3.84. Carapace 1.70 long, 1.58 wide, 0.50 high, length/width 1.07 ; sternum 1.06 long, 1.00 wide, length/width 1.06; abdomen 2.14 long, 1.38 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.92:1.20. Carapace, sternum, mouthparts orange; abdomen pale, with weak orange brown scutum, half moonshaped pale spot in front of spinnerets, venter pale; legs grayish orange. AME elevated; eye group width 0.77 of head width; AME 0.16; ALE 0.14; PME 0.18; PLE 0.14; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.36; AME-AME 0.36 ; PME-PME 0.38. Clypeus 0.03 high. Abdomen dorsally covered with gray, recumbent scales; ALS 0.30 of abdominal length. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 442-444): apophyses, embolus situated on distal half of tegulum; conductor straight with blunt tip; median apophysis dorsoventrally flattened, with one retrolateral, one small median hook;
terminal apophysis absent; sperm duct ushaped; embolus finger-shaped with sharp tip, small membranous retrolateral lobe, originating prolaterally; tibia excavated, retrolateral tibial apophysis long, dorsally directed, with pointed tip, tiny basal apophysis.

Female: Total length 4.48. Carapace 1.70 long, 1.66 wide, 0.50 high, length/width 1.02 ; sternum 1.10 long, 1.04 wide; abdomen 2.88 long, 1.80 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:1.00:0.96:1.30. Coloration as in male, but abdomen without scutum. Eye group width 0.68 of head width; AME 0.14; AME-ALE 0.04; PME-PLE 0.04; ALE-PLE 0.04; AME-AME 0.32. Clypeus 0.04 high. ALS 0.29 of abdominal length. Epigynum (figs. 445, 446): atrium bottle-shaped, epigynal hood inverted vshaped; epigynal ducts short, in v-shaped position, spermathecae contiguous.

Other Material Examined: Western Australia: Bruce Rock, $31^{\circ} 52^{\prime} \mathrm{S}, 118^{\circ} 10^{\prime} \mathrm{E}$, June 8, 1952 (B. Main, WAM T45136), 1¢; Bruce Rock, $31^{\circ} 53^{\prime} \mathrm{S}, 118^{\circ} 09^{\prime} \mathrm{E}$, Apr. 23, 1954, in red mallee debris (W. Butler, WAM T45137), 1¢ ; Buntine Rocks Nature Reserve, $29^{\circ} 58^{\prime} \mathrm{S}, 116^{\circ} 35^{\prime} \mathrm{E}$, Sept. 17, 1996, under rock, and running on ground (M. Harvey, J. Waldock, WAM T45139, 51812), 2甲; Buntine Rocks Nature Reserve, $29^{\circ} 59^{\prime}$ S, $116^{\circ} 34^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T49324), 20 $0^{\circ}$ 19; Buntine Rocks Nature Reserve, $29^{\circ} 59^{\prime}$ S, $116^{\circ} 35^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T60063), 1ọ; Elashgin Nature Reserve, $31^{\circ} 20^{\prime} \mathrm{S}, 117^{\circ} 27^{\prime} \mathrm{E}$, Mar. 17, 2000, under granite (J. Waldock, WAM T51813), 1o; Eriken Road, W Bruce Rock, $31^{\circ} 52^{\prime} \mathrm{S}, 117^{\circ} 56^{\prime}$ E, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T49452), 10'; Gundaring Nature Reserve, $31^{\circ} 51^{\prime} \mathrm{S}, 117^{\circ} 37^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51125, 51729), 2中; Helena-Aurora Ranges, $30^{\circ} 23^{\prime} \mathrm{S}, 119^{\circ} 38^{\prime}$ E, Sept. 24-27, 1995, pitfalls, hand collecting (R. McMillan, WAM T45149-45151), 3o; Hughden Rock, $30^{\circ} 16^{\prime}$ S, $117^{\circ} 01^{\prime} \mathrm{E}$, May 21,1966 , under granite rocks (M. Harvey, J. Waldock, WAM T4515345155), 40', 7ף; Jibberding Nature Reserve, $30^{\circ} 00^{\prime} \mathrm{S}, 116^{\circ} 49^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49547), $20^{\circ}$, 1 ¢ ; Jilaken Lake, $32^{\circ} 40^{\prime} \mathrm{S}$, $118^{\circ} 20^{\prime}$ E, Oct. 30, 1997-May 15, 1998, pitfall (L. King, WAM T60052), 19; Jouerdine Nature Reserve, $30^{\circ} 38^{\prime} \mathrm{S}$, $118^{\circ} 26^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T49551),


Figs. 442-446. Wesmaldra talgomine, new species. 442. Left male palp, prolateral view. 443. Same, ventral view. 444. Same, retrolateral view. 445. Epigynum, ventral view. 446. Same, dorsal view.
$10^{\prime}$; Kellerberrin, $31^{\circ} 38^{\prime}$ S, $117^{\circ} 43^{\prime} \mathrm{E}$ (G. Smith, WAM T45293), 1̊; Kodj Kodjin Nature Reserve, $31^{\circ} 27^{\prime} \mathrm{S}, 117^{\circ} 46^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51740), 1థ; Koorda Road Nature Reserve, $30^{\circ} 46^{\prime}$ S, $117^{\circ} 03^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49338, 51171), $10^{\prime}, 1$; ; Lake Goorly, $29^{\circ} 50^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (L. King, WAM T60062), 1 ¢ ; Lake Mollerin, $30^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 34^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, L. King, WAM T49351, 49553), 40', 1ᄋ; Lake Mollerin, $30^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 35^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (L. King, WAM T51795), $10^{\circ}$; Lake Moore, $30^{\circ} 20^{\prime} \mathrm{S}, 117^{\circ} 30^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (N. Guthrie, WAM T49352), $30^{\circ}, 1 \varrho ; 11 \mathrm{~km} \mathrm{E}$ Latham Shire Reserve, $29^{\circ} 44^{\prime} \mathrm{S}, 116^{\circ} 34^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T60053), 1̨̣; Manmanning Dam Nature Reserve, $30^{\circ} 49^{\prime}$ S, $117^{\circ} 05^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T60060), 10'; Manmanning Town Reserve, $30^{\circ} 51^{\prime} \mathrm{S}$, $117^{\circ} 06^{\prime} \mathrm{E}$, Jan. 14-Apr. 21, 1997, pitfalls (J. Waldock, E. Volschenk, WAM T60061), $10^{\prime}$, 2ó; W Minnivale, $31^{\circ} 08^{\prime} \mathrm{S}$, $117^{\circ} 10^{\prime} \mathrm{E}$, May 21 -Sept. 16, 1996, pitfall (M. Harvey, J. Waldock, WAM T45161), 10'; Mount Hampton Nature Reserve, $31^{\circ} 44^{\prime} \mathrm{S}$, $119^{\circ} 05^{\prime}$ E, Oct. 30, 1997-Apr. 29, 1998, pitfall (P. Van Heurck, WAM T49466), 10'; Mount Hampton Nature Reserve, $31^{\circ} 44^{\prime} \mathrm{S}, 119^{\circ} 06^{\prime} \mathrm{E}$, Oct. 30, 1997-Apr. 29, 1998, pitfalls (P. Van Heurck, WAM T49560), 10, 3q; Mount Jackson, $30^{\circ} 21^{\prime} \mathrm{S}, 119^{\circ} 12^{\prime} \mathrm{E}$, Sept. 6-11, 1979 (R. How, WAM T45201), 10'; Mount Moore Nature Reserve, $31^{\circ} 13^{\prime} \mathrm{S}, 118^{\circ} 18^{\prime} \mathrm{E}$, Oct. 30Dec. 15, 1997, pitfall (P. Van Heurck, WAM T49467), 10; Mungarri Nature Reserve, $30^{\circ} 21^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (L. King, WAM T49565), 19; 3 km W Nembudding, $31^{\circ} 12^{\prime} \mathrm{S}, 117^{\circ} 33^{\prime} \mathrm{E}$, June 29-Sept. 7, 1999, pitfall (J. Waldock, B. Main, WAM T45108), 10'; Noorajin Soak Nature Reserve, $30^{\circ} 45^{\prime}$ S, $117^{\circ} 15^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T51193), 2¢; North Baandee Nature Reserve, $31^{\circ} 22^{\prime}$ S, $117^{\circ} 56^{\prime} \mathrm{E}$, Feb. 10, 1992, bushland remnant (G. Smith, WAM T60324), 1o; North Bungulla, Shaw Road, W Reserve, $31^{\circ} 33^{\prime} \mathrm{S}, 117^{\circ} 35^{\prime} \mathrm{E}$, June 23-Aug. 4, 1987, pitfall (B. Main, WAM T45202), 1̊; Snake Gully Nature Reserve, $30^{\circ} 13^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Sept. 15, 1997-Apr. 7, 1998, pitfall (N. Guthrie, WAM T51202), 1o; Talgomine Reserve, N Merredin, $31^{\circ} 15^{\prime} \mathrm{S}$, $118^{\circ} 24^{\prime} \mathrm{E}$, Oct. 30-Dec. 15, 1997, pitfall (P. Van Heurck, WAM T51754), 1̨, Dec. 15, 1997-Sept. 22, 1998, pitfalls (N. Guthrie,

WAM T49371), 20², 2̊; NE Tammin School site, $31^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 34^{\prime} \mathrm{E}$, June 28, 1999, under bark (M. Harvey, J. Waldock, WAM T45203), 1o; Walkaway Nature Reserve, $30^{\circ} 48^{\prime} \mathrm{S}$, $117^{\circ} 19^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (B. Durrant, WAM T49372), 90'; Wamenusking Nature Reserve, $32^{\circ} 08^{\prime} \mathrm{S}, 117^{\circ} 31^{\prime} \mathrm{E}$, May $26-$ Oct. 5, 1998, pitfall (N. Guthrie, WAM T49373), $10^{\prime}$; Weowanie Rock, $31^{\circ} 08^{\prime} \mathrm{S}$, $119^{\circ} 45^{\prime}$ E, Oct. 1981 (R. McMillan, WAM 87/ 1144), 1̊; Yorkrakine Rock Nature Reserve, $31^{\circ} 26^{\prime} \mathrm{S}, 117^{\circ} 32^{\prime} \mathrm{E}$, Mar. 17-June 16, 2000, pitfall (M. Harvey, B. Main, WAM T60064), 1 1.

Distribution: Known only from Western Australia (map 31).

## Wesmaldra urawa, new species

Figures 447-451; Map 32
Type: Male holotype taken in pitfall trap in Urawa Nature Reserve, $28^{\circ} 24^{\prime} \mathrm{S}, 115^{\circ} 35^{\prime} \mathrm{E}$, Western Australia (Sept. 15, 1998-Oct. 18, 1999; P. Van Heurck), deposited in WAM (T49581).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: This seems to be the northern sister species of $W$. talgomine; males differ in having a prolaterally directed hook at the tip of the median apophysis (fig. 448), females in having longer epigynal ducts (figs. 450, 451).

Male: Total length 3.24. Carapace 1.40 long, 1.36 wide, 0.50 high, length/width 1.03 ; sternum 0.92 long, 0.80 wide, length/width 1.15; abdomen 1.84 long, 1.16 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.91:0.87:1.22. Carapace, sternum, chelicerae, endites, labium orange; abdomen pale, with half moon-shaped pale spot in front of spinnerets, venter pale; legs orange, mottled with gray. Eye group width 0.76 of head width; AME 0.13; ALE 0.10; PME 0.14; PLE 0.10; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.32; AME-AME 0.30; PME-PME 0.32. Clypeus 0.04 high. Abdomen dorsally covered with gray, recumbent scales; ALS 0.27 of abdominal length. Metatarsi, tarsi I, II proventrally with band of short, bent setae. Palp (figs. 447-449): apophyses, embolus situated on distal half of tegulum; conductor originating prodistally, finger-shaped; median apophysis long, with prolaterally directed


Figs. 447-451. Wesmaldra urawa, new species. 447. Left male palp, prolateral view. 448. Same, ventral view. 449. Same, retrolateral view. 450. Epigynum, ventral view. 451. Same, dorsal view.
hook at tip; terminal apophysis absent; sperm duct u-shaped; embolus thin, straight, originating prolaterally; tibia excavated, retrolateral tibial apophysis long, dorsally directed, with pointed tip, tiny basal apophysis.

Female: Total length 3.94. Carapace 1.62 long, 1.52 wide, 0.52 high, length/width 1.06; sternum 1.02 long, 0.90 wide, length/ width 1.13; abdomen 2.32 long, 1.32 wide; relative length of coxae I-IV 1.00:0.95: 0.91:1.39. Coloration as in male. AME elevated; eye group width 0.74 of head width; AME 0.14; ALE 0.12; PME 0.16; PLE 0.12; PME-PME 0.02; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.34. ALS 0.29 of abdominal length. Epigynum (figs. 450, 451): atrium bottle-shaped, with inverted u-shaped epigynal hood; epigynal ducts thin, in v-shaped position, spermathecae contiguous.

Other Material Examined: Western Australia: Canna, Pindawa, $28^{\circ} 54^{\prime} \mathrm{S}, 115^{\circ} 51^{\prime} \mathrm{E}$, Sept. 15, 1931 (P. Darlington, MCZ), 19; Coalseam Conservation Park, $28^{\circ} 56^{\prime} \mathrm{S}$, $115^{\circ} 35^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49523), 7q ${ }^{\text {; }}$ Doogue Road, W Mullewa, $28^{\circ} 30^{\prime} \mathrm{S}, 115^{\circ} 13^{\prime} \mathrm{E}$, Sept. 15 , 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T49535), 4o , 4 P ; Doogue Road, W Mullewa, $28^{\circ} 30^{\prime}$ S, $115^{\circ} 15^{\prime}$ E, Sept. 15, 1998-Jan. 1999, pitfall (N. Guthrie, WAM T59871), 10'; Gutha, $29^{\circ} 00^{\prime} \mathrm{S}, 115^{\circ} 56^{\prime} \mathrm{E}$, May 23 -Sept. 17, 1996, pitfalls (M. Harvey, J. Waldock, WAM T59116), 20'; Messengers Patch, 50 km SE Yalgoo, $28^{\circ} 39^{\prime} \mathrm{S}, 117^{\circ} 03^{\prime} \mathrm{E}$, Apr. 19-27, 1987 (J. Powdrill, WAM 88/173), 10'; MorawaPerenjori Road, $29^{\circ} 14^{\prime} \mathrm{S}, 116^{\circ} 04^{\prime} \mathrm{E}$, Sept. 15 , 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T49559), $40^{\circ}, 4 \neq 4.1 \mathrm{~km} \mathrm{~N}$ Mungada Road, along powerline, N Perenjori, $29^{\circ} 10^{\prime} \mathrm{S}$, $116^{\circ} 23^{\prime}$ E, Sept. 15, 1998-Apr. 1, 1999, pitfalls (P. Van Heurck, WAM T49562), $90^{\circ}$, 17p; Nullewa Lake, $29^{\circ} 07^{\prime}$ S, $116^{\circ} 12^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T51194), 20', 7ọ; Weelhamby Lake, $29^{\circ} 11^{\prime} \mathrm{S}$, $116^{\circ} 27^{\prime}$ E, Oct. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49585), 50', 39; Weelhamby Lake, $29^{\circ} 11^{\prime}$ S, $116^{\circ} 28^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49586), 30', 1¢̣; West Perenjori Nature Reserve, $29^{\circ} 29^{\prime}$ S, $116^{\circ} 13^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfall (B. Durrant, WAM T59117), 1 19.

Distribution: Known only from Western Australia (map 32).

## Wesmaldra splendida (Simon), new combination

Figures 452-456; Map 31
Molycria splendida Simon, 1908: 444 (female lectotype, here designated, from Northampton, Western Australia, in MNHN, examined).

Note: Males and females have not been collected together; the match hypothesized here is based on similarities in size, color pattern, and spinneret configuration. There are two additional syntypes, from the same locality, in ZMH, but both are juvenile (and one is not even a molycriine).

Diagnosis: Females can easily be recognized by the pair of sharply pointed epigynal projections (fig. 455), males by the curious shape of the retrolateral tibial apophysis (fig. 454).

Male: Total length 2.82. Carapace 1.42 long, 1.32 wide, 0.50 high, length/width 1.07; sternum 0.82 long, 0.76 wide, length/width 1.08; abdomen 1.40 long, 0.90 wide; coxa I 0.40 long; relative length of coxae I-IV 1.00:1.00:0.95:1.35. Carapace, sternum, mouthparts, legs orange; abdomen pale, with weak orange brown scutum, half moonshaped pale spot in front of spinnerets, venter pale. Carapace, legs weakly covered with gray, recumbent scales. Eye group width 0.70 of head width; AME 0.14; ALE 0.10; PME 0.14; PLE 0.10; AME-AME 0.04; AME-ALE


Map 32. Circle, Wesmaldra urawa, new species. Square, Wesmaldra learmonth, new species. Triangle, Wesmaldra nixaut, new species.


Figs. 452-456. Wesmaldra splendida (Simon). 452. Left male palp, prolateral view. 453. Same, ventral view. 454. Same, retrolateral view. 455. Epigynum, ventral view. 456. Same, dorsal view.
0.04; PME-PME 0.02; PME-PLE 0.04; ALEPLE 0.04; eye group AME-PME 0.32; AMEAME 0.32; PME-PME 0.30. Clypeus 0.04 high. Abdomen dorsally covered with gray, recumbent scales; ALS 0.38 of abdominal length. Tarsi I-IV ventrally with two rows of short, stout setae. Palp (figs. 452-454): cymbium retrolaterally straight; conductor originating distally, with blunt tip; median apophysis with band of tiny teeth on median margin; terminal apophysis absent; sperm duct ushaped; embolus slightly s-shaped, tip bifurcate, originating prolaterally, embolar base separated from tegulum; tibia slightly excavated, retrolateral tibial apophysis rectangular, with tiny basal apophysis.

Female: Total length 4.96. Carapace 1.76 long, 1.66 wide, 0.60 high, length/width 1.06; sternum 1.16 long, 1.02 wide, length/ width 1.13 ; abdomen 3.20 long, 1.88 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.96:0.93:1.17. Coloration as in male, but abdomen without scutum. Eye group width 0.66 of head width; ALE 0.14; PME 0.18 ; PLE 0.14; PME-PME 0.03; eye group AME-PME 0.38; PME-PME 0.34. ALS 0.25 of abdominal length. Epigynum (figs. 455, 456): atrium broadly bottle-shaped, posterior margin with one pair of sharply pointed projections; two small, lateral, sickle-shaped copulatory openings, spermathecae close together.

Material Examined: Western Australia: Clunes property, off Chintapee Road, $28^{\circ} 41^{\prime} \mathrm{S}$, $114^{\circ} 50^{\prime} \mathrm{E}$, Apr. 20, 1996, under rock in gully (J. Waldock, WAM T45140), $1 \propto$; 30 km W Neds Creek near Highway 95, $25^{\circ} 29^{\prime} \mathrm{S}, 119^{\circ} 38^{\prime} \mathrm{E}$, Sept. 18, 1983, dry acacia plain (E. Schlinger, M. Irwin, CAS), $10^{\prime}$; Northampton, $28^{\circ} 21^{\prime} \mathrm{S}$, $114^{\circ} 38^{\prime}$ E, July 15, 1905 (W. Michaelsen, R. Hartmeyer, MNHN 24083), 1q (lectotype).

Distribution: Known only from Western Australia (map 31).

## Wesmaldra learmonth, new species <br> Figures 457-461; Map 32

Type: Female holotype from 1.3 km W of Learmonth, $22^{\circ} 15^{\prime} \mathrm{S}, 114^{\circ} 05^{\prime} \mathrm{E}$, Western Australia (Sept. 30, 1988; J. Waldock), deposited in WAM (89/112).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAGNOSIS: Males can easily be recognized by the long median apophysis (fig. 458), females by the large posteromedian epigynal projection and wide ducts (figs. 460, 461).

Male: Total length 3.00. Carapace 1.22 long, 1.16 wide, 0.38 high, length/width 1.05 ; sternum 0.82 long, 0.70 wide, length/width 1.17; abdomen 1.78 long, 1.00 wide; coxa I 0.42 long; relative length of coxae I-IV 1.00:0.90:0.81:1.19. Carapace orange, with dark margin, one pair of darker, longitudinal patches between fovea and eye region; sternum, mouthparts pale orange; abdomen grayish, with small pale spot in front of spinnerets, venter pale; legs orange, covered with gray, recumbent scales. Eye group width 0.80 of head width; AME 0.11; ALE 0.12; PME 0.16; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.30; AME-AME 0.26; PME-PME 0.30. Clypeus 0.04 high. Abdomen dorsally covered with gray, recumbent scales; ALS 0.24 of abdominal length. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 457-459): cymbium retrolaterally straight; median apophysis long, cane-shaped; terminal apophysis absent; sperm duct u-shaped; embolus thin, straight, originating prolaterally, embolar base separated from tegulum; retrolateral tibial apophysis triangular.

Female: Total length 2.90. Carapace 1.42 long, 1.26 wide, 0.44 high, length/width 1.12 ; sternum 0.90 long, 0.82 wide, length/width 1.10; abdomen 1.48 long; coxa I 0.44 long; relative length of coxae I-IV 1.00:0.95: $0.91: 1.36$. Coloration as in male. AME 0.12; ALE 0.14; PME 0.18; PLE 0.12; eye group AME-PME 0.34; AME-AME 0.28; PMEPME 0.32. ALS 0.40 of abdominal length. Epigynum (figs. 460, 461): atrium with large posterior-median projection; epigynal ducts wide, spermathecae close together.

Other Material Examined: Western Australia: Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 40^{\prime} \mathrm{E}$, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45617), 2q; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 42^{\prime} \mathrm{E}$, Aug. $20-$ Sept. 30, 1994, pitfall (A. Sampey, WAM T45618), 1ᄋ, Sept. 27-Oct. 2, 1994, dry pitfall (A. Sampey, WAM T45619), 1o, Sept. 30, 1994 Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45620), 1ᄋ, Jan. 15-May 29, 1995, pitfall (J. Waldock, WAM T45621), 1ᄋ; Boo-


Figs. 457-461. Wesmaldra learmonth, new species. 457. Left male palp, prolateral view. 458. Same, ventral view. 459. Same, retrolateral view. 460. Epigynum, ventral view. 461. Same, dorsal view.
lathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 45^{\prime} \mathrm{E}$, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45622), 1 © ; Cape Range Camp, $22^{\circ} 15^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, May 16,1990 , attracted to light at night (J. Waldock, WAM 91/1004), 10', May 27, 1990, in tent at night (J. Waldock, WAM 91/1006, 91/1008), 10', 1ó; Cape Range, Exmouth Limestone Lease, $22^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 05^{\prime} \mathrm{E}$, May 14, 2001, pitfalls (R. Brooks, WAM T45707, 45708), 3中; Central Hill, NW Cape Peninsula, $22^{\circ} 15^{\prime} \mathrm{S}, 113^{\circ} 58^{\prime} \mathrm{E}$, May 19, 1965 (G. Kendrick, WAM 84/1120), $10^{\circ}$.

Distribution: Known only from Western Australia (map 32).

## Wesmaldra nixaut, new species

Figures 462-466; Map 32
Type: Male holotype taken in dry pitfall trap at Barlee Range Nature Reserve, $23^{\circ} 06^{\prime} \mathrm{S}, 116^{\circ} 00^{\prime} \mathrm{E}$, Western Australia (June 19-22, 1994; P. and G. Kendrick), deposited in WAM (T45124).

Etymology: The specific name is an arbitrary combination of letters.

DiAgnosis: Males can easily be recognized by the sharply pointed, longitudinally placed tegular apophysis (fig. 463), females by the large median epigynal projection and long ducts (figs. 465, 466).

Male: Total length 2.98. Carapace 1.30 long, 1.22 wide, 0.50 high, length/width 1.06; sternum 0.82 long, 0.78 wide, length/ width 1.05 ; abdomen 1.68 long, 1.20 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.95:0.82:1.09. Carapace, sternum, mouthparts, legs orange; abdomen pale. Carapace, abdomen, legs covered with gray, recumbent scales. Eye group width 0.77 of head width; AME 0.12; ALE 0.12; PME 0.18; PLE 0.12; AME-AME 0.06; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.04; ALE-PLE 0.04 ; eye group AME-PME 0.32; AME-AME 0.30; PME-PME 0.34. Clypeus 0.04 high. Chelicerae with no teeth. ALS 0.29 of abdominal length. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 462-464): cymbium long, slender, at least 2.2 times longer than wide, tip extremely elongate; conductor originating distally, long, straight, with blunt tip; median apophysis cane-shaped, about twice as long as wide; terminal apophysis triangular, with slender, sharp tip, prolaterally situated; sperm duct u-
shaped; embolus thin, straight, originating prolaterally, embolar base separated from tegulum; tibia elongate, retrolateral tibial apophysis long, dorsally directed with bent tip.

Female: Total length 4.54. Carapace 1.70 long, 1.62 wide, 0.58 high, length/width 1.05 ; sternum 1.04 long, 0.98 wide, length/ width 1.06 ; abdomen 2.84 long, 0.96 wide; coxa I 0.58 long; relative length of coxae I-IV 1.00:0.96:0.93:1.14. Coloration as in male. Eye group width 0.69 of head width; AME 0.14; PME 0.16; PLE 0.10; PME-PME 0.04; eye group AME-PME 0.34; AME-AME 0.34; PME-PME 0.38. ALS 0.28 of abdominal length. Epigynum (figs. 465, 466): atrium with large posterior-median projection; anterior epigynal ducts enlarged, spermathecae widely separated.

Other Material Examined: Western Australia: Barlee Range Nature Reserve, $23^{\circ} 05^{\prime} \mathrm{S}$, $115^{\circ} 47^{\prime} \mathrm{E}$, June $15-18$, 1994, dry pitfall (P., G. Kendrick, WAM T59041), 1ǫ; Barlee Range Nature Reserve, $23^{\circ} 06^{\prime} \mathrm{S}, 115^{\circ} 45^{\prime} \mathrm{E}$, Aug. 1993, pitfall (S. van Leeuwen, B. Bromilow, WAM T45229), 10; Barlee Range Nature Reserve, $23^{\circ} 06^{\prime} \mathrm{S}, 116^{\circ} 01^{\prime} \mathrm{E}$, Aug. 1993, pitfall (S. van Leeuwen, B. Bromilow, WAM T45230), 1 oq.

Distribution: Known only from the Barlee Range in Western Australia (map 32).

## Wesmaldra baynesi, new species

Figures 467, 468; Map 33
Type: Female holotype taken in cave at Warrieder Station, 1 km N Woodleys Find, $29^{\circ} 03^{\prime} \mathrm{S}, 116^{\circ} 59^{\prime} \mathrm{E}$, Western Australia (Apr. 27, 2003; A. Baynes, M. Pusovskis), deposited in WAM (T60328).

Etymology: The specific name is a patronym in honor of Alex Baynes, a research associate at the Western Australian Museum and one of the collectors of the type.

DiAgnosis: Females resemble those of W. nixaut, but have a shorter, inverted ushaped median epigynal projection and contiguous spermathecae (figs. 467, 468).

Male: Unknown.
Female: Total length 4.66. Carapace 2.06 long, 1.84 wide, 1.22 high, length/width 1.12; sternum 1.11 long, 2.60 wide, length/ width 0.76 ; abdomen 0.08 long, 0.36 wide; coxa I 0.70 long; relative length of coxae I-IV 1.00:0.97:0.91:1.17. Cephalothorax, legs pale yellow; abdomen dorsally gray, with half


Figs. 462-466. Wesmaldra nixaut, new species. 462. Left male palp, prolateral view. 463. Same, ventral view. 464. Same, retrolateral view. 465. Epigynum, ventral view. 466. Same, dorsal view.


Figs. 467-470. 467, 468. Wesmaldra baynesi, new species. 469, 470. Wesmaldra wiluna, new species. 467, 469. Epigynum, ventral view. 468, 470. Same, dorsal view.
moon-shaped pale spot in front of spinnerets, venter pale. Carapace covered with shiny, slim, recumbent scales. Eye group width 0.70 of caput width; AME 0.16; ALE 0.16; PME 0.18 ; PLE 0.16; AME-AME 0.04; AMEALE 0.04; PME-PME 0.04; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.38; AME-AME 0.36; PME-PME 0.40. Clypeus 0.08 high. Abdomen covered with dark, gray, recumbent scales; ALS 0.36 of abdominal length, about half their diameter apart. Tarsi I-IV ventrally with two rows of short, stout setae. Palpal femur with five long, ventral setae. Epigynum (figs. 467, 468): atrium
inverted u-shaped, situated anteriorly, anterior margin with wide, $v$-shaped projection, posterior margin with one inverted u-shaped projection; epigynal ducts long, s-shaped, spermathecae contiguous, globular.

Other Material Examined: None.
Distribution: Known only from Warrieder Station in Western Australia (map 33).

Wesmaldra bromilowi, new species Figures 471-475; Map 33

Types: Male holotype and female allotype taken in pitfall traps in Barlee Range


Figs. 471-475. Wesmaldra bromilowi, new species. 471. Left male palp, prolateral view. 472. Same, ventral view. 473. Same, retrolateral view. 474. Epigynum, ventral view. 475. Same, dorsal view.

Nature Reserve, $23^{\circ} 05^{\prime} \mathrm{S}, 115^{\circ} 47^{\prime} \mathrm{E}$, Western Australia (Aug. 1993; S. van Leeuwen, B. Bromilow), deposited in WAM (male T45225, female T59110).

Etymology: The specific name is a patronym in honor of Bob Bromilow, one of the collector of the types and many other interesting prodidomids.

Diagnosis: Males of this distinctive species can easily be recognized by the absence of a palpal conductor, the reduced median apophysis (fig. 472), and the narrow retrolateral tibial apophysis (fig. 473), females by the bifid anterior epigynal projection (fig. 474).

Male: Total length 3.40. Carapace 1.44 long, 1.28 wide, 0.44 high, length/width 1.12; sternum 0.88 long, 0.72 wide, length/width 1.22; abdomen 1.96 long, 1.20 wide; coxa I 0.44 long; relative length of coxae I-IV 1.00:0.91:0.82:1.09. Carapace, sternum, mouthparts, legs orange; abdomen pale, dorsally with weak orange brown scutum, half moon-shaped pale spot in front of spinnerets; legs orange. Carapace weakly covered with gray setae, frontally rounded. Eye eye group width 0.88 of head width; AME 0.12; ALE 0.10; PME 0.14; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.28 ; PME-PME 0.30. Clypeus 0.06 high. Abdomen weakly covered with gray plumose setae, ALS 0.32 of abdominal length, about half their diameter apart. Palp (figs. 471473): conductor absent; median apophysis reduced to tiny chitinous plaque; terminal apophysis long, s-shaped, prolaterally situated; sperm duct weakly s-shaped; embolus thin, straight, originating prolaterally; retrolateral tibial apophysis narrow.

Female: Total length 3.74. Carapace 1.38 long, 1.28 wide, 0.42 high, length/width 1.08; sternum 0.84 long, 0.78 wide, length/ width 1.08 ; abdomen 2.36 long, 1.40 wide; relative length of coxae I-IV 1.00:0.91:0.82:1.05. Coloration as in male but without scutum. Eye group width 0.82 of head width; AME 0.11; PME 0.16; AMEAME 0.06; PME-PME 0.32. ALS 0.30 of abdominal length. Palpal femur with row of long, thin, ventral setae. Epigynum (figs. 474, 475) with bifid projection on anterior margin; epigynal ducts anteriorly thin, situated entirely along midline, spermathecae large, oval, twisted.

Other Material Examined: Western Australia: Barlee Range Nature Reserve, $23^{\circ} 23^{\prime} \mathrm{S}$, $115^{\circ} 53^{\prime} \mathrm{E}$, June 1994, pitfall (S. van Leeuwen, B. Bromilow, WAM T45226), 1 ب.

Distribution: Known only from the Barlee Range in Western Australia (map 33).

## Wesmaldra kakadu, new species

Figures 476-480; Map 33
Type: Female holotype taken in pitfall trap in woodland at Kapalga, Kakadu National Park, $12^{\circ} 29^{\prime}$ S, $132^{\circ} 19^{\prime}$ E, Western Australia (Nov. 5, 1986; A. Andersen), deposited in WAM (T45318).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: This very small, pale species resembles $W$. learmonth in having only a short triangular tibial apophysis and in lacking a tegular apophysis but can easily be recognized by the plumose setae covering the abdomen and the much shorter median apophysis (fig. 477); females have a distinctively narrow anterior epigynal margin and no posterior plates (fig. 479).

Male: Total length 1.70. Carapace 0.72 long, 0.62 wide, 0.20 high, length/width 1.16; sternum 0.48 long, 0.42 wide, length/width 1.14; abdomen 0.98 long, 0.60 wide; coxa I 0.20 long; relative length of coxae I-IV 1.00:0.90:0.80:1.10. Body, legs pale yellow. Carapace weakly covered with shiny, plumose setae. Eye group width 0.87 of caput width; AME 0.07; ALE 0.06; PME 0.08; PLE 0.06; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.00; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.18; AME-AME 0.16; PME-PME 0.16. Clypeus 0.03 high.


Map 33. Circle, Wesmaldra baynesi, new species. Square, Wesmaldra bromilowi, new species. Triangle, Wesmaldra kakadu, new species. Diamond, Wesmaldra wiluna, new species.


Figs. 476-480. Wesmaldra kakadu, new species. 476. Left male palp, prolateral view. 477. Same, ventral view. 478. Same, retrolateral view. 479. Epigynum, ventral view. 480. Same, dorsal view.

Abdomen covered with shiny, cinnamon, plumose setae; ALS 0.41 of abdominal length, about their diameter apart. Tarsi III, IV with cuticular cracks at about three-quarters of
their length. Palp (figs. 476-478): conductor originating distally, membranous, short, spatulate; median apophysis small, cane-shaped; terminal apophysis absent; sperm duct u-
shaped; embolus finger-shaped, with sharp tip, embolar base separated from tegulum, situated prolaterally; tibia about 1.8-2.0 times as long as wide, retrolateral tibial apophysis short, triangular.

Female: Total length 1.88. Carapace 0.74 long, 0.66 wide, 0.20 high, length/width 1.12; sternum 0.46 long, 0.44 wide, length/ width 1.04; abdomen 1.14 long; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.91:0.83:1.08. Coloration as in male. Eye group width 0.68 of caput width; PMEPME 0.02; eye group AME-PME 0.16; PME-PME 0.18. ALS 0.47 of abdominal length. Palpal femur with six long, ventral setae. Epigynum (figs. 479, 480) with narrow inverted u-shaped anterior epigynal hood; epigynal ducts short, sausage-shaped, spermathecae not separated from epigynal ducts, contiguous, oval.

Other Material Examined: Northern Territory: Annaburroo, $12^{\circ} 50^{\prime} \mathrm{S}, 131^{\circ} 49^{\prime} \mathrm{E}$, Oct. 1997, loam (T. Churchill, MNT A001577), 10'; Berrimah, $12^{\circ} 25^{\prime} \mathrm{S}, 130^{\circ} 55^{\prime} \mathrm{E}$, Aug. 27-Sept. 3, 1996, open site (lawn) pitfall (T. Churchill, MNT A001473), 10'; Kapalga, Kakadu National Park, $12^{\circ} 29^{\prime} \mathrm{S}, 132^{\circ} 19^{\prime}$ E, Oct. 1, 1986, pitfalls, woodland (A. Andersen, WAM T63068), 30', Mar. 19, 1987, same (WAM T45319), 1o, Aug.Dec. 1992, 1993, pitfalls (T. Churchill, MNT A001568, 001569, 001570, 001571), 4̊; Munmarlary, Kakadu National Park, $12^{\circ} 28^{\prime} \mathrm{S}$, $132^{\circ} 30^{\prime}$ E, June 1986, pitfalls (A. Andersen, WAM T63067), 3q.

Distribution: Known only from the northern Northern Territory (map 33).

## Wesmaldra wiluna, new species <br> Figures 469, 470; Map 33

Type: Female holotype taken at Wiluna, $26^{\circ} 36^{\prime} \mathrm{S}, 120^{\circ} 13^{\prime} \mathrm{E}$, Western Australia (H. Pringle), deposited in MNT (A001530).

Etymology: The specific name is an arbitrary combination of letters.

Diagnosis: Females can easily be recognized by the enlarged anterior epigynal ducts (fig. 470).

Male: Unknown.
Female: Total length 3.86. Carapace 1.46 long, 1.36 wide, 0.44 high, length/width 1.07; sternum 0.98 long, 0.86 wide, length/ width 1.14 ; abdomen 2.40 long, 1.40 wide; coxa I 0.52 long; relative length of coxae I-IV
1.00:0.85:0.73:1.08. Body pale; legs pale, mottled with gray. Carapace frontally straight. AME elevated; eye group width 0.44 of head width; AME 0.14; ALE 0.13; PME 0.18; PLE 0.12; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.04; eye group AMEPME 0.32; AME-AME 0.32; PME-PME 0.36 . Clypeus 0.04 high. Abdomen dorsally covered with gray, recumbent scales; ALS 0.26 of abdominal length, about half their diameter apart. Tarsi I, II proventrally with band of scaled setae. Epigynum (figs. 469, 470): atrium widely hexagonal, with wide epigynal hood; anterior epigynal ducts enlarged, spermathecae close together.

Other Material Examined: None.
Distribution: Known only from the type locality in Western Australia (map 33).

## Nomindra, new genus

Type: Nomindra kinchega, new species.
Etymology: The generic name is an arbitrary combination of letters considered feminine in gender.

Diagnosis: Specimens resemble those of Myandra, especially in genitalic conformation, but differ in having enlarged posterior median eyes and an abdominal dorsum with a shorter scutum in males and a characteristic color pattern, with pairs of pale spots in an inverted $v$-shaped position and a half moonshaped pale spot in front of the spinnerets.

Description: Small spiders, total length of males 1.5-2.2, of females 1.9-3.4. Carapace broadly oval, narrowed in front to less than half its maximum width; surface finely reticulated, weakly coated with shiny or gray, recumbent, plumose setae, without tubercles, few long, dark, erect setae present on clypeus; thoracic groove longitudinal, weak or absent. Eight eyes in two rows, anterior medians large, elevated, circular, dark, PME largest, irregularly rectangular, flat, light; laterals subequal, oval, light; from above, anterior eye row slightly procurved, posterior row strongly procurved (fig. 8), from front, both rows strongly procurved; anterior medians separated by half their diameter or less, closer to anterior laterals; posterior medians separated by about $1 / 4$ of their width, about as far
from posterior laterals; anterior, posterior laterals separated by about half their radius; median ocular quadrangle slightly wider in back than in front and than long. Clypeus curved downwards. Chelicerae vertical, paturon with low boss, promargin with row of long, curved setae, three teeth, middle tooth largest, retromargin with two smaller, more widely separated teeth; chilum wide, unipartite, triangular. Labium wider than long, inverted u-shaped. Endites rectangular, convergent, with oblique depression; serrula present, curved; anteromedian edges bearing wide patch of stiff, white setae. Sternum shield-shaped, anteriorly straight, widely separating coxae IV posteriorly, deeply depressed opposite intercoxal spaces, with only indistinct extensions between coxae but with large, triangular extensions to coxae; surface finely reticulated, with few setae. Pedicel composed of two dorsal sclerites (anterior sclerite semicircular), one wide ventral sclerite with inverted v -shaped incision, anteriorly almost reaching posterior tip of sternum. Abdominal dorsum with pairs of pale spots in inverted $v$-shaped position, or pale chevrons on top, half moon-shaped pale spot in front of spinnerets, narrow anterior scutum in males; cuticle covered with recumbent, gray or cinnamon, plumose setae; epigastric scutum weakly sclerotized; colulus apparently absent but wide, recurved posterior spiracle apparently present just anterior of posterior median spinnerets. Six spinnerets, anterior laterals greatly elongated, contiguous or slightly apart, equal to roughly half of total abdominal length, greatly advanced anteriorly, originating at position about one-half of distance between epigastric furrow and anal tubercle, point of origin marked by two weakly sclerotized, half moon-shaped strips bearing macrosetae at midline (fig. 15); posterior medians small, narrow, situated anterior of posterior laterals, separating them, those of females apparently with two or three enlarged cylindrical gland spigots in single, longitudinal row; posterior laterals bisegmented, slightly longer than posterior medians. Legs elongate, leg formula 4123, coated with recumbent, plumose setae; coxa IV equal to coxa I or longest; coxae, trochanters without dorsal tubercles, trochanters equal in length, distal
edges fitting inside proximoventral margins of femora; femora I, II long, proximal portions slightly incrassate; metatarsi without distal preening brushes; tarsi elongated, with two slender, toothless claws on onychium, weak claw tufts composed of few pairs of spatulate setae (fig. 244); tarsi I, II without, III, IV with cuticular cracks at about threequarters of their length, distinctly bent at that point; trichobothria present, in one row on tarsi, metatarsi, tibiae. Female palpal femur without strong spines; female palpal tarsus without distal claw, ventral scopula, or dorsal pad of setae. Male palpal cymbium long, at least 2.2 times longer than wide, tip conical; palpal tibia about 1.5 times as long as wide, with distal, retrolateral apophysis; embolus situated prolaterally, tip nestled in longitudinally grooved conductor; median apophysis hook-shaped, reduced, or absent, terminal apophysis triangular, needle-shaped, or absent. Epigynum with broadly oval, anterior atrium; spermathecae globular, oval or sausage-shaped, situated posteriorly.

## Key to Species of Nomindra

1. Males (those of N. indulkana, N. ormiston

- Females (those of N. fisheri unknown)

2. Terminal apophysis absent (fig. 482)

3

- Terminal apophysis present (fig. 527)

3. Median apophysis present, thin, needleshaped (fig. 482) . . . . . . . N. kinchega

- Median apophysis absent (fig. 537) ... 4

4. Retrolateral tibial apophysis long, narrow (fig. 538). . . . . . . . . . . . N. cooma

- Retrolateral tibial apophysis short, triangular (fig. 488) . . . . . . N. woodstock

5. Median apophysis reduced to tiny hook or plaque, or absent (fig. 527) . . . . . . 6

- Median apophysis at least as long as wide, hook- or needle-shaped (fig. 542)

6. Terminal apophysis base broad, triangular (fig. 527)
N. fisheri

- Terminal apophysis base narrow, conical (fig. 522)

7. Conductor with two tips, terminal apophysis long, semicircular (fig. 522)
N. berrimah

- Conductor with one tip, terminal apophysis much shorter (fig. 512) . . N. thatch

8. Embolus extremely long, thin, with curled tip (fig. 542). . . . . . . . N. barlee

- Embolus shorter, semicircular (fig. 517).

9. Terminal apophysis extremely long, thin, at least 6 times longer than wide (fig. 517) . . . . . . . . . . . . . . N. gregory

- Terminal apophysis shorter, about 3 or fewer times longer than wide (fig. 497)

10. Retrolateral tibial apophysis fingershaped, with basal ridge (fig. 498) . . . 11

- Retrolateral tibial apophysis not fingershaped, without basal ridge (fig. 503)

11. Conductor with bifid tip, retrolateral tibial apophysis straight (figs. 497, 498) . . . . . . . . . . . . . . . N. leeuweni

- Conductor with tip not bifid, retrolateral tibial apophysis distally with bent tip (figs. 502, 503)
N. flavipes

12. Retrolateral tibial apophysis rectangular, with recurved tip; palp with additional median apophysis (fig. 508) N. yeni

- Retrolateral tibial apophysis triangular or conical; palp without additional median apophysis (fig. 549). . . . . . . 13

13. Median apophysis long, about twice as long as wide; retrolateral tibial apophysis large, conical (figs. 549, 550)
N. cocklebiddy

- Median apophysis relatively short, about as long as wide; retrolateral tibial apophysis smaller, triangular (figs. 532, 533) . . . . . . . . . . . . . . . . . . . . . . 14

14. Retrolateral tibial apophysis straight; terminal apophysis triangular (figs. 532, 533)
N. jarrnarm

- Retrolateral tibial apophysis bent ventrally; terminal apophysis needle-shaped (figs. 492, 493) . . . . . . . . N. arenaria

15. Copulatory opening present, tiny, median, nearly circular (fig. 551)
N. cocklebiddy

- Copulatory opening not apparent (fig. 519) . . . . . . . . . . . . . . . . . . . . . . 16

16. Atrium present (fig. 519) . . . . . . . 17

- Atrium absent (fig. 539) . . . . . . . . . 24

17. Atrium broadly oval or triangular, at least twice as wide as long (fig. 519) .

18

- Atrium about as wide as long (fig. 544)

18. Atrium triangular, epigynal hood wide (fig. 519)
N. gregory

- Atrium broadly oval, epigynal hood narrow (fig. 534) . . . . . . . . . . . . . . 19

19. Anterior margin of atrium sinuous (fig. 534) . . . . . . . . . . . . N. jarrnarm

- Anterior margin of atrium broadly rounded (fig. 529) . . . . . . . . . . . . . 20

20. Epigynal ducts long, thin, coiled around spermathecae (fig. 530) . . N. ormiston

- Epigynal ducts not coiled (fig. 547)

21. Epigynal ducts short, slightly $x$-shaped, not separating spermathecae (fig. 547)
N. indulkana

- Epigynal ducts long, parallel, separating spermathecae (fig. 510) . . . . . N. yeni

22. Atrium pentagonal, epigynal ducts extremely long, coiled (figs. 544, 545)
N. barlee

- Atrium not pentagonal, epigynal ducts shorter (figs. 524, 525) 23

23. Epigynal hood narrow; epigynal ducts along midline, $x$-shaped (figs. 524, 525) . . . . . . . . . . . . . . . . N. berrimah

- Epigynal hood wide; epigynal ducts short, coiled (figs. 484, 485)


## N. kinchega

24. Epigynal ducts long, thin, laterally advanced; anterior epigynal margin widely arched (figs. 539, 540) . . . . N. cooma

- Epigynal ducts short, not laterally advanced; anterior epigynal margin not widely arched (figs. 499, 500) . . . . 25

25. Epigynal hood beak-shaped (fig. 499) .
N. leeuweni

- Epigynal hood tripartite or absent (fig. 504) . . . . . . . . . . . . . . . . . . . 26

26. Epigynal hood tripartite (fig. 504) . . . .
N. flavipes

- Epigynal hood absent, anterior epigynal margin inverted u-shaped (fig. 489)

27
27. Area surrounded by anterior margin about as wide as long (fig. 489)
N. woodstock

- Area surrounded by anterior margin twice as wide as long (fig. 514) . . . . 28

28. Spermathecae sausage-shaped, twisted, transverse, ending dorsally (fig. 515)
N. thatch

- Spermathecae ending ventrally (fig. 495)
N. arenaria


## Nomindra kinchega, new species <br> Figures 244, 481-485; Map 34

TyPE: Female holotype taken in pitfall trap in Casuarina cristata patch 4 km WSW outlet regulator into Lake Cawndilla, Kinchega National Park, $32^{\circ} 32^{\prime}$ S, $142^{\circ} 11^{\prime} \mathrm{E}$, New South Wales (Nov. 29-Dec. 19, 1999; F. Christie, P. Flemons, M. Elliott), deposited in AMS (KS72619).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males have a triangular retrolateral tibial apophysis (fig. 483) and a leafshaped conductor (fig. 482); females have a widely arched anterior epigynal margin reaching almost to the sides of the spermathecae (fig. 484).

Male: Total length 1.84. Carapace 0.82 long, 0.74 wide, 0.24 high, length/width 1.11; sternum 0.56 long, 0.50 wide, length/width 1.12; abdomen 1.02 long, 0.62 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.92:0.80:1.00. Carapace orange, with marginal dark filigree net pattern; sternum, chelicerae, legs orange; endites, labium orange brown, distally pale; abdomen gray, dorsum with weak orange scutum, three pairs of pale spots on top in inverted $v$-shaped position; venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.84 of caput width; AME 0.08; ALE 0.08 ; PME 0.10; PLE 0.08; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.20; AME-AME 0.20; PME-PME 0.22 . Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.44 of abdominal length, slightly separated. Palp (figs. 481-483): apophyses, embolus situated on distal half of tegulum; conductor originating prodistally, leaf-shaped, grooved longitudinally; median apophysis thin, fingershaped; terminal apophysis absent; sperm duct u-shaped; embolus long, thin, semi-
circular, embolar base separated from tegulum, situated prolaterally; retrolateral tibial apophysis triangular.

Female: Total length 2.02. Carapace 0.20 long, 0.78 wide, 0.26 high, length/width 1.05 ; sternum 0.60 long, 0.54 wide, length/ width 1.11; abdomen 1.20 long, 0.72 wide. Coloration as in male but without scutum. Eye group width 0.75 of caput width. ALS 0.58 of abdominal length. Epigynum (figs. 484, 485): atrium broadly oval, with wide anterior epigynal hood; epigynal ducts short, spermathecae large, about their diameter apart, globular.

Other Material Examined: New South Wales: Boona State Forest, $34^{\circ} 43^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$, Dec. 15, 1998, pitfalls (L. Wilkie, S. Priday, AMS KS67305, 90631), 30'; Boona State Forest, $34^{\circ} 45^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$, Dec. 15, 1998, pitfalls (L. Wilkie, S. Priday, AMS KS58172, 67524, 67542 ), 60'; Boona State Forest, $34^{\circ} 46^{\prime} \mathrm{S}$, $145^{\circ} 58^{\prime} \mathrm{E}$, Apr. 18-27, 1999, pitfall (L. Wilkie, S. Priday, AMS KS67699), 10'; Brett's State Forest, $34^{\circ} 45^{\prime} \mathrm{S}, 145^{\circ} 55^{\prime} \mathrm{E}$, Apr. 20-28, 1998, pitfall (L. Wilkie, S. Priday, AMS KS67688), $10^{\prime}$; ca. 1.0 km along access road to Cawwell Station, $29^{\circ} 04^{\prime} \mathrm{S}, 147^{\circ} 04^{\prime} \mathrm{E}$, Nov. 26-Dec. 16, 1999, Eucalyptus microtheca patch pitfalls (F. Christie, P. Flemons, M. Elliott, AMS KS72616-72618), 60*, 7 7 ${ }^{\circ}$; 21.1 km N along Castlereigh Highway from turnoff to Lightning Ridge, $29^{\circ} 10^{\prime} \mathrm{S}, 148^{\circ} 07^{\prime} \mathrm{E}$, Nov. 22-Dec. 12, 1999, Eucalyptus populnea patch pitfalls (F. Christie, P. Flemons, M. Elliott, AMS KS72610-72613), 10', 4甲; Coleambally Irrigation Area, $34^{\circ} 49^{\prime} \mathrm{S}, 145^{\circ} 53^{\prime} \mathrm{E}$, Dec. 15, 1998, pitfall (L. Wilkie, S. Priday, AMS KS90633, 67537), 30; Coleambally Irrigation Area, $34^{\circ} 54^{\prime} \mathrm{S}, 145^{\circ} 59^{\prime} \mathrm{E}$, Dec. 16, 1998, pitfall (L. Wilkie, S. Priday, AMS KS90632), 1ᄋ; E Coleambally town, $34^{\circ} 48^{\prime} \mathrm{S}, 145^{\circ} 53^{\prime} \mathrm{E}$, Dec. 15 , 1998, pitfall (L. Wilkie, S. Priday, AMS KS65098), 2 2 ; 14.3 km on trail to Darling River from Rangers Station, Kinchega National Park, $32^{\circ} 33^{\prime} \mathrm{S}, 142^{\circ} 23^{\prime} \mathrm{E}$, Nov. 30-Dec. 19, 1999, Eucalyptus largiflorens pitfalls (F. Christie, P. Flemons, M. Elliott, AMS KS72620-72622), 30', 1o; Gwydir Highway, ca. 300 m NE turnoff to Minnamurra Station, $29^{\circ} 42^{\prime} \mathrm{S}, 148^{\circ} 22^{\prime} \mathrm{E}$, Nov. 21-Dec. 11, 1999, Eucalyptus populnea patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72608), $10^{\prime} ; 33.4 \mathrm{~km}$ NE on Gwydir Highway from Walgett, opposite Calgary turnoff, $29^{\circ} 41^{\prime} \mathrm{S}, 148^{\circ} 22^{\prime} \mathrm{E}$, Nov. 21-Dec. 11, 1999, native grassland pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72609), 1ᄋ; 5.4 km along


Flemons, M. Elliott, AMS KS72607), 10'; 1.7 km on access track off Narran Lake Road, Narran Lakes Reserve, $29^{\circ} 41^{\prime} \mathrm{S}, 147^{\circ} 27^{\prime} \mathrm{E}$, Nov. 24-Dec. 14, 1999, Eucalyptus populnea patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72615), 1 ; $;$; 6.5 km on access track off Narran Lake Road, Narran Lakes Reserve, $29^{\circ} 43^{\prime} \mathrm{S}, 147^{\circ} 25^{\prime} \mathrm{E}$, Nov. 24-Dec. 14, 1999, Eucalyptus camadulensis pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72614), 1Q; 14.6 km along track to New Chum from highway junction Trilby, $30^{\circ} 32^{\prime} \mathrm{S}, 144^{\circ} 49^{\prime} \mathrm{E}$, Dec. 1-21, 1999, Casuarina cristata patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72604), 1¢; Road Reserve, $30^{\circ} 23^{\prime} \mathrm{S}$, $148^{\circ} 47^{\prime}$ E, Feb. 2001, pitfall (I. Oliver, AMS KS80114), 1¢; Road Reserve, $30^{\circ} 29^{\prime} \mathrm{S}$, $148^{\circ} 33^{\prime}$ E, Feb. 2001, pitfall (I. Oliver, AMS KS80097), 1 ¢ ; Sturt National Park, $29^{\circ} 17^{\prime} \mathrm{S}$, $142^{\circ} 09^{\prime} \mathrm{E}$, Sept. 25, 1997, pitfall, rolling downs (M. Dtreulens, AMS KS79502), 2¢; Waverley Downs, $29^{\circ} 05^{\prime} \mathrm{S}, 143^{\circ} 54^{\prime} \mathrm{E}$, Nov. 1994, pitfall, mulga, sandplain (J. Landsberg, C. James, MNT A001511, 001547), 10', 1q. Queensland: Merigol, $26^{\circ} 47^{\prime} \mathrm{S}, 145^{\circ} 49^{\prime} \mathrm{E}$, Apr. 2001, mulga, pitfall (T. Beutel, QMB S63403, S63405, S63407, S63409, S63411, 63412, S63414-63416, S6341863421, S67681, S67683, S67684, S67688-67692), $160^{\prime}, 17$ ¢? Meta Park, $23^{\circ} 44^{\prime} \mathrm{S}, 146^{\circ} 54^{\prime} \mathrm{E}$, Oct. 20, 1998 (QMB S67730), 10; 5 km S Moranbah, $22^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 03^{\prime} \mathrm{E}$, June 25-Dec. 20, 1997, pitfall, gravel ridge (G. Monteith, E. Kruck, QMB S44457), 10'; NW Quilpie, $26^{\circ} 05^{\prime} \mathrm{S}$, $143^{\circ} 27^{\prime} \mathrm{E}$, Oct. 1995, pitfall, Mulga, alluvial plains (J. Landsberg, C. James, QMB S67729), $30^{\prime}$; Thylungra, $26^{\circ} 04^{\prime} \mathrm{S}, 143^{\circ} 28^{\prime} \mathrm{E}$, Oct. 1995, mulga pitfall (T. Churchill, QMB S67732, S67733, S67736, S67737, S67740), 80, 109, open pitfall (T. Churchill, QMB S67703, S67706, S67712, S67731, S67734, S67735, S67738, S67739), 130', 23o. South Australia: 6.5 km ENE Freeling Heights, Arkaroola, $30^{\circ} 07^{\prime} \mathrm{S}$, $139^{\circ} 27^{\prime} \mathrm{E}$, Oct. 20-23, 1999, pitfall, open shrubland (SAM NN11869, 11870), 2o; Leigh Creek Homestead, 1 km ESE Leigh Creek, $30^{\circ} 33^{\prime} \mathrm{S}$, $138^{\circ} 29^{\prime} \mathrm{E}$, Dec. 9-12, 1997, pitfall (SAM NN11858), $1 \nrightarrow ; 1.3 \mathrm{~km}$ N Mount Chambers, Mulga View Station, $30^{\circ} 57^{\prime} \mathrm{S}, 139^{\circ} 13^{\prime} \mathrm{E}$, Mar. 15-25, 1999 (SAM NN11872), 1 ¢ $; 7 \mathrm{~km}$ SSE Mount Deception, near Beltana, $30^{\circ} 46^{\prime} \mathrm{S}$, $138^{\circ} 17^{\prime} \mathrm{E}$, Dec. $1-5$, 1997, pitfall (SAM NN11874), 1 ¢ $; ~ 1.3 \mathrm{~km} \mathrm{~N}$ Patawarta Bore, Narrina Station, $30^{\circ} 55^{\prime} \mathrm{S}, 138^{\circ} 44^{\prime} \mathrm{E}$, Mar. 1525, 1999, pitfall (SAM NN11871), 1 ¢ $; 19 \mathrm{~km} \mathrm{~N}$ Renmark, $34^{\circ} 00^{\prime} \mathrm{S}, 140^{\circ} 47^{\prime} \mathrm{E}$, July 4-20, 1995, chenopod shrubland pitfall (A. Lambie, QMB S67673), $10^{\prime} ; 79 \mathrm{~km}$ NNW Renmark, $33^{\circ} 31^{\prime} \mathrm{S}$, $140^{\circ} 24^{\prime}$ E, Aug. 9-Sept. 7, 1995, flight intercept
trap (K. Pullen, ANIC), 1¢̣; 2.5 km SW Scobie Hill, $32^{\circ} 49^{\prime} \mathrm{S}, 139^{\circ} 45^{\prime} \mathrm{E}$, Oct. 17 , 1992, pitfall (SAM NN11875), 10; 3.2 km SW Stubbs Waterhole, Arkaroola Sanctuary, $30^{\circ} 20^{\prime} \mathrm{S}$, $139^{\circ} 23^{\prime} \mathrm{E}$, pitfall, Oct. 16-17, 1998 (SAM NN11873), 10 ; 3 km N Tomahawk Dam, Danggali Conservation Park, $33^{\circ} 20^{\prime} \mathrm{S}$, $140^{\circ} 43^{\prime}$ E, Nov. 24-26, 1996, pitfall (J. Forrest, SAM NN11876), 1 . . Victoria: 5 km W Cullulleraine, $34^{\circ} 17^{\prime} \mathrm{S}, 141^{\circ} 32^{\prime} \mathrm{E}$, Dec. 19, 1997-Jan. 9, 1998, pitfall, open forest (K., D. Krebs, QMB S67672), 1¢ְ; R.A.A.K. Salt Lake, SW Red Cliffs, ca. $34^{\circ} 35^{\prime}$ S, $141^{\circ} 59^{\prime} \mathrm{E}$, June 1, 1980 (D. Hirst, SAM NN22278), 1 ? .

Distribution: Southwestern Queensland south to eastern South Australia and Victoria (map 34).

## Nomindra woodstock, new species

Figures 486-490; Map 34
Type: Male holotype taken in pitfall trap in granite with sand next to Coorong Creek, Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, \quad 119^{\circ} 01^{\prime} \mathrm{E}$, Western Australia (Feb. 10-17, 1989; J. Dell, R. How, J. Waldock), deposited in WAM (91/1038).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males and females have not been collected together but are matched here on the basis of geography and their strong respective similarities to those of $N$. kinchega, despite their differences in size and color. This seems to be the northwestern sister-species of $N$. kinchega; males have a smaller retrolateral tibial apophysis (fig. 488), and females have a larger epigynal atrium (fig. 489).

Male: Total length 1.50. Carapace 0.66 long, 0.60 wide, 0.30 high, length/width 1.10 ; sternum 0.42 long, 0.42 wide, length/width 1.00 ; abdomen 0.84 long, 0.52 wide; coxa I 0.20 long; relative length of coxae I-IV 1.00:0.90:0.80:1.00. Carapace yellow, with marginal dark filigree net pattern; sternum, chelicerae grayish orange; endites, labium orange, distally pale; abdomen pale gray, dorsum with two diffuse pairs of pale spots on top, venter, legs pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.93 of caput width; AME 0.08; ALE 0.05; PME 0.10; PLE 0.05; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.18; AME-AME 0.18; PME-PME 0.22.

Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.52 of abdominal length, contiguous. Palp (figs. 486-488): cymbium retrolaterally straight; conductor originating prolaterally, long, straight, grooved longitudinally, with distally directed tip; median apophysis absent; terminal apophysis absent; sperm duct strongly s-shaped; embolus long, thin, straight, embolar base not separated from tegulum, situated prolaterally; retrolateral tibial apophysis short, triangular.

Female: Total length 2.26. Carapace 0.86 long, 0.82 wide, 0.40 high, length/width 1.05 ; sternum 0.54 long, 0.54 wide, length/width 1.00 ; abdomen 1.40 long, 0.74 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00: $0.92: 0.85: 1.00$. Carapace orange, with marginal dark filigree net pattern; sternum, chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsum with one pale spot in front, three pairs of pale spots on top, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.80 of caput width; AME 0.08; ALE 0.06; PME 0.10; PLE 0.05; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.20; AME-AME 0.20 ; PME-PME 0.22 . Clypeus 0.05 high. Abdomen covered with gray, plumose setae; ALS 0.56 of abdominal length, contiguous. Epigynum (figs. 489. 490): atrium large, inverted ushaped, with wide anterior epigynal hood; epigynal ducts short, thin, spermathecae contiguous, sausage-shaped, twisted, transverse.

Other Material Examined: Western Australia: next to Coorong Creek, Woodstock Station, $21^{\circ} 37^{\prime}$ S, $119^{\circ} 01^{\prime} \mathrm{E}$, Feb. 10-17, 1989. pitfall, granite with sand (J. Dell, R. How, J. Waldock, WAM 91/1032), 10'; Gibb River Road, 6 km SW Silent Grove turnoff, King Leopold Range, Kimberley Region, $17^{\circ} 10^{\prime} \mathrm{S}$, $125^{\circ} 20^{\prime}$ E, June 7, 1999, under rock (M. Gray, G. Milledge, H. Smith, AMS KS57246), 1 o.

Distribution: Known only from Western Australia (map 34).

## Nomindra arenaria, new species <br> Figures 491-495; Map 34

TyPE: Male holotype taken in pitfall trap in sand at Willeroo, $15^{\circ} 05^{\prime} \mathrm{S}$, $131^{\circ} 43^{\prime} \mathrm{E}$, Northern Territory (Oct. 1997; T. Churchill), deposited in MNT (A000971).

Etymology: The specific name is taken from the Latin arena (sand) and refers to the dune habitat.

Diagnosis: This may be the northwestern sister-species of $N$. thatch; males have a larger median apophysis (fig. 492); females resemble those of $N$. thatch but have a different configuration of the epigynal ducts (fig. 495).

Male: Total length 1.78. Carapace 0.78 long, 0.72 wide, 0.34 high, length/width 1.08 ; sternum 0.50 long, 0.48 wide, length/width 1.04; abdomen 1.00 long, 0.56 wide; coxa I 0.22 long; relative length of coxae I-IV 1.00:0.81:0.72:1.00. Carapace pale yellow, mottled with gray; sternum yellow, with darker lateral margins; chelicerae, endites, labium pale; abdomen gray, dorsum with three diffuse pairs of pale spots on top in inverted v-shaped position; venter pale gray; legs pale orange. Eye group width 0.89 of caput width; AME 0.10; ALE 0.08; PME 0.10; PLE 0.08; AME-AME 0.02; AMEALE 0.02; PME-PME 0.03; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.20; AME-AME 0.22; PME-PME 0.23. Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.52 of abdominal length, contiguous. Palp (figs. 491-493): conductor originating medially, leaf-shaped, grooved longitudinally, distal part, with distally directed tip; median apophysis small, with scooped tip; terminal apophysis long, thin,


Map 34. Circle, Nomindra kinchega, new species. Square, Nomindra woodstock, new species. Triangle, Nomindra arenaria, new species.


Figs. 486-490. Nomindra woodstock, new species. 486. Left male palp, prolateral view. 487. Same, ventral view. 488. Same, retrolateral view. 489. Epigynum, ventral view. 490. Same, dorsal view.


Figs. 491-495. Nomindra arenaria, new species. 491. Left male palp, prolateral view. 492. Same, ventral view. 493. Same, retrolateral view. 494. Epigynum, ventral view. 495. Same, dorsal view.
conical, medially situated; sperm duct strongly s-shaped; embolus long, thin, semicircular, situated probasally; retrolateral tibial apophysis triangular, with bent tip.

Female: Total length 1.96. Carapace 0.86 long, 0.82 wide, 0.28 high, length/width 1.05; sternum 0.58 long, 0.52 wide, length/ width 1.11 ; abdomen 1.10 long, 0.50 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.92:0.75:1.00. Coloration as in male. Eye group width 0.85 of caput width; AME 0.09 ; ALE 0.07 ; PME 0.09; PLE 0.07; AMEAME 0.20; PME-PME 0.21. Clypeus 0.06 high. ALS 0.58 of abdominal length. Epigynum (figs. 494, 495): atrium broadly oval, with inverted u-shaped anterior epigynal hood; epigynal ducts short, thin, recurved, spermathecae large, contiguous, oval, twisted, transverse, ends ventrally.

Other Material Examined: Northern Territory: West Ranken Station, Mitchell grasslands, Barkly Tablelands, $1^{\circ} 57^{\prime} \mathrm{S}, 136^{\circ} 46^{\prime} \mathrm{E}$, Mar. 1996, pitfall (A. Fisher, MNT A000980), 1ọ, Nov. 1996, pitfall (A. Fisher, MNT A000973), $20^{\circ}$.

Distribution: Known only from the Northern Territory (map 34).

## Nomindra leeuweni, new species

Figures 8, 15, 496-500; Map 35
TyPE: Male holotype and female allotype taken in pitfall traps at Little Sandy Desert, 15.2 km NE Kulonoski East Well, $24^{\circ} 34^{\prime} \mathrm{S}$, $120^{\circ} 1^{\prime} \mathrm{E}$, Western Australia (Aug. 1997; S. van Leeuwen, B. Bromilow), deposited in WAM (male T63062, female T63063).

Etymology: The specific name is a patronym in honor of Dr. Stephen van Leeuwen, Curator of the Pilbara Regional Herbarium in Karratha, one of the collectors of the types and many other interesting prodidomids.
Diagnosis: Males have a long, narrow terminal apophysis (fig. 497); females have distinctively long median epigynal ducts (fig. 500).

Male: Total length 2.06. Carapace 0.92 long, 0.82 wide, 0.32 high, length/width 1.12; sternum 0.60 long, 0.52 wide, length/width 1.15; abdomen 1.14 long, 0.66 wide; coxa I 0.30 long; relative length of coxae I-IV 1.00:0.87:0.73:1.00. Carapace, sternum, chelicerae grayish orange; endites, labium orange,
distally pale; abdomen gray, dorsum with weak orange scutum, three pairs of pale spots on top in inverted $v$-shaped position, venter pale; legs orange, femora grayish. Carapace weakly covered with gray, plumose setae. Eye group width 0.81 of caput width; AME 0.08 ; ALE 0.08; PME 0.10; PLE 0.08; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.22; AME-AME 0.20; PMEPME 0.22. Clypeus 0.06 high. Abdomen covered with gray, plumose setae; ALS 0.39 of abdominal length, slightly separated. Palp (figs. 496-498): cymbium retrolaterally straight; conductor originating prodistally, grooved longitudinally, with bipartite tip; median apophysis about twice as long as wide, with pointed tip; terminal apophysis long, conical, prolaterally situated; sperm duct u-shaped; embolus long, thin, semicircular, embolar base separated from tegulum, situated probasally; retrolateral tibial apophysis finger-shaped, with basal ridge.

Female: Total length 2.54. Carapace 1.04 long, 0.96 wide, 0.36 high, length/width 1.08; sternum 0.66 long, 0.60 wide, length/ width 1.10; abdomen 1.50 long, 0.94 wide; relative length of coxae I-IV 1.00:0.87: 0.80:1.00. Coloration as in male but without scutum. Eye group width 0.76 of caput width; PME 0.11; eye group AME-PME 0.24; PME-PME 0.24. Clypeus 0.05 high. ALS 0.43 of abdominal length. Epigynum (figs. 499, 500): atrium with beak-shaped anterior epigynal hood, widely v-shaped posterior margin; epigynal ducts long, paramedian, coiled, around spermathecae, spermathecae oval, in v-shaped position.

Other Material Examined: New South Wales: Sturt National Park, $29^{\circ} 05^{\prime} \mathrm{S}$, $141^{\circ} 38^{\prime}$ E, Sept. 24, 1997, pitfall, dunefields (I. Oliver, AMS KS78496), 1̊; Sturt National Park, $29^{\circ} 06^{\prime}$ S, $141^{\circ} 52^{\prime}$ E, Sept. 26, 1997, pitfall, tablelands (M. Dangerfield, AMS KS78546), 1 © S Sturt National Park, $29^{\circ} 07^{\prime} \mathrm{S}, 141^{\circ} 58^{\prime} \mathrm{E}$, Sept. 22, 1997, pitfall, rolling downs (I. Oliver, AMS KS78787), 10*; Sturt National Park, $29^{\circ} 15^{\prime} \mathrm{S}, 142^{\circ} 17^{\prime} \mathrm{E}$, Sept. 23, 1997, pitfalls, tablelands (R. Harris, AMS KS78785), 1̊; Sturt National Park, $29^{\circ} 16^{\prime} \mathrm{S}, 142^{\circ} 17^{\prime} \mathrm{E}$, Sept. 23, 1997, pitfalls, tablelands (M. Dangerfield, A. Holmes, G. Osler, AMS KS78594, 78648, 78666), 30'; Tibooburra, near caves, $29^{\circ} 26^{\prime} \mathrm{S}$, $142^{\circ} 01^{\prime} \mathrm{E}$, Oct. 9, 1975 (AMS KS1796), 1̊;


Figs. 496-500. Nomindra leeuweni, new species. 496. Left male palp, prolateral view. 497. Same, ventral view. 498. Same, retrolateral view. 499. Epigynum, ventral view. 500. Same, dorsal view.

Waverley Downs, $29^{\circ} 01^{\prime} \mathrm{S}, 143^{\circ} 53^{\prime} \mathrm{E}$, Nov. 1994, pitfall, Mulga gradient, sandplain (T. Churchill, MNT A000967, 2161), 10', 10. Queensland: Farley Station, $21^{\circ} 22^{\prime}$ S, $140^{\circ} 30^{\prime} \mathrm{E}$, Sept.-Oct. 1982 (J. Rontards, NMV K8812), 1ᄋ; Osbourne Mine site 4B, SSE Mount Isa, $22^{\circ} 07^{\prime} \mathrm{S}, \quad 140^{\circ} 34^{\prime} \mathrm{E}$ (A. Nicholson, QMB S34507), $10^{\prime}$; Merigol, $26^{\circ} 47^{\prime} \mathrm{S}, 145^{\circ} 49^{\prime} \mathrm{E}$, Apr. 2001, pitfall, mulga (T. Beutel, QMB S67687) 1ᄋ; Stony Plain, 55 km NW Bedourie, $24^{\circ} 22^{\prime} \mathrm{S}$, $139^{\circ} 28^{\prime}$ E, Jan. 1979, pitfall (S. Morton, QMB S67671), 10', June 17-23, 1979, pitfall (S. Morton, QMB S67669), 1o, Oct. 16-23, 1979, pitfall (S. Morton, QMB S67666, S67670), 10', 1o, Feb. 18-26, 1980, pitfall (S. Morton, QMB

S67668), 1̊, June 5-12, 1980, pitfalls (S. Morton, QMB S67663, S67664, S67665), 20', 11 ¢, Aug. 6-13, 1980, pitfall (S. Morton, QMB S67667), 1ᄋ; Thylungra, $26^{\circ} 04^{\prime} \mathrm{S}, 143^{\circ} 28^{\prime} \mathrm{E}$, Oct. 1995, mulga pitfall (T. Churchill, QMB S67704, S67705, S67708, S67711, S67713), 60', 4Q, open pitfall (T. Churchill, QMB S67702, S67707, S67709, S67710), 40', 6ọ. South Australia: 8 km NW Apollo Bore, $29^{\circ} 53^{\prime} \mathrm{S}, 137^{\circ} 36^{\prime} \mathrm{E}$, Apr. 1995, pitfall (SAM NN11877), $10^{\prime} ; 4.3 \mathrm{~km}$ NE Armistice Bore, Anna Creek Station, $28^{\circ} 48^{\prime}$ S, $136^{\circ} 45^{\prime} \mathrm{E}$, Mar. 1-5, 1995, pitfall (SAM NN11864), $1 \odot+; 17.8 \mathrm{~km}$ ENE Dulkaninna, $28^{\circ} 58^{\prime} \mathrm{S}, \quad 138^{\circ} 38^{\prime} \mathrm{E}$, Nov. 4, 1994, pitfall (SAM NN11865, 11866), 20; 5.8 km NW

Dundinna Well, $26^{\circ} 47^{\prime} \mathrm{S}$, $140^{\circ} 41^{\prime} \mathrm{E}$, Nov. 5, 1994, pitfall (SAM NN11882), 1 ¢ $; 7.6 \mathrm{~km}$ NNE Innamincka, Innamincka Station, $27^{\circ} 40^{\prime} \mathrm{S}$, $140^{\circ} 47^{\prime} \mathrm{E}$, Nov. 4-9, 1996, pitfall (SAM NN11884), $1 \nrightarrow ; 1 \mathrm{~km}$ SW John Brown Well, $30^{\circ} 22^{\prime} \mathrm{S}, 139^{\circ} 36^{\prime} \mathrm{E}$, Aug. 31, 1996, pitfall (SAM NN11791), $1 \nrightarrow ; 2.2 \mathrm{~km}$ ESE Kirby Nob, Innamincka Station, $27^{\circ} 33^{\prime} \mathrm{S}, 140^{\circ} 53^{\prime} \mathrm{E}$, Nov. 4-9, 1996, pitfall (SAM NN11885-11888), 4甲; Lake Toontoowaranie, Innamincka Regional Reserve, $27^{\circ} 03^{\prime} \mathrm{S}, 140^{\circ} 10^{\prime} \mathrm{E}$, May 4, 1998, pitfall (D. Hirst, SAM NN11825), $1 \odot+15 \mathrm{~km} \mathrm{~N}$ Moolawatana, $29^{\circ} 47^{\prime} \mathrm{S}$, $139^{\circ} 42^{\prime} \mathrm{E}$, Nov. 18, 1994, pitfall (SAM NN11868), 1 ¢ $; 7.6$ km NW Mungutana Dam, Anna Creek Station, $29^{\circ} 16^{\prime} \mathrm{S}, \quad 135^{\circ} 38^{\prime} \mathrm{E}$, Oct. 2-6, 1995, pitfall (SAM NN11867), 1 T; 4.2 km SSE North Moolooloo Station, $30^{\circ} 40^{\prime} \mathrm{S}, 138^{\circ} 32^{\prime} \mathrm{E}$, Dec. 9-12, 1997, pitfall (SAM NN11889), 1ᄋ; 4.5 km NNE Table Hill, Innamincka Station, $27^{\circ} 33^{\prime} \mathrm{S}$, $140^{\circ} 54^{\prime} \mathrm{E}$, Nov. 4-9, 1996 (SAM NN11883), $10^{\prime}$; 11.5 km SE Wares Peak, $29^{\circ} 40^{\prime} \mathrm{S}, 135^{\circ} 46^{\prime} \mathrm{E}$, Sept. 24-Oct. 5, 1995, pitfall (H. Owens, SAM NN11859), 1 ¢ $; ~ 6.2 \mathrm{~km}$ S Woorana Waterhole, Macumba Station, $27^{\circ} 43^{\prime} \mathrm{S}, 136^{\circ} 42^{\prime}$ E, Sept. 2125, 1996, pitfall (SAM NN11863), 1o. Western Australia: Ajana Back Road, $28^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 38^{\prime} \mathrm{E}$, Mar. 30-Oct. 18, 1999, pitfall (N. Guthrie, WAM T51143), 1ᄋ; Arthur Road, NE Kellerbin, $31^{\circ} 23^{\prime}$ S, $117^{\circ} 56^{\prime}$ E, Oct. 30, 1997-Mar. 21, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T49514, 51111, 51698, 51699), 20', 2ó; Barlee Range Nature Reserve, $23^{\circ} 03^{\prime} \mathrm{S}$, $115^{\circ} 49^{\prime} \mathrm{E}$, Aug. 1993, pitfall (S. van Leeuwen, B. Bromilow, WAM T45217), 1 $¢$; Barlee Range Nature Reserve, $23^{\circ} 07^{\prime} \mathrm{S}, 116^{\circ} 01^{\prime} \mathrm{E}$, Sept. 1995, pitfall (S. van Leeuwen, B. Bromilow, WAM T45224), 1̧̊; Barrow Island, Bandicoot Bay, $20^{\circ} 52^{\prime} \mathrm{S}, 115^{\circ} 20^{\prime} \mathrm{E}$, Nov. 4-Dec. 3, 1993, pitfalls (M. Harvey, J. Waldock, WAM T45126), 20, 2̊; Barrow Island, Base, $20^{\circ} 49^{\prime} \mathrm{S}, 115^{\circ} 23^{\prime} \mathrm{E}$, Nov. 1-5, 1993, under rock (M. Harvey, J. Waldock, WAM T45127), 1Q; Barrow Island, John Wayne Country, $20^{\circ} 45^{\prime} \mathrm{S}, 115^{\circ} 22^{\prime} \mathrm{E}$, Nov. 4-30, 1993, pitfalls, sandy site (M. Harvey, J. Waldock, WAM T45130), 20*, Oct. 28, 1998, night collecting (M. Harvey, V. Ovtsharenko, WAM T45132), $1 \stackrel{\text { P }}{ }$; Barrow Island, WAPET Camp, $20^{\circ} 50^{\prime} \mathrm{S}, 115^{\circ} 27^{\prime} \mathrm{E}$, Nov. 5-Dec. 3, 1993, pitfalls (M. Harvey, J. Waldock, WAM T45131), 30*, 2¢; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 03^{\prime} \mathrm{S}, 115^{\circ} 18^{\prime} \mathrm{E}$, Aug. 17-Oct. 5, 1994, pitfalls (A. Sampey, WAM T45407), $10^{\circ}$, 2q, Oct. 5, 1994-Jan. 13, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45405), 20', Jan. 13-June 5, 1995, pitfall (J. Waldock, WAM T45484), 30*, 7q, June 6-Aug. 20, 1995, pitfalls (N. Hall, WAM T45485), 90', 4¢; Bidgemia

Station, Gasgoyne Junction, $25^{\circ} 05^{\prime} \mathrm{S}, 115^{\circ} 23^{\prime} \mathrm{E}$, Aug. 17-Oct. 5, 1994, pitfalls (A. Sampey, WAM T45443), 20'; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 07^{\prime} \mathrm{S}, 115^{\circ} 26^{\prime} \mathrm{E}$, Aug. 17Oct. 6, 1994, pitfalls (A. Sampey, WAM T45483), 90*, 11ᄋ, Jan. 13-June 6, 1995, pitfall (J. Waldock, WAM T45404), 1¢, June 6-Aug. 20, 1995, pitfalls (N. Hall, WAM T45470), 20; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 11^{\prime} \mathrm{S}$, $115^{\circ} 29^{\prime} \mathrm{E}$, Aug. 17-Oct. 5, 1994, pitfalls (A. Sampey, WAM T45481), 20*, 1ǫ, Jan. 13-June 4, 1995, pitfall (J. Waldock, WAM T45469), 1ᄋ, June 4-Aug. 20, 1995, pitfalls (N. Hall, WAM T45482), 30'; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 13^{\prime} \mathrm{S}, 115^{\circ} 31^{\prime} \mathrm{E}$, Aug. 17-Oct. 4, 1994, pitfalls (A. Sampey, WAM T45441), 10', 1o, Jan. 13-June 5, 1995, pitfall (J. Waldock, WAM T45403), 1o, June 5-Aug. 20, 1995, pitfall (N. Hall, WAM T45442), 10;; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 42^{\prime} \mathrm{E}$, Aug. 20Sept. 30, 1994, pitfall (A. Sampey, WAM T45471), 10*, 3o, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45406, 45486), 20’, 3q, Jan. 15-May 29, 1995, pitfalls (J. Waldock, WAM T45487), 4o', 4Q, May 29Aug. 25, 1995, pitfall (N. Hall, WAM T45488), 1 º; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 45^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfalls (A. Sampey, WAM T45489), 69, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45490), 70', 11ᄋ, Jan. 15-May 31, 1995, pitfalls (J. Waldock, WAM T45491), 10, 4Q, May 29Aug. 25, 1995, pitfalls (N. Hall, WAM T45492), $10^{\prime}, 1$ ¢ $;$ Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 46^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfalls (A. Sampey, WAM T45493), 10', 2ǫ, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45494), 110*, 8o, Jan. 15-May 31, 1995, pitfalls (J. Waldock, WAM T45495), 10', 2中, May 31Aug. 25, 1995, pitfalls (N. Hall, WAM T45496), $20^{\prime}, 3$; Boologooro, $24^{\circ} 19^{\prime} \mathrm{S}, 114^{\circ} 01^{\prime} \mathrm{E}$, Nov. 1994, pitfall, chenopod shrubland (J. Landsberg, C. James, NYM A000969, A000970), 10, 7ọ; Buntine Nature Reserve, $29^{\circ} 58^{\prime} \mathrm{S}, 116^{\circ} 35^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, L. King, B. Durrant, WAM T49520, 51146, 51148, 51149), 70*, 10¢; Buntine Nature Reserve, $29^{\circ} 59^{\prime} \mathrm{S}, 116^{\circ} 34^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T4932149323), 700', 27o; Buntine Nature Reserve, Buntine East Road, $29^{\circ} 59^{\prime} \mathrm{S}, 116^{\circ} 37^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T49320), 3¢; Burracoppin-Campion Road, $31^{\circ} 09^{\prime} \mathrm{S}, 118^{\circ} 29^{\prime} \mathrm{E}$, Oct. 30, 1997-May 21, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T49441, 49442, 51762), 60*, 1o, Apr. 29-Sept. 22, 1998, pitfall (P.Van Heurck, WAM T49325), 10; Burracoppin Nature Reserve,
$31^{\circ} 25^{\prime} \mathrm{S}$, $118^{\circ} 31^{\prime} \mathrm{E}$, Dec. 15, 1997, pitfall ( N . Guthrie, WAM T49446, 51128), 10', 2 op, Oct. 30, 1997-May 21, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51703-51709), $60^{\circ}$, 12 ; Bush Bay, $25^{\circ} 05^{\prime}$ S, $113^{\circ} 43^{\prime}$ E, Jan. $16-$ May 23, 1995, pitfalls (P. West, WAM T45409), 20*, 4\%; Bush Bay, $25^{\circ} 07^{\prime} \mathrm{S}, 113^{\circ} 44^{\prime} \mathrm{E}$, Aug. 16 -Sept. 28 , 1994, pitfalls (M. Harvey, WAM T45444), 40', 59, Sept. 28, 1994-Jan. 16, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45410), $10^{\circ}$, May 23-Aug. 23, 1995, pitfall (N. Hall, WAM T45445), 1 ¢; Bush Bay, $25^{\circ} 07^{\prime} \mathrm{S}, 113^{\circ} 48^{\prime} \mathrm{E}$, May 23-Aug. 23, 1995, pitfall (N. Hall, WAM T45408), 19; Cape Cuvier, Quobba Station, $24^{\circ} 08^{\prime}$ S, $113^{\circ} 27^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, WAM T45554), 10'; Cape Cuvier, Quobba Station, $24^{\circ} 12^{\prime} \mathrm{S}, 113^{\circ} 27^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfalls (P. West, WAM T45553), 10', 2 ; Cape Cuvier, Quobba Station, $24^{\circ} 13^{\prime} \mathrm{S}, 113^{\circ} 28^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, WAM T45550, T45552), $10^{\prime}, 1{ }^{\circ}$; Cape Cuvier, Quobba Station, $24^{\circ} 13^{\prime} \mathrm{S}$, $113^{\circ} 30^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, WAM T455520, 10, Jan. 15-May 30, 1995, pitfall (A. Sampey, WAM T45551), 19; NW Cape Peninsula, site TL-11, $22^{\circ} 08^{\prime} \mathrm{S}$, $114^{\circ} 05^{\prime} \mathrm{E}$, May 21-June 5, 1990, pitfall (J. Waldock, WAM 91/999), 10'; NW Cape Peninsula, site TL-12, $22^{\circ} 10^{\prime} \mathrm{S}, 113^{\circ} 59^{\prime} \mathrm{E}$, May $22-$ June 4, 1990, pitfall (J. Waldock, WAM 91/ 1001), 10'; NW Cape Peninsula, site TL-8, $22^{\circ} 15^{\prime} \mathrm{S}, 114^{\circ} 02^{\prime} \mathrm{E}$, May 20-June 4, 1990, pitfall (J. Waldock, WAM 91/996), 10'; NW Cape Peninsula, site TL-1, $22^{\circ} 15^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, May 16-June 5, 1990, pitfalls (J. Waldock, WAM 91/ 993, 994), 20'; Cape Range, Camp, $22^{\circ} 15^{\prime} \mathrm{S}$, $114^{\circ} 03^{\prime} \mathrm{E}$, May 27-June 4, 1990, in tent at night (J. Waldock, WAM 91/1007, 1009-1011), 4o'; Cape Range, Exmouth Limestone Lease, $22^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 04^{\prime} \mathrm{E}$, May 14,2001 , pitfall (R. Brooks, WAM T45705), 10; Cape Range, Exmouth Limestone Lease, $22^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 05^{\prime} \mathrm{E}$, May 14, 2001, pitfall (R. Brooks, WAM T45701), 60', 4¢; Casuarina Shire site, ca. 5 km SW Nabawa, $28^{\circ} 32^{\prime} \mathrm{S}$, $114^{\circ} 44^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49326, 51150), $10^{\circ}$, 2 o ; Clunes property, off Chintappe Road, $28^{\circ} 41^{\prime} \mathrm{S}, 114^{\circ} 50^{\prime} \mathrm{E}$, under rocks, gully site (J. Waldock, WAM T45141, 45142), 10', 1¢; Coalseam Conservation Park, $28^{\circ} 56^{\prime}$ S, $115^{\circ} 35^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49524), 2q; Cookinbin Nature Reserve, $31^{\circ} 00^{\prime} \mathrm{S}, 118^{\circ} 14^{\prime} \mathrm{E}$, Oct. 30, 1997-May 21, 1998, pitfall (P. Van Heurck, WAM T51114), 19; Coonawa Road, NW Mullewa, $28^{\circ} 19^{\prime} \mathrm{S}, 115^{\circ} 23^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, L. King, WAM T49527, 51151, 51152), 90', 3¢;

Cunderin Road, NE Mukinbudin, $30^{\circ} 38^{\prime}$ S, $118^{\circ} 2^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, L. King, WAM T49531, 51153, 51154), 30', 6q; Doogue Road, W Mullewa, $28^{\circ} 30^{\prime}$ S, $115^{\circ} 15^{\prime} \mathrm{E}$, Sept. 15, $1998-$ Oct. 18, 1999, pitfall (N. Guthrie, WAM T51155), 19̣; Durokoppin Nature Reserve, $31^{\circ} 24^{\prime} \mathrm{S}, 117^{\circ} 46^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51722, 51723), 10', 2¢; East Yuna Nature Reserve, $28^{\circ} 25^{\prime} \mathrm{S}, 115^{\circ} 12^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfall (N. Guthrie, WAM T51157, 51158), 80', 169; Edel Land, $26^{\circ} 32^{\prime}$ S, $113^{\circ} 32^{\prime} \mathrm{E}$, May 9-Aug. 30, 1995, pitfall (N. Hall, WAM T45446), 10;; Erikin Road, W Bruce Rock, $31^{\circ} 58^{\prime} \mathrm{S}, 117^{\circ} 56^{\prime} \mathrm{E}$, Oct. 30, 1997May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T49449, 49451), 40', 4ọ; Faure Island, Shark Bay, $25^{\circ} 52^{\prime} \mathrm{S}, 113^{\circ} 55^{\prime} \mathrm{E}$, May $27-$ 31, 2000, pitfall, acacia shrubland (J. Forrest, SAM NN11898, 11899, 11990), 1ơ, 1̣̣; Francois Peron National Park, $25^{\circ} 49^{\prime} \mathrm{S}, 113^{\circ} 32^{\prime} \mathrm{E}$, Aug. 24 Oct. 11, 1994, pitfalls (A. Sampey, WAM T45473), 10, 4o, Oct. 11, 1994-Jan. 18, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45498), 19, Jan. 18-May 24, 1995, pitfalls (M. Harvey, WAM T45412), $90^{*}$, 49, May 24 -Aug. 30, 1995, pitfalls (N. Hall, WAM T45499), $10^{*}$, 2中; Francois Peron National Park, $25^{\circ} 50^{\prime} \mathrm{S}$, $113^{\circ} 36^{\prime} \mathrm{E}$, May 23-Aug. 30, 1995, pitfall (N. Hall, WAM T45500), 10'; Francois Peron National Park, $25^{\circ} 53^{\prime} \mathrm{S}$, $113^{\circ} 33^{\prime} \mathrm{E}$, Aug. 24 Oct. 11, 1994, pitfalls (A. Sampey, WAM T45472), 20, Jan. 17-May 25, 1995, pitfalls (M. Harvey, WAM T45497), 30*, 19, May 25Aug. 30, 1995, pitfalls (N. Hall, WAM T45411), $80^{\circ}, 3$; ; Francois Peron National Park, $25^{\circ} 59^{\prime}$ S, $113^{\circ} 34^{\prime} \mathrm{E}$, Aug. 24 Oct. 10, 1994, pitfalls (A. Sampey, WAM T45413), 3q, Jan. 18-May 26, 1995, pitfalls (M. Harvey, WAM T45414), 20', 19, May 26-Aug. 30, 1995, pitfall (N. Hall, WAM T45501), 10'; Goongarrie, $29^{\circ} 54^{\prime} \mathrm{S}$, $121^{\circ} 10^{\prime} \mathrm{E}$, July 1981, pitfall, casuarina woodland (W. Humphreys, WAM 88/71), 1p; Gundaring Nature Reserve, $31^{\circ} 51^{\prime} \mathrm{S}, 117^{\circ} 37^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51727, 51728), 10', 2o , May 27-Oct. 5, 1998, pitfall (N. Guthrie, WAM T49330), $10^{\circ}$; Gutha, $29^{\circ} 00^{\prime} \mathrm{S}, 115^{\circ} 56^{\prime} \mathrm{E}$, May 23-Sept. 17, 1999, pitfalls (M. Harvey, J. Waldock, WAM T45148), 50'; Heirisson Prong, Shark Bay, $26^{\circ} 05^{\prime} \mathrm{S}, 113^{\circ} 22^{\prime} \mathrm{E}$, June 1999, pitfalls (R. Visser, WAM T51817), 20', Feb. 2000, same (WAM T51818), 10'; Jibberding Nature Reserve, $30^{\circ} 00^{\prime} \mathrm{S}, 116^{\circ} 49^{\prime} \mathrm{E}$, Sept. 15 , 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, B. Durrant, WAM T49546, 51160, 51161), 80', 249; Jibberding Nature Reserve, $30^{\circ} 01^{\prime} \mathrm{S}$,
$116^{\circ} 49^{\prime}$ E，Sept．15，1998－Oct．25，1999，pitfalls （N．Guthrie，WAM T49333，49334），10＇，2o； Jingemia Hill，Watheroo National Park， $30^{\circ} 15^{\prime} \mathrm{S}, \quad 116^{\circ} 01^{\prime} \mathrm{E}$ ，Oct．15，1999－Nov．1， 2000，pitfalls（P．Van Heurck，WAM T49549， 51667，51668），20＇，7¢ ；Jouerdine Nature Re－ serve， $30^{\circ} 38^{\prime}$ S， $118^{\circ} 26^{\prime}$ E，Sept．15，1998－Oct． 25，1999，pitfalls（P．Van Heurck，L．King， WAM T49550，51162，51163），70，8¢；Kennedy Range National Park， $24^{\circ} 30^{\prime} \mathrm{S}, 115^{\circ} 01^{\prime} \mathrm{E}$ ，Aug． 18－Oct．6，1994，pitfall（M．Harvey，WAM T45418），1中，Jan．14－May 29，1995，pitfalls（P． West，WAM T45417），10＇，May 29－Aug．28， 1995，pitfalls（N．Hall，WAM T45419），1o； Kennedy Range National Park， $24^{\circ} 30^{\prime}$ S， $115^{\circ} 02^{\prime} \mathrm{E}$ ，Aug．18－Oct．6，1994，pitfalls（M． Harvey，WAM T45415），10，1̊，Apr．7－May 29，1995，pitfall（P．West，WAM T45447）， $10^{\circ}$ ， May 29－Aug．28，1995，pitfalls（N．Hall，WAM T45416），100＇，2甲；Kennedy Range National Park， $24^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 58^{\prime} \mathrm{E}$ ，Aug．18－Oct．4，1994， pitfalls（M．Harvey，WAM T45420），30＇，4O， Oct．4，1994－Jan．14，1995，pitfall（N．McKen－ zie，J．Rolfe，WAM T45502），60＇，2Q，Apr．7－ May 9，1995，pitfalls（P．West，WAM T45421）， 40＇，4？，May 29－Aug．28，1995，pitfalls（N．Hall， WAM T45448），420 ，57o；Kennedy Range National Park， $24^{\circ} 33^{\prime} \mathrm{S}, 114^{\circ} 58^{\prime} \mathrm{E}$ ，Aug．18－ Oct．4，1994，pitfalls（M．Harvey，WAM T45503），50＇，7o，Oct．4，1994－Jan．14，1995， pitfall（N．McKenzie，J．Rolfe，WAM T45422）， 1o，Jan． 14 May 29，1995，pitfalls（P．West， WAM T45423），50，4o，May 29－Aug．28，1995， pitfalls（N．Hall，WAM T45424），120＇，15o； Kennedy Range National Park， $24^{\circ} 34^{\prime}$ S， $114^{\circ} 57^{\prime} \mathrm{E}$ ，May $29-$ Aug．28，1995，pitfall（N． Hall，WAM T45425）， 1 ¢ ；Kodj Kodjin Nature Reserve， $31^{\circ} 27^{\prime} \mathrm{S}, 117^{\circ} 46^{\prime} \mathrm{E}$ ，Oct．30－Dec．15， 1997，pitfalls（P．Van Heurck，WAM T51734）， 5o，Oct．30，1997－May 22，1998，pitfall（P．Van Heurck，N．Guthrie，WAM T51736－51739），90， 5q，May 22－Sept．22，1998，pitfalls（L．King， WAM T49341，49342），2o，2ơ；Koolanooka Dam Road，SE Morawa， $29^{\circ} 15^{\prime} \mathrm{S}, 116^{\circ} 06^{\prime} \mathrm{E}$ ， Sept．15，1998－Oct．18，1999，pitfalls（P．Van Heurck，WAM T51166，51167），30＇，5o；Koorda Road Nature Reserve， $30^{\circ} 46^{\prime}$ S， $117^{\circ} 03^{\prime} \mathrm{E}$ ，Sept． 15，1998－Oct．25，1999，pitfalls（P．Van Heurck， WAM T49339），30＇；Kulja－Mollerin Rock Road， $30^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 34^{\prime} \mathrm{E}$ ，Sept．15，1998－Oct． 25，1999，pitfalls（L．King，WAM T49343， 51172，51174），50＊，7우；Lake Goorly， $29^{\circ} 50^{\prime} \mathrm{S}$ ， $116^{\circ} 5^{\prime}$ E，Sept．15，1998－Oct．25，1999，pitfalls （L．King，WAM T49346，49347，51126），10＇，4＠； Lake Mollerin， $30^{\circ} 32,117^{\circ} 35^{\prime}$ E，Sept．15，1998－ Oct．25，1999，pitfalls（L．King，WAM T49349， 49350）， $30^{\circ}, 9$ 9 ；Lake Moore， $30^{\circ} 20^{\prime} \mathrm{S}, 117^{\circ} 30^{\prime} \mathrm{E}$ ， Sept．15，1998－Oct．25，1999，pitfalls（N．

Guthrie，WAM T49353），20； 11 km E Latham shire reserve， $29^{\circ} 44^{\prime}$ S， $116^{\circ} 34^{\prime}$ E，Sept．15，1998－ Oct．25，1999，pitfalls（L．King，WAM T51180， 51181），150＇，19？；Little Sandy Desert， 11.8 km SE Burranbar Pool on Savory Creek， $23^{\circ} 53^{\prime}$ S， $120^{\circ} 30^{\prime} \mathrm{E}$ ，Aug．1997，pitfalls（S．van Leeuwen， B．Bromilow，WAM T47896），30＇，1̊；Little Sandy Desert， 20.8 km NNE Kulonoski East Well， $24^{\circ} 31^{\prime} \mathrm{S}, 120^{\circ} 19^{\prime} \mathrm{E}$ ，June 1996，pitfalls（S． van Leeuwen，B．Bromilow，WAM T49310， 49311），3o；Little Sandy Desert， 15.2 km NE Kulonoski East Well， $24^{\circ} 34^{\prime}$ S， $120^{\circ} 19^{\prime} \mathrm{E}$ ，Aug． 1997，pitfalls（S．van Leeuwen，B．Bromilow， WAM T49316），500＇，15p；Little Sandy Desert， 10.8 km NNE Kulonoski East Well， $24^{\circ} 35^{\prime}$ S， $120^{\circ} 16^{\prime} \mathrm{E}$ ，Oct．1996，pitfalls（S．van Leeuwen， B．Bromilow，WAM T49313，40＇，23ọ，Aug． 1997，same（WAM T49314，49315），30＇，9¢； Lochada Road Nature Reserve， $29^{\circ} 15^{\prime} \mathrm{S}$ ， $116^{\circ} 22^{\prime}$ E，Sept．15，1998－Apr．1，1999，pitfalls （L．King，WAM T49354－49356），30，4¢̣；Long Muir Road， S Mollerin Lake， $30^{\circ} 33^{\prime} \mathrm{S}$ ， $117^{\circ} 34^{\prime}$ E，Sept．16，1998－Oct．25，1999，pitfalls （P．Van Heurck，WAM T49557，51183，51184）， 60＇，11ᄋ；Manmanning town reserve， $30^{\circ} 51^{\prime} \mathrm{S}$ ， $117^{\circ} 05^{\prime} \mathrm{E}$ ，Jan．14－Apr．21，1997，pitfalls（J． Waldock，E．Volschenk，WAM T45160），10＇， 2甲；Mardathuna Station， $24^{\circ} 24^{\prime} \mathrm{S}, 114^{\circ} 27^{\prime} \mathrm{E}$ ， Oct．5，1994－Jan．14，1995，pitfalls（N．McKen－ zie，J．Rolfe，WAM T45454），10＇，1ㅇ，Apr．6－ May 24，1995，pitfall（A．Sampey，WAM T45455），1Q，May 24－Aug．28，1995，pitfalls （N．Hall，WAM T45506），130＊，4¢；Mardathuna Station， $24^{\circ} 24^{\prime}$ S， $114^{\circ} 28^{\prime}$ E，Oct．5， 1994 Jan． 14，1995，pitfalls（N．McKenzie，J．Rolfe，WAM T45430），10＇，3o，Jan．14－May 24，1995，pitfalls （A．Sampey，WAM T45431），4？，May 24－Aug． 26，1995，pitfalls（N．Hall，WAM T45453）， $10^{*}$ ， 1ơ；Mardathuna Station， $24^{\circ} 26^{\prime} \mathrm{S}, 114^{\circ} 30^{\prime} \mathrm{E}$ ， Aug．19－Oct．5，1994，pitfall（P．West，WAM T45505），10＇，May 24－Aug．26，1995，pitfall（N． Hall，WAM T45452），10；Mardathuna Station， $24^{\circ} 27^{\prime}$ S， $114^{\circ} 31^{\prime} \mathrm{E}$ ，Aug．19－Oct．5，1994，pitfall （P．West，WAM T45427，45450，45504），70， 14ᄋ，Oct．5，1994－Jan．14，1995，pitfalls（N． McKenzie，J．Rolfe，WAM T45428），30＊，6o， Jan．14－May 25，1995，pitfalls（A．Sampey， WAM T45429），10＊，2o，May 25－Aug．26，1995， pitfalls（N．Hall，WAM T45451），60，3o； Mardathuna Station， $24^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 38^{\prime} \mathrm{E}$ ，Aug． 29－Oct．5，1994，pitfalls（P．West，WAM T45426），40＊，9？，May 26－Aug．26，1995，pitfalls （N．Hall，WAM T45449），4o ，3ǫ；Meedo Station， $25^{\circ} 39^{\prime} \mathrm{S}, 114^{\circ} 38^{\prime} \mathrm{E}$ ，Aug．22－Oct．11， 1994，pitfalls（P．West，WAM T45456），4o＇，5q， Oct．11，1994－Jan．12，1995，pitfalls（N． McKenzie，J．Rolfe，WAM T45457），2̊；Meedo Station， $25^{\circ} 41^{\prime} \mathrm{S}, 114^{\circ} 37^{\prime} \mathrm{E}$ ，Jan．12－May 18 ，

1995, pitfall (A. Sampey, WAM T45432), 1q, May 18-Aug. 22, 1995, pitfalls (N. Hall, WAM T45433), $80^{\prime}$, 5ᄋ; Meedo Station, $25^{\circ} 43^{\prime} \mathrm{S}$, $114^{\circ} 36^{\prime}$ E, Aug. 22-Oct. 11, 1994, pitfalls (P. West, WAM T45458), 2o', 4ǫ, Oct. 11, 1994 Jan. 12, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45434), 10, Jan. 12-May 19, 1995, pitfall (A. Sampey, WAM T45435), 1ᄋ, May 16-21, 1995, dry pitfall (A. Sampey, WAM T45474), 10', May 19-Aug. 22, 1995, pitfalls (N. Hall, WAM T45436), 30', 1¢; Mount Elvire Station, $29^{\circ} 29^{\prime}$ S, $119^{\circ} 36^{\prime}$ S, Sept. 13-17, 1994, dry pitfall (A. Burbridge, WAM T45164), 19; Mount Jackson, $30^{\circ} 24^{\prime} \mathrm{S}, 119^{\circ} 13^{\prime} \mathrm{E}$, Nov. 1982, pitfall, Triodia ecotone (W. Humphries, WAM 90/514), 1ᄋ; Mount Moore Nature Reserve, $31^{\circ} 13^{\prime} \mathrm{S}, 118^{\circ} 18^{\prime} \mathrm{E}$, Oct. 15, 1997-May 21, 1998, pitfalls (P. Van Heurck, WAM T49468, 49469, 49561, 51746), 30, 7우, May 21-Sept. 22, 1998, pitfall (N. Guthrie, WAM T49368), 1Q; Mullewa Airstrip, $28^{\circ} 29^{\prime} \mathrm{S}, 115^{\circ} 30^{\prime} \mathrm{E}$, Oct. 15, 1998-Oct. 18, 1999, pitfalls (L. King, WAM T51204, 51205), 20', 1ᄋ; 4.1 km N Mungada Road, along powerline, N Perenjori, $29^{\circ} 10^{\prime} \mathrm{S}$, $116^{\circ}{ }^{2} 3^{\prime}$ E, Sept. 15, 1998-Apr. 1, 1999, pitfall (P. Van Heurck, WAM T49564), 1̊; Mungarri Nature Reserve, $30^{\circ} 20^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, WAM T49362, 49363), 30', 3o; Mungarri Nature Reserve, $30^{\circ} 21^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (L. King, WAM T51679, 51680), 90', 189); Nanga Station, $26^{\circ} 29^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, Aug. 23-Oct. 16, 1994, pitfall (P. West, WAM T45507), 1ᄋ, Jan. 19May 11, 1995, pitfalls (A. Sampey, WAM T45459), 30 ; Nanga Station, $26^{\circ} 31^{\prime} \mathrm{S}$, $114^{\circ} 00^{\prime}$ E, Jan. 19-May 12, 1995, pitfalls (A. Sampey, WAM T45508), 1¢̣; Nanga Station, $26^{\circ} 33^{\prime} \mathrm{S}, 113^{\circ} 58^{\prime} \mathrm{E}$, Oct. 16, 1994-Jan. 19, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45438), 10', Jan. 19-May 11, 1995, pitfalls (A. Sampey, WAM T45460), 2ó; Nerren Nerren Station, $27^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Aug. 25-Oct. 15, 1994, pitfalls (J. Waldock, WAM T45512), 5op, Oct. 15, 1994-Jan. 11, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45513), 1o ${ }^{\text {º }}$, ${ }^{\text {of, Jan. }}$ 11-May 11, 1995, pitfalls (P. West, WAM T45514), $10^{\circ}$, 2q, May 11-Aug. 18, 1995, pitfalls (N. Hall, WAM T45462), 1ó; Nerren Nerren Station, $27^{\circ} 03^{\prime} \mathrm{S}, 114^{\circ} 34^{\prime} \mathrm{E}$, Aug. 25-Oct. 16, 1994, pitfalls (J. Waldock, WAM T45475, 45511), 80', 4¢; Nerren Nerren Station, $27^{\circ} 03^{\prime}$ S, $114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 25-Oct. 17, 1994, pitfalls (J. Waldock, WAM T45461, 45510), $10^{*}$, 2ǫ, Oct. 16, 1994-Jan. 11, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45509), 1Q, Jan. 11-May 11, 1995, pitfalls (P. West, WAM T45439), 20', May 11-Aug. 18, 1995, pitfalls (N. Hall, WAM

T45440), $10^{\prime}$; Nerren Nerren Station, $27^{\circ} 03^{\prime} \mathrm{S}$, $114^{\circ} 36^{\prime} \mathrm{E}$, Aug. 25-Oct. 16, 1994, pitfalls (J. Waldock, WAM T45476), 8ǫ, Oct. 16, 1994 Jan. 11, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45515), 3o', 1o, Jan. 11-May 11, 1995, pitfalls (P. West, WAM T45516), 20*, 4¢, May 9-14, 1995, dry pitfall (P. West, WAM T45517), 1o, May 11-Aug. 18, 1995, pitfalls (N. Hall, WAM T45518), 80, 4甲; North Baandee Nature Reserve, $31^{\circ} 22^{\prime} \mathrm{S}, 117^{\circ} 56^{\prime} \mathrm{E}$, Mar. 11, 1992, bushland remnant (G. Smith, WAM T60319), 1 1ó; Oakajee Nature Reserve, $28^{\circ} 34^{\prime} \mathrm{S}, 114^{\circ} 39^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T51196, 51197), 20, 4甲; Pia-waning-Wongan Hills Road, $30^{\circ} 50^{\prime} \mathrm{S}, 116^{\circ} 40^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (B. Durrant, WAM T49365, 49366), 10', 4̣; Pintharuka, $29^{\circ} 06^{\prime} \mathrm{S}, 115^{\circ} 59^{\prime} \mathrm{E}$, May 23-Sept. 17, 1996, pitfall (M. Harvey, J. Waldock, WAM T45206), 10'; Pintharuka Nature Reserve, $29^{\circ} 06^{\prime} \mathrm{S}, 116^{\circ} 00^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T51198), 2o; Polelle Station, $26^{\circ} 55^{\prime} \mathrm{S}, 118^{\circ} 33^{\prime} \mathrm{E}$, Aug. 2, 1982, under stone, rocky scree slope (B. Main, WAM T45207), 1¢; Quairading railway water supply, $32^{\circ} 01^{\prime} \mathrm{S}, 117^{\circ} 23^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51748-51751), 20*, 5o; Snake Gully Nature Reserve, $30^{\circ} 13^{\prime} \mathrm{S}$, $116^{\circ} 57^{\prime} \mathrm{E}$, Sept. 15, 1997-Apr. 7, 1998, pitfalls (N. Guthrie, WAM T49369, 51201), 60*, 4¢; Talgomine Reserve, N Merridin, $31^{\circ} 15^{\prime} \mathrm{S}, 118^{\circ} 24^{\prime} \mathrm{E}$, Oct. 10, 1997Apr. 29, 1998, pitfalls (P.Van Heurck, N. Guthrie, WAM T49472, 49473, 49577, 51755), 30*, 5o, Apr. 28-Sept. 22, 1998, pitfalls (N. Guthrie, WAM T51806, 51807), 60', 2¢; Urawa


Map 35. Circle, Nomindra leeuweni, new species. Square, Nomindra thatch, new species. Triangle, Nomindra gregory, new species.

Nature Reserve, $28^{\circ} 24^{\prime} \mathrm{S}, 115^{\circ} 35^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, B. Durrant, WAM T49579, 51206, 51207), 50', 30; Vermin Proof Fence, E Beacon, $30^{\circ} 14^{\prime} \mathrm{S}$, $118^{\circ} 18^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. van Heurck, B. Durrant, WAM T49583, 51208, 51209), 60', 11\%; Walkaway Nature Reserve, $30^{\circ} 48^{\prime} \mathrm{S}, 117^{\circ} 19^{\prime} \mathrm{E}$, Sept. 15, 1998Oct. 25, 1999, pitfall (B. Durrant, WAM T63069), 1¢; Weelhamby Lake, $29^{\circ} 11^{\prime} \mathrm{S}$, $116^{\circ} 27^{\prime}$ E, Oct. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T63065), 1̊; Weelhamby Lake, $29^{\circ} 11^{\prime} \mathrm{S}, 116^{\circ} 28^{\prime} \mathrm{E}$, Sept. 15 , 1998Oct. 18, 1999, pitfalls (P. Van Heurck, WAM T49587, 51210), 4¢; West Perenjori Nature Reserve, $29^{\circ} 28^{\prime} \mathrm{S}, 116^{\circ} 13^{\prime}$ E, Sept. 15, 1998Oct. 18, 1999, pitfalls (B. Durrant, L. King, WAM T49588, 51211), 10', 1̊; West Perenjori Nature Reserve, $29^{\circ} 29^{\prime} \mathrm{S}, 116^{\circ} 13^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (B. Durrant, WAM T49376, 49377), 80, 7ǫ; Wiluna, $26^{\circ} 36^{\prime} \mathrm{S}$, 120́․․́E, 1997 (H. Pringle, MNT A000975000977, A000984), 50', 3¢; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfalls (M. Harvey, WAM T45467), 3o, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T45527), 10', 3o, May 17-Aug. 21, 1995, pitfalls (N. Hall, WAM T45468), 2q; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (M. Harvey, WAM T45523), $20^{\circ}$, 59, Oct. 11, 1994-Jan. 12, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45524), 4o', 30, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T45525), 50', May 17-Aug. 21, 1995, pitfalls (N. Hall, WAM T45526), 190', 42中; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 22-Oct. 12, 1994, pitfalls (M. Harvey, WAM T45463), 80, 7q, Jan. 12-May 17, 1995, pitfall (P. West, WAM T45464), 10’, May 15-20, 1995, dry pitfall (P. West, WAM T45522), $10^{\circ}$, May 17Aug. 21, 1995, pitfalls (N. Hall, WAM T45465), $10^{\prime}, 5$; ; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 36^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (M. Harvey, WAM T45521), 20', 45o , Oct. 11, 1994-Jan. 12, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T45519), 20', 1ᄋ, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T45466), 50*, 149, May 17Aug. 21, 1995, pitfalls (N. Hall, WAM T45520), $60^{\circ}, 8$; ; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 118^{\circ} 57^{\prime} \mathrm{E}$, May 3-9, 1988, pitfall (J. Waldock, WAM 91/ 1048), 1Q, Sept. 23-30, 1988, pitfall (J. Dell, WAM 91/1023, 1025), 2q, Feb. 10-17, 1989, pitfall (J. Dell, R. How, J. Waldock, WAM 91/ 1028), 10'; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}$, $118^{\circ} 58^{\prime}$ E, Feb. 10-17, 1989, pitfall (J. Dell, R. How, J. Waldock, WAM 91/1029), 10; Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 118^{\circ} 59^{\prime} \mathrm{E}$, Sept. 23-30, 1988, pitfall (J. Dell, WAM 91/1027), 1ó;

Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 119^{\circ} 01^{\prime} \mathrm{E}$, May 3-9, 1988, pitfall (J. Waldock, WAM 91/1022), 1̊, Feb. 10-17, 1989, pitfall (J. Waldock, R. How, J. Dell, WAM 91/1030, 1031), 10', 1ᄋ; Wubin Rocks Nature Reserve, $30^{\circ} 03^{\prime} \mathrm{S}$, $116^{\circ} 41^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfalls (P. Van Heurck, L. King, WAM T49596, 51214, 51216), 60', 8¢; ca. 6 km S Yorkrakine, S McQueen Road, $31^{\circ} 26^{\prime} \mathrm{S}, 117^{\circ} 35^{\prime} \mathrm{E}$, Mar. 11, 1992, bushland remnant (G. Smith, WAM T45308), 1 © .

Distribution: Widespread across southern Australia (map 35).

> Nomindra flavipes (Simon), new combination
> Figures 501-505; Map 36

Molycria flavipes Simon, 1908: 444 (female holotype from East Fremantle Recreation Ground, Western Australia, in ZMB, examined).
Molycria alboplagiata Simon, 1908: 445 (female holotype from Lion Mill, Western Australia, in ZMB, examined). NEW SYNONYMY.

DIAGNOSIS: This seems to be the southern sister species of Nomindra leeuweni, distinguished in males by a more sinuous conductor tip (fig. 502) and in females by the medially excavated epigynal hood (fig. 504) and longer median epigynal ducts (fig. 505).

Male: Total length 1.86. Carapace 0.86 long, 0.80 wide, 0.30 high, length/width 1.07 ; sternum 0.60 long, 0.54 wide, length/width 1.11; abdomen 1.00 long, 0.58 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.79:0.64:1.00. Carapace orange, with median longitudinal pale band, mottled with gray; sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, dorsum with weak orange scutum, two pairs of pale spots on top, venter pale. Eye group width 0.79 of caput width; AME 0.08 ; ALE 0.08; PME 0.10; PLE 0.08; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PMEPLE 0.02; ALE-PLE 0.02; eye group AMEPME 0.20; AME-AME 0.20; PME-PME 0.22 . Clypeus 0.06 high. Abdomen covered with gray, plumose setae; ALS 0.48 of abdominal length, slightly separated. Palp (figs. 501-503): conductor originating prodistally, s-shaped, grooved longitudinally, with retrolaterally directed tip; median apophysis about twice as long as wide, cane-shaped; terminal apophysis long, thin, conical, prolat-


Figs. 501-505. Nomindra flavipes (Simon). 501. Left male palp, prolateral view. 502. Same, ventral view. 503. Same, retrolateral view. 504. Epigynum, ventral view. 505. Same, dorsal view.
erally situated; sperm duct strongly s-shaped; embolus long, thin, semicircular, situated probasally; retrolateral tibial apophysis fin-ger-shaped, with bent tip and basal ridge.

Female: Total length 2.36. Carapace 0.92 long, 0.84 wide, 0.32 high, length/width 1.09; sternum 0.58 long, length/width
1.07; abdomen 1.44 long, 0.80 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.79:0.71:1.00. Coloration as in male but without scutum. Carapace weakly covered with shiny, plumose setae. Eye group width 0.80 of caput width; AME-AME 0.02; AME-AME 0.18. ALS 0.39 of abdom-
inal length. Epigynum (figs. 504, 505): atrium with tripartite anterior margin, inverted ushaped anterior epigynal hood; epigynal ducts thin, paramedian, spermathecae contiguous, sausage-shaped, twisted, transverse.

Other Material Examined: South Australia: between Goyder Siding and Bowmans Junction, ca. $34^{\circ} 07^{\prime} \mathrm{S}, 138^{\circ} 15^{\prime} \mathrm{E}$, Aug. 22, 1967, along railway (H. Cooper, SAM N1987/ 42), 19̣; Koonalda, $31^{\circ} 27^{\prime}$ S, $129^{\circ} 51^{\prime}$ E, Jan. 5, 1960, at light (P. Aitken, SAM N1987/45), 1o'; 2.5 km SW Womikata Bore, $26^{\circ} 07^{\prime} \mathrm{S}, 132^{\circ} 08^{\prime} \mathrm{E}$, Oct. 18-21, 1994, pitfall (SAM NN10944), 1 ó Western Australia: Aerodrome Road Nature Reserve, $33^{\circ} 28^{\prime} \mathrm{S}, 119^{\circ} 45^{\prime}$ E, Oct. $15,1999-$ Nov. 2, 2000, pitfalls (P. Van Heurck, WAM T51640), 3甲; Burra Rock, $31^{\circ} 23^{\prime} \mathrm{S}, 121^{\circ} 12^{\prime} \mathrm{E}$, Aug. 23, 1985, under rock on granite outcrop (M. Harvey, T. Doeg, R. Marchant, NMV K8811), 1p; Comitun Dam Nature Reserve, $31^{\circ} 46^{\prime}$ S, $118^{\circ} 04^{\prime}$ E, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51714), 2¢; Dead Mans Swamp Nature Reserve, $33^{\circ} 30^{\prime}$ S, $116^{\circ} 57^{\prime}$ E, Oct. 15, 1999-Nov. 2, 2000, pitfall (L. King, WAM T51768), 10'; Dunn Rock Nature Reserve, $33^{\circ} 17^{\prime} \mathrm{S}, 119^{\circ} 30^{\prime} \mathrm{E}$, Oct. 15, 1999-Oct. 25, 2000, pitfall (N. Guthrie, WAM T51786), 1 ¢ ; Durokoppin Nature Reserve, $31^{\circ} 24^{\prime} \mathrm{S}, 117^{\circ} 46^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T45687, 45692, 51121, 51122), $10^{\circ}$, 5 ¢ Durokoppin Reserve, $31^{\circ} 30^{\prime} \mathrm{S}, 117^{\circ} 44^{\prime} \mathrm{E}$, Nov. 3-13, 1992, pitfall (G. Friend, WAM T45628), 1ְ̣; East Fremantle Recreation Ground, $32^{\circ} 02^{\prime} \mathrm{S}, 115^{\circ} 46^{\prime} \mathrm{E}$ (W. Michaelsen, R. Hartmeyer, ZMB 28252), 1o (holotype); Elashgin Nature Reserve, N side on Maitland Road, $31^{\circ} 20^{\prime}$ S, $117^{\circ} 27^{\prime}$ E, June 30 -Sept. 7, 1999, pitfall (J. Waldock, B. Main, WAM T45146), 19; E Fields Road, SE Lake King, $33^{\circ} 07^{\prime} \mathrm{S}, 121^{\circ} 12^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51670), 10'; Gardner Reserve Road, NE Quairading, $31^{\circ} 47^{\prime} \mathrm{S}, 117^{\circ} 30^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (E. Ladhams, WAM T49454 49456), $80^{\circ}$, 4¢; Jilakin Lake, $32^{\circ} 40^{\prime}$ S, $118^{\circ} 20^{\prime}$ E, Oct. 30, 1997-May 15, 1998, pitfalls (L. King, WAM T49460, 51732), 4¢; 40 km N Johnston Lakes, S Coolgardie, ca. $32^{\circ} 25^{\prime}$ S, $120^{\circ} 30^{\prime}$ E, Jan. 1, 1977 (A., M. Douglas, WAM T45156), 1o'; Lake Magenta Nature Reserve, $33^{\circ} 27^{\prime} \mathrm{S}, 118^{\circ} 54^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51673), 1ơ; Lily McCarthy Rock, $32^{\circ} 42^{\prime} \mathrm{S}, 119^{\circ} 20^{\prime} \mathrm{E}$, Oct. 30, 1997-May 20, 1998, pitfall (E. Ladhams, WAM T49464), 10; Lion Mill, $31^{\circ} 52^{\prime} \mathrm{S}, 116^{\circ} 02^{\prime} \mathrm{E}$ (W. Michaelsen, R. Hartmeyer, ZMB 28251), 1¢ (holotype);

Mount Hampton Nature Reserve, $31^{\circ} 44^{\prime} \mathrm{S}$, $119^{\circ} 05^{\prime} \mathrm{E}$, Apr. 29-Sept. 22, 1998, pitfall (P. Van Heurck, WAM T51799), 10'; Mount Vernon, $32^{\circ} 47^{\prime}$ S, $119^{\circ} 14^{\prime}$ E, Oct. 30, 1997-Feb. 27, 1998, pitfall (P. Van Heurck, WAM T51800), $10^{\circ} ;$ Mudaring, $31^{\circ} 54^{\prime} \mathrm{S}, 116^{\circ} 10^{\prime} \mathrm{E}$, May 6, 1972, wandoo on red gravel (WAM 84/1172), 10'; North Karlgarin Nature Reserve, $32^{\circ} 23^{\prime}$ S, $118^{\circ} 28^{\prime}$ E, Oct. 15, 1997-May 19, 1998, pitfall (P. Van Heurck, WAM T49567), 19; Pinjarrega Nature Reserve, $30^{\circ} 01^{\prime} \mathrm{S}, 115^{\circ} 53^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51802, 51803), 30', 6¢̣; N Speddingup West Road, Aboriginal Reserve, $33^{\circ} 31^{\prime}$ S, $121^{\circ} 34^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51136), 10'; Wansbrough Nature Reserve, $34^{\circ} 09^{\prime} \mathrm{S}$, $117^{\circ} 40^{\prime}$ E, Oct. 15, 1999-May 30, 2000, pitfall (N. Guthrie, WAM T51693), 10'; Yarding Nature Reserve, $31^{\circ} 55^{\prime} \mathrm{S}, 117^{\circ} 59^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, WAM T51759, 51760), 10', 1o, May 22-Sept. 29, 1998, pitfall (L. King, WAM T51697), 1 º .

Distribution: Southern Western and South Australia (map 36).

Synonymy: Simon distinguished the two holotypes by eye position and coloration differences that do not appear to separate populations.

## Nomindra yeni, new species <br> Figures 506-510; Map 36

Types: Male holotype and female allotype taken in pitfall traps in Casuarina stand at Watarrka National Park, site 2, W Kathleen Springs Track, $24^{\circ} 21^{\prime} \mathrm{S}$, $131^{\circ} 41^{\prime} \mathrm{E}$, Northern Territory (Oct. 1994), deposited in NMV (male K8828, female K8829).

Etymology: The specific name is a patronym in honor of Dr. Alan Yen of the Museum of Victoria, organizer of the Horn Expedition Centennial Survey to Central Australia in 1994 (during which the types were collected).

Diagnosis: Males have a distinctively short, wide retrolateral tibial apophysis (fig. 508); females have a distinctively wide epigynal atrium (fig. 509).

Male: Total length 2.18. Carapace 0.96 long, 0.86 wide, 0.42 high, length/width 1.11; sternum 0.62 long, 0.52 wide, length/width 1.19; abdomen 1.22 long, 0.68 wide; coxa I 0.30 long; relative length of coxae I-IV
1.0:0.93:0.87:1.00. Carapace orange, mottled with gray; sternum, chelicerae, legs orange; endites, labium orange, distally pale; abdomen gray, dorsum with weak orange scutum, three pairs of pale spots on top in inverted v shaped position, first pair of spots fused, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.78 of caput width; AME 0.09; ALE 0.08; PME 0.12 ; PLE 0.08; AME-AME 0.04; AMEALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.22; AME-AME 0.22; PME-PME 0.26. Clypeus 0.08 high. Abdomen covered with gray, plumose setae; ALS 0.33 of abdominal length, slightly separated. Palp (figs. 506508): cymbium retrolaterally straight; conductor originating prolaterally, grooved longitudinally, scythe-shaped; median apophysis about twice as long as wide, with retrolaterally directed, sharp tip, additional dorsal apophysis; terminal apophysis straight, conical, prolaterally situated; sperm duct strongly s-shaped; embolus long, thin, semicircular; embolar base separated from tegulum, situated probasally; retrolateral tibial apophysis short, broad, rectangular, with recurved tip.

Female: Total length 2.78. Carapace 1.08 long, 0.98 wide, 0.36 high, length/width 1.10; sternum 0.70 long, 0.64 wide, length/ width 1.09 ; abdomen 1.70 long, 0.90 wide; coxa I 0.34 long; relative length of coxae I-IV 1.00:0.94:0.88:1.00. Coloration as in male but without scutum. Eye group width 0.80 of caput width; AME 0.10; ALE 0.10; PLE 0.10 ; AME-AME 0.02 . Clypeus 0.06 high. Epigynum (figs. 509, 510): atrium broadly triangular, with narrow anterior epigynal hood; epigynal ducts parallel along midline, spermathecae about their diameter apart, large, globular.

Other Material Examined: Northern Territory: Andado Station, Simpson Desert, $24^{\circ} 34^{\prime} \mathrm{S}, 135^{\circ} 16^{\prime} \mathrm{E}$, Mar. 18, 1993, pitfall (D. Hirst, SAM NN11880, 11881), 2¢; Lambert Centre, near Australian Centre Marker, $25^{\circ} 37^{\prime}$ S, $134^{\circ} 24^{\prime}$ E. Mar. 30, 1993, pitfall (D. Hirst, SAM NN11878, 11879), 20'; Rockhampton Downs, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 57^{\prime} \mathrm{S}, 135^{\circ} 12^{\prime} \mathrm{E}$, Oct. 1995, pitfalls (A. Fisher, MNT A000962, A000974), 10', 3@; Uluru-Kata Tjuta National Park, $25^{\circ} 23^{\prime} \mathrm{S}$, $131^{\circ} 11^{\prime}$ E, Oct. 1994, pitfall (Horn Expedition Centenary Survey, NMV K8816), 1o'; Uluru-

Kata Tjuta National Park, site 14, new bore, 6 km SW Yuhara, $25^{\circ} 17^{\prime} \mathrm{S}$, $130^{\circ} 56^{\prime} \mathrm{E}$, Oct. 1994, pitfall (Horn Expedition Centenary Survey, NMV K8817), 1o ; Umbeara Station, $25^{\circ} 45^{\prime} \mathrm{S}, 133^{\circ} 42^{\prime} \mathrm{E}$, Oct. 1994, pitfalls, grass, mulga (J. Landsberg, C. James, MNT A000966, A000978), 2中; Watarrka National Park, site 2, Kathleen Springs Track, Casuarina stand W track, $24^{\circ} 21^{\prime} \mathrm{S}, 131^{\circ} 41^{\prime} \mathrm{E}$, Oct. 1994, pitfall (Horn Expedition Centenary Survey, NMV K88230-88234), 5q; Watarrka National Park, site 4, Stokes Creek, 0.1 km N of main road, $24^{\circ} 24^{\prime} \mathrm{S}, 131^{\circ} 46^{\prime} \mathrm{E}$, Oct. 1994, pitfall (Horn Expedition Centenary Survey, NMV K88358837), 39; Watarrka National Park, site 5, sand dunes W of workshops, $24^{\circ} 19^{\prime} \mathrm{S}, 131^{\circ} 32^{\prime} \mathrm{E}$, Oct. 1994, pitfall (Horn Expedition Centenary Survey, NMV K8818), 10; West Ranken Station, Mitchell grasslands, Barkly Tablelands, $19^{\circ} 57^{\prime}$ S, $131^{\circ} 43^{\prime}$ E, Mar. 1995, pitfall (A. Fisher, MNT A000981), 1q, Nov. 1996, pitfall (A. Fisher, MNT A000982), 1¢. Queensland: Ethabuka Station, Simpson Desert, $23^{\circ} 46^{\prime} \mathrm{S}$, $138^{\circ} 28^{\prime}$ E, May 1991, top of dune (QMB S30898), $10^{\circ}$, Aug. 1991, bottom swale of dune (QMB S30899), 3中, Nov. 1993 (C. Dickman, F. Downey, QMB S67674), 1̣̊; Mar. 1995 (C. Dickman, QMB S34501), 19. South Australia: 4.7 km NNE Cheesman Peak, $27^{\circ} 22^{\prime} \mathrm{S}$, $130^{\circ} 21^{\prime}$ E, Oct. 21-25, 1996, pitfall (SAM NN10949), $1 o^{\prime} ; 21.5 \mathrm{~km}$ E Maryinna Hill, $26^{\circ} 57^{\prime} \mathrm{S}, 131^{\circ} 26^{\prime} \mathrm{E}$, Mar. 14-18, 1995, pitfall (SAM NN10948), $10^{\circ} ; 9 \mathrm{~km}$ SE Maryinna Hill, $27^{\circ} 01^{\prime} \mathrm{S}, 131^{\circ} 17^{\prime} \mathrm{E}$, Mar. $17-20$, 1995 , pitfall (SAM NN10946), $10^{\circ} ; 11.6 \mathrm{~km}$ SE Maryinna Hill, $27^{\circ} 02^{\prime} \mathrm{S}, 131^{\circ} 19^{\prime} \mathrm{E}$, Mar. 19-22, 1995 (D.


Map 36. Circle, Nomindra flavipes (Simon). Square, Nomindra yeni, new species. Triangle, Nomindra berrimah, new species.


Figs. 506-510. Nomindra yeni, new species. 506. Left male palp, prolateral view. 507. Same, ventral view. 508. Same, retrolateral view. 509. Epigynum, ventral view. 510. Same, dorsal view.

Hirst, SAM N1997/155), 1¢̧; 11.5 km SSE Maryinna Hill, $27^{\circ} 04^{\prime} \mathrm{S}, 131^{\circ} 16^{\prime} \mathrm{E}$, Mar. 14 18, 1995, pitfall (SAM NN10947), 1 © ; 4 km W Mount Lindsay, $27^{\circ} 02^{\prime} \mathrm{S}, 129^{\circ} 50^{\prime} \mathrm{E}$, Oct. 16-20, 1996, pitfall (SAM NN10951-10953), 10', 2@; 21 km ENE Pipalyatjara, $26^{\circ} 07^{\prime} \mathrm{S}, 129^{\circ} 22^{\prime} \mathrm{E}$, Aug. 30-Sept. 2, 1995, pitfall (SAM NN10945), $10^{\prime} ; 10.5 \mathrm{~km}$ S Sentinal Hill, $26^{\circ} 11^{\prime} \mathrm{S}, 132^{\circ} 27^{\prime} \mathrm{E}$, Oct. 1997, pitfall, Aristida tussock grassland (SAM NN10950), 1 ㅇ. Western Australia: 39 km E Laverton, $28^{\circ} 28^{\prime} \mathrm{S}, 122^{\circ} 50^{\prime} \mathrm{E}$, Nov. 22-24, 1990, pitfall (E. Pianka, WAM 91/1045), 1o; Little Sandy Desert, 23.1 km ESE Burrannar Pool, $23^{\circ} 53^{\prime} \mathrm{S}, 120^{\circ} 39^{\prime} \mathrm{E}$, Apr. 1997, pitfall (S. van Leeuwen, B. Bromilow, WAM T47894),

10'; Little Sandy Desert, 17.5 km SE Burrannar Pool, $23^{\circ} 55^{\prime} \mathrm{S}, 120^{\circ} 32^{\prime} \mathrm{E}$, Apr. 1997, pitfalls (S. van Leeuwen, B. Bromilow, WAM T45625), 30*, 3O; Little Sandy Desert, 6.9-7.1 km ENE Cooma Well, $24^{\circ} 03^{\prime} \mathrm{S}, 124^{\circ} 24^{\prime} \mathrm{E}$, June 1996, pitfall (S. van Leeuwen, WAM T48306), 1q, Apr. 1997, pitfalls (S. van Leeuwen, WAM T46033, 48308), 50', 7¢ Cooma Well, $24^{\circ} 05^{\prime} \mathrm{S}, 120^{\circ} 20^{\prime} \mathrm{E}$, Apr. 1997, pitfalls (S. van Leeuwen, WAM T48309, 48310), 20', 1̊; Little Sandy Desert, 2.8-3.1 km SSW Cooma Well, $24^{\circ} 06^{\prime}$ S, $120^{\circ} 20^{\prime}$ E, June 1996, pitfall (S. van Leeuwen, B. Bromilow, WAM T48307), 10, Aug. 1997, pitfalls (S. van Leeuwen, WAM T63064), 30'; Little Sandy

Desert, 4.1 km SSW Cooma Well, $24^{\circ} 07^{\prime} \mathrm{S}$, $120^{\circ} 19^{\prime} \mathrm{E}$, Aug. 1997, pitfalls (S. van Leeuwen, WAM T49309), $50^{\circ}$, 4 ¢

Distribution: Widespread in central Australia (map 36).

Nomindra thatch, new species
Figures 511-515; Map 35
Types: Male holotype and female allotype taken in pitfall traps in dry eucalypt forest at Thatch Creek, $19^{\circ} 06^{\prime} \mathrm{S}, 145^{\circ} 18^{\prime} \mathrm{E}$, Queensland (Dec. 1, 1992-Apr. 14, 1993; R., J., S. Raven, P., E. Lawless), deposited in QMB (male S67676, female S67677).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $N$. arenaria but have the median apophysis reduced to a tiny chitinous plaque (fig. 512); females resemble those of $N$. arenaria but have a different configuration of the epigynal ducts (fig. 515).

Male: Total length 1.72. Carapace 0.80 long, 0.74 wide, 0.30 high, length/width 1.08; sternum 0.52 long, 0.50 wide, length/width 1.04; abdomen 0.92 long, 0.52 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.92:0.83:1.00. Carapace orange brown, mottled with gray; sternum, chelicerae, legs orange, grayish; endites, labium orange brown, distally pale; abdomen gray, dorsum with weak orange scutum, with one fused pale spot on top, chevrons behind, venter pale. Carapace weakly covered with shiny, plumose setae. Eye group width 0.89 of caput width; AME 0.09; ALE 0.08; PME 0.11; PLE 0.06; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.20; AME-AME 0.22; PME-PME 0.24. Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.48 of abdominal length, contiguous. Palp (figs. 511-513): conductor originating medially, leaf-shaped, grooved longitudinally, with distally directed tip; median apophysis reduced to tiny chitinous plaque; terminal apophysis long, thin, conical, basally situated; sperm duct strongly s-shaped; embolus long, thin, semicircular, embolar base separated from tegulum, situated probasally; retrolateral tibial apophysis short, triangular, with bent tip.

Female: Total length 2.42. Carapace 0.86 long, 0.82 wide, 0.26 high, length/width 1.05 ; sternum 0.56 long, 0.54 wide; abdomen 1.56 long, 0.80 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.92:0.84:1.00. Coloration as in male but without scutum. Eye group width 0.81 of caput width; PME 0.10; AME-AME 0.20; PME-PME 0.22. Clypeus 0.06 high. ALS 0.42 of abdominal length. Epigynum (figs. 514, 515): atrium broadly oval, with inverted u-shaped anterior epigynal hood; epigynal ducts short, thin, recurved, spermathecae large, contiguous, sausage-shaped, twisted, transverse, ending dorsally.

Other Material Examined: Queensland: Lake Moondarra, Mount Isa, $20^{\circ} 40^{\prime}$ S, $139^{\circ} 30^{\prime}$ E, Apr. 17-July 25, 1996, open forest pitfall (R. Raven, R. McKay, QMB S67679), 1o; Thatch Creek, $19^{\circ} 06^{\prime} \mathrm{S}, 145^{\circ} 18^{\prime} \mathrm{E}$, Dec. 1 , 1992-Apr. 14, 1993, pitfall, dry eucalypt woodland (R., J., S. Raven, P., E. Lawless, QMB S67678), 1̊; June 26-Dec. 1, 1992 (R. Raven, P., E. Lawless, M. Shaw, QMB S25286), 1 female.

Distribution: Known only from northern Queensland (map 35).

Nomindra gregory, new species
Figures 516-520; Map 35
Types: Male holotype and female allotype taken in flight intercept trap 2.7 km N Humbert Junction, Gregory National Park, $16^{\circ} 05^{\prime} \mathrm{S}, 130^{\circ} 26^{\prime} \mathrm{E}$, Northern Territory (June $1-16,2001$, L. Boutin, A. Calder, Overprieler), deposited in QVM (13:39830).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $N$. thatch but have a longer palpal conductor (figs. 516, 517); females also resemble those of $N$. thatch but have narrower, longer median epigynal ducts (fig. 520).

Male: Total length 1.76. Carapace 0.80 long, 0.74 wide, 0.30 high, length/width 1.08 ; sternum 0.52 long, 0.48 wide, length/width 1.08; abdomen 0.96 long, 0.56 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.92:0.83:1.00. Carapace, sternum, chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsum with weak orange scutum, three pairs of


Figs. 511-515. Nomindra thatch, new species. 511. Left male palp, prolateral view. 512. Same, ventral view. 513. Same, retrolateral view. 514. Epigynum, ventral view. 515. Same, dorsal view.
pale spots, venter pale, epigastric area orange. Carapace weakly covered with gray, plumose setae. Eye group width 0.79 of caput width; AME 0.09; ALE 0.08; PME 0.10; PLE
0.08; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.2; AME-AME 0.2; PME-PME 0.22. Clypeus


Figs. 516-520. Nomindra gregory, new species. 516. Left male palp, prolateral view. 517. Same, ventral view. 518. Same, retrolateral view. 519. Epigynum, ventral view. 520. Same, dorsal view.
0.06 high. Abdomen covered with gray, plumose setae; ALS 0.54 of abdominal length, contiguous. Palp (figs. 516-518): conductor originating prolaterally, long, grooved longitudinally, scythe-shaped, with retrolaterally directed tip; median apophysis about twice as long as wide, cane-shaped; terminal apophysis long, thin, conical, pro-
laterally situated; sperm duct strongly sshaped; embolus long, thin, semicircular, embolar base separated from tegulum, situated probasally; retrolateral tibial apophysis short, triangular.

Female: Total length 1.94. Carapace 0.82 long, 0.82 wide, 0.32 high, length/width 1.00 ; sternum 0.50 long, 0.50 wide, length/
width 1.00 ; abdomen 1.12 long, 0.58 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.92:0.84:1.00. Coloration as in male but without scutum. Eye group width 0.8 of caput width. ALS 0.57 of abdominal length. Epigynum (figs. 519, 520): atrium broadly triangular, with inverted $v$-shaped anterior epigynal hood; epigynal ducts short, recurved, spermathecae contiguous, sausage-shaped, twisted, transverse.

Other Material Examined: Northern Territory: Gregory National Park, Drovers Rest Campground, $15^{\circ} 53^{\prime} \mathrm{S}, 130^{\circ} 12^{\prime}$ E, June 15,2001 (L. Boutin, QVM 13:39832), 1¢ ${ }^{\text {P }}$ Gregory National Park, site 11, 0.3 km S Humbert Junction, $1^{\circ} 07^{\prime}$ S, $130^{\circ} 26^{\prime}$ E, June 1-16, 2001, flight intercept trap (L. Boutin, A. Calder, Overprieler, QVM 13:39821), 1ọ; Gregory National Park, site 12, 2.7 km N Humbert Junction, $16^{\circ} 05^{\prime}$ S, $130^{\circ} 26^{\prime}$ E, June 1-16, 2001, flight intercept trap (L. Boutin, A. Calder, Overprieler, ex QVM 13:39830), $10^{\circ}$, 1̨̣; Kidman Springs Station, $16^{\circ} 07^{\prime} \mathrm{S}$, $130^{\circ} 57^{\prime} \mathrm{E}$, May 1997, pitfall, red loam soil (B. Hoffmann, MNT A001553), 1甲; Mount Sanford Station, Mitchell grasslands, $16^{\circ} 58^{\prime} \mathrm{S}, 130^{\circ} 33^{\prime} \mathrm{E}$, Dec. 1996, pitfall (A. Fisher, MNT A001544, 001551), 4甲; Mount Sanford Station, Mitchell grasslands, $17^{\circ} 18^{\prime} \mathrm{S}$, $130^{\circ} 45^{\prime}$ E, July 3-9, 1996, pitfall, loam (T. Churchill, MNT A001491, 001493, 001496, 001576), 10', 3¢; Mount Sanford Station, Mitchell grasslands, $17^{\circ} 18^{\prime} \mathrm{S}, 130^{\circ} 46^{\prime} \mathrm{E}$, July 39, 1996, pitfall, clay (T. Churchill, MNT A001488, 001498), $10^{*}, 1$ 1o, Apr. 1997, same (MNT A001516), 1o, Apr. 1997, pitfall, sand (T. Churchill, MNT A001515), $10^{\circ}$, mid-Apr. 1998, pitfalls, grazing site (T. Churchill, MNT A001553, 001556, 001560), 20', 1op; Willeroo, $15^{\circ} 09^{\prime} \mathrm{S}, 131^{\circ} 40^{\prime} \mathrm{E}$, Oct. 1997, pitfall, loam (T. Churchill, MNT A001521), 1ㅇ. Western Australia: Carson Escarpment, $14^{\circ} 49^{\prime} \mathrm{S}, 126^{\circ} 49^{\prime} \mathrm{E}$, June 10-13, 1992, pitfall, campsite (M. Harvey, J. Waldock, WAM T45263), $10^{\circ}$; Dunham Hill, Great Northern Highway, Kimberley Region, $16^{\circ} 38^{\prime} \mathrm{S}, 128^{\circ} 12^{\prime} \mathrm{E}$, June 12 , 1999, pitfall (M. Gray, G. Milledge, H. Smith, AMS KS57264), 19 ; 12 km S Kalumburu Mission, $14^{\circ} 25^{\prime} \mathrm{S}$, $126^{\circ} 38^{\prime}$ E, June 7-11, 1988, pitfall, open forest (T. Weir, WAM T45288), $10^{\circ} ; 26 \mathrm{~km}$ E Napier Downs, ca. $17^{\circ} 11^{\prime}$ S, $124^{\circ} 36^{\prime}$ E, Nov. 23, 1984, under stones in open tropical savanna woodland (M., B. Baehr, QMB S67675), 1q; Point Spring Nature Reserve, NNE Kunnunurra, Kimberley Region, $15^{\circ} 25^{\prime} \mathrm{S}$, $128^{\circ} 53^{\prime} \mathrm{E}$, May 11, 1999, pitfall, savanna woodland, base of rocky outcrop (M. Gray, G. Milledge, H.

Smith, AMS KS57252), 10 ; 52 km N Turkey Creek, Great Northern Highway, Kimberley Region, $16^{\circ} 38^{\prime} \mathrm{S}, 128^{\circ} 12^{\prime} \mathrm{E}$, June $1-12,1999$, pitfall, savanna woodland, base of rocky outcrop (M. Gray, G. Milledge, H. Smith, AMS KS57264), 1 ㅇ.

Distribution: Known only from the Northern Territory and Western Australia (map 35).

## Nomindra berrimah, new species

Figures 521-525; Map 36
Types: Male holotype and female allotype taken in pitfall trap at open site (lawn) at Berrimah, $12^{\circ} 25^{\prime} \mathrm{S}, 130^{\circ} 55^{\prime} \mathrm{E}$, Northern Territory (Aug. 27-Sept. 3, 1996; T. Churchill), deposited in MNT (A001474).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the long, thin, semicircular tegular apophysis (fig. 522) and basally expanded retrolateral tibial apophysis (fig. 523), females by the long median epigynal ducts (fig. 525).

Male: Total length 1.80. Carapace 0.86 long, 0.78 wide, 0.30 high, length/width 1.10; sternum 0.50 long, 0.50 wide, length/width 1.00; abdomen 0.94 long, 0.50 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.92:0.83:1.00. Carapace orange, mottled with gray; sternum yellow, orange; chelicerae, legs grayish orange; endites, labium orange brown, distally pale; abdomen pale gray, with half moon-shaped pale spot in front of spinnerets, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.83 of caput width; AME 0.09 ; ALE 0.07; PME 0.09; PLE 0.06; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.22; AME-AME 0.22; PMEPME 0.20. Clypeus 0.06 high. Abdomen covered with gray, plumose setae; ALS 0.55 of abdominal length, contiguous. Palp (figs. 521-523): conductor originating prodistally, long, broad, grooved longitudinally, bipartite, with distally directed tip, retrolaterally directed tip; median apophysis absent; terminal apophysis long, thin, semicircular, basally situated; sperm duct sshaped; embolus long, thin, semicircular, embolar base separated from tegulum, situ-


Figs. 521-525. Nomindra berrimah, new species. 521. Left male palp, prolateral view. 522. Same, ventral view. 523. Same, retrolateral view. 524. Epigynum, ventral view. 525. Same, dorsal view.
ated probasally; retrolateral tibial apophysis large, triangular, with bent tip, pale, circular area near tip.

Female: Total length 1.94. Carapace 0.82 long, 0.80 wide, 0.28 high, length/width 1.02; sternum 0.54 long, 0.53 wide, length/ width 1.02 ; abdomen 1.12 long, 0.64 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.92:0.84:1.00. Coloration as in male.

Eye group width 0.80 of caput width; PME 0.10 ; PLE 0.07; AME-AME 0.02; AMEAME 0.20; PME-PME 0.22. ALS 0.54 of abdominal length. Epigynum (figs. 524, 525): atrium widely hexagonal, with narrow anterior epigynal hood; epigynal ducts long, parallel along midline, in x-shaped position, spermathecae contiguous, sausage-shaped, twisted, transverse.


Figs. 526-530. 526-528. Nomindra fisheri, new species. 529, 530. Nomindra ormiston, new species. 526. Left male palp, prolateral view. 527. Same, ventral view. 528. Same, retrolateral view. 529. Epigynum, ventral view. 530. Same, dorsal view.

Other Material Examined: Northern Territory: Berrimah, $12^{\circ} 25^{\prime} \mathrm{S}, 130^{\circ} 55^{\prime} \mathrm{E}$, Aug. 27Sept. 3, 1996, open site (lawn) pitfall (T. Churchill, MNT A001472), 10'; Jabiru,
$12^{\circ} 40^{\prime} \mathrm{S}, 132^{\circ} 54^{\prime} \mathrm{E}$, Mar. 18, 1977 (R. Pengilley, MNT A002961), 19; Kapalga, Kakadu National Park, $12^{\circ} 23^{\prime}$ S, $132^{\circ} 18^{\prime}$ E, Dec. 17, 1986, open forest pitfalls (A. Andersen, WAM T45321), 2̊;

Kapalga, Kakadu National Park, $12^{\circ} 9^{\prime}$ S, $132^{\circ} 19^{\prime}$ E, Sept. 15, 1986, woodland pitfalls (A. Andersen, WAM T45310), 30', same, Oct. 1, 1986 (WAM T45311, 45317), 30*, 2O, Oct. 16, 1986 (WAM T45313), 1ᄋ, Nov. 5, 1986 (WAM T63066), 1ᄋ, Jan. 7, 1987 (WAM T45314), 20, May 8, 1987 (WAM T45315), 10', Aug. 6, 1987 (WAM T45316), 2 ㅇ.

Distribution: Known only from the northern Northern Territory (map 36).

Nomindra fisheri, new species
Figures 526-528; Map 37
Type: Male holotype taken in pitfall trap at Mitchell Grasslands, Kirkimbie, Barkly Tablelands, $17^{\circ} 43^{\prime} \mathrm{S}, \quad 129^{\circ} 14^{\prime} \mathrm{E}$, Northern Territory (Sept. 1996; A. Fisher), deposited in MNT (A000989).

Etymology: The specific name is a patronym in honor of the collector of the type specimen.

DiAGNOSIS: Males can easily be recognized by the absence of a median apophysis (fig. 527) and the presence of a scythe-shaped retrolateral tibial apophysis (fig. 528). Although it is possible that this is the male of $N$. ormiston, the differences in carapace and leg coloration patterns suggest that they are not conspecific.

Male: Total length 1.80. Carapace 0.80 long, 0.72 wide, 0.22 high, length/width 1.11 ; sternum 0.52 long, 0.48 wide, length/width 1.08; abdomen 1.00 long, 0.56 wide; coxa I 0.20 long; relative length of coxae I-IV 1.00:0.90:0.80:1.00. Carapace, sternum, chelicerae, legs pale gray; endites, labium pale; abdomen gray, dorsum with three diffuse pairs of pale spots on top in inverted $v$-shaped position, chevrons behind, venter pale. Eye group width 1.20 of caput width; AME 0.09; ALE 0.08; PME 0.10; PLE 0.08; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.22; AME-AME 0.2; PMEPME 0.22. Clypeus 0.02 high. Abdomen covered with cinnamon, plumose setae; ALS 0.84 of abdominal length, contiguous. Palp (figs. 526-528): conductor originating prodistally, s-shaped, grooved longitudinally, with sharp tip; median apophysis completely reduced; terminal apophysis broad, triangular, with sharp tip, basally situated; embolus long, thin, semicircular; embolar base separated
from tegulum, situated probasally; retrolateral tibial apophysis large, triangular, with bent tip.

Female: Unknown.
Other Material Examined: None.
Distribution: Known only from the northern Northern Territory (map 37).

## Nomindra jarrnarm, new species <br> Figures 531-535; Map 37

Type: Female holotype taken in flight at intercept trap 3.7 km S of Jarrnarm Junction, Keep River National Park, $15^{\circ} 48^{\prime} \mathrm{S}, 129^{\circ} 07^{\prime} \mathrm{E}$, Northern Territory (May 26-31, 2001; L. Boutin, A. Calder, Oberprieler), deposited in QVM (13:39834).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAGNOSIS: Males resemble those of $N$. leeuweni but have a shorter palpal conductor (fig. 532) and smaller retrolateral tibial apophysis (fig. 533); females can easily be recognized by the enlarged spermathecae and anteriorly advanced lateral epigynal ducts (figs. 534, 535).

Male: Total length 1.76. Carapace 0.78 long, 0.70 wide, 0.26 high, length/width 1.11 ; sternum 0.52 long, 0.48 wide, length/width 1.08; abdomen 0.98 long, 0.50 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.92:0.83:1.00. Carapace, sternum, chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsum with weak orange scutum, two chevrons


Map 37. Circle, Nomindra fisheri, new species. Square, Nomindra jarrnarm, new species. Triangle, Nomindra ormiston, new species.


Figs. 531-535. Nomindra jarrnarm, new species. 531. Left male palp, prolateral view. 532. Same, ventral view. 533. Same, retrolateral view. 534. Epigynum, ventral view. 535. Same, dorsal view.
behind, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.83 of caput width; AME 0.09; ALE 0.08 ; PME 0.10; PLE 0.08 ; AME-AME
0.02; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.22; AME-AME 0.20; PMEPME 0.22. Clypeus 0.04 high. Abdomen
covered with gray, plumose setae; ALS 0.55 of abdominal length, contiguous. Palp (figs. 531-533): conductor originating prolaterally, long, grooved longitudinally, scytheshaped, with retrolaterally directed tip; median apophysis short, with pointed tip; terminal apophysis triangular, prolaterally situated; sperm duct strongly s-shaped; embolus long, thin, semicircular, embolar base separated from tegulum, situated probasally; retrolateral tibial apophysis short, triangular.

Female: Total length 2.20. Carapace 0.86 long, 0.82 wide, 0.26 high, length/width 1.05 ; sternum 0.58 long, 0.54 wide, length/ width 1.07 ; abdomen 1.34 long, 0.76 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.92:0.85:1.00. Coloration as in male but without scutum. Eye group width 0.85 of caput width; AME 0.10; AME-AME 0.22. ALS 0.52 of abdominal length. Epigynum (figs. 534, 535): atrium broadly triangular, with sinuous anterior margin and inverted v-shaped anterior epigynal hood; epigynal ducts long, anterior part laterally advanced, curved, spermathecae large, contiguous, oval.

Other Material Examined: Northern Territory: 3.7 km S of Jarrnarm Junction, Keep River National Park, $15^{\circ} 48^{\prime} \mathrm{S}, 129^{\circ} 07^{\prime} \mathrm{E}$, May 26-31, 2001, intercept (L. Boutin, A. Calder, Oberprieler, ex QVM 13:39834. 50', 4oq. Western
Australia: Drysdale River Station, $15^{\circ} 42^{\prime} \mathrm{S}$, $126^{\circ} 23^{\prime} \mathrm{E}$, Jan. 10, 1994, shed floor (A. Longbottom, WAM T45283), 1̊; Kununurra, Kona Lakeside Caravan Park, $15^{\circ} 48^{\prime} \mathrm{S}, 128^{\circ} 43^{\prime} \mathrm{E}$, Aug. 21, 2002, under bark (M. Harvey, WAM T60326), 1 ㅇ.

Distribution: Known only from Western Australia and the Northern Territory (map 37).

## Nomindra ormiston, new species

Figures 529, 530; Map 37
Type: Female holotype from Ormiston Gorge, $23^{\circ} 37^{\prime}$ S, $132^{\circ} 43^{\prime} \mathrm{E}$, Northern Territory (Oct. 1994; T. Churchill), deposited in QMB (S34504).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males are unknown, but females can easily be recognized by the wide epigynal atrium (fig. 529) and highly coiled epigynal ducts (fig. 530).

Male: Unknown.
Female: Total length 2.00. Carapace 0.74 long, 0.68 wide, 0.26 high, length/width 1.08; sternum 0.50 long, 0.46 wide, length/ width 1.08 ; abdomen 1.26 long, 0.70 wide; coxa I 0.22 long; relative length of coxae I-IV 1.00:0.91:0.81:1.00. Carapace orange, with marginal dark filigree net pattern; sternum, chelicerae, legs orange; endites, labium orange brown, distally pale; abdomen gray, dorsum with three pairs of pale spots on top in inverted $v$-shaped position, first pair of spots fused, venter pale. Carapace weakly covered with gray, plumose setae. Eye group width 0.78 of caput width; AME 0.08; ALE 0.07; PME 0.09; PLE 0.06; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.18; AME-AME 0.18 ; PME-PME 0.20. Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.37 of abdominal length, contiguous. Epigynum (figs. 529. 530): atrium broadly oval; epigynal ducts long, thin, coiled around spermathecae, spermathecae contiguous, oval, transverse.

Other Material Examined: Northern Territory: Ruby Gap Nature Park, $23^{\circ} 29^{\prime}$ S, $134^{\circ} 59^{\prime}$ E, Mar. 21, 1993, pitfall (D. Hirst, SAM NN11892), 19. South Australia: 14.4 km S Sentinel Hill, $26^{\circ} 13^{\prime} \mathrm{S}, 132^{\circ} 27^{\prime}$ E, Oct. 1997, pitfall, lignum shrubland in depression edged by mulga (SAM NN10954), 1 ị.

Distribution: Known only from the Northern Territory and South Australia (map 37).

## Nomindra cooma, new species

Figures 536-540; Map 38
Types: Male holotype and female allotype taken in pitfall traps 2.8 km SSW of Cooma Well, Little Sandy Desert, $24^{\circ} 06^{\prime} \mathrm{S}$, $120^{\circ} 20^{\prime} \mathrm{E}$, Western Australia (Aug. 1997; S. van Leeuwen), deposited in WAM (male T63075, female T63076).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $N$. kinchega but have a distinctively long and narrow retrolateral tibial apophysis (figs. 537, 538); females have a distinctively wide


Figs. 536-540. Nomindra cooma, new species. 536. Left male palp, prolateral view. 537. Same, ventral view. 538. Same, retrolateral view. 539. Epigynum, ventral view. 540. Same, dorsal view.
anterior epigynal margin and small lateral epigynal ducts (figs. 539, 540).

Male: Total length 1.74. Carapace 0.76 long, 0.70 wide, 0.26 high, length/width 1.08;
sternum 0.52 long, 0.44 wide, length/width 1.18; abdomen 0.98 long, 0.54 wide; coxa I 0.24 long; relative length of coxae I-IV 1.00:0.91:0.83:1.00. Carapace orange, mot-
tled with gray behind ocular region; sternum, chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsum with one pale spot in front with two pairs of pale spots on top in inverted vshaped position, chevrons behind; venter pale. Carapace weakly covered with shiny, plumose setae. Eye group width 0.83 of caput width; AME 0.07; ALE 0.07; PME 0.11; PLE 0.08; AME-AME 0.04; AME-ALE 0; PMEPME 0.02; PME-PLE 0.00; ALE-PLE 0.00; eye group AME-PME 0.18; AME-AME 0.18 ; PME-PME 0.24. Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.43 of abdominal length, contiguous. Palp (figs. 536-538): conductor originating prodistally, grooved longitudinally, with retrolaterally directed tip; median apophysis absent; terminal apophysis absent; sperm duct strongly s-shaped; embolus long, thin, semicircular, situated probasally; retrolateral tibial apophysis long, finger-shaped.

Female: Total length 2.44. Carapace 1.00 long, 0.86 wide, 0.42 high, length/width 1.16; sternum 0.62 long, 0.56 wide, length/ width 1.10 ; abdomen 1.44 long, 0.76 wide; coxa I 0.22 long; relative length of coxae I-IV 1.00:0.91:0.91:1.08. Coloration as in male. Eye group width 0.78 of caput width; AME 0.08; ALE 0.08; PME 0.12; AME-ALE 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.20; AME-AME 0.20; PMEPME 0.26. Clypeus 0.06 high. ALS 0.39 of abdominal length. Epigynum (figs. 539, 540): atrium with wide, arched anterior margin; epigynal ducts long, thin, laterally advanced, spermathecae oval, in $v$-shaped position.

Other Material Examined: Western Australia: 13.7 km SE Burranbar Pool, Little Sandy Desert, $23^{\circ} 53^{\prime} \mathrm{S}, 120^{\circ} 31^{\prime} \mathrm{E}$, June 1996, pitfall (S. van Leeuwen, B. Bromilow, WAM T45623), 10'; 17.5 km SE Burranbar Pool, Little Sandy Desert, $23^{\circ} 55^{\prime} \mathrm{S}, 120^{\circ} 32^{\prime} \mathrm{E}$, June 1996, pitfall (S. van Leeuwen, B. Bromilow, WAM T46035), 10'; 17.5 km SE Burranbar Pool, Little Sandy Desert, $23^{\circ} 56^{\prime} \mathrm{S}, 120^{\circ} 32^{\prime} \mathrm{E}$, Aug. 1997, pitfalls (S. van Leeuwen, B. Bromilow, WAM T47895), 2op; Cooma Well, 33.4 km SSW Burranbar Pool, Little Sandy Desert, $24^{\circ} 05^{\prime} \mathrm{S}, 120^{\circ} 20^{\prime} \mathrm{E}$, Aug. 1997, pitfall (S. van Leeuwen), 10'; 2.8 km SSW Cooma Well, Little Sandy Desert, $24^{\circ} 06^{\prime} \mathrm{S}$, $120^{\circ} 20^{\prime} \mathrm{E}$, Aug. 1997, pitfalls (S. van Leeuwen, WAM T49308), 30', 1¢; 7.1 km ENE Cooma Well, Little Sandy Desert, $24^{\circ} 03^{\prime} \mathrm{S}, 120^{\circ} 24^{\prime} \mathrm{E}$,

Apr. 1997, pitfall (S. van Leeuwen, WAM T46032), $10^{\circ}$.

Distribution: Known only from the Little Sandy Desert, Western Australia (map 38).

## Nomindra barlee, new species

Figures 541-545; Map 38
TyPE: Male holotype taken in pitfall trap in Barlee Range Nature Reserve, $23^{\circ} 23^{\prime} \mathrm{S}$, $115^{\circ} 45^{\prime} \mathrm{E}$, Western Australia (June 1994; S. van Leeuwen, B. Bromilow), deposited in WAM (T45221).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males of this distinctive species can easily be recognized by the distally curled embolus (fig. 542), females by the coiled epigynal ducts (fig. 545).

Male: Total length 2.20. Carapace 1.00 long, 0.84 wide, 0.40 high, length/width 1.19; sternum 0.58 long, 0.50 wide, length/width 1.16; abdomen 1.20 long, 0.76 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.86:0.71:1.00. Carapace orange, mottled with gray; sternum, legs, ALS orange; chelicerae grayish orange; endites, labium orange, distally pale; abdomen gray, dorsum with weak orange scutum with three diffuse pairs of pale spots on top in inverted vshaped position, first pair of spots fused; venter pale, epigastric area orange. Carapace weakly covered with shiny, plumose setae.


Map 38. Circle, Nomindra cooma, new species. Square, Nomindra barlee, new species. Triangle, Nomindra indulkana, new species. Diamond, Nomindra cocklebiddy, new species.


Figs. 541-545. Nomindra barlee, new species. 541. Left male palp, prolateral view. 542. Same, ventral view. 543. Same, retrolateral view. 544. Epigynum, ventral view. 545. Same, dorsal view.

Eye group width 0.90 of caput width; AME 0.10; ALE 0.08; PME 0.12; PLE 0.08; AMEAME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.22; AME-AME 0.22; PME-PME 0.26. Clypeus 0.06 high. Abdomen covered with gray, plumose setae; ALS 0.33 of abdominal length, contiguous.

Palp (figs. 541-543): conductor originating medially, long, semicircular, grooved longitudinally, distal part, curled; median apophysis thin, finger-shaped; terminal apophysis long, thin, conical, basally situated; sperm duct strongly s-shaped; embolus long, thin, semicircular, with curled tip, situated basally; retrolateral tibial apophysis triangular.


Figs. 546, 547. Nomindra indulkana, new species. 546. Epigynum, ventral view. 547. Same, dorsal view.

Female: Total length 3.38. Carapace 1.18 long, 0.90 wide, 0.40 high, length/width 1.31; sternum 0.66 long, 0.64 wide, length/ width 1.03 ; abdomen 2.20 long, 1.30 wide; coxa I 0.34 long; relative length of coxae I-IV 1.00:0.88:0.70:1.06. Coloration as in male but without scutum. Eye group width 0.79 of caput width; AME 0.09; ALE 0.10; AMEAME 0.04; PME-PME 0.24. ALS 0.26 of abdominal length. Epigynum (figs. 544, 545): atrium pentagonal, with narrow anterior epigynal hood; epigynal ducts extremely, long, coiled, spermathecae, contiguous, globular.

Other Material Examined: Western Australia: Barlee Range Nature Reserve, $23^{\circ} 05^{\prime} \mathrm{S}$, $115^{\circ} 47^{\prime} \mathrm{E}$, Aug. 1993, pitfall (S. van Leeuwen, B. Bromilow, WAM T45218), 19, June 1994, same (WAM T45219), 19, Sept. 1995, same (WAM T45220), $70^{\circ}$, 49; Barlee Range Nature Reserve, $23^{\circ} 23^{\prime} \mathrm{S}, 115^{\circ} 53^{\prime} \mathrm{E}$, Sept. 1995, pitfalls (S. van Leeuwen, B. Bromilow, WAM T45223, 45227), $10^{*}$, 2ọ; Barlee Range Nature Reserve, $23^{\circ} 25^{\prime}$ S, $115^{\circ} 54^{\prime}$ E, Sept. 1995, pitfall (S. van Leeuwen, B. Bromilow, WAM T45222), 1 ㅇ.

Distribution: Known only from the Barlee Range, Western Australia (map 38).

## Nomindra indulkana, new species

Figures 546, 547; Map 38
TyPE: Female holotype taken in pitfall trap 29.7 km WNW of Indulkana, $26^{\circ} 52^{\prime} \mathrm{S}$,
$133^{\circ} 02^{\prime} \mathrm{E}$, South Australia (Oct. 24-31, 1998), deposited in SAM (NN10955).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females resemble those of Nomindra yeni and $N$. berrimah but can be distinguished by the anteriorly expanded median epigynal ducts (fig. 547).

Male: Unknown.
Female: Total length 2.72. Carapace 0.92 long, 0.84 wide, 0.36 high, length/width 1.09; sternum 0.62 long, 0.56 wide, length/ width 1.11 ; abdomen 1.80 long, 1.00 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.92:0.85:1.07. Carapace orange, mottled with gray; sternum orange; chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsum with three diffuse pairs of pale spots on top in inverted $v$-shaped position, venter pale. Carapace weakly covered with shiny, plumose setae. Eye group width 0.75 of caput width; AME 0.09; ALE 0.08; PME 0.10; PLE 0.08 ; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.02; PME-PLE 0.02; ALEPLE 0.02; eye group AME-PME 0.20; AME-AME 0.20; PME-PME 0.22. Clypeus 0.04 high. Abdomen covered with gray, plumose setae; ALS 0.30 of abdominal length, contiguous. Epigynum (figs. 546, 547): atrium broadly, oval, with narrow anterior epigynal
hood; epigynal ducts anterior part, greatly expanded, spermathecae contiguous, sausageshaped, twisted, transverse.

Other Material Examined: South Australia: 29.7 km WNW Indulkana, $26^{\circ} 52^{\prime} \mathrm{S}$, $133^{\circ} 02^{\prime}$ E, Oct. 24-31, 1998, pitfalls, low open Acacia woodland (SAM NN10956, 10957), 2\%; 4.2 km WSW Ludgate Well, $26^{\circ} 26^{\prime} \mathrm{S}, 134^{\circ} 51^{\prime} \mathrm{E}$, Nov. 14-17, 1995, pitfall (SAM NN11862), 1 ¢

Distribution: Known only from Western and South Australia (map 38).

## Nomindra cocklebiddy, new species

Figures 548-552; Map 38
Type: Female holotype taken under rock at Cocklebiddy Cave, $31^{\circ} 57^{\prime} \mathrm{S}, 125^{\circ} 55^{\prime} \mathrm{E}$, Western Australia (Jan. 3, 1972; M. Gray), deposited in AMS (KS17279).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males and females have not been taken together but are tentatively matched here on the basis of geography. Males can be distinguished by the large, triangular retrolateral tibial apophysis (fig. 550), females by the squared epigynal atrium (fig. 551).

Male: Total length 2.14. Carapace 0.88 long, 0.80 wide, 0.28 high, length/width 1.10; sternum 0.56 long, 0.52 wide, length/width 1.08; abdomen 1.26 long, 0.60 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.85:0.78:1.07. Carapace orange; sternum yellow; mouthparts, legs pale; abdomen gray, dorsum with two pairs of pale spots on top, chevrons behind; venter pale. Carapace weakly covered with cinnamon, plumose setae. Eye group width 0.80 of caput width; AME 0.08; ALE 0.08; PME 0.09; PLE 0.07; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.04; PME-PLE 0.04; ALEPLE 0.04; eye group AME-PME 0.20; AME-AME 0.18; PME-PME 0.22. Clypeus 0.04 high. Abdomen covered with cinnamon, plumose setae; ALS 0.47 of abdominal length, contiguous. Palp (figs. 548-550): conductor originating prolaterally, grooved longitudinally, distal part with sharp tip; median apophysis long, cane-shaped; terminal apophysis long, conical, prolaterally situated; sperm duct u-shaped; embolus long, thin, semicircular, embolar base separated from tegulum, hidden behind tegulum, situ-
ated probasally; retrolateral tibial apophysis large, triangular.

Female: Total length 2.74. Carapace 0.90 long, 0.82 wide; sternum 0.60 long, 0.60 wide, length/width 1.00 ; abdomen 1.84 long, 0.96 wide; coxa I 0.30 long; relative length of coxae I-IV 1.00:0.93:0.86:1.20. Coloration as in male but without scutum. PME-PLE 0.02; ALE-PLE 0.02. Clypeus 0.03 high. ALS 0.34 of abdominal length. Epigynum (figs. 551, 552): atrium rectangular, with one tiny, nearly circular median copulatory opening; epigynal ducts thin, short, irregularly curved, spermathecae contiguous, oval, transverse.

Other Material Examined: Western Australia: Skink Hole N82, Nullarbor, $31^{\circ} 28^{\prime} \mathrm{S}$, $127^{\circ} 55^{\prime}$ E, Sept. 10, 1966 (J. Lowry, WAM 93/ 2372), $10^{\circ}$.

Distribution: Known only from the Nullarbor region of Western Australia (map 38).

## Cryptoerithus Rainbow

Cryptoerithus Rainbow, 1915: 777 (type species by monotypy Cryptoerithus occultus Rainbow).

Diagnosis: Specimens of this genus can readily be separated from those of all other molycriines by the relatively short anterior lateral spinnerets, which are only moderately advanced from the posterior pairs (fig. 16), and by the peculiar paramedian rows of stiff, erect setae found on the abdominal venter, between the epigastric scutum and the spinnerets (fig. 16).

Description: Small to medium sized spiders, total length of males $2.0-4.0$, of females 2.4-4.7. Carapace flattened, broadly oval, cephalic area not abruptly constricted but narrowed in front to less than half its maximum width, with or without cover of plumose setae or spines; fovea longitudinal, weak. Eight eyes in two strongly procurved rows (fig. 9); PME largest, flat, situated posteriorly of other eyes, rectangular or egg-shaped, medially contiguous, silvery; AME second largest, circular, dark; ALE and PLE slightly oval, light; median ocular quadrangle slightly wider in back than in front, slightly longer than wide. Clypeus low, about 0.2-1.0 times ALE diameter, curved downward. Sternum ovoid, flat, with pre-


Figs. 548-552. Nomindra cocklebiddy, new species. 548. Left male palp, prolateral view. 549. Same, ventral view. 550. Same, retrolateral view. 551. Epigynum, ventral view. 552. Same, dorsal view.
coxal, intercoxal sclerites; surface smooth with few long setae; margin bordered with clusters of long, bent setae between coxae; posterior margin wide, separating coxae IV. Pedicel composed of two weak dorsal sclerites, one small ventral sclerite. Chelicerae with setae bordering distal, mesial margins, promargin, retromargin with $1-5$ tiny teeth or bare. Endites slightly convergent, obliquely depressed, rectangular, with promarginal scopula; serrula present. Labium usually inverted u-shaped. Abdomen with or without
weakly sclerotized orange scutum in males; cuticle with weak or dense cover of gray plumose setae, frontally normally with band of long, bent setae; venter of stiff, erect setae; anterior lateral spinnerets $0.25-0.5$ of abdominal length, contiguous or separated by up to their diameter at base (fig. 16), tip with extremely long piriform gland spigots, triangular ventral tubercle containing few gland spigots; posterior medians small, narrow contiguous; posterior laterals slightly longer, with two segments. Legs laterigrade, leg
formula 4123, with sparse setae, few weak spines, coxae IV 1.4-1.7 times longer than III; trochanters not notched; femora I, II dorsally strongly incrassate; tibiae, metatarsi, tarsi I, II with or without scopula, or with band of scales or short, bent setae proventrally; tarsi without cuticular cracks, with onychium bearing two relatively long claws with few peg-shaped teeth; claw tufts divided, dense (fig. 22); trichobothria present on dorsal surface of patellae, tibiae, metatarsi, tarsi. Female palp without claw or strong ventral setae. Male palpal cymbium about $1.75-1.85$ times longer than wide, with dorsoapical scopula, retrolaterally convex or straight, with basal hook; conductor short, straight, semicircular, or s-shaped; median apophysis cane- or scoop-shaped; terminal apophysis finger-shaped, triangular, bipartite, or absent; embolus normally thin, semicircular, but sometimes cane- or finger-shaped; retrolateral tibial apophysis present. Epigynal atrium usually present, anterior margin with or without epigynal hood, posterior margin with or without lateral plates; spermathecae convoluted, horizontally aligned.

## Key to Species of Cryptoerithus

1. Males (those of C. griffith, C. annaburroo, C. ninan unknown) . . . . . . . . . . 2

- Females . . . . . . . . . . . . . . . . . . . . 17

2. Palpal femur with ventral process . . . 3

- Palpal femur without ventral process ... 4

3. Retrolateral tibial apophysis with trifid tip and dorsobasal apophysis (fig. 602) . . . . . . . . . C. halli

- Retrolateral tibial apophysis with slightly bifid tip, without dorsobasal apophysis (fig. 592). . . . . . . . . . . . C. nyetaut

4. Terminal apophysis absent (fig. 559) .
C. nichtaut

- Terminal apophysis present (fig. 611)

5. Legs I, II with scopula . . . . . . . . . . 6

- Legs without scopula . . . . . . . . . . . 10

6. Tibiae, metatarsi, and tarsi I, II with scopula . . . . . . . . . . . . . . C. harveyi

- Only metatarsi and tarsi I, II with scopula . . . . . . . . . . . . . . . . . . . . 7

7. Tibia with additional basal apophysis (fig. 570)

- Tibia without basal apophysis (fig. 627)

8. Retrolateral tibial apophysis long, with deep dorsal concavity (fig. 570)
C. quamby

- Retrolateral tibial apophysis short, without concavity (fig. 617). . . . . C. nopaut

9. Embolus s-shaped, base prolaterally situated (fig. 626) . . . . . . . C. halifax

- Embolus long, semicircular, base basally situated (fig. 586) . . . . . . . . C. stuart

10. Tibia with additional basal apophysis, terminal apophysis with two basal teeth (figs. 591, 592)
C. nonaut

- Tibia without basal apophysis, terminal apophysis without basal teeth (fig. 581, 582)

11
11. Embolus short, about one-fourth of bulb length, terminal apophysis bipartite (fig. 581). 12

- Embolus long, semicircular, almost as long as bulb, terminal apophysis conical (fig. 574) . . . . . . . . . . . . . . . . . . . 13

12. Conductor broadly spatulate, reaching from terminal apophysis to median apophysis (fig. 581) . . . . . . C. shadabi

- Conductor narrow spatulate, just behind embolus and terminal apophysis (fig. 606)
C. quobba

13. Conductor originating distally (fig. 574)
C. lawlessi

- Conductor originating prolaterally (fig. 635)

14
14. Terminal apophysis long, about half of embolus length (fig. 635) . . . C. melindae

- Terminal apophysis much shorter, no more than one-fourth of embolus length (fig. 554)

15
15. Embolus as long as entire cymbium, originating basally (fig. 554)

- Embolus shorter than cymbium, origi-

16. Retrolateral tibial apophysis short, bilobate (fig. 622) C. rough

- Retrolateral tibial apophysis triangular (fig. 565) . . . . . . . . . . C. hasenpuschi

17. Legs without scopula . . . . . . . . . . 18

- Legs I, II with scopula . . . . . . . . . 25

18. Lateral epigynal plates forming y-shaped atrium (fig. 583). . . . . . . . . C. shadabi

- Atrium not y-shaped (fig. 556) . . . 19

19. Lateral epigynal plates rectangular (fig. 556) . . . . . . . . . . . . . . . . . . . 20

- Lateral epigynal plates medially directed, inverted u-shaped (fig. 608) . . . . 23

20. Lateral epigynal plates contiguous, epigynal hood narrow (fig. 556). . . . . . 21

- Lateral epigynal plates separated, epigynal hood much wider (fig. 623)

21. Anterior margin of atrium with small semicircular incision (fig. 556)
. . . . . . . . . . . . . . . . . . . C. occultus

- Anterior margin of atrium straight (fig. 566) . . . . . . . . . . . C. hasenpuschi

22. Anterior margin of atrium widely arched (fig. 623)
C. rough

- Anterior margin of atrium inverted vshaped (fig. 618)
C. nopaut

23. Anterior epigynal margin wide, nearly reaching lateral plates (fig. 608)
C. quobba

- Anterior epigynal margin with narrow epigynal hood, not reaching lateral plates (fig. 637)

24
24. Lateral epigynal plates short, not covering spermathecae (fig. 637)

## C. melindae

- Lateral epigynal plates wide, covering almost all of spermathecae (fig. 576) C. lawlessi

25. Tibia, metatarsi, and tarsi I, II with long, dense scopula

26

- Scopula hairs shorter . . . . . . . . . . . 27

26. Atrium slit-like, without lateral plates but with posterior ledge (fig. 571) C. quamby

- Atrium not slit-like, with contiguous, rectangular lateral plates (fig. 561). . . . C. nichtaut

27. Distal portion of tibia as well as metatarsi and tarsi I, II with scopula. .

28

- Only metatarsi and tarsi I, II with scopula . . . . . . . . . . . . . . . . . . . . 33

28. Atrium wide, rectangular, with large triangular posterior projections (fig. 632) . . . . . . . . C. annaburroo Atrium more slit-like, or with narrow anterior margin (fig. 630) . . . . . . . . 29
29. Posterior margin of atrium with elevated median septum (fig. 630) . . . . . . . 30

- Posterior margin of atrium without elevated median septum (fig. 598) . . 31

30. Atrium with large, inverted u-shaped lateral plates (fig. 630) . . . . . . C. ninan

- Atrium with small, rectangular lateral plates (fig. 588)
C. stuart

31. Anterior epigynal margin with two small, lateral, hood-shaped openings (fig. 598)
C. nonaut

- Anterior epigynal margin with narrow, inverted $v$-shaped epigynal hood (fig. 613)

32
32. Lateral epigynal plates small, with median pointed margin (fig. 613)
C. harveyi

- Lateral epigynal plates absent, but large rounded posterior projections present (fig. 578)
C. griffith

33. Atrium widely hexagonal (fig. 628) . . .
C. halifax

- Atrium otherwise (fig. 593) . . . . . . . 34

34. Anterior margin with two lateral, hoodshaped openings (fig. 593). . C. nyetaut Anterior margin with median, angular epigynal hood (fig. 603) . . . . C. halli

Cryptoerithus occultus Rainbow
Figures 22, 553-557; Map 39
Cryptoerithus occultus Rainbow, 1915: 778, pl. 67, figs. 3-5 (female holotype from Flat Rockhole, South Australia, in SAM, examined).

Diagnosis: This may be the western sister species of C. lawlessi; males differ in having a longer, narrower median apophysis (fig. 554), females in lacking pronounced posterior epigynal margins (fig. 556) and having larger anterior epigynal ducts (fig. 557).

Male: Total length 3.16. Carapace 1.26 long, 1.06 wide, 0.40 high , length/width 1.18; sternum 0.90 long, 0.68 wide, length/ width 1.32 ; abdomen 1.90 long, 0.90 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.85:0.76:1.12. Body, legs pale yellow. Eye group width 0.77 of head width; AME 0.12; ALE 0.12; PME 0.16; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.01; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.26; PME-PME 0.30. Clypeus 0.01 high. Cheliceral promargin, retromargin each with one tiny tooth. Abdomen weakly covered with gray plumose setae, venter with unordered, stiff, erect


Figs. 553-557. Cryptoerithus occultus Rainbow. 553. Left male palp, prolateral view. 554. Same, ventral view. 555. Same, retrolateral view. 556. Epigynum, ventral view. 557. Same, dorsal view.
setae; ALS 0.22 of abdominal length, about half their diameter apart. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 553-555): cymbium retrolaterally straight with basal hook; conductor originating prolaterally, long, semicircular; median apophysis long, thin, with basal hook, slender, bent tip; terminal apophysis conical,
with sharp tip, basally situated, connected to embolar base; sperm duct semicircular; embolus thin, semicircular, separated from tegulum; retrolateral tibial apophysis rectangular.

Female: Total length 4.74. Carapace 1.78 long, 1.48 wide, 0.54 high, length/width 1.20; sternum 1.20 long, 0.96 wide, length/
width 1.25 ; abdomen 2.96 long, 1.56 wide; coxa I 0.66 long; relative length of coxae I-IV 1.00:0.90:0.87:1.30. Coloration as in male. Eye group width 0.62 of head width; AME 0.14; ALE 0.14; AME-AME 0.04; PME-PME 0.02; ALE-PLE 0.06; AMEAME 0.30. Clypeus 0.01 high. Chelicerae with two small promarginal, three strong retromarginal teeth. ALS 0.24 of abdominal length. Epigynum (figs. 556, 557) with narrow epigynal hood; lateral plates rectangular, contiguous, spermathecae inverted v -shaped.

Material Examined: Northern Territory: 29 km ESE Uluru, Uluru-Kata Tjuta National Park, $25^{\circ} 21^{\prime} \mathrm{S}, 131^{\circ} 22^{\prime} \mathrm{E}$, pitfall, Oct. 1994 (Horn Expedition Centenary Survey, NMV K8838, K8839), 1o', 1o. South Australia: 10 km N Anvil Hole Native Well, Witjira National Park, $26^{\circ} 16^{\prime}$ S, $135^{\circ} 41^{\prime}$ E, Nov. 19-25, 1995, pitfall (SAM N1997/156), 10'; 12.2 km NW Cheesman Peak, $27^{\circ} 20^{\prime} \mathrm{S}$, $130^{\circ} 14^{\prime} \mathrm{E}$, Oct. 22-25, 1996, pitfall, sand plain (SAM NN10962), 10'; Flat Rockhole, Musgrave Ranges, ca. $26^{\circ} 35^{\prime} \mathrm{S}, 132^{\circ} 30^{\prime} \mathrm{E}$, July 13, 1914 (S. White, SAM N1981/376), 19 (holotype); 2.7 km SSE Invasion Tank, $26^{\circ} 06^{\prime} \mathrm{S}, 140^{\circ} 50^{\prime} \mathrm{E}$, Nov. 9, 1994 (SAM NN11774), 1 ¢ $; 6 \mathrm{~km} \mathrm{~N}$ Mirra Mitta Bore, Cowarie Station, $27^{\circ} 43^{\prime} \mathrm{S}, 138^{\circ} 48^{\prime} \mathrm{E}$, Apr. $23-$ 29, 1995, pitfall (SAM N1997/158), 19; 6 km W Moomba, $28^{\circ} 07^{\prime} \mathrm{S}, 140^{\circ} 09^{\prime} \mathrm{E}$, Nov. 24, 1999 (SAM NN11794-11796), 20', 1of; 8 km E Mount Finke, near salt lake, $30^{\circ} 55^{\prime} \mathrm{S}$, $134^{\circ} 02^{\prime}$ E, Oct. 2, 1988, pitfall (D. Hirst, SAM N1997/157), 10'; 31 km NW Renmark, $33^{\circ} 59^{\prime} \mathrm{S}$, $140^{\circ} 30^{\prime} \mathrm{E}$, May 2-June 8, 1995, flight intercept trap (K. Pullen, ANIC), $10^{\circ} ; 1 \mathrm{~km}$ W Vokes Hill Corner, Great Victoria Desert, $28^{\circ} 34^{\prime}$ S, $130^{\circ} 41^{\prime}$ E, Apr. 14-19, 1994 (D. Hirst, J. Forrest, SAM NN11792), 10; 11.5 km SE Wares Peak, $29^{\circ} 40^{\prime} \mathrm{S}, 135^{\circ} 46^{\prime}$ E, Sept. 29-Oct. 5, 1995, pitfall (H. Owens, SAM NN11770, 11772), 2q. Western Australia: Barlee Range Nature Reserve, $23^{\circ} 06^{\prime} \mathrm{S}, 115^{\circ} 45^{\prime} \mathrm{E}$, Aug. 1993, pitfalls (S. van Leeuwen, B. Bromilow, WAM T45261), 20; Barrow Island, John Wayne Country, $20^{\circ} 45^{\prime} \mathrm{S}, 115^{\circ} 22^{\prime} \mathrm{E}$, Nov. 4-30, 1993, sandy site, pitfall (M. Harvey, J. Waldock, WAM T45128), 19; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 03^{\prime} \mathrm{S}, 115^{\circ} 18^{\prime} \mathrm{E}$, Aug. ${ }^{17-}$ Oct. 5, 1994, pitfall (A. Sampey, WAM T44952), 1甲̣; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 05^{\prime} \mathrm{S}, 115^{\circ} 22^{\prime} \mathrm{E}$, Aug. 17-Oct. 5, 1994, pitfall (A. Sampey, WAM T44951), 10'; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 07^{\prime} \mathrm{S}$, $115^{\circ} 26^{\prime} \mathrm{E}$, Aug. 17-Oct. 6, 1994, pitfalls (A.

Sampey, WAM T44950), 20 ${ }^{\circ}$, 3o; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 40^{\prime}$ E, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM 99/654-656), 30'; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 41^{\prime} \mathrm{E}$, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T44953, 44954), $50^{\prime}$, 1q; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 42^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfall (A. Sampey, WAM T44955), 10*; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 45^{\prime}$ E, Sept. 30, 1994-Jan. 15, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T44956), 20*, 19; Bunline Rocks Nature Reserve, $29^{\circ} 59^{\prime} \mathrm{S}, 116^{\circ} 36^{\prime} \mathrm{E}$, May $22-$ Sept. 17, 1996, pitfall (M. Harvey, J. Waldock, WAM T45138), 19̣; Bush Bay, $25^{\circ} 08^{\prime}$ S, $113^{\circ} 49^{\prime}$ E, Aug. 16-Sept. 29, 1994, pitfall (M. Harvey, WAM T44957), 1o, May 23-Aug. 23, 1995, pitfall (N. Hall, WAM T44958), 19; Durokoppin Nature Reserve, $31^{\circ} 30^{\prime} \mathrm{S}, 117^{\circ} 44^{\prime} \mathrm{E}$, Nov. 3-14, 1988 (D. Mitchell, WAM 99/667), 10'; Francois Peron National Park, $25^{\circ} 49^{\prime}$ S, $113^{\circ} 32^{\prime}$ E, Aug. 24 Oct. 11, 1994, pitfall (A. Sampey, WAM T44964), 10', Oct. 11, 1994-Jan. 18, 1995 (N. McKenzie, J. Rolfe, WAM T44965), 1甲; Francois Peron National Park, $25^{\circ} 53^{\prime} \mathrm{S}, 113^{\circ} 33^{\prime} \mathrm{E}$, Jan. 17-May 25, 1995, pitfall (M. Harvey, WAM T44963), 10'; Francois Peron National Park, $25^{\circ} 59^{\prime}$ S, $113^{\circ} 34^{\prime}$ E, Aug. 24 Oct. 10,1994 , pitfall (A. Sampey, WAM T44967), 1ọ, Jan. 18-May 26, 1995, pitfalls (M. Harvey, WAM T44966, 45573), 30', 19, May 26-Aug. 30, 1995, pitfall (N. Hall, WAM T44968), 1o; Kennedy Range National Park, $24^{\circ} 30^{\prime} \mathrm{S}, 115^{\circ} 01^{\prime} \mathrm{E}$, Oct. 6, 1994-Jan. 14, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44970), 10, Jan. 14-May 29,


Map 39. Circle, Cryptoerithus occultus Rainbow. Square, Cryptoerithus nichtaut, new species. Triangle, Cryptoerithus quamby, new species.

1995, pitfall (P. West, WAM T44971), 1o; Kennedy Range National Park, $24^{\circ} 30^{\prime}$ S, $115^{\circ} 02^{\prime} \mathrm{E}$, May 29 -Aug. 28, 1995, pitfall (N. Hall, WAM T44969), 1¢̣; Kennedy Range National Park, $24^{\circ} 33^{\prime}$ S, $114^{\circ} 58^{\prime}$ E, Aug. 18-Oct. 4, 1994, pitfalls (M. Harvey, WAM T44972), $30^{\prime} ; 39 \mathrm{~km}$ E Laverton, $28^{\circ} 28^{\prime} \mathrm{S}, 122^{\circ} 50^{\prime} \mathrm{E}$, Nov. 2-3, 1990, pitfall (E. Pianka, WAM 91/ 1043), 1¢̣; Little Sandy Desert, 17.5 km SE Burranbar Pool, $23^{\circ} 55^{\prime} \mathrm{S}$, $120^{\circ} 32^{\prime} \mathrm{E}$, Apr. 1997, pitfalls (S. van Leeuwen, B. Bromilow, WAM T45626), 10, 1̊; Mardathuna Station, $24^{\circ} 24^{\prime}$ S, $114^{\circ} 27^{\prime}$ E, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM 99/661-664), 40'; Mardathuna Station, $24^{\circ} 24^{\prime}$ S, $114^{\circ} 28^{\prime}$ E, Jan. 14 May 24, 1995, pitfalls (A. Sampey, WAM T44975, 44976), 4ơ, May 24-Aug. 26, 1995, pitfall (N. Hall, WAM T44977), 10'; Mardathuna Station, $24^{\circ} 26^{\prime} \mathrm{S}, 114^{\circ} 30^{\prime} \mathrm{E}$, Oct. 5, 1994-Jan. 14, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44974), 1̊; Mardathuna Station, $24^{\circ} 27^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM 99/657, 658), 2o', Oct. 5, 1994-Jan. 14, 1995, pitfall (N. McKenzie, J. Rolfe, WAM 99/660), 10'; Mardathuna Station, $24^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 38^{\prime} \mathrm{E}$, Aug. 19Oct. 5, 1994, pitfall (P. West, WAM T44973), $10^{\prime}$; Meedo Station, $25^{\circ} 41^{\prime} \mathrm{S}, 114^{\circ} 37^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfalls (P. West, WAM T44978), $10^{\prime}, 1 \varrho$; Nanga Station, $26^{\circ} 29^{\prime} \mathrm{S}$, $114^{\circ} 03^{\prime} \mathrm{E}$, Jan. 19-May 11, 1995, pitfall (A. Sampey, WAM T44979), 1¢; Nerren Nerren Station, $27^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$, Oct. 15, $1994-$ Jan. 11, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44980), 1¢̣; Quobba Station, Cape Cuvier, $24^{\circ} 12^{\prime} \mathrm{S}, 113^{\circ} 27^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, WAM T44962), 10, Jan. 15-May 29, 1995, pitfall (A. Sampey, WAM 99/653, T44961), 20'; Quobba Station, Cape Cuvier, $24^{\circ} 13^{\prime} \mathrm{S}$, $113^{\circ} 30^{\prime} \mathrm{E}$, Aug. 21Sept. 29, 1994, pitfall (P. West, WAM T44960), 10'; Quobba Station, Cape Cuvier, $24^{\circ} 15^{\prime} \mathrm{S}, 113^{\circ} 33^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, WAM T44959), 10'; Woodleigh Station, $26^{\circ} 11^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Jan. 12-May 17, 1995, pitfall (P. West, WAM T44913), 10'; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 25^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfall (M. Harvey, WAM T44984), 10'; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}$, $114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 22-Oct. 12, 1994, pitfall (M. Harvey, WAM T44982), 10', May 17-Aug. 21, 1995, pitfall (N. Hall, WAM T44983), 19; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 36^{\prime} \mathrm{E}$, Aug. 22-Oct. 11, 1994, pitfall (M. Harvey, WAM T44981), $10^{\circ}$.

Distribution: Widespread across the southwest two-thirds of Australia (map 39).

## Cryptoerithus nichtaut, new species

Figures 558-562; Map 39
Type: Female holotype taken in pitfall trap in a dry eucalypt woodland at Thatch Creek, $19^{\circ} 06^{\prime} \mathrm{S}, 145^{\circ} 18^{\prime} \mathrm{E}$, Queensland (July 26-Dec. 1, 1992; R. Raven, P., E. Lawless, M. Shaw), deposited in QMB (S25300).

Etymology: The specific name is an arbitrary combination of letters.

DiAGNOSIS: Males and females have not been collected together, but are matched on the basis of their highly hirsute anterior legs. Males have a very long, distally sinuous embolus (fig. 559) and a short, wide, triangular retrolateral tibial apophysis (fig. 560), females have a rectangular epigynum (fig. 561).

Male: Total length 2.96. Carapace 1.32 long, 1.16 wide, 0.46 high, length/width 1.13 ; sternum 0.90 long, 0.74 wide, length/width 1.21; abdomen 1.64 long, 1.02 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.84:0.72:1.20. Cephalothorax, legs pale; abdomen grayish, with weak orange brown scutum, venter pale. AME elevated; eye group width 0.80 of head width; AME 0.16; ALE 0.12; PME 0.18; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.00; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.36; AME-AME 0.34; PMEPME 0.32. Clypeus 0.08 high. Abdomen covered with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.27 of abdominal length, about half their diameter apart. Tibiae, metatarsi, tarsi I, II proventrally with long dense scopula. Palp (figs. 558-560): cymbium with dorsoapical scopula; conductor originating prolaterally, long, s-shaped; median apophysis elongate, about four times longer than wide, with small distal hook; terminal apophysis absent; sperm duct strongly s-shaped; embolus thin, semicircular, tip s-shaped, originating retrolaterally, embolar base separated from tegulum; retrolateral tibial apophysis short, broad, triangular, with ventrally bent tip.

Female: Total length 3.74. Carapace 1.50 long, 1.36 wide, 0.42 high, length/width 1.10 ; sternum 1.06 long, 0.80 wide, length/width 1.32; abdomen 2.24 long, 1.44 wide; coxa I 0.54 long; relative length of coxae I-IV


Figs. 558-562. Cryptoerithus nichtaut, new species. 558. Left male palp, prolateral view. 559. Same, ventral view. 560. Same, retrolateral view. 561. Epigynum, ventral view. 562. Same, dorsal view.
1.00:0.78:0.74:1.22. Coloration as in male. Eye group width 0.73 of head width; PME-PLE 0.06; ALE-PLE 0.04; eye group AME-PME 0.38. ALS 0.3 of abdominal length. Epigynum (figs. 561, 562): atrium broad, slit-like, anterior margin widely m -shaped, with narrow epigynal hood, lateral plates rectangular, contiguous; spermathecae inverted v-shaped.

Other Material Examined: Queensland: Danbulla State Forest, $17^{\circ} 12^{\prime} \mathrm{S}, 145^{\circ} 40^{\prime} \mathrm{E}$, Aug. 6, 1992 (J. Murphy, JAM), 1̊; Jack's Hill Gorge, Broken River, $19^{\circ} 28^{\prime} \mathrm{S}, 144^{\circ} 46^{\prime} \mathrm{E}$, July 21-Sept. 20, 1995, pitfall, vine thicket on limestone (P. Lawless, A. Cook, C. McHenry, QMB S40889), 10'; Mazeppa National Park, SW corner near road, $22^{\circ} 16^{\prime} \mathrm{S}, 147^{\circ} 16^{\prime} \mathrm{E}$, May

11, 2000 (G. Milledge, H. Smith, AMS KS57817), $10^{\circ}$.

Distribution: Known only from northand mideastern Queensland (map 39).

Cryptoerithus hasenpuschi, new species Figures 563-567; Map 40
Type: Male holotype taken in pitfall trap in Forty Mile Scrub National Park, $18^{\circ} 05^{\prime} \mathrm{S}, 144^{\circ} 51^{\prime} \mathrm{E}$, Queensland (Oct. 1993Jan. 1994; J. Hasenpusch), deposited in QMB (S52087).

Etymology: The specific name is a patronym in honor of Jack Hasenpusch, the collector of the type.


Figs. 563-567. Cryptoerithus hasenpuschi, new species. 563. Left male palp, prolateral view. 564. Same, ventral view. 565. Same, retrolateral view. 566. Epigynum, ventral view. 567. Same, dorsal view.

Diagnosis: Males differ from those of $C$. nichtaut and C. lawlessi is having the embolus situated closely against the other palpal elements throughout its length (fig. 564); females differ from those of $C$. nichtaut in the more triangular anterior elements of the internal genitalia (fig. 567).

Male: Total length 2.84. Carapace 1.30 long, 1.06 wide, 0.30 high, length/width 1.22; sternum 0.92 long, 0.70 wide, length/ width 1.31; abdomen 1.54 long, 1.02 wide; coxa I 0.46 long; relative length of coxae I-IV 1.00:0.87:0.78:1.22. Carapace cinnamon brown, with dark filigree net pattern; sternum, chelicerae, endites, labium pale; abdomen dorsally gray, with weak orange brown
scutum, venter pale; legs cinnamon brown, mottled with gray. Eye group width 0.86 of head width; AME 0.12; ALE 0.12; PME 0.18; PLE 0.08; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.00; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.30; AME-AME 0.26; PME-PME 0.30. Clypeus 0.02 high. Abdomen dorsally covered with gray plumose setae, venter with two longitudinal rows of stiff, erect setae; ALS 0.35 of abdominal length, contiguous. Tarsi I, II proventrally with band of short, bent setae. Palp (figs. 563-565): cymbium retrolaterally straight, with basal hook, dorsoapical scopula; conductor originating prolaterally, long, semicircular; median apophysis
cane-shaped, about twice as long as wide, with tiny hook; terminal apophysis prolaterally situated, triangular, with slender, sharp tip; sperm duct bifurcate; embolus thin, semicircular, originating prolaterally; retrolateral tibial apophysis short, broad, triangular, with ventrally bent tip.

Female: Total length 3.38. Carapace 1.40 long, 1.16 wide, 0.36 high, length/width 1.21 ; sternum 0.92 long, 0.80 wide, length/ width 1.15 ; abdomen 1.98 long, 1.10 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.80:0.76:1.20. Body, legs pale. Eye group width 0.55 of caput width; AME 0.10 ; ALE 0.10; PME 0.14; PLE 0.08; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.00; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.32; AME-AME 0.22 ; PME-PME 0.20. Clypeus 0.02 high. Abdomen covered with gray plumose setae, frontally with band of long, bent spines, venter with two longitudinal rows of stiff, erect setae; ALS 0.35 of abdominal length, contiguous. Tarsi I, II proventrally with band of short, bent setae. Epigynum (figs. 566, 567) with narrow anterior epigynal hood, rectangular, contiguous lateral plates; epigynal ducts short, spermathecae separated by more than their diameter, sausage-shaped, twisted, in inverted v-shaped position.

Other Material Examined: Queensland: 50 km W Mount Garnet, $17^{\circ} 40^{\prime} \mathrm{S}, 145^{\circ} 07^{\prime} \mathrm{E}$, Apr. 14-July 19, 2002, pitfall (J. Hasenpusch, QMB S67694), 10'; Cape Cleveland Road, 19ำ 1 'S, $147^{\circ} 01^{\prime}$ E, July $27-$ Dec. 2, 1992 (R. Raven, P., E. Lawless, M. Shaw, QMB S21709), 1 ㅇ.

Distribution: Known only from northeastern Queensland (map 40).

Cryptoerithus quamby, new species
Figures 568-572; Map 39
Type: Female holotype taken in grazed site with remnant eucalypt, Acacia, Leptospermum and some open grassy areas at Dugald River crossing, N Quamby, $20^{\circ} 12^{\prime} \mathrm{S}$, $140^{\circ} 14^{\prime} \mathrm{E}$, Queensland (July 12, 1995; J. Thompson, M. Tio, S. Cowan), deposited in AMS (KS44181).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females resemble those of $C$. nichtaut in having highly hirsute anterior legs,
but have a posterior ledge on the epigynum (fig. 571) and much smaller anterior internal epigynal elements (fig. 572). Males resemble those of $C$. nonaut but have a longer embolus, originating retrolaterally rather than proximally (figs. 569, 570).

Male: Total length 2.82. Carapace 1.40 long, 1.20 wide, 0.32 high, length/width 1.16; sternum 0.92 long, 0.72 wide, length/width 1.27; abdomen 1.42 long, 1.12 wide; coxa I 0.54 long; relative length of coxae I-IV 1.00:0.77:0.66:1.11. Carapace pale yellow, with marginal dark filigree net pattern; sternum yellow; chelicerae gray; endites, labium gray, distally pale; abdomen gray, dorsally with weak orange brown scutum, half moon-shaped pale spot in front of spinnerets, venter pale; legs pale, mottled with gray on distal half of femora. Eye group width 0.63 of head width; AME 0.14; ALE 0.14 ; PME 0.20; PLE 0.10; AME-AME 0.02 ; AME-ALE 0.02; PME-PME 0.00; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.36; AME-AME 0.30; PME-PME 0.36 . Clypeus 0.08 high. Abdomen covered with gray plumose setae; ALS 0.35 of abdominal length, about half their diameter apart. Metatarsi, tarsi I, II with scopula. Palp (figs. 568-570): cymbium with dorsoapical scopula; conductor originating prolaterally, long, straight, with sharp tip; median apophysis about twice as long as wide, with bent,


Map 40. Circle, Cryptoerithus hasenpuschi, new species. Square, Cryptoerithus lawlessi, new species. Triangle, Cryptoerithus griffith, new species. Diamond, Cryptoerithus ninan, new species.


Figs. 568-572. Cryptoerithus quamby, new species. 568. Left male palp, prolateral view. 569. Same, ventral view. 570. Same, retrolateral view. 571. Epigynum, ventral view. 572. Same, dorsal view.
slender tip; terminal apophysis conical, medially situated, connected to embolar base; sperm duct strongly s-shaped; embolus thin, semicircular, originating basally, embolar base separated from tegulum; retrolateral tibial apophysis triangular, with deep dorsal concavity, additional basal apophysis.

Female: Total length 3.92. Carapace 1.56 long, 1.48 wide, 0.50 high, length/width 1.05; sternum 1.02 long, 0.82 wide, length/ width 1.24 ; abdomen 2.36 long, 1.34 wide; coxa I 0.62 long; relative length of coxae I-IV 1.00:0.90:0.80:1.16. Carapace pale yellow, with marginal dark filigree net pattern;
sternum yellow; chelicerae gray; endites, labium gray, distally pale; abdomen gray, venter pale; legs pale, mottled with gray on distal half of femora. Eye group width 0.63 of caput width; AME 0.12; ALE 0.12; PME 0.20; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.01; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.38; AME-AME 0.26; PME-PME 0.34 . Clypeus 0.08 high. Abdomen covered with gray plumose setae, frontally with band of long, bent spines, venter with two longitudinal rows of stiff, erect setae; ALS 0.36 of abdominal length, about half their
diameter apart. Tibiae, metatarsi, tarsi I, II proventrally with long dense scopula. Epigynum (figs. 571, 572): atrium broad, slitlike, with broad posterior ledge; epigynal ducts thin, irregularly curved, spermathecae sausage-shaped, twisted, in horizontal position.

Other Material Examined: Queensland: Meta Park, $23^{\circ} 44^{\prime}$ S, $146^{\circ} 54^{\prime}$ E, Oct. 20, 1998 (QMB S67725), $10^{\circ}$.

Distribution: Known only from northwestern and central Queensland (map 39).

## Cryptoerithus lawlessi, new species

Figures 573-577; Map 40
Type: Female holotype taken in pitfall trap in vine thicket on hill in Taroom District, $25^{\circ} 25^{\prime} \mathrm{S}, \quad 149^{\circ} 58^{\prime} \mathrm{E}, \quad$ Queensland (Sept. 10-Nov. 12, 1996; P. Lawless), deposited in QMB (S61303).

Etymology: The specific name is a patronym in honor of the collector of the type and many other interesting prodidomids.

Diagnosis: Males differ from those of $C$. nichtaut in having a shorter, more retrolaterally situated median apophysis and much longer tegular apophysis (fig. 574), and by the angular retrolateral tibial apophysis (fig. 575); females resemble those of $C$. cleveland in lacking highly hirsute anterior legs, but have posteriorly much more pronounced epigynal plates (fig. 576) and more anterior internal epigynal elements (fig. 577).

Male: Total length 2.70. Carapace 1.20 long, 1.04 wide, 0.34 high, length/width 1.15; sternum 0.90 long, 0.68 wide, length/width 1.32; abdomen 1.50 long, 0.84 wide; coxa I 0.44 long; relative length of coxae I-IV 1.00:0.86:0.68:1.18. Carapace pale yellow, with dark filigree net pattern; sternum, mouthparts pale, abdomen gray, venter pale, legs mottled with gray. Eye group width 0.72 of head width; AME 0.10; ALE 0.10; PME 0.18 ; PLE 0.08; AME-AME 0.02; AMEALE 0.02; PME-PME 0.00; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.36; AME-AME 0.22; PME-PME 0.28. Clypeus 0.02 high. Abdomen covered with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.48 of abdominal length, contiguous. Metatarsi, tarsi I, II proventrally with band of short
bent setae. Palp (figs. 573-575): cymbium retrolaterally straight, with basal hook, dorsoapical scopula; conductor originating distally, broadly ellipsoid; median apophysis cane-shaped, about twice as long as wide; terminal apophysis triangular, with sharp tip, prolaterally situated; sperm duct weakly sshaped; embolus thin, semicircular, originating prolaterally; retrolateral tibial apophysis short, broad, triangular, with ventrally bent tip.

Female: Total length 3.32. Carapace 1.40 long, 1.26 wide, 0.34 high, length/width 1.11 ; sternum 1.00 long, 0.80 wide, length/ width 1.25 ; abdomen 1.92 long, 1.04 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.88:0.77:1.15. Coloration as in male. Eye group width 0.68 of head width; PMEPME 0.01; PME-PLE 0.04; eye group AMEPME 0.2. ALS 0.36 of abdominal length. Epigynum (figs. 576, 577) with narrow epigynal hood, lateral plates inverted ushaped; spermathecae widely separated.

Other Material Examined: Queensland: Agnes Waters, $24^{\circ} 13^{\prime} \mathrm{S}, 151^{\circ} 55^{\prime} \mathrm{E}$, July 1992 (J. Wunderlich, QMB S21214), 10', 1¢; Bushley Station, $23^{\circ} 32^{\prime}$ S, $150^{\circ} 15^{\prime} \mathrm{E}$, July 19-Oct. 22, 1990, open forest pitfall (D. Wallace, R. Raven, K. Williams, QMB S25616), 10'; Newcastle Range, E Georgetown, $18^{\circ} 34^{\prime} \mathrm{S}, 143^{\circ} 51^{\prime} \mathrm{E}$, Feb . 2-June 29, 2002, pitfall (J. Hasenpusch, QMB S62435), 1 ¢ ; Yarmina, $21^{\circ} 49^{\prime} \mathrm{S}, 146^{\circ} 29^{\prime} \mathrm{E}$, Mar. 1, 1999, tree clearing (T. Churchill, QMB S67726), 1 오.

Distribution: Apparently widespread in Queensland (map 40).

## Cryptoerithus griffith, new species

Figures 578, 579; Map 40
Type: Female holotype taken at Griffith University Study Area, Brisbane, $27^{\circ} 28^{\prime}$ S, $153^{\circ} 01^{\prime} \mathrm{E}$, Queensland (Dec. 11, 1976; G. Oliver), deposited in QMB (S61304).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females of this distinctive species can easily be recognized by the distally darkened femora, patellae, and tibiae on the highly hirsute anterior legs, as well as by the wide anterior epigynal margin, the large, inverted $u$-shaped posterior projections, and the bulb-shaped anterior internal epigynal elements (figs. 578, 579).


Figs. 573-577. Cryptoerithus lawlessi, new species. 573. Left male palp, prolateral view. 574. Same, ventral view. 575. Same, retrolateral view. 576. Epigynum, ventral view. 577. Same, dorsal view.

## Male: Unknown.

Female: Total length 3.26. Carapace 1.40 long, 1.21 wide, 0.40 high, length/width 1.13; sternum 1.00 long, 0.76 wide, length/ width 1.31; abdomen 1.86 long, 1.34 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.75:0.71:1.14. Carapace cinnamon brown, with dark margin, dark chevrons on top; sternum orange, lateral margins darker; chelicerae, endites, labium gray, distally pale; abdomen gray, with small pale spot in front of spinnerets; legs cinnamon brown with
distally darkened femora, patellae, tibiae. Eye group width 0.77 of head width; AME 0.12; ALE 0.12; PME 0.18; PLE 0.10; AMEAME 0.06; AME-ALE 0.02; PME-PME 0.00 ; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.36; AME-AME 0.30; PME-PME 0.32. Clypeus 0.04 high. Abdomen covered with gray plumose setae; ALS 0.32 of abdominal length, about half their diameter apart. Tibia I distal half, metatarsi, tarsi I, II proventrally with scopula. Epigynum (figs. 578, 579): anterior margin with


Figs. 578, 579. Cryptoerithus griffith, new species. 578. Epigynum, ventral view. 579. Same, dorsal view.
inverted v-shaped epigynal hood, posterior margin with one pair of large anteriorly rounded projections; epigynal ducts and spermathecae in x-shaped position.

Other Material Examined: South Australia: Billiatt Conservation Park, $34^{\circ} 59^{\prime} \mathrm{S}$, $140^{\circ} 28^{\prime}$ E, Nov. 19, 1996, vibration (D. Hirst, SAM NN11782), 1 T.

Distribution: Known only from southeastern Queensland and eastern South Australia (map 40).

## Cryptoerithus shadabi, new species

Figures 580-584; Map 41
Type: Male holotype taken in drift fence pitfall trap at site 9.2 km SSE of the confluence of Lindsay River and Mullaroo Creek, $34^{\circ} 12^{\prime} \mathrm{S}, 141^{\circ} 10^{\prime} \mathrm{E}$, Victoria (Nov. 1985; A. Yen), deposited in NMV (Ent. 362).

Etymology: The specific name is a patronym in honor of Dr. Mohammad U. Shadab, who supplied the drawings for this monograph.

Diagnosis: Males and females have not been collected together and are only tentatively matched here. Males have a bifid tegular apophysis and a greatly shortened embolus (fig. 581); females have a y-shaped epigynal atrium (fig. 583) and widely separated spermathecae (fig. 584).

Male: Total length 3.72. Carapace 1.50 long, 1.26 wide, 0.30 high, length/width 1.19; sternum 1.00 long, 0.82 wide, length/ width 1.22 ; abdomen 2.22 long, 1.22 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.96:0.8:1.36. Carapace cinnamon brown, with dark filigree net pattern; sternum, mouthparts pale; abdomen gray, venter pale; legs cinnamon brown. Eye group width 0.67 of head width; AME 0.10; ALE 0.12; PME 0.16; PLE 0.10; AME-AME 0.06; AME-ALE 0.02; PME-PME 0.00; PME-PLE 0.04; ALE-PLE 0.04; eye group AME-PME 0.32; AME-AME 0.26; PME-PME 0.28. Clypeus 0.04 high. Cheliceral margins without teeth; labium triangular. Abdomen dorsally covered with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.32 of abdominal length, contiguous. Metatarsi, tarsi I, II proventrally with band of short bent setae. Palp (figs. 580-582): cymbium retrolaterally straight, with basal hook, dorsoapical scopula; conductor originating medially, broadly ellipsoid, distal part concave; median apophysis cane-shaped, about twice as long as wide; terminal apophysis bipartite, prolaterally situated; sperm duct semicircular; embolus finger-shaped, with sharp tip, originating prolaterally, embolar



Figs. 580-584. Cryptoerithus shadabi, new species. 580. Left male palp, prolateral view. 581. Same, ventral view. 582. Same, retrolateral view. 583. Epigynum, ventral view. 584. Same, dorsal view.
base hidden behind terminal apophysis; retrolateral tibial apophysis short, broad, triangular, with ventrally bent tip.

Female: Total length 4.00. Carapace 1.64 long, 1.44 wide, 0.32 high, length/width 1.13; sternum 1.20 long, 0.86 wide, length/ width 1.39 ; abdomen 2.36 long, 1.24 wide; coxa I 0.64 long; relative length of coxae I-IV 1.00:0.81:0.78:1.25. Coloration as in male. Eye group width 0.61 of head width; AME 0.11 ; PME 0.18. Clypeus 0.02 high. ALS 0.42 of abdominal length. Epigynum (figs. 583,
584): atrium y-shaped, formed by two lateral plates, with narrow epigynal hood; spermathecae widely separated.

Other Material Examined: South Australia: Billiatt Conservation Park, $34^{\circ} 58^{\prime} \mathrm{S}$, $140^{\circ} 27^{\prime} \mathrm{E}$, Nov. 19, 1996, vibration, mallee litter (D. Hirst, J. Forrest, SAM N1997/160, NN11819, 11820), 3o; Lake Gilles Conservation Park, $33^{\circ} 05^{\prime} \mathrm{S}, 136^{\circ} 39^{\prime} \mathrm{E}$, May 21, 1995, vibration (D. Hirst, SAM NN11790), $1 \xlongequal[\text { ¢ }]{ }$; 4 km N Marble Range Homestead, $34^{\circ} 26^{\prime} \mathrm{S}, 135^{\circ} 31^{\prime} \mathrm{E}$, Mar. 29, 1987 (D. Lee, D. Hirst, SAM N1989/ 114), 10*. Western Australia: Sieda, E Grass

Patch, $33^{\circ} 14^{\prime}$ S, $121^{\circ} 46^{\prime}$ E, Dec. 1, 1996-Feb. 28, 1997, pitfall, water reserve (A. Longbottom, WAM T45102), 1 T.

Distribution: Widespread across southern Australia (map 41).

## Cryptoerithus stuart, new species

Figures 585-589; Map 41
Type: Female holotype taken under log along Stuart Highway, $16^{\circ} 59^{\prime} \mathrm{S}, 133^{\circ} 26^{\prime} \mathrm{E}$, Northern Territory (May 19, 1999; M. Gray, G. Milledge, H. Smith), deposited in AMS (KS57272).

Etymology: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: The two sexes have not been collected together and are only tentatively matched here; their differences in leg scopulae may signal a mismatch. Males have a distinctively narrow, sinuous retrolateral tibial apophysis (fig. 587); females resemble those of C. lawlessi but have a much smaller epigynal hood and a much wider median epigynal septum (fig. 588).

Male: Total length 2.30. Carapace 1.08 long, 0.96 wide, 0.48 high, length/width 1.12 ; sternum 0.76 long, 0.60 wide, length/width 1.27; abdomen 1.22 long, 0.76 wide; coxa I 0.36 long; relative length of coxae I-IV 1.00:0.83:0.72:1.28. Carapace pale, with marginal dark filigree net pattern; sternum, endites, labium pale; chelicerae gray; abdomen gray, venter pale; legs pale, mottled with gray. Eye group width 0.74 of head width; AME 0.11 ; ALE 0.10; PME 0.18; PLE 0.08; AMEAME 0.10; AME-ALE 0.02; PME-PME 0.00 ; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.24; PME-PME 0.28. Clypeus 0.06 high. Cheliceral promargin, retromargin each with three tiny teeth; labium triangular. Abdomen dorsally covered with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.33 of abdominal length, about their diameter apart. Metatarsi, tarsi I, II with scopula. Palp (figs. 585-587): cymbium with dorsoapical scopula; conductor originating prolaterally, long, semicircular, with sharp tip; median apophysis cane-shaped, about twice as long as wide; terminal apophysis medially situated, triangular, with slender, sharp tip; sperm duct weakly s-shaped; embolus thin, semicircular, originating basally;
retrolateral tibial apophysis slender, weakly sshaped; femur without ventral process.

Female: Total length 2.40. Carapace 1.26 long, 1.16 wide, 0.50 high, length/width 1.08; sternum 0.88 long, 0.74 wide, length/ width 1.19 ; abdomen 1.14 long, 0.64 wide; coxa I 0.50 long; relative length of coxae I-IV 1.00:0.8:0.72:1.00. Carapace pale yellow, with marginal dark filigree net pattern; sternum, endites, labium pale yellow; chelicerae gray; abdomen gray, venter pale; legs pale, mottled with gray. Eye group width 0.77 of caput width; AME 0.14; ALE 0.12; PME 0.20; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.01; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.34; AME-AME 0.30; PME-PME 0.34. Clypeus 0.08 high. Cheliceral promargin with five, retromargin with three tiny teeth; labium triangular. Abdomen covered with gray or plumose setae, frontally with band of long, bent spines, venter with two longitudinal rows of stiff, erect setae; ALS 0.49 of abdominal length, about their diameter apart. Tibia I distal half, metatarsi, tarsi I, II proventrally with scopula. Epigynum (figs. 588, 589) with narrow anterior hood, posterior margin with elevated median septum, rectangular lateral plates; epigynal ducts flat, helical, spermathecae widely separated, more than their diameter apart, sausageshaped, twisted, in horizontal position.

Other Material Examined: Northern Territory: Kidman Springs Station, $16^{\circ} 07^{\prime} \mathrm{S}$,


Map 41. Circle, Cryptoerithus shadabi, new species. Square, Cryptoerithus stuart, new species. Triangle, Cryptoerithus nyetaut, new species.


Figs. 585-589. Cryptoerithus stuart, new species. 585. Left male palp, prolateral view. 586. Same, ventral view. 587. Same, retrolateral view. 588. Epigynum, ventral view. 589. Same, dorsal view.
$130^{\circ} 5^{\prime}$ E, May 1997, red loam soil (T. Churchill, MNT A001566), 10', mid Apr. 1998, pitfall (T. Churchill, MNT A001523), 1O'; Mitchell Grasslands, Mount Sanford, Barkly Tablelands, $16^{\circ} 59^{\prime} \mathrm{S}, 130^{\circ} 32^{\prime} \mathrm{E}$, May 1997 , pitfall (A. Fisher, MNT A001550), 20'; Willeroo, $15^{\circ} 17^{\prime} \mathrm{S}$, $131^{\circ} 35^{\prime} \mathrm{E}$, July 3-9, 1996, pitfall, clay (T. Churchill, MNT A002958), $10^{\circ}$.

Distribution: Known only from the Northern Territory (map 41).

Cryptoerithus nyetaut, new species
Figures 590-594; Map 41

TyPE: Male holotype from Ormiston Gorge, $23^{\circ} 37^{\prime} \mathrm{S}, 132^{\circ} 43^{\prime} \mathrm{E}$, Northern Territo-
ry (Oct. 1994; T. Churchill), deposited in QMB (S34503).

Etymology: The specific name is an arbitrary combination of letters.

DiAGNOSIS: The two sexes have not been collected together and are tentatively matched here despite their differences in abdominal coloration. Males have a distinctly long embolus and distally widened median apophysis (fig. 591) as well as a long, rectangular retrolateral tibial apophysis (fig. 592). Females resemble those of $C$. quamby but have a narrower anterior epigynal margin (fig. 593).


Figs. 590-594. Cryptoerithus nyetaut, new species. 590. Left male palp, prolateral view. 591. Same, ventral view. 592. Same, retrolateral view. 593. Epigynum, ventral view. 594. Same, dorsal view.

Male: Total length 2.92. Carapace 1.32 long, 1.20 wide, 0.58 high, length/width 1.10; sternum 0.90 long, 0.76 wide, length/width 1.18; abdomen 1.60 long, 1.02 wide; coxa I 0.56 long; relative length of coxae I-IV 1.00:0.75:0.68:1.11. Carapace pale, with dark fovea, darker triangular patch anteriorly;
sternum, mouthparts, legs pale; abdomen pale, dorsally with weak orange brown scutum, dark horizontal bands. Eye group width 0.68 of head width; AME 0.12; ALE 0.12 ; PME 0.20; PLE 0.08; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.00; PMEPLE 0.04; ALE-PLE 0.02; eye group AME-


Figs. 595-599. Cryptoerithus nonaut, new species. 595. Left male palp, prolateral view. 596. Same, ventral view. 597. Same, retrolateral view. 598. Epigynum, ventral view. 599. Same, dorsal view.

PME 0.34; AME-AME 0.28; PME-PME 0.34 . Clypeus 0.08 high. Abdomen dorsally with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.37 of abdominal length, about their diameter apart. Metatarsi, tarsi I, II with scopula. Palp (figs. 590-592): cymbium with dorsoapical scopula; conductor originating prolaterally, broad, semicircular; median apophysis straight, scoop-shaped, with two distal tips; terminal apophysis prolaterally situated, long, with slender, sharp tip; sperm duct weakly s-shaped; embolus thin, semicircular, originating prolaterally; retrolateral
tibial apophysis long, straight, tip slightly bipartite; femur with ventral process.

Female: Total length 3.24. Carapace 1.34 long, 1.28 wide, 0.42 high, length/width 1.05; sternum 0.84 long, 0.80 wide, length/ width 1.05 ; abdomen 1.90 long, 1.10 wide; coxa I 0.52 long; relative length of coxae I-IV 1.00:0.80:0.69:1.15. Carapace pale yellow, with marginal dark filigree net pattern; sternum, endites, labium, legs pale; chelicerae gray; abdomen gray, venter pale. Eye group width 0.62 of caput width; AME 0.11 ; ALE 0.10; PME 0.18; PLE 0.08; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.00; PME-

PLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.32; AME-AME 0.26; PME-PME 0.30. Clypeus 0.10 high. Abdomen covered with gray, plumose setae, frontally with band of long, bent spines, venter with two longitudinal rows of stiff, erect setae; ALS 0.37 of abdominal length, about their diameter apart. Metatarsi, tarsi I, II with scopula. Epigynum (figs. 593, 594) with two small anterior lateral hood-shaped openings; epigynal ducts long, thin, irregularly curved, spermathecae widely separated, more than their diameter apart, sausage-shaped, twisted, in horizontal position.

Other Material Examined: Northern Territory: Connells Lagoon, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 52^{\prime} \mathrm{S}, 136^{\circ} 32^{\prime} \mathrm{E}$, Oct. 1995, pitfall (A. Fisher, MNT A001504), 1Q; Wonarah, $19^{\circ} 59^{\prime} \mathrm{S}, 136^{\circ} 37^{\prime} \mathrm{E}$, Apr. 5-7, 1997, pitfall (R. Raven, QMB S40575), $10^{\circ}$.

Distribution: Known only from the Northern Territory (map 41).

## Cryptoerithus nonaut, new species

Figures 595-599; Map 42
Type: Male holotype taken along track to Waterfall Creek, Western River Conservation Park, Kangaroo Island, $35^{\circ} 42^{\prime} \mathrm{S}$, $136^{\circ} 54^{\prime} \mathrm{E}$, South Australia (Nov. 3-4, 1987; D. Hirst), deposited in SAM (N1989/132).

Etymology: The specific name is an arbitrary combination of letters.

DiAGNOSIS: Males and females have not been collected together, and are from distant sites, but are matched here on their basis of their respective close similarities to C. quamby (although the coloration and leg setation differences may signal a mismatch). Males resemble those of C. quamby in having a basal apophysis on the dorsal surface of the palpal tibia (fig. 597), but differ in having an embolar denticle and a shorter tegular apophysis (fig. 596). Females resemble those of $C$. quamby and C. nyetaut in duct conformation, but differ in having smaller, more obliquely oriented anterior ducts (fig. 599).

Male: Total length 3.36. Carapace 1.46 long, 1.26 wide, 0.34 high, length/width 1.16 ; sternum 1.00 long, 0.76 wide, length/width 1.31; abdomen 1.90 long, 1.10 wide; coxa I 0.50 long; relative length of coxae I-IV 1:0.88:0.80:1.32. Carapace cinnamon brown, with dark filigree net pattern; sternum
yellow; chelicerae gray; endites, labium pale; abdomen gray, dorsally with half moonshaped pale spot in front of spinnerets, venter pale; legs cinnamon brown, with distally darkened femora, patellae, tibiae. Eye group width 0.76 of head width; AME 0.13; ALE 0.12; PME 0.2; PLE 0.10; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.01; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.40; AME-AME 0.36; PME-PME 0.34. Clypeus 0.10 high. Cheliceral margins without teeth. Abdomen covered with gray plumose setae; ALS 0.29 of abdominal length, about their diameter apart. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 595-597): cymbium with retrobasal hook, dorsoapical scopula; conductor originating prolaterally, long, semicircular, with sharp tip; median apophysis cane-shaped, about twice as long as wide; terminal apophysis prolaterally situated, small, finger-shaped, with two basal teeth; sperm duct strongly s-shaped; embolus thin, semicircular, with embolar denticle, originating basally; retrolateral tibial apophysis triangular, with bipartite tip, dorsobasal apophysis.

Female: Total length 3.04. Carapace 1.24 long, 1.12 wide, 0.46 high, length/width 1.11 ; sternum 0.84 long, 0.74 wide, length/ width 1.13 ; abdomen 1.80 long, 1.00 wide; coxa I 0.42 long; relative length of coxae I-IV 1:0.95:0.85:1.42. Carapace pale yellow, with


Map 42. Circle, Cryptoerithus nonaut, new species. Square, Cryptoerithus halli, new species. Triangle, Cryptoerithus nopaut, new species.
marginal dark filigree net pattern; sternum, mouthparts, legs pale, yellow; chelicerae gray; abdomen gray, venter pale. Eye group width 0.76 of caput width; AME 0.12; ALE 0.10; PME 0.16; PLE 0.08; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.00; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.30; AME-AME 0.26; PME-PME 0.30. Clypeus 0.06 high. Abdomen covered with gray, plumose setae, frontally with band of long, bent spines, venter with two longitudinal rows of stiff, erect setae; ALS 0.32 of abdominal length, about their diameter apart. Tibia I distal half, metatarsi, tarsi I, II proventrally with scopula. Epigynum (figs. 598, 599) with two small anterior lateral hood-shaped openings, longitudinal lateral plates, two posterolateral, hood-shaped grooves; epigynal ducts flat, irregularly curved, spermathecae sausage-shaped, twisted, in horizontal position.

Other Material Examined: South Australia: along track to Waterfall Creek, Western River Conservation Park, Kangaroo Island, $35^{\circ} 42^{\prime}$ S, $136^{\circ} 54^{\prime}$ E, Nov. 3-4, 1987 (D. Hirst, SAM N1989/132), 20'. Northern Territory: Mount Sanford Station, $17^{\circ} 18^{\prime} \mathrm{S}, 130^{\circ} 46^{\prime} \mathrm{E}$, Oct. 1997, pitfall, clay (T. Churchill, MNT A001519), $1 \stackrel{+}{ }$; Willeroo, $15^{\circ} 17^{\prime} \mathrm{S}, 131^{\circ} 35^{\prime} \mathrm{E}$, Oct. 1997, pitfall, clay (T. Churchill, MNT A001522), 1 1q.

Distribution: If the sexes are correctly matched, the species is widespread in central Australia (map 42).

## Cryptoerithus halli, new species <br> Figures 600-604; Map 42

Type: Male holotype taken in dry pitfall trap at Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 35^{\prime} \mathrm{E}$, Western Australia (Oct. 9-14, 1994; M. Harvey), deposited in WAM (T44904).

Etymology: The specific name honors Mr. N. Hall, an avid collector of spiders for the Western Australian Museum.

Diagnosis: Males resemble those of $C$. nonaut but have a trifid tip on the retrolateral tibial apophysis (fig. 602); females have an angular epigynal hood (fig. 603).

Male: Total length 4.06. Carapace 1.62 long, 1.42 wide, 0.58 high, length/width 1.14; sternum 1.10 long, 0.90 wide, length/width 1.22; abdomen 2.44 long, 1.34 wide; coxa I 0.60 long; relative length of coxae I-IV

1:0.93:0.83:1.23. Carapace, sternum, mouthparts, legs pale; abdomen pale, dorsally with weak orange brown scutum, dark horizontal bands. Eye group width 0.71 of head width; AME 0.14; ALE 0.14; PME 0.18; PLE 0.10; AME-AME 0.04; AME-ALE 0.04; PMEPME 0.01; PME-PLE 0.04; ALE-PLE 0.06; eye group AME-PME 0.34; AME-AME 0.32; PME-PME 0.34. Clypeus 0.10 high. Abdomen with plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.30 of abdominal length, about their diameter apart. Metatarsi, tarsi I, II with scopula. Palp (figs. 600-602): cymbium with dorsoapical scopula; conductor originating prodistally, short, straight, with sharp tip; median apophysis cane-shaped, about twice as long as wide; terminal apophysis short, conical, prolaterally situated; sperm duct weakly s-shaped; embolus thin, semicircular, with embolar denticle, originating prolaterally; retrolateral tibial apophysis long, straight, with trifid tip, dorsobasal apophysis; femur with ventral process.

Female: Total length 3.78. Carapace 1.54 long, 1.32 wide, 0.60 high, length/width 1.16; sternum 1.14 long, length/width 1.26 ; abdomen 2.24 long, 1.04 wide; coxa I 0.58 long; relative length of coxae I-IV 1:0.89: 0.86:1.21. Coloration as in male. Eye group width 0.66 of head width; AME 0.11; ALE 0.10 ; PME 0.16; PME-PME 0.00; eye group AME-PME 0.32; AME-AME 0.26; PMEPME 0.26. Clypeus 0.04 high. ALS 0.31 of abdominal length. Epigynum (figs. 603, 604) with angular epigynal hood, lateral plates widely separated, laterally directed; spermathecae not contiguous, oval, twisted.

Other Material Examined: Western Australia: Bush Bay, $25^{\circ} 05^{\prime} \mathrm{S}, 113^{\circ} 43^{\prime} \mathrm{E}$, Jan. ${ }^{16}$ May 23, 1995, pitfall (P. West, WAM T44900), $10^{\circ}$; Bush Bay, $25^{\circ} 07^{\prime} \mathrm{S}, 113^{\circ} 48^{\prime} \mathrm{E}$, May $23-\mathrm{Aug}$. 23, 1995, pitfall (N. Hall, WAM T44899), $10^{\circ}$; Cunderdin Road, NE Mukinbudin, $30^{\circ} 38^{\prime} \mathrm{S}$, $118^{\circ} 29^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfall (P. Van Heurck, WAM T49530), 10'; Kennedy Range National Park, $24^{\circ} 31^{\prime} \mathrm{S}$, $114^{\circ} 58^{\prime} \mathrm{E}$, May 29-Aug. 28, 1995, pitfall (N. Hall, WAM T44901), 10'; Lake Goorly, $29^{\circ} 50^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 25, 1999, pitfall (L. King, WAM T51178), 10; Nanga Station, $26^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 00^{\prime} \mathrm{E}$, Aug. 23Oct. 16, 1994, pitfall (P. West, WAM T44902), $10^{\circ}$; Nerren Nerren Station, $27^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 32^{\prime} \mathrm{E}$,


Figs. 600-604. Cryptoerithus halli, new species. 600. Left male palp, prolateral view. 601. Same, ventral view. 602. Same, retrolateral view. 603. Epigynum, ventral view. 604. Same, dorsal view.

May 11-Aug. 18, 1995, pitfall (N. Hall, WAM 99/666), 1ᄋ; ; Nerren Nerren Station, $27^{\circ} 03^{\prime} \mathrm{S}$, $114^{\circ} 35^{\prime}$ E, Aug. 25-Oct. 16, 1994, pitfall (J. Waldock, WAM T44990), 19, May 11-Aug. 18, 1995, pitfall (N. Hall, WAM T44903), 10'; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 25^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfall (M. Harvey, WAM T44905), $10^{\prime}$; Zuytdorp, $27^{\circ} 16^{\prime} \mathrm{S}, 114^{\circ} 01^{\prime} \mathrm{E}$, Aug. 26-Oct. 15, 1994, pitfall (A. Sampey, WAM T44991), 1 T.

Distribution: Known only from Western Australia (map 42).

Cryptoerithus quobba, new species Figures 9, 16, 605-609; Map 43
Type: Male holotype taken in pitfall trap at Quobba Station, Cape Cuvier, $24^{\circ} 13^{\prime}$ S,
$113^{\circ} 30^{\prime}$ E, Western Australia (Aug. 21-Sept. 28, 1994; P. West), deposited in WAM (T44909).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $C$. shadabi but have a more deeply bifid tegular projection (figs. 605, 605); females have a broad anterior epigynal margin and widely separated, laterally directed epigynal pockets (fig. 608).

Male: Total length 2.88. Carapace 1.26 long, 1.10 wide, 0.46 high, length/width 1.14 ; sternum 0.90 long, 0.70 wide, length/width 1.28; abdomen 1.62 long, 0.84 wide; coxa I 0.52 long; relative length of coxae I-IV 1:0.84:0.69:1.15. Carapace cinnamon brown,


Figs. 605-609. Cryptoerithus quobba, new species. 605. Left male palp, prolateral view. 606. Same, ventral view. 607. Same, retrolateral view. 608. Epigynum, ventral view. 609. Same, dorsal view.
with dark margin, dark chevrons on top; sternum, mouthparts pale; abdomen gray, dorsally with weak orange brown scutum, venter pale; legs pale, mottled with gray. Eye group width 0.76 of head width; AME 0.11; ALE 0.11; PME 0.18; PLE 0.10; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.00; PME-PLE 0.04; ALE-PLE 0.02; eye group AME-PME 0.28; AME-AME 0.24; PMEPME 0.32. Clypeus 0.02 high. Abdomen covered with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.31 of abdominal length, contiguous. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 605-607): cymbium retrolaterally straight, with basal hook;
conductor originating prodistally, broadly ellipsoid; median apophysis cane-shaped, about twice as long as wide; terminal apophysis bipartite, prolaterally situated; sperm duct semicircular; embolus broad, cane-shaped, originating prolaterally, embolar base hidden behind terminal apophysis; retrolateral tibial apophysis short, broad, triangular, with ventrally bent tip.

Female: Total length 3.20. Carapace 1.36 long, 1.20 wide, 0.40 high, length/width 1.13; sternum 1.00 long, 0.76 wide, length/ width 1.31; abdomen 1.84 long, 1.12 wide; coxa I 0.54 long; relative length of coxae I-IV 1:0.81:0.66:1.18. Coloration as in male but without scutum. Eye group width 0.65 of
head width; AME 0.10; AME-AME 0.02; ALE-PLE 0.04; AME-AME 0.22; PMEPME 0.24. ALS 0.43 of abdominal length. Epigynum (figs. 608, 609): atrium with wide anterior margin, wide epigynal hood, lateral plates widely separated, inverted u-shaped, medially directed; spermathecae about their diameter apart, oval, slightly twisted.

Other Material Examined: New South Wales: Pulletop, $33^{\circ} 56^{\prime}$ S, $146^{\circ} 06^{\prime}$ E, Nov. 3-8, 1999, woodland pitfall (D. Driscoll, QMB S53819), $10^{\circ}$; Towri, $30^{\circ} 07^{\prime} \mathrm{S}, 144^{\circ} 45^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS80116), 1 ㅇ. Northern Territory: Stokes Creek, 0.1 km N of main road, Watarrka National Park, $24^{\circ} 24^{\prime} \mathrm{S}$, $131^{\circ} 46^{\prime} \mathrm{E}$, pitfall (Oct. 1994, NMV K8819), 1 ㅇ.
South Australia: 35 km SE Amata, $26^{\circ} 17^{\prime} \mathrm{S}$, $131^{\circ} 28^{\prime}$ E, Oct. 19-20, 1998, pitfall, open sand plain, Atriplex numilaria (SAM NN10936), 19; 65 km NNW Calperum, $33^{\circ} 31^{\prime} \mathrm{S}, 140^{\circ} 24^{\prime} \mathrm{E}$, Mar. 1-29, 1995, flight intercept trap, mallee (K. Pullen, QMB S30933), 1̊; Danggali Conservation Park, 1.5 km S 3 LO Dam, $33^{\circ} 17^{\prime} \mathrm{S}$, $140^{\circ} 55^{\prime}$ E, Mar. 2001, vibration (D. Hirst, J. Forrest, SAM NN11768), 1¢; 7 km NE Mount Woodroffe, $26^{\circ} 17^{\prime} \mathrm{S}, 131^{\circ} 48^{\prime} \mathrm{E}$, Oct. 1994, pitfall (SAM NN10937), $10^{\circ} ; 8 \mathrm{~km}$ NE Mount Woodroffe, $26^{\circ} 17^{\prime} \mathrm{S}, 131^{\circ} 48^{\prime} \mathrm{E}$, Oct. 21, 1994, pitfall (SAM NN10940), 1¢ ; Pinkawillie Conservation Park, $32^{\circ} 07^{\prime} \mathrm{S}$, $136^{\circ} 00^{\prime} \mathrm{E}$, Nov. 29, 1995, vibration (D. Hirst, SAM N1997/159), 19; 31 km NW Renmark, $33^{\circ} 59^{\prime} \mathrm{S}, 140^{\circ} 30^{\prime} \mathrm{E}$, Sept. 5-Oct. 12, 1995, flight intercept trap (K. Pullen, QMB ex S30944), 10'; Yelpawaralinna Waterhole, $27^{\circ} 08^{\prime} \mathrm{S}, 138^{\circ} 43^{\prime} \mathrm{E}$, Nov. 24, 1993, vibration (D. Hirst, SAM NN11786-11788), $10^{\circ}, 2$ 오. Western Australia: Bold Park, $31^{\circ} 56^{\prime} \mathrm{S}$, $115^{\circ} 46^{\prime}$ E, Jan. 6-Mar. 18, 1994, pitfall (M. Harvey, J. Waldock, WAM T45091), 1¢ ; Bold Park, $31^{\circ} 57^{\prime}$ S, $115^{\circ} 46^{\prime}$ E, Jan. 6-Mar. 18, 1994, pitfall (M. Harvey, J. Waldock, WAM T45088), 1 ¢ ; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 40^{\prime} \mathrm{E}$, Aug. 20-Sept. 30, 1994, pitfall (A. Sampey, WAM T44906), 10'; Boolathana Station, $24^{\circ} 25^{\prime}$ S, $113^{\circ} 45^{\prime}$ E, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44985), $1 \stackrel{q}{ }$; Bush Bay, $25^{\circ} 07^{\prime}$ S, $113^{\circ} 44^{\prime} \mathrm{E}$, Jan. 16-Apr. 4, 1995, pitfall (W. Muir, A. Sampey, WAM T44907), $10^{\prime} ;$ Bush Bay, $25^{\circ} 08^{\prime}$ S, $113^{\circ} 46^{\prime} \mathrm{E}$, May 23-Aug. 23, 1995, pitfall ( N . Hall, WAM T44908), 10'; Canning Vale, Fairfield Bushland, $32^{\circ} 04^{\prime} \mathrm{S}, 115^{\circ} 54^{\prime} \mathrm{E}$, Nov. $11-15$, 2002 (D. Knowles, WAM T60329), 10'; Comitun Dam Nature Reserve, $31^{\circ} 46^{\prime} \mathrm{S}, 118^{\circ} 04^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51715), 1o; Darkin Road, W Beverley, $32^{\circ} 08^{\prime} \mathrm{S}, 116^{\circ} 30^{\prime} \mathrm{E}$,

Oct. 20, 1997-May 29, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51116), 10'; Dragon Rocks Nature Reserve, $32^{\circ} 39^{\prime} \mathrm{S}$, $118^{\circ} 59^{\prime}$ E, Oct. 30, 1997-May 20, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T45693), 1op; Francois Peron National Park, W Monkey Mia along road to Denham, $25^{\circ} 48^{\prime} \mathrm{S}, 113^{\circ} 42^{\prime} \mathrm{E}$, Nov. 8, 1998, vibration, Acacia craspedocarpa (J. Waldock, WAM 99/665), 10;; Francois Peron National Park, $25^{\circ} 49^{\prime}$ 'S, $113^{\circ} 32^{\prime}$ E, Jan. 18-May 24, 1995, pitfall (M. Harvey, WAM T44910), 10'; Francois Peron National Park, $25^{\circ} 50^{\prime} \mathrm{S}, 113^{\circ} 36^{\prime} \mathrm{E}$, Aug. 24-Oct. 12, 1994 (A. Sampey, WAM T44986), 2o; lot 101, Gelorup Rise, Gelorup, $33^{\circ} 23^{\prime}$ S, $115^{\circ} 39^{\prime}$ E, Dec. 1998, in house (K. Longbottom, WAM T45147), 1 울 Gura Road, NW Narrogin, $32^{\circ} 46^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997-Feb. 23, 1998, pitfall (N. Guthrie, WAM T51730), 1op; Hepburn Heights, $31^{\circ} 49^{\prime}$ S, $115^{\circ} 46^{\prime}$ E, Sept. $25-$ Nov. 28, 1995, pitfalls (M. Harvey, J. Waldock, WAM T45637, 45638), $20^{\circ}$, 3q; Hepburn Heights, $31^{\circ} 49^{\prime} \mathrm{S}, 115^{\circ} 47^{\prime} \mathrm{E}$, Sept. 25-Nov. 28, 1995, pitfall (M. Harvey, J. Waldock, WAM T45641), 10'; Jandakol Airport, $32^{\circ} 06^{\prime}$ S, $115^{\circ} 53^{\prime}$ E, Nov. 4, 1994-Jan. 19, 1995, pitfalls (J. Waldock, M. Harvey, WAM T45646), 2o, Jan. 19-Mar. 21, 1995, pitfall (M. Harvey, J. Waldock, WAM T45647), 1q; Lake Cronin, $32^{\circ} 23^{\prime}$ S, $119^{\circ} 45^{\prime}$ E, Feb. 4-10, 1981, pitfall, dune shrubland (W. Humphreys, WAM 88/165), 1o; Mackie Creek Reserve, $32^{\circ} 00^{\prime} \mathrm{S}$, $117^{\circ} 01^{\prime} \mathrm{E}$, Oct. 30, 1997-May 26, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51743), 1 º ; Marangaroo Reserve, $31^{\circ} 50^{\prime} \mathrm{S}, 115^{\circ} 50^{\prime} \mathrm{E}$, July 13-Sept. 25, 1995, pitfalls (M. Harvey, J. Waldock, WAM T45651, 45655), 20, Sept. $25-$


Map 43. Circle, Cryptoerithus quobba, new species. Square, Cryptoerithus rough, new species. Triangle, Cryptoerithus halifax, new species.

Nov. 28, 1995, pitfall (M. Harvey, J. Waldock, WAM 99/668), 10;; Mardathuna Station, $24^{\circ} 26^{\prime}$ S, $114^{\circ} 30^{\prime}$ E, May 24 -Aug. 26, 1995, pitfall (N. Hall, WAM T44912), 10'; Mardathuna Station, $24^{\circ} 27^{\prime} \mathrm{S}, 114^{\circ} 31^{\prime} \mathrm{E}$, Oct. 5, 1994-Jan. 14, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T44911), 10'; Middle Island, Recherche Archipel, $34^{\circ} 06^{\prime} \mathrm{S}, 123^{\circ} 11^{\prime} \mathrm{E}$, Apr. $8-9,1989$, in tree litter (A. Longbottom, WAM 90/647), 10'; W Monkey Mia, $25^{\circ} 48^{\prime} \mathrm{S}$, $113^{\circ} 42^{\prime} \mathrm{E}$, Nov. 7, 1998, diesel vibration (J. Waldock, WAM T45163), 19; Mount Claremont, $31^{\circ} 58^{\prime}$ S, $115^{\circ} 46^{\prime}$ E, Sept. 1-Nov. 4, 1994, pitfalls (J. Waldock, A. Longbottom, WAM T45629, 45635), 10', 19, Nov. 4, 1994-Jan. 19, 1995, pitfalls (J. Waldock, M. Harvey, WAM T45657, 45660), 3o, Jan. 19-Mar. 21, 1995, pitfall (M. Harvey, J. Waldock, WAM T45658), 1o, May 4-July 6, 1995, pitfalls (J. Waldock, M. Harvey, WAM T45659), 10', 19; Mount Henry, $32^{\circ} 02^{\prime}$ S, $115^{\circ} 52^{\prime}$ E, Oct. 4, 1993-Sept. 1, 1994, pitfall (J. Waldock, A. Longbottom, WAM T45636), $1 \stackrel{\text { of }}{ }$; Nanga Station, $26^{\circ}{ }^{\circ} 9^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, Jan. 19-May 11, 1995, pitfall (A. Sampey, WAM T44987), 1¢̣; Nanga Station, $26^{\circ} 31^{\prime}$ S, $114^{\circ} 00^{\prime}$ E, Jan. 19-May 12, 1995, pitfall (A. Sampey, WAM T44988), 1\%; Ogilvie Road, ca. 40 km SW Ajana, $27^{\circ} 59^{\prime} \mathrm{S}, 114^{\circ} 12^{\prime} \mathrm{E}$, Sept. 15 , 1998-Mar. 30, 1999, pitfall (P. Van Heurck, WAM T49569), 1¢; O’Neill Road State Forest, W Highbury, $33^{\circ} 05^{\prime} \mathrm{S}, 117^{\circ} 10^{\prime} \mathrm{E}$, Oct. 30, 1997Feb. 23, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51133), 1o; Perth Airport, $31^{\circ} 58^{\prime}$ S, $115^{\circ} 58^{\prime}$ E, Nov. 18, 1993-Jan. 6, 1994, pitfall (J. Waldock, K. Goodsell, J. Webb, WAM T45092), 1@ ; Quobba Station, Cape Cuvier, $24^{\circ} 08^{\prime}$ S, $113^{\circ} 27^{\prime}$ E, Jan. $15-$ May 31, 1995, pitfall (A. Sampey, WAM 99/652), $10^{\prime}$; Saint Romans Nature Reserve, $31^{\circ} 53^{\prime} \mathrm{S}$, $116^{\circ} 35^{\prime}$ E, Oct. 15, 1997-May 26, 1998, pitfall (L. King, WAM T49575), 19; Stephens Road, Dryandra Nature Reserve, $32^{\circ} 44^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997-Feb. 23, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51752, 51753, 51774), 3q; Trigg Dune Bush, $31^{\circ} 52^{\prime} \mathrm{S}$, $115^{\circ} 46^{\prime}$ E, Sept. $25-$ Nov. 28, 1995, pitfall (M. Harvey, J. Waldock, WAM T45661), 10'; Trigg Dune Bush, $31^{\circ} 53^{\prime}$ S, $115^{\circ} 46^{\prime}$ E, July 13-Sept. 25, 1995, pitfall (M. Harvey, J. Waldock, WAM T45666), $10^{\circ}$, Sept. $25-$ Nov. 28, 1995, pitfalls (M. Harvey, J. Waldock, WAM T45664), 20, 1̨, Nov. 28, 1995-Jan. 29, 1996, pitfalls (M. Harvey, J. Waldock, WAM T45662, 45665), 2q, Jan. 29-Mar. 28, 1996, pitfall (J. Waldock, P. West, WAM T45667), 1中̣; Woodman Point, $32^{\circ} 08^{\prime} \mathrm{S}, 115^{\circ} 45^{\prime} \mathrm{E}$, Nov. 4, 1994 Jan. 19, 1995, pitfalls (J. Waldock, M. Harvey, WAM T45676, 45680, 45681), 50', 4@, Jan. 19-

Mar. 21, 1995, pitfall (J. Waldock, M. Harvey, WAM T45682), 1o, Mar. 21-May 4, 1995, pitfall (J. Waldock, M. Harvey, WAM T45683), 10', May 4-July 6, 1995, pitfall (J. Waldock, M. Harvey, WAM T45678), 10'; Yorkrakine Rock Nature Reserve, $31^{\circ} 25^{\prime} \mathrm{S}, 117^{\circ} 31^{\prime} \mathrm{E}$, Sept. 6Nov. 29, 1999, pitfall, base of rock (J. Waldock, WAM T45110), $10^{\circ} ;$ Zuytdorp, $27^{\circ} 16^{\prime} \mathrm{S}$, $114^{\circ} 04^{\prime}$ E, Jan. 11-May 18, 1995, pitfall (M. Harvey, WAM T44989), 1 o.

Distribution: Widespread across central and southern Australia (map 43).

## Cryptoerithus harveyi, new species

Figures 610-614; Map 44
Types: Male holotype and female allotype taken in dry pitfall traps at Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 25^{\prime} \mathrm{E}$, Western Australia (Oct. 9-14, 1994; M. Harvey), deposited in WAM (T44948).

Etymology: The specific name is a patronym in honor of Dr. Mark Harvey of the Western Australian Museum, collector of the types and many other fascinating arachnids.

Diagnosis: Males resemble those of $C$. occultus but can easily be recognized by the elongated, dorsally directed retrolateral tibial apophysis (fig. 612); females have a distinctively elongated anterior epigynal margin (fig. 613).
Male: Total length 3.34. Carapace 1.98 long, 1.76 wide, 0.42 high, length/width 1.12 ; sternum 1.32 long, 1.00 wide, length/width 1.32; abdomen 1.36 long, 0.78 wide; coxa I 0.82 long; relative length of coxae I-IV 1:0.85:0.78:1.10. Carapace, sternum, mouthparts, legs pale; abdomen pale, dorsally with weak orange brown scutum, dark horizontal bands, venter pale; legs pale. AME elevated; eye group width 0.76 of head width; AME 0.20; ALE 0.14; PME 0.22; PLE 0.12; AMEAME 0.04; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.08; ALE-PLE 0.04; eye group AME-PME 0.46; AME-AME 0.44; PME-PME 0.42. Clypeus 0.10 high. Cheliceral retromargin with $3-5$ tiny teeth. Abdomen covered with gray plumose setae, ventrally with two longitudinal rows of stiff, erect setae; ALS 0.32 of abdominal length, about their diameter apart. Tibiae, metatarsi, tarsi I, II proventrally with long dense scopula. Palp (figs. 610-612): cymbium with dorsoapical scopula; conductor originating


Figs. 610-614. Cryptoerithus harveyi, new species. 610. Left male palp, prolateral view. 611. Same, ventral view. 612. Same, retrolateral view. 613. Epigynum, ventral view. 614. Same, dorsal view.
prolaterally, long, semicircular; median apophysis cane-shaped, about twice as long as wide; terminal apophysis thin, conical, connected to embolar base, basally situated; sperm duct semicircular; embolus thin, semicircular, originating basally, embolar base separated from tegulum; retrolateral tibial apophysis long, dorsally directed, with bent tip.

Female: Total length 3.26. Carapace 1.90 long, 1.86 wide, 0.44 high, length/width 1.05 ; sternum 1.24 long, 1.04 wide, length/ width $1.19 ; 0.82$ wide; coxa I 0.80 long; relative length of coxae I-IV 1:0.95:0.80:1.25.

Coloration as in male but without scutum. Eye group width 0.66 of head width; AME 0.16; ALE 0.16; PLE 0.14; AME-ALE 0.04; PME-PLE 0.06; ALE-PLE 0.06; eye group AME-PME 0.42; AME-AME 0.36; PME-PME 0.4. ALS 0.38 of abdominal length. Tibiae I distal half, metatarsi, tarsi I, II proventrally with scopula. Epigynum (figs. 613, 614) with long, inverted v-shaped epigynal hood, lateral plates with median pointed margin; spermathecae, sausageshaped, twisted slightly separated.

Other Material Examined: Western Australia: Barlee Range Nature Reserve, $23^{\circ} 05^{\prime}$ S,


Figs. 615-619. Cryptoerithus nopaut, new species. 615. Left male palp, prolateral view. 616. Same, ventral view. 617. Same, retrolateral view. 618. Epigynum, ventral view. 619. Same, dorsal view.
$115^{\circ} 47^{\prime} \mathrm{E}$, Jan. 15-18, 1994, dry pitfall (P., G. Kendrick, WAM T45121), 1ơ; Bidgemia Station, Gasgoyne Junction, $25^{\circ} 13^{\prime} \mathrm{S}, 115^{\circ} 31^{\prime} \mathrm{E}$, Oct. 4, 1994-Jan. 13, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44914), 1ᄋ, Jan. 13-June 5, 1995, pitfall (J. Waldock, WAM T44915), 10, June 5-Aug. 20, 1995, pitfall (N. Hall, WAM T44916), $10^{\prime}$; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$, $113^{\circ} 45^{\prime}$ E, Sept. 27-Oct. 2, 1994, dry pitfall (A. Sampey, WAM T44917), 10'; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 46^{\prime} \mathrm{E}$, Jan. 15-May 31, 1995, pitfall (J. Waldock, WAM T44918), 10'; Bush

Bay, $25^{\circ} 05^{\prime} \mathrm{S}, 113^{\circ} 43^{\prime} \mathrm{E}$, Jan. 16-May 23, 1995 (P. West. WAM T44922), 1ᄋ; Bush Bay, $25^{\circ} 07^{\prime} \mathrm{S}, 113^{\circ} 44^{\prime} \mathrm{E}$, Jan. 16-Apr. 4, 1995, pitfall (W. Muir, A. Sampey, WAM T44923), 10; Bush Bay, $25^{\circ} 07^{\prime}$ S, $113^{\circ} 48^{\prime}$ E, Jan. 16-May 23, 1995, pitfall (P. West, WAM T44920, 44921), $10^{\prime}, 1$ ¢ ; Bush Bay, $25^{\circ} 08^{\prime} \mathrm{S}, 113^{\circ} 46^{\prime} \mathrm{E}$, Jan. $16-$ May 23, 1995, pitfall (P. West, WAM T44924), $10^{\prime}$; Bush Bay, $25^{\circ} 08^{\prime} \mathrm{S}, 113^{\circ} 49^{\prime} \mathrm{E}$, Sept. 29, 1994-Jan. 16, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44919), 1¢; Cape Range, Exmouth Limestone Lease, $22^{\circ} 00^{\prime} \mathrm{S}, 114^{\circ} 05^{\prime} \mathrm{E}$,

May 14, 2001, pitfalls (R. Brooks, WAM T45702, 45704, 45706), 3o; Durokoppin Nature Reserve, $31^{\circ} 24^{\prime} \mathrm{S}, 117^{\circ} 46^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51119), 1̊; Francois Peron National Park, $25^{\circ} 53^{\prime} \mathrm{S}, 113^{\circ} 33^{\prime} \mathrm{E}$, Oct. 11, 1994-Jan. 17, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44925), 1¢ְ; Helena-Aurora Ranges, $30^{\circ} 23^{\prime} \mathrm{S}$, $119^{\circ} 38^{\prime}$ E, Sept. 24-27, 1995, pitfall (R. McMillan, WAM T45152), 10'; Kennedy Range National Park, $24^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 58^{\prime} \mathrm{E}$, Oct. 3-8, 1994, dry pitfall (M. Harvey, WAM T44926), $10^{\prime}$; Kennedy Range National Park, $24^{\circ} 33^{\prime}$ S, $114^{\circ} 58^{\prime} \mathrm{E}$, Oct. 3-8, 1994, dry pitfall (M. Harvey, WAM T44927), 10; Lochada Road Nature Reserve, $29^{\circ} 15^{\prime} \mathrm{S}, 116^{\circ} 22^{\prime} \mathrm{E}$, Sept. 15, 1998-Apr. 1, 1999, pitfall (L. King, WAM T49354), 1̊; Mardathuna Station, $24^{\circ} 24^{\prime} \mathrm{S}$, $114^{\circ} 27^{\prime} \mathrm{E}$, Oct. 5, 1994 -Jan. 14, 1995, pitfalls (N. McKenzie, J. Rolfe, WAM T44930), 1o; Mardathuna Station, $24^{\circ} 24^{\prime} \mathrm{S}, 114^{\circ} 28^{\prime} \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM T44929), 1@; Mardathuna Station, $24^{\circ} 27^{\prime} \mathrm{S}$, $114^{\circ} 31^{\prime} \mathrm{E}$, Aug. 19-Oct. 5, 1994, pitfall (P. West, WAM 99/659, T44928), 10', 3̊; Meedo Station, $25^{\circ} 43^{\prime} \mathrm{S}, 114^{\circ} 36^{\prime} \mathrm{E}$, Jan. 12-May 19 , 1995, pitfall (A. Sampey, WAM T44931, 44932), 20웅 Nanga Station, $26^{\circ} 29^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, Aug. 23-Oct. 16, 1994, pitfall (P. West, WAM T44934), 1 \& , Oct. 15-20, 1994, dry pitfall (P. West, WAM T44933), 1̊, Oct. 16, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44935), 1ᄋ; Nanga Station, $26^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 00^{\prime} \mathrm{E}$, Oct. 16, 1994-Jan. 19, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44936), 1¢̧; Nanga Station, $26^{\circ} 33^{\prime}$ S, $113^{\circ} 58^{\prime}$ E, Oct. 16, 1994-Jan. 19, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44937), 1¢; Nerren Nerren Station, $27^{\circ} 00^{\prime} \mathrm{S}$, $114^{\circ} 32^{\prime} \mathrm{E}$, May 11 -Aug. 18, 1995, pitfall (N. Hall, WAM T44938), 10'; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 25^{\prime} \mathrm{E}$, Aug. 22-Oct. 10, 1994, pitfall (M. Harvey, WAM T44947), 1q, Oct. 9-14, 1994, dry pitfalls (M. Harvey, WAM T44946, 44948), 10', 1ᄋ, Oct. 10, 1994-Jan. 12, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T44949), 1¢ְ; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}$, $114^{\circ} 35^{\prime} \mathrm{E}$, Aug. 22-Oct. 12, 1994, pitfalls (M. Harvey, WAM T44942), 3o, Jan. 12-May 17, 1995, pitfalls (P. West, WAM T44943), 3o, May 17-Aug. 21, 1995, pitfall (N. Hall, WAM T44945), 1¢ְ; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}$, $114^{\circ} 36^{\prime}$ E, Aug. 22-Oct. 11, 1994, pitfall (M. Harvey, WAM T44940), 10*, Oct. 9-14, 1994, dry pitfall (M. Harvey, WAM T44939), 19, Jan. 12-May 17, 1995, pitfall (P. West, WAM T44941), 10'.

Distribution: Known only from Western Australia (map 44).

## Cryptoerithus nopaut, new species

Figures 615-619; Map 42
Type: Male holotype taken under spinifex at Woodstock Station, $21^{\circ} 37^{\prime} \mathrm{S}, 118^{\circ} 57^{\prime} \mathrm{E}$, Western Australia (Oct. 25, 1990; M. Harvey), deposited in WAM (T45043).

Etymology: The specific name is an arbitrary combination of letters.

DiAGNOSIS: Males and females have not been collected together and are tentatively matched here only on the basis of geography (the differences in leg setation may signal a mismatch). Males resemble those of C. nonaut and C. nanga in having a second, more basal apophysis on the palpal tibia but differ in having an undivided tip on the retrolateral tibial apophysis (figs. 616, 617). Females have the epigynal hood situated far from the posterolateral epigynal plates (fig. 618).

Male: Total length 2.06. Carapace 1.26 long, 1.12 wide, 0.48 high, length/width 1.12 ; sternum 0.80 long, 0.66 wide, length/width 1.12; abdomen 0.80 long, 0.56 wide; coxa I 0.44 long; relative length of coxae I-IV 1:0.91:0.82:1.32. Body, legs pale. Eye group width 0.75 of head width; AME 0.14; ALE 0.14 ; PME 0.20; PLE 0.10; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.00; PMEPLE 0.04; ALE-PLE 0.04; eye group AMEPME 0.36; AME-AME 0.30; PME-PME 0.32. Clypeus 0.08 high. Cheliceral margins without teeth. Abdomen with gray plumose


Map 44. Circle, Cryptoerithus harveyi, new species. Square, Cryptoerithus melindae, new species. Triangle, Cryptoerithus annaburroo, new species.
setae, ventrally with unordered, stiff, erect setae; ALS 0.35 of abdominal length, about their diameter apart. Metatarsi, tarsi I, II with scopula. Palp (figs. 615-617): cymbium retrolaterally straight, with basal hook, dorsoapical scopula; conductor originating prolaterally, broad, semicircular; median apophysis short, cane-shaped; terminal apophysis prolaterally situated, triangular, with sharp tip, connected to embolar base; sperm duct semicircular; embolus thin, semicircular, originating basally; retrolateral tibial apophysis triangular, with s-shaped tip, dorsobasal tooth; femur lacks ventral process.

Female: Total length 3.30. Carapace 1.60 long, 1.38 wide, 0.48 high, length/width 1.16; sternum 1.14 long, 0.86 wide, length/ width 1.32 ; abdomen 1.70 long, 0.86 wide; coxa I 0.58 long; relative length of coxae I-IV 1:0.83:0.76:1.21. Body, legs pale. Eye group width 0.69 of caput width; AME 0.14; ALE 0.14; PME 0.2; PLE 0.1; AME-AME 0.04; AME-ALE 0.02; PME-PME 0; PME-PLE 0.04 ; ALE-PLE 0.04; eye group AME-PME 0.36 ; AME-AME 0.32; PME-PME 0.32 . Clypeus 0.02 high. Abdomen covered with gray plumose setae, frontally with band of long, bent spines, venter with unordered, stiff, erect setae; ALS 0.26 of abdominal length, about their diameter apart. Tarsi I, II proventrally with band of short, bent setae. Epigynum (figs. 618, 619) with inverted vshaped, anterior epigynal hood, widely separated, rectangular lateral plates; epigynal ducts short, flat, spermathecae widely separated, more than their diameter apart, sau-sage-shaped, in inverted v-shaped position.

Other Material Examined: Western Australia: Dunham Hill, 52 km N Turkey Creek, Great Northern Highway, Kimberly region, $16^{\circ} 38^{\prime} \mathrm{S}, 128^{\circ} 12^{\prime} \mathrm{E}$, pitfall, savanna woodland, base of rocky outcrop (M. Gray, G. Milledge, H. Smith, AMS KS57265), 1 ¢ $; 12 \mathrm{~km} \mathrm{~S} \mathrm{Ka-}$ lumburu Mission, $14^{\circ} 25^{\prime} \mathrm{S}, 126^{\circ} 38^{\prime} \mathrm{E}$, June $7-11$, 1988, open forest (T. Weir, WAM T45287), 1 ọ.

Distribution: Known only from Western Australia (map 42).

## Cryptoerithus rough, new species

Figures 620-624; Map 43
Type: Male holotype taken under bark at Watervalley Station, 8 km N of Mount Rough,
$36^{\circ} 18^{\prime} \mathrm{S}, 139^{\circ} 54^{\prime} \mathrm{E}$, South Australia (Oct. 14, 2000), deposited in SAM (NN11803).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of $C$. hasenpuschi but have a smaller retrolateral tibial apophysis (fig. 622) and a much shorter tegular spur (fig. 621); females also resemble those of C. hasenpuschi but have much smaller anterior epigynal ducts (fig. 624).

Male: Total length 2.96. Carapace 1.32 long, 1.14 wide, 0.52 high, length/width 1.15 ; sternum 0.98 long, 0.78 wide, length/ width 1.25 ; abdomen 1.64 long, 0.86 wide; coxa I 0.58 long; relative length of coxae I-IV 1:0.89:0.69:1.10. Carapace pale, with dark filigree net pattern; sternum, mouthparts pale; abdomen gray, venter pale; legs gray. Eye group width 0.77 of head width; AME 0.10 ; ALE 0.10; PME 0.18; PLE 0.08; AME-AME 0.02; AME-ALE 0.02; PMEPME 0.00; PME-PLE 0.04; ALE-PLE 0.02 ; eye group AME-PME 0.28; AMEAME 0.22; PME-PME 0.28. Clypeus 0.02 high. Abdomen covered with gray plumose setae, frontally without band of bent setae, venter with two longitudinal rows of stiff, erect setae; ALS 0.29 of abdominal length, about half their diameter apart. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 620-622): conductor originating prolaterally, long, semicircular; median apophysis cane-shaped, about twice as long as wide; terminal apophysis short, conical, prolaterally situated; sperm duct weakly s-shaped; embolus thin, semicircular, originating prolaterally; retrolateral tibial apophysis short, bilobate; femur lacking ventral process.

Female: Total length 3.20. Carapace 1.44 long, 1.22 wide, 0.52 high, length/width 1.18; sternum 1.02 long, 0.84 wide, length/ width 1.21 ; abdomen 1.76 long, 1.02 wide; relative length of coxae I-IV 1:0.86:0.69:1.20. Coloration as in male. Eye group width 0.64 of head width; eye group AME-PME 0.32; PME-PME 0.26. ALS 0.38 of abdominal length. Epigynum (figs. 623, 624): atrium with wide, arched anterior margin, lateral plates rectangular; spermathecae sausageshaped, twisted, slightly separated.

Other Material Examined: South Australia: Gum Lagoon Conservation Park, $36^{\circ} 17^{\prime} \mathrm{S}$,


Figs. 620-624. Cryptoerithus rough, new species. 620. Left male palp, prolateral view. 621. Same, ventral view. 622. Same, retrolateral view. 623. Epigynum, ventral view. 624. Same, dorsal view.
$140^{\circ} 02^{\prime} \mathrm{E}$, Mar. 26, 1992, lagoon edge, vibration (D. Hirst, SAM NN11801), 1ᄋ; 13 km N Keilira Station, W Marcollat, $36^{\circ} 37^{\prime} \mathrm{S}, 140^{\circ} 10^{\prime} \mathrm{E}$, Apr. 1979 (D. Hirst, SAM NN22275, 22276), 2 Q.

Distribution: Known only from southeastern South Australia (map 43).

Cryptoerithus halifax, new species
Figures 625-629; Map 43
Type: Male holotype taken in pitfall trap 6.7 km NW of Halifax Hill, $29^{\circ} 40^{\prime} \mathrm{S}$, $135^{\circ} 46^{\prime}$ E, South Australia (Sept. 29-Oct. 5,

1995; H. Owens), deposited in SAM (NN11771).

Etymology: The specific name is a noun in apposition taken from the type locality.

DiAgnosis: Males of this bizarre species can easily be recognized by the two distal tibial apophyses, prolonged tegular spur, prolaterally produced tegulum, and sinuous embolus (figs. 625-627), females by the widely separated anterior and posterior epigynal elements (fig. 628) and the elongated spermathecae (fig. 629).


Figs. 625-629. Cryptoerithus halifax, new species. 625. Left male palp, prolateral view. 626. Same, ventral view. 627. Same, retrolateral view. 628. Epigynum, ventral view. 629. Same, dorsal view.

Male: Total length 3.44. Carapace 1.40 long, 1.20 wide, 0.44 high, length/width 1.16; sternum 0.96 long, 0.76 wide, length/width 1.26; abdomen 2.04 long, 1.04 wide; coxa I 0.52 long; relative length of coxae I-IV 1:0.77:0.61:1.04. Carapace, sternum, mouthparts, legs pale; abdomen pale, dorsally with dark horizontal bands. AME elevated; eye group width 0.68 of head width; AME 0.14; ALE 0.12; PME 0.2; PLE 0.10; AME-AME 0.04; AME-ALE 0.04; PME-PME 0.00; PME-PLE 0.06; ALE-PLE 0.04; eye group AME-PME 0.38; AME-AME 0.32; PMEPME 0.32. Clypeus 0.04 high. Abdomen covered with gray plumose setae, frontally without band of bent setae, venter with two
longitudinal rows of stiff, erect setae; ALS 0.33 of abdominal length, about their diameter apart. Metatarsi, tarsi I, II with scopula. Palp (figs. 625-627): conductor originating prodistally, broad, semicircular; median apophysis elongate, about four times longer than wide, with small distal hook; terminal apophysis basally situated, almost as long as bulb, piriform, connected to prolaterally produced tegulum; sperm duct semicircular; embolus sinuous, originating prolaterally, embolar base hidden behind terminal apophysis; retrolateral tibial apophysis divided into two small, distal projections.

Female: Total length 3.78. Carapace 1.38 long, 1.30 wide, 0.48 high, length/width
1.06; sternum 0.94 long, 0.80 wide, length/ width 1.17; abdomen 2.40 long, 1.44 wide; coxa I 0.54 long; relative length of coxae I-IV 1:0.96:0.74:1.07. Coloration as in male. Eye group width 0.74 of head width; AME 0.12 ; PME 0.18; PLE 0.09; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.30; AME-AME 0.28. Epigynum (figs. 628, 629): atrium widely hexagonal, with wide epigynal hood, lateral plates rectangular; spermathecae L-shaped.

Other Material Examined: South Australia: 7.5 km WNW Wilpoorinna, $29^{\circ} 56^{\prime} \mathrm{S}$, $138^{\circ} 16^{\prime}$ E, Nov. 2, 1994, pitfall (SAM NN11769), 1 ㅇ.

Remarks: The male holotype has two acrocerid larvae in the booklungs.

Distribution: Known only from South Australia (map 43).

## Cryptoerithus ninan, new species

Figures 630, 631; Map 40
Type: Female holotype taken in pitfall trap at Lake Ninan shire reserve, west site, $30^{\circ} 57^{\prime} \mathrm{S}, 116^{\circ} 38^{\prime} \mathrm{E}$, Western Australia (Sept. 15, 1998-Oct. 25, 1999; B. Durrant), deposited in WAM (T51179).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females can easily be recognized by the massive, rounded anterior epigynal ducts (fig. 631).

Female: Total length 4.60. Carapace 2.10 long, 1.86 wide, 0.42 high, length/width 1.13; sternum 1.36 long, 1.10 wide, length/ width 1.23 ; abdomen 2.50 long, 1.68 wide; coxa I 0.80 long; relative length of coxae I-IV 1:0.9:0.75:1.15. Carapace, sternum, endites, labium pale; chelicerae, abdomen gray; legs mottled with gray on distal half of femora. Eye group width 0.75 of head width; AME 0.17; ALE 0.16; PME 0.18; PLE 0.14; AMEAME 0.04; AME-ALE 0.04; PME-PME 0.01 ; PME-PLE 0.06; ALE-PLE 0.04; eye group AME-PME 0.40; AME-AME 0.38; PME-PME 0.40 . Clypeus 0.10 high. Cheliceral retromargin with 3-5 tiny teeth. Abdomen covered with gray plumose setae, frontally without band of bent setae; ALS 0.40 of abdominal length, about their diameter apart. Tibiae I distal half, metatarsi, tarsi I, II proventrally with scopula. Epigynum (figs. 630, 631) with massive, rounded
anterior ducts, large inverted u -shaped lateral plates, median septum; spermathecae sau-sage-shaped, twisted, slightly separated, with dorsal diverticula.

Male: Unknown.
Other Material Examined: Western Australia: Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 40^{\prime} \mathrm{E}$, May 28-June 2, 1995, pitfall (J. Waldock, WAM T45253), 19; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 42^{\prime} \mathrm{E}$, May 29,1995 , head torching at night (J. Waldock, WAM T51827), 1o; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}, 113^{\circ} 46^{\prime} \mathrm{E}$, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45254), 1o, Jan. 15-May 31, 1995, pitfall (J. Waldock, WAM T45255), 1o; Darkin Road, W Beverley, $32^{\circ} 08^{\prime} \mathrm{S}, 116^{\circ} 30^{\prime} \mathrm{E}$, Oct. 30, 1997-May 29, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51115), 1o; Lake Mollerin, $30^{\circ} 32^{\prime}$ S, $117^{\circ} 34^{\prime}$ E, Sept. 15, $1998-$ Oct. 25, 1999, pitfall (L. King, WAM T49554), 1of; Nanga Station, $26^{\circ} 29^{\prime} \mathrm{S}, 114^{\circ} 03^{\prime} \mathrm{E}$, Aug. 23Oct. 16, 1994 (P. West, WAM T45256), 1p; Ogilvie Road, ca. 40 km SW Ajana, $27^{\circ} 59^{\prime} \mathrm{S}, 114^{\circ} 12^{\prime} \mathrm{E}$, Sept. 15, 1998-Mar. 30, 1999, pitfall (P. Van Heurck, WAM T49570), 1 ; Woodleigh Station, $26^{\circ} 12^{\prime} \mathrm{S}, 114^{\circ} 25^{\prime} \mathrm{E}$, Oct. 10, 1994-Jan. 12, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45260), 1甲; Woodleigh Station, $26^{\circ} 13^{\prime} \mathrm{S}, 114^{\circ} 35^{\prime} \mathrm{E}$, Jan. 12-May 17, 1995, pitfall (P. West, WAM T45257), 1 o.

Distribution: Known only from Western Australia (map 40).

Cryptoerithus annaburroo, new species
Figures 632, 633; Map 44
Type: Female holotype taken in pitfall trap at sand site, Annaburroo, $12^{\circ} 54^{\prime} \mathrm{S}$, $131^{\circ} 40^{\prime} \mathrm{E}$, Northern Territory (Apr. 1997; T. Churchill), deposited in MNT (A001503).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Females can easily be recognized by the relatively wide epigynal atrium and triangular posterior epigynal projections (fig. 632).

Male: Unknown.
Female: Total length 4.12. Carapace 1.42 long, 1.30 wide, 0.40 high , length/ width 1.09 ; sternum 1.00 long, 0.80 wide, length/width 1.25 ; abdomen 2.70 long, 1.40 wide; coxa I 0.50 long; relative length of coxae I-IV 1:0.88:0.80:1.40. Carapace pale yellow, with marginal dark filigree net pattern; sternum, endites, labium, abdomen


Figs. 630-633. 630, 631. Cryptoerithus ninan, new species. 632, 633. Cryptoerithus annaburroo, new species. 630, 632. Epigynum, ventral view. 631, 633. Same, dorsal view.
pale; chelicerae pale gray; legs cinnamon brown, with distally darkened femora, patellae, tibiae. Eye group width 0.66 of head width; AME 0.14; ALE 0.10; PME 0.18; PLE 0.08 ; AME-AME 0.02; AME-ALE 0.02; PME-PME 0.00; PME-PLE 0.04; ALEPLE 0.02; eye group AME-PME 0.36; AME-AME 0.30; PME-PME 0.34. Clypeus 0.08 high. Cheliceral retromargin with 3-5 tiny teeth. Abdomen weakly covered with gray plumose setae, frontally without band of bent setae; ALS 0.26 of abdominal length, about half their diameter apart. Tibiae I distal half, metatarsi, tarsi I, II proventrally
with scopula. Epigynum (figs. 632, 633): atrium with wide rectangular anterior margin, wide, triangular posterior projections; spermathecae close together, sausage-shaped and twisted.

Other Material Examined: None.
Distribution: Known only from the Northern Territory (map 44).

Cryptoerithus melindae, new species
Figures 634-638; Map 44
Types: Male holotype and female allotype taken in pitfall traps at Jarrahdale Mine,


Figs. 634-638. Cryptoerithus melindae, new species. 634. Left male palp, prolateral view. 635. Same, ventral view. 636. Same, retrolateral view. 637. Epigynum, ventral view. 638. Same, dorsal view.
$32^{\circ} 16^{\prime} \mathrm{S}, 116^{\circ} 06^{\prime} \mathrm{E}$, Western Australia (male, Apr. 1998, female, Oct. 5-12, 1997; K. E. C. Brennan), deposited in WAM (male T54775, female T54776).

Etymology: The specific name is a patronym in honor of Melinda Moir, the wife of Dr. Karl Brennan, who has done much ecological work at the Jarrahdale Mine.

Diagnosis: Males resemble those of $C$. rough but have a longer retrolateral tibial apophysis (fig. 636) and a much longer terminal apophysis (fig. 635); females also resemble those of C. rough but have less twisted spermathecae (fig. 638).

Male: Total length 3.80. Carapace 1.64 long, 1.38 wide, 0.54 high, length/width 1.19; sternum 1.16 long, 0.86 wide, length/width 1.35; abdomen 2.16 long, 1.10 wide; coxa I 0.60 long; relative length of coxae I-IV 1.00:0.90:0.66:1.07. Carapace pale yellow, with dark filigree net pattern; sternum, mouthparts, legs pale; abdomen pale gray, dorsally with weak orange scutum, epigastric area orange. Carapace weakly covered with gray, plumose setae. Eye group width 0.64 of caput width; AME 0.10; ALE 0.10; PME 0.15 ; PLE 0.10 ; AME-AME 0.04 ; AMEALE 0.02; PME-PME 0.00; PME-PLE
0.04; ALE-PLE 0.04; eye group AME-PME 0.3; AME-AME 0.24; PME-PME 0.30 . Clypeus 0.04 high. Abdomen covered with gray, plumose setae, frontally with band of bent setae, venter with two longitudinal rows of stiff, erect setae; ALS 0.37 of abdominal length, slightly separated. Tarsi I, II proventrally with band of scaled setae. Palp (figs. 634-636): cymbium retrolaterally straight; conductor originating prolaterally, long, spatulate; median apophysis about twice as long as wide, cane-shaped; terminal apophysis long, triangular, with sharp tip, prolaterally situated; sperm duct weakly sshaped; embolus long, thin, semicircular, situated prolaterally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis triangular.

Female: Total length 4.36. Carapace 1.56 long, 1.30 wide, 0.46 high, length/width 1.20; sternum 1.14 long, 0.84 wide, length/ width 1.36 ; abdomen 2.80 long, 1.20 wide; relative length of coxae I-IV 1.00:0.93: 0.70:1.07. Coloration as in male but without scutum. Eye group width 0.62 of caput width; PME 0.14; AME-AME 0.02; eye group AME-PME 0.28; AME-AME 0.22; PMEPME 0.28. Clypeus 0.02 high. ALS 0.24 of abdominal length. Epigynum (figs. 637, 638) with inverted u-shaped anterior hood, widely separated, medially directed, inverted ushaped lateral plates; epigynal ducts short, spermathecae separated by less than their diameter, oval, twisted, in horizontal position.

Other Material Examined: None.
Distribution: Known only from Western Australia (map 44).

## Myandra Simon

Myandra Simon, 1887: 159 (type species by monotypy Myandra cambridgei Simon).

DIAGNOSIS: Specimens of this genus can readily be separated from those of all other molycriines by the relatively small, widely separated posterior median eyes (fig. 10).

Description: Small spiders, total length of males 1.9-2.3, of females 2.1-3.0. Carapace broadly oval, narrowed in front to less than half its maximum width, lateral margins rebordered; surface finely reticulated, coated
with shiny, recumbent, plumose setae, without tubercles, few long, dark, erect setae present on clypeus; thoracic groove longitudinal, weak or absent. Eight eyes in two rows, small, subequal; PME oval, light; both rows only slightly procurved (fig. 10); anterior medians separated by their radius or less, equidistant to anterior laterals; posterior medians separated by their width or less, about as far from posterior laterals; anterior, posterior laterals separated by about their radius; median ocular quadrangle as long as wide or slightly wider, wider in back than in front. Chelicerae (fig. 247) vertical, paturon with low boss, promargin with row of long, curved setae, three teeth, middle tooth largest, retromargin with two smaller, more widely separated teeth; chilum wide, unipartite, triangular. Labium wider than long, inverted u-shaped. Endites rectangular, convergent, with oblique depression; serrula present, curved; anteromedian edges bearing wide patch of stiff setae. Sternum shieldshaped, anteriorly straight, widely separating coxae IV posteriorly, deeply depressed opposite intercoxal spaces, with only indistinct extensions between coxae but with large, triangular extensions to coxae; surface finely reticulated, with few setae. Pedicel composed of two sclerites, dorsal sclerite extending around sides, ventral sclerite narrow, with inverted $v$-shaped incision posteriorly, anteriorly almost reaching posterior tip of sternum. Abdominal dorsum with two diffuse, pale, horizontal bands; large weak orange scutum covering two thirds of abdomen in males; cuticle covered with gray, recumbent, plumose setae; booklungs weakly sclerotized; colulus apparently absent but wide, recurved posterior spiracle apparently present just anterior of posterior median spinnerets. Six spinnerets, anterior laterals greatly elongated, contiguous, equal to roughly half of total abdominal length, greatly advanced anteriorly, originating at position about one-half of distance between epigastric furrow and anal tubercle, point of origin bearing macrosetae at midline (fig. 17). Legs elongate, leg formula 4123, coated with recumbent, plumose setae; coxae IV equal to I or longest; coxae, trochanters without dorsal tubercles, trochanters subequal in length, distal edges fitting inside proximo-
ventral margins of femora; femora I, II long, proximal portion slightly incrassate; metatarsi without distal preening brushes; tarsi elongated, with two toothless claws on onychium, weak claw tufts composed of few pairs of spatulate setae (fig. 245); tarsi I, II without, III, IV with cuticular cracks at about three-quarters of their length, distinctly bent at that point; trichobothria present, in two rows on tarsi, one on metatarsi, tibiae. Female palpal femur without strong spines; female palpal tarsus without distal claw, ventral scopula, or dorsal pad of setae. Male palpal cymbium long, at least 2.2 times longer than wide, tip conical; palpal tibia about 1.5 times as long as wide, with distal, retrolateral apophysis; embolus situated prolaterally, probasally or retrolaterally, tip nestled in longitudinally grooved conductor; median apophysis hook-shaped, terminal apophysis conical, tiny or absent. Epigynum with anterior atrium; spermathecae oval or sausage-shaped, situated posteriorly.

## Key to Species of Myandra

1. Males . . . . . . . . . . . . . . . . . . . . . . . 2

- Females . . . . . . . . . . . . . . . . . . . . 5

2. Embolar base situated retrolaterally, conductor sinuous (fig. 645)
M. bicincta

- Embolar base situated prolaterally or probasally, conductor straight or semicircular (fig. 650)

3
3. Terminal apophysis absent or reduced to tiny hook (fig. 650)
M. myall

- Terminal apophysis present, long, conical (fig. 655)

4. Conductor originating prolaterally, with bipartite tip (fig. 655) . . . . . . M. . tinline

- Conductor originating distally, with undivided, sharp tip (fig. 640)
M. cambridgei

5. Atrium broad, slitlike (fig. 647) . . . . . 6

- Atrium open, with inverted u-shaped anterior hood (fig. 652)
. 7

6. Posterior margin of atrium with large, inverted u-shaped projection (fig. 647) .
M. bicincta

- Posterior margin of atrium with rectangular, contiguous lateral plates (fig. 657) . . . . . . . . . . . M. tinline

7. Copulatory opening not apparent; spermathecae globular (figs. 652, 653)
M. myall

- Copulatory opening present; paired, semicircular, spermathecae oval, twisted (figs. 642, 643)
M. cambridgei


## Myandra cambridgei Simon

Figures 10, 17, 245, 247, 639-643; Map 45
Myandra cambridgei Simon, 1887: 159 (juvenile holotype from "l'intérieur de Victoria" in MNHN, examined). - Simon, 1897: 157, fig. 158.

Note: Because the holotype is juvenile, assignment of this name is problematic (at the species level). There are two species of the genus common in the area of the type locality. Tasmanian specimens of one of these species were referred to as M. bicincta Simon by Hickman (1927). Hickman's use of that name was equally problematic (because the holotype of M. bicincta is also juvenile, and from Western Australia). Nevertheless, to maintain stability we follow Hickman's use of M. bicincta and apply M. cambridgei to the other species common in the inland of Victoria instead.

Diagnosis: Males have a long, distally directed, prolaterally situated tegular apophysis (figs. 639, 640) and a distally expanded and sinuous retrolateral tibial apophysis (fig. 641); females have a narrow anterior epigynal hood (fig. 642) and elongated medial epigynal ducts (fig. 643).

Male: Total length 2.10. Carapace 0.96 long, 0.80 wide, 0.38 high, length/width 1.20 ; sternum 0.60 long, 0.52 wide, length/width 1.15; abdomen 1.14 long, 0.62 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.86:0.78:1.00. Carapace orange, iridescent, with dark filigree net pattern; sternum yellow, with darker lateral margins; chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsally with weak orange scutum, venter pale, epigastric area orange. Carapace weakly covered with shiny, plumose setae. Eye group width 0.74 of caput width; AME 0.05 ; ALE 0.06 ; PME 0.06; PLE 0.05; AME-AME 0.04; AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.04; ALE-PLE 0.04; eye group AME-

tip，prolaterally situated；sperm duct weakly s－shaped；embolus long，thin，semicircular， situated prolaterally；tibia about 1.5 times as long as wide，retrolateral tibial apophysis long，finger－shaped．

Female：Total length 2．54．Carapace 1.04 long， 0.90 wide， 0.32 high，length／width 1．15；sternum 0.68 long， 0.56 wide，length／ width 1.21 ；abdomen 1.50 long， 0.78 wide． Abdominal dorsum with two diffuse pale， horizontal bands，half moon－shaped pale spot in front of spinnerets，venter pale， booklungs orange．Eye group width 0.68 of caput width；ALE 0．50；eye group AME－ PME 0．16．ALS 0.39 of abdominal length． Epigynum（figs．642，643）：atrium with inverted u－shaped anterior hood，two small， lateral，semicircular copulatory openings； epigynal ducts flat，parallel along midline， spermathecae contiguous，in horizontal posi－ tion，ending dorsally．

Other Material Examined：Australian Capital Territory：Monash， $35^{\circ} 25^{\prime} \mathrm{S}, 149^{\circ} 06^{\prime} \mathrm{E}$ ， Apr．4，1983，in garage（R．Moran，ANIC）， $10^{\circ}$ ． New South Wales：Baraba， $30^{\circ} 06^{\prime} \mathrm{S}, 148^{\circ} 47^{\prime} \mathrm{E}$ ， Feb．2001，pitfall（I．Oliver，AMS KS80085）， $10^{\circ}$ ；Boona State Forest， $34^{\circ} 43^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$ ， Dec．15，1998，pitfall（L．Wilkie，S．Priday， AMS KS58154，58230，67312），40＇，2甲；Boona State Forest， $34^{\circ} 45^{\prime} \mathrm{S}, 145^{\circ} 58^{\prime}$ E，Dec． 15,1998 ， pitfall（L．Wilkie，S．Priday，AMS KS67803， 68934，68958），3ơ，2q；Boona State Forest， $34^{\circ} 45^{\prime}$ S， $145^{\circ} 59^{\prime}$ E，Dec．15，1998，pitfall（L． Wilkie，S．Priday，AMS KS67065），10＇；Boona State Forest， $34^{\circ} 45^{\prime}$ S， $146^{\circ} 00^{\prime}$ E，Dec． 15,1998 ， pitfall（L．Wilkie，S．Priday，AMS KS65136， 67798）， $40^{\circ}, 1$ º； 100 m S Boonal Road， 0.8 km E junction with Moree－Boomi Road， $28^{\circ} 52^{\prime} \mathrm{S}$ ， $149^{\circ} 41^{\prime}$ E，Nov．29－Dec．19，1999，Casuarina cristata patch pitfall（L．Wilkie，R．Harris，T． Moulds，AMS KS72626），1q；Boree Plains Station，Lower Murray－Darling region， $33^{\circ} 44^{\prime} \mathrm{S}$ ， $143^{\circ} 25^{\prime}$ E，Sept．21－Oct．1，1998，mallee／spinifex shrubland pitfall（M．LeBreton，AMS KS66733）， $10^{\circ}$ ；Caree， $30^{\circ} 27^{\prime}$ S， $148^{\circ} 37^{\prime}$ E，Feb．2001，pitfall （I．Oliver，AMS KS80110）， $1 \stackrel{q}{9} ; 21.1 \mathrm{~km} \mathrm{~N}$ along Castlereigh Highway from turnoff to Lightning Ridge， $29^{\circ} 10^{\prime} \mathrm{S}, 148^{\circ} 07^{\prime} \mathrm{E}$ ，Nov． $22-$ Dec．12，1999，Eucalyptus populnea patch pitfall （F．Christie，P．Flemons，M．Elliott，AMS KS72634）， 1 ¢ ；Coleambally Irrigation Area， $34^{\circ} 42^{\prime}$ S， $146^{\circ} 03^{\prime}$ E，Dec．15，1998，pitfall（L． Wilkie，S．Priday，AMS KS67574，67763，67775， 67779，67785，68339，68403，68983），220＇，19\％； Coleambally Irrigation Area， $34^{\circ} 49^{\prime} \mathrm{S}$ ， $145^{\circ} 53^{\prime} \mathrm{E}$ ，Dec．15，1998，pitfall（L．Wilkie，S．

Priday，AMS KS67336，67537，67929）， $30^{\circ}$ ，1o ， Apr．18－28，1999，pitfall（L．Wilkie，S．Priday， AMS KS67236，67658，67659），80＇；Coleambally Irrigation Area， $34^{\circ} 52^{\prime} \mathrm{S}, 145^{\circ} 57^{\prime} \mathrm{E}$ ，Dec． 15 ， 1998，pitfall（L．Wilkie，S．Priday，AMS KS67559），10；Coleambally Irrigation Area， $34^{\circ} 54^{\prime} \mathrm{S}, 145^{\circ} 59^{\prime} \mathrm{E}$ ，Dec．16，1998，pitfall（L． Wilkie，S．Priday，AMS KS58091，67100，67374， 67375，68413），620 ${ }^{\circ}$ ，11ᄋ；Coleambally Irrigation Area， $34^{\circ} 54^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$, Dec．14－16，1998， pitfall（L．Wilkie，S．Priday，AMS KS65085， 67139，67154，67161，67325，67341，67380， 67538，67571，67686，67689），1220＊，269，Apr． 20－28，1999，pitfall（L．Wilkie，S．Priday，AMS KS67276，68432，68435），40，1甲；Coleambally Irrigation Area， $34^{\circ} 55^{\prime} \mathrm{S}, 146^{\circ} 00^{\prime} \mathrm{E}$ ，Dec． 14 ， 1998，pitfall（L．Wilkie，S．Priday，AMS KS67385）， 19 ；Coleambally Irrigation Area， $34^{\circ} 56^{\prime} \mathrm{S}, 145^{\circ} 46^{\prime} \mathrm{E}$ ，Dec．14，1998，pitfall（L． Wilkie，S．Priday，AMS KS58159，68325， 68913），11o ，1ᄋ，Apr．19－28，1999，pitfall（L． Wilkie，S．Priday，AMS KS67613，68428），30＇； Coleambally Irrigation Area， $34^{\circ} 56^{\prime} \mathrm{S}$ ， $145^{\circ} 47^{\prime} \mathrm{E}$ ，Dec．14，1998，pitfall（L．Wilkie，S． Priday，AMS KS58268，67681，68917）， $50^{\circ}$ ，2̊； Coleambally Irrigation Area， $34^{\circ} 57^{\prime} \mathrm{S}$ ， $146^{\circ} 03^{\prime} \mathrm{E}$ ，Apr．20－28，1999，pitfall（L．Wilkie， S．Priday，AMS KS68417），10＇；Coleambally Irrigation Area， $35^{\circ} 00^{\prime} \mathrm{S}, 145^{\circ} 50^{\prime} \mathrm{E}$ ，Dec．14， 1998，pitfall（L．Wilkie，S．Priday，AMS KS58256，65109，68936，68946，68961），480＇， 209；Coleambally Irrigation Area， $35^{\circ} 00^{\prime} \mathrm{S}$ ， $145^{\circ} 46^{\prime} \mathrm{E}$ ，Dec．14，1998，pitfall（L．Wilkie，S． Priday，AMS KS67351），10＇，1op；Coleambally Irrigation Area， $35^{\circ} 02^{\prime} \mathrm{S}, 145^{\circ} 55^{\prime} \mathrm{E}$ ，Dec． 14 ， 1998，pitfall（L．Wilkie，S．Priday，AMS KS67321），1̊；E Coleambally town， $34^{\circ} 48^{\prime}$ S， $145^{\circ} 53^{\prime} \mathrm{E}$ ，Dec．15，1998，pitfall（L．Wilkie，S． Priday，AMS KS65090），10＇；S Coleambally town， $34^{\circ} 49^{\prime} \mathrm{S}, 145^{\circ} 53^{\prime} \mathrm{E}$ ，Dec． 15,1998 ，pitfall （L．Wilkie，S．Priday，AMS KS65143，71272）， $110^{\circ}$ ，3\％；Crown Reserve，Roadside Reserve， corner of New England Highway and Old Tamworth Road， $31^{\circ} 04^{\prime} \mathrm{S}, 151^{\circ} 01^{\prime} \mathrm{E}$ ，Nov． $15-$ Dec．6，2001，pitfall（G．Carter，AMS KS82252），10＇， 1 ¢；Crown Reserve， 200 m past Tip NW to New England Highway，between Kootingal and Tamworth， $31^{\circ} 04^{\prime} \mathrm{S}, 151^{\circ} 02^{\prime} \mathrm{E}$ ， Nov．15－Dec．16，2001，pitfall（G．Carter，AMS KS82243），10； 10.6 km on road to Dirrinbandi from junction with Collarenebri－Angledool Road， $29^{\circ} 09^{\prime} \mathrm{S}, 148^{\circ} 08^{\prime} \mathrm{E}$ ，Nov．22－Dec．12， 1999，Casuarina cristata pitfall（F．Christie，P． Flemons，M．Elliott，AMS KS72633），1中； Elaroo Road，Kulki State Forest， $34^{\circ} 56^{\prime}$ S， $145^{\circ} 46^{\prime}$ E，Dec．14，1998，pitfall（L．Wilkie，S． Priday，AMS KS65127，67588，68295），30＇，5¢； Fowlers Gap， $31^{\circ} 05^{\prime} \mathrm{S}, 141^{\circ} 42^{\prime} \mathrm{E}$ ，Nov． $23-29$ ，

1975 (QMB S26737), 1®̧; 2.5 km NW Gin Gin on road to Riverview Station, $31^{\circ} 54^{\prime} \mathrm{S}$, $148^{\circ} 04^{\prime} \mathrm{E}$, Nov. 22-Dec. 12, 1999, pitfall in Eucalyptus camaldulensis, Acacia pendula (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72627-72629), 20*, 2o; Gwydir Highway, ca. 300 m NE turnoff to Minnamurra Station, $29^{\circ} 42^{\prime} \mathrm{S}, 148^{\circ} 22^{\prime} \mathrm{E}$, Nov. 21-Dec. 11, 1999, native grassland pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72632), 1̨̣; 8 km W Hay, $33^{\circ} 30^{\prime}$ S, $144^{\circ} 45^{\prime}$ E, Dec. 19, 1997-Jan. 9, 1998, grassland pitfall (K., D. Krebs, QMB S46739), 270 , 8¢; Humbug Creek, 8 km SW West Wyalong, $33^{\circ} 59^{\prime} \mathrm{S}$, $147^{\circ} 10^{\prime} \mathrm{E}$, Dec.18, 1997-Jan. 10, 1998, grassland pitfall (K., D. Krebs, QMB S46701), 10*, 1ọ; Marthaguy Creek on Oxley Highway, 14.0 km W Gilgandra, $31^{\circ} 41^{\prime} \mathrm{S}, 148^{\circ} 31^{\prime} \mathrm{E}$, Nov. 21-Dec. 11, 1999, Eucalyptus camaldulensis patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72623, 72624), 20', 1¢; Maxwellton, $30^{\circ} 09^{\prime} \mathrm{S}, 148^{\circ} 55^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS80094, 80112), 10', 1O; bank of Merri Merri Creek, 2.5 km N Quambone, $30^{\circ} 55^{\prime} \mathrm{S}, 147^{\circ} 52^{\prime} \mathrm{E}$, Nov. 24-Dec. 14, 1999, Eucalyptus camaldulensis/ largiflorens patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72625), 1¢; McIntyre River, 2.8 km S Boggabilla on Bruxner Highway, $28^{\circ} 38^{\prime} \mathrm{S}, 150^{\circ} 23^{\prime}$ E, Nov. 29-Dec. 19, 1999, pitfall in Eucalyptus camaldulensis, Acacia pendula (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72630), 10'; Midgee, $30^{\circ} 26^{\prime} \mathrm{S}, 148^{\circ} 37^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS80078, 80081, 80083), 3o'; 1.7 km on access track off Narran Lake Road, Narran Lakes Reserve, $29^{\circ} 41^{\prime} \mathrm{S}, 147^{\circ} 27^{\prime} \mathrm{E}$, Nov. 24 Dec. 14, 1999, Eucalyptus populnea patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72635), 1 © ; 14.6 km along track to New Chum from highway junction, Trilby, $30^{\circ} 32^{\prime} \mathrm{S}$, $144^{\circ} 49^{\prime} \mathrm{E}$, Dec. 1-21, 1999, Casuarina cristata patch pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72631), 10', 1̊; Omeo, $30^{\circ} 00^{\prime} \mathrm{S}, 147^{\circ} 52^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS81108), $10^{\circ}$; Omeo, $30^{\circ} 01^{\prime} \mathrm{S}, 148^{\circ} 07^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS20100, 80101, 80106), 3¢ ; Pooginook Wildlife Refuge, $34^{\circ} 52^{\prime} \mathrm{S}, 145^{\circ} 41^{\prime} \mathrm{E}$, Dec. 14, 1998, pitfall (L. Wilkie, S. Priday, AMS KS58113, 67581, 68240, 68321, 68975), 480*, 25o, Apr. 21-29, 1999, pitfall (L. Wilkie, S. Priday, AMS KS67651), 10'; Pooginook Wildlife Refuge, $34^{\circ} 52^{\prime} \mathrm{S}$, $145^{\circ} 42^{\prime} \mathrm{E}$, Dec. 14, 1998, pitfall (L. Wilkie, S. Priday, AMS KS58263, 67740, 68671), 50*, Apr. 21-29, 1999, pitfall (L. Wilkie, AMS KS67266), 20'; Pulletop, $33^{\circ} 56^{\prime} \mathrm{S}, 146^{\circ} 06^{\prime} \mathrm{E}$, Nov. 3-8, 1999, woodland pitfall (D. Driscoll, QMB S52812), 1ó; Road Reserve, $30^{\circ} 09^{\prime} \mathrm{S}, 148^{\circ} 57^{\prime} \mathrm{E}$,

Feb. 2001, pitfall (I. Oliver, AMS KS80074), $10^{\prime}$; Road Reserve, $30^{\circ} 10^{\prime}$ S, $148^{\circ} 56^{\prime}$ E, Feb. 2001, pitfall (I. Oliver, AMS KS80113), 1ǫ; Road Reserve, $30^{\circ} 14^{\prime} \mathrm{S}, 148^{\circ} 45^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS80084, 80107, 80108, 80109), 40, 5中; Rossmore Holdings, $30^{\circ} 04^{\prime} \mathrm{S}$, $148^{\circ} 58^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS80080, 80093, 80095, 80096), 90; Severn State Forest, Atholwood Loop Road, 6.7 km from Ashford-Bonshaw Road, $29^{\circ} 07^{\prime} \mathrm{S}$, $151^{\circ} 08^{\prime} \mathrm{E}$, Nov. 22-Dec. 13, 2001, pitfall (L.Wilkie, H. Smith, AMS KS82241), 10'; Tamworth, $31^{\circ} 05^{\prime} \mathrm{S}, 150^{\circ} 56^{\prime} \mathrm{E}$, Feb. 15, 1983, litter pitfall (A. Bishop, AMS KS12352), 1o ${ }^{\circ}$, 1 ; Towri, $30^{\circ} 07^{\prime} \mathrm{S}, 148^{\circ} 44^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS80077), 30'; Valmyma, $30^{\circ} 28^{\prime}$ S, $148^{\circ} 49^{\prime}$ E, Feb. 2001, pitfalls (I. Oliver, AMS KS80088, 80090), 4o'; Waverley Downs, $29^{\circ} 05^{\prime} \mathrm{S}, 143^{\circ} 54^{\prime} \mathrm{E}$, Nov. 1994, pitfall, mulga, sandplain (J. Landsberg, C. James, MNT A001512, 001513), 10', 1¢; Wilga Park, $30^{\circ} 29^{\prime}$ S, $148^{\circ} 32^{\prime}$ E, Feb. 2001, pitfall (I. Oliver, AMS KS80075), 10'; Womba, $30^{\circ} 24^{\prime} \mathrm{S}$, $148^{\circ} 42^{\prime}$ E, Feb. 2001, pitfalls (I. Oliver, AMS KS80079, 80086, 80089, 80092, 80103, 80105, 80111), 40', 4¢; Womba, $30^{\circ} 25^{\prime} \mathrm{S}, 148^{\circ} 42^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS80082, 80091,80102 ), $60^{\prime}, 1$ º; Yetta, $30^{\circ} 26^{\prime} \mathrm{S}, 148^{\circ} 40^{\prime} \mathrm{E}$, Feb. 2001, pitfalls (I. Oliver, AMS KS80076, 80087), 20'; Yugilbah, $30^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 46^{\prime} \mathrm{E}$, Feb. 2001, pitfall (I. Oliver, AMS KS81058), $10^{\circ}$. Queensland: "Amphitheatre" yards, Expedition Range National Park, $25^{\circ} 13^{\prime} \mathrm{S}, 149^{\circ} 01^{\prime} \mathrm{E}$, Sept. 27-Dec. 19, 1997, open forest pitfall, elev. 440 m (G. Monteith, D. Cook, ex QMB S44228), 1o, Dec. 19, 1997-Mar. 4, 1998, same habitat (D. Cook, G. Monteith, QMB S44248), 10'; Boggomoss No. 1, Taroom district, $25^{\circ} 26^{\prime}$ S, $150^{\circ} 02^{\prime}$ E, June $12-$ Sept. 9, 1996, open forest pitfall (P. Lawless, QMB S37272), 1ᄋ, Sept. 9-Nov. 12, 1996, open forest pitfall (P. Lawless, QMB S30895), 10'; Boggomoss No. 3, Taroom district, $25^{\circ} 26^{\prime} \mathrm{S}, 150^{\circ} 01^{\prime} \mathrm{E}$, June $12-$ Sept. 9, 1996, pitfall (P. Lawless, QMB S37137), 10', Sept. 9-Nov. 11, 1996, open forest pitfall (P. Lawless, QMB S30894), 1o'; Boondall Wetlands, site $1,27^{\circ} 20^{\prime} \mathrm{S}, 153^{\circ} 04^{\prime} \mathrm{E}$, Oct. 2-31, 2003, pitfall, Melaleuca woodland, elev. $5-10 \mathrm{~m}$ (QMB S65658), 10'; Callide Mine, $24^{\circ} 18^{\prime} \mathrm{S}$, $150^{\circ} 34^{\prime}$ E, Sept. 1999 (B. Hoffmann, QMB S68067), $10^{\prime}$; Cape Flattery, site $1,15^{\circ} 20^{\prime} \mathrm{S}$, $145^{\circ} 18^{\prime}$ E,Aug. 13-Sept. 29, 1991, pitfall (L. Smyth, QMB S30645), 20*, 2¢; Dotswood, $19^{\circ} 33^{\prime} \mathrm{S}, \quad 146^{\circ} 13^{\prime} \mathrm{E}$, Feb. 1999, pitfall (T. Churchill, QMB S67068, S67074, S67075), 30', 1̧̊; East Woodmillar, top, $25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 36^{\prime} \mathrm{E}$, Jan. 25-June 2, 1999, pitfall, open forest, elev. 300 m (G. Monteith, G. Thompson, QMB ex

S52454），10 ${ }^{\circ}$ ，1̣̣；Endfield Station， 40 m W Westmar， $27^{\circ} 55^{\prime} \mathrm{S}, 149^{\circ} 43^{\prime} \mathrm{E}$ ，Jan．9－12，1979， mulga pitfall（V．Davies，R．Raven，QMB）， $10^{\circ}$ ， 2中；Gatton， $27^{\circ} 34^{\prime} \mathrm{S}, 152^{\circ} 20^{\prime} \mathrm{E}$ ，Dec．2001－Jan． 2002，pitfall，soybean crop（S．Pearce，QMB S67722），1p；Gayndah，hospital hill， $25^{\circ} 38^{\prime} \mathrm{S}$ ， $151^{\circ} 36^{\prime}$ E，Oct．11－Dec．18，1998，pitfall，rain－ forest remnant，elev． 120 m （G．Monteith，C． Gough，QMB S47793），60＊，2op，Dec．18，1998－ Jan．25，1999，pitfall，scrub remnant，elev． 120 m （G．Monteith，C．Gough，ex QMB S50385），1，Jan．25－June 2，1999，same（G． Monteith，G．Thompson，QMB S52444），19； Illawena State Forest，Drewvale， $27^{\circ} 38^{\prime} \mathrm{S}$ ， $153^{\circ} 04^{\prime}$ E，Apr．17－May 26，2003，scibbly gum， heath，pitfall，elev． 40 m （QMB S65665），20＇， July 1－29，2003，same（QMB S65667），10＇，1中， Sept．2－Oct．20，2003，same（QMB S62459），40＇， 1op，Jan．2－30， 2004 （QMB S65662），20＇，Jan．30－ Mar．1，2004，same（QMB S65669），30＇，3ㅇ， Mar．1－31，2004，same（QMB S65664），30＇，2中； Isla Gorge Lookout turnoff， $25^{\circ} 12^{\prime} \mathrm{S}, 149^{\circ} 58^{\prime} \mathrm{E}$ ， Sept．22－Dec．15，1997，open forest pitfall，elev． 380 m （D．Cook，ex QMB S47801），10＇；Lake Broadwater，via Dalby，site $6,27^{\circ} 21^{\prime} \mathrm{S}$ ， $151^{\circ} 06^{\prime} \mathrm{E}$ ，Jan．3－Feb．25，1986，pitfall（M． Bennie，QMB S30903），10＇；Lake Broadwater， via Dalby，site $7,27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$ ，Nov．24， 1985－Jan．3，1986，pitfall（M．Bennie，ex QMB S30881），19，Apr．22－June 12，1986，pitfall（M． Bennie，ex QMB S30886），1o＇；Lake Broad－ water，via Dalby，site $9,27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$ ，May 17－Nov．24，1985，pitfall（M．Bennie，QMB S30891，4o＇，4ọ，Nov．24，1985－Jan．3，1986， pitfall（M．Bennie，ex QMB S30882），1，Jan．3－ Feb．25，1986，pitfall（M．Bennie，QMB），10＇， 3o；Lake Broadwater，via Dalby，site 10， $27^{\circ} 21^{\prime}$ S， $151^{\circ} 06^{\prime}$ E，Jan． $26-$ Feb．19，1985，pitfall （M．Bennie，QMB S30889），1Q，Feb．19－Mar． 26，1985，pitfall（M．Bennie，QMB S30893），10＇， 1o，Mar．26－May 17，1985，pitfall（M．Bennie， QMB S30890），10＇，1o，May 17－Nov．24，1985， pitfall（M．Bennie，QMB S30932），390＇，13o Nov．24，1985－Jan．3，1986，pitfall（M．Bennie， QMB S30920），130＇，19o，Jan．3－Feb．25，1986， pitfall（M．Bennie，QMB S30876，30904，ex 30981）， $50^{\circ}$ ，2op，Feb．25－Apr．22，1986，pitfall （M．Bennie，QMB S30885）， $10^{\circ}$ ，4甲，Apr．22－ June 12，1986，pitfall（M．Bennie，QMB S30924），30＇，4o；Merigol， $26^{\circ} 47^{\prime} \mathrm{S}, 145^{\circ} 49^{\prime} \mathrm{E}$ ， Apr．2001，pitfall，mulga（T．Beutel，QMB S63404，S63406，S63413，S67685，S67686），5q； Meta Park， $23^{\circ} 44^{\prime} \mathrm{S}, 146^{\circ} 54^{\prime} \mathrm{E}$ ，summer 1998， tree clearing（QMB S67069），10＇； 5 km S Moranbah， $22^{\circ} 02^{\prime} \mathrm{S}, 148^{\circ} 03^{\prime} \mathrm{E}$ ，June $25-$ Dec． 20，1997，bendee scrub pitfall（G．Monteith，E． Kruck，ex QMB S44218）， $10^{\circ}$ ，gravel ridge pitfall（G．Monteith，E．Kruck，ex QMB

S44215）， $10^{\prime}, 2 ̊ ; 6 \mathrm{~km} \mathrm{~S}$ Moranbah， $22^{\circ} 02^{\prime} \mathrm{S}$ ， $148^{\circ} 03^{\prime}$ E，June 25－Dec．20，1997，Box flat pitfall（G．Monteith，E．Kruck，QMB S44219， 44443），30＇，3o；Mount Stuart， $23^{\circ} 12^{\prime}$ S， $148^{\circ} 39^{\prime} \mathrm{E}$ ，Dec．12，1999，pitfall（D．Hannah， QMB S67719）， 1 ¢ $;$ ；Oakleigh， $23^{\circ} 34^{\prime} \mathrm{S}, 146^{\circ} 32^{\prime} \mathrm{E}$ ， July 1998，tree clearing（QMB S67071），10＇； NW Quilpie， $26^{\circ} 05^{\prime} \mathrm{S}, 143^{\circ} 27^{\prime} \mathrm{E}$ ，Oct．1995， pitfall，mulga，alluvial plains（J．Landsberg，C． James，QMB S67070），10＇； 3 km SW Wetheron， $25^{\circ} 34^{\prime} \mathrm{S}, 151^{\circ} 42^{\prime} \mathrm{E}$ ，Oct．10－Dec．19，1998， open forest pitfall，elev． 150 m （G．Monteith， C．Gough，ex QMB S47806），60＇， 69 ，Dec．19， 1998－Jan．27，1999，same habitat（G．Monteith， C．Gough，ex QMB S50376），10＇；Yarmina， $21^{\circ} 49^{\prime} \mathrm{S}, 146^{\circ} 29^{\prime} \mathrm{E}$ ，Aug．1999，tree clearing（T． Churchill，QMB S67072，S67073），10＇，1o．South Australia：near Adelaide airport， $34^{\circ} 56^{\prime} \mathrm{S}$ ， $138^{\circ} 31^{\prime} \mathrm{E}$ ，May 25,1969 ，on fence，on back of Celaenia kinbergi o（J．Thacker，SAM N1987／ 43）， $10^{\circ} ; 37 \mathrm{~km}$ SE Amata， $26^{\circ} 14^{\prime} \mathrm{S}, 131^{\circ} 30^{\prime} \mathrm{E}$ ， Oct．19－30，1998，pitfall，Eucalyptus socialis mallee over Sclerolaena（SAM NN10961），1中； Arcoona Creek， 3.5 km NE Owieandana Sta－ tion，Gammon Ranges National Park， $30^{\circ} 28^{\prime}$ S， $138^{\circ} 58^{\prime}$ E，May 2－6，1989，pitfalls（J．Forrest，D． Hirst，SAM N1989／136，137，139－147），90＇，2q； 1 km W Braemar Homestead， $33^{\circ} 12^{\prime} \mathrm{S}$ ， $139^{\circ} 37^{\prime} \mathrm{E}$ ，Oct．5，1992，pitfall（SAM NN11830）， $10^{\circ} ; 4 \mathrm{~km}$ E Callington，Monarto， $35^{\circ} 07^{\prime}$ S， $139^{\circ} 05^{\prime}$ E，Nov．2，1984，eucalypt woods（SAM NN11860，11861）， $20^{\circ} ; 4.5 \mathrm{~km}$ SW Collinsville Homestead， $33^{\circ} 21^{\prime} \mathrm{S}, 139^{\circ} 06^{\prime} \mathrm{E}$ ， Oct．19－23，1999，pitfall（SAM NN11832），10； Culburra， $35^{\circ} 49^{\prime}$ S， $139^{\circ} 58^{\prime} \mathrm{E}$ ，Nov．8，1981－Jan． 20，1982，pitfalls，dryland lucerne（P．Allen， QMB），10＊，7q； 16 km E Gawler， $34^{\circ} 36^{\prime} \mathrm{S}$ ， $138^{\circ} 55^{\prime}$ E，Dec．19，1997－Jan．9，1998，open grassland pitfalls（K．，D．Krebs，QMB S46707， 46713），120＇，4 $\ddagger$ ； 17 km E Granite Downs Homestead， $26^{\circ} 57^{\prime} \mathrm{S}, 133^{\circ} 40^{\prime} \mathrm{E}$ ，Aug．18－21， 1998，pitfall，low acacia woodland（SAM NN10959）， $10^{\circ} ; 29.7 \mathrm{~km}$ WNW Indulkana， $26^{\circ} 52^{\prime} \mathrm{S}, 133^{\circ} 02^{\prime} \mathrm{E}$ ，Oct．19－31，1998，pitfall （SAM NN10942），1ọ；Kolay Hut，Paney Station， $32^{\circ} 33^{\prime} \mathrm{S}, 135^{\circ} 36^{\prime} \mathrm{E}$ ，Dec． $8-11,1989$ ， pitfall（D．Hirst，SAM NN11833），10＇；Lagoon Waterhole，Mabel Creek Station， $29^{\circ} 10^{\prime} \mathrm{S}$ ， $134^{\circ} 14^{\prime}$ E，Oct．26， 1984 （P．Greenslade，SAM N1987／47），10＇； 3.6 km S Marsella Hill， Arcoona Station， $31^{\circ} 16^{\prime} \mathrm{S}, 136^{\circ} 56^{\prime} \mathrm{E}$ ，Nov． 10－14，1996，pitfall（SAM NN11853），10＇； 31.5 kmENE Mimili， $26^{\circ} 54^{\prime} \mathrm{S}, 133^{\circ} 00^{\prime} \mathrm{E}$ ，Oct． 24－31，1998，pitfall，low chenopod shrubland （SAM NN10958），10＇； 12.5 km E Mitchell Knob， $26^{\circ} 08^{\prime} \mathrm{S}, 131^{\circ} 57^{\prime} \mathrm{E}$ ，Oct．20－21，1994， pitfall（SAM NN10960），1o； 4.2 km SSE North Moolooloo Station， $30^{\circ} 40^{\prime} \mathrm{S}, 138^{\circ} 42^{\prime} \mathrm{E}$ ，Dec． $9-$

12，1997，pitfall（SAM NN11852）， $10 ; 3.5 \mathrm{~km}$ NE Owieandana High School， $30^{\circ} 28^{\prime} \mathrm{S}$ ， $138^{\circ} 58^{\prime}$ E，May 2－6，1989，pitfall（J．Forrest， D．Hirst，SAM N1989／138）， $10^{\prime} ; 3.7 \mathrm{~km}$ NE Pooginagoric， $36^{\circ} 27^{\prime} \mathrm{S}, 140^{\circ} 55^{\prime} \mathrm{E}$ ，Dec．5－8， 1995，pitfall（SAM NN11835，11836），20＇； 14 km WNW Renmark， $34^{\circ} 07^{\prime} \mathrm{S}, 140^{\circ} 37^{\prime} \mathrm{E}$ ， Aug．8－Sept．7，1995，flight intercept trap（K． Pullen，QMB S30945），50＇，Sept．5－Oct．12， 1995，flight intercept trap（K．Pullen，ANIC）， $20^{\circ} ; 19 \mathrm{~km}$ N Renmark， $34^{\circ} 00^{\prime} \mathrm{S}$ ， $140^{\circ} 47^{\prime} \mathrm{E}$ ，July 4－20，1995，chenopod shrubland pitfall（A． Lambie，QMB S30950），1o ，Aug．10－21，1995， chenopod shrubland pitfall（A．Lambie，ANIC）， $60^{*}, 2$ of，Aug．10－Sept．7，1995，flight intercept trap（K．Pullen，ANIC），10＇，Sept．7－20，1995， chenopod shrubland pitfall（A．Lambie，ANIC）， $30^{\circ}, 19 ; 79 \mathrm{~km}$ NNW Renmark， $33^{\circ} 31^{\prime} \mathrm{S}$ ， $140^{\circ} 24^{\prime} \mathrm{E}$ ，Mar．1－29，1995，flight intercept trap （K．Pullen，QMB S30943）， $10^{\text {r }}$ ，May 3－June 6， 1995，Casuarina woodland pitfall（A．Lambie， QMB S36042），10＇，June 6－22，1995，same（A． Lambie，ANIC）， $20^{\circ}$ ，June 6－July 6，1995，flight intercept trap（K．Pullen，ANIC），20＇，1o，July 5－Aug．10，1995，flight intercept trap（K． Pullen，ANIC），20＊，Sept．6－Oct．12，1995，flight intercept trap（K．Pullen，ANIC），10＇，Jan． 24 Feb．20，1996，flight intercept trap（K．Pullen， ANIC）， $19+$ ；Salisbury North， $34^{\circ} 46^{\prime}$ S， $138^{\circ} 38^{\prime}$ E， Feb．4，1982，in debris on ground（D．Hirst， SAM NN22288）， $10^{\circ} ; 8 \mathrm{~km}$ S Salt Creek， $36^{\circ} 12^{\prime} \mathrm{S}, 139^{\circ} 40^{\prime} \mathrm{E}$ ，Mar．1994，pitfall（SAM NN11840，11841）， 10 ， 1 ¢ $; 2.5 \mathrm{~km}$ SW Scobie Hill， $32^{\circ} 49^{\prime} \mathrm{S}, 139^{\circ} 45^{\prime} \mathrm{E}$ ，Oct，17，1992，pitfall （SAM NN11850），10；Sitella Camp， 8.5 km W－WNW Gluepot Homestead， $33^{\circ} 45^{\prime} \mathrm{S}, 140^{\circ} 02^{\prime} \mathrm{E}$ ， Dec．6，2000，pitfall，open old growth mallee （SAM NN11845），1；； 7.2 km SW Table Hill， Innamincka Station， $27^{\circ} 38^{\prime} \mathrm{S}, 140^{\circ} 50^{\prime} \mathrm{E}$ ，Nov． $4-9,1996$ ，pitfall（SAM NN11854，11855）， $10^{\circ}$ ， 1 ¢̣； 1.8 km SE Tilkilki Homestead， $33^{\circ} 05^{\prime} \mathrm{S}$ ， $139^{\circ} 16^{\prime} \mathrm{E}$ ，Oct．19－24，1992，pitfall（SAM NN11848，11849）， $1^{\circ}$ ， 1 ¢ $; 3.2 \mathrm{~km}$ SW Tobac－ co Bush Dam， $32^{\circ} 54^{\prime} \mathrm{S}, 140^{\circ} 07^{\prime} \mathrm{E}$ ，Oct． $6-10$ ， 1992，pitfall（SAM NN11829）， $10^{\circ} ; 5 \mathrm{~km}$ W Waikerie， $34^{\circ} 12^{\prime} \mathrm{S}, 139^{\circ} 55^{\prime} \mathrm{E}$ ，Dec．19， $1997-$ Jan．9，1998，pitfall，open heath（K．，D．Krebs， QMB S46720），10＇；Windsor Gardens，Ade－ laide， $34^{\circ} 52^{\prime} \mathrm{S}, 138^{\circ} 39^{\prime} \mathrm{E}$ ，Dec．1986，on ground（D．Hirst，SAM NN22289）， 19 ； 5 km W Worlds End， $33^{\circ} 50^{\prime} \mathrm{S}, 139^{\circ} 07^{\prime} \mathrm{E}$ ，Oct． $12-$ 17，1992，pitfall（SAM NN11831），10＇；Yangie Bay Camping Area，Coffin Bay National Park， $34^{\circ} 39^{\prime} \mathrm{S}, 135^{\circ} 22^{\prime} \mathrm{E}$ ，Mar．30， 1987 （D． Lee，D．Hirst，SAM N1989／120－124）， 2 ㅇ． Victoria：Barr Creek，Cohuna， $35^{\circ} 50^{\prime} \mathrm{S}$ ， $144^{\circ} 11^{\prime}$ E，Dec．7－14，1996，pitfalls（J．Hooper， CVIC 502），2o＇；McClellands Road， 0.1 km N

Rathbones Road， $36^{\circ} 09^{\prime}$ S， $145^{\circ} 14^{\prime}$ E，Jan．26－ 30，1995，pitfall（J．Evans，S．Hinkley，J． Wainer，NMV K8821－8823），20，1中；McDo－ nalds Road， 1.8 km S Shepparton－Barmah Road， $36^{\circ} 04^{\prime}$ S， $145^{\circ} 02^{\prime}$ E，Jan．17－22，1994， pitfall（G．Milledge，NMV K8840，K8841），20＇； Pomfrets Road， 0.6 km S Picola－Katunga Road， $36^{\circ} 00^{\prime}$ S， $145^{\circ} 14^{\prime}$ E，Dec．2－7，1994，pitfall （J．Evans，M．Griffiths，S．Hinkley，NMV K8820），19；R．A．A．K．Salt Lake，SW Red Cliffs， $34^{\circ} 35^{\prime} \mathrm{S}, 142^{\circ} 00^{\prime} \mathrm{E}$ ，June 1， 1980 （D． Hirst，SAM NN22277）， $10^{\circ}$ ．Western Australia： Bencubbin－Kellerbin Road， $31^{\circ} 25^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime} \mathrm{E}$ ， Oct．30，1997－May 22，1998，pitfall（P．Van Heurck，N．Guthrie，WAM T51700）， $10^{\circ}$ ，May 22－Sept．22，1998，pitfalls（N．Guthrie，WAM T49318，49319，51145），20＇，2¢；Boddington， Bauxite Mine， $32^{\circ} 54^{\prime} \mathrm{S}, 116^{\circ} 26^{\prime} \mathrm{E}$ ，Oct．2003， pitfalls（G．Oraby，WAM T63235，T63236， T63237），40＇，Feb．2004，pitfalls（G．Oraby， WAM T63238，T63239），4q；Bold Park， $31^{\circ} 57^{\prime}$ S， $115^{\circ} 46^{\prime} \mathrm{E}$ ，July 20－Nov．19，1993， pitfalls（J．Waldock，WAM T45080，45262， 45633），70 ，5¢；Boolading Nature Reserve， $33^{\circ} 21^{\prime} \mathrm{S}, 116^{\circ} 37^{\prime} \mathrm{E}$ ，Oct．15，1999－Nov．1， 2000，pitfall（P．Van Heurck，WAM T51644）， 1op；Burracoppin Nature Reserve， $31^{\circ} 25^{\prime}$ S， $118^{\circ} 31^{\prime} \mathrm{E}$ ，Dec．15，1887，pitfall（N．Guthrie， WAM T51798）， $10^{\circ}$ ；The Casuarinas Reserve， $28^{\circ} 55^{\prime}$ S， $115^{\circ} 13^{\prime}$ E，Sept．15，1998－Mar．29， 1999，pitfall（B．Durrant，WAM T49474，ex T49578），10＇， 1 ； ；Comitun Dam Nature Re－ serve， $31^{\circ} 46^{\prime} \mathrm{S}, 118^{\circ} 04^{\prime} \mathrm{E}$ ，Oct．30，1997－May 22， 1998，pitfalls（P．Van Heurck，N．Guthrie， WAM T51713，51714，51716），10，2 2 ；Coyrecup Lake Nature Reserve， $33^{\circ} 43^{\prime} \mathrm{S}$ ， $117^{\circ} 51^{\prime} \mathrm{E}$ ，Oct． 15，1999－Nov．1，2000，pitfalls（P．Van Heurck， WAM T51649），20＇，3中；Coyrecup Lake Nature Reserve， $33^{\circ} 43^{\prime} \mathrm{S}, 117^{\circ} 52^{\prime} \mathrm{E}$ ，Oct．15，1999－Nov． 1，2000，pitfalls（P．Van Heurck，WAM T49529， 51650，51651），190＇，69；Dead Mans Swamp Nature Reserve， $33^{\circ} 30^{\prime} \mathrm{S}, 116^{\circ} 57^{\prime} \mathrm{E}$ ，Oct．15， 1999－Nov．1，2000，pitfalls（P．Van Heurck， WAM T49533，51656，51769），80，6¢；Dum－ bleyung Lake South， $33^{\circ} 21^{\prime} \mathrm{S}, 117^{\circ} 39^{\prime} \mathrm{E}$ ，Oct． 15，1999－Nov．1，2000，pitfalls（P．Van Heurck， WAM T51657），20；Dumbleyung Lake South， $33^{\circ} 23^{\prime}$ S， $117^{\circ} 39^{\prime}$ E，Oct．15，1999－Nov．1，2000， pitfalls（P．Van Heurck，WAM T51658，51659）， $10^{\prime}, 5 p ;$ Durokoppin Nature Reserve， $31^{\circ} 24^{\prime} \mathrm{S}$ ， $117^{\circ} 46^{\prime}$ E，Feb．26－Mar．7，1989，pitfall（G． Friend，WAM T51829－51831），2o＇，1̊，Oct．30， 1997－May 22，1998，pitfall（P．Van Heurck，N． Guthrie，ex WAM T45687），19；Durokoppin Nature Reserve， $31^{\circ} 30^{\prime} \mathrm{S}, 117^{\circ} 44^{\prime} \mathrm{E}$ ，Nov．1－13， 1987 （D．Mitchell，WAM T45267，45268），2中； East Yorkraikine Nature Reserve， $31^{\circ} 23^{\prime} \mathrm{S}$ ， $117^{\circ} 40^{\prime}$ E，Sept．15－25， 1989 （G．Friend，WAM

T45213), 1Ọ; Eriken Road, W Bruce Rock, $31^{\circ} 58^{\prime} \mathrm{S}, 117^{\circ} 56^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T49450, 49453), 10', 2о, May 22-Sept. 29, 1998, pitfalls (L. King, WAM T49328, 49329), 10¹ 1 ; Gardner Reserve Road, NW Quairading, $31^{\circ} 47^{\prime} \mathrm{S}, \quad 117^{\circ} 28^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfalls (E. Ladhams, WAM T51724, 51725), 40*, 3o; Gardner Reserve Road, NE Quairading, $31^{\circ} 47^{\prime}$ S, $117^{\circ} 30^{\prime} \mathrm{E}$, Oct. 30, 1997May 27, 1998, pitfalls (E. Ladhams, ex WAM T49454), 2ó; Gulson Lake, $32^{\circ} 47^{\prime} \mathrm{S}, 119^{\circ} 22^{\prime} \mathrm{E}$, Oct. 30, 1997-May 20, 1998, pitfalls (E. Ladhams, WAM T49463), 20'; Gura Road, NW Narrogin, $32^{\circ} 45^{\prime} \mathrm{S}$, $116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997-May 12, 1998, pitfalls (P. Van Heurck, N. Guthrie, E. Ladhams, WAM T49457, 49458, 51131), $10^{\circ}$, 3O; Hepburn Heights, $31^{\circ} 49^{\prime} \mathrm{S}$, $115^{\circ} 46^{\prime}$ E, Sept. 25-Nov. 28, 1995, pitfalls (M. Harvey, J. Waldock, WAM T45639, 45642), 10', 5q, Nov. 28, 1995-Jan. 29, 1996, same (WAM T45644), 20', $1 \stackrel{\text { º }}{ }$; Julimar Conservation Park, $31^{\circ} 21^{\prime} \mathrm{S}, 116^{\circ} 13^{\prime} \mathrm{E}$, Sept. 15, 1998-Nov. 4, 1999, pitfalls (B. Durrant, WAM T49337), 70'; Julimar Conservation Park, $31^{\circ} 24^{\prime} \mathrm{S}, 116^{\circ} 19^{\prime} \mathrm{E}$, Sept. 15, 1998-Nov. 4, 1999, pitfalls (B. Durrant, WAM T49335, 49336), 80, 8甲; са. 10 km SE Kodj Kodjin, $31^{\circ} 21^{\prime}$ S, $117^{\circ} 55^{\prime} \mathrm{E}$, July 1992, pitfall (G. Smith, WAM T60325), 10'; Kodj Kodjin Nature Reserve, $31^{\circ} 27^{\prime} \mathrm{S}$, $117^{\circ} 46^{\prime}$ E, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51735, 51739), 10, 1ᄋ, May 22-Sept. 22, 1998, pitfall (L. King, WAM T51669), 10; Lake Campion Nature Reserve, $31^{\circ} 10^{\prime} \mathrm{S}$, $118^{\circ} 26^{\prime} \mathrm{E}$, Oct. 30, 1997-Apr. 29, 1998, pitfall (E. Ladhams, WAM T49462), 10, May 15-Sept. 22, 1998, pitfalls (P. Van Heurck, WAM T49344, 49345), 10', 1op; Lake Fox, $32^{\circ} 55^{\prime} \mathrm{S}, 119^{\circ} 29^{\prime}$ E,Oct. 30, 1997May 20, 1998, pitfalls (P. Van Heurck, WAM T51741), 30'; Lily McArthy Rock, $32^{\circ} 42^{\prime}$ S, $119^{\circ} 20^{\prime}$ E, May $20-$ Sept. 29, 1998, pitfalls (N. Guthrie, WAM T51796, 51797), 2O', 1¢; Little Sandy Desert, 23.1 km ESE Burranbar Pool, $23^{\circ} 53^{\prime} \mathrm{S}, 120^{\circ} 38^{\prime} \mathrm{E}$, June 1996, pitfall (S. van Leeuwen, B. Bromilow, WAM T47893), 10'; Mackie Creek Reserve, $32^{\circ} 00^{\prime} \mathrm{S}, 117^{\circ} 01^{\prime} \mathrm{E}$, Oct. 30, 1997-May 26, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51745), 1¢; Mount Hawthorn, $31^{\circ} 55^{\prime} \mathrm{S}, 115^{\circ} 50^{\prime} \mathrm{E}$, Oct. 4, 1998, in house (M. Harvey, WAM T51833), 1¢̨; Mount Lawly, $31^{\circ} 55^{\prime} \mathrm{S}, 115^{\circ} 52^{\prime} \mathrm{E}$, Feb. 12, 2000, running on bedroom floor at night (J. Waldock, WAM T51820), 10'; Nooraijn Soak Nature Reserve, $30^{\circ} 45^{\prime}$ S, $117^{\circ} 15^{\prime}$ E, Sept. 15, 1998-Oct. 18, 1999, pitfalls (N. Guthrie, WAM T49364), 2ǫ; Perth, $31^{\circ} 56^{\prime} \mathrm{S}, 115^{\circ} 50^{\prime} \mathrm{E}$, Sept. 23, 1999 (E. Harvey, QMB S53372), 30'; Perth Airport, $31^{\circ} 59^{\prime} \mathrm{S}$,
$115^{\circ} 58^{\prime} \mathrm{E}$, July 28 -Sept. 23, 1993, pitfalls (J. Waldock, WAM T45634), 20, Jan. 6-Mar. 18, 1994, pitfall (M. Harvey, J. Waldock, WAM T45095), 10; Pinnaroo Valley cemetery, $31^{\circ} 48^{\prime} \mathrm{S}, 115^{\circ} 47^{\prime} \mathrm{E}$, Sept. 20-27, 1997, pitfall (J. Waldock, WAM T45205), 10; Rasmussen Road, 25 km NNE Nyabing, $33^{\circ} 21^{\prime} \mathrm{S}$, $118^{\circ} 16^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51682), 1ǫ; Sieda, E Grass Patch, $33^{\circ} 14^{\prime} \mathrm{S}, 121^{\circ} 46^{\prime}$ E, Dec. 1, $1996-$ Feb. 28, 1997, pitfall (A. Longbottom, ex WAM T45101), 1ó; Silver Wattle Hill Nature Reserve, $33^{\circ} 09^{\prime} \mathrm{S}, 118^{\circ} 50^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51685, 51686), $100^{\prime}, 7$ º; Taarblin Lake, $32^{\circ} 59^{\prime} \mathrm{S}, 117^{\circ} 32^{\prime} \mathrm{E}$, Oct. 30, 1997-May 15, 1998, pitfall (N. Guthrie, WAM T49471), 1ǫ; Tomingley Road, NW Narrogin, $32^{\circ} 47^{\prime}$ S, $116^{\circ} 57^{\prime}$ E, Oct. 30, 1997May 12, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T49475), 1ᄋ; Toolibin Lake, $32^{\circ} 55^{\prime} \mathrm{S}, 117^{\circ} 37^{\prime} \mathrm{E}$, Oct. 30, 1997-Apr. 28, 1998, pitfall (E. Ladhams, WAM T49477), 10'; Trigg, E side old West Coast Highway, $31^{\circ} 53^{\prime} \mathrm{S}$, $115^{\circ} 45^{\prime} \mathrm{E}$, Aug. 21, 1993 (J., M. Waldock, WAM T45303), 10; Tutanning Nature Reserve, $32^{\circ} 34^{\prime} \mathrm{S}, 117^{\circ} 21^{\prime} \mathrm{E}$, Oct. 30, 1997-May 28, 1998, pitfall (E. Ladhams, WAM T49478), 10'; E Vermin Proof Fence, E Lake King, $33^{\circ} 03^{\prime}$ S, $119^{\circ} 59^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51791), 3o; Wambyn Nature Reserve, $31^{\circ} 54^{\prime} \mathrm{S}$, $116^{\circ} 37^{\prime} \mathrm{E}$, Oct. 15, 1997-May 26, 1998, pitfall (N. Guthrie, WAM T49480), $10^{\circ}$; Wangeling Gully Bridge, $33^{\circ} 09^{\prime}$ S, $117^{\circ} 03^{\prime} \mathrm{E}$, Oct. 30, 1997-June 2, 1998, pitfalls (E. Ladhams, P. Van Heurck, N. Guthrie, WAM T49483, 51756, 51757), 10', 7ơ; Woodman Point, $32^{\circ} 08^{\prime} \mathrm{S}, 115^{\circ} 45^{\prime}$ E, Sept. 1-Nov. 4, 1994, pitfall (J. Waldock, A. Longbottom,


Map 45. Circle, Myandra cambridgei Simon.

WAM T45632), 10', 2 P ; Yorkrakine Rock Nature Reserve, $31^{\circ} 26^{\prime} \mathrm{S}, 117^{\circ} 30^{\prime} \mathrm{E}$, Mar. $17-$ June 16, 2000, pitfall (M. Harvey, B. Main, WAM T51823), $10^{\circ}$.

Distribution: Widespread in Australia, but apparently absent from Tasmania (map 45).

## Myandra bicincta Simon Figures 644-648; Map 46

Myandra bicincta Simon, 1908: 442 (juvenile holotype from Boyanup, Western Australia, in ZMB, examined); - Hickman, 1927: 81, figs. 17-20.

Diagnosis: Males have a much longer embolus than do those of M. cambridgei, as well as a retrolaterally (rather than distally) directed tegular apophysis (figs. 644-646); females have a much wider epigynum, with twisted, laterally directed ducts (figs. 647, 648).

Male: Total length 2.18. Carapace 1.00 long, 0.84 wide, 0.44 high, length/width 1.19; sternum 0.68 long, 0.50 wide, length/width 1.36; abdomen 1.18 long, 0.64 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.86:0.78:1.00. Carapace orange brown, iridescent, with dark filigree net pattern; sternum, chelicerae, legs grayish orange; endites, labium grayish orange, distally pale; abdomen gray, venter pale, epigastric area orange. Carapace weakly covered with shiny, plumose setae. Eye group width 0.74 of caput width; AME 0.05; ALE 0.05; PME 0.06; PLE 0.04 ; AME-AME 0.02; AME-ALE 0.02 ; PME-PME 0.02; PME-PLE 0.04; ALEPLE 0.04; eye group AME-PME 0.14; AME-AME 0.12; PME-PME 0.14. Clypeus 0.08 high. Abdomen covered with gray plumose setae; ALS 0.35 of abdominal length. Palp (figs. 644-646): conductor originating prolaterally, long, s-shaped, grooved longitudinally; median apophysis about twice as long as wide, ventrally excavated; terminal apophysis thin, conical, with sharp tip, retrolaterally situated; embolus extremely long, thin, sinuous, situated retrolaterally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis long, fingershaped, with bifid tip.

Female: Total length 2.78. Carapace 1.22 long, 1.00 wide, 0.42 high, length/width
1.22; sternum 0.76 long, 0.62 wide, length/ width 1.23 ; abdomen 1.56 long, 0.84 wide; coxa I 0.30 long; relative length of coxae I-IV 1.00:0.80:0.73:1.00. Abdomen dorsally with two diffuse pale, horizontal bands, half moon-shaped pale spot in front of spinnerets. Eye group width 0.68 of caput width; AME 0.06; ALE 0.06; PLE 0.06; PME-PME 0.06; AME-AME 0.14; PME-PME 0.18. ALS 0.40 of abdominal length. Epigynum (figs. 647, 648): atrium broad, slitlike, with inverted u-shaped anterior margin, posterior margin with one large, inverted u-shaped projection; epigynal ducts originating on lateral sides of atrium, coiled, spermathecae contiguous, oval.

Other Material Examined: Australian Capital Territory: Blundells Creek, 3 km E Piccadilly Circus, $35^{\circ} 22^{\prime}$ S, $148^{\circ} 59^{\prime}$ E, Feb. 1984, elev. 850 m (T. Weir, J. Lawrence, M. Johnson, ANIC), 2中; Lees and Blundells Creeks, Brindabella Ranges, $35^{\circ} 22^{\prime} \mathrm{S}, 148^{\circ} 50^{\prime} \mathrm{E}$, Mar. 3, 1979, pitfall (C. Dickman, ANIC), 1o, 1979-Feb. 28, 1980, pitfall (C. Dickman, ANIC), 20', Jan. 31, 1981, pitfall (C. Dickman, ANIC), 19, Nov. 1981, pitfall (C. Dickman, ANIC), 10', 19; Wombat Creek, 6 km NE Piccadilly Circus, $35^{\circ} 19^{\prime} \mathrm{S}, 148^{\circ} 51^{\prime} \mathrm{E}$, Jan. 1984, elev. 750 m (J. Lawrence, T. Weir, M. Johnson, ANIC), 1?; Piccadilly Circus, Brindabella Ranges, $35^{\circ} 22^{\prime} \mathrm{S}$, $148^{\circ} 48^{\prime} \mathrm{E}$, Nov. 1-21, 1979 (ANIC), 1ọ. New South Wales: Beecroft Peninsula, N headland of Jervis Bay, $35^{\circ} 03^{\prime} \mathrm{S}, 150^{\circ} 47^{\prime}$ E, Dec. 16-20, 1998, pitfall (L. Gibson, AMS KS63642), 1̊; Blue Mountains, road to Ingar Picnic Area, $33^{\circ} 46^{\prime} \mathrm{S}$, $150^{\circ} 26^{\prime}$ E, Oct. 2, 1996, pitfall (AMS KS55255), $10^{\circ}$; Bondi State Forest, S Bombala, $37^{\circ} 08^{\prime} \mathrm{S}$, $149^{\circ} 09^{\prime} \mathrm{E}$, Nov. 14, 1980, eucalypt litter (G. Gowing, AMS KS11703), $10^{\circ} ; 50 \mathrm{~m}$ E Boonal Road, 5.2 km NE junction with Moree-Boomi Road, $28^{\circ} 50^{\prime} \mathrm{S}$, $149^{\circ} 42^{\prime} \mathrm{E}$, Nov. 29-Dec. 19, 1999, Casuarina cristata patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72545), 10'; Boonderee National Park, S headland of Jervis Bay, $35^{\circ} 09^{\prime} \mathrm{S}, 150^{\circ} 45^{\prime} \mathrm{E}$, Dec. 11-25, 1999, pitfalls (L. Gibson, AMS KS62958, 62967, 62977), $30^{\circ}$; Boree Plains Station, Lower Mur-ray-Darling region, $33^{\circ} 47^{\prime} \mathrm{S}, 143^{\circ} 16^{\prime} \mathrm{E}$, Sept. $21-$ Oct. 1, 1998, mallee spinifex shrubland pitfall (M. LeBreton, AMS KS71221), 10'; Bullaburra, Red Gum Park, $33^{\circ} 44^{\prime}$ S, $150^{\circ} 25^{\prime}$ E, Oct. 4, 1996, pitfall (AMS KS55258), 10'; Bulls Ground State Forest, near Wauchope, $31^{\circ} 27^{\prime} \mathrm{S}, 152^{\circ} 44^{\prime} \mathrm{E}$, Feb. 10, 1991 (A. York, AMS KS43379), 1̊; Bungawalbin State Forest, $29^{\circ} 08^{\prime} \mathrm{S}, 153^{\circ} 08^{\prime} \mathrm{E}$, Feb. 1998, eucalypt forest pitfall (A. York, AMS


Figs. 644-648. Myandra bicincta Simon. 644. Left male palp, prolateral view. 645. Same, ventral view. 646. Same, retrolateral view. 647. Epigynum, ventral view. 648. Same, dorsal view.

KS73958, 73962), 20*, 1ᄋ; Castlereigh Highway, ca. 5 km S entrance to Bairnkine Station, $29^{\circ} 49^{\prime} \mathrm{S}, 148^{\circ} 08^{\prime} \mathrm{E}$, Nov. 26-Dec. 16, 1999, Casuarina cristata patch pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72553), 10'; Coleambally Irrigation Area, $34^{\circ} 49^{\prime} \mathrm{S}, 146^{\circ} 06^{\prime} \mathrm{E}$, Dec. 16, 1998, pitfall (L. Wilkie, S. Priday, AMS KS67126, 68943), 3o ;

Coleambally Irrigation Area, $34^{\circ} 55^{\prime} \mathrm{S}, 145^{\circ} 52^{\prime} \mathrm{E}$, Dec. 14, 1998, pitfall (L. Wilkie, S. Priday, AMS KS58149), 1ó; Coleambally Irrigation Area, $34^{\circ} 56^{\prime} \mathrm{S}, 145^{\circ} 47^{\prime} \mathrm{E}$, Dec. 14, 1998, pitfall (L. Wilkie, S. Priday, ex AMS KS67681), 1̊; Coleambally Irrigation Area, $34^{\circ} 58^{\prime} \mathrm{S}$, $146^{\circ} 01^{\prime} \mathrm{E}$, Dec. 14, 1998 , pitfall (L. Wilkie, S. Priday, AMS KS58087), $1 \odot+16.3 \mathrm{~km}$ NE
along Coonamble-Barradine Road, Nebea Station, $30^{\circ} 54^{\prime} \mathrm{S}, 148^{\circ} 33^{\prime} \mathrm{E}$, Nov. 24-Dec. 14, 1999, Acacia pendula patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72544), 10; Crown Reserve, 8.1 km on Ashford-Wallangra Road, opposite Bungarrah, $29^{\circ} 19^{\prime} \mathrm{S}, 151^{\circ} 01^{\prime} \mathrm{E}$, Nov. 22-Dec. 13, 2001, pitfalls (L. Wilkie, H. Smith, AMS KS82244-82246), 10', 3o; The Cubas, via Booligal, N of Hay, $34^{\circ} 06^{\prime} \mathrm{S}, 144^{\circ} 52^{\prime} \mathrm{E}$, Feb. 21-Mar. 1, 1965 (A. Forbes, SAM N1987/46), 1Q: Devil's Pulpit State Forest, $29^{\circ} 16^{\prime} \mathrm{S}$, $153^{\circ} 14^{\prime} \mathrm{E}$, Feb. 1997, eucalypt forest pitfall (A. York, AMS KS73957), 1 ; $; 10.6 \mathrm{~km}$ on road to Dirrinbandi from junction with CollarenebriAngledool Road, $29^{\circ} 09^{\prime}$ S, $148^{\circ} 08^{\prime} \mathrm{E}$, Nov. 22Dec. 12, 1999, Casuarina cristata pitfall (F. Christie, P. Flemons, M. Elliott, AMS KS72554), 1¢ ${ }^{2}$; Gibberagee State Forest, $29^{\circ} 14^{\prime} \mathrm{S}, 153^{\circ} 06^{\prime} \mathrm{E}$, Feb. 1997, eucalypt/paperbark forest pitfall (A. York, AMS KS73961), 10; Gidginbilla Station, off Castlereigh Highway at Combogolong Bridge, $30^{\circ} 26^{\prime} \mathrm{S}$, $148^{\circ} 12^{\prime} \mathrm{E}$, Nov. 24-Dec. 14, 1999, Eucalyptus largiflorens pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72550-72552), 40*, 3o; Homewoods Road, 2.8 km W Knodingbul Road, Bulga State Forest, $31^{\circ} 37^{\prime} \mathrm{S}, 152^{\circ} 07^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 690 m (M. Gray, G. Cassis, AMS KS43230), 1¢̨; Humbug Creek, 8 km SW West Wyalong, $33^{\circ} 59^{\prime} \mathrm{S}$, $147^{\circ} 10^{\prime}$ E, Dec.18, 1997-Jan. 10, 1998, grassland pitfall (K., D. Krebs, QMB ex S46701), $10^{\circ}$; Jamieson Park, Narrabeen, $33^{\circ} 43^{\prime}$ S, $151^{\circ} 18^{\prime}$ E, Nov. 6-20, 1995, pitfall, elev. 10 m, Eucalyptus botryoides, Allocasuarina torulosa open forest pitfall (M. Gray, H. Smith, AMS KS44570, 49629), $40^{*}, 2$ Q, pitfall, elev. 40 m , ridge top Angophora costata woodland (M. Gray, H. Smith, AMS KS44571-44573), 130', 2¢; E side, Kwiambal National Park, $29^{\circ} 11^{\prime} \mathrm{S}, 151^{\circ} 00^{\prime} \mathrm{E}$, Nov. 20-Dec. 13, 2001, pitfall (H. Doherty, M. Elliott, AMS KS82242), 10'; Maroota State Forest, $33^{\circ} 31^{\prime} \mathrm{S}, 150^{\circ} 59^{\prime} \mathrm{E}$, Oct. 26, 1979 (G. Webb, AMS KS73315, 73321, 73340, 73420, 73429), 60'; junction Mitchell Highway and Albert Priest irrigation channel, $31^{\circ} 41^{\prime} \mathrm{S}$, $147^{\circ} 25^{\prime} \mathrm{E}$, Nov. 23-Dec. 13, 1999, Acacia pendula patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72542), 10'; Moppin-Aveymore Road, ca. 400 m S junction at Dongelly Bore, $28^{\circ} 53^{\prime} \mathrm{S}, 149^{\circ} 52^{\prime} \mathrm{E}$, Nov. 29-Dec. 19, 1999, Acacia pendula patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72546), 10', 1o; 1.7 km NW along Murphys Road from Madmans Creek Bridge, on S side of ridge, Conglomerate State Forest, $30^{\circ} 03^{\prime} \mathrm{S}, 153^{\circ} 05^{\prime} \mathrm{E}$, Feb. 4-Apr. 9, 1993, pitfall, elev. 220 m (M. Gray, G. Cassis, AMS KS43215), 1¢; 1.05 km

ESE Murrawombie Bridge, Quinine Park, $31^{\circ} 10^{\prime} \mathrm{S}, 147^{\circ} 08^{\prime} \mathrm{E}$, Nov. 22-Dec. 13, 1999, Eucalyptus largiflorens patch pitfall (L. Wilkie, R. Harris, T. Moulds, AMS KS72543), 1Q; Myall Lakes National Park, $32^{\circ} 29^{\prime} \mathrm{S}, 152^{\circ} 2^{\prime}$ E, Nov. 15, 1996 (L. Wilkie, AMS KS60405, 60407, 63702, 63704), 30, 4¢, Dec. 14, 1996 (L. Wilkie, AMS KS63694, 63697), 10, 2Q, Oct. 10, 1997 (L. Wilkie, AMS KS60397, 60400, ex 60395), 90*, Nov. 26, 1997 (L. Wilkie, AMS KS60392-60394), 3o, Apr. 13, 1998 (L. Wilkie, AMS KS60390), 10'; Myall Lakes National Park, $32^{\circ} 30^{\prime} \mathrm{S}, 152^{\circ} 22^{\prime} \mathrm{E}$, Nov. 15, 1996 (L. Wilkie, AMS KS60376, 63687), 2q, June 1, 1997 (L. Wilkie, AMS KS60380), 10'; Myrtle State Forest, $29^{\circ} 12^{\prime} \mathrm{S}, 153^{\circ} 01^{\prime} \mathrm{E}$, Feb. 1997, eucalypt forest pitfall (A. York, AMS KS73959), 1̊; 9.710.25 km on access track off Narran Lake Road, Narran Lakes Reserve, $29^{\circ} 44^{\prime}$ S, $147^{\circ} 25^{\prime} \mathrm{E}$, Nov. 24 -Dec. 14, 1999, Eucalyptus largiflorens pitfalls (F. Christie, P. Flemons, M. Elliott, AMS KS72555-72557), 3o; Oaky Creek Nature Reserve, at base of E side of Melville range, $31^{\circ} 07^{\prime} \mathrm{S}, 150^{\circ} 37^{\prime} \mathrm{E}$, Nov. 17-Dec. 8, 2001, pitfalls (L. Wilkie, H. Smith, AMS KS8224782251), 170*, 5o; Severn State Forest, Atholwood Loop Road, 6.7 km from AshfordBonshaw Road, $29^{\circ} 07^{\prime} \mathrm{S}, 151^{\circ} 08^{\prime} \mathrm{E}$, Nov. $22-$ Dec. 13, 2001, pitfall (L. Wilkie, H. Smith, AMS KS82239, 82240), 40', 4o; Sturt National Park, $29^{\circ} 05^{\prime} \mathrm{S}, 141^{\circ} 38^{\prime} \mathrm{E}$, Sept. 24, 1997 , pitfalls, dunefields (A. Holmes, AMS KS78468, 78480), $10^{\prime}, 1$ ', Sturt National Park, $29^{\circ} 06^{\prime} \mathrm{S}, 141^{\circ} 52^{\prime} \mathrm{E}$, Sept. 26, 1997, pitfall, tablelands (G. Osler, AMS KS78544), 10; Sturt National Park, $29^{\circ} 15^{\prime} \mathrm{S}, \quad 142^{\circ} 17^{\prime} \mathrm{E}$, Sept. 23, 1997, pitfalls, tablelands (M. Gillings, A. Pik, R. Harris, AMS KS78716, 78761, 78777, 78782), 40'; Sturt National Park, $29^{\circ} 16^{\prime} \mathrm{S}$, $142^{\circ} 17^{\prime} \mathrm{E}$, Sept. 23, 1997, pitfall, tablelands (M. Dangerfield, AMS KS78620), $10^{\circ}$; Sturt National Park, $29^{\circ} 17^{\prime} \mathrm{S}$, $142^{\circ} 09^{\prime} \mathrm{E}$, Sept. 25, 1997, pitfalls, rolling downs (M. Henery, AMS KS79372, 79415, 79417), 30'; 16 km S Texas (Qld.), $28^{\circ} 56^{\prime} \mathrm{S}, 151^{\circ} 08^{\prime} \mathrm{E}$, Jan. 25, 2002, vibration (N. Platnick, R. Raven, B. Baehr, AMNH), 10'; Whiporie State Forest, $29^{\circ} 14^{\prime} \mathrm{S}, 153^{\circ} 03^{\prime} \mathrm{E}$, Feb. 1997, eucalypt/paperbark forest pitfall (A.York, AMS KS73960, 73763), $30^{\circ} ; 700 \mathrm{~m}$ N turnoff to Wyndabyne Station on Warren-Quambone Road, $31^{\circ} 08^{\prime} \mathrm{S}$, $147^{\circ} 51^{\prime} \mathrm{E}$, Nov. 23-Dec. 13, 1999, Casuarina cristata patch pitfall (L. Wilkie, J. Tarnawski, H. Doherty, H. Smith, AMS KS72547-72549), 10', 4 ¢ . Northern Territory: Birrindudu, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 23^{\prime} \mathrm{S}$, $129^{\circ} 25^{\prime}$ E, May 1995 , pitfalls (A. Fisher, MNT A001534), 2o'; Connells Lagoon, Mitchell grasslands, Barkly Tablelands, $18^{\circ} 53^{\prime} \mathrm{S}, 136^{\circ} 33^{\prime} \mathrm{E}$,

Oct. 1995, pitfall (A. Fisher, MNT A001505), 10', Mar. 1996, pitfalls (A. Fisher, MNT A001506, 001507, 001526, 001527), 70, 1ᄋ; Kidman Springs Station, $16^{\circ} 07^{\prime} \mathrm{S}$, $130^{\circ} 57^{\prime} \mathrm{E}$, July 3-9, 1996, pitfalls, clay (T. Churchill, MNT A001475-001481, 01483-001485, 001531, 001546), 240', 2o , Oct. 1997, pitfall, clay (T. Churchill, MNT A001520), 10*, 1̊, Apr.-May 1997-1998, black clay soil (T. Churchill, MNT A001564, 001565, 001575), 60*, 1ᄋ, Oct. 21-28, 1988, pitfall (MNT A001554), 10'; Kirkimbie, Mitchell Grasslands, Barkly Tablelands, $17^{\circ} 43^{\prime} \mathrm{S}, 129^{\circ} 14^{\prime} \mathrm{E}$, Sept. 1996, pitfall (A. Fisher, MNT A001535), 10'; Mount Sanford Station, Mitchell Grasslands, Barkly Tablelands, $17^{\circ} 18^{\prime} \mathrm{S}, 130^{\circ} 46^{\prime} \mathrm{E}$, May-June 19951997, pitfalls (A. Fisher, MNT A001537001542), 120', July 3-9, 1996, pitfalls, clay (T. Churchill, MNT A001487, 001489, 001492, 001494, 001495, 001497, 001574), 80', Dec. 1996, pitfalls (A. Fisher, MNT A001543, 001545), 2ơ, Apr. 1997, pitfall, clay (T. Churchill, MNT A001517), 1o, Oct. 1997, pitfall, clay (T. Churchill, MNT A001518), 10', mid-Apr. 1998, pitfalls (MNT A001525, 001552, 001555, 001557-001559), 200', 2о; Soudan, Mitchell Grasslands, Barkly Tablelands, $18^{\circ} 14^{\prime} \mathrm{S}, 129^{\circ} 15^{\prime} \mathrm{E}$, May 1995 , pitfall (A. Fisher, MNT A001549), 10, Nov. 1996, pitfall (A. Fisher, MNT A001533), 20'; Willeroo, $15^{\circ} 11^{\prime} \mathrm{S}$, $131^{\circ} 37^{\prime} \mathrm{E}$, July 3-9, 1996, pitfalls, clay (T. Churchill, MNT A001500, 001501), 20'. Queensland: Beerwah Forestry Reserve, $26^{\circ} 51^{\prime} \mathrm{S}, 152^{\circ} 57^{\prime} \mathrm{E}$, Aug. 8-29, 19901991, heathland pitfall (M. Glover, QMB S32303, 32306, 32307, 32314-32316, 63131, 63132, 63453, 63450, 63468, 63579), 130*, 4ㅇ, Oct. 31, 1990-Jan. 2, 1991, heathland pitfall (M. Glover, QMB S19483, 19486, 33806), 10*, 3o; 13.5 km N Bogantungan, $23^{\circ} 32^{\prime} \mathrm{S}, 147^{\circ} 18^{\prime} \mathrm{E}$, Dec. 18, 2000-Mar. 27, 2001, open forest pitfall, elev. 880 m (D. Cook, G. Monteith, QMB), 10'; Boondall Wetlands, site $1,27^{\circ} 20^{\prime} \mathrm{S}, 153^{\circ} 04^{\prime} \mathrm{E}$, July 29-Sept. 2, 2003, pitfall, Melaleuca woodland, elev. 5-10 m (QMB S62282), 10', Sept. 2Oct 2, 2003, same (QMB S62833), 2o, Oct. 2-31, 2003, same (QMB S65657), 10', 2Q, Jan. 2-29, 2004, same (QMB S65660), 10'; East Woodmillar, top, $25^{\circ} 41^{\prime} \mathrm{S}, 151^{\circ} 36^{\prime} \mathrm{E}$, Dec. 18, 1998-Jan. 25, 1999, pitfall, open forest, elev. 300 m (G. Monteith, C. Gough, QMB S50384), 50*, 1o, Jan. 25-June 2, 1999, same habitat (G. Monteith, G. Thompson, QMB S52454), 50*, 4@; Hurdle Gully, 14.8 km WSW Monto, $24^{\circ} 55^{\prime} \mathrm{S}$, $150^{\circ} 59^{\prime} \mathrm{E}$, Sept. 23-Dec. 20, 1997, open forest pitfall, elev. 460 m (G. Monteith, QMB S44192, 44425), 40'; Karawatha Forest, $27^{\circ} 38^{\prime} \mathrm{S}$, $153^{\circ} 05^{\prime} \mathrm{E}$, Dec. $17,1994-$ Apr. 23, 1995, pitfall,

Melaleuca forest (D. Stewart, QMB S30434, 34506, 34508), 20', 2ǫ; Lake Broadwater, via Dalby, site $6,27^{\circ} 21^{\prime} \mathrm{S}, 151^{\circ} 06^{\prime} \mathrm{E}$, Nov. 24, 1985Jan. 3, 1986, pitfall (M. Bennie, QMB S30919), $10^{\prime}, 2$ 2; ; Mount Coot-tha, Brisbane, $27^{\circ} 29^{\prime}$ S, $152^{\circ} 57^{\prime} \mathrm{E}$, July $20-$ Nov. 11, 1987, open forest pitfall (R. Grundy, QMB S15640, 15641), 20'; Nipping Gully, $25^{\circ} 42^{\prime} \mathrm{S}, 151^{\circ} 26^{\prime} \mathrm{E}$, Dec. 18 , 1998-Jan. 25, 1999, pitfall, open forest, elev. 240 m (G. Monteith, C. Gough, QMB S50380), 1ó; Osbourne Mine site 5A, SSE Mount Isa, $22^{\circ} 07^{\prime} \mathrm{S}, \quad 140^{\circ} 34^{\prime} \mathrm{E}$ (A. Nicholson, QMB S30936), 10'; 3 km SW Wetheron, $25^{\circ} 34^{\prime} \mathrm{S}$, $151^{\circ} 42^{\prime} \mathrm{E}$, Oct. 10 -Dec. 19, 1998, open forest pitfall, elev. 150 m (G. Monteith, C. Gough, ex QMB S47806), 110", 1ơ, Dec. 19, 1998-Jan. 27, 1999, same habitat (G. Monteith, C. Gough, QMB S50376), 10'. South Australia: 4.5 km ENE Crows Nest Dam, Taylorville Station, $33^{\circ} 58^{\prime} \mathrm{S}, 140^{\circ} 11^{\prime} \mathrm{E}$, Oct. 2000, pitfall (D. Hirst, SAM NN11847), 10; Dudley Conservation Park, Kangaroo Island, $35^{\circ} 48^{\prime} \mathrm{S}, 137^{\circ} 51^{\prime} \mathrm{E}$, Nov. 5-11, 1990, pitfall (E. Matthews, J. Forrest, SAM NN11834), 10'; 6.5 km ENE Freeling Heights, Arkaroola, $30^{\circ} 07^{\prime} \mathrm{S}, 139^{\circ} 27^{\prime} \mathrm{E}$, Oct. 20-23, 1999, pitfall (SAM NN11851), 1o; Gosse area, NW River, Flinders Chase National Park, Kangaroo Island, ca. $35^{\circ} 52^{\prime}$ S, $136^{\circ} 45^{\prime} \mathrm{E}$, Jan. 19986, pitfall (A. Austin, WAM T45210), 20'; 1.3 km SSE Inglewood Homestead, $36^{\circ} 12^{\prime} \mathrm{S}, 140^{\circ} 48^{\prime} \mathrm{E}$, Dec. $11-13$, 1995, pitfall (SAM NN11837, 11838), 10', 1ó; 13 km N Keilira Station, $36^{\circ} 37^{\prime} \mathrm{S}, 140^{\circ} 10^{\prime} \mathrm{E}$, Mar. 23, 1992, vibration (D. Hirst, SAM NN11844), 1¢̧; Manning Reserve, Mount Lofty Ranges, $35^{\circ} 11^{\prime} \mathrm{S}, 138^{\circ} 34^{\prime} \mathrm{E}$, Oct. 6, 2001, pitfall (A. McArthur, SAM NN11856, 11857), 20; 13 km N Keilira Station, W Marcollat), $36^{\circ} 37^{\prime} \mathrm{S}, \quad 140^{\circ} 10^{\prime} \mathrm{E}$, Dec. 1973Feb. 1974 (D. Hirst, SAM NN22271, 22272), 2ᄋ; 13.2 km MW Mount Cheesman, $27^{\circ} 20^{\prime} \mathrm{S}$, $130^{\circ} 14^{\prime} \mathrm{E}$, Oct. 21-25, 1996, pitfall (SAM NN10943), 1 ¢ $; 6 \mathrm{~km}$ S Old Lake Dismal, $32^{\circ} 06^{\prime} \mathrm{S}, 140^{\circ} 55^{\prime} \mathrm{E}$, Aug. 26-31, 1996, pitfall (SAM NN11828), 10'; The Pines, 3.5 km NE Mount Elm, $31^{\circ} 53^{\prime} \mathrm{S}, 138^{\circ} 20^{\prime} \mathrm{E}$, Nov. 15-20, 1999, pitfall, open tussock grassland (SAM NN11827), 10 ; Pinkawillinie Conservation Park, $33^{\circ} 07^{\prime} \mathrm{S}, \quad 136^{\circ} 00^{\prime} \mathrm{E}$, Mar. 20, 1996, vibration (D. Hirst, SAM NN11821), 10'; 14 km WNW Renmark, $34^{\circ} 07^{\prime} \mathrm{S}, 140^{\circ} 37^{\prime} \mathrm{E}$, Oct. 10-Nov. 9, 1995, flight intercept trap (K. Pullen, QMB S34296), 10; 4 km SW Warraweena, $30^{\circ} 48^{\prime} \mathrm{S}, 138^{\circ} 36^{\prime} \mathrm{E}$, Oct. $1-10$, 1999, pitfall, low chenopod shrubland (SAM NN11822), $10^{\prime} ; \quad 5.4 \mathrm{~km}$ ENE Wolseley, $36^{\circ} 08^{\prime} \mathrm{S}, 140^{\circ} 47^{\prime} \mathrm{E}$, Dec. 12-15, 1995, pitfall (SAM NN11842, 11843), 10', 1¢. Tasmania:

Belchers Road, W Mount Field National Park, $42^{\circ} 41^{\prime} \mathrm{S}, 146^{\circ} 49^{\prime} \mathrm{E}$, Jan. 9, 1998, under rock (J. Boutin, TMH), 1̊; Chaunceyvale Wildlife Sanctuary, $42^{\circ} 37^{\prime}$ S, $147^{\circ} 15^{\prime}$ E, Dec. 18, 1998, litter (J. Boutin, TMH), 10'; Invermay, Launceston, $41^{\circ} 25^{\prime} \mathrm{S}, 147^{\circ} 08^{\prime} \mathrm{E}$, Dec. $12-13,1998$, in garden (J. Boutin, TMH), 2@; Lake Saint Clair, Pump House Point, $42^{\circ} 04^{\prime} \mathrm{S}, 146^{\circ} 10^{\prime} \mathrm{E}$, Dec. 27, 1994, elev. 740 m (T. Kingston, QVM 13:23670), 10; same, Dec. 28, 1999, elev. 100 m (M. Driesen, QMB S63912), 10'; Mulgrave Crescent, Launceston, $41^{\circ} 25^{\prime} \mathrm{S}, 147^{\circ} 08^{\prime} \mathrm{E}$, Oct. 1923-Jan. 1924, running on ground, under rubbish (V. Hickman, AMS KS28978), 10*, 5o; New Town, $42^{\circ} 51^{\prime} \mathrm{S}, 147^{\circ} 19^{\prime} \mathrm{E}$, Oct. 27-Dec. 6, 1963, among leaves on ground (V. Hickman, AMS KS28736, 28737), 40 , 7ó; Peters Link Road, $41^{\circ} 09^{\prime} \mathrm{S}, 148^{\circ} 08^{\prime} \mathrm{E}$, Nov. 1993 (P. Cranston, J. Trueman, QMB S34509), 1o'; Tarrleah, $42^{\circ} 18^{\prime} \mathrm{S}, 146^{\circ} 24^{\prime} \mathrm{E}$, Dec. 27 , 1956, on ground (V. Hickman, AMS KS29000), 1ọ. Victoria: Barr Creek, Cohuna, $35^{\circ} 50^{\prime} \mathrm{S}, 144^{\circ} 11^{\prime} \mathrm{E}$, Dec. $7-14$, 1996, pitfall (J. Hooper, CVIC 502), 10'; Deep Creek, 7 km SSE Barmah, $36^{\circ} 05^{\prime} \mathrm{S}, 139^{\circ} 59^{\prime} \mathrm{E}$, Jan. 17-22, 1994, pitfall (G. Milledge, P. Lillywhite, NMV K8826), 10'; Dingley Road Reserve, $37^{\circ} 58^{\prime} \mathrm{S}, 145^{\circ} 08^{\prime} \mathrm{E}$, Jan. 10-13, 1991, pitfall (S. Larwill, NMV K3643), 19; Goulburn River, 12 km SSE Nathalia, $36^{\circ} 10^{\prime} \mathrm{S}, 145^{\circ} 14^{\prime} \mathrm{E}$, Dec. 2-7, 1994, pitfall (J. Evans, M. Griffiths, S. Hinkley, NMV K8806), 10; Lower Moira, 7 km SE Barmah, $36^{\circ} 04^{\prime} \mathrm{S}, 145^{\circ} 00^{\prime} \mathrm{E}$, Jan. 1722, 1994, pitfall (G. Milledge, P. Lillywhite, NMV K8827), 10; McDonalds Road, 1.8 km S Shepparton-Barmah Road, $36^{\circ} 04^{\prime} \mathrm{S}, 145^{\circ} 02^{\prime} \mathrm{E}$, Jan. 26-30, 1995, pitfall (J. Evans, S. Hinkley, J. Wainer, NMV K8808), 10'; Mount Hope, $36^{\circ} 00^{\prime} \mathrm{S}, 144^{\circ} 12^{\prime} \mathrm{E}$, Dec. 15-20, 1996, saltbrush riverrine pitfall (J. Shield, CVIC 618), 10'; Nunawading, $37^{\circ} 49^{\prime}$ S, $145^{\circ} 10^{\prime}$ E, Jan. 7, 1956 (Neboiss, NMV K8809), $10^{\circ}$. Western Australia: Aerodrome Road Nature Reserve, $33^{\circ} 28^{\prime}$ S, $119^{\circ} 45^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51639), 30'; Alexander Morrison National Park, $30^{\circ} 02^{\prime} \mathrm{S}, 115^{\circ} 33^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51641), 20; Backman's Road, near Burdock Road junction, SE Mount Burdett, $33^{\circ} 29^{\prime} \mathrm{S}, 122^{\circ} 14^{\prime} \mathrm{E}$, Oct. 15, 1999Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T49515, 51647), 10*, 1̊; Bendering Reserve Road, $32^{\circ} 21^{\prime} \mathrm{S}, 118^{\circ} 30^{\prime} \mathrm{E}$, Oct. 30, 1997-May 19, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51701), $10^{\prime}$; Bold Park, $31^{\circ} 57^{\prime} \mathrm{S}$, $115^{\circ} 46^{\prime} \mathrm{E}$, Nov. 18, 1993-Jan. 6, 1994, pitfall (J. Waldock, WAM T45081), 1ᄋ, Jan. 6-Mar. 18, 1994, pitfall (M. Harvey, J. Waldock, WAM T45094), $10^{\prime}$; Boolathana Station, $24^{\circ} 25^{\prime} \mathrm{S}$,
$113^{\circ} 42^{\prime}$ E, Sept. 30, 1994-Jan. 15, 1995, pitfall (N. McKenzie, J. Rolfe, WAM T45555), 1o'; Boyanup (ZMB 28254), 1 juvenile (holotype); Burracoppin-Campion Road, $31^{\circ} 09^{\prime} \mathrm{S}, 118^{\circ} 29^{\prime} \mathrm{E}$, Oct. 30, 1997-May 21, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51711), 1̊; Burracoppin Nature Reserve, $31^{\circ} 25^{\prime} \mathrm{S}, 118^{\circ} 31^{\prime} \mathrm{E}$, Oct. 30, 1997-May 21, 1998, pitfall (P. Van Heurck, N. Guthrie, ex WAM T51705), 10'; Bushby Road, SE Kulin, $32^{\circ} 57^{\prime}$ S, $118^{\circ} 18^{\prime}$ E, Oct. 30, 1997-May 15, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51712), 10'; Callcup, Warren River, $34^{\circ} 36^{\prime} \mathrm{S}$, $115^{\circ} 54^{\prime}$ E, Oct. 30-Nov. 5, 1997, bush, elev. 100 m (J. Murphy, JAM 22747, 22830), 90', 2̊; Cape Cuvier, Quobba Station, $24^{\circ} 13^{\prime} \mathrm{S}, 113^{\circ} 30^{\prime} \mathrm{E}$, Aug. 21-Sept. 29, 1994, pitfall (P. West, ex WAM T45550), 1ᄋ; Cape Naturaliste, $33^{\circ} 31^{\prime} \mathrm{S}, 115^{\circ} 00^{\prime} \mathrm{E}$, Sept. 27, 1962, elev. 5 m (E. Ross, D. Cavagnaro, CAS), 1¢; The Casuarinas Reserve, $28^{\circ} 55^{\prime} \mathrm{S}$, $115^{\circ} 13^{\prime}$ E, Sept. 15, 1998-Mar. 29, 1999, pitfalls (B. Durrant, WAM T49578, 51203), 20', 2o; Catchment Road, W Beverley, $32^{\circ} 09^{\prime} \mathrm{S}$, $116^{\circ} 38^{\prime}$ E, Nov. 28, 1997, pitfall (P. Van Heurck, WAM T51841), 10; Commonwealth Road, SE Kulin, $32^{\circ} 44^{\prime}$ S, $118^{\circ} 16^{\prime}$ E, Oct. 30, 1997-May 15, 1998, pitfalls (N. Guthrie, WAM T49443, 49444, 49526), 20*, 2̊; Coolinup Nature Reserve, $33^{\circ} 44^{\prime} \mathrm{S}, 122^{\circ} 18^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 29, 2000, pitfall (P. Van Heurck, WAM T51764), 10'; Corackerup Nature Reserve, $34^{\circ} 11^{\prime} \mathrm{S}, 118^{\circ} 38^{\prime} \mathrm{E}$, Oct. 1996, pitfall (A. Sanders, WAM T45097), 1ᄋ; Cranbrook Water Supply Reserve, $34^{\circ} 19^{\prime} \mathrm{S}$, $117^{\circ} 34^{\prime} \mathrm{E}$, Oct. 15, 1999-Oct. 30, 2000, pitfalls (B. Durrant, WAM T51652), 20'; Crowea, $34^{\circ} 28^{\prime} \mathrm{S}, 116^{\circ} 10^{\prime} \mathrm{E}$, Nov.-Dec. 1980 (S. Curry, WAM T45266), 10'; Darkin River, near Legion Road, 17 km SW Beverley, $32^{\circ} 08^{\prime} \mathrm{S}, 116^{\circ} 33^{\prime} \mathrm{E}$, Oct. 15, 1997-May 29, 1998, pitfall (N. Guthrie, WAM T49447), 1 ? ; water reserve on railway line SW Dudinin, $32^{\circ} 54^{\prime} \mathrm{S}, 117^{\circ} 54^{\prime} \mathrm{E}$, Oct. 15, 1997May 15, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T49484, 51758), 20*, Oct. 30, 1997-Feb. 25, 1998, same (WAM T51141), 1¢; Dunn Rock Nature Reserve, $33^{\circ} 17^{\prime} \mathrm{S}$, $119^{\circ} 30^{\prime} \mathrm{E}$, Oct. 15, 1999-Oct. 25, 2000, pitfalls (N. Guthrie, WAM T51118, 51662), 90', 8o; Durokoppin Nature Reserve, $31^{\circ} 24^{\prime}$ S, $117^{\circ} 46^{\prime}$ E, Oct. 30, 1997-May 22, 1998, pitfalls (P. Van Heurck, WAM T5171851720), 10', 2̊; Durokoppin Nature Reserve, $31^{\circ} 25^{\prime} \mathrm{S}, 117^{\circ} 45^{\prime} \mathrm{E}$, Oct. 30, 1997-May 22, 1998, pitfall (P. Van Heurck, WAM T51120), 1ᄋ; Durokoppin Nature Reserve, $31^{\circ} 30^{\prime} \mathrm{S}, 117^{\circ} 44^{\prime} \mathrm{E}$, Nov. 3-14, 1988 (D. Mitchell, WAM T45273), 10'; Dwellingup, $32^{\circ} 43^{\prime} \mathrm{S}, 116^{\circ} 04^{\prime} \mathrm{E}$, Dec. 12, 1975, pitfall (J. Majer, WAM T45277), 20¹, 1¢; Elashgin Nature Reserve, N side, on Maitland Road, $31^{\circ} 20^{\prime} \mathrm{S}, 117^{\circ} 27^{\prime} \mathrm{E}$, Sept. 7-Nov. 29, 1999, pitfall (J. Waldock, I. Studley, WAM T45107), 10; E

Fields Road, SE Lake King, $33^{\circ} 07^{\prime} \mathrm{S}, 121^{\circ} 12^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51671, 51672), 50, 2@; Fitzgerald River National Park, 7.1 km SW Annie Peak, Eyre Range, $33^{\circ} 54^{\prime} \mathrm{S}, 119^{\circ} 55^{\prime} \mathrm{E}$, Nov. 1996, pitfall (A. Sanders, WAM T45099), 10'; Fitzgerald River National Park, 0.6 km WNW Twertup Field Study Centre, $34^{\circ} 01^{\prime}$ S, $119^{\circ} 22^{\prime}$ E, Nov. 1996, pitfall (A. Sanders, WAM T45098), 1¢ ; Francois Peron National Park, $25^{\circ} 50^{\prime} \mathrm{S}, 113^{\circ} 36^{\prime} \mathrm{E}$, Aug. 24 Oct. 12, 1994, pitfall (A. Sampey, WAM T45557), 1¢; Francois Peron National Park, $25^{\circ} 53^{\prime} \mathrm{S}, 113^{\circ} 33^{\prime} \mathrm{E}$, May $25-$ Aug. 30, 1995, pitfall (N. Hall, ex WAM T45411), 1̊; Gardner Reserve Road, NE Quairading, $31^{\circ} 47^{\prime} \mathrm{S}, 117^{\circ} 28^{\prime} \mathrm{E}$, Oct. 30, 1997-May 27, 1998, pitfall (E. Ladhams, WAM ex T51723), 1ᄋ; Gleneagle State Forest, $32^{\circ} 15^{\prime} \mathrm{S}, 116^{\circ} 10^{\prime} \mathrm{E}$ (AMS KS15064), 10'; adjacent to Holland Rock Nature Reserve, $33^{\circ} 22^{\prime} \mathrm{S}$, $118^{\circ} 45^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51666), 10'; Jarrahdale Mine, $32^{\circ} 16^{\prime} \mathrm{S}, 116^{\circ} 06^{\prime} \mathrm{E}$, Oct. $5-12$, 1997, pitfall (K. Brennan, WAM T54777), 10', same, Dec. 14 21, 1997, pitfall (K. Brennan, WAM T54778), 1Q; 39 km NE Jerramungup, ca. $33^{\circ} 56^{\prime} \mathrm{S}, 118^{\circ} 55^{\prime} \mathrm{E}$, Dec. 1993, heath on white sand (G. Harold, WAM T45684), 1ᄋ; Julimar Conservation Park, $31^{\circ} 21^{\prime} \mathrm{S}$, $116^{\circ} 13^{\prime}$ E, Sept. 15, 1998-Nov. 4, 1999, pitfall (B. Durrant, WAM T49461), 10*; Kulja-Mollerin Rock Road, $30^{\circ} 32^{\prime} \mathrm{S}, 117^{\circ} 34^{\prime}$ E, Sept. 15, 1998Oct. 25, 1999, pitfalls (L. King, WAM T51173, 51176), 30`, 2甲; Kulunilup Nature Reserve, $34^{\circ} 11^{\prime} \mathrm{S}, 116^{\circ} 46^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (N. Guthrie, WAM T51790), 10'; Lake Lefroy area, ca. $31^{\circ} 16^{\prime} \mathrm{S}, 121^{\circ} 44^{\prime} \mathrm{E}$, Feb. $7-14$, 1999, pitfall (K. Brennan, WAM T51819), 10'; Lake Magenta Nature Reserve, $33^{\circ} 26^{\prime}$ S, $118^{\circ} 54^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51127, 51793), 50*, 3o; Lake Magenta Nature Reserve, $33^{\circ} 42^{\prime} \mathrm{S}, 118^{\circ} 59^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51675), 30'; N Lake Muir, 34 ${ }^{\circ} 27^{\prime} \mathrm{S}$, $116^{\circ} 41^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51676), 10'; Landsdale School, $31^{\circ} 49^{\prime}$ S, $115^{\circ} 51^{\prime} \mathrm{E}$, Nov. 28, 1995-Jan. 29, 1996, pitfalls (M. Harvey, J. Waldock, WAM T45648), 20'; Lily McArthy Rock, $32^{\circ} 42^{\prime}$ S, $119^{\circ} 20^{\prime}$ E, Oct. 20, 1997-May 20, 1998, pitfall (E. Ladhams, WAM T49465), 1ǫ; Little Sandy Desert, 17.7 km NNE Kulonoski East Well, $24^{\circ} 32^{\prime} \mathrm{S}, 120^{\circ} 17^{\prime} \mathrm{E}$, June 1996 , pitfall (S. van Leeuwen, B. Bromilow, WAM T46034), 10'; Marangaroo Reserve, $31^{\circ} 50^{\prime} \mathrm{S}, 115^{\circ} 50^{\prime} \mathrm{E}$, Sept. 25, 1995-Jan. 29, 1996, pitfalls (M. Harvey, J. Waldock, WAM T45652, 45653), 20', Jan. 29Mar. 28, 1996, pitfalls (J. Waldock, P. West, A. Wheeler, WAM T45654), $10^{\circ}$, 1 ¢ ; W Monkey Mia, $25^{\circ} 48^{\prime} \mathrm{S}, 113^{\circ} 43^{\prime} \mathrm{E}$, Nov. 7, 1998, diesel vibration
(J. Waldock, WAM T45162), 10'; Mordetta National Park, $32^{\circ} 51^{\prime} \mathrm{S}, 118^{\circ} 32^{\prime} \mathrm{E}$, Oct. 30, 1997-May 15, 1998, pitfalls (P. Van Heurck, WAM T45685, 45686, 51129), 2O, 1̊; Mount Barker, Lookout, $34^{\circ} 39^{\prime} \mathrm{S}, 117^{\circ} 39^{\prime} \mathrm{E}$, Nov. 17, 1992, under $\log$ (A. Longbottom, WAM T45294), 1 1ᄋ; Mount Manypeaks, $34^{\circ} 54^{\prime} \mathrm{S}, 118^{\circ} 16^{\prime} \mathrm{E}$, Mar. 24, 1995, pitfall, elev. 520 m (S. Barrett, WAM T45096), 20'; Mount Vernon, $32^{\circ} 47^{\prime} \mathrm{S}, 119^{\circ} 14^{\prime} \mathrm{E}$, Oct. 30, 1997-May 20, 1998, pitfalls (P. Van Heurck, N. Guthrie, WAM T51747), 20'; Nanga Station, $26^{\circ} 31^{\prime} \mathrm{S}, 114^{\circ} 00^{\prime} \mathrm{E}$, Aug. 23-Oct. 16, 1994, pitfalls (P. West, WAM T45437), 2o; Nanga Station, $26^{\circ} 33^{\prime} \mathrm{S}, 113^{\circ} 58^{\prime} \mathrm{E}$, Aug. 23-Oct. 16, 1994, pitfall (P. West, WAM T45556), 1¢̣; Norwoods Road, Wittenoom Hill, $33^{\circ} 28^{\prime} \mathrm{S}, 122^{\circ} 07^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51695, 51696), 30';Ogilvie Road, 40 km SW Ajana, $27^{\circ} 59^{\prime} \mathrm{S}, 114^{\circ} 12^{\prime} \mathrm{E}$. Sept. 15, 1998-Oct. 18, 1999, pitfall (P. Van Heurck, WAM T49568, 51200), 2o'; Parmella, $32^{\circ} 15^{\prime} \mathrm{S}, 115^{\circ} 47^{\prime} \mathrm{E}$, Sept. 23, 1989 (A. De Jong, WAM 90/640), 1¢̣; Pemberton, $34^{\circ} 28^{\prime} \mathrm{S}, 116^{\circ} 01^{\prime} \mathrm{E}$, Nov. 10, 1931 (P. Darlington, MCZ), 1 ; ; Perth Airport, $31^{\circ} 58^{\prime} \mathrm{S}$, $115^{\circ} 58^{\prime}$ E, Sept. 24-Nov. 18, 1993, pitfalls (J. Waldock, WAM T45082, 45297), 10*, 2甲; Perth Airport, $31^{\circ} 59^{\prime} \mathrm{S}, 115^{\circ} 58^{\prime} \mathrm{E}$, Nov. 18, 1993-Jan. 6, 1994, pitfalls (J. Waldock, K. Goodsell, J. Webb, WAM T45084, 45085), 70', 3o; Piawaning-Wongan Hill Road, $30^{\circ} 50^{\prime} \mathrm{S}, 116^{\circ} 40^{\prime}$ E, Sept. 15 , $1998-$ Oct. 25, 1999 (B. Durrant, ex WAM T49365), 10; Pinjalup Road, E Tenterden, $34^{\circ} 22^{\prime} \mathrm{S}, 117^{\circ} 34^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 30, 2000, pitfall (B. Durant, WAM T51810), 1̊; Pinjarrega Nature Reserve, $30^{\circ} 01^{\prime} \mathrm{S}, 115^{\circ} 54^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51683), 10'; Porongurups, ca. $34^{\circ} 41^{\prime} \mathrm{S}$, $117^{\circ} 52^{\prime} \mathrm{E}$, Oct. 6,


Map 46. Circle, Myandra bicincta Simon.

1981, on rock (D. Hirst, SAM NN22286), 10'; near Red Lake Road, N Lake Muir, $34^{\circ} 25^{\prime}$ S, $116^{\circ} 40^{\prime}$ E, Oct. $15,1999-$ Oct. 31, 2000, pitfalls (N. Guthrie, WAM T51677, 51678), 20', 2o; Shark Lake Road, Helms Arboretum Reserve, $33^{\circ} 45^{\prime}$ S, $121^{\circ} 49^{\prime} \mathrm{E}$, Oct. $15,1999-$ Nov. 1, 2000, pitfall (P. Van Heurck, WAM T51664), 1o'; Sharp Point Road, Torndirrup National Park, $35^{\circ} 06^{\prime} \mathrm{S}$, $117^{\circ} 52^{\prime} \mathrm{E}$, Nov. 14, 1998, diesel vibration in Agonis litter (J. Waldock, WAM T45208), 10'; Sieda, E Grass Patch, $33^{\circ} 14^{\prime} \mathrm{S}, 121^{\circ} 46^{\prime} \mathrm{E}$, Dec. 1 , 1996-Feb. 28, 1997, pitfall (A. Longbottom, WAM T45101), $1 ¢$; Silver Wattle Hill Nature Reserve, $33^{\circ} 09^{\prime} \mathrm{S}, 118^{\circ} 50^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51135, 51685-51688), 60', 3o; State Forest, 17 km SW Darkan, $33^{\circ} 28^{\prime} \mathrm{S}, 116^{\circ} 38^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51653, 51767), 40'; Stephens Road, Dryandra Nature Reserve, $32^{\circ} 44^{\prime}$ S, $116^{\circ} 57^{\prime} \mathrm{E}$, Oct. 30, 1997-May 12, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51772, 51773), 10', 1ó; Stirling Range National Park, NW Two Mile Lake, $34^{\circ} 28^{\prime}$ S, $118^{\circ} 15^{\prime}$ E, Sept. 10-20, 1990, pitfall (G. Friend, WAM T49486), 1¢; Talbot Road Reserve, $31^{\circ} 52^{\prime}$ S, $116^{\circ} 03^{\prime}$ E, July 28-Sept. 23, 1993, pitfall (J. Waldock, A. Sampey, A. Thorpe, WAM T51834), 10, Sept. 24-Nov. 18, 1993, pitfall (J. Waldock, WAM T45300), 1¢; Toolbrunup Peak, Stirling Range, $34^{\circ} 23^{\prime} \mathrm{E}, 118^{\circ} 02^{\prime} \mathrm{E}$, Nov. 27 , 1987, elev. 950-1050 m (B. Baehr, QMB), 10'; Trigg, near West Coast Highway, $31^{\circ} 52^{\prime} \mathrm{S}$, $115^{\circ} 45^{\prime}$ E, Sept. 4-Dec. 18, 1993, pitfall (J. Waldock, WAM T45302), 1o'; Trigg, E side old West Coast Highway, $31^{\circ} 53^{\prime}$ S, $115^{\circ} 45^{\prime} \mathrm{E}$, Aug. 21, 1993 (J., M. Waldock, WAM T45301), 10'; Tuart Hill, $31^{\circ} 53^{\prime} \mathrm{S}, 115^{\circ} 52^{\prime} \mathrm{E}$, July $30-$ Sept. 23, 1993, pitfalls (J. Waldock, WAM T45086), 60*, 19, Sept. 24-Nov. 18, 1993, same (WAM T45304, 45631), 50', 2o, Nov. 18, 1993-Jan. 7, 1994, same (WAM T45087), 40, Jan. 7-Mar. 21, 1994, pitfalls (M. Harvey, J. Waldock, WAM T45083), 50, 1ᄋ; Tutanning Nature Reserve, $32^{\circ} 34^{\prime}$ S, $117^{\circ} 21^{\prime}$ E, Oct. 30, 1997-May 28, 1998, pitfall (E. Ladhams, WAM T49479), 10'; Tutanning Nature Reserve, $32^{\circ} 35^{\prime} \mathrm{S}, 117^{\circ} 21^{\prime} \mathrm{E}$, Oct. 30, 1997-Feb. 23, 1998, pitfall (P. Van Heurck, N. Guthrie, WAM T51809), 2o'; Two People's Bay, $34^{\circ} 57^{\prime}$ S, $118^{\circ} 11^{\prime}$ E, Jan. 14, 1977, hut (G. Smith, WAM 88/81), 1 © ; E Vermin Proof Fence, E Lake King, $33^{\circ} 03^{\prime}$ S, $119^{\circ} 59^{\prime}$ E, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51691, 51692), $30^{\circ}, 2{ }^{\circ}$; Walpole, $34^{\circ} 59^{\prime} \mathrm{S}, 116^{\circ} 44^{\prime} \mathrm{E}$, Nov. 19, 1977, pitfall (S. Curry, WAM T45305), 1 ¢ ; Wangeling Gully Bridge, $33^{\circ} 09^{\prime} \mathrm{S}$, $117^{\circ} 03^{\prime}$ E, Oct. 30, 1997-June 2, 1998, pitfalls (E. Ladhams, WAM T49482), 40; Warwick Open Space, $31^{\circ} 51^{\prime}$ S, $115^{\circ} 49^{\prime}$ E, July 13-Sept. 25, 1995,
pitfalls (M. Harvey, J. Waldock, WAM T45668, 45673), 30*, Sept. 25, 1995-Jan. 29, 1996, same (WAM T45669, 45670, 45674), 10*, 2ǫ; Warrachuppin North Road, $31^{\circ} 00^{\prime} \mathrm{S}, 118^{\circ} 42^{\prime} \mathrm{E}$, May 21-Sept.22, 1998, pitfall (N. Guthrie, WAM T51694), 10'; West Cape Howe National Park, Cape William, $35^{\circ} 05^{\prime} \mathrm{S}, 117^{\circ} 35^{\prime} \mathrm{E}$, Jan. 16-18, 1984, pitfall (B. Main, WAM T45209), 1o; junction, West Point and Cascade Roads, W Grass Patch, $33^{\circ} 21^{\prime} \mathrm{S}, 120^{\circ} 52^{\prime} \mathrm{E}$, Oct. 15, 1999Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T51663), 30; Wittenoom Hill Nature Reserve, $33^{\circ} 28^{\prime} \mathrm{S}, 122^{\circ} 07^{\prime} \mathrm{E}$, Oct. 15, 1999-Nov. 1, 2000, pitfalls (P. Van Heurck, WAM T49592), 10; Wongan Hills-Ballidu Road, $30^{\circ} 52^{\prime} \mathrm{S}, 116^{\circ} 43^{\prime} \mathrm{E}$, Sept. 15, 1998-Oct. 18, 1999, pitfalls (P. Van Heurck, B. Durrant, WAM T49594, 51213), 40", 1̊; Woodman Point, $32^{\circ} 08^{\prime}$ S, $115^{\circ} 45^{\prime}$ E, Sept. 1Nov. 4, 1994, pitfall (J. Waldock, A. Longbottom, WAM T45632), 10, Nov. 4, 1994-Jan. 19, 1995, pitfall (J. Waldock, M. Harvey, WAM T45679), 1 ¢̣; Wubin Rocks Reserve, $30^{\circ} 03^{\prime} \mathrm{S}$, $116^{\circ} 41^{\prime}$ E, Sept. 15, 1998-Oct. 25, 1999, pitfall (L. King, WAM T51215), 10'; Zuytdorp, $27^{\circ} 16^{\prime} \mathrm{S}$, $114^{\circ} 04^{\prime} \mathrm{E}$, Jan. 11-May 18, 1995, pitfall (M. Harvey, WAM T45558), $10^{\circ}$.

Distribution: Widespread in Australia, including Tasmania (map 46).

## Myandra myall, new species Figures 649-653; Map 47

Type: Male holotype from Myall Lakes National Park, $32^{\circ} 29^{\prime}$ S, $152^{\circ} 24^{\prime}$ E, New South Wales (May 24, 1998; L. Wilkie), deposited in AMS (KS60388).

Etymology: The specific name is a noun in apposition taken from the type locality.

DIAGNOSIS: Males have a distinctively short tegular apophysis (fig. 650); females have a distinctively arched, triangular anterior epigynal margin (fig. 652).

Male: Total length 2.24. Carapace 1.10 long, 0.86 wide, 0.32 high, length/width 1.28 ; sternum 0.60 long, 0.50 wide, length/width 1.07; abdomen 1.14 long, 0.60 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.85:0.79:1.21. Carapace dark brown, iridescent, with dark filigree net pattern; sternum, chelicerae, legs grayish orange; endites, labium gray, distally pale; abdomen gray, dorsally with two diffuse pale, horizontal bands, venter pale. Carapace weakly covered with shiny, plumose setae. Eye group width 0.74 of caput width; AME 0.05 ; ALE 0.05 ; PME 0.06; PLE 0.05; AME-AME 0.02;


Figs. 649-653. Myandra myall, new species. 649. Left male palp, prolateral view. 650. Same, ventral view. 651. Same, retrolateral view. 652. Epigynum, ventral view. 653. Same, dorsal view.

AME-ALE 0.02; PME-PME 0.04; PMEPLE 0.04; ALE-PLE 0.02; eye group AMEPME 0.14; AME-AME 0.12; PME-PME 0.16. Clypeus 0.08 high. Abdomen covered
with gray plumose setae; ALS 0.44 of abdominal length. Palp (figs. 649-651): conductor originating prolaterally, grooved longitudinally; median apophysis long, thin,
finger-shaped, with pointed tip; terminal apophysis tiny, prolaterally situated; sperm duct slightly s-shaped; embolus long, thin, semicircular, situated probasally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis long, finger-shaped, with recurved tip.

Female: Total length 2.92. Carapace 1.26 long, 1.00 wide, 0.48 high, length/width 1.26; sternum 0.76 long, 0.66 wide, length/ width 1.15 ; abdomen 1.66 long, 0.92 wide; coxa I 0.36 long; relative length of coxae I-IV 1.00:0.89:0.77:1.05. Coloration as in male but without scutum. Eye group width 0.55 of caput width; AME 0.06; ALE 0.06; PLE 0.06; ALE-PLE 0.04; eye group AME-PME 0.18; AME-AME 0.14. ALS 0.4 of abdominal length. Epigynum (figs. 652, 653): atrium with inverted u-shaped anterior hood; epigynal ducts long, thin, parallel along midline, irregularly curved, spermathecae widely separated, globular.

Other Material Examined: New South Wales: Booti Booti National Park, $32^{\circ} 17^{\prime}$ S, $152^{\circ} 31^{\prime} \mathrm{E}$, Dec. 13, 1996 (L. Wilkie, AMS KS63680), 10', Apr. 29, 1997 (L. Wilkie, AMS KS63681), 10 ${ }^{\circ}$, Nov. 25, 1997 (L. Wilkie, AMS KS60356), 1 ${ }^{\text {P }}$; Myall Lakes National Park, $32^{\circ} 29^{\prime} \mathrm{S}, 152^{\circ} 24^{\prime} \mathrm{E}$, Nov. 15, 1996, pitfall (L. Wilkie, AMS KS58501, 60406, 60408, 60409, 60411, 63702), 50*, 7오, Dec. 14, 1996 (L. Wilkie, AMS KS60410, 63686, 63693, 63701), 150', Apr. 30, 1997 (L. Wilkie, AMS KS60403, 60404), 40', June 1, 1997 (L. Wilkie, AMS KS60402), 20', 1op, Oct. 10, 1997 (L. Wilkie, AMS KS60395, 60396, 60399), 40*, Nov. 26, 1997 (L. Wilkie, AMS KS60391), 20', Apr. 13, 1998 (L. Wilkie, AMS KS60389), 10(both palps teratological); Myall Lakes National Park, $32^{\circ} 30^{\prime} \mathrm{S}, 152^{\circ} 22^{\prime} \mathrm{E}$, Nov. 15, 1996 (L. Wilkie, AMS KS60375, 63700), 30', 1¢, Dec. 14, 1996 (L. Wilkie, AMS KS60374, 63696, 6368963692, 63703), 180', Apr. 30, 1997 (L. Wilkie, AMS KS60377), 40', June 1, 1997 (L. Wilkie, AMS KS60378, 60379, 60381), 80', Oct. 10, 1997 (L. Wilkie, AMS KS60385, 62139), 4o', Nov. 26, 1997 (L. Wilkie, AMS KS60382, 60383, 60384), 20', 1ọ, May 24, 1998 (L. Wilkie, AMS KS60386, 60387), 30', 1中 ; Myall Lakes National Park, $32^{\circ} 35^{\prime}$ S, $152^{\circ} 17^{\prime} \mathrm{E}$, Apr. 30, 1997 (L. Wilkie, AMS KS60368, 62140), 40', Oct. 10, 1997 (L. Wilkie, AMS KS60369), 1o'; Myall Lakes National Park, $32^{\circ} 38^{\prime} \mathrm{S}, 152^{\circ} 12^{\prime} \mathrm{E}$, Dec. 15, 1996 (L. Wilkie, AMS KS58502, 60372, 60373, 63688, 63695, 63698, 63699), 120', 2\%, Apr. 30, 1997 (L. Wilkie, AMS

KS62138), 10', Apr. 14, 1998 (L. Wilkie, AMS KS60370), 10', May 24, 1998 (L. Wilkie, AMS KS60371), 10'; Wyrrabalong National Park, $33^{\circ} 17^{\prime} \mathrm{S}, 151^{\circ} 33^{\prime} \mathrm{E}$, Dec. 15, 1996 (L. Wilkie, AMS KS60359, 60360, 63682-63684), 5o, May 2, 1997 (L. Wilkie, AMS KS60361, 60362), 10*, 10', Oct. 11, 1997 (L. Wilkie, AMS KS60364), 1o', Nov. 27, 1997 (L. Wilkie, AMS KS6036560367, 60358), 10*, 3o (one with teratological epigynum). Queensland: between Caloundra and Rainbow Beach, $26^{\circ} 48^{\prime} \mathrm{S}, 153^{\circ} 08^{\prime} \mathrm{E}$, July 1992 (J. Wunderlich, QMB S21215), 1̊; Enterprise, North Stradbroke Island, $27^{\circ} 35^{\prime} \mathrm{S}$, $153^{\circ} 27^{\prime} \mathrm{E}$, Jan. 11, 2002, mallee, elev. 100 m (B. Baehr, R. Raven, QMB S67974), 20'; North Stradbroke Island, $27^{\circ} 35^{\prime} \mathrm{S}, 153^{\circ} 2^{\prime} \mathrm{E}$, Oct. 1982 (J. Majer, QMB S67795), 20*, 1ᄋ; Yarraman, North Stradbroke Island, $27^{\circ} 26^{\prime} \mathrm{S}, 153^{\circ} 29^{\prime} \mathrm{E}$, June 1997, tall shrubland (U. Nolte, QMB S40976), 10'. South Australia: 13 km N Keilira Station, W Marcollat, $36^{\circ} 37^{\prime}$ S, $140^{\circ} 10^{\prime}$ E, Dec. 1973-Feb. 1974 (D. Hirst, SAM NN22273, 22274), 2ó; Three Mile Conservation Park, near Beachport, $37^{\circ} 27^{\prime} \mathrm{S}, 139^{\circ} 58^{\prime} \mathrm{E}$, Jan. 11, 1999, pitfall (A. McArthur, SAM NN11839), $10^{\circ}$. Tasmania: Eddystone Point (all pitfall, T. Churchill, QVM 13:), $41^{\circ} 01^{\prime}$ S, $148^{\circ} 19^{\prime} \mathrm{E}$, Oct. 1986 (214, 513, 558, 565), 40', Nov. 1986 (244, $250,271,301,315,607,622,639,710,717,746$, 757, 790, 795, 801, 24728), 190', 2ㅇ, Jan. 1987 (1437), 1Q, Apr. 1987 (1986), 10', Oct. 1987 (3421, 3436, 3442, 3445, 3457, 3458, 3467, 3479, $3492,3509,3527,3562,3574,3579,3630), 250^{\prime}$, 19, Nov. 1987 (3677, 3737, 3739, 3743, 3757, 3759, 3809, 3815, 3829, 3859, 3927, 3973, 3978, 4006, 4028, 4070, 4073), 280, 69, Dec. 1987 (4211, 4263, 4275, 4359, 4373, 4447, 4471), 60', 3 e, Jan. 1998 (4665, 4787, 4796), 10', 2o; Waterhouse Point (all pitfall, T. Churchill, QVM 13:), $40^{\circ} 50^{\prime} \mathrm{S}, 147^{\circ} 41^{\prime} \mathrm{E}$, Oct. 1986 (32, 392, 440, 444, 487, 522, 24722, 24724), 120*, 19, Nov. 1986 (33, 280, 290, 331, 353, 618, 636, 654, $660,705,728,740,753,768,776,780,786), 250^{\prime}$, 3Q, Dec. 1986 (1030, 1117, 24723, 24726), 4ㅇ, Oct. 1987 (3385, 3392, 3454, 3472, 3533, 3544, 3593, 3615, 3626, 3628), 180', Nov. 1987 (3825, $3837,3845,3855,3888,3898,3905,3941,3989$, 4033, 4054, 4090, 4096, 4104, 4110, 4126), 240', 2¢, Dec. 1987 (4326, 4400), 2ǫ, Jan. 1988 (4614), 19;

Distribution: Southeastern Queensland to Tasmania (map 47).

Myandra tinline, new species
Figures 654-658; Map 47
Type: Male holotype taken on ground 1 km N of Point Tinline, Cape Gantheaume,

Kangaroo Island, $38^{\circ} 59^{\prime} \mathrm{S}, 137^{\circ} 37^{\prime} \mathrm{E}$, South Australia (Nov. 11, 1987; D. Hirst), deposited in SAM (N1989/126).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males and females have not been collected together and are matched here only the basis of parsimony. Males resemble those of M. cambridgei but have a differently shaped palpal conductor (fig. 655) and an unexpanded retrolateral tibial apophysis (fig. 656); females have distinctive, separated longitudinal epigynal ducts (fig. 658).

Male: Total length 1.92. Carapace 0.96 long, 0.82 wide, 0.58 high, length/width 1.17; sternum 0.52 long, 0.96 wide, length/width 0.56 ; abdomen 0.06 long, 0.46 wide; coxa I 0.26 long; relative length of coxae I-IV 1.00:0.84:0.77:1.15. Carapace orange brown, iridescent, with dark filigree net pattern; sternum orange, with darker lateral margins; chelicerae, legs grayish orange; endites, labium orange, distally pale; abdomen gray, dorsally with two pale, horizontal bands, venter pale, epigastric area orange. Carapace weakly covered with shiny, plumose setae. Eye group width 0.72 of caput width; AME 0.04; ALE 0.06; PME 0.06; PLE 0.06; AMEAME 0.02; AME-ALE 0.02; PME-PME 0.02 ; PME-PLE 0.02; ALE-PLE 0.02; eye group AME-PME 0.12; AME-AME 0.10; PME-PME 0.14. Clypeus 0.06 high. Abdomen covered with gray plumose setae; ALS 0.46 of abdominal length. Palp (figs. 654 656): conductor originating prolaterally, grooved longitudinally, with bipartite tip; median apophysis long, ventrally excavated; terminal apophysis long, conical, with sharp tip, prolaterally situated; sperm duct semicircular; embolus long, thin, semicircular, situated prolaterally; tibia about 1.5 times as long as wide, retrolateral tibial apophysis long, triangular, with pointed tip.

Female: Total length 2.12. Carapace 1.02 long, 0.88 wide, 0.68 high, length/width 1.16; sternum 0.56 long, 1.10 wide, length/width 0.66 ; abdomen 0.07 long, 0.38 wide; coxa I 0.28 long; relative length of coxae I-IV 1.00:0.86:0.71:1.07. Eye group width 0.71 of caput width; AME 0.05; PME 0.08; PLE 0.04; AME-AME 0.04; eye group AME-PME 0.16; AME-AME 0.14; PME-PME 0.18 .

Clypeus 0.07 high. ALS 0.38 of abdominal length. Epigynum (figs. 657, 658): atrium broad, slitlike, with wide anterior epigynal hood; lateral plates rectangular, contiguous; epigynal ducts short, parallel, paramedian, spermathecae less than their diameter apart, oval, twisted, in horizontal position.

Other Material Examined: New South Wales: Womba, $30^{\circ} 24^{\prime} \mathrm{S}, 148^{\circ} 42^{\prime}$ E, Feb. 2001, pitfall (I. Oliver, AMS KS80117), 1Q. South Australia: 6.5 km WSW Kangaroo Dam, Taylorville Station, $33^{\circ} 57^{\prime} \mathrm{S}, 140^{\circ} 17^{\prime} \mathrm{E}$, Oct. 2000, pitfall (D. Hirst, SAM NN11846), 10'. Western Australia: Dragon Rocks Nature Reserve, $32^{\circ} 29^{\prime}$ S, $118^{\circ} 59^{\prime} \mathrm{E}$, May 20-Sept. 22, 1998 (N. Guthrie, WAM T51648), $10^{\circ}$.

Distribution: If the sexes are matched correctly, the species is widespread across southern Australia (map 47).

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Map 47. Circle, Myandra myall, new species. Square, Myandra tinline, new species.


Figs. 654-658. Myandra tinline, new species. 654. Left male palp, prolateral view. 655. Same, ventral view. 656. Same, retrolateral view. 657. Epigynum, ventral view. 658. Same, dorsal view.

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