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A Revision of the American Spiders of the Genus *Camillina* (Araneae, Gnaphosidae)

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ABSTRACT

The genus *Camillina* is redefined to include those gnaphosids with a preening comb on metatarsi III and IV, closely spaced posterior median eyes, a prolaterally situated, bifid terminal apophysis and medially situated, recessed embolar base on the male palp, and a median epigynal plate. Keys, diagnoses, descriptions, illustrations, and locality records are provided for the 40 known American species, found from Mexico and the West Indies south to Chile (with two species apparently introduced into the southeastern United States). *Drassyllus elegans* (Bryant), *Echemus chilensis* Simon, *E. major* Keyserling, *E. minutus* Mello-Leitão, *E. pedestris* O. P.-Cambridge, *E. pulcher* Keyserling, *Gytha xanthomela* Mello-Leitão, *Zelotes desecheonis* Petrunkevitch, *Z. elytrogaster* Mello-Leitão, *Z. galapagoensis* (Banks), and *Z. marmoratus* Mello-Leitão are transferred to *Camillina*. Two specific names are newly synonymized: *C. xanthomela* with *C. major*, and *C. elytrogaster* with *C. chilensis*. The male of the Cuban species *C. elegans* is described for the first time and the species is newly recorded from Florida, many Caribbean islands, Hawaii, the Marshall Islands, and Angola. The female of the Brazilian species *C. pulcher* is newly described, and the species is recorded from Alabama; the males of *C. pedestris* and *C. arguta* (Simon) are also described for the first time. Twenty-nine new species are described.

INTRODUCTION

This paper, the fifteenth in a series on the spider family Gnaphosidae and the second devoted to New World representatives of the *Zelotes* complex, deals with the little-known American fauna of the genus *Camillina*. Tullgren (1910) established the genus (as *Camilla*, a homonym) for a species (*C. cordifera*) from Mt. Kilimanjaro, Tanzania, that has since been found elsewhere in Africa and on the Seychelle Islands (Platnick, 1981). Tullgren and more recent authors have added about 20 African species to the genus. That *Camillina* also occurs in the New World was first pointed out by Berland (1919), who transferred into the genus two species previously described in *Echemus* by Simon (*E. relucens* from Venezuela and *E. argutus* from Chile). Berland's discovery has been ignored by all subsequent authors, however; Roewer (1954) retained the two Simon species in *Echemus*, and additional American *Camillina* species have since been erroneously described in such genera as *Echemus, Eilicina, Gytha*, and *Zelotes* (and perhaps others that we have not been able to identify from the literature). Although with only a few exceptions American species of *Camillina* are poorly represented in collections and many

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species obviously remain to be discovered (in nature and possibly among old and poorly described type specimens as well), it seemed worthwhile to survey the available material and document at least part of the diversity within the genus.

As indicated by Platnick and Shadab (1982), *Drassyllus* and *Camillina* differ from other zelotines in having the almost contiguous posterior median eyes greatly enlarged so that the rear edges of the posterior eyes form a strongly procurved line, and seem therefore to be sister groups. Like those of *Drassyllus,* the species of *Camillina* are united by unique genitalic features. Males of *Camillina* have a bifid terminal apophysis similar to that of *Drassyllus* males, but rather than being medially situated (as in Platnick and Shadab, 1982, fig. 3), both the basal and (especially) the distal portion of the apophysis are shifted prolaterally (as in fig. 1) and cover the recessed base of the embolus. Females of *Camillina* lack the posteriorly expanded epigynal midpiece characteristic of *Drassyllus* (Platnick and Shadab, 1982, fig. 4) and have instead a large, flattened, medially situated epigynal plate (as in fig. 3) that is usually triangular but may become almost circular (fig. 27) or rectangular (fig. 85) in some species.

As befits sister groups, the two genera have largely vicariant distributions, with *Drassyllus* restricted to Holarctic areas and *Camillina* occurring farther south. Only *Camillina* occurs in Central and South America and the West Indies. There is a slight overlap in central Mexico, but the only known cases of sympatry are with species of *Drassyllus* that extend north into the United States. In addition, two species of *Camillina* are known from the southeastern United States, the home of many endemic *Drassyllus.* One of these, *Camillina pulcher* (Keyserling), is a Brazilian species of which one male has been taken on a beach in Alabama; it is doubtful that a population has actually been established there. The second species, *Camillina elegans* (Bryant), is common in Florida but widespread in the West Indies; because it is recorded below from Hawaii, the Marshall Islands, and Angola as well, the species seems likely to have been introduced into Florida and these other areas by man.

As in *Drassyllus,* unfortunately, we have had little success at unravelling the interrelationships among the many species, and have found far too few characters to attempt a cladogram; those indications of monophyletic species groups we have detected are commented on in the diagnoses. The various species are so similar, in fact, that we have found it expedient to arrange both the keys and descriptions geographically. Our ignorance of the species interrelationships is particularly regrettable because the American *Camillina* have much potential interest for biogeography. Within the West Indies, for example, Bimini, Curaçao, Desecheo, Grand Cayman, and Jamaica have apparently endemic species, and at least three different species are endemic to different islands in the Galapagos archipelago, a situation paralleled in spiders only in the genus *Neozimiris* (Platnick and Shadab, 1976).

Observations of specimens of *Camillina arguta* (Simon) at several localities in central Chile indicate that their habits are similar to those of North American *Drassyllus.* Juveniles and adults of both sexes construct slight silken retreats under large stones on relatively flat ground. The spiders show strong negative phototropism, and are extremely agile, moving faster even than the much larger gnaphosids (such as those of the genus *Echemoides*) that occur in the same habitats. Specimens in captivity fed readily on both mealworm larvae and wingless fruit flies, and were easily reared to maturity.

The format of the descriptions and standard abbreviations of morphological terms follow those used in Platnick and Shadab (1975, 1982). The new specific names proposed are all nouns in apposition taken from the respective type localities. Unless another depository is indicated, all specimens discussed are in the American Museum of Natural History. All measurements given are in millimeters. We thank the curators and collectors listed below for supplying specimens and types, Dr. C. D. Dondale for reviewing a draft of the manuscript, and the Eppley Foundation for Research for its generous sup-

port of field and laboratory work on these and other spiders.

COLLECTIONS EXAMINED

AJP, Mr. A. J. Penniman
AMNH, American Museum of Natural History
BMNH, British Museum (Natural History), Mr. F. R. Wanless
CAS, California Academy of Sciences, Dr. W. Pulawski
EPC, Exline-Peck Collection, Dr. W. B. Peck
FMNH, Field Museum of Natural History, Dr. J. Kethley
FSCA, Florida State Collection of Arthropods, Dr. G. B. Edwards
IRSN, Institut Royal des Sciences Naturelles, Brussels, Dr. J. Kekenbosch
JAB, Dr. J. A. Beatty
JAK, Mr. J. A. Kochalka
MACN, Museo Argentino de Ciencias Naturales, Dr. E. A. Maury
MCN, Museu de Ciências Naturais do Rio Grande do Sul, Dr. A. A. Lise
MCZ, Museum of Comparative Zoology, Dr. H. W. Levi
MLP, Museo de La Plata, Dr. R. F. Arrozpide
MNHN, Muséum National d'Histoire Naturelle, Dr. M. Hubert
MSP, Museu de Zoologia da Universidade de São Paulo, Dr. H. Reichardt
PMNH, Peabody Museum of Natural History, Yale University, Dr. C. L. Remington
REL, Dr. R. E. Leech
UCB, University of California at Berkeley, Dr. E. I. Schlinger and Mr. C. Griswold
ZMH, Zoologisches Museum, Universität Hamburg, Dr. G. Rack

CAMILLINA BERLAND

Camilla Tullgren, 1910, p. 105 (type species by monotypy *Camilla cordifera* Tullgren); preoccupied by *Camilla* Haliday, 1836 (Diptera), and others.

Camillina Berland, 1919, p. 458 (*nomen novum* for *Camilla*).

Camillana Strand, 1928, p. 42 (superfluous *nomen novum* for *Camilla*).

DIAGNOSIS: Specimens of *Camillina* can be distinguished from all other gnaphosids by the combined presence of a preening comb on metatarsi III and IV (Platnick and Shadab, 1982, figs. 1, 2), large and almost touching posterior median eyes (Kaston, 1978, fig. 528), a prolaterally situated, bifid terminal apophysis and medially situated, recessed embolar base on the male palp (fig. 1), and a median epigynal plate (fig. 3).

DESCRIPTION: Total length 2.0–7.9. Carapace oval in dorsal view, widest at coxae II, slightly invaginated posteriorly, narrowed at level of palpi, light orange-brown posteriorly, darker anteriorly, with long erect black setae along edges of posterior declivity; cephalic area flattened, set off by sloping cephalic grooves; thoracic groove short, longitudinal. From above, anterior eye row recurved, posterior row procurved; from front, both rows procurved; AME circular, dark, PME irregularly rectangular, light, ALE and PLE oval, light; PME largest, AME usually smallest; AME separated by roughly their diameter, almost touching ALE; PME almost touching, separated from PLE by roughly their radius or more; lateral eyes of each side separated by roughly their radius; MOQ usually slightly longer than wide, wider in back than in front. Clypeal height equal to AME diameter. Chelicerae usually with four promarginal and three retromarginal teeth. Endites short, rectangular, obliquely depressed, greatly narrowed at palpal insertion; labium broad, rebordered and rounded distally; sternum with strongly rebordered, sinuous margins. Leg formula 4123. Typical leg spination pattern (only surfaces bearing spines listed): femora: I, II d1-1-0, p0-0-1; III d1-1-0, p0-1-1, r0-1-1; IV d1-1-0, p0-0-1, r0-0-1; patella III r0-1-0; tibiae: III p1-1-1, v2-2-2, r0-1-1; IV p1-0-1, v2-2-2, r1-1-1; metatarsi: II v2-0-0; III p1-2-2, v2-0-0, r1-1-2; IV p1-2-2, v2-2-0, r1-2-1. Legs usually orange, darkest distally; tarsi very lightly scopulate, with two dentate claws but no claw tufts; trochanters not notched; metatarsi III and IV with preening comb; distal segments with two rows of long trichobothria. Abdomen usually light brownish gray dorsally, paler ventrally; males with small orange anterior scutum; six spinnerets, anteriors elongated, sclerotized, separated at base by their width. Palp with prolaterally situated, bifid terminal apophysis (with distal portion often subdivided) covering recessed embolar base; median apophysis and membranous conductor always present. Epigy-

num always with median plate, usually triangular; spermathecae situated posteriorly, with pair of small median and pair of large lateral ducts.

UNCERTAIN NAME: The holotype of *Zelotes tucumanus* Mello-Leitão (1941, p. 171, fig. 61) is a male that appears to belong to *Camillina,* but both of its palpi are missing and the species cannot be recognized from Mello-Leitão's illustration. The name is best regarded as a *nomen dubium* until topotypical material becomes available.

Camillina cordifera (Tullgren)

Camilla cordifera Tullgren, 1910, p. 105, figs. 16a–d (male and female syntypes from Kibonoto, Mt. Kilimanjaro, Tanzania, should be in Naturhistoriska Riksmuseet, Stockholm, not examined).

Camillina cordifera: Berland, 1919, p. 462. Tucker, 1923, p. 341, fig. 59. Roewer, 1954, p. 411. Bonnet, 1956, p. 944. Saaristo, 1978, p. 108, figs. 92–96. Platnick, 1981, p. 452, figs. 1–4.

Illustrations of this, the type species of the genus, can be found in the literature cited above; its genitalia are normal for the genus. The keys and descriptions that follow are organized into six geographical areas: the West Indies; Mexico, Guatemala, and Honduras; Panama, Colombia, and Venezuela; Brazil; Argentina, Bolivia, and Chile; and Peru and the Galapagos archipelago. Species that occur in two of these regions appear in both keys; their descriptions are placed where the bulk of the species range falls.

KEY TO SPECIES OF THE WEST INDIES

1. Males (those of *cayman* unknown) 2
   Females 8
2. Embolus with long spur on prolateral side (fig. 1) ..... *elegans*
   Embolus without prolateral spur 3
3. Embolus with distinct proximal lobe on retrolateral edge (figs. 5, 9, 21, 25, 49) ... 4
   Embolus without distinct proximal lobe on retrolateral edge (fig. 17) .... *desecheonis*
4. Tip of embolus with recessed retrolateral flange (fig. 21) ..... *nevis*
   Tip of embolus without recessed retrolateral flange 5
5. Tip of embolus relatively long (figs. 5, 49) 6
   Tip of embolus relatively short (figs. 9, 25) 7
6. Retrolateral lobe of embolus relatively long (fig. 5) ..... *bimini*
   Retrolateral lobe of embolus relatively short (fig. 49) ..... *gaira*
7. Tip of embolus with a single point (fig. 25) ..... *jeris*
   Tip of embolus with three points (fig. 9) ..... *mona*
8. Median ducts of epigynum coiled around spermathecae (figs. 3, 4) ..... *elegans*
   Median ducts of epigynum anterior to spermathecae 9
9. Median plate of epigynum relatively narrow (figs. 19, 27) 10
   Median plate of epigynum relatively wide (figs. 7, 11, 15, 23, 51) 11
10. Median plate relatively small, semicircular (fig. 19) ..... *desecheonis*
    Median plate relatively large, almost circular (fig. 27) ..... *jeris*
11. Median plate narrowed, angled posteriorly (fig. 15) ..... *cayman*
    Median plate rounded posteriorly (figs. 7, 11, 23, 51) 12
12. Median ducts expanded, bulbous anteriorly (fig. 52) ..... *gaira*
    Median ducts not expanded anteriorly (figs. 8, 12, 24) 13
13. Median plate relatively small (fig. 23) .... *nevis*
    Median plate relatively large (figs. 7, 11) .. 14
14. Median ducts relatively wide (fig. 8).. *bimini*
    Median ducts relatively narrow (fig. 12) ..... *mona*

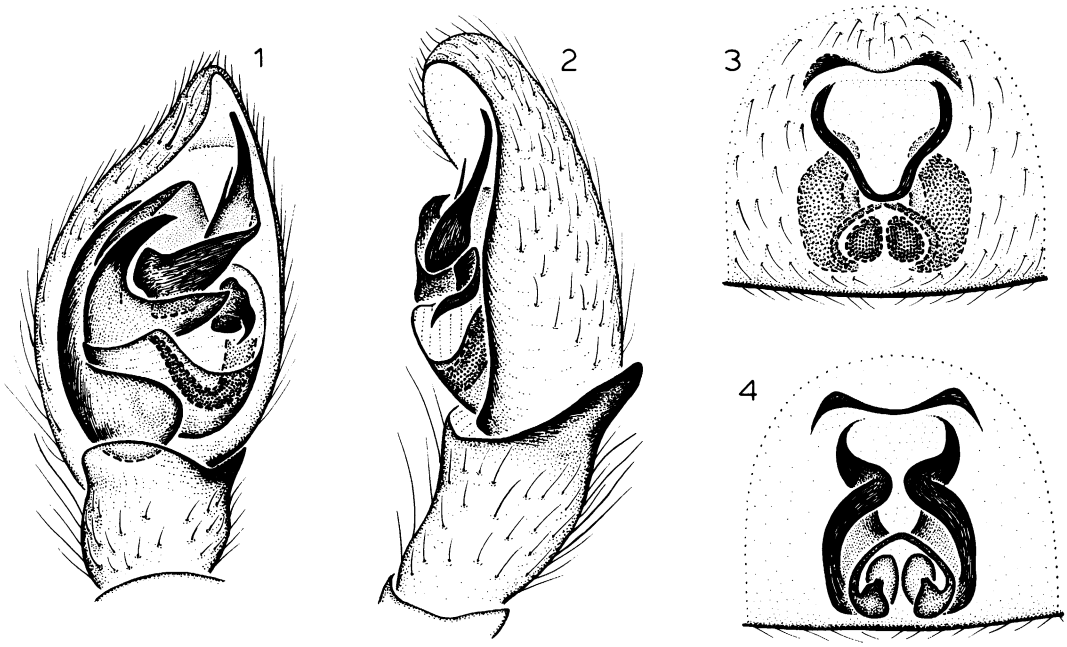
Camillina elegans (Bryant), new combination

Figures 1–4

Elicina elegans Bryant, 1940, p. 391, figs. 165, 169 (female holotype from Maisí, Oriente, Cuba, in MCZ, examined). Roewer, 1954, p. 421.

Drassyllus elegans: Platnick and Shadab, 1980, p. 338; 1982, p. 8.

DIAGNOSIS: *Camillina elegans* is a very distinctive species, easily recognized by the long spur on the prolateral side of the embolus (fig. 1) and the long median ducts coiled around the spermathecae (fig. 3). The species may be related to *C. relucens,* which has a shorter prolateral embolar spine and a similar distally extended palpal bulb (fig. 57), but there is nothing in the morphology of the female genitalia to corroborate that hypothesis.



FIGS. 1–4. *Camillina elegans* (Bryant). 1. Palp, ventral view. 2. Palp, retrolateral view. 3. Epigynum, ventral view. 4. Epigynum, dorsal view.

MALE: Total length 2.96 ± 0.44. Carapace 1.41 ± 0.22 long, 1.06 ± 0.15 wide. Femur II 0.85 ± 0.12 long. Eye sizes and interdistances: AME 0.08, ALE 0.09, PME 0.13, PLE 0.09; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.28, front width 0.23, back width 0.27. Embolus with prolateral spur (figs. 1, 2). Leg spination: metatarsus III v2-1p-0.

FEMALE: Total length 3.32 ± 0.40. Carapace 1.31 ± 0.08 long, 1.00 ± 0.06 wide. Femur II 0.80 ± 0.04 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.07, PLE 0.06; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.19, front width 0.16, back width 0.16. Median plate narrowed posteriorly, median ducts coiled around spermathecae (figs. 3, 4). Leg spination: tibiae III, IV v1p-2-2.

MATERIAL EXAMINED: UNITED STATES: **Florida:** *Charlotte Co.:* Cleveland, Oct. 11, 1961, in litter (M. H. Muma, FSCA), 1 ♀. *Dade Co.:* Everglades National Park, Mar. 22, 1968 (A. M. Chickering, MCZ), 1 ♀; Homestead, Mar. 3–4, 1968, fields and roadside (A. M. Chickering, MCZ), 1 ♀; Miami Beach, Nov. 1977, in house (M. J. O'Brien, MCZ), 1 ♂, Feb. 1978 (M. J. O'Brien, MCZ), 1 ♂. *Highlands Co.:* Archbold Biological Station, Lake Placid, Feb. 29–Mar. 1, 1968 (A. M. Chickering, MCZ), 2 ♂, 1 ♀, Mar. 26–31, 1968 (A. M. Chickering, MCZ), 3 ♀. *Indian River Co.:* Sebastian, Jan.–Feb. 1945 (G. Nelson, MCZ), 1 ♀. *Lee Co.:* Fort Myers, Jan. 26, 1924 (W. M. Barrows), 1 ♀; Fort Myers Beach, Mar. 17, 1954 (W. Ivie), 1 ♀. *Monroe Co.:* Bahia Honda Key, Mar. 18, 1964, under coral stone (H. Levi, MCZ), 1 ♂; Key West, July 2, 1935 (H. K. Wallace), 1 ♂, 1 ♀; 2 mi. SE Marathon, Dec. 15, 1962 (W. Ivie), 3 ♂, 3 ♀. *Orange Co.:* Apopka, Feb. 4, 1980, pitfall, orange grove (D. Gowan), 1 ♂. *Pinellas Co.:* Largo, Mar. 24, 1964, wasteland (H. Levi, MCZ), 1 ♀; S. Largo, Mar. 3, 1963, under board in orchard (H. Levi, MCZ), 1 ♀. *Polk Co.:* Lake Alfred, May 13–Oct. 28, 1967–1970, pitfalls, citrus (M. H. Muma, H. L. Greene, K. J. Stone, FSCA), 9 ♂, 4 ♀; Winter Haven, Feb. 26–Nov. 22, 1967–1969, pitfalls, residential area, under oaks, on lake shore, on sand pine dune (M. H. Muma, H. L. Greene, FSCA), 13 ♂, 5 ♀. *Seminole Co.:*

Forest City, June 4, 1979, pitfall, orange grove (D. Gowan), 1 ♂, Nov. 8, 1979, pitfall, orange grove (D. Gowan), 1 ♂, 1 ♀. BAHAMA ISLANDS: Cat Cay, Dec. 1, 1973 (W. Sedgwick), 1 ♂; North Bimini Island, Dec. 29, 1952 (Hayden, Giovannoli), 1 ♀. CUBA: **Oriente:** Maisí, July 15–16, 1936 (P. J. Darlington, MCZ), 1 ♀ (type). JAMAICA: **Kingston:** Buccaneer Beach, Dec. 8, 1963 (A. M. Chickering, MCZ), 1 ♂, 1 ♀; Palisades Area, Nov. 1, 1957 (A. M. Chickering, MCZ), 3 ♀. **St. Andrew:** Mona Road, Oct. 31, 1957 (A. M. Chickering, MCZ), 1 ♂. PUERTO RICO: Chicken Island (off Culebra), Apr. 15, 1965, Berlese sample (H. Heatwole, F. McKenzie), 1 ♀; College of Agriculture, Mayagüez, Jan. 12, 1964 (A. M. Chickering, MCZ), 1 ♀; Institute of Marine Biology, La Parguera, Jan. 22, 1964 (A. M. Chickering, MCZ), 4 ♀; Laguna Cartegena, Valle de Lejas, Jan. 8, 1964 (A. M. Chickering, MCZ), 4 ♂, 3 ♀; La Parguero, Jan. 12–16, 1966, 2 ♂; Nicacos Island, Apr. 3, 1964 (Heatwole, Torres, MCZ), 1 ♀; Nuclear Center, Mayagüez, Jan. 13, 1964 (A. M. Chickering, MCZ), 1 ♂; University Campus, Mayagüez, Jan. 1964 (A. M. Chickering, MCZ), 2 ♀; University Farm, Mayagüez, Jan.–Feb. 1964 (A. M. Chickering, MCZ), 42 ♂, 63 ♀; Villa Del Mar Key (off Culebra), Apr. 15, 1965 (H. Heatwole, F. McKenzie), 1 ♂. VIRGIN ISLANDS: **St. Croix:** Frederiksted, Mar. 1964 (A. M. Chickering, MCZ), 4 ♂, 3 ♀, Aug. 31–Sept. 11, 1966 (A. M. Chickering, MCZ), 4 ♂, 18 ♀; 1 mi. N Frederiksted, Mar. 16, 1964, (A. M. Chickering, MCZ), 3 ♀; King's Hill, Mar. 1964 (A. M. Chickering, MCZ), 3 ♂, 6 ♀; Lavaets Gardens, Frederiksted, Mar. 24, 1964 (A. M. Chickering, MCZ), 1 ♀; Mahogany Road, Frederiksted, Mar. 21, 1964 (A. M. Chickering, MCZ), 1 ♂. **St. John:** no specific locality, Mar. 4, 1964 (A. M. Chickering, MCZ), 3 ♀, July 21–27, 1966 (A. M. Chickering, MCZ), 4 ♀; Coral Bay, Mar. 6, 1964 (A. M. Chickering, MCZ), 2 ♂, 1 ♀; Cruz Bay, Feb. 28–29, 1964 (A. M. Chickering, MCZ), 3 ♂, 12 ♀, Mar. 7, 1964 (A. M. Chickering, MCZ), 1 ♀. **St. Thomas:** no specific locality, Feb. 21–Aug. 1964–1966 (A. M. Chickering, MCZ), 27 ♂, 32 ♀; Charlotte Amalie, Mar. 9, 1964, grass and weed debris (A. M. Chickering, MCZ), 1 ♂, 1 ♀; E side, Charlotte Amalie, Feb. 10–23, 1966, vacant lots (A. M. Chickering, MCZ), 11 ♂, 30 ♀; High School grounds, Charlotte Amalie, Feb. 10–March 11, 1964 (A. M. Chickering, MCZ), 11 ♂, 28 ♀; Hassel's Island, Feb. 20, 1964 (A. M. Chickering, MCZ), 1 ♀. **Tortola:** no specific locality, July 1959 (Helsley), 1 ♀, July 30–Aug. 23, 1966 (A. M. Chickering, MCZ), 19 ♂, 32 ♀. **Virgin Gorda:** no specific locality, Aug. 1966 (A. M. Chickering, MCZ), 1 ♂, 3 ♀. LEEWARD ISLANDS: **Antigua:** Crosbies, Aug. 17–27, 1967 (Sabath, MCZ), 1 ♂, 1 ♀. **Islas de Aves:** no specific locality, May 13, 1966, 1 ♀. **Nevis:** no specific locality, Sept. 24–29, 1966 (A. M. Chickering, MCZ), 25 ♂, 55 ♀. **St. Kitts:** no specific locality, Sept. 14–Oct. 3, 1966 (A. M. Chickering, MCZ), 24 ♂, 16 ♀. NETHERLANDS ANTILLES: **Curaçao:** Willemstad, Dec. 24, 1962, roadside (MCZ), 1 ♂. HAWAII: **Hawaii:** Volcano Road, Kau district, Dec. 25, 1949 (N. E. Morton), 1 ♀. **Lanai:** Lanai City, Aug. 1963 (Otto, Degnenten), 1 ♂. **Oahu:** Ekahanui Gulch, Oct. 13, 1944 (H. S. Dybas, FMNH), 1 ♂; Waianae Range, 1.5 mi. N Ekahanui Gulch, Oct. 11, 1944 (H. S. Dybas, FMNH), 1 ♀. MARSHALL ISLANDS: **Kwajalein Atoll:** Roi-Namur Islet, July 27, 1969, in grass clumps (J. W. Berry, JAB), 2 ♂. ANGOLA: **Cuanza-sul:** Porto Amboim, Oct. 4, 1949 (B. Malkin, CAS), 1 ♀.

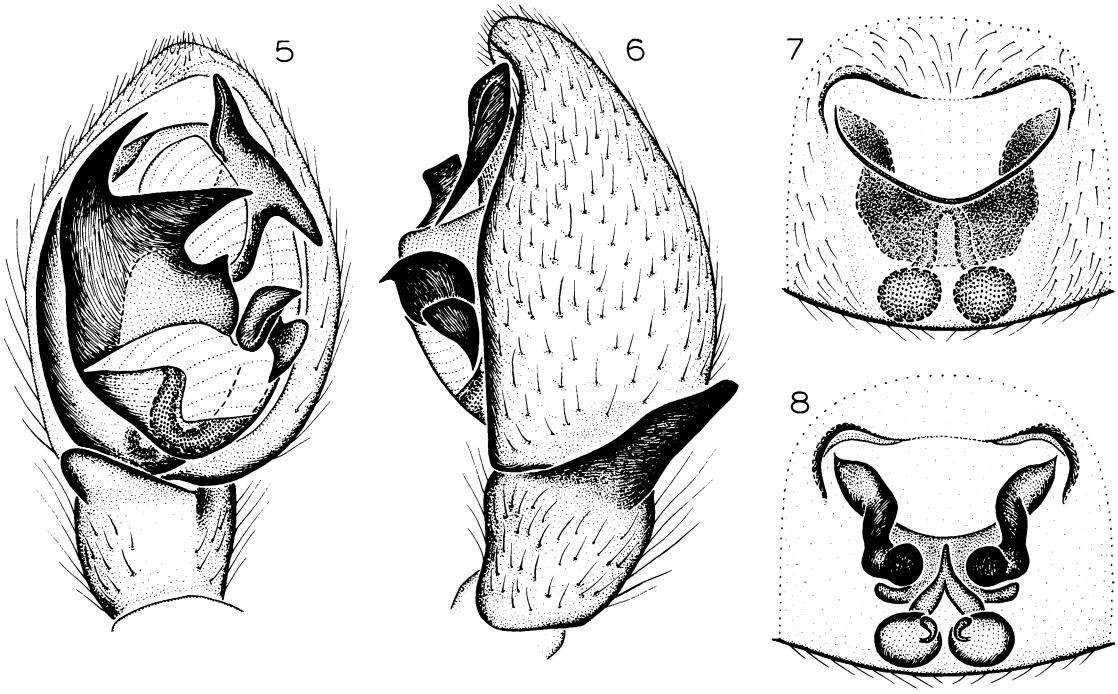
DISTRIBUTION: Florida to Curaçao; Hawaii; Marshall Islands; Angola.

Camillina bimini, new species
Figures 5–8

TYPES: Male holotype and female paratype from South Bimini, Bahama Islands (May 1951; W. J. Gertsch and M. A. Cazier), deposited in AMNH.

DIAGNOSIS: Males can be recognized by the long retrolateral lobe on the embolus (fig. 5), females by the wide, posteriorly rounded epigynal plate (fig. 7) and elevated lobes on the lateral ducts (fig. 8).

MALE: Total length 2.34, 2.55. Carapace 1.25, 1.26 long, 0.90, 0.97 wide. Femur II 0.77 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.09, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.03. MOQ



FIGS. 5–8. *Camillina bimini,* new species. 5. Palp, ventral view. 6. Palp, retrolateral view. 7. Epigynum, ventral view. 8. Epigynum, dorsal view.

length 0.20, front width 0.15, back width 0.19. Terminal apophysis with transverse median lobe, embolus with long retrolateral lobe (figs. 5, 6). Leg spination: femora: II p0-0-0; III r0-0-1; tibia III v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV p0-2-2, v2-1p-0.

FEMALE: Total length 2.95–3.73. Carapace 1.21–1.40 long, 0.96–1.02 wide. Femur II 0.76–0.83 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.07, PLE 0.06; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.20, front width 0.14, back width 0.15. Epigynal plate very wide, lateral ducts with elevated lobes (figs. 7, 8). Leg spination: femora II, IV p0-0-0; tibiae III, IV v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV p0-2-2, v2-1p-0.

OTHER MATERIAL EXAMINED: One male and four females taken with the types.

DISTRIBUTION: Known only from the Bahama Islands.

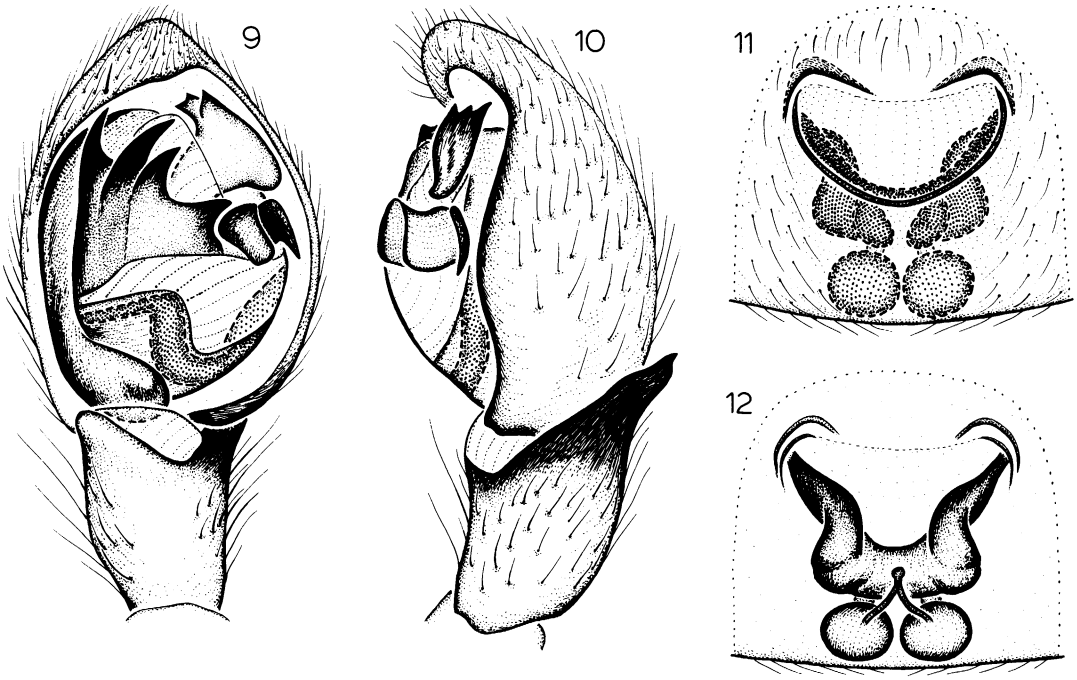
Camillina mona, new species

Figures 9–12

TYPES: Male holotype and female paratype from Mona Road, St. Andrew Parish, Jamaica (October 31, 1957; A. M. Chickering), deposited in MCZ.

DIAGNOSIS: Males can be recognized by the sinuous retrolateral tibial apophysis, raised retrolateral flange on the embolus, and wide terminal apophysis (fig. 9), females by the short, wide, rounded epigynal plate and tiny median ducts (figs. 11, 12).

MALE: Total length 3.10 ± 0.24. Carapace 1.44 ± 0.08 long, 1.14 ± 0.10 wide. Femur II 0.88 ± 0.07 long. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.11, PLE 0.09; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.24, front width 0.20, back width 0.24. Terminal apophysis wide, with three distal points (fig. 9); retrolateral



FIGS. 9–12. *Camillina mona,* new species. 9. Palp, ventral view. 10. Palp, retrolateral view. 11. Epigynum, ventral view. 12. Epigynum, dorsal view.

tibial apophysis sinuous (fig. 10). Leg spination: metatarsi: III p0-2-2, r0-1-2; IV v2-1p-0.

FEMALE: Total length 3.62 ± 0.42. Carapace 1.48 ± 0.15 long, 1.17 ± 0.11 wide. Femur II 0.92 ± 0.08 long. Eye sizes and interdistances: AME 0.08, ALE 0.09, PME 0.11, PLE 0.09; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.26, front width 0.22, back width 0.24. Epigynal plate heart-shaped (figs. 11, 12). Leg spination: femur III r0-0-1; tibia IV p1-1-1; metatarsus IV v2-1p-0.

MATERIAL EXAMINED: Unless otherwise noted, all specimens were collected by A. M. Chickering and are deposited in MCZ. JAMAICA: *Kingston:* Fairway Ave., Nov. 1963, 4 ♂, 13 ♀; 5 mi. W Kingston, Oct. 16, 1957, 1 ♀. *St. Andrew:* Hope Botanic Gardens, Oct. 23–Dec. 1957–1963, 3 ♂, 9 ♀; Liguanea, Nov. 1957, 1 ♂, 3 ♀; Mona, Oct. 1, 1957, 1 ♀; Mona Heights, Dec. 20, 1963, 1 ♂, 2 ♀; Mona Road, Oct. 22–Dec. 21, 1957–1963, 10 ♂, 29 ♀; Reservoir Aqueduct, Nov. 30, 1963, 4 ♀; Richards Reservoir, Nov. 18–22, 1957–1963, 4 ♂, 11 ♀; Trafalgar Road, Nov. 21, 1963, 1 ♀. *St. Catherine:* Innswood Estate, Nov. 10, 1963, 1 ♂; School of Agriculture, Oct. 10, 1957, 1 ♀; 1.5 mi. SW Spanishtown, Oct. 10, 1957, 5 ♀. *St. Mary:* Strawberry Fields, near Robin's Bay and Green Castle, Mar. 26, 1972 (H., L., F. Levi), 1 ♀. *St. Thomas:* 6 mi. NE Bath, Dec. 10, 1957, 1 ♀; Morant Bay, Oct. 29, 1957, 2 ♂, 2 ♀.

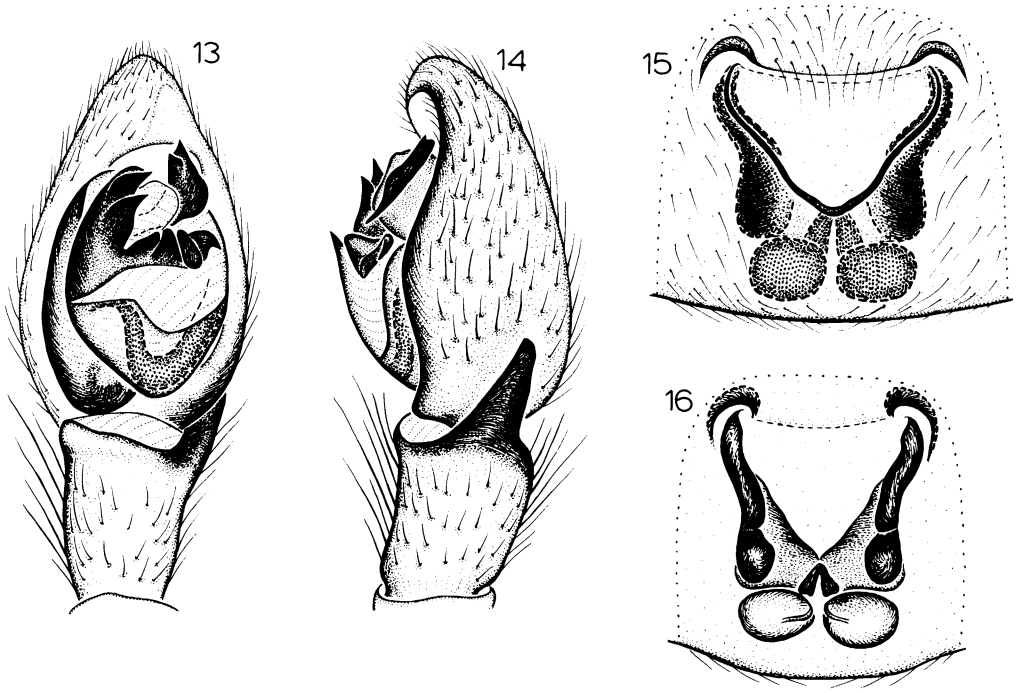
DISTRIBUTION: Known only from Jamaica.

Camillina cayman, new species
Figures 15, 16

TYPE: Female holotype from woods near Spotts Beach, Grand Cayman, Cayman Islands (February 27, 1958; L. Ross), deposited in FMNH.

DIAGNOSIS: *Camillina cayman* is a distinctive species easily recognized by the wide, posteriorly narrowed epigynal plate (fig. 15) and tiny median ducts (fig. 16).

MALE: Unknown.



FIGS. 13–16. 13, 14. *Camillina campeche,* new species, palp. 13. Ventral view. 14. Retrolateral view. 15, 16. *C. cayman,* new species, epigynum. 15. Ventral view. 16. Dorsal view.

FEMALE: Total length 3.35. Carapace 1.44 long, 1.09 wide. Femur II 0.83 long. Eye sizes and interdistances: AME 0.05, ALE 0.05, PME 0.08, PLE 0.07; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.19, front width 0.15, back width 0.19. Median plate broad, triangular, narrowed and pointed posteriorly (fig. 15); median ducts tiny, lateral ducts with raised lobes (fig. 16). Leg spination: femur IV p0-0-0; metatarsi: III p0-2-2, r0-2-2; IV v2-1p-0.

MATERIAL EXAMINED: Only the holotype.

DISTRIBUTION: Known only from the Cayman Islands.

Camillina desecheonis (Petrunkevitch), new combination

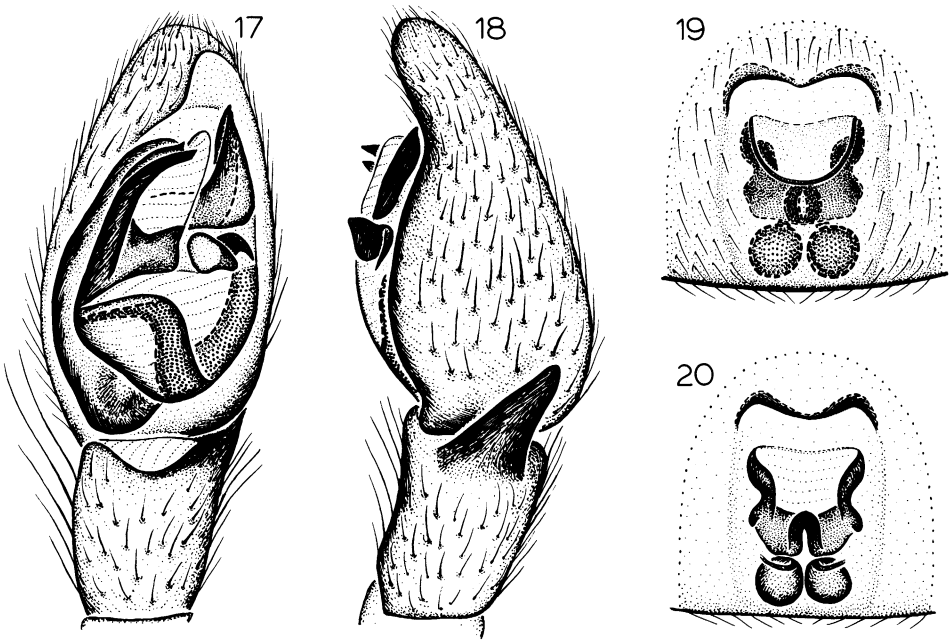
Figures 17–20

Zelotes desecheonis Petrunkevitch, 1930, p. 10, figs. 4–7 (male and female syntypes from Desecheo Island, Puerto Rico, in AMNH, examined). Roewer, 1954, p. 467. Bonnet, 1959, p. 4920.

DIAGNOSIS: Males can be recognized by the distally narrowed, longitudinally oriented embolus (fig. 17), females by the small epigynal plate (fig. 19) and anterolateral lobes on the lateral ducts (fig. 20).

MALE: Total length 3.77. Carapace 1.56 long, 1.21 wide. Femur II 0.95 long. Eye sizes and interdistances: AME 0.07, ALE 0.06, PME 0.10, PLE 0.07; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.25, front width 0.18, back width 0.22. Terminal apophysis with two closely spaced distal points, embolus narrowed distally, with recessed prolateral flange, oriented longitudinally (figs. 17, 18). Leg spination: tibia IV r2-1-1; metatarsus II v1p-0-0.

FEMALE: Total length 4.50, 4.68. Carapace 1.67, 1.87 long, 1.22, 1.30 wide. Femur II 0.97, 1.08 long. Eye sizes and interdistances: AME 0.06, ALE 0.06, PME 0.09, PLE 0.08; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.21, front width 0.16, back



FIGS. 17–20. *Camillina desecheonis* (Petrunkevitch). 17. Palp, ventral view. 18. Palp, retrolateral view. 19. Epigynum, ventral view. 20. Epigynum, dorsal view.

width 0.20. Epigynal plate narrower than anterior epigynal margin, semicircular (fig. 19); lateral ducts with anterolateral lobes (fig. 20). Leg spination: metatarsus II v1p-0-0.

MATERIAL EXAMINED: DESECHEO ISLAND: no specific locality, Feb. 18–20, 1914, 1 ♂, 1 ♀ (types), May 27–29, 1965 (H. Heatwole, R. Levins, F. McKenzie), 1 ♀.

DISTRIBUTION: Known only from Desecheo Island.

Camillina nevis, new species
Figures 21–24

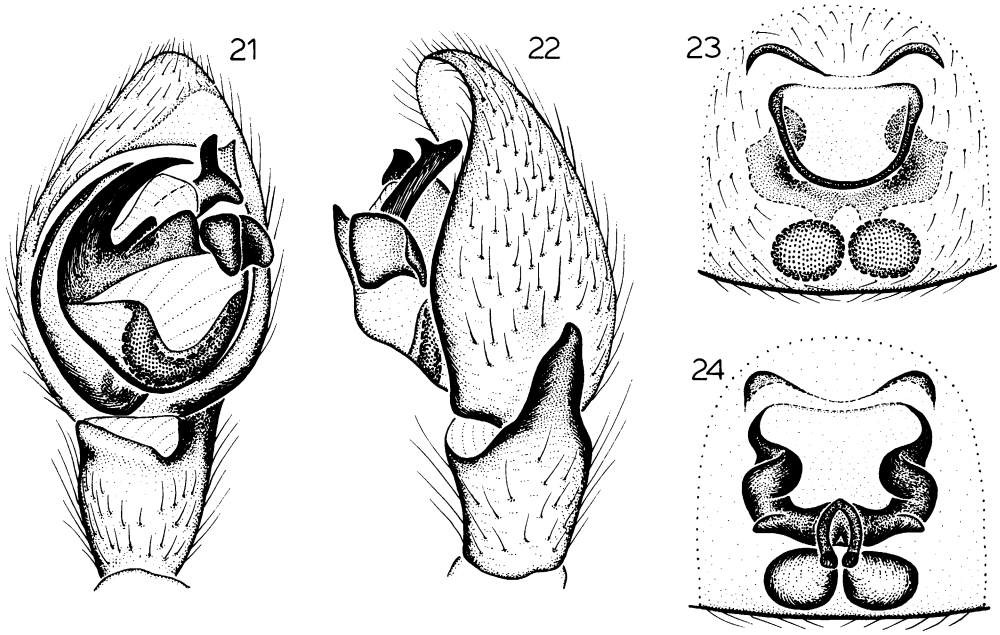
TYPES: Male holotype and female paratype from Nevis, British West Indies, Leeward Islands (September 24–29, 1966; A. M. Chickering), deposited in MCZ.

DIAGNOSIS: *Camillina nevis* is a distinctive species easily recognized by the recessed retrolateral flange on the male embolus (fig. 21) and the sinuous lateral ducts of the female epigynum (figs. 23, 24).

MALE: Total length 2.43–3.18. Carapace 1.19–1.51 long, 0.86–1.17 wide. Femur II 0.63–0.86 long. Eye sizes and interdistances: AME 0.05, ALE 0.05, PME 0.07, PLE 0.06; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.19, front width 0.14, back width 0.15. Distal point of terminal apophysis very long, embolus with distinctly recessed retrolateral flange (figs. 21, 22). Leg spination: femora: II p0-0-0; III p0-0-1, r0-0-1; IV p0-0-0; tibiae III, IV v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV v2-1p-0.

FEMALE: Total length 3.17 ± 0.26. Carapace 1.32 ± 0.05 long, 0.97 ± 0.04 wide. Femur II 0.77 ± 0.03 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.08, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.20, front width 0.15, back width 0.17. Epigynal plate smoothly rounded, lateral ducts sinuous (figs. 23, 24). Leg spination as in male.

MATERIAL EXAMINED: LEEWARD ISLANDS: *British West Indies:* Nevis, Sept. 24–29, 1966 (A. M. Chickering, MCZ), 5 ♂, 17 ♀ (including types). PUERTO RICO: Fundillo Espinoso, Jan. 9–10, 1966, 1 ♀; Mayagüez, Mar. 1969 (N. Athearn, MCZ),



FIGS. 21–24. *Camillina nevis,* new species. 21. Palp, ventral view. 22. Palp, retrolateral view. 23. Epigynum, ventral view. 24. Epigynum, dorsal view.

1 ♂. VIRGIN ISLANDS: *St. Croix:* no specific locality, June 7, 1972, ground litter, under tree (W. B. Muchmore), 1 ♂; Frederiksted, Sept. 1966 (A. M. Chickering, MCZ), 1 ♂.

DISTRIBUTION: Puerto Rico east to Nevis.

Camillina jeris, new species
Figures 25–28

TYPES: Male holotype and female paratype from plantation at Groot Sint-Jeris, Curaçao, Netherlands Antilles (December 22, 1962; H. Levi and B. de Jong), deposited in MCZ.

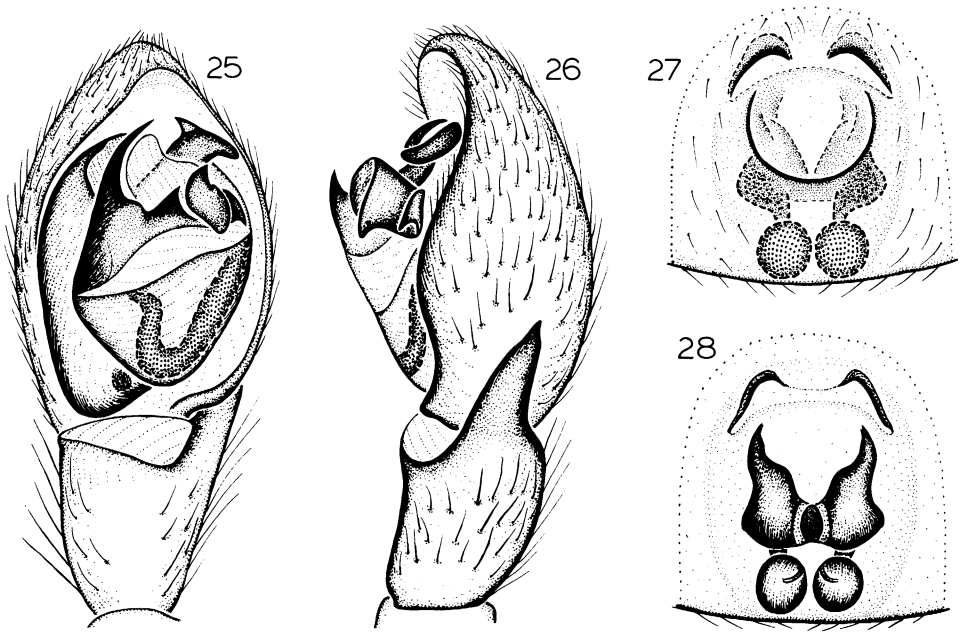
DIAGNOSIS: Males can be recognized by the very short embolus bearing a distinct retrolateral lobe (fig. 25), females by the almost circular epigynal plate (fig. 27).

MALE: Total length 2.60, 2.72. Carapace 1.22, 1.28 long, 0.94, 0.99 wide. Femur II 0.76, 0.79 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.07, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.20, front width 0.14, back width 0.16. Terminal apophysis with long, sharp distal point, embolus very short, with retrolateral heel (figs. 25, 26). Leg spination: femur II p0-0-0; patella III r0-0-0; tibia III v1p-2-2; metatarsi: II v0-0-0; III r0-1-2; IV v2-1p-0.

FEMALE: Total length 3.16–3.96. Carapace 1.26–1.42 long, 0.97–1.09 wide. Femur II 0.79–0.83 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.08, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.21, front width 0.15, back width 0.17. Epigynal plate almost circular, lateral ducts wide, approximate anteriorly (figs. 27, 28). Leg spination typical for genus.

MATERIAL EXAMINED: NETHERLANDS ANTILLES: *Curaçao:* Groot Sint-Jeris, Dec. 22, 1962, plantation (H. Levi, B. de Jong, MCZ), 1 ♂, 2 ♀ (including types); Piscadera Baai, Dec. 18, 1962, cactus (H. Levi, MCZ), 1 ♂, Dec. 18–30, 1962 (H. and L. Levi, MCZ), 1 ♀.

DISTRIBUTION: Known only from Curaçao.



FIGS. 25–28. *Camillina jeris,* new species. 25. Palp, ventral view. 26. Palp, retrolateral view. 27. Epigynum, ventral view. 28. Epigynum, dorsal view.

KEY TO SPECIES OF MEXICO, GUATEMALA, AND HONDURAS

1. Males 2
   Females (those of *chiapa* and *campeche* unknown) 6
2. Tip of embolus relatively broad (fig. 41) ..... *antigua*
   Tip of embolus relatively narrow (figs. 13, 29, 33, 37) 3
3. Embolus expanded proximally (figs. 29, 33, 37) 4
   Embolus not expanded proximally (fig. 13) ..... *campeche*
4. Tip of embolus with three points (fig. 37) ..... *chiapa*
   Tip of embolus with two points (figs. 29, 33). 5
5. Tip of embolus invaginated (fig. 33) . *puebla*
   Tip of embolus not invaginated (fig. 29) ..... *pedestris*
6. Median plate well separated from anterior epigynal margin (fig. 35) ..... *puebla*
   Median plate and anterior epigynal margin approximate (figs. 31, 43) 7
7. Median ducts narrow, reaching epigynal plate (fig. 31) ..... *pedestris*
   Median ducts wide, not reaching epigynal plate (fig. 43) ..... *antigua*

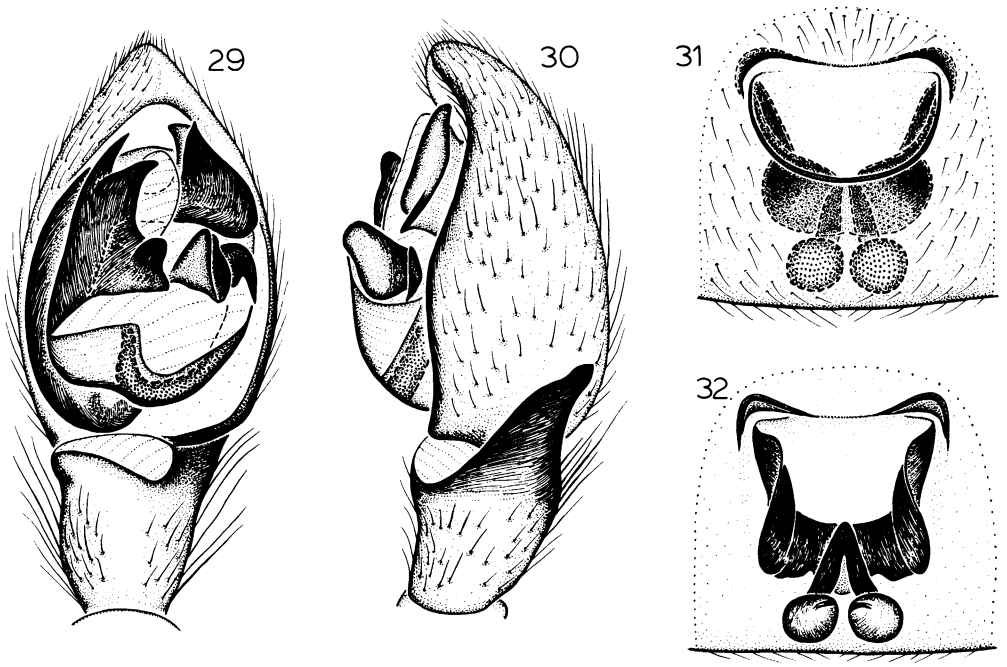
Camillina pedestris (O. P.-Cambridge), new combination

Figures 29–32

Echemus pedestris O. P.-Cambridge, 1898, p. 273, pl. 32, figs. 13, 13a–d (female holotype from Amula, Guerrero, Mexico, in BMNH, examined). Roewer, 1954, p. 421. Bonnet, 1956, p. 1645.

DIAGNOSIS: *Camillina pedestris* seems closest to *C. puebla* and *C. chiapa* (all three have a proximally expanded embolus) but may be distinguished by the raised retrolateral flange on the embolus (fig. 29) and the much wider epigynal plate (fig. 31).

MALE: Total length 2.93–3.51. Carapace 1.30–1.70 long, 0.97–1.26 wide. Femur II 0.83–0.99 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.11, PLE 0.08; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.22, front width 0.16, back width 0.23. Terminal apophysis elongated; embolus expanded proximally, with raised retrolateral flange (figs. 29, 30). Leg spination:



FIGS. 29–32. *Camillina pedestris* (O. P.-Cambridge). 29. Palp, ventral view. 30. Palp, retrolateral view. 31. Epigynum, ventral view. 32. Epigynum, dorsal view.

femur III r0-0-1; metatarsi: II v0-0-0; III r0-1-2.

FEMALE: Total length 3.32, 4.14. Carapace 1.49, 1.54 long, 1.13, 1.21 wide. Femur II 0.85, 0.89 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.10, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.22, front width 0.17, back width 0.22. Epigynal plate wide, broadly rounded; median ducts forming triangle (figs. 31, 32). Leg spination: femur IV p0-0-0; tibia III v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV p0-1-2, v2-1p-0.

MATERIAL EXAMINED: MEXICO: *Colima:* Cuyutlan, Jan. 9, 1943 (F. Bonet), 1 ♂. *Guerrero:* Amula (H. H. Smith, BMNH), 1 ♀ (type). *Jalisco:* West side, Laguna de Sayula, July 30, 1964, female from web of *Oecobius civitas* Shear (W. J. Gertsch, J. Woods), 1 ♂, 1 ♀. *San Luis Potosí:* Quinta Chilla, Tamazunchale, Dec. 20, 1948 (H. B. Leech, CAS), 1 ♂.

DISTRIBUTION: Central Mexico.

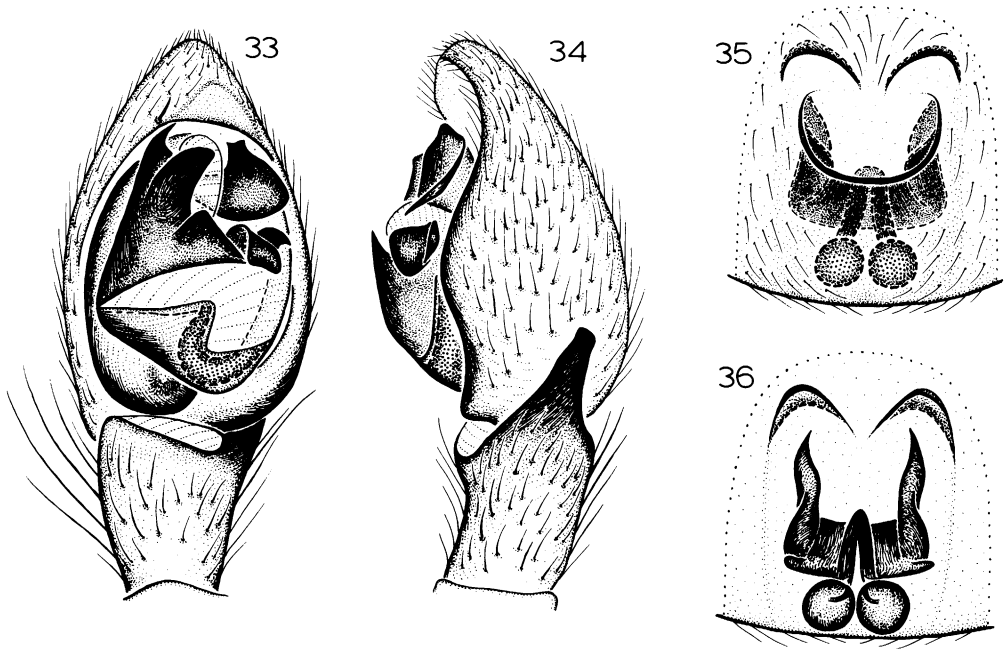
Camillina puebla, new species

Figures 33–36

TYPES: Male holotype and female paratype from Tehuacán, Puebla, Mexico (July 24, 1956; W. J. Gertsch and V. Roth), deposited in AMNH.

DIAGNOSIS: *Camillina puebla* seems closest to *C. pedestris* and *C. chiapa* but may be distinguished by the short, distally invaginated embolus (fig. 33) and widely separated epigynal plate and anterior epigynal margin (fig. 35).

MALE: Total length 2.56–3.10. Carapace 1.20–1.49 long, 0.90–1.10 wide. Femur II 0.79–0.92 long. Eye sizes and interdistances: AME 0.08, ALE 0.09, PME 0.10, PLE 0.09; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.22, front width 0.21, back width 0.21. Terminal apophysis almost triangular; embolus expanded proximally, invaginated distally (figs. 33, 34). Leg spi-



FIGS. 33–36. *Camillina puebla,* new species. 33. Palp, ventral view. 34. Palp, retrolateral view. 35. Epigynum, ventral view. 36. Epigynum, dorsal view.

nation: metatarsi: III p0-2-2, r0-1-2; IV p0-2-2, v2-1p-0, r0-2-1.

FEMALE: Total length 3.23 ± 0.28. Carapace 1.30 ± 0.11 long, 0.98 ± 0.06 wide. Femur II 0.83 ± 0.07 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.10, PLE 0.09; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.24, front width 0.18, back width 0.21. Anterior epigynal margin far from small median plate; lateral ducts with posterior lobes (figs. 35, 36). Leg spination: femora II, IV p0-0-0; metatarsi: III p0-2-2, r0-1-1; IV p0-2-2, v2-1p-0.

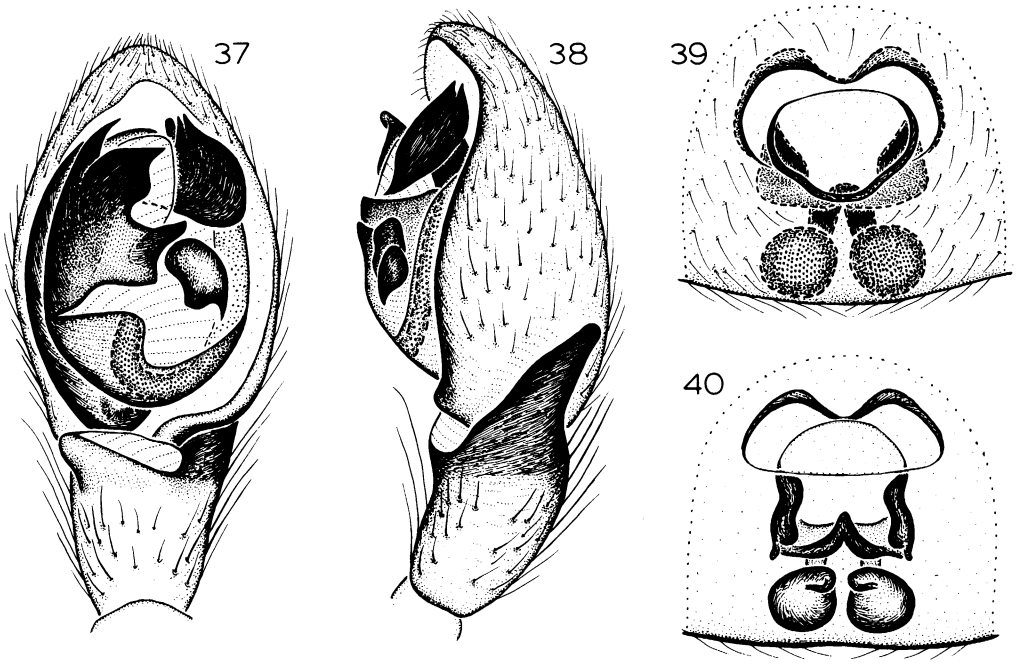
MATERIAL EXAMINED: HONDURAS: *Choluteca:* San Marcos de Colón, July 1, 1970 (S. E. Riechert), 1 ♀. MEXICO: *Chiapas:* 16.8 mi. SE Teopisca, Sept. 2, 1967, elevation 6725 feet (R. E. Leech, REL), 1 ♂; Tuxtla Gutiérrez, Aug. 20, 1966 (J. and W. Ivie), 1 ♀. *Guerrero:* 12 mi. S. Iguala, July 29, 1956 (W. J. Gertsch, V. Roth), 1 ♀. *Morelos:* Cocoyoc, July 27, 1956 (W. J. Gertsch, V. Roth), 1 ♀; Cuernavaca, July 27, 1956 (W. J. Gertsch, V. Roth), 2 ♀; 10 km. S Temixco, July 25, 1956 (W. J. Gertsch, V. Roth), 1 ♀. *Oaxaca:* El Catrin, Sept. 3, 1964 (J. and W. Ivie), 1 ♂; Juan García, Sept. 1, 1964 (J. and W. Ivie), 1 ♀; 2 mi. SE Niltepec, Aug. 16, 1966 (J. and W. Ivie), 1 ♀; Tlacolula, Apr. 30, 1963, under cliff (W. J. Gertsch, W. Ivie), 1 ♀; 3 mi. SE Tlacolula, Aug. 30, 1966 (J. and W. Ivie), 1 ♀; 13.8 mi. W Zanatepec, Aug. 28, 1967, elevation 260 feet (R. E. Leech, REL). *Querétaro:* 16.5 km. N Jalpan, Feb. 22, 1973 (W. Graham), 1 ♂.

DISTRIBUTION: Southern Mexico to Honduras.

Camillina chiapa, new species
Figures 37, 38

TYPE: Male holotype from 5 miles northeast of Chiapa, lat. 16°45′N, long. 92°58′W, Chiapas, Mexico (August 26, 1966; J. and W. Ivie), deposited in AMNH.

DIAGNOSIS: *Camillina chiapa* seems closest to *C. pedestris* and *C. puebla* but may be distinguished by the triple-pointed tip of the embolus (fig. 37).



FIGS. 37–40. 37, 38. *Camillina chiapa,* new species, palp. 37. Ventral view. 38. Retrolateral view. 39, 40. *C. colon,* new species, epigynum. 39. Ventral view. 40. Dorsal view.

MALE: Total length 3.74. Carapace 1.73 long, 1.33 wide. Femur II 1.08 long. Eye sizes and interdistances: AME 0.07, ALE 0.09, PME 0.10, PLE 0.09; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.04. MOQ length 0.26, front width 0.19, back width 0.22. Embolus expanded proximally, with three points at tip (figs. 37, 38). Leg spination: femur IV p0-0-0.

FEMALE: Unknown.

MATERIAL EXAMINED: Only the type.

DISTRIBUTION: Known only from Chiapas, Mexico.

Camillina campeche, new species
Figures 13, 14

TYPE: Male holotype from Berlese sample taken at Campeche, Campeche, Mexico (July 7, 1931; L. J. Stannard), deposited in AMNH.

DIAGNOSIS: Males can be recognized by the short raised prolateral flange on the sharply pointed embolus (fig. 13).

MALE: Total length 3.42. Carapace 1.48 long, 1.16 wide. Femur II 0.86 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.08, PLE 0.07; AME–AME 0.03, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.22, front width 0.13, back width 0.18. Terminal apophysis with three distal points, embolus with two (figs. 13, 14). Leg spination typical for genus.

FEMALE: Unknown.

MATERIAL EXAMINED: Only the holotype.

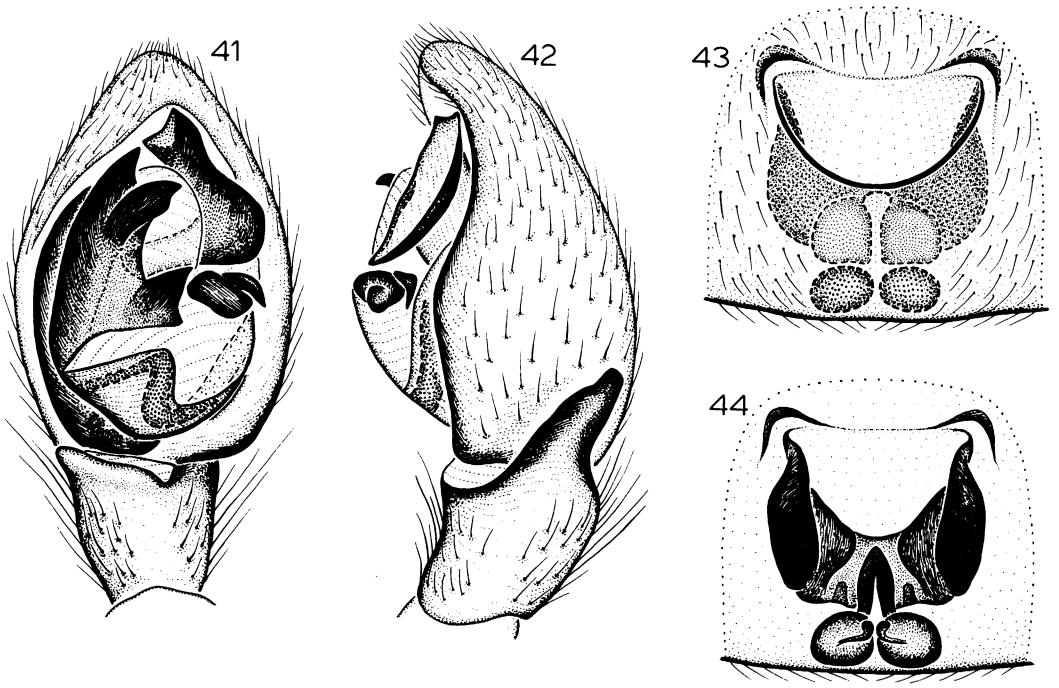
DISTRIBUTION: Known only from Campeche, Mexico.

Camillina antigua, new species
Figures 41–44

TYPES: Male holotype and female paratype from an oak-pine forest 3 miles east of Antigua Guatemala, Sacatepéquez, Guatemala (February 18, 1980; V. Roth), deposited in AMNH.

DIAGNOSIS: *Camillina antigua* is a distinctive species easily recognized by the wide tip of the embolus (fig. 41) and wide median ducts (fig. 43).

MALE: Total length 3.89. Carapace 1.84



FIGS. 41–44. *Camillina antigua,* new species. 41. Palp, ventral view. 42. Palp, retrolateral view. 43. Epigynum, ventral view. 44. Epigynum, dorsal view.

long, 1.36 wide. Femur II 1.19 long. Eye sizes and interdistances: AME 0.08, ALE 0.08, PME 0.11, PLE 0.09; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.04. MOQ length 0.26, front width 0.22, back width 0.24. Terminal apophysis with two distal points; embolus narrowed at middle, expanded distally (figs. 41, 42). Leg spination: femur IV p0-0-0; metatarsus III p0-2-2, r0-1-2.

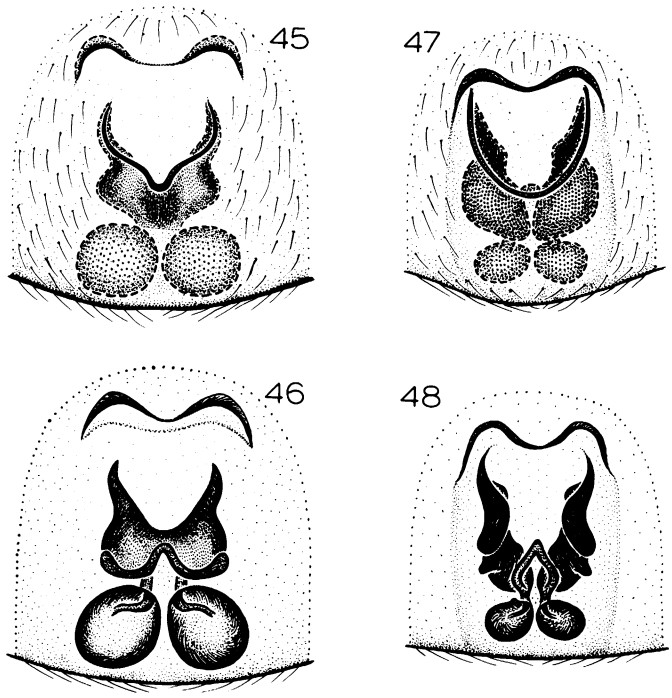
FEMALE: Total length 4.39, 4.43. Carapace 1.53, 1.58 long, 1.18, 1.22 wide. Femur II 0.94, 0.97 long. Eye sizes and interdistances: AME 0.07, ALE 0.08, PME 0.11, PLE 0.09; AME–AME 0.07, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.24, front width 0.21, back width 0.23. Epigynal plate wide, semicircular; median ducts wide in ventral view (figs. 43, 44). Leg spination: femur IV p0-0-0; tibia III v2-1p-2; metatarsi: III p0-2-2, r0-1-2; IV v2-1p-0.

OTHER MATERIAL EXAMINED: HONDURAS: *Copán:* Copán, Mar. 3–4, 1939, 1 ♀.

DISTRIBUTION: Guatemala and Honduras.

KEY TO SPECIES OF PANAMA, COLOMBIA, AND VENEZUELA

1. Males (those of *colon, balboa, nevada,* and *merida* unknown) 2
   Females (those of *cauca* unknown) 4
2. Retrolateral tibial apophysis extending dorsally beyond cymbium (fig. 58) ..... *relucens*
   Retrolateral tibial apophysis not extending dorsally beyond cymbium (figs. 50, 54) 3
3. Embolus bifid (figs. 53, 54) ..... *cauca*
   Embolus entire (figs. 49, 50) ..... *gaira*
4. Epigynal plate relatively wide (figs. 51, 55, 59) 5
   Epigynal plate relatively narrow (figs. 39, 45, 47) 7
5. Epigynal plate relatively short (figs. 51, 55) 6
   Epigynal plate relatively long (fig. 59) ..... *relucens*
6. Spermathecae large, median ducts expanded anteriorly (fig. 52) ..... *gaira*
   Spermathecae small, median ducts expanded posteriorly (fig. 56) ..... *nevada*



FIGS. 45–48. *Camillina* epigyna. 45, 46. *C. balboa,* new species. 47, 48. *C. merida,* new species. 45, 47. Ventral views. 46, 48. Dorsal views.

7. Epigynal plate pointed posteriorly (fig. 45) ..... *balboa*
   Epigynal plate rounded posteriorly (figs. 39, 47) 8
8. Anterior epigynal margin long, almost surrounding median plate (figs. 39, 40) . *colon*
   Anterior epigynal margin short, not surrounding median plate (figs. 47, 48) .... *merida*

Camillina colon, new species
Figures 39, 40

TYPE: Female holotype from Berlese sample of composted grasses on beach at María Chiquita, Colón, Panama (January 3, 1981; W. Suter), deposited in FMNH.

DIAGNOSIS: *Camillina colon* is a distinctive species easily recognized by the elongated anterior epigynal margin, which almost surrounds the median plate (figs. 39, 40).

MALE: Unknown.

FEMALE: Total length 3.13. Carapace 1.24 long, 0.97 wide. Femur II 0.83 long. Eye sizes and interdistances: AME 0.06, ALE 0.06, PME 0.08, PLE 0.07; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.03, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.18, front width 0.16, back width 0.19. Anterior epigynal margin almost surrounding small median plate; lateral ducts with posterolateral lobes (figs. 39, 40). Leg spination: femora: II p0-0-0; III p0-0-1, r0-0-1; IV p0-0-0; tibiae: III v1p-1p-2; IV v1p-2-2; metatarsi: II v1p-0-0; III p0-2-1, r0-1-1; IV p0-2-2, v2-1p-0.

MATERIAL EXAMINED: Only the holotype.

DISTRIBUTION: Known only from Colón, Panama.

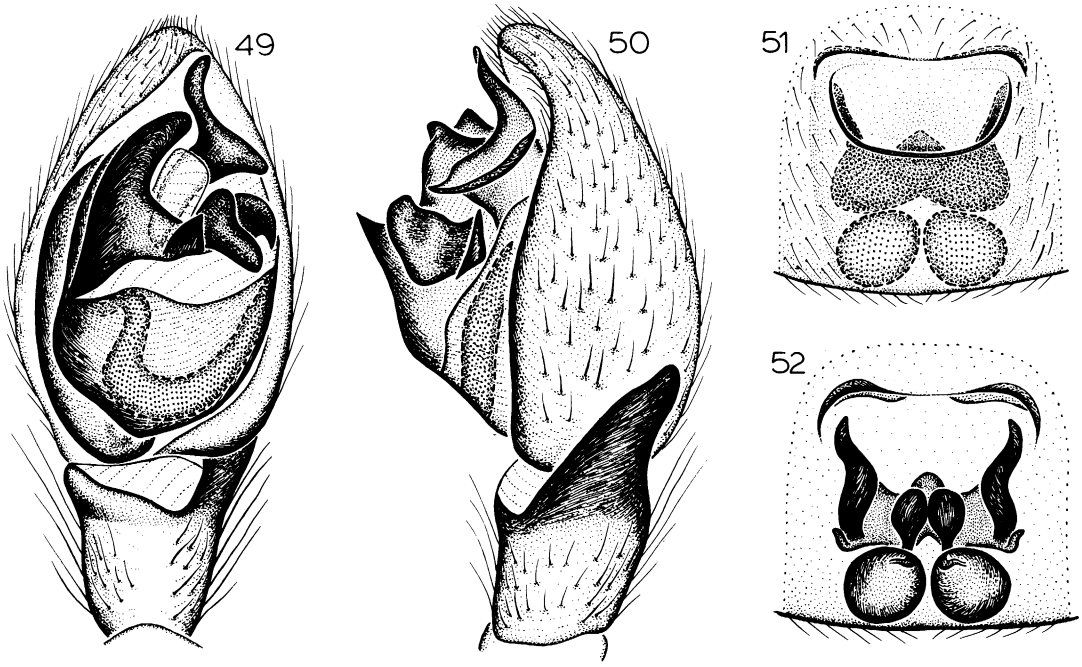
Camillina balboa, new species
Figures 45, 46

TYPE: Female holotype from Balboa, Canal Zone, Panama (May 1964; A. M. Chickering), deposited in MCZ.

DIAGNOSIS: *Camillina balboa* is a distinctive species easily recognized by the posteriorly pointed epigynal plate (fig. 46).

MALE: Unknown.

FEMALE: Total length 3.12 ± 0.41. Cara-



FIGS. 49–52. *Camillina gaira,* new species. 49. Palp, ventral view. 50. Palp, retrolateral view. 51. Epigynum, ventral view. 52. Epigynum, dorsal view.

pace 1.19 ± 0.11 long, 0.90 ± 0.06 wide. Femur II 0.72 ± 0.07 long. Eye sizes and interdistances: AME 0.04, ALE 0.06, PME 0.07, PLE 0.08; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.17, front width 0.12, back width 0.15. Epigynal plate small, pointed posteriorly, far from anterior margin (figs. 45, 46). Leg spination: femora I, II, IV p0-0-0; tibia III v1p-2-2; metatarsus III p0-2-2, r0-1-2.

MATERIAL EXAMINED: PANAMA: *Canal Zone:* Balboa, May 1964 (A. M. Chickering, MCZ), 4 ♀ (including type); Barro Colorado Island, Feb. 20, 1958 (A. M. Chickering, MCZ), 1 ♀ (penultimate), Mar. 3, 1958 (A. M. Chickering, MCZ), 1 ♀; Corozal, May 25, 1964 (A. M. Chickering, MCZ), 1 ♀; Madden Dam, Feb. 12, 1958 (A. M. Chickering, MCZ), 1 ♀; Naval Station near Coccoli, Jan. 1, 1958 (A. M. Chickering, MCZ), 1 ♀. COLOMBIA: *Magdalena:* between San Pablo and San Pedro, Sierra Nevada de Santa Marta, Feb. 3, 1974, elevation 2200 feet (J. A. Kochalka, JAK), 1 ♀.

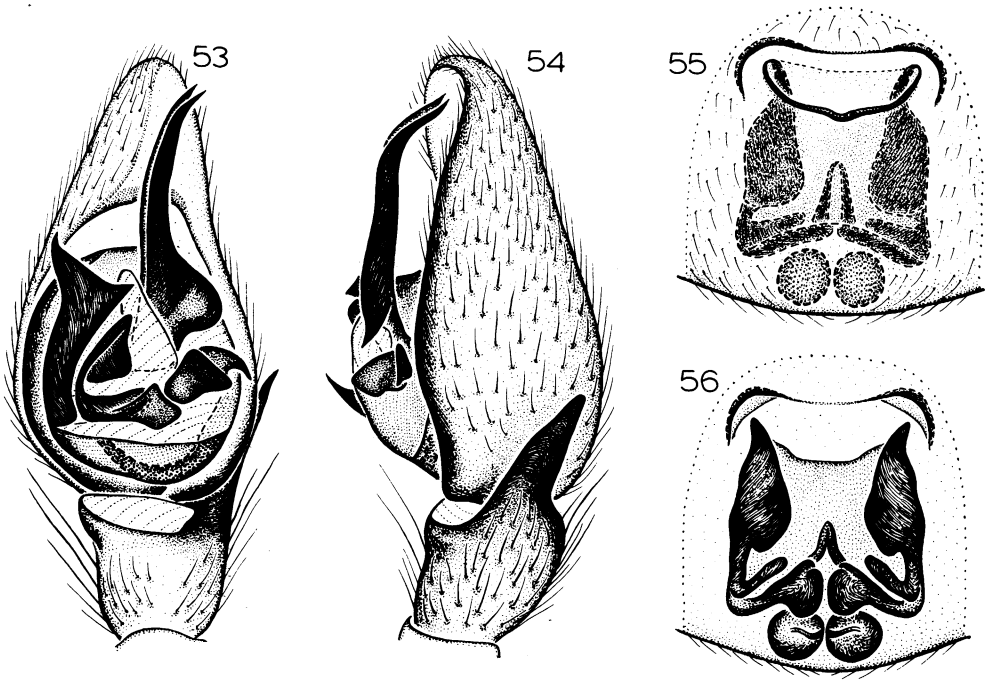
DISTRIBUTION: Panama and northwestern Colombia.

Camillina gaira, new species
Figures 49–52

TYPES: Male holotype and female paratype from Gaira, 8 km. south of Santa Marta, Magdalena, Colombia (March 16, 1974; L. and N. Herman), deposited in AMNH.

DIAGNOSIS: *Camillina gaira* is a very distinctive species, easily recognized by the long, sinuous embolus (fig. 49) and bulbous median ducts (fig. 52).

MALE: Total length 2.73–3.33. Carapace 1.19–1.51 long, 0.93–1.12 wide. Femur II 0.72–0.84 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.09, PLE 0.09; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.23, front width 0.16, back



FIGS. 53–56. 53, 54. *Camillina cauca,* new species, palp. 53. Ventral view. 54. Retrolateral view. 55, 56. *C. nevada,* new species, epigynum. 55. Ventral view. 56. Dorsal view.

width 0.19. Terminal apophysis with large, rounded distal lobe; embolus long, sinuous (figs. 49, 50). Leg spination: metatarsi: II v1p-0-0; III v2-1p-0.

FEMALE: Total length 3.82. Carapace 1.42 long, 1.08 wide. Femur II 0.83 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.09, PLE 0.08; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.21, front width 0.18, back width 0.19. Spermathecae large, median ducts expanded anteriorly (figs. 51, 52). Leg spination: femora: III r0-0-1; IV p0-0-0.

MATERIAL EXAMINED: COLOMBIA: *Magdalena:* Gaira, 8 km. S Santa Marta, Mar. 16, 1974 (L. and N. Herman), 2 ♂, 1 ♀ (including types); Ríohacha, Feb. 28, 1974, elevation 0 feet (J. A. Kochalka, JAK), 1 ♂. JAMAICA: *Morant Cays:* Northeast Cay, July 1965, under rocks, palm fronds (T. H. G. Aitken), 1 ♂.

DISTRIBUTION: Northern Colombia and cays south of Jamaica.

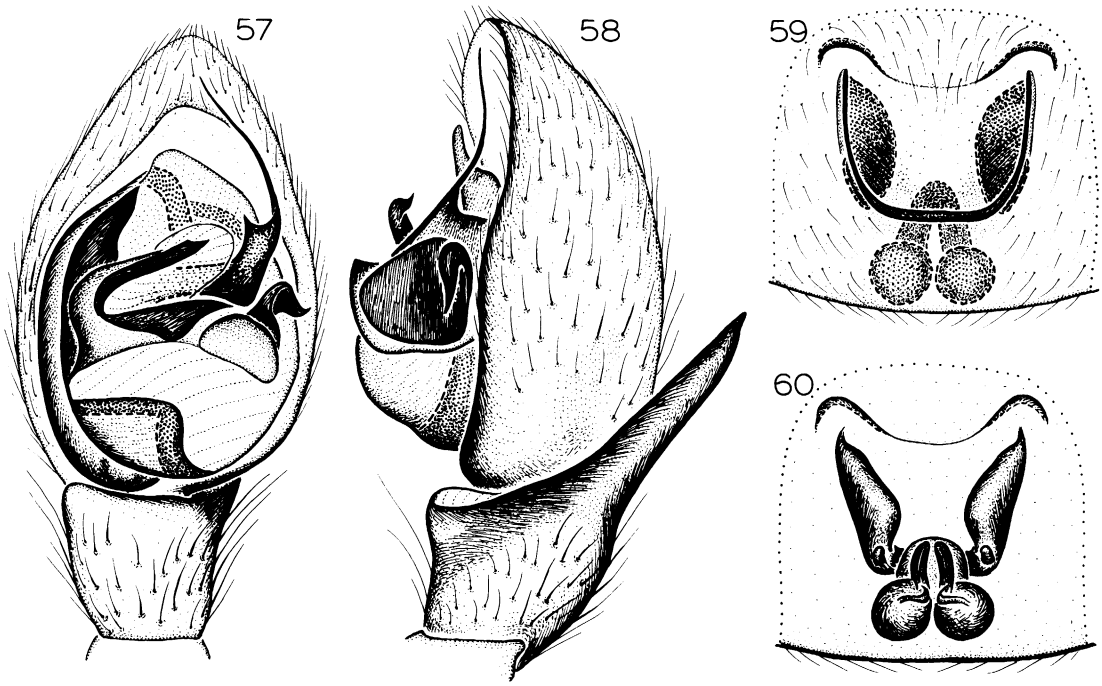
Camillina cauca, new species
Figures 53, 54

TYPE: Male holotype from Palmira, Valle del Cauca, Colombia (June 21–27, 1964; R. Hunter) deposited in AMNH courtesy of Dr. W. B. Peck.

DIAGNOSIS: *Camillina cauca* is easily recognized by the greatly elongate, bifid embolus (figs. 53, 54).

MALE: Total length 3.97. Carapace 1.73 long, 1.33 wide. Femur II 1.08 long. Eye sizes and interdistances: AME 0.07, ALE 0.08, PME 0.11, PLE 0.11; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.27, front width 0.19, back width 0.24. Distal point of terminal apophysis directed prolaterally; embolus longer than palpal bulb, bifid (figs. 53, 54). Leg spination: femora: III p0-0-1; IV p0-0-0; tibia III v1p-2-2; metatarsi: II v1p-0-0; III p0-2-2, r0-1-1.

FEMALE: Unknown.



FIGS. 57–60. *Camillina relucens* (Simon). 57. Palp, ventral view. 58. Palp, retrolateral view. 59. Epigynum, ventral view. 60. Epigynum, dorsal view.

MATERIAL EXAMINED: Only the holotype.

DISTRIBUTION: Known only from southwestern Colombia.

Camillina nevada, new species
Figures 55, 56

TYPE: Female holotype from an elevation of 6000 feet on the top trail on Cerro Yosagaca, Sierra Nevada de Santa Marta, Magdalena, Colombia (December 30, 1973; J. A. Kochalka), deposited in AMNH courtesy of Mr. Kochalka.

DIAGNOSIS: *Camilla nevada* can be easily recognized by the extremely short epigynal plate (fig. 55).

MALE: Unknown.

FEMALE: Total length 5.33. Carapace 1.99 long, 1.64 wide. Femur II 1.28 long. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.13, PLE 0.11; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.01, PME–PLE 0.05, ALE–PLE 0.07. MOQ length 0.30, front width 0.21, back width 0.27. Median plate short, wide; lateral ducts very long (figs. 55, 56). Leg spination: femora: I, II p0-0-0; III r0-1-0; IV p0-0-0; tibiae III, IV v1p-2-2; metatarsus I v2-0-0.

MATERIAL EXAMINED: Only the holotype.

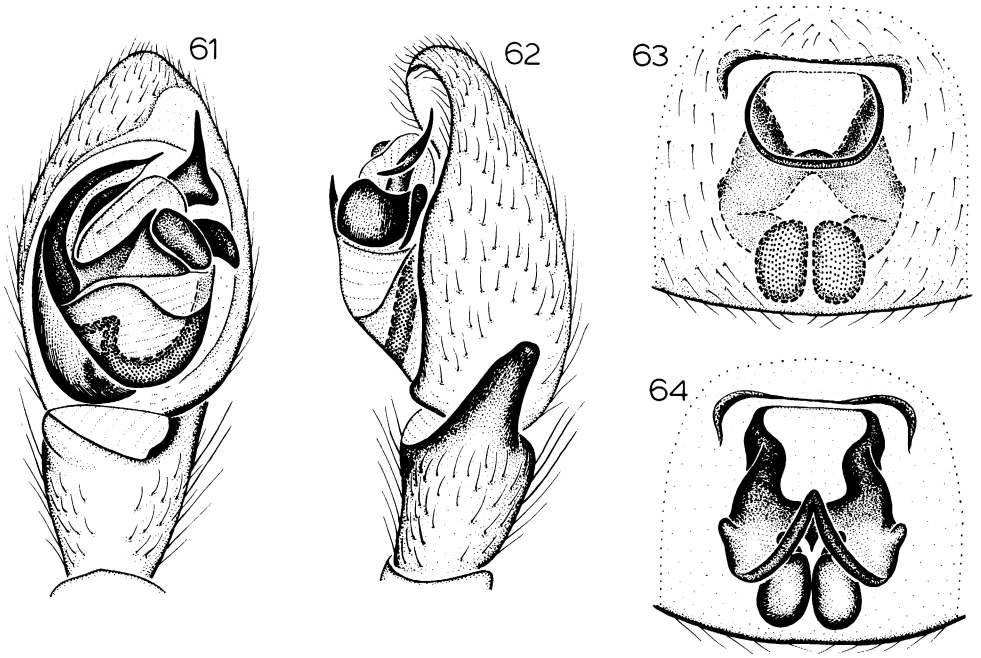
DISTRIBUTION: Known only from the Sierra Nevada de Santa Marta, Colombia.

Camillina relucens (Simon)
Figures 57–60

Echemus relucens Simon, 1893, p. 455, figs. 26, 27 (one male and two female syntypes from Valencia, Carabobo, Venezuela, in MNHN, examined). Roewer, 1954, p. 421.

Camillina relucens: Berland, 1919, p. 463. Bonnet, 1956, p. 945.

DIAGNOSIS: *Camillina relucens* is a very distinctive species easily recognized by the long, narrow embolus (fig. 57) and retrolateral tibial apophysis (fig. 58) of males and the large, squared epigynal plate (fig. 59) of females. Similarities of the male to *C. elegans* have been noted above; the female is very similar to *C. minuta* but has a shorter epigynal plate.



FIGS. 61–64. *Camillina pulcher* (Keyserling). 61. Palp, ventral view. 62. Palp, retrolateral view. 63. Epigynum, ventral view. 64. Epigynum, dorsal view.

MALE: Total length 3.02. Carapace 1.35 long, 1.08 wide. Femur II 0.85 long. Eye sizes and interdistances: AME 0.07, ALE 0.07, PME 0.11, PLE 0.09; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.02. MOQ length 0.21, front width 0.20, back width 0.24. Embolus long, narrow, with prolateral spur; retrolateral tibial apophysis greatly elongated (figs. 57, 58). Leg spination: tibiae: II v1r-0-0; IV p1-1-1; metatarsus I v2-0-0.

FEMALE: Total length 4.03, 4.10. Carapace 1.69, 1.75 long, 1.19, 1.24 wide. Femur II 1.13, 1.15 long. Eye sizes and interdistances: AME 0.09, ALE 0.10, PME 0.12, PLE 0.10; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.29, front width 0.23, back width 0.25. Epigynal plate large, squared; lateral ducts widest at middle (figs. 59, 60). Leg spination: tibia IV p1-1-1.

MATERIAL EXAMINED: Only the syntypes.

DISTRIBUTION: Known only from Carabobo, Venezuela.

Camillina merida, new species
Figures 47, 48

TYPE: Female holotype from deciduous forest litter at Mérida, Mérida, Venezuela (July 1974; A. L. Edgar), deposited in MCZ.

DIAGNOSIS: *Camillina merida* can be recognized by the median epigynal ducts protruding past the posterior edge of the elongated epigynal plate (figs. 47, 48).

MALE: Unknown.

FEMALE: Total length 4.52. Carapace 1.60 long, 1.20 wide. Femur II 1.01 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.07, PLE 0.07; AME–AME 0.08, AME–ALE 0.02, PME–PME 0.05, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.21, front width 0.18, back width 0.19. Median plate and lateral ducts long, narrow; median ducts produced anteriorly (figs. 47, 48). Leg spination: femur IV p0-0-0.

MATERIAL EXAMINED: Only the holotype.

DISTRIBUTION: Known only from Mérida, Venezuela.

KEY TO SPECIES OF BRAZIL

1. Males (those of *caldas, nova, claro,* and *major* unknown) 2
   Females 3
2. Embolus coiled (figs. 83, 84) ..... *chilensis*
   Embolus not coiled (figs. 61, 62) .... *pulcher*
3. Epigynal plate rectangular (fig. 85) . *chilensis*
   Epigynal plate not rectangular 4
4. Epigynal plate divided (fig. 71) ..... *major*
   Epigynal plate not divided 5
5. Anterior epigynal margin wider than median plate 6
   Median plate wider than anterior epigynal margin (fig. 69) ..... *claro*
6. Epigynal plate relatively wide (figs. 65, 67)... 7
   Epigynal plate relatively narrow (fig. 63)..... ..... *pulcher*
7. Lateral ducts relatively short (figs. 65, 66) ... . *caldas*
   Lateral ducts relatively long (figs. 67, 68) .... *nova*

Camillina pulcher (Keyserling), new combination
Figures 61–64

Echemus pulcher Keyserling, 1891, p. 31, fig. 10a (male lectotype, here designated, from Rio Grande, Rio Grande do Sul, Brazil, in BMNH, examined); not female paralectotype, =*C. chilensis* (Simon). Roewer, 1954, p. 421. Bonnet, 1956, p. 1645.

DIAGNOSIS: Males can be recognized by the longitudinal, acuminate embolus (fig. 61), females by the long spermathecae and lateral lobes on the lateral epigynal ducts (figs. 63, 64).

MALE: Total length 3.02–4.07. Carapace 1.49–1.85 long, 1.14–1.44 wide. Femur II 0.83–1.10 long. Eye sizes and interdistances: AME 0.08, ALE 0.10, PME 0.13, PLE 0.11; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.30, front width 0.22, back width 0.27. Terminal apophysis C-shaped; embolus with long straight tip (figs. 61, 62). Leg spination: tibiae: II v1r-1r-0; IV p1-1-1; metatarsus I v2-0-0.

FEMALE: Total length 2.99. Carapace 1.45 long, 1.09 wide. Femur II 0.86 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.10, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.23, front width 0.17, back width 0.22. Epigynal plate relatively short; spermathecae elongate (figs. 63, 64). Leg spination: femur I p0-0-0; tibia IV p1-1-1; metatarsi: I v2-0-0; III p0-2-2, r0-1-2; IV v2-1p-0.

MATERIAL EXAMINED: BRAZIL: **Rio Grande do Sul:** Porto Alegre, Nov. 16, 1966 (C. A. Hartlieb, MCN), 1 ♂, 1 ♀; Rio Grande (v. Ihering, BMNH), 1 ♂ (lectotype). UNITED STATES: **Alabama:** *Baldwin Co.:* Gulf State Park, Dec. 6, 1975, beach (A. J. Penniman), 1 ♂.

DISTRIBUTION: Southern Brazil and (presumably introduced into) Alabama.

Camillina caldas, new species
Figures 65, 66

TYPE: Female holotype from Poços de Caldas, Minas Gerais, Brazil (fall, 1943; F. Pough), deposited in AMNH.

DIAGNOSIS: *Camillina caldas* can be easily recognized by the transverse posterior loop of the median epigynal ducts (figs. 65, 66).

MALE: Unknown.

FEMALE: Total length 2.98. Carapace 1.42 long, 1.01 wide. Femur II 0.86 long. Eye sizes and interdistances: AME 0.05, ALE 0.07, PME 0.10, PLE 0.08; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.22, front width 0.16, back width 0.21. Epigynal plate large, semicircular; median ducts with transverse posterior and rounded anterior loops (figs. 65, 66). Leg spination: femur III p0-0-1, r0-0-1; tibia III v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV p0-2-2, v2-1p-0, r0-2-1.

MATERIAL EXAMINED: Only the holotype.

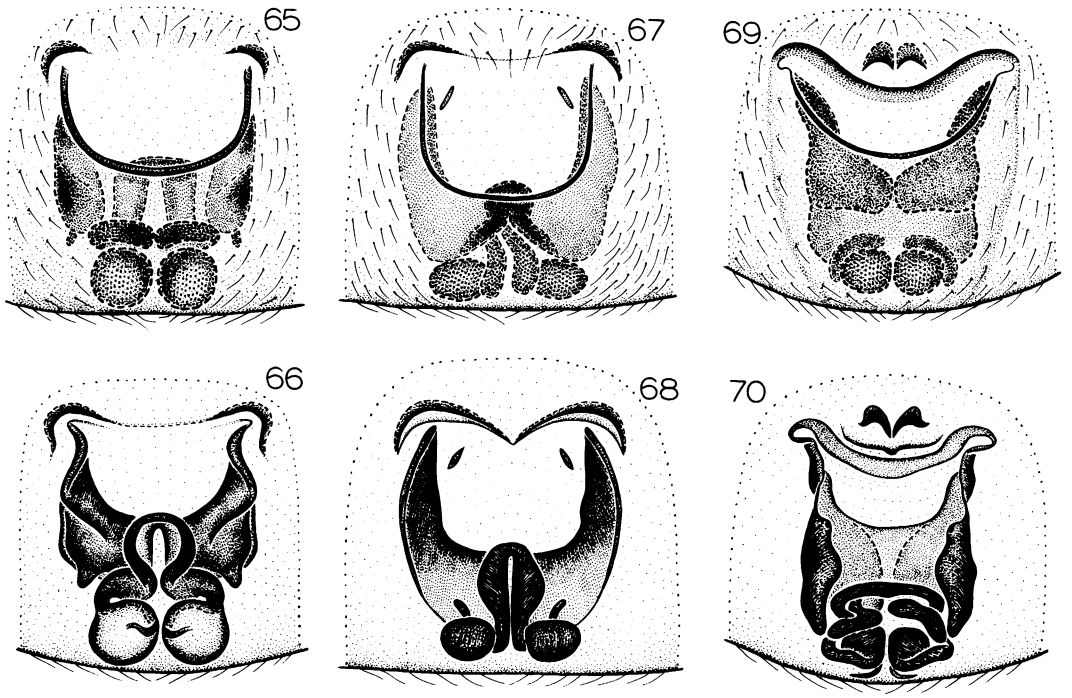
DISTRIBUTION: Known only from Minas Gerais, Brazil.

Camillina nova, new species
Figures 67, 68

TYPE: Female holotype from Fazenda Itaquerê, Nova Europa, São Paulo, Brazil (no date or collector), deposited in MSP.

DIAGNOSIS: *Camillina nova* can be easily recognized by the lateral depressions on the epigynal plate (fig. 67).

MALE: Unknown.



FIGS. 65–70. *Camillina* epigyna. 65, 66. *C. caldas,* new species. 67, 68. *C. nova,* new species. 69, 70. *C. claro,* new species. 65, 67, 69. Ventral views. 66, 68, 70. Dorsal views.

FEMALE: Total length 4.12, 4.50. Carapace 1.49, 1.53 long, 1.11, 1.20 wide. Femur II 0.84 long. Eye sizes and interdistances: AME 0.06, ALE 0.06, PME 0.09, PLE 0.08; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.21, front width 0.17, back width 0.19. Epigynal plate large, squared, with lateral depressions; lateral ducts long, semicircular (figs. 67, 68). Leg spination: femur IV p0-0-0; tibia III v1p-2-2; metatarsi: I v2-0-0; III p0-2-2, r0-1-2.

OTHER MATERIAL EXAMINED: BRAZIL: *São Paulo:* Sant'Ana de Baguassú, Pirassununga, Oct. 7, 1940 (O. Schubart, MSP), 1 ♀.

DISTRIBUTION: Known only from São Paulo, Brazil.

Camillina claro, new species

Figures 69, 70

TYPE: Female holotype from Rio Claro, Rio Usina, São Paulo, Brazil (November 16, 1941; J. Gaspar and O. Schubart), deposited in MSP.

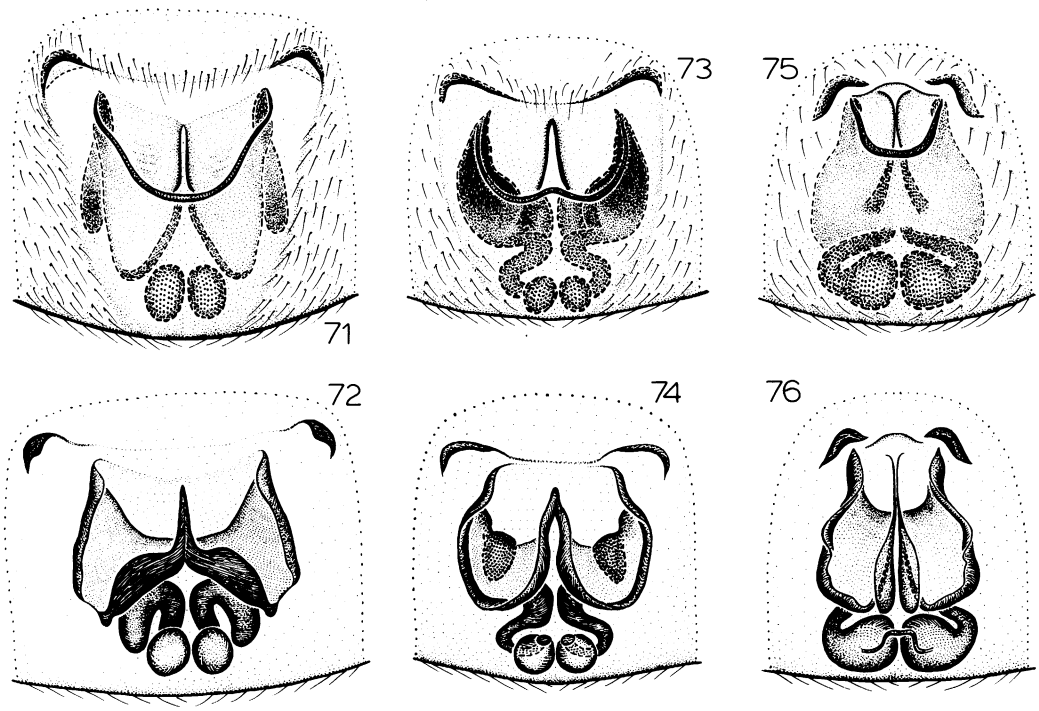
DIAGNOSIS: *Camillina claro* can be easily recognized by the pair of tiny, anterior epigynal hoods (figs. 69, 70).

MALE: Unknown.

FEMALE: Total length 3.98, 4.10. Carapace 1.53, 1.55 long; 1.10, 1.17 wide. Femur II 0.94, 0.97 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.07, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.19, front width 0.14, back width 0.15. Epigynum with pair of small anterior hoods; median ducts elaborately coiled (figs. 69, 70). Leg spination: femora I, II, IV p0-0-0; tibiae III, IV v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV v2-1p-0.

OTHER MATERIAL EXAMINED: BRAZIL: *São Paulo:* Mogi das Cruzes, Apr. 1942 (Meissner, MSP), 1 ♀.

DISTRIBUTION: Known only from São Paulo, Brazil.



FIGS. 71–76. *Camillina* epigyna. 71, 72. *C. major* (Keyserling). 73, 74. *C. marmorata* (Mello-Leitão). 75, 76. *C. oruro,* new species. 71, 73, 75. Ventral views. 72, 74, 76. Dorsal views.

Camillina major (Keyserling), new combination
Figures 71, 72

Echemus major Keyserling, 1891, p. 32, fig. 11 (female holotype from Rio Grande, Rio Grande do Sul, Brazil, in BMNH, examined). Roewer, 1954, p. 420.

Gytha xanthomela Mello-Leitão, 1945, p. 257, fig. 42 (female holotype from Palmar, Entre Ríos, Argentina, in MLP, examined). Roewer, 1954, p. 564. NEW SYNONYMY.

DIAGNOSIS: *Camillina major* is closest to *C. marmorata* and *C. oruro* (all three species have a divided epigynal plate) but can be distinguished by the wider anterior epigynal margin (figs. 71, 72).

MALE: Unknown.

FEMALE: Total length 4.67–5.87. Carapace 1.89–2.08 long, 1.43–1.67 wide. Femur II 1.19–1.36 long. Eye sizes and interdistances: AME 0.08, ALE 0.10, PME 0.11, PLE 0.10; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.04. MOQ length 0.29, front width 0.22, back width 0.24. Epigynal plate divided, triangular; median ducts looped (figs. 71, 72). Leg spination: femora I, IV p0-0-0; metatarsi: I v2-0-0; III p0-1-2, r0-1-2; IV p0-2-2, v2-1p-0.

MATERIAL EXAMINED: BRAZIL: *Rio Grande do Sul:* Jardim Botânico, Pôrto Alegre, Oct. 22, 1967 (P. Baisi, MSP), 1 ♀; Rio Grande (v. Ihering, BMNH), 1 ♀ (type). ARGENTINA: *Entre Rios:* Palmar (M. Birabén, MLP), 1 ♀ (type).

DISTRIBUTION: Southern Brazil and Argentina.

SYNONYMY: The redescription is attributable to a generic misplacement.

KEY TO SPECIES OF ARGENTINA, BOLIVIA, AND CHILE

1. Males (those of *major, marmorata, oruro, calel,* and *minuta* unknown) 2
   Females 4
2. Embolus coiled (figs. 83, 84) ..... *chilensis*
   Embolus not coiled (figs. 87, 91) 3

3. Tip of embolus relatively short (fig. 91) ..... *tarapaca*
   Tip of embolus relatively long (fig. 87) ..... *arguta*
4. Epigynal plate divided (figs. 71, 73, 75) .. 5
   Epigynal plate not divided 7
5. Epigynal plate relatively small (fig. 75) ..... *oruro*
   Epigynal plate relatively large (figs. 71, 73). 6
6. Epigynal plate widest anteriorly (fig. 71) ..... *major*
   Epigynal plate widest at middle (fig. 73) ..... *marmorata*
7. Epigynal plate relatively wide (figs. 77, 79) 8
   Epigynal plate relatively narrow (figs. 85, 89, 93) 9
8. Epigynal plate relatively long (fig. 79) ..... *minuta*
   Epigynal plate relatively short (fig. 77) ..... *calel*
9. Epigynal plate rectangular (fig. 85) ..... *chilensis*
   Epigynal plate not rectangular (figs. 89, 93) 10
10. Epigynal plate narrowed posteriorly (fig. 93) ..... *tarapaca*
    Epigynal plate rounded posteriorly (fig. 89) ..... *arguta*

Camillina marmorata (Mello-Leitão), new combination
Figures 73, 74

Zelotes marmoratus Mello-Leitão, 1943, p. 112, fig. 13 (female holotype from Río Diamante, Mendoza, Argentina, in MLP, examined). Roewer, 1954, p. 469.

DIAGNOSIS: *Camillina marmorata* is closest to *C. major* and *C. oruro* but can be distinguished by the sinuous median epigynal ducts (figs. 73, 74).

MALE: Unknown.

FEMALE: Total length 3.33, 3.74. Carapace 1.37, 1.46 long, 0.99, 1.13 wide. Femur II 0.83, 0.86 long. Eye sizes and interdistances: AME 0.05, ALE 0.06, PME 0.09, PLE 0.07; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.22, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.19, front width 0.15, back width 0.20. Epigynal plate slightly invaginated posteriorly, divided; median ducts sinuous (figs. 73, 74). Leg spination: femur II p0-0-0; tibiae: I, II v1r-1r-1r; IV p1-1-1; metatarsus I v2-0-0.

MATERIAL EXAMINED: ARGENTINA: *Mendoza:* Río Diamante (M. Birabén, MLP), 1 ♀ (type). BOLIVIA: *Potosí:* 30 mi. N Potosí, Feb. 22, 1951 (Ross, Michelbacher, CAS), 1 ♀.

DISTRIBUTION: Argentina and Bolivia.

Camillina oruro, new species
Figures 75, 76

TYPE: Female holotype collected in a house at an elevation of 12,500 feet at Oruro, Oruro, Bolivia (no date; R. Walsh), deposited in AMNH.

DIAGNOSIS: *Camillina oruro* is a distinctive species easily recognized by the small, divided epigynal plate (fig. 75).

MALE: Unknown.

FEMALE: Total length 3.97–4.93. Carapace 1.54–1.69 long, 1.12–1.28 wide. Femur II 0.85–1.04 long. Eye sizes and interdistances: AME 0.07, ALE 0.09, PME 0.10, PLE 0.08; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.22, front width 0.19, back width 0.21. Epigynal plate small, divided; median ducts angular (figs. 75, 76). Leg spination: femur IV p0-0-0; tibia IV p1-1-1; metatarsi: I v2-0-0; III p0-2-2.

OTHER MATERIAL EXAMINED: BOLIVIA: *Potosí:* 30 mi. N Potosí, Feb. 20–22, 1951 (Ross, Michelbacher, CAS), 2 ♀. PERU: *Cuzco:* Cuzco, June 7–8, 1964 (B. Malkin), 1 ♀; 80 mi. S Cuzco, Mar. 2, 1951 (Ross, Michelbacher, CAS), 1 ♀.

DISTRIBUTION: Bolivia and Peru.

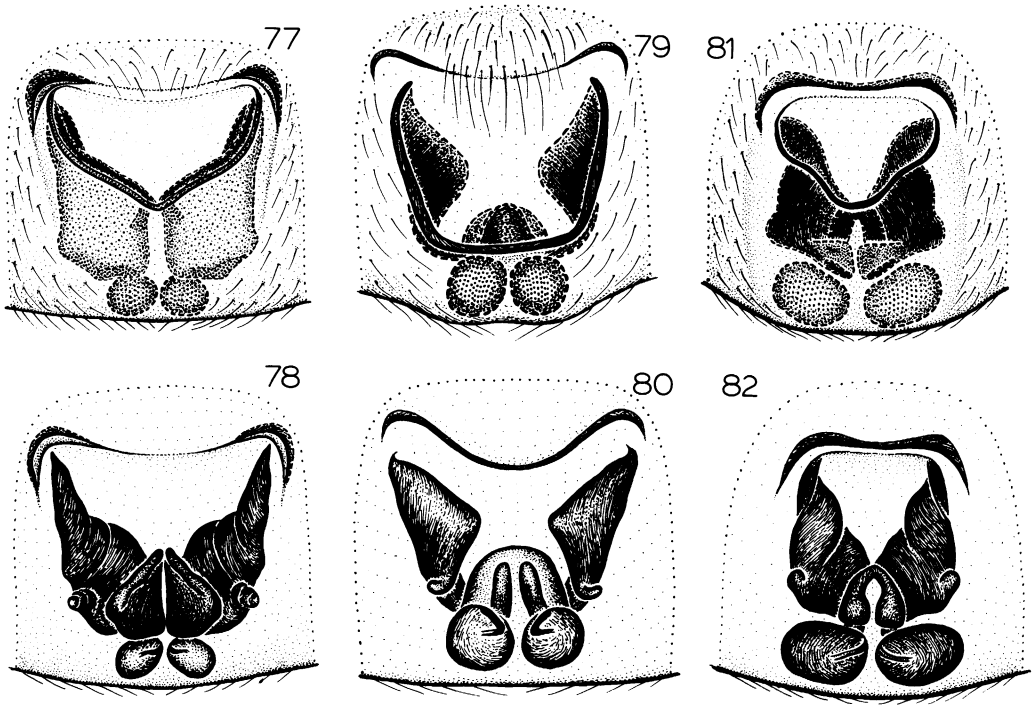
Camillina calel, new species
Figures 77, 78

TYPE: Female holotype from Lihuel-Calel, La Pampa, Argentina, (November 1968; E. Maury), deposited in MACN.

DIAGNOSIS: *Camillina calel* can be recognized by the oblique median epigynal ducts (fig. 78).

MALE: Unknown.

FEMALE: Total length 3.12, 3.74. Carapace 1.54, 1.55 long, 1.17, 1.18 wide. Femur II 0.96, 0.97 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.09, PLE 0.09; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.04, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.25, front width 0.18, back width 0.22. Epigynal plate wide, short; me-



FIGS. 77–82. *Camillina* epigyna. 77, 78. *C. calel,* new species. 79, 80. *C. minuta* (Mello-Leitão). 81, 82. *C. arequipa,* new species. 77, 79, 81. Ventral views. 78, 80, 82. Dorsal views.

dian ducts oblique, lateral ducts massive (figs. 77, 78). Leg spination: tibia IV p1-1-1; metatarsi: I v2-0-0; III r0-1-2.

MATERIAL EXAMINED: One female taken with the holotype (MACN).

DISTRIBUTION: Known only from La Pampa, Argentina.

Camillina minuta (Mello-Leitão), new combination
Figures 79, 80

Echemus minuta Mello-Leitão, 1941, p. 168, fig. 58 (female holotype from Mojón, Salta, Argentina, in MLP, examined). Roewer, 1954, p. 420.

DIAGNOSIS: *Camillina minuta* seems closest to *C. relucens* but can be easily recognized by the extremely long epigynal plate (fig. 79).

MALE: Unknown.

FEMALE: Total length 3.74. Carapace 1.60 long, 1.22 wide. Femur II 0.99 long. Eye sizes and interdistances: AME 0.08, ALE 0.08, PME 0.12, PLE 0.09; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.26, front width 0.21, back width 0.25. Epigynal plate long, reaching spermathecae; lateral ducts triangular (figs. 79, 80). Leg spination (leg I missing): tibiae: III v1p-2-2; IV p1-1-1.

MATERIAL EXAMINED: Only the holotype, collected by M. Birabén.

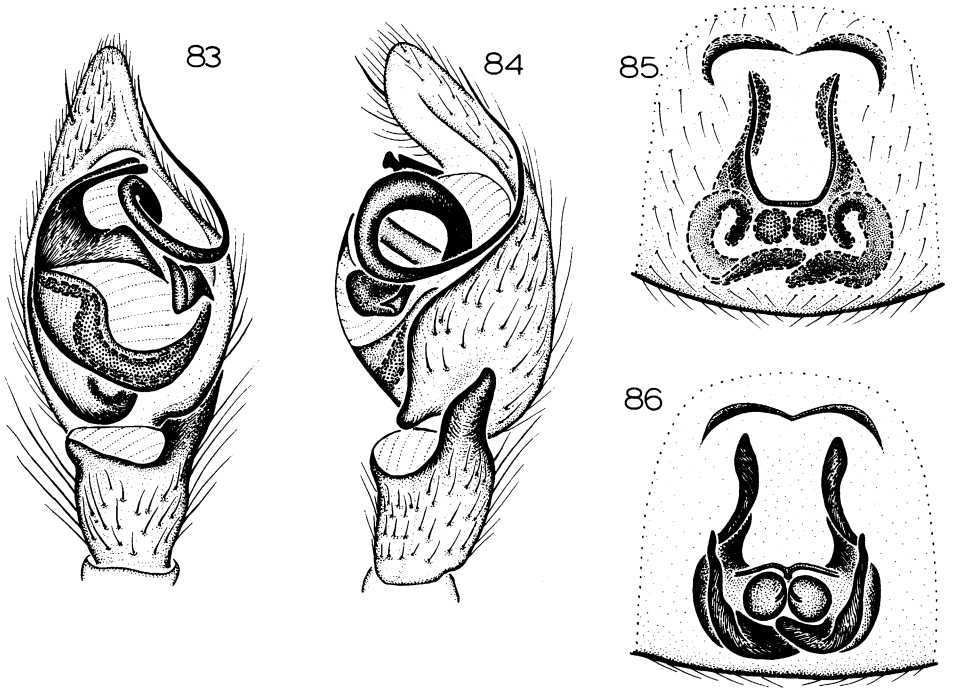
DISTRIBUTION: Known only from Salta, Argentina.

Camillina chilensis (Simon), new combination
Figures 83–86

Echemus pulcher (misidentification): Keyserling, 1891, p. 31, fig. 10b (female paralectotype only).

Echemus chilensis Simon, 1902, p. 12 (female holotype from Viña del Mar, Valparaíso, Chile, in ZMH, examined). Roewer, 1954, p. 420. Bonnet, 1956, p. 1644.

Zelotes scutatus Mello-Leitão, 1941, p. 170, fig. 60 (male holotype from Yala, Jujuy, Argentina, in MLP, examined); preoccupied by *Zelotes scutatus* (O. P.-Cambridge, 1872), and *Zelotes scutatus* Mello-Leitão, 1939.



FIGS. 83–86. *Camillina chilensis* (Simon). 83. Palp, ventral view. 84. Palp, retrolateral view. 85. Epigynum, ventral view. 86. Epigynum, dorsal view.

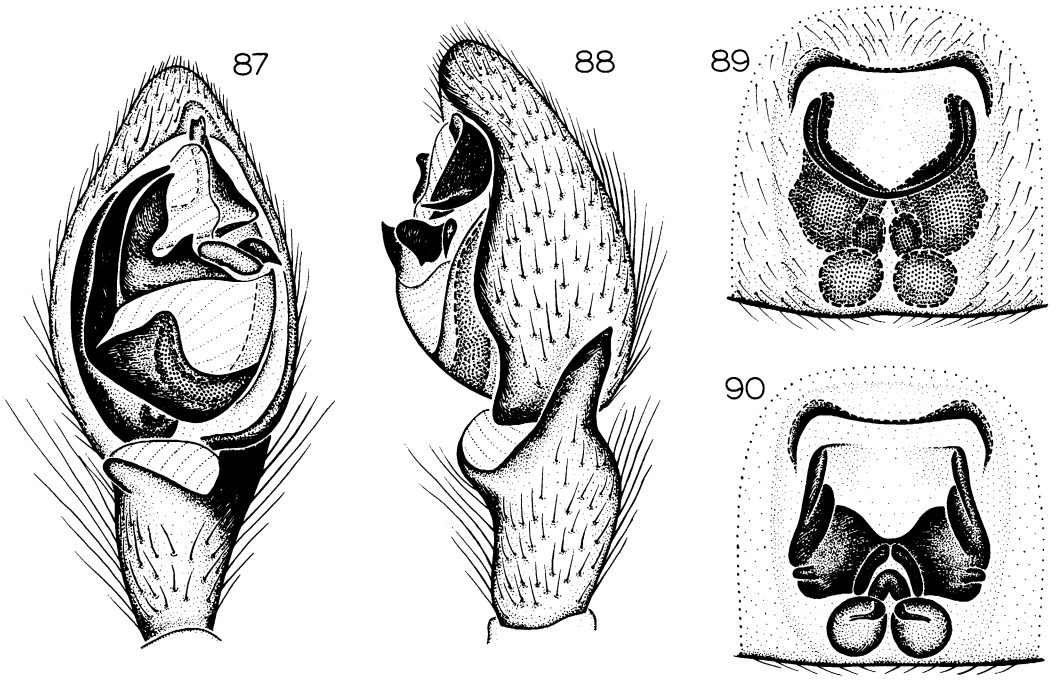
Zelotes elytrogaster Mello-Leitão, 1944, p. 4 (*nomen novum* for *Zelotes scutatus* Mello-Leitão, 1941). Roewer, 1954, p. 468. NEW SYNONYMY.

DIAGNOSIS: *Camillina chilensis* is a highly autapomorphic species immediately recognizable by the coiled embolus (fig. 83) and rectangular epigynal plate (fig. 85).

MALE: Total length 3.85 ± 0.42. Carapace 1.64 ± 0.13 long, 1.28 ± 0.12 wide. Femur II 1.05 ± 0.11 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.11, PLE 0.10; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.25, front width 0.18, back width 0.24. Terminal apophysis with two long distal prongs; embolus coiled (figs. 83, 84). Leg spination: femur IV p0-0-0; patella III r0-0-0; tibia IV v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV p0-2-2, v2-1p-0.

FEMALE: Total length 4.04 ± 0.44. Carapace 1.67 ± 0.14 long, 1.32 ± 0.08 wide. Femur II 1.06 ± 0.10 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.10, PLE 0.09; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.24, front width 0.19, back width 0.22. Epigynal plate rectangular; median ducts displaced laterally (figs. 85, 86). Leg spination: femur IV p0-0-0; tibiae III, IV v1p-2-2; metatarsi: III p0-2-2, r0-1-2; IV v2-1p-0.

MATERIAL EXAMINED: ARGENTINA: *Chubut:* Cholila, Aug. 2–25, 1962 (A. Kovács), 1 ♂, 3 ♀; El Hoyo, Feb. 26–Oct. 2, 1961–1962 (A. Kovács), 172 ♂, 102 ♀; El Turbio, July 11, 1961 (A. Kovács), 2 ♀; Epuyén, June 12–Oct. 17, 1962–1966 (A. Kovács), 2 ♂, 7 ♀; Lago Puelo, Oct. 20, 1965 (A. Kovács), 1 ♂, 1 ♀; Río Turbio, Jan. 25, 1962 (A. Kovács), 1 ♀. *Córdoba:* Córdoba, Jan. 7, 1973 (M. Hoy), 1 ♀. *Jujuy:* Yala (M. Birabén, MLP), 1 ♂ (type). *Río Negro:* El Bolsón, Feb.–Sept. 1961–1962 (A. Kovács), 56 ♂, 38 ♀; Los Repollos, May 5, 1962 (A. Kovács), 1 ♂, 2 ♀; Ñorquincó, June 20–Nov. 9, 1965–1966 (A. Kovács), 3 ♂, 2 ♀; San Carlos de Bariloche, Aug. 18, 1961 (A. Ko-



FIGS. 87–90. *Camillina arguta* (Simon). 87. Palp, ventral view. 88. Palp, retrolateral view. 89. Epigynum, ventral view. 90. Epigynum, dorsal view.

vács), 1 ♀; Ternero, July 8, 1962 (A. Kovács), 1 ♀. BOLIVIA: *La Paz:* La Paz, Mar.–Apr. 1959 (R. Walsh), 1 ♀. BRAZIL: *Rio Grande do Sul:* Rio Grande (v. Ihering, BMNH), 1 ♀ (paralectotype); Rio Pardo, May 15, 1974 (A. Lise, MCN), 1 ♂. *São Paulo:* Descalvado, Rio do Pantano, Mar. 7, 1941 (O. Schubart, MSP), 1 ♀. CHILE: *Aconcagua:* Concón, Dec. 16, 1951, under kelp (Ross, Michelbacher, CAS), 1 ♀. *Cautín:* 20 km. E Temuco, Jan. 7, 1951 (Ross, Michelbacher, CAS), 1 ♂. *Coquimbo:* Hacienda Illapel, Oct. 19, 1966, elevation 600–900 m. (E. Schlinger, M. Irwin, L. Peña, UCB), 1 ♂; Salamanca, July 11, 1961 (D. Gonzoleza), 1 ♂. *Santiago:* El Convento, Sept. 18, 1966 (L. E. Peña, UCB), 1 ♂; El Salto, Oct. 1979 (L. Peña), 1 ♂. *Valparaíso:* E side, Cuesta de la Dormida, Sept. 20, 1966, elevation 750 m. (E. Schlinger, UCB), 1 ♂, 1 ♀; Viña del Mar, June 9, 1893 (Michaelsen, ZMH), 1 ♀ (type). ISLAS JUAN FERNANDEZ: *Isla Más a Tierra:* Galpón, Valle Villagra, Apr. 23–24, 1962 (B. Malkin), 3 ♂; Quebrada Pangal, Monte Oscuro, Apr. 9, 1962, elevation 100 m. (B. Malkin), 1 ♂.

DISTRIBUTION: Southern Brazil, Argentina, Bolivia, Chile, and the Juan Fernandez Islands.

SYNONYMY: The redescription is attributable to a generic misplacement.

Camillina arguta (Simon)
Figures 87–90

Echemus argutus Simon, 1902, p. 13 (female holotype from Santiago, Santiago, Chile, in MNHN, examined). Roewer, 1954, p. 420.
Camillina arguta: Berland, 1919, p. 462. Bonnet, 1956, p. 943.

DIAGNOSIS: *Camillina arguta* can be recognized by the folded tip of the embolus (fig. 87) of males and the wide, rounded epigynal plate and short lateral lobes on the lateral ducts (figs. 89, 90) of females.

MALE: Total length 4.52 ± 0.72. Carapace 2.10 ± 0.37 long, 1.57 ± 0.30 wide. Femur II 1.27 ± 0.21 long. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.11, PLE 0.09; AME–AME 0.07, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.06. MOQ length 0.27, front width 0.21, back width 0.24. Tip of embolus with pro-

lateral fold, base with folded edge (figs. 87, 88). Leg spination: femur IV p0-1-1; metatarsus III v2-1p-0.

FEMALE: Total length 5.05 ± 0.42. Carapace 2.09 ± 0.22 long, 1.57 ± 0.17 wide. Femur II 1.27 ± 0.11 long. Eye sizes and interdistances: AME 0.08, ALE 0.10, PME 0.11, PLE 0.08; AME–AME 0.05, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.06, ALE–PLE 0.05. MOQ length 0.28, front width 0.21, back width 0.24. Epigynal plate wide, rounded; lateral ducts massive, with short lateral lobes (figs. 89, 90). Leg spination typical for genus.

MATERIAL EXAMINED: CHILE: *Aconcagua:* 16 km. N Nogales Artificio, Nov. 7, 1981, elevation 520 m., under rock, montane scrub (N. I. Platnick, R. T. Schuh), 1 ♂, 1 ♀; 2 km. N Zapallar, Nov. 7, 1981, elevation 20 m., under rock, coastal scrub (N. I. Platnick, R. T. Schuh), 1 ♂, 1 ♀. *Antofagasta:* Caleta Hueso, Taltal, Jan. 28–Feb. 4, 1941 (J. Bird), 1 ♂, 1 ♀. *Atacama:* Hacienda Santa Isabel, Copiapo Valley, Oct. 4, 1980 (L. E. Peña), 1 ♀: Puerta Vieja, Copiapó, Apr. 17, 1980 (L. E. Peña), 2 ♂, 3 ♀. *Bío-Bío:* 2–5 km. E El Abanico, Nov. 20–21, 1981, elevation 760–975 m., under rocks, scrubby mountainside (N. I. Platnick, R. T. Schuh), 4 ♀; 5 km. W Tucapel, Dec. 28, 1950 (Ross, Michelbacher, CAS), 2 ♀. *Colchagua:* Fundo Millohue, Cunoco, Mar. 25, 1961 (A. F. Archer), 1 ♂. *Coquimbo:* Caleta Oscuro, Sept. 23, 1966 (E. Schlinger, UCB), 1 ♀; 4 km. E El Tofo, Nov. 2, 1981, elevation 490 m., under rock, coastal mountain (N. I. Platnick, R. T. Schuh), 1 ♀; Fray Jorge National Park, Nov. 5, 1981, elevation 180–270 m., under rock, cactus-legume scrub (N. I. Platnick, R. T. Schuh), 1 ♂; Huente Lauquén, Sept. 27, 1980, coastal town (L. E. Peña), 1 ♀; 5 mi. N Illapel, Nov. 30, 1950 (Ross, Michelbacher, CAS), 2 ♀; 8 km. W Illapel, Nov. 8, 1981 (♀ matured Jan. 4, 1982), elevation 240 m., under rocks, dry roadside (N. I. Platnick, R. T. Schuh), 1 ♂, 1 ♀; 19 km. N La Serena, Nov. 1, 1981, elevation 150 m., under rock, coastal scrub (N. I. Platnick, R. T. Schuh), 2 ♀; 22 mi. N Los Vilos, Dec. 13, 1950 (Ross, Michelbacher, CAS), 3 ♀. *Curico:* Cajón de Río Claro, Oct. 9, 1966 (E. Schlinger, UCB), 1 ♀. *Malleco:* 18 km. W. Angol, Cordillera de Nahuelbuta, Feb. 10, 1967, elevation 610 m. (E. Schlinger, UCB), 1 ♂. *Ñuble:* Las Trancas, Nov. 15, 1981, elevation 1280 m., under rocks, *Acacia* woodland (N. I. Platnick, R. T. Schuh), 6 ♀; Polcura, Jan.–Mar. 1955 (E. Reed), 1 ♀. *Santiago:* 3 km. N El Arrayán, Sept. 7, 1966, elevation 1150 m. (E. Schlinger, M. Irwin, UCB), 1 ♂; El Canelo, 1979–1980, elevation 800–1000 m. (L. E. Peña), 2 ♂, 9 ♀, Sept. 8, 1966, elevation 950 m. (E. Schlinger, M. Irwin, UCB), 2 ♀; El Convento, Sept. 18, 1966 (L. E. Peña, UCB), 2 ♂; Farellones, Nov. 28, 1962, elevation 8500–10,000 feet (P. J. Darlington, MCZ), 1 ♀; 9 km. W La Rinconada, Nov. 10, 1981, elevation 520 m., under rock, dry wooded valley (N. I. Platnick, R. T. Schuh), 1 ♀; Lo Valdés, elevation 2000 m. (G. Mann), 3 ♀; Quebrada de La Plata, La Rinconada, near Maipu, July 26, 1966 (E. Schlinger, M. Irwin, UCB), 1 ♀, Oct. 3, 1966, elevation 700 m. (E. Schlinger, UCB), 1 ♂, 3 ♀; Quilicura, May–Oct. 1979 (L. E. Peña), 11 ♂, 22 ♀; Río Yeso, elevation 1200 m. (G. Mann), 1 ♀; Santiago (MNHN), 1 ♀ (type), 1961, 1 ♂. *Valparaíso:* 4 km. W Casablanca, Nov. 8, 1981, elevation 260 m., under rocks, *Acacia* woodland (N. I. Platnick, R. T. Schuh), 2 ♀; 10 mi. N Concón, Dec. 16, 1950 (Ross, Michelbacher, CAS), 1 ♂; E side, Cuesta de la Dormida, Sept. 20, 1966, elevation 750 m. (E. Schlinger, UCB), 2 ♀.

DISTRIBUTION: Central Chile.

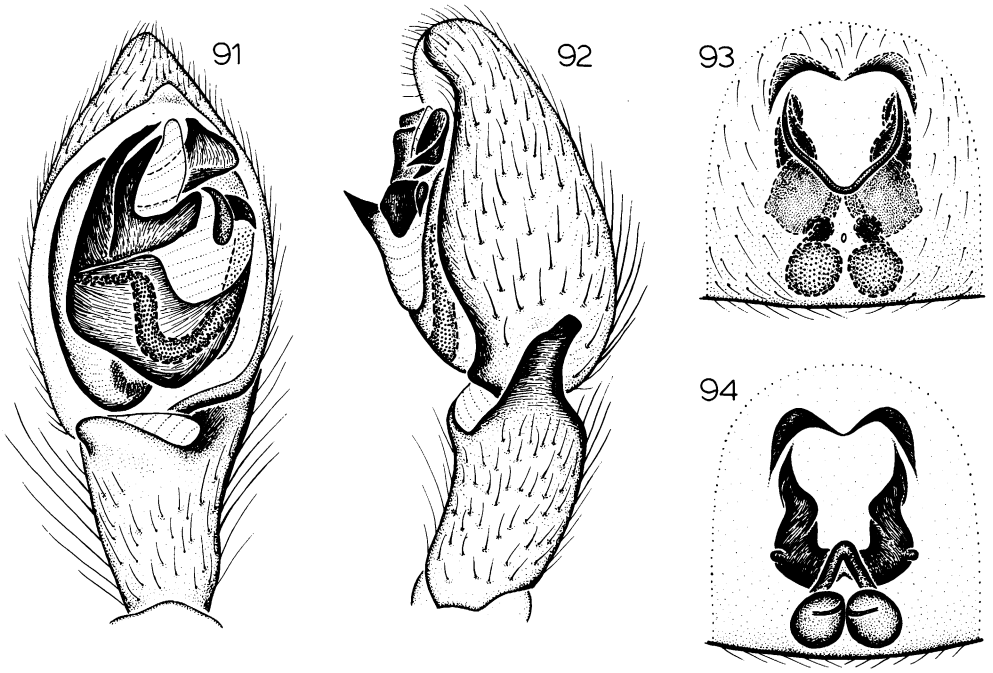
Camillina tarapaca, new species

Figures 91–94

TYPES: Male holotype from Quisama, Tarapacá, Chile (June 5, 1968; L. Peña) and female paratype from an elevation of 2600 meters at Chappiquilta, Tarapacá, Chile (June 6, 1968; L. Peña), deposited in MCZ.

DIAGNOSIS: *Camillina tarapaca* can be recognized by the short tip of the embolus (fig. 91) of males and the small, posteriorly narrowed epigynal plate and oblique median ducts (figs. 93, 94) of females.

MALE: Total length 5.72. Carapace 2.45 long, 1.91 wide. Femur II 1.53 long. Eye sizes and interdistances: AME 0.08, ALE 0.11, PME 0.13, PLE 0.10; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.08. MOQ length 0.30, front width 0.22, back width 0.28. Tip of embolus short, narrow; retrolateral tibial



FIGS. 91–94. *Camillina tarapaca,* new species. 91. Palp, ventral view. 92. Palp, retrolateral view. 93. Epigynum, ventral view. 94. Epigynum, dorsal view.

apophysis abruptly narrowed at tip (figs. 91, 92). Leg spination: femora: I, II p0-0-2; IV p0-1-1; tibia IV p1-1-1.

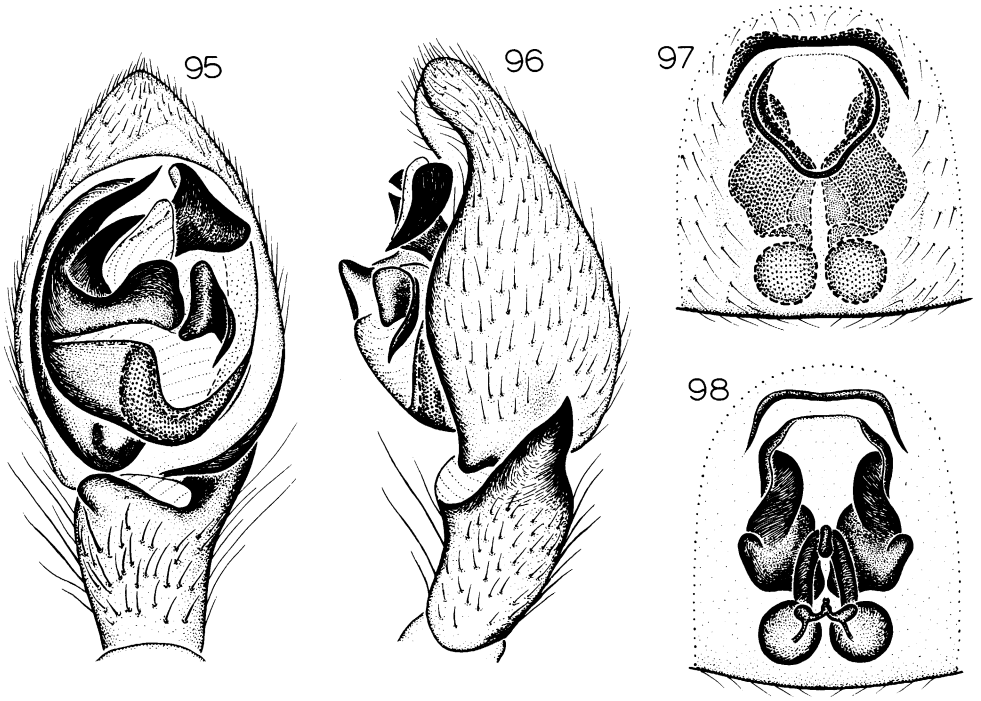
FEMALE: Total length 4.97, 5.98. Carapace 2.20, 2.56 long, 1.81, 1.91 wide. Femur II 1.39, 1.58 long. Eye sizes and interdistances: AME 0.08, ALE 0.09, PME 0.12, PLE 0.10; AME–AME 0.07, AME–ALE 0.03, PME–PME 0.03, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.31, front width 0.23, back width 0.27. Epigynal plate small, narrowed posteriorly; median ducts oblique, lateral ducts long, with lateral lobes (figs. 93, 94). Leg spination: tibia IV p1-1-1; metatarsus III v2-1p-0.

OTHER MATERIAL EXAMINED: CHILE: *Antofagasta:* Río Loa, 25 km. S Quillagua, Aug. 20, 1966 (E. Schlinger, M. Irwin, UCB), 1 ♀.

DISTRIBUTION: Northern Chile.

KEY TO SPECIES OF PERU AND THE GALAPAGOS

1. Males (those of *oruro, arequipa, huanta, punta,* and *galapagoensis* unknown) ... 2
   Females 6
2. Retrolateral tibial apophysis with ventrally directed tip (fig. 100) ..... *mogollon*
   Retrolateral tibial apophysis with dorsally or distally directed tip 3
3. Tip of embolus relatively short (figs. 95, 103) 4
   Tip of embolus relatively long (figs. 113, 117) 5
4. Tip of embolus with distal fold (fig. 95) .... *chincha*
   Tip of embolus with proximal fold (fig. 103) ..... *piura*
5. Tip of embolus sharply pointed (fig. 117)... ..... *cruz*
   Tip of embolus rounded (fig. 113) ..... *isla*
6. Epigynal plate divided (fig. 75) ..... *oruro*
   Epigynal plate not divided 7
7. Epigynal plate abruptly narrowed posteriorly (figs. 81, 97, 101, 105, 109, 115) 10
   Epigynal plate not abruptly narrowed posteriorly (figs. 107, 111, 119) 8
8. Epigynal plate squared (fig. 107) ... *huanta*
   Epigynal plate rounded (figs. 111, 119) .. 9
9. Epigynal plate relatively narrow (fig. 111) ..... *galapagoensis*
   Epigynal plate relatively wide (fig. 119)..... ..... *cruz*



FIGS. 95–98. *Camillina chincha,* new species. 95. Palp, ventral view. 96. Palp, retrolateral view. 97. Epigynum, ventral view. 98. Epigynum, dorsal view.

10. Anterior epigynal margin with a single anterior sclerotization (fig. 105) ..... *piura*
    Anterior epigynal margin with two anterior sclerotizations 11
11. Median and lateral epigynal ducts fused in dorsal view (fig. 110) ..... *punta*
    Median and lateral epigynal ducts separate in dorsal view 12
12. Epigynal plate relatively long (fig. 101) ..... *mogollon*
    Epigynal plate relatively short (figs. 81, 98, 115) 13
13. Median epigynal ducts longitudinal (fig. 98) ..... *chincha*
    Median epigynal ducts oblique (figs. 82, 116) 14
14. Epigynal plate relatively wide (fig. 81) ..... *arequipa*
    Epigynal plate relatively narrow (fig. 115) ..... *isla*

Camillina chincha, new species

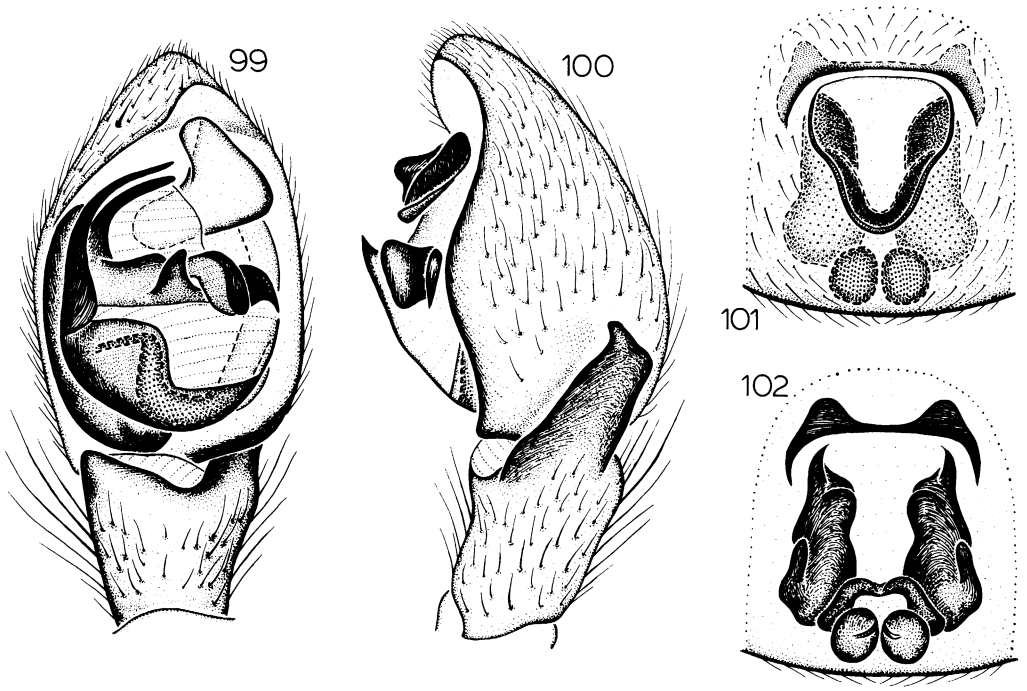
Figures 95–98

TYPES: Male holotype and female paratype from North Island, Islas de Chincha, Ica, Peru (October 1939; K. P. Schmidt), deposited in AMNH.

DIAGNOSIS: *Camillina chincha* can be recognized by the basally wide and distally folded embolus (fig. 95) of males and the short, posteriorly narrowed epigynal plate and long, longitudinal median ducts (figs. 97, 98) of females.

MALE: Total length 4.04–5.05. Carapace 1.87–2.22 long, 1.47–1.70 wide. Femur II 1.30–1.56 long. Eye sizes and interdistances: AME 0.08, ALE 0.09, PME 0.10, PLE 0.09; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.05, ALE–PLE 0.04. MOQ length 0.24, front width 0.21, back width 0.22. Distal prong of terminal apophysis near folded embolus tip (figs. 95, 96). Leg spination: metatarsus III v2-1p-0.

FEMALE: Total length 5.94 ± 0.55. Carapace 2.29 ± 0.15 long, 1.78 ± 0.14 wide. Femur II 1.59 ± 0.10 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.13, PLE 0.11; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.03, PME–PLE 0.04,



FIGS. 99–102. *Camillina mogollon,* new species. 99. Palp, ventral view. 100. Palp, retrolateral view. 101. Epigynum, ventral view. 102. Epigynum, dorsal view.

ALE–PLE 0.06. MOQ length 0.33, front width 0.24, back width 0.29. Epigynal plate narrow, short, posteriorly narrowed; median ducts longitudinal, lateral ducts with oblique lateral lobes (figs. 97, 98). Leg spination: tibia IV p1-1-1; metatarsus III v2-1p-0.

MATERIAL EXAMINED: PERU: **Ica:** *Islas de Chincha:* Central Island, Oct. 30, 1939 (K. P. Schmidt, FMNH), 1 ♂, 1 ♀; North Island, Oct. 1939 (K. P. Schmidt), 4 ♂, 4 ♀ (including types), Oct. 1939 (K. P. Schmidt, FMNH), 4 ♂, 11 ♀, Dec. 1941 (W. Vogt), 5 ♀.

DISTRIBUTION: Known only from the Chincha islands of Peru.

Camillina mogollon, new species
Figures 99–102

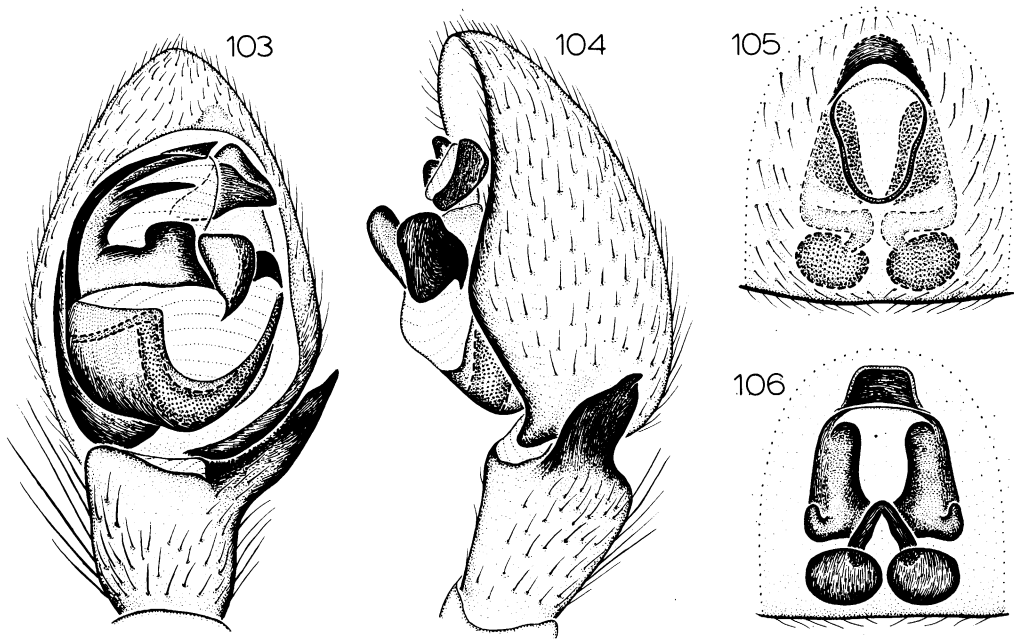
TYPES: Male holotype and female paratype from Quebrada Mogollón, Piura, Peru (July 16, 1939; D. L. and H. E. Frizzell), deposited in AMNH courtesy of Dr. W. B. Peck.

DIAGNOSIS: *Camillina mogollon* can be recognized by the broadly elbowed embolus (fig. 99) and very long, posteriorly narrowed epigynal plate (fig. 101).

MALE: Total length 3.25–3.75. Carapace 1.67–1.83 long, 1.22–1.38 wide. Femur II 1.01–1.08 long. Eye sizes and interdistances: AME 0.07, ALE 0.08, PME 0.09, PLE 0.09; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.04, PME–PLE 0.03, ALE–PLE 0.03. MOQ length 0.24, front width 0.18, back width 0.22. Embolus sharply bent; tip of retrolateral tibial apophysis directed ventrally (figs. 99, 100). Leg spination typical for genus.

FEMALE: Total length 3.71–4.99. Carapace 1.69–1.80 long, 1.29–1.33 wide. Femur II 1.08–1.13 long. Eye sizes and interdistances: AME 0.07, ALE 0.09, PME 0.09, PLE 0.09; AME–AME 0.05, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.23, front width 0.19, back width 0.20. Epigynal plate reaching almost to spermathecae; median ducts oblique, lateral ducts with longitudinal lateral lobes (figs. 101, 102). Leg spination: tibia IV v1p-2-2.

OTHER MATERIAL EXAMINED: PERU:



FIGS. 103–106. *Camillina piura,* new species. 103. Palp, ventral view. 104. Palp, retrolateral view. 105. Epigynum, ventral view. 106. Epigynum, dorsal view.

Lambayeque: 38 mi. N Olmos, Mar. 1951 (Ross, Michelbacher, CAS), 1 ♀. *Piura:* Pariñas Valley, Mar. 26, 1939 (D. L. and H. E. Frizzell, EPC), 1 ♀; Quebrada Mogollón, July 16, 1939 (D. L. and H. E. Frizzell, EPC), 1 ♂, 1 ♀, June 11, 1939 (D. L. and H. E. Frizzell, EPC), 1 ♂; Quebrada Tamarindo, Nov. 17, 1940 (H. E. Frizzell, EPC), 1 ♀.

DISTRIBUTION: Northwestern Peru.

Camillina piura, new species
Figures 103–106

TYPE: Male holotype from Pariñas Valley, Piura, Peru (March 6, 1939; D. L. and H. E. Frizzell), and female paratype from the same locality (April 7, 1939; D. L. and H. E. Frizzell), deposited in AMNH courtesy of Dr. W. B. Peck.

DIAGNOSIS: *Camillina piura* can be easily recognized by the short, rounded tip of the embolus (fig. 103) and single sclerotization of the anterior epigynal margin (fig. 105).

MALE: Total length 3.27–4.72. Carapace 1.62–2.22 long, 1.25–1.69 wide. Femur II 0.95–1.32 long. Eye sizes and interdistances: AME 0.07, ALE 0.08, PME 0.09, PLE 0.08; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.23, front width 0.18, back width 0.20. Tip of embolus short, rounded; retrolateral tibial apophysis sinuous distally (figs. 103, 104). Leg spination: tibia IV p1-1-1.

FEMALE: Total length 3.43–5.15. Carapace 1.53–2.49 long, 1.20–1.85 wide. Femur II 0.90–1.58 long. Eye sizes and interdistances: AME 0.07, ALE 0.09, PME 0.09, PLE 0.08; AME–AME 0.04, AME–ALE 0.01, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.22, front width 0.18, back width 0.20. Anterior epigynal margin with single sclerotization; lateral ducts abruptly narrowed distally (figs. 105, 106). Leg spination: tibia IV p1-1-1; metatarsus III p0-2-2, r0-1-2.

OTHER MATERIAL EXAMINED: PERU: *La Libertad:* Chicama Valley, Apr. 1–10, 1949 (J. Bird), 1 ♀; Isla de Macabi, Feb. 1979 (D. Duffey), 1 ♂. *Lima:* Chosica, July 22, 1951, elevation 900 m. (W. Weyrauch, EPC), 1 ♀; Isla Mazorca, Feb. 1978 (D. Duffey), 1 ♂. *Piura:* Isla Lobos de Tierra, Aug. 1939 (K.

P. Schmidt, FMNH), 1 ♀; Pariñas Valley, Mar. 6, 1939 (D. L. and H. E. Frizzell, EPC), 2 ♂, March 26, 1939 (D. L. and H. E. Frizzell, EPC), 1 ♀, Apr. 7, 1939 (D. L. and H. E. Frizzell, EPC), 1 ♀; plain between Quebrada de Pariñas and Quebrada Salados, Dec. 1938 (D. L. and H. E. Frizzell, EPC), 1 ♀.

DISTRIBUTION: Low elevations of northern and central Peru.

Camillina arequipa, new species
Figures 81, 82

TYPE: Female holotype from an umbelliferous plant at an elevation of 300 meters at Chala, Atiquipa, Arequipa, Peru (December 11, 1951; W. Weyrauch), deposited in AMNH courtesy of Dr. W. B. Peck.

DIAGNOSIS: *Camillina arequipa* can be recognized by the wide spermathecae, the short, posteriorly narrowed epigynal plate, and the anteriorly narrowed, oblique median epigynal ducts (figs. 81, 82).

MALE: Unknown.

FEMALE: Total length 4.34. Carapace 1.78 long, 1.31 wide. Femur II 1.14 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.09, PLE 0.07; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.03, PME–PLE 0.02, ALE–PLE 0.04. MOQ length 0.23, front width 0.18, back width 0.21. Epigynal plate wide, short, posteriorly narrowed; spermathecae wide, median ducts oblique, narrowed distally, lateral ducts massive, with anteriorly directed lateral lobes (figs. 81, 82). Leg spination typical for genus.

MATERIAL EXAMINED: Only the holotype.

DISTRIBUTION: Known only from Arequipa, Peru.

Camillina huanta, new species
Figures 107, 108

TYPE: Female holotype from 10 miles north of Huanta, Río Mantaro, Ayacucho, Peru (March 8, 1951; Ross and Michelbacher), deposited in CAS.

DIAGNOSIS: *Camillina huanta* can be easily recognized by the small, squared epigynal plate (fig. 107) and angular median epigynal ducts (fig. 108).

MALE: Unknown.

FEMALE: Total length 3.89. Carapace 1.55 long, 1.21 wide. Femur II 1.06 long. Eye sizes and interdistances: AME 0.06, ALE 0.07, PME 0.10, PLE 0.07; AME–AME 0.06, AME–ALE 0.01, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.03. MOQ length 0.21, front width 0.18, back width 0.21. Epigynal plate small, squared; median and lateral ducts angular (figs. 107, 108). Leg spination: femur IV p0-0-0; tibia IV p0-0-1; metatarsus IV p0-2-2.

MATERIAL EXAMINED: Only the holotype.

DISTRIBUTION: Known only from Ayacucho, Peru.

Camillina punta, new species
Figures 109, 110

TYPE: Female holotype from Cerros de Amotape, 43 km. east and 26 km. north of Punta Pariñas, Piura, Peru (January 1, 1939; D. L. and H. E. Frizzell), deposited in AMNH courtesy of Dr. W. B. Peck.

DIAGNOSIS: *Camillina punta* can be easily recognized by the presence of two dark longitudinal paramedian stripes on the dorsum of the abdomen.

MALE: Unknown.

FEMALE: Total length 3.13, 3.52. Carapace 1.30, 1.42 long, 0.97, 1.04 wide. Femur II 0.80, 0.86 long. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.07, PLE 0.09; AME–AME 0.03, AME–ALE 0.02, PME–PME 0.03, PME–PLE 0.03, ALE–PLE 0.04. MOQ length 0.21, front width 0.15, back width 0.17. Median and lateral epigynal ducts fused in dorsal view (figs. 109, 110). Leg spination: femur IV p0-0-0; metatarsi: I v2-0-0; III p0-2-2.

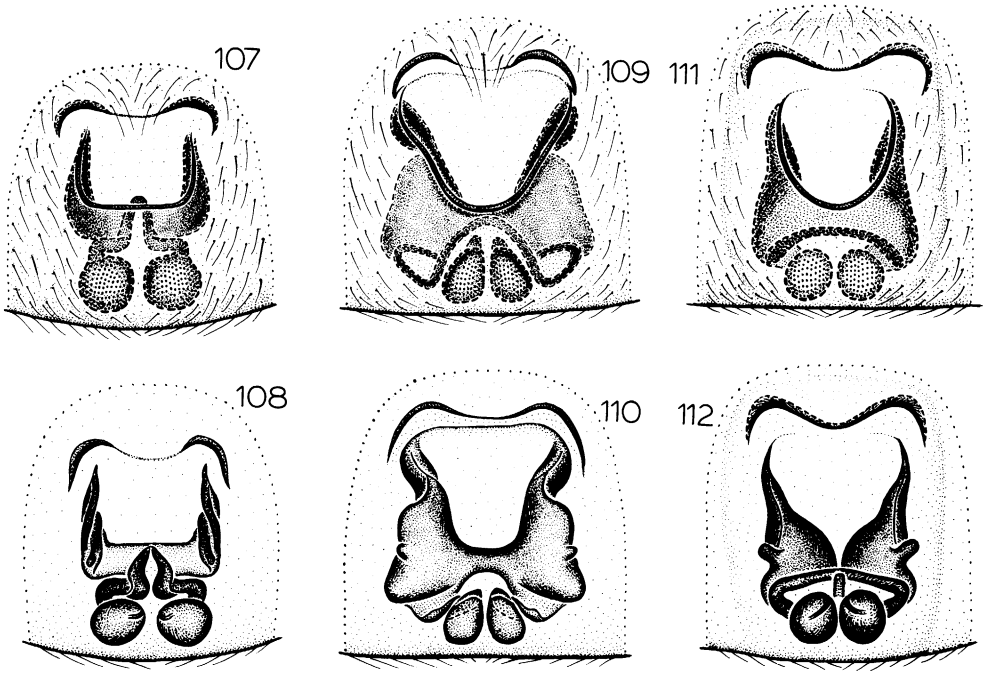
MATERIAL EXAMINED: One female taken with the holotype (EPC) and one female taken at Quebrada Tamarindo, Piura, Peru, on Nov. 17, 1940, by H. E. Frizzell (EPC).

DISTRIBUTION: Known only from Piura, Peru.

Camillina galapagoensis (Banks), new combination
Figures 111, 112

Prosthesima galapagoensis Banks, 1902, p. 57, pl. 2, fig. 7 (female holotype from Iguana Cove, Isla Isabela, Galapagos Archipelago, depository unknown).

Zelotes galapagoensis: Petrunkevitch, 1911, p.



FIGS. 107–112. *Camillina* epigyna. 107, 108. *C. huanta,* new species. 109, 110. *C. punta,* new species. 111, 112. *C. galapagoensis* (Banks). 107, 109, 111. Ventral views. 108, 110, 112. Dorsal views.

149. Roewer, 1954, p. 468. Bonnet, 1959, p. 4925. Roth and Craig, 1970, p. 117.

DIAGNOSIS: *Camillina galapagoensis* can be recognized by the elbowed, transversely oriented median epigynal ducts (figs. 111, 112).

MALE: Unknown.

FEMALE: Total length 5.61. Carapace 2.04 long, 1.62 wide. Femur II 1.28 long. Eye sizes and interdistances: AME 0.07, ALE 0.10, PME 0.11, PLE 0.10; AME–AME 0.06, AME–ALE 0.02, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.04. MOQ length 0.27, front width 0.20, back width 0.24. Epigynal plate rounded posteriorly; median ducts elbowed posteriorly, transverse anteriorly (figs. 111, 112). Leg spination: femur IV p0-1-1; tibia IV p1-1-1.

MATERIAL EXAMINED: GALAPAGOS ARCHIPELAGO: Isla Isabela, Apr. 27 (CAS), 1 ♀.

DISTRIBUTION: Known only from Isla Isabela, Galapagos.

NOTE: Bank's type specimen is lost and his illustration is insufficient for specific identification; his name is assigned to this species rather than either of the two following ones only because of its type locality.

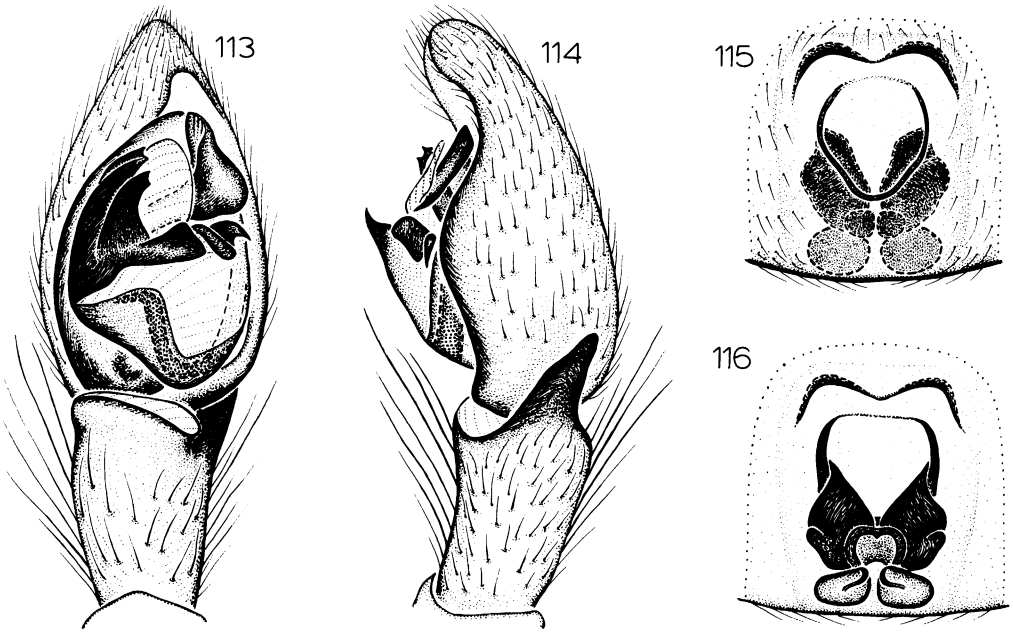
Camillina isla, new species

Figures 113–116

TYPES: Male holotype and female paratype from Isla Darwin, Galapagos Archipelago (January 29, 1964; D. Q. Cavagnaro), deposited in CAS.

DIAGNOSIS: *Camillina isla* can be recognized by the wrinkled embolar tip (fig. 113) and arched median epigynal ducts (fig. 116).

MALE: Total length 5.47, 5.83. Carapace 2.73, 2.90 long, 2.08, 2.22 wide. Femur II 1.79, 1.85 long. Eye sizes and interdistances: AME 0.10, ALE 0.12, PME 0.15, PLE 0.14; AME–AME 0.09, AME–ALE 0.03, PME–PME 0.02, PME–PLE 0.04, ALE–PLE 0.07. MOQ length 0.35, front width 0.29, back



FIGS. 113–116. *Camillina isla,* new species. 113. Palp, ventral view. 114. Palp, retrolateral view. 115. Epigynum, ventral view. 116. Epigynum, dorsal view.

width 0.32. Tip of embolus rounded, wrinkled (figs. 113, 114). Leg spination: femur IV p0-1-1, r0-1-1; tibia IV p1-1-1; metatarsi: II v1p-0-0; III v2-2-0.

FEMALE: Total length 6.14, 7.86. Carapace 2.64, 3.02 long, 2.12, 2.30 wide. Femur II 1.87, 2.02 long. Eye sizes and interdistances: AME 0.12, ALE 0.14, PME 0.17, PLE 0.15; AME–AME 0.06, AME–ALE 0.03, PME–PME 0.01, PME–PLE 0.06, ALE–PLE 0.07. MOQ length 0.38, front width 0.30, back width 0.35. Epigynal plate long, narrowed posteriorly; median ducts arched (figs. 115, 116). Leg spination: femur IV p0-1-1, r0-1-1; tibia IV p1-1-1; metatarsi: II v1p-0-0; III v2-1p-0.

MATERIAL EXAMINED: One female taken with the types (CAS).

DISTRIBUTION: Known only from Isla Darwin, Galapagos.

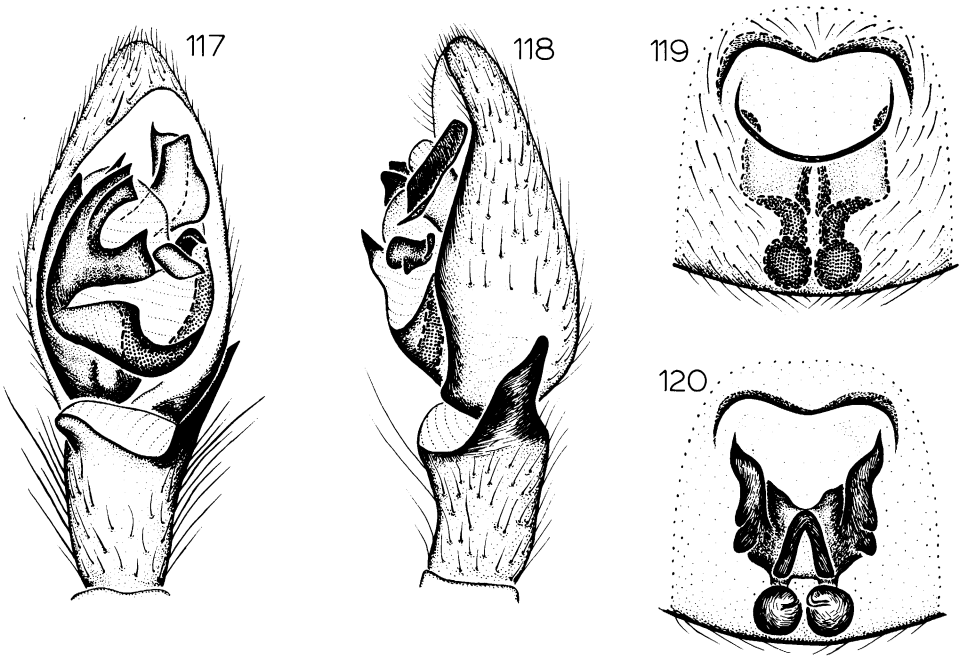
Camillina cruz, new species
Figures 117–120

TYPES: Male holotype and female paratype taken in a light trap at low elevation on Isla Santa Cruz, Galapagos Archipelago (September 1964; J. and N. Leleup), deposited in IRSN.

DIAGNOSIS: *Camillina cruz* can be recognized by the sharp prolateral point on the embolar tip (fig. 117) of males and the large, posteriorly rounded epigynal plate and massive median and lateral ducts (figs. 119, 120) of females

MALE: Total length 4.33. Carapace 2.05 long, 1.55 wide. Femur II 1.35 long. Eye sizes and interdistances: AME 0.06, ALE 0.08, PME 0.11, PLE 0.09; AME–AME 0.05, AME–ALE 0.03, PME–PME 0.01, PME–PLE 0.04, ALE–PLE 0.05. MOQ length 0.25, front width 0.17, back width 0.22. Terminal apophysis with three distal points, embolus with two, of which the prolateral is much longer and sharper (figs. 117, 118). Leg spination: femur IV p0-1-1; metatarsus III v2-1p-0.

FEMALE: Total length 3.67–6.23. Carapace 1.82–2.24 long, 1.21–1.82 wide. Femur II 1.13–1.57 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.14, PLE 0.11; AME–AME 0.06, AME–ALE 0.02, PME–



FIGS. 117–120. *Camillina cruz,* new species. 117. Palp, ventral view. 118. Palp, retrolateral view. 119. Epigynum, ventral view. 120. Epigynum, dorsal view.

PME 0.01, PME–PLE 0.05, ALE–PLE 0.05. MOQ length 0.29, front width 0.24, back width 0.29. Epigynal plate wide, short, posteriorly rounded; median ducts large, oblique, lateral ducts each with two lateral lobes (figs. 119, 120). Leg spination: tibia III r1-1-1.

OTHER MATERIAL EXAMINED: GALAPAGOS ARCHIPELAGO: *Isla Pinta:* south coast, Feb. 25, 1964 (D. Q. Cavagnaro, CAS), 1 ♀. *Santa Cruz:* Darwin Station, Oct. 1964, humus near coast (J. and N. Leleup, IRSN), 1 ♀.

DISTRIBUTION: Known only from Islas Pinta and Santa Cruz, Galapagos Archipelago (the single female from Isla Pinta has a slightly longer epigynal plate and may well prove to belong to a separate species when additional material becomes available).

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