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## A Revision of the Neotropical Spider Genus *Apodrassodes* (Araneae, Gnaphosidae)

NORMAN I. PLATNICK<sup>1</sup> AND MOHAMMAD U. SHADAB<sup>2</sup>

### ABSTRACT

A cladogram, key, diagnoses, descriptions, locality records, maps, illustrations, and scanning electron micrographs are provided for the six known species of *Apodrassodes*. Except for a disjunct and probably introduced population in Mexico and Central America, the genus is apparently restricted to temperate South America. *Drassodes araucanarius* Chamberlin, *Scotophaeus guatemalensis* F. O. P.-Cambridge, *Scotophaeus quilpuen-*

*sis* Simon, and *Syrisca conjuncta* (Banks) are transferred to *Apodrassodes*. Three specific names are newly synonymized: *A. conjuncta*, *A. singularis* Vellard, and *A. rouxi* (Mello-Leitão), all with *A. guatemalensis*. The males of *A. araucanarius* and *A. quilpuensis* are described for the first time. Three new species are described from Chile and adjacent Argentina.

### INTRODUCTION

This paper, the eighteenth in a series on the spider family Gnaphosidae, is devoted to the little-known Neotropical genus *Apodrassodes*. Although the genus was established more than a half-century ago by Vellard (1924), *Apodrassodes* has been mentioned in subsequent literature only once, by Mello-Leitão (1941), who correctly transferred into the genus a species he had previously described as a *Drassodes*. All the other previously described species here treated as members of *Apodrassodes* have been erroneously assigned to such groups as *Drassodes*, *Scotophaeus*, and *Syrisca*.

One factor certainly contributing to this

neglect is that Vellard's description of the genus referred only to somatic characters that are insufficient to diagnose the group. This is not surprising, as these spiders are rather generalized gnaphosids, and (like Vellard) we have found no somatic features unique to them. Study of both male and female genitalic structures, however, provides ample evidence that the group is a natural one. Males are unique in having an extremely elongated embolus (as in figs. 6, 7) originating prolaterally on the tegulum, extending retrolaterally beyond the palpal bulb itself, and terminating in a coil that is wrapped around the side of the cymbium. Interestingly, this

<sup>1</sup> Curator, Department of Entomology, American Museum of Natural History; Adjunct Professor, Department of Biology, City College, City University of New York.

<sup>2</sup> Scientific Assistant, Department of Entomology, American Museum of Natural History.

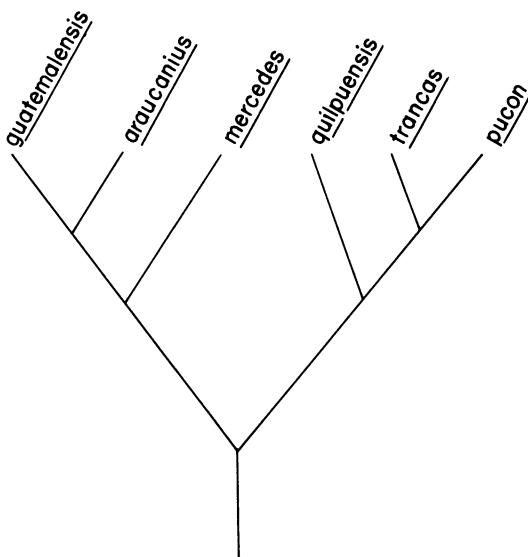


FIG. 1. Cladogram of *Apodrassodes* species; see text for defining characters of groups.

enormous embolus is not supported by a separate sclerite or conductor as in most gnaphosids, and the function of the conductor seems to be taken over instead by the distal tip of the tegulum, which is elaborated into a distinct projection, sometimes of considerable size (as in fig. 18). The female epigynum is equally characteristic, externally with a short, rounded scape situated over an anterior excavation (as in fig. 8) and internally with a massive midpiece bearing a pair of dorsal folds (as in fig. 9).

Details of genitalic morphology also allow the six species described below to be placed in two groups (fig. 1). In the *guatemalensis* group, the tip of the embolus is narrow and whiplike (as in fig. 14) and the dorsal folds of the epigynal midpiece are relatively small, being restricted to the posterior portion of the midpiece (as in fig. 17). In the *quilpuensis* group, by contrast, the tip of the embolus is wide and expanded (as in fig. 26) and the dorsal folds of the epigynal midpiece are massive and cover most of the main body of the midpiece (as in fig. 29). Within the species groups, *A. guatemalensis* seems more closely related to *A. araucanius* than to *A. mercedes*, as the first two species lack the tegular lobe which is present in both *A. mercedes* (fig. 18) and the *quilpuensis* group (figs. 22, 30) and which therefore seems plesiomorphic for the



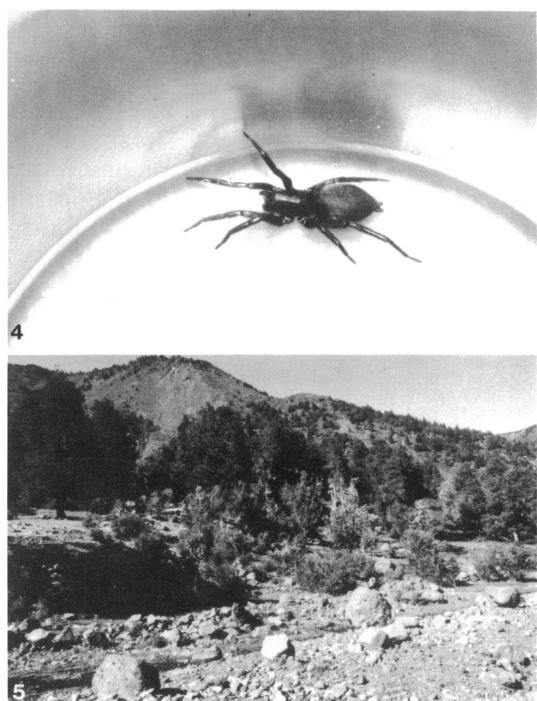
FIG. 2. South America, showing records of *Apodrassodes guatemalensis* (squares), *A. araucanius* (circles), and *A. mercedes* (triangles); open circle and open square in Brazil are literature records uncorroborated by specimens; open square in Paraguay is a country record only.

genus. Similarly, *A. trancas* and *A. pucon* seem more closely related to each other than to *A. quilpuensis* as their spermathecae are much more widely separated (figs. 32, 38) than are those of *A. quilpuensis* (fig. 24) or the *guatemalensis* group (figs. 8, 12, 20).

*Apodrassodes* seems to be restricted to relatively temperate areas of South America (figs. 2, 3). For example, *A. araucanius* is widely distributed from southern Argentina to central Peru, but its northern records are from relatively high in the Andes, at elevations between 2800 and 4300 meters. However, about half a dozen females of *Apodrassodes* have been collected at scattered localities in Mexico and Central America. They do seem to represent an established population, for the records span many years, from before the turn of the century to as re-



FIG. 3. Central Chile (from Atacama to Chiloé provinces) and adjacent Argentina, showing records of *Apodrassodes quilpuensis* (1), *A. trancas* (2), and *A. pucon* (3).



Figs. 4, 5. 4. *Apodrassodes quilpuensis* (Simon), female from El Canelo, Santiago province, Chile. 5. Habitat of *A. trancas*, new species, 2–5 km. east of El Abanico, Bío-Bío province, Chile.

cently as 1968. We have found no characters by which to distinguish these females from those of the type species, occurring in Brazil. Although it is of course possible that discovery of the male of the Central American population might provide evidence to the contrary, we regard that population as conspecific with the South American one and as probably being introduced. Both the Central and South American populations have been named (twice each, in fact); unfortunately, the northern population has the earliest name (*A. guatemalensis*).

Five of the six species occur in Chile, where the relatively large, dark spiders (fig. 4) live under rocks in habitats (fig. 5) similar to those of the gnaphosid genus *Echemoides* (Platnick and Shadab, 1983, figs. 4–8). Specimens of the two genera occur sympatrically at at least two sites in Santiago and Malleco provinces and may compete for prey of the same size range.

We thank the Eppley Foundation for Research for its generosity in supporting field

and laboratory studies of *Apodrassodes*, Drs. R. T. Schuh, L. E. Peña G., and T. Cekalovic for their help in collecting these spiders, the curators and collectors listed below for supplying specimens, Ms. J. Whelan and Ms. E. Polk for assistance with the scanning electron microscope, and Dr. C. D. Dondale for reviewing a draft of the manuscript. The format of the descriptions follows that of Platnick and Shadab (1975); all measurements are in millimeters.

#### COLLECTIONS EXAMINED

AMNH, American Museum of Natural History  
 BMNH, British Museum (Natural History), Mr. F. Wanless and Mr. P. Hillyard  
 CAS, California Academy of Sciences, Dr. W. Puławska  
 EPC, Exline-Peck Collection, Dr. W. B. Peck  
 MACN, Museo Argentino de Ciencias Naturales, Dr. E. A. Maury  
 MCZ, Museum of Comparative Zoology, Dr. H. W. Levi  
 MSU, Michigan State University, Dr. R. L. Fischer  
 NMB, Naturhistorisches Museum Basel, Dr. E. Sutter  
 REL, Dr. R. E. Leech  
 UCB, University of California at Berkeley, Dr. E. I. Schlinger and Mr. C. Griswold  
 USP, Museu de Zoologia, Universidade de São Paulo, the late Dr. H. Reichardt  
 ZMH, Zoologisches Museum, Universität Hamburg, Dr. G. Rack

#### *APODRASSODES VELLARD*

*Apodrassodes* Vellard, 1924, p. 165 (type species by original designation *Apodrassodes singularis* Vellard [=*A. guatemalensis* F. O. P.-Cambridge]). Roewer, 1954, p. 383. Bonnet, 1955, p. 360.

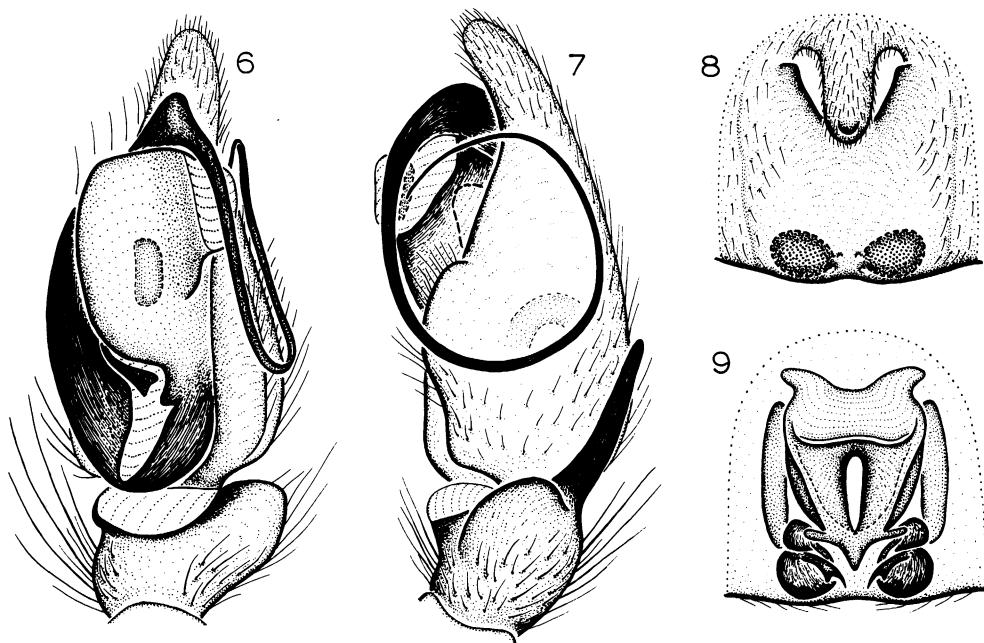
**DIAGNOSIS:** Specimens of *Apodrassodes* can be distinguished from all other gnaphosids by the genitalic features discussed in the Introduction.

**DESCRIPTION:** Total length 6.5–14.7. Carapace oval in dorsal view, rounded anteriorly, truncated posteriorly, widest behind coxae II, slightly narrowed opposite palpi, chestnut brown, darkest anteriorly, with scattered erect black setae densest on posterior declivity and long black setae in ocular and clypeal areas; cephalic area slightly elevated; thoracic

groove long, deep. From front, both eye rows slightly procurved; from above, anterior row slightly recurved, posterior row slightly procurved; AME circular, dark, PME irregularly rectangular, light, ALE and PLE oval, light; eyes subequal in size; AME separated by roughly their diameter, by roughly their radius from ALE; PME separated by roughly their diameter, farther from PLE; lateral eyes of each side separated by almost their diameter; MOQ usually longer than wide, widest in front. Clypeal height greater than AME diameter. Chelicerae usually with three promarginal teeth and two or three retromarginal teeth. Endites long, sinuous, obliquely depressed, with scopular area extending half of width; labium elongate, keg-shaped; sternum long, rebordered, with extensions to and between coxae; coxae IV almost touching. Leg formula 4123. Typical leg spination pattern (only surfaces bearing spines listed): femora: I d1-1-0, p0-0-1; II d1-1-0, p0-1-1; III d1-1-1, p0-1-1, r0-1-1; IV d1-1-0, p0-1-1, r0-1-1; patellae III, IV r0-1-0; tibiae: I v1p-1-2; II v0-1p-1p; III p1-1-1, v2-2-2, r0-1-1; IV p1-1-1, v2-2-2, r1-0-1; metatarsi: I, II v2-0-0; III, IV p1-2-2, v2-2-2, r1-2-2. Femora and patellae light brown, distal segments slightly darker; tarsi and distal portions of metatarsi thickly scopulate; tarsi with two dentate claws and claw tufts; trochanters slightly notched; preening combs lacking; all segments with very long setae; distal segments with two rows of dorsal trichobothria. Abdomen brownish gray with three pairs of orange muscle impressions, coated with recumbent white setae, males with orange anterior scutum; six long spinnerets, anteriors sclerotized, separated at base by their width. Male palp with long embolus coiling around cymbium, supported by tegular projection. Epigynum with short scape protruding over anterior excavation; internally with midpiece bearing pair of dorsal folds.

#### KEY TO SPECIES

1. Tip of embolus narrow, whiplike (figs. 7, 11, 14, 19); dorsal folds of epigynal midpiece relatively small (figs. 9, 13, 17, 21) . . . . . 2
- Tip of embolus wide, expanded (figs. 23, 26, 31, 34); dorsal folds of epigynal midpiece relatively large (figs. 25, 29, 33, 37, 39) . . . . . 4



Figs. 6–9. *Apodrassodes guatemalensis* (F. O. P.-Cambridge). 6. Palp, ventral view. 7. Palp, retro-lateral view. 8. Epigynum, ventral view. 9. Epigynum, dorsal view.

- 2. Retrolateral tibial apophysis relatively long (fig. 7); epigynal scape relatively long, narrow (fig. 8) ..... *guatemalensis*
- Retrolateral tibial apophysis relatively short (figs. 11, 15, 19); scape relatively short, wide (figs. 12, 16, 20) ..... 3
- 3. Tegular projection and embolus relatively long (figs. 18, 19); spermathecae relatively large (figs. 20, 21) ..... *mercedes*
- Tegular projection and embolus relatively short (figs. 10, 11); spermathecae relatively small (figs. 12, 13) ..... *araucanius*
- 4. Males (those of *pucon* unknown) ..... 5
- Females ..... 6
- 5. Tip of embolus as in figures 23, 26 ..... *quilpuensis*
- Tip of embolus as in figures 31, 34 ..... *trancas*
- 6. Portion of midpiece exposed between dorsal folds relatively small (figs. 25, 29) ..... *quilpuensis*
- Portion of midpiece exposed between dorsal folds relatively large (figs. 33, 39) ..... 7
- 7. Anterior epigynal excavation relatively large (figs. 32, 36); spermathecae relatively large (fig. 33) ..... *trancas*
- Anterior epigynal excavation relatively small (fig. 38); spermathecae relatively small (fig. 39) ..... *pucon*

*Apodrassodes guatemalensis*  
(F. O. P.-Cambridge),  
new combination  
Figures 6–9

*Scotophaeus guatemalensis* F. O. P.-Cambridge, 1899, p. 58, pl. 5, fig. 1 (female holotype from Guatemala, no specific locality, in BMNH, examined). Roewer, 1954, p. 437. Bonnet, 1958, p. 3968.

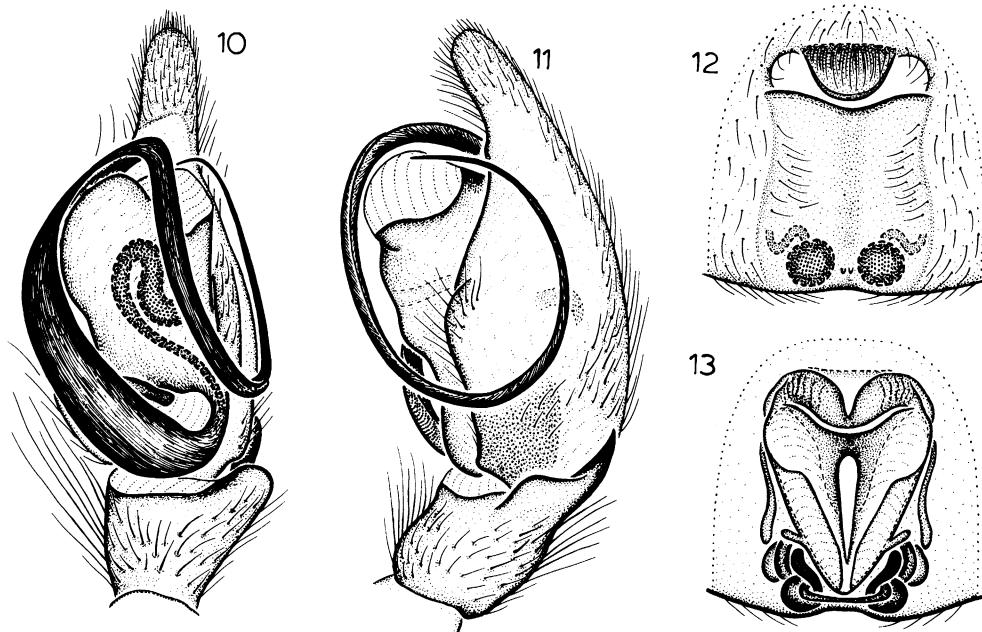
*Teminius conjuncta* Banks, 1914, p. 676, fig. 2 (female holotype from Santa María de Dota, San José, Costa Rica, in MCZ, examined). Roewer, 1954, p. 407. NEW SYNONYMY.

*Apodrassodes singularis* Vellard, 1924, p. 166, figs. 50a-d (male holotype from Campo Grande, Mato Grosso, Brazil, in Instituto Vital Brazil, lost [according to letter from M. G. Pires H. of the Instituto]). Roewer, 1954, p. 383. Bonnet, 1955, p. 360. NEW SYNONYMY.

*Drassodes rouxi* Mello-Leitão, 1939, p. 79, fig. 65 (female holotype from Paraguay, no specific locality, in NMB, examined). Bonnet, 1956, p. 1588. NEW SYNONYMY.

*Apodrassodes rouxi*: Mello-Leitão, 1941, p. 167.

*Apodrassus rouxi*: Roewer, 1954, p. 383 (*lapsus*).  
*Syrisca conjuncta*: Bonnet, 1958, p. 4227.



Figs. 10–13. *Apodrassodes araucanius* (Chamberlin). 10. Palp, ventral view. 11. Palp, retrolateral view. 12. Epigynum, ventral view. 13. Epigynum, dorsal view.

**DIAGNOSIS:** *Apodrassodes guatemalensis* seems closest to *A. araucanius* but can be distinguished by the longer retrolateral tibial apophysis (fig. 7) of males and the longer epigynal scape (fig. 8) of females.

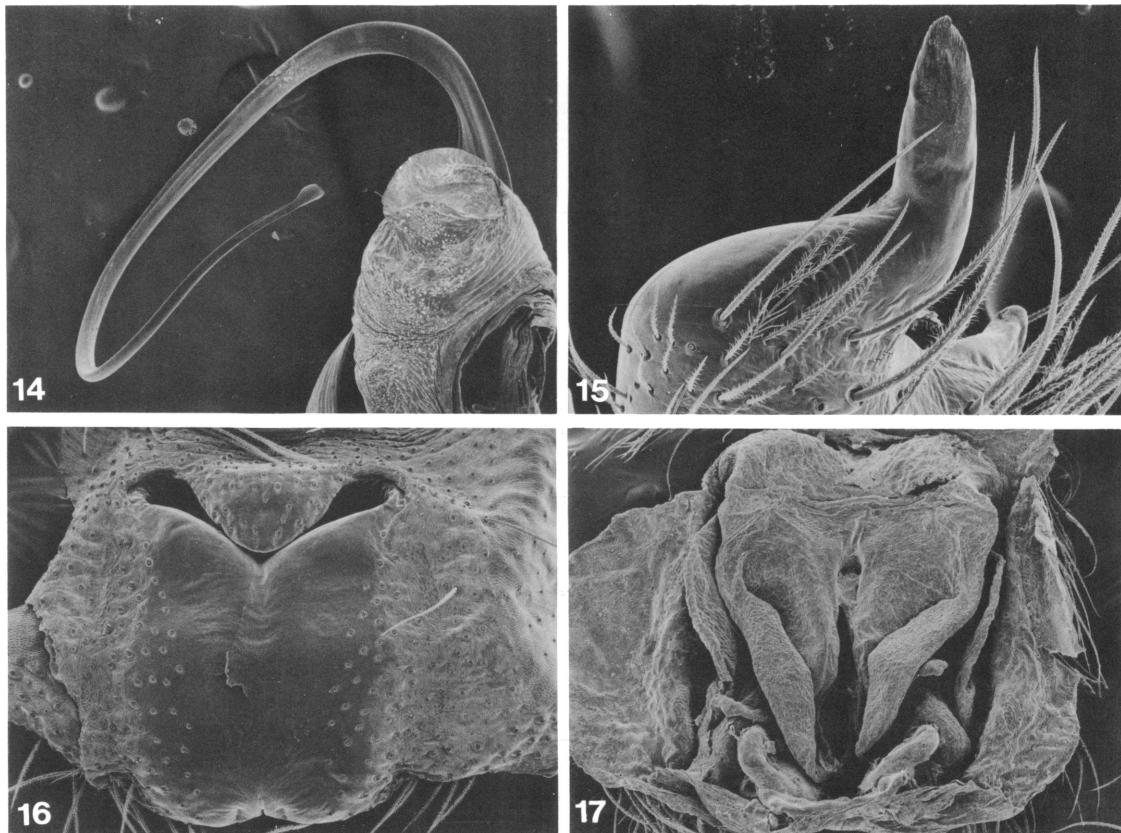
**MALE:** Total length 8.01, 12.67. Carapace 3.97, 6.16 long, 3.01, 4.46 wide. Femur II 2.91, 4.00 long. Eye sizes and interdistances: AME 0.20, ALE 0.15, PME 0.16, PLE 0.17; AME-AME 0.16, AME-ALE 0.05, PME-PME 0.15, PME-PLE 0.29, ALE-PLE 0.12. MOQ length 0.58, front width 0.56, back width 0.47. Embolus wide at base (fig. 6), retrolateral tibial apophysis long (fig. 7). Leg spination: femur I p0-1-1; tibiae: II v0-2-2; III, IV r1-1-1; metatarsus III r1-1-2.

**FEMALE:** Total length  $12.43 \pm 2.14$ . Carapace  $5.75 \pm 0.93$  long,  $4.26 \pm 0.69$  wide. Femur II  $3.56 \pm 0.46$  long. Eye sizes and interdistances: AME 0.29, ALE 0.21, PME 0.26, PLE 0.21; AME-AME 0.22, AME-ALE 0.13, PME-PME 0.28, PME-PLE 0.53, ALE-PLE 0.28. MOQ length 0.74, front width 0.80, back width 0.70. Epigynal scape long, narrow (fig. 8), spermathecae large, oval, approximate (fig. 9). Leg spina-

tion: femora: I p0-1-2; II r0-1-0; tibiae: II v1r-2-2; IV r1-1-1; metatarsi: I vlp-0-0; III r1-1-2.

**MATERIAL EXAMINED:** BRAZIL: Rio Grande Sul: São Leopoldo, Aug. 27, 1966 (P. Biasi, USP), 1f. Santa Catarina: Pinhal, Jan. 1948 (A. Maller, AMNH), 1f. São Paulo: Mogi das Cruzes, Apr. 1942 (Meissner, USP), 1m; São Paulo, Mar. 11, 1941 (F. Lane, USP), 1f; Serra da Bocaina, Apr. 1924 (Luederwaldt, Spitz, USP), 1m. COSTA RICA: San José: San Isidro del General, elevation 600–1200 m. (D. Rounds, MCZ), 1f; Santa María de Dota (Tristan, MCZ), 1f (type). GUATEMALA: no specific locality (Sargent, BMNH), 1f (type). MEXICO: Chiapas: San Cristóbal de las Casas, Mar. 1968 (W. Kauffman, REL), 1f. Nayarit: Mecatán, elevation 800 ft., May 23, 1949 (G. M. Brandt, AMNH), 1f. San Luis Potosí: 26 mi. E Ciudad del Maíz, Nov. 19, 1948 (CAS), 1f. PARAGUAY: no specific locality, 1895 (C. Ternetz, NMB), 1f (type).

**DISTRIBUTION:** Paraguay and southeastern Brazil (fig. 2); Mexico south to Costa Rica (introduced?). Mello-Leitão's (1941) record



Figs. 14–17. *Apodrassodes araucanius* (Chamberlin). 14. Embolus, retrolateral view. 15. Retrolateral tibial apophysis, retrolateral view. 16. Epigynum, ventral view. 17. Epigynum, dorsal view.

of this species from La Caldera, Salta, Argentina, was probably based on a misidentified specimen of *A. araucanius*.

**SYNONYMY:** The three redescriptions can be attributed to generic misplacements.

*Apodrassodes araucanius* (Chamberlin),  
new combination  
Figures 10–17

*Drassodes araucanius* Chamberlin, 1916, p. 219, pl. 11, figs. 4–8, pl. 12, figs. 1, 2 (female holotype from Cuzco, Cuzco, Peru, in MCZ, examined). Roewer, 1954, p. 396. Bonnet, 1956, p. 1561.

**DIAGNOSIS:** *Apodrassodes araucanius* seems closest to *A. guatemalensis* but can be distinguished by the shorter retrolateral tibial apophysis (figs. 11, 15) of males and the shorter epigynal scape (figs. 12, 16) of females.

**MALE:** Total length  $7.30 \pm 0.66$ . Carapace  $3.55 \pm 0.30$  long,  $2.55 \pm 0.23$  wide. Femur II  $2.13 \pm 0.24$  long. Eye sizes and interdistances: AME 0.12, ALE 0.13, PME 0.13, PLE 0.13; AME–AME 0.16, AME–ALE 0.07, PME–PME 0.10, PME–PLE 0.21, ALE–PLE 0.15. MOQ length 0.43, front width 0.40, back width 0.36. Base of embolus covering tip of median apophysis in ventral view (fig. 10), tip of embolus making almost complete circle (figs. 11, 14), retrolateral tibial apophysis short (figs. 11, 15). Leg spination: femur II p0-1-2; patella IV r0-0-0; tibiae: I v1r-2-2; II v2-2-2; metatarsi I, II v2-2-0.

**FEMALE:** Total length  $9.35 \pm 1.51$ . Carapace  $4.21 \pm 0.65$  long,  $3.03 \pm 0.47$  wide. Femur II  $2.49 \pm 0.39$  long. Eye sizes and interdistances: AME 0.15, ALE 0.12, PME 0.14, PLE 0.12; AME–AME 0.13, AME–

ALE 0.04, PME-PME 0.08, PME-PLE 0.20, ALE-PLE 0.15. MOQ length 0.46, front width 0.43, back width 0.36. Anterior epigynal excavation broad (figs. 12, 16), spermathecae small, approximate (figs. 13, 17). Leg spination: femur IV r0-0-1; patella IV r0-0-0; tibiae: I v0-0-0; II v0-0-1p; metatarsus II v2-1p-0.

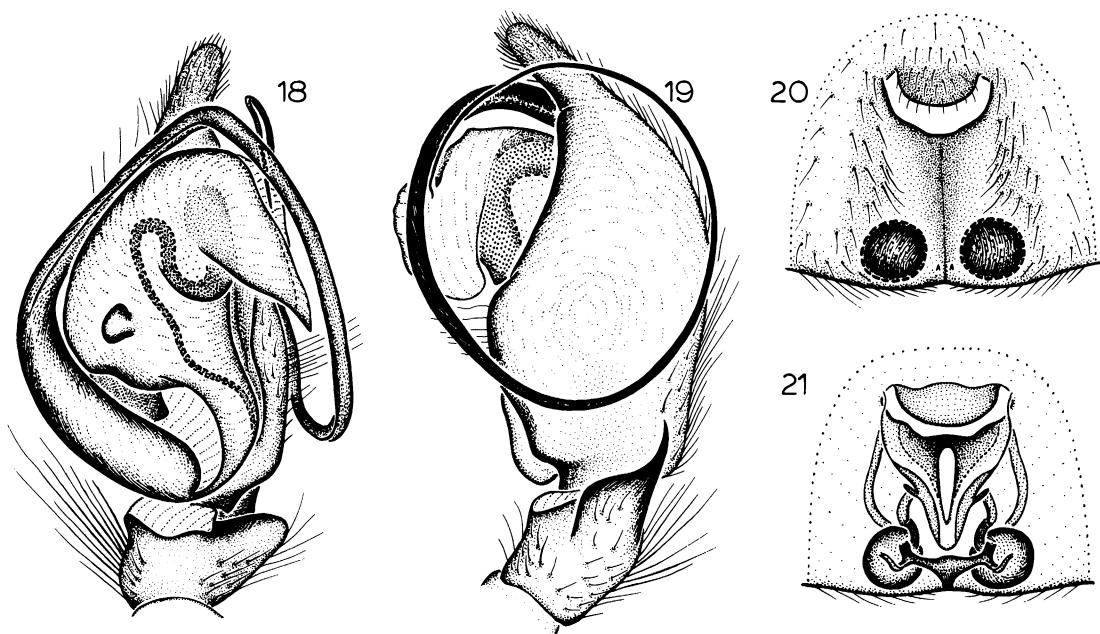
MATERIAL EXAMINED: ARGENTINA: *Buenos Aires*: Carmen de Patagones, Feb. 1975 (E. Maury, MACN), 1f; La Petrona, Jan. 1975 (E. Maury, MACN), 1f. *Chubut*: coast of Golfo San José, Feb. 1974 (J. Frick, MCZ), 1f; Epuyen, Nov. 18, 1962 (A. Kovács, AMNH), 3f; Puerto Lobos, Jan.-Mar. 1975 (E. Maury, MACN), 6f. *Córdoba*: Calamuchita, Dec.-Mar. 1950-1974 (J. M. Viana, MACN), 5f. *Jujuy*: Cochinoca, Jan. 1966 (E. Maury, MACN), 7m, 4f; 40 km. SW Tres Cruces, elevation 4000 m., Feb. 17, 1951 (E. S. Ross, Michelbacher, CAS), 3f. *La Pampa*: Buta Ranquil, Nov. 1, 1975 (E. Maury, A. Toth, MACN), 1f; Lihuel-Calel, Nov. 1969 (E. Maury, MACN), 1f; Sierra Lihuel-Calel, Nov. 1972 (E. Maury, A. Toth, MACN), 1m. *Mendoza*: Coipolauque, Jan. 1975 (E. Maury, MACN), 1f; Nihuel, Jan. 1975 (E. Maury, MACN), 1f. *Río Negro*: Campana Mahuida (MACN), 1f; Ñe-luan, Jan. 1975 (E. Maury, MACN), 1f; Norquincó, July 3-Aug. 27, 1962-1966 (A. Kovács, AMNH), 1m, 6f; Sierra Grande, Jan. 1975 (E. Maury, MACN), 2f. *San Luis*: Carolina, Nov. 1970 (J. M. Viana, MACN), 1m, 1f. BOLIVIA: *Cochabamba*: NE Sacaca, elevation 3300 m., Jan. 29, 1976 (L. E. Peña, AMNH), 1m, 4f. *La Paz*: 70 mi. S La Paz, Feb. 25, 1951 (E. S. Ross, Michelbacher, CAS), 1m. *Oruro*: La Pas, elevation 3900 m., Jan. 24, 1976 (N. Chlamar, AMNH), 1m, 1f. *Potosí*: Betauros, elevation 2900-3000 m., Feb. 24, 1976 (L. E. Peña, AMNH), 2f; 30 mi. S El Puente, Feb. 19, 1951 (E. S. Ross, Michelbacher, CAS), 1f; 5 mi. N Ichcachi, Feb. 18, 1951 (E. S. Ross, Michelbacher, CAS), 1m, 3f; 30 mi. N Potosí, elevation 13,000 ft., Feb. 20-22, 1951 (E. S. Ross, Michelbacher, CAS), 2m, 5f; 45 mi. S Potosí, Feb. 20, 1951 (E. S. Ross, Michelbacher, CAS), 1f; 50 mi. N Potosí, Feb. 22, 1951 (E. S. Ross, Michelbacher, CAS), 1f; 45 km. W Ravelo, elevation 3900 m., Mar. 7, 1976 (L.

E. Peña, AMNH), 4f. CHILE: *Tarapacá*: Mamiña, Cordillera Iqueque, July 20, 1967 (L. E. Peña, MCZ), 1f. PERU: *Ancash*: Conococha, elevation 4000 m., under rocks (O. F. Franke, AMNH), 1m, 1f; Recuay, elevation 3400 m., May 1941 (W. Weyrauch, EPC), 2f. *Apurímac*: 37 km. S Andahuaylas, Mar. 6, 1951 (E. S. Ross, Michelbacher, CAS), 2m, 9f. *Cuzco*: Cuzco, elevation 11,500 ft., July 1911 (MCZ), 1f (type), June 7-8, 1964 (B. Malkin, AMNH), 1f, elevation 3300 m., Sept. 29, 1964 (C. Porter, MCZ), 1f, elevation 3200 m., Feb. 1965 (F. Carrasco, MCZ), 1f; 45 mi. S Cuzco, Mar. 2, 1951 (E. S. Ross, Michelbacher, CAS), 2f; Hacienda Llapana, Ocongate, elevation 11,000 ft., Apr. 6-11, 1947 (J. C. Pallister, AMNH), 1f; La Raya, elevation 4314 m., Mar. 1, 1951 (E. S. Ross, Michelbacher, CAS), 1f; Machupicchu, Apr. 8-9, 1980 (R. A. Mendez, AMNH), 2f; Sicuani, elevation 3000 m., Mar. 1, 1951 (E. S. Ross, Michelbacher, CAS), 4f; Urubamba, Jan. 1965 (F. Carrasco, MCZ), 2f, elevation 2800 m., arid, stones, shrubs, Feb. 18, 1965 (H. W. Levi, MCZ), 3f. *Junín*: Carhuamayo, elevation 4150 m., July 1947 (W. Weyrauch, EPC), 1f; Lago de Junín, May 1914 (M. P. Anderson, AMNH), 1m, 2f. *Puno*: 20 mi. N Desaguadero, Feb. 27, 1951 (E. S. Ross, Michelbacher, CAS), 1f; Puno (MCZ), 2f, elevation 4000 m., 1939 (Soukup, AMNH), 1f, elevation 4000 m., under stone, mountain slope, Nov. 11, 1977 (P. T. Lehtinen, AMNH), 1m; Puno, Lago Titicaca, elevation 3900 m., June-Nov. 1947 (W. Weyrauch, EPC), 4f; 8.7 km. NW Puno, under rock, Apr. 5, 1978 (G. Noonan, T. Moffet, AMNH), 2f; 60 km. N Puno, altiplano, Feb. 28, 1951 (E. S. Ross, Michelbacher, CAS), 3f; Sillustani Ruins, near Puno, under stones, Jan. 30, 1973 (A. Moreton, MCZ), 2f.

DISTRIBUTION: Peru south to southern Argentina (fig. 2).

#### *Apodrassodes mercedes*, new species Figures 18-21

TYPES: Female holotype taken under a rock at an elevation of 520 m., 21 km. east of Villa Mercedes, Bío-Bío, Chile (November 21, 1981; N. I. Platnick and R. T. Schuh), deposited in AMNH, and male paratype from



FIGS. 18–21. *Apodrassodes mercedes*, new species. 18. Palp, ventral view. 19. Palp, retrolateral view. 20. Epigynum, ventral view. 21. Epigynum, dorsal view.

an elevation of 1400 m. at El Purgatorio, Las Trancas, Chillán, Ñuble, Chile (March 2–3, 1968), deposited in MCZ.

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

**DIAGNOSIS:** *Apodrassodes mercedes* seems closest to *A. guatemalensis* and *A. araucanius* but can be distinguished by the distally prolonged tegulum (fig. 18) of males and the posteriorly sinuous midpiece (fig. 21) of females.

**MALE:** Total length 10.21. Carapace 4.95 long, 3.67 wide. Femur II 3.35 long. Eye sizes and interdistances: AME 0.21, ALE 0.15, PME 0.16, PLE 0.16; AME–AME 0.18, AME–ALE 0.07, PME–PME 0.20, PME–PLE 0.33, ALE–PLE 0.20. MOQ length 0.61, front width 0.60, back width 0.52. Tegulum prolonged distally (fig. 18), embolus making complete coil (fig. 19). Leg spination: femora: I p0-1-1; II p0-2-2; tibiae: I, II v2-2-2; III p0-1-1, v1r-2-2; metatarsi: II vlr-0-0; III r1-1-2.

**FEMALE:** Total length 9.72. Carapace 4.71

long, 3.51 wide. Femur II 2.89 long. Eye sizes and interdistances: AME 0.15, ALE 0.15, PME 0.23, PLE 0.17; AME–AME 0.23, AME–ALE 0.11, PME–PME 0.10, PME–PLE 0.42, ALE–PLE 0.23. MOQ length 0.64, front width 0.53, back width 0.56. Spermathecae large, approximate (fig. 20), midpiece small, posterior half sinuous, narrowed (fig. 21). Leg spination: femur IV r0-0-1; patella IV r0-0-0; tibia I v0-0-1p.

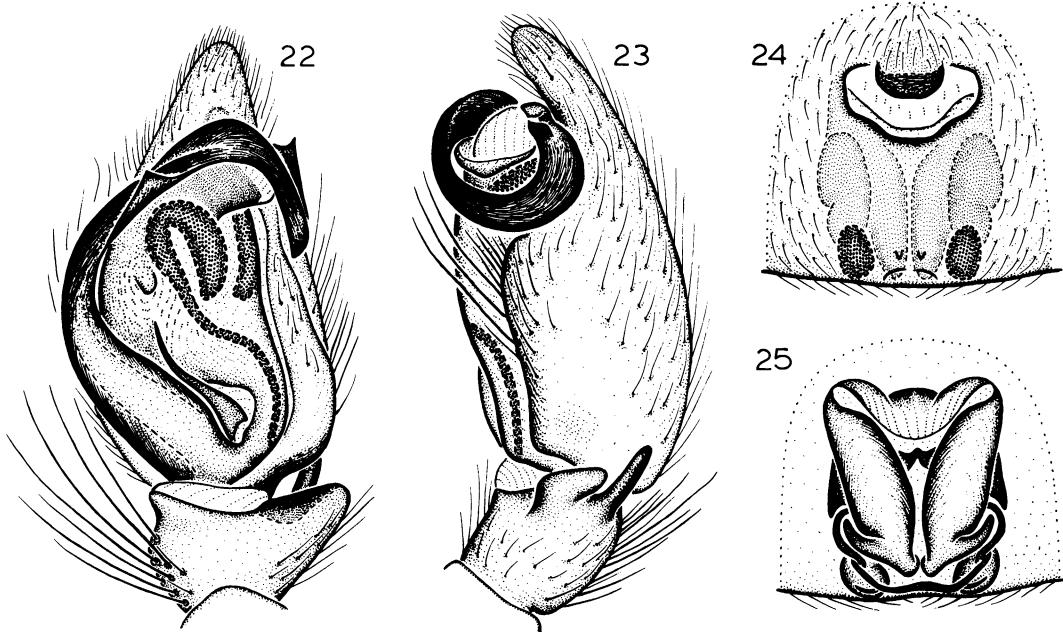
**MATERIAL EXAMINED:** Only the types.

**DISTRIBUTION:** Known only from Bío-Bío and Ñuble provinces, Chile (fig. 2).

*Apodrassodes quilpuensis* (Simon),  
new combination  
Figures 22–29

*Scotophaeus quilpuensis* Simon, 1902, p. 12 (female holotype from Quilpué, Valparaíso, Chile, in ZMH, examined). Roewer, 1954, p. 437. Bonnet, 1958, p. 3972.

**DIAGNOSIS:** *Apodrassodes quilpuensis* seems closest to *A. trancas* and *A. pucon* but can be



FIGS. 22–25. *Apodrassodes quilpuensis* (Simon). 22. Palp, ventral view. 23. Palp, retrolateral view. 24. Epigynum, ventral view. 25. Epigynum, dorsal view.

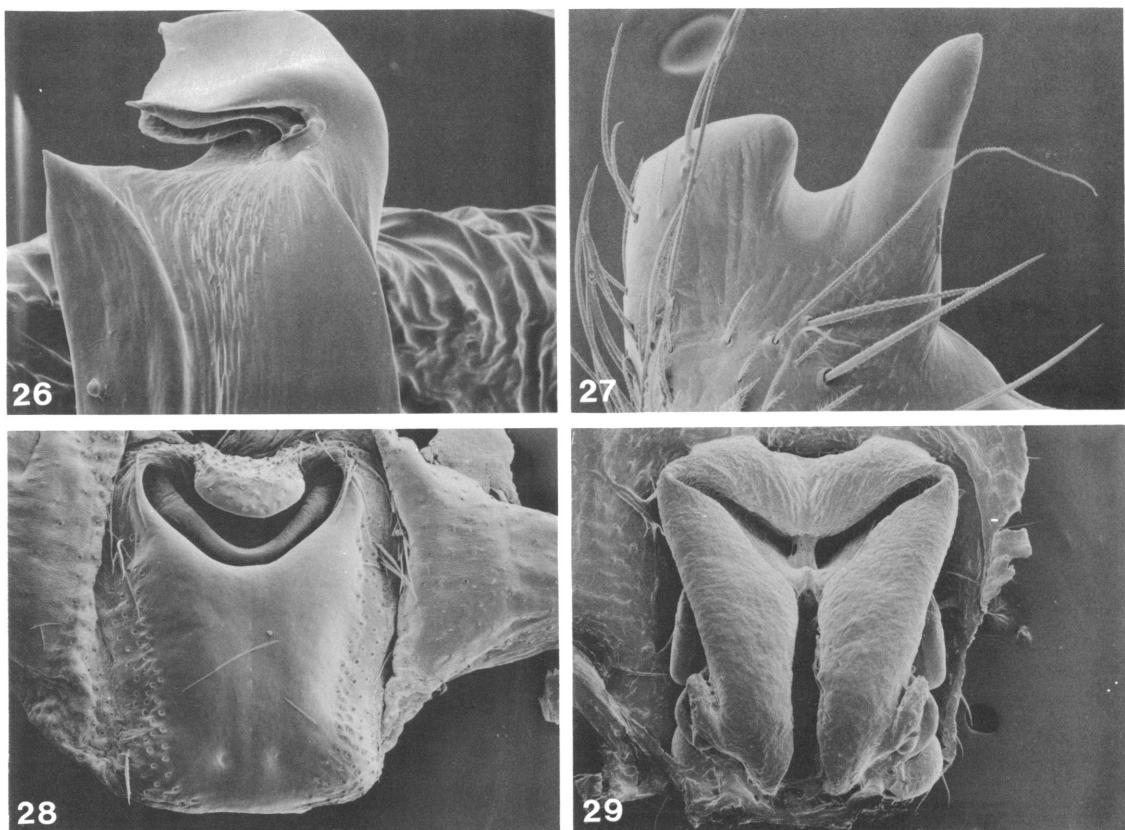
distinguished by the shape of the tip of the embolus (figs. 23, 26) of males and the small portion of the midpiece exposed (in dorsal view) between the dorsal folds of the midpiece (figs. 25, 29) of females.

**MALE:** Total length 8.57–10.39. Carapace 4.36–5.13 long, 3.31–3.61 wide. Femur II 3.06–3.47 long. Eye sizes and interdistances: AME 0.15, ALE 0.17, PME 0.17, PLE 0.16; AME–AME 0.18, AME–ALE 0.11, PME–PME 0.13, PME–PLE 0.30, ALE–PLE 0.14. MOQ length 0.56, front width 0.48, back width 0.47. Median apophysis elongated (fig. 22), tip of embolus with two flanges (figs. 23, 26), retrolateral tibial apophysis distinctly bifid (fig. 27). Leg spination: femora: I p0-1-1; III d1-1-0; tibia II p0-0-1, v2-2-2; metatarsus II p0-1-0.

**FEMALE:** Total length  $10.34 \pm 1.29$ . Carapace  $4.37 \pm 0.57$  long,  $3.13 \pm 0.41$  wide. Femur II  $2.78 \pm 0.34$  long. Eye sizes and interdistances: AME 0.13, ALE 0.13, PME 0.15, PLE 0.13; AME–AME 0.14, AME–ALE 0.05, PME–PME 0.12, PME–PLE 0.25, ALE–PLE 0.16. MOQ length 0.51, front

width 0.40, back width 0.42. Anterior epigynal excavation V-shaped (figs. 24, 28), dorsal folds of midpiece almost completely covering body of midpiece (figs. 25, 29). Leg spination: femur III d1-1-0; patella IV r0-0-0; tibia I v0-0-0; metatarsus III r0-1-2.

**MATERIAL EXAMINED:** CHILE: Aconcagua: Guardia Vieja, Feb. 4, 1951 (E. S. Ross, Michelbacher, CAS), 1m, 1f. Coquimbo: Dualle, Sept. 17–21, 1971 (L. E. Peña, AMNH), 1m, 1f; Hacienda Illapel, elevation 600–900 m., Oct. 19, 1966 (E. I. Schlinger, M. E. Irwin, L. E. Peña, UCB), 2f. Santiago: 3 km. N El Arrayán, elevation 1150 m., Sept. 7, 1966 (E. I. Schlinger, M. E. Irwin, UCB), 5f; El Canelo, elevation 950 m., Sept. 8, 1966 (E. I. Schlinger, M. E. Irwin, UCB), 1m, 7f, elevation 825 m., under rocks, wooded mountainside, Nov. 11, 1981 (N. I. Platnick, R. T. Schuh, AMNH), 1m, 1f; Lo Valdés, elevation 2000 m. (G. Mann, AMNH), 3f; Quebrada de La Plata, La Rinconada, near Maipú, elevation 700 m., July 26–Oct. 3, 1966 (E. I. Schlinger, M. E. Irwin, UCB), 1m, 10f; Quilicura, Aug.–Oct. 1979 (L. E. Peña,



Figs. 26–29. *Apodrassodes quilpuensis* (Simon). 26. Tip of embolus, retrolateral view. 27. Retrolateral tibial apophysis, retrolateral view. 28. Epigynum, ventral view. 29. Epigynum, dorsal view.

AMNH), 1m, 2f; Santiago, Jan. 1970 (MCZ), 1f. *Valparaíso*: Quipué, June 11, 1893 (Micheelsen, ZMH), 1f (type).

DISTRIBUTION: Coquimbo to Santiago provinces, Chile (fig. 3).

#### *Apodrassodes trancas*, new species Figures 30–37

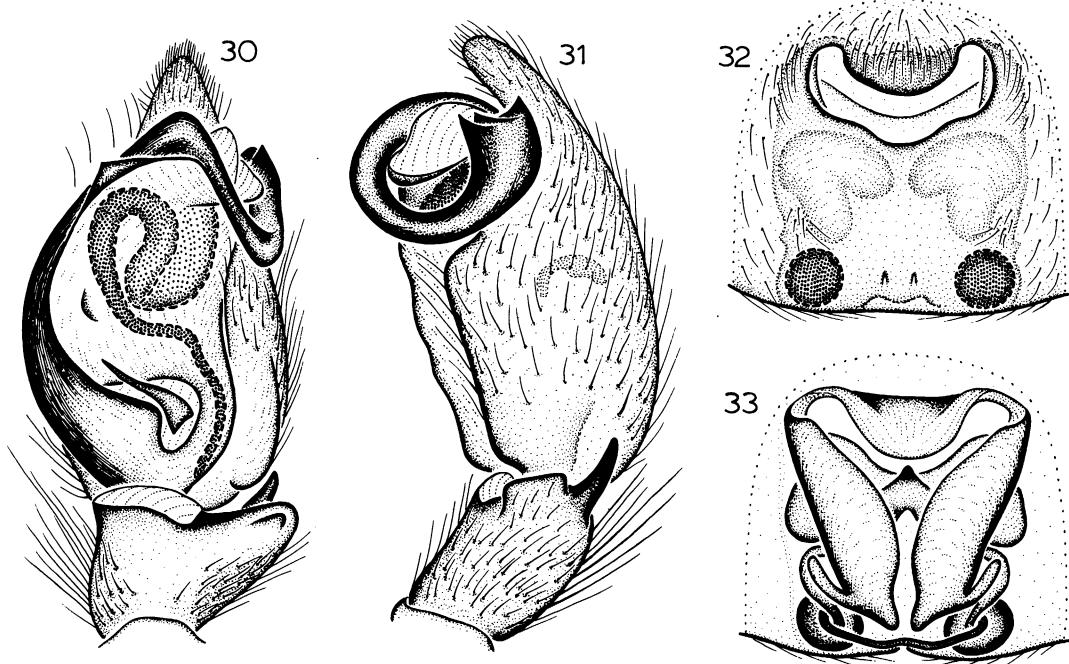
TYPES: Male holotype and female paratype taken under rocks in a scrubby valley at an elevation of 1370 m., 4 km. west of Las Trancas, Ñuble, Chile (November 15, 1981, male matured January 5, 1982; N. I. Platnick and R. T. Schuh), deposited in AMNH.

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

DIAGNOSIS: *Apodrassodes trancas* seems

closest to *A. pucon* but can be recognized by the broad, sharply pointed tip of the embolus (figs. 31, 34) of males and the wider epigynal scape and anterior excavation (figs. 32, 36) of females.

MALE: Total length  $9.06 \pm 1.57$ . Carapace  $4.27 \pm 0.56$  long,  $3.24 \pm 0.42$  wide. Femur II  $3.08 \pm 0.41$  long. Eye sizes and interdistances: AME 0.12, ALE 0.13, PME 0.14, PLE 0.13; AME-AME 0.16, AME-ALE 0.05, PME-PME 0.12, PME-PLE 0.24, ALE-PLE 0.16. MOQ length 0.46, front width 0.40, back width 0.40. Median apophysis elongated (fig. 30), tip of embolus broad, sharply pointed (figs. 31, 34), retrolateral tibial apophysis distinctly bifid (fig. 35). Leg spination: femora: III d1-1-0; IV r0-0-1; tibia II p0-0-1, v1r-2-2.

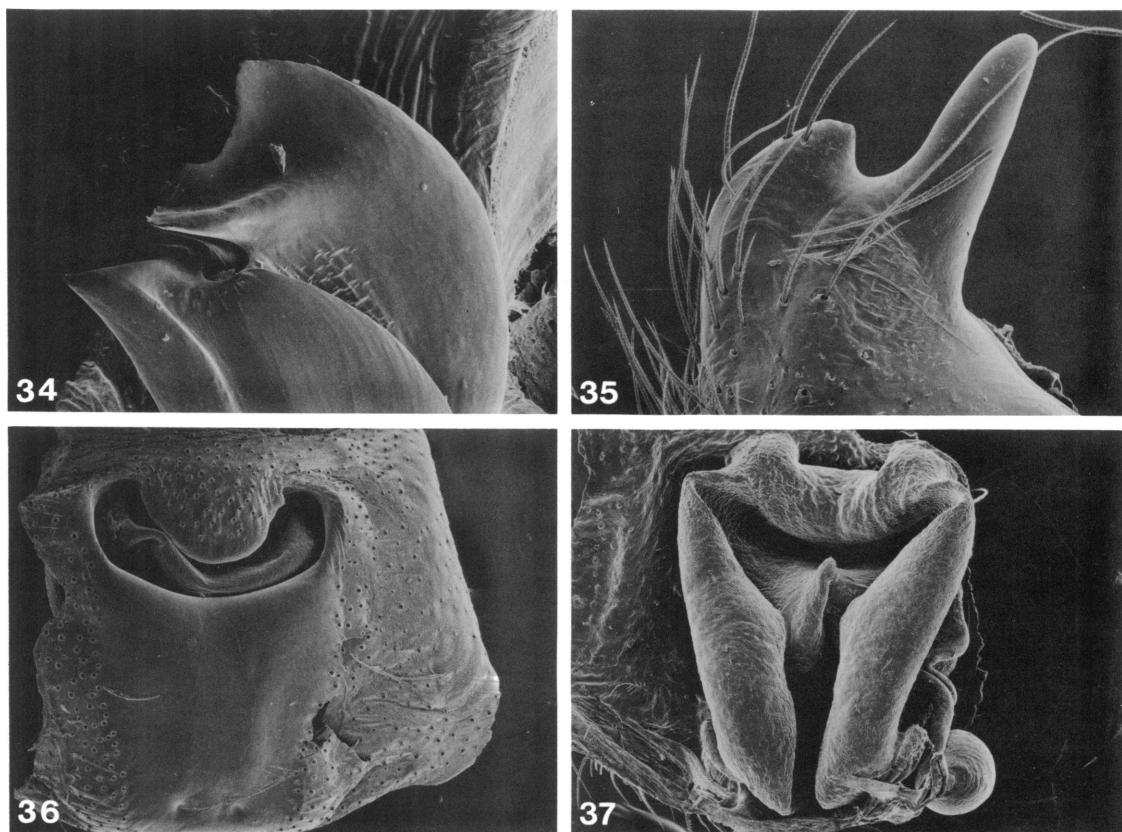


FIGS. 30–33. *Apodrassodes trancas*, new species. 30. Palp, ventral view. 31. Palp, retrolateral view. 32. Epigynum, ventral view. 33. Epigynum, dorsal view.

**FEMALE:** Total length  $10.99 \pm 1.10$ . Carapace  $4.85 \pm 0.35$  long,  $3.58 \pm 0.27$  wide. Femur II  $3.11 \pm 0.22$  long. Eye sizes and interdistances: AME 0.19, ALE 0.18, PME 0.16, PLE 0.16; AME–AME 0.18, AME–ALE 0.07, PME–PME 0.22, PME–PLE 0.32, ALE–PLE 0.22. MOQ length 0.61, front width 0.56, back width 0.54. Epigynal scape and anterior excavation widened (figs. 32, 36), body of midpiece bearing sharp antero-median projection (figs. 33, 37). Leg spination: femora: III d1-1-0; IV r0-0-1; tibiae: I v1p-0-1p; IV r1-1-1; metatarsus III r1-1-2.

**OTHER MATERIAL EXAMINED:** ARGENTINA: Chubut: Lago Puelo, Oct. 5, 1961 (A. Kovács, AMNH), 1f; Río Turbio, Jan. 12, 1962 (A. Kovács, AMNH), 1m, July 11–Sept. 29, 1962 (A. Kovács, AMNH), 5f. Neuquén: Lago Aluminé, Feb. 1974 (E. Maury, MACN), 1m, 2f (penultimate); Pucará, Feb. 1958 (Navas, MACN), 1m. Río Negro: El Bolsón, under stones, Feb. 28–Oct. 24, 1956–1962 (A. Kovács, AMNH), 6m, 18f; Los Re-

pollos, May 5, 1962 (A. Kovács, AMNH), 3f; Río Azul, May 1962 (A. Kovács, AMNH), 1m, 1f. CHILE: Bío-Bío: 2.5 km. E El Abanico, elevation 760–975 m., under rocks, scrubby mountainside, Nov. 20–21, 1981, male matured Jan. 15, 1982 (N. I. Platnick, R. T. Schuh, AMNH), 1m, 5f. Curicó: Cajón de Río Claro, Cordillera Curicó, Oct. 9, 1966 (E. I. Schlinger, UCB), 6f. Malleco: 6 km. W Angol, elevation 610 m., under rocks, dry mountainside, Nov. 19, 1981, matured through Dec. 18, 1981 (N. I. Platnick, R. T. Schuh, T. Cekalovic, AMNH), 2f; 10 km. W Angol, Nov. 5, 1961 (J. K. Greer, MSU), 1m; 18 km. W Angol, Cordillera de Nahuelbuta, elevation 610 m., Feb. 10, 1967 (E. I. Schlinger, UCB), 1m; Lago de Jealma, Feb. 14, 1962 (J. K. Greer, MSU), 1m; Malleco, Nov. 1979 (L. E. Peña, AMNH), 1f; Parque Nacional de Nahuelbuta, elevation 1200 m., *Nothofagus* and *Araucaria* association, Sept. 9, 1966 (E. I. Schlinger, M. E. Irwin, UCB), 2f. Ñuble: Las Trancas, elevation 1280 m.,



Figs. 34–37. *Apodrassodes trancas*, new species. 34. Tip of embolus, retrolateral view. 35. Retrolateral tibial apophysis, retrolateral view. 36. Epigynum, ventral view. 37. Epigynum, dorsal view.

under rocks, scrubby valley, Nov. 15, 1981, matured through Nov. 28, 1981 (N. I. Platnick, R. T. Schuh, AMNH), 6f; Los Lleuques, Nov. 27, 1975 (G. Moreno, MCZ), 3f; Recinto, SE Chillán, Feb. 1969 (L. E. Peña, MCZ), 1m, elevation 800 m., Jan. 23, 1979 (L. E. Peña, AMNH), 1m. *Talca*: Alta de Vilches, elevation 1160 m., under rock, montane forest, Nov. 13, 1981 (N. I. Platnick, R. T. Schuh, AMNH), 1m.

DISTRIBUTION: Central Chile and adjacent Argentina (fig. 3).

#### *Apodrassodes pucon*, new species

Figures 38, 39

TYPE: Female holotype from 10 miles northeast of Pucón, Cautín, Chile (January

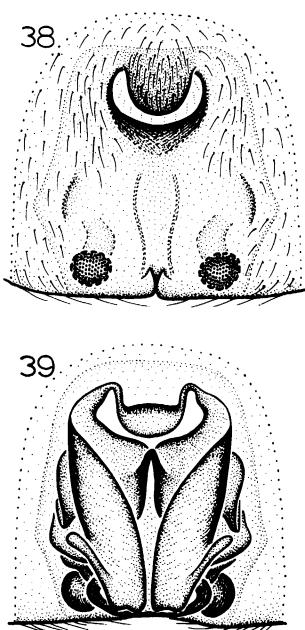
12, 1951; E. S. Ross, Michelbacher), deposited in CAS.

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

DIAGNOSIS: *Apodrassodes pucon* seems closest to *A. trancas* but can be recognized by the narrower epigynal scape and anterior excavation (fig. 38) of females.

MALE: Unknown.

FEMALE: Total length 13.61, 14.29. Carapace 5.65, 6.55 long, 4.13, 4.80 wide. Femur II 3.31, 3.38 long. Eye sizes and interdistances: AME 0.18, ALE 0.18, PME 0.17, PLE 0.17; AME-AME 0.26, AME-ALE 0.09, PME-PME 0.23, PME-PLE 0.32, ALE-PLE 0.26. MOQ length 0.66, front width 0.62, back width 0.57. Epigynal scape and anterior excavation small, narrow (fig. 38); sperma-



FIGS. 38, 39. *Apodrassodes pucon*, new species.  
38. Epigynum, ventral view. 39. Epigynum, dorsal view.

thecae small, widely separated (fig. 39). Leg spination: femora: II p0-1-2; IV r0-0-1; patella IV r0-0-0; tibia I v0-0-1p; metatarsi: I v0-0-0; III r1-1-2.

OTHER MATERIAL EXAMINED: One female taken at El Abanico, Bío-Bío, Chile, on December 30, 1950, by E. S. Ross and Michelbacher (CAS).

DISTRIBUTION: Known only from Bío-Bío and Cautín provinces, Chile (fig. 3).

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