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Review of the Southern South American Spider Genus *Platnickia* (Araneae, Zodariidae)

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ABSTRACT

Although only two species have been assigned to the temperate South American zodariid genus *Platnickia* Jocqué, the fauna is actually more diverse. The type species, *P. elegans* (Nicolet), is widespread in Chile, from Coquimbo south to Chiloé, and in adjacent Argentina, whereas *P. bergi* (Simon) is known only from the far southern tip of the continent: Magallanes in Chile, Tierra del Fuego in Argentina, and the Falkland Islands. Both species are redescribed on the basis of newly collected material. Three new species are described: *P. roble* from Ñuble, Chile; *P. wedalen*, found in southern Chile, from Cautín to Aisén, as well as adjacent Argentina and the Falkland Islands, and *P. bolson*, known only from Llanquihue, Chile, and Río Negro, Argentina.

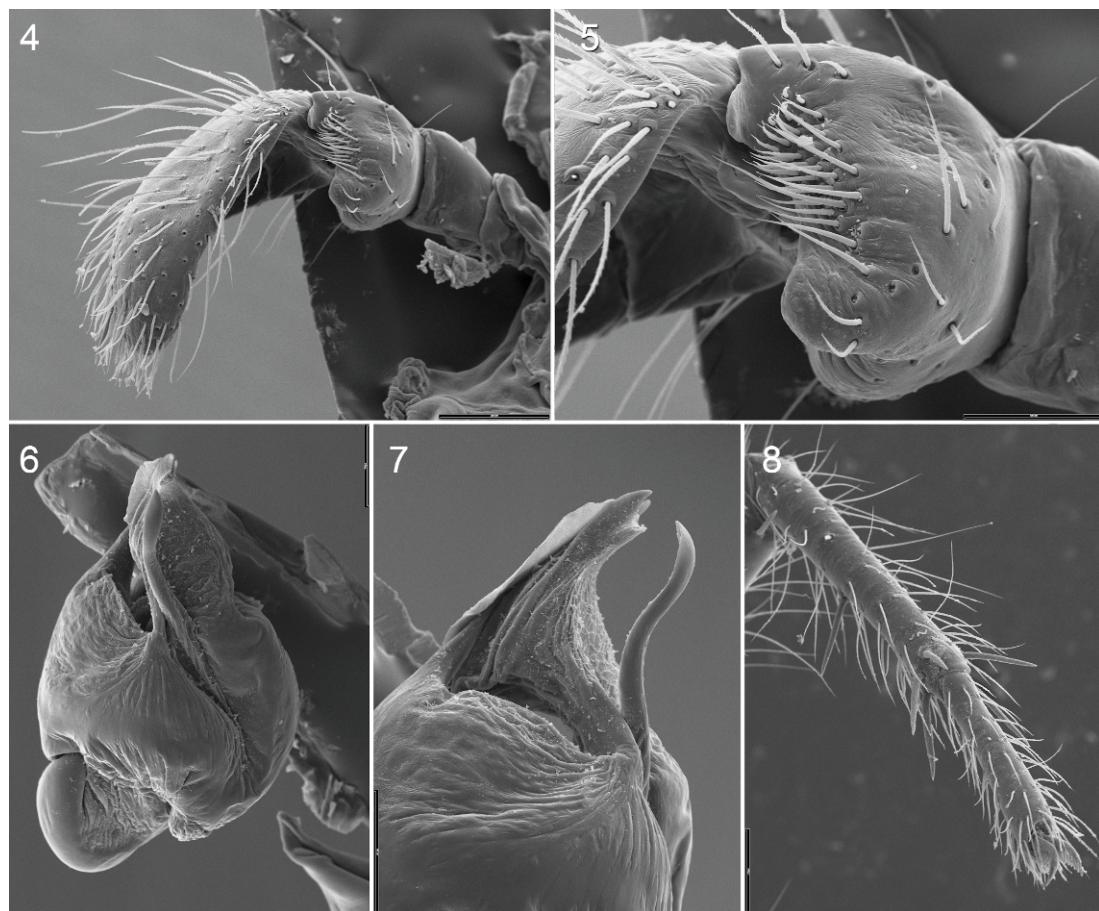
INTRODUCTION

The family Zodariidae comprises cursorial hunting spiders of varying size, anatomy, and habits; the family has an almost cosmopolitan distribution, but is most diverse in tropical and subtropical areas. The main diagnostic features are the absence of a serrula on the palpal endites, the elongated anterior lateral spinnerets (always larger than the posterior medians and posterior laterals), and (except

for *Cyrioctea* Simon) a lateral implantation of the teeth on the tarsal claws (Jocqué, 1991). During its taxonomic history, the group has been poorly defined, but the generic revision of Jocqué (1991) provided the starting point for all subsequent studies, which have dealt mostly with the highly diverse African and Australian faunas (see Dippenaar-Schoeman and Jocqué, 1997; Jocqué and Baehr, 1992; Baehr, 2004; Jocqué and Dippenaar-Schoeman, 2006).

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Figs. 4–8. *Platnickia elegans* (Nicolet). 4–7. Male from Pucará. 8, Male from Palmas de Ocoa. 4. Left palp, retrolateral view (bulb dissected). 5. Same, detail of retrolateral tibial apophysis. 6. Left bulb, ventral view. 7. Same, detail of apical structures, prolateral view. 8. Right leg III, oblique dorsal view.

- Tegular apophysis slightly longer, running nearly parallel to the ventral surface of the tegular extension, which has a dorsal denticulate keel; retrolateral tibial apophysis with very acute tip (figs. 60–62); leg spines reduced *wedalen*

Platnickia elegans (Nicolet)
Figures 1–26, 34–37, 52–57, 75–78

Drassus elegans Nicolet, 1849: 455, pl. 4, fig. 3, 3a–d (female lectotype from Valdivia or San Carlos de Chiloé, Chile, in MNHN, designated by Jocqué, 1991: 76, examined).

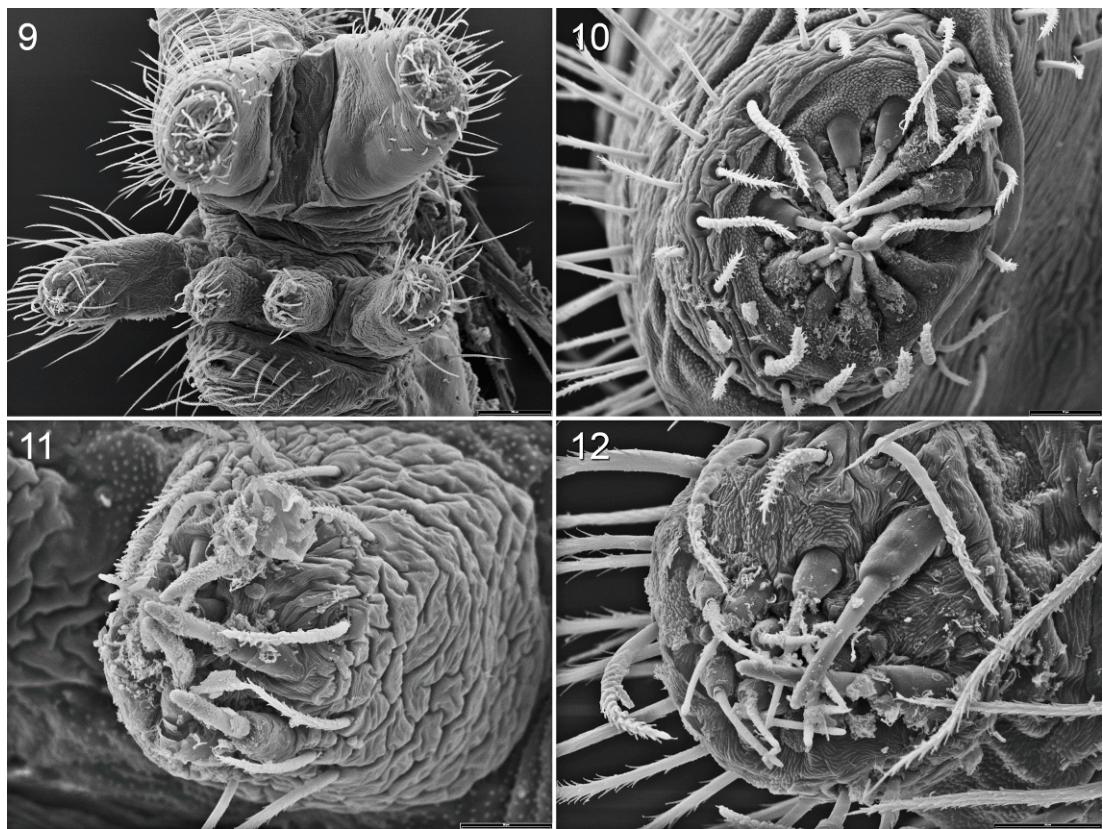
Drassus similis Nicolet, 1849: 456 (female holotype from Valdivia, Chile, in MNHN, examined by Jocqué, 1991: 78). First synonymized by Simon, 1889: 218.

Storena elegans: Simon, 1889: 218.

Platnickia elegans: Jocqué, 1991: 75, figs. 37, 151–160.

DIAGNOSIS: Males resemble those of *P. bolson* in having a well-sclerotized tegular apophysis (figs. 6, 7, 52–54), but differ in having the tegular apophysis thicker, slightly shorter, and less sinuous, and by the tegular extension, which is proportionately shorter and broader; the retrolateral tibial apophysis is also less acute. Females can be distinguished by the squared-shaped median field of the epigynum (fig. 56) and by the longer internal spermathecal heads (fig. 57).

DESCRIPTION: Male (Nahuelbuta; figs. 25, 34, 35): Total length 4.68. Carapace 2.40 long, 1.52 wide. Femur II 1.40 long. Eye sizes and

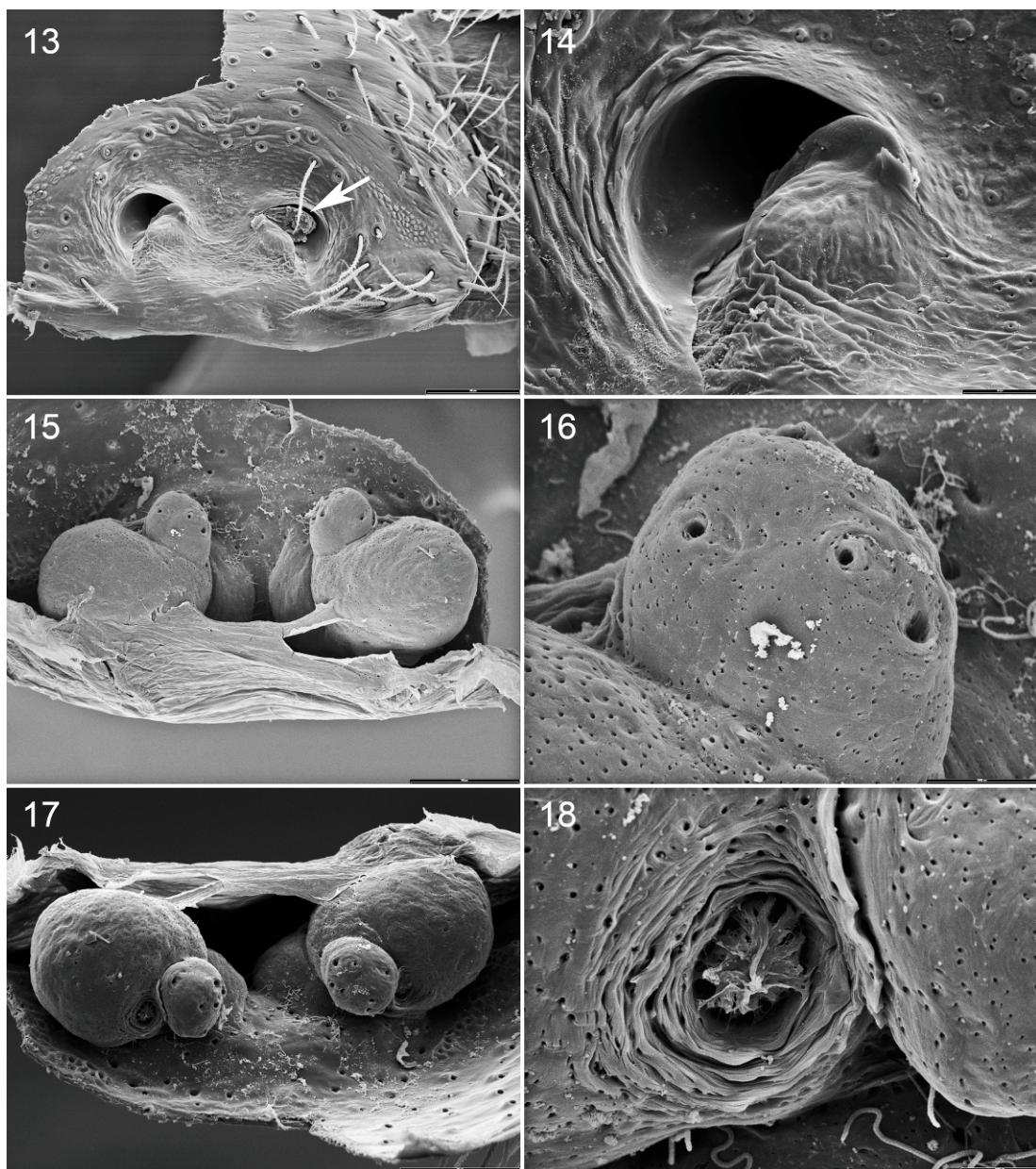


Figs. 9–12. *Platnickia elegans* (Nicolet), female from Palmas de Ocoa. **9.** Spinnerets, ventral view. **10.** Anterior lateral spinneret, apical view. **11.** Posterior median spinneret, apical view. **12.** Posterior lateral spinneret, apical view.

interdistances: AME 0.10, ALE 0.10, PME 0.10, PLE 0.10; AME-AME 0.04, AME-ALE 0.06, PME-PME 0.08, PME-PLE 0.18, ALE-PLE 0.06. Carapace, femora, patellae dark brown, lighter on proximal parts of femora III, IV, dorsal parts of patellae; remaining podomeres yellowish, except for darkened distal rings on tibiae III, IV; coxae ventrally pale yellowish; mouthparts, palps dark brown; sternum brown with leaf-shaped, lighter central area; abdominal dorsum whitish, with black cardiac mark, series of short lateral transverse stripes on both sides, fused medially near caudal area as chevrons; sides blackish, venter also blackish, flanked by two whitish bands; pre-epigastric area purplish brown; spinnerets brown. Leg spination: femora: I d1-1-1 (last one very thin), p1(subap), 1(ap); II d1-1-1, p1(subap), 1(ap); III d0-1-1, dp0-0-1-1-1, dr0-0-1-1-1; IV d1-1-1, dp0-0-2/1, dr0-0-1/0;

tibiae: I p1-1, vp1(ap); II vr1-1-1, vp0-0-1; III v2-2-2, p1-1, r1-1; IV v2-2-2, r1-1; metatarsi: I v(ap)2, r(ap)1, p(ap)1; II v0-1-1, r(ap)1, p(ap)1; III v1-2-2, p1(ap), r1(ap), dp1(ap), dr1(ap); IV v1-1-2, p0-1-0-1-1, r1(ap), dr0-1-1; tarsi: III vr0-0-1-1, vp0-0-1; IV vr0-0-1-1, vp1(subap). Palp (figs. 4–7, 52–55): retrolateral tibial apophysis inconspicuous, with cluster of modified hairs; tegular apophysis well sclerotized, relatively sinuous; tegular extension massive, longitudinal, with dorsal fold where embolus fits in resting position (fig. 7).

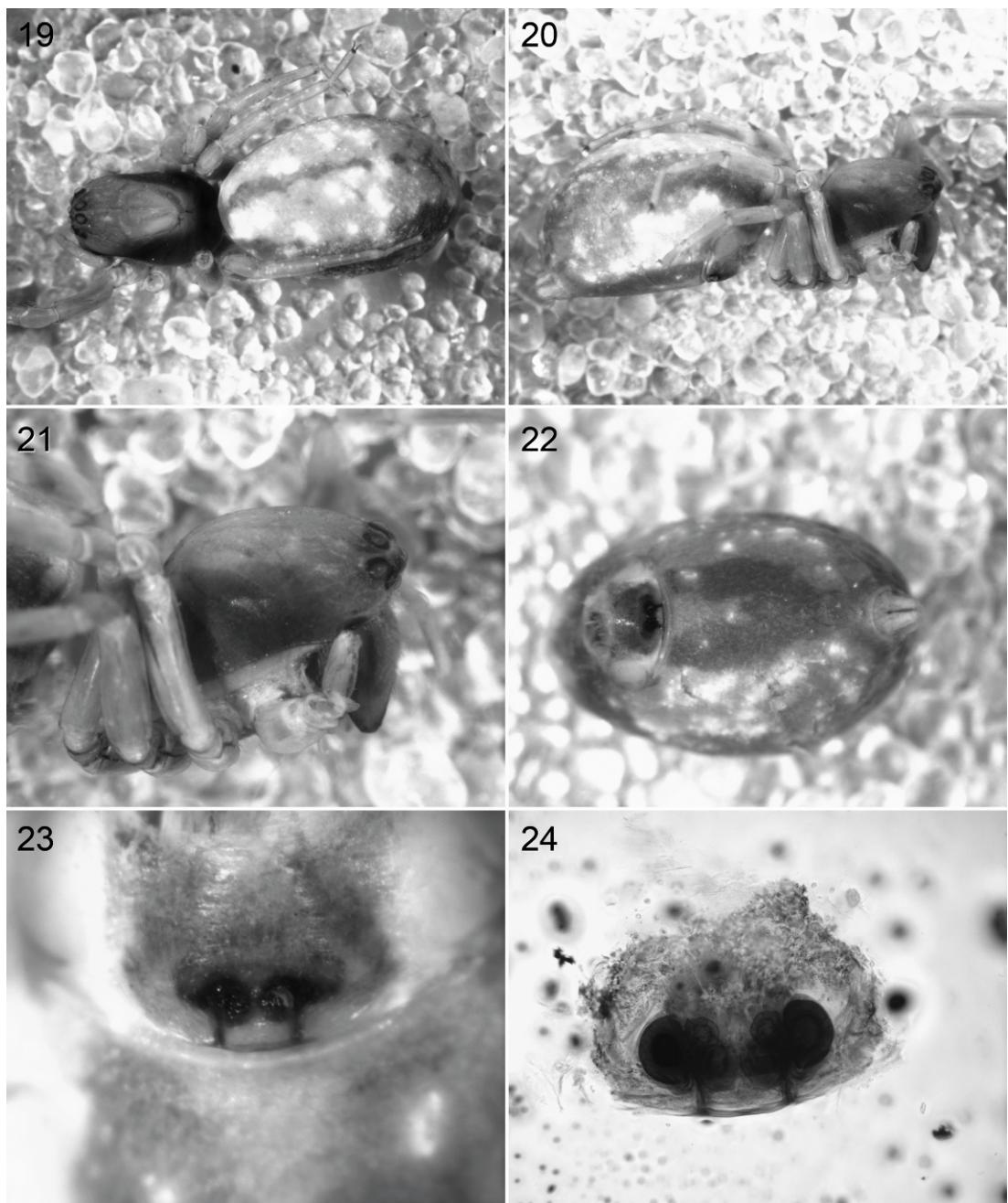
FEMALE (Palmas de Ocoa; figs. 26, 36, 37): Total length 5.57. Carapace 2.48 long, 1.50 wide. Femur II 1.22 long. Eye sizes and interdistances: AME 0.08, ALE 0.08, PME 0.10, PLE 0.14; AME-AME 0.05, AME-ALE 0.06, PME-PME 0.12, PME-PLE 0.16, ALE-PLE 0.05. Coloration as in male,



Figs. 13–18. *Platnickia elegans* (Nicolet), female from Palmas de Ocoa. 13. Epigynum, ventral view (arrow: copulatory plug). 14. Same, detail of copulatory opening. 15. Epigynum, dorsal view. 16. Same, detail of pores on the spermathecal head. 17. Epigynum, anterodorsal view. 18. Same, detail of dictynoid pore.

though lighter in general; cephalic area lighter than remainder of carapace, abdominal dorsal markings less profuse, dark pigment of venter restricted to two paraxial bands and semicircle in front of spinneret area. Leg spination: femora: I d1-1-1 (last one very thin), p1(sub-

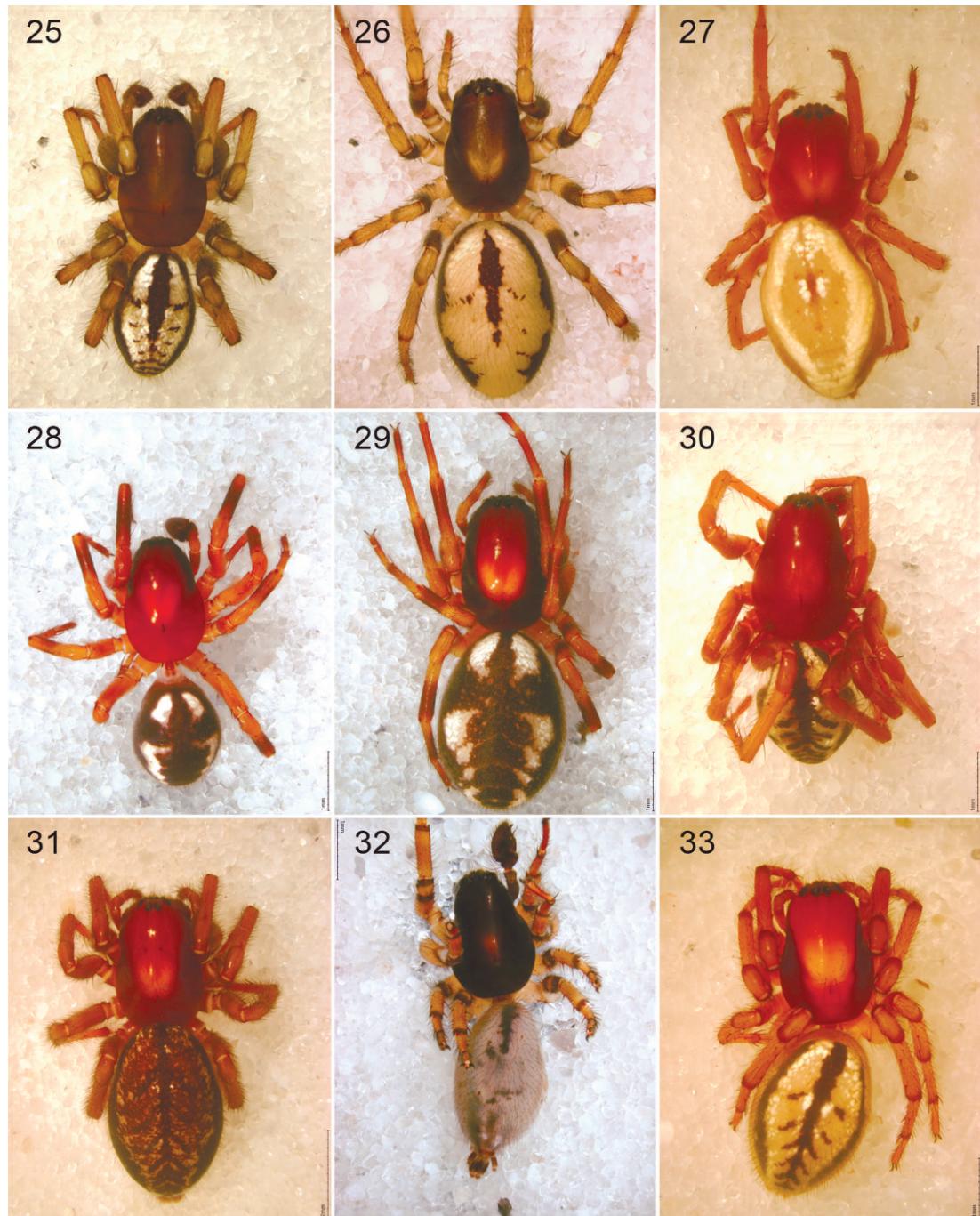
ap); II d1-1-1 (last one very thin), p1(subap); III d0/1-1-1, p1/2(subap), r0/1(subap); IV d1-1-1(last one very thin); tibiae: I v2(ap), p1(very thin)-0-0; II v1-1-2, p1-0-1; III p1-1, r1-1, v2-2-2; IV v1/2-1/2-2, r1-1, p0/1-1; metatarsi: I v0-2-2, p1(ap), r0/1(ap); II v1-2-



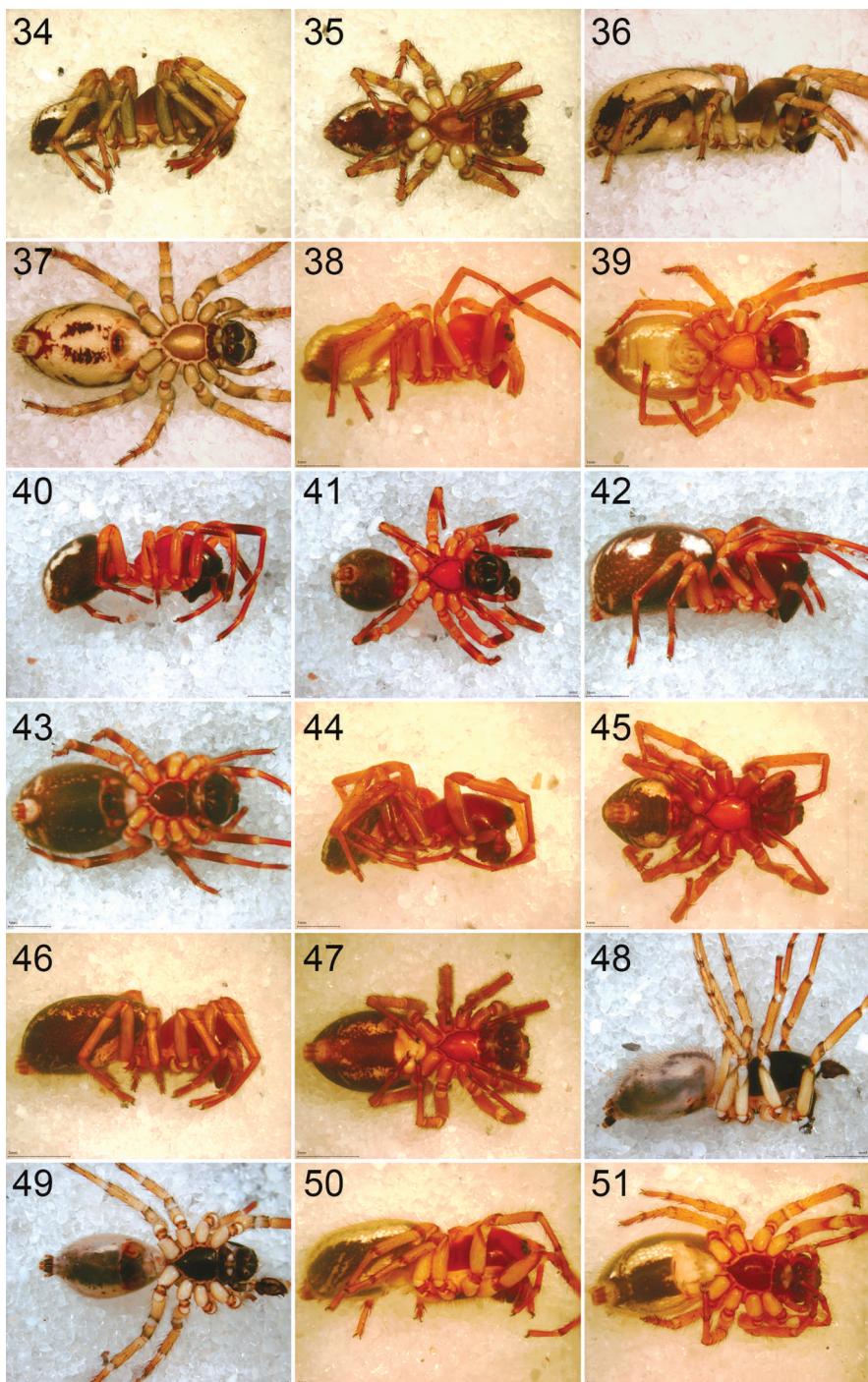
Figs. 19–24. *Platnickia elegans* (Nicolet), female holotype. **19.** Habitus, dorsal view. **20.** Same, lateral view. **21.** Carapace, lateral view. **22.** Abdomen, ventral view. **23.** Epigynum, ventral view. **24.** Same, cleared, dorsal view.

2, p2(ap); III r1-1-1, p0-1-1, v2-2-2; IV v1-1-1 (zigzagging) + 2(ap), r0-1-2, p0-1-1, dr1(ap), dr1(ap); tarsi: III vp0-0-1, vr0-0-1-1; IV vp0-0-1-1, vr0-1-1-1 (zigzagging), r1. Epigynum

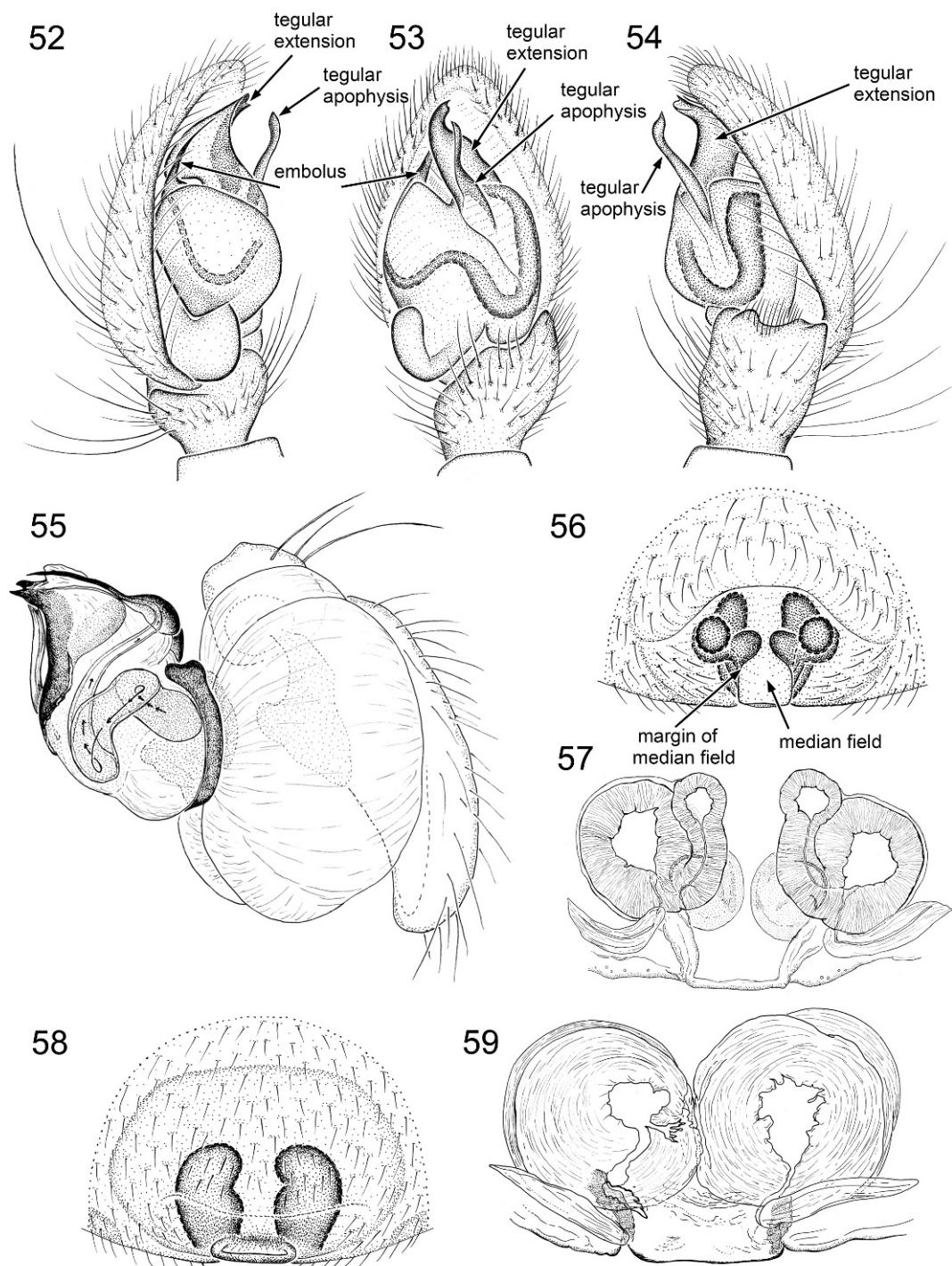
with more or less rectangular median field (fig. 56); paired copulatory openings with crestlike structures at inner corners (figs. 13, 14); two large, globose spermathecae, each



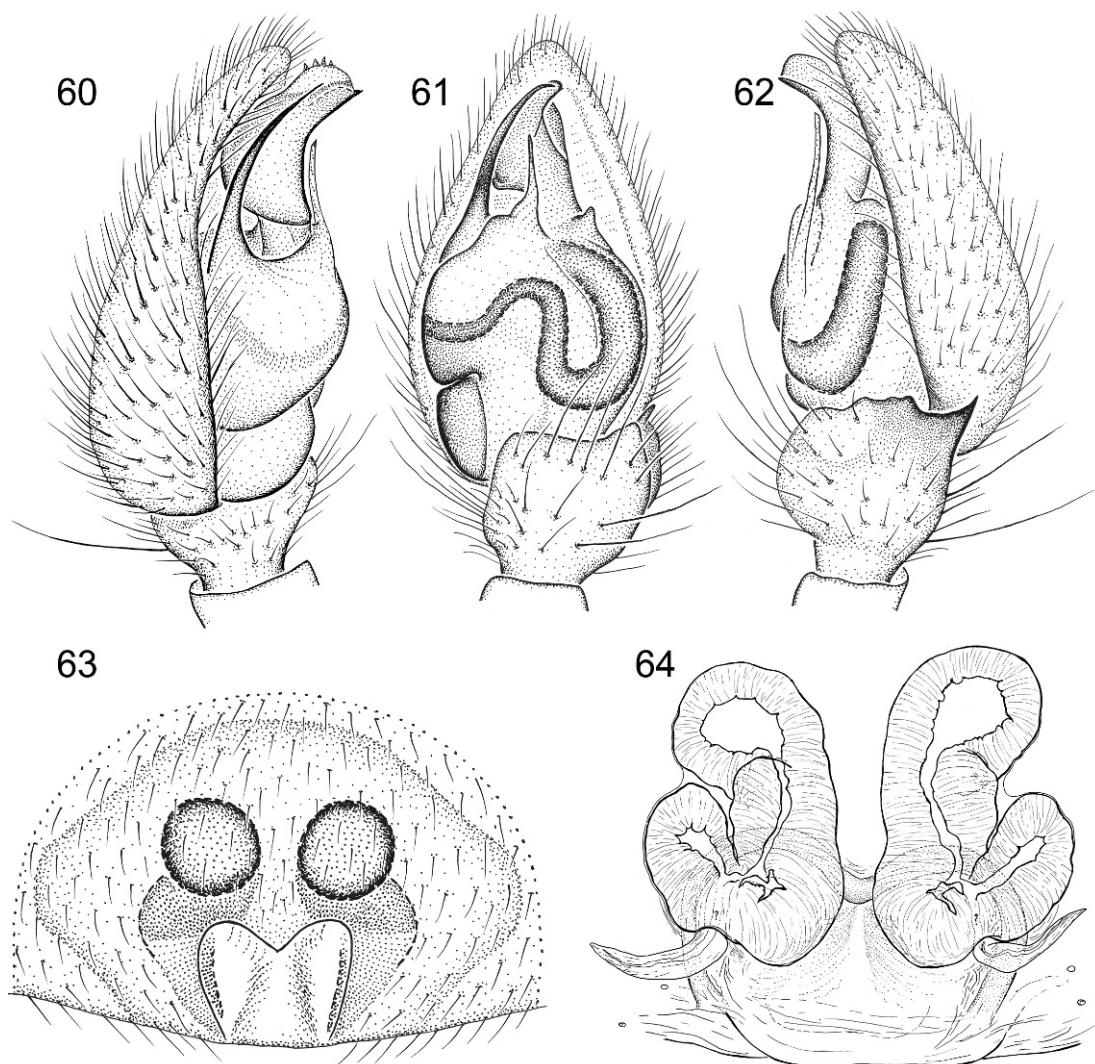
Figs. 25–33. Dorsal habitus of preserved specimens. 25, 28, 30, 32: Male. 26, 27, 29, 31, 33: Female. 25, *P. elegans* (Nicolet). 27, *P. roble*, new species. 28, 29, *P. wedalen*, new species. 30, 31, *P. bergi* (Simon). 32, 33, *P. bolson*, new species.



Figs. 34–51. Habitus of preserved specimens. 34, 36, 38, 40, 42, 44, 46, 48, 50: Lateral view. 35, 37, 39, 41, 43, 45, 47, 49, 51: Ventral view. 34, 35, 40, 41, 44, 45, 48, 49: Male. 36–39, 42, 43, 46, 47, 50, 51: Female. 34–37. *P. elegans* (Nicolet). 38, 39. *P. roble*, new species. 40–43. *P. wedalen*, new species. 44–47. *P. bergi* (Simon). 48–51. *P. bolson*, new species.



Figs. 52–59. 52–57: *Platnickia elegans* (Nicolet). 58, 59: *P. roble*, new species. 52–55: Male. 56–59: Female. 52. Left palp, prolateral view. 53. Same, ventral view. 54. Same, retrolateral view. 55. Same, expanded. 56, 58. Epigynum, ventral view. 57, 59. Same, cleared, dorsal view.



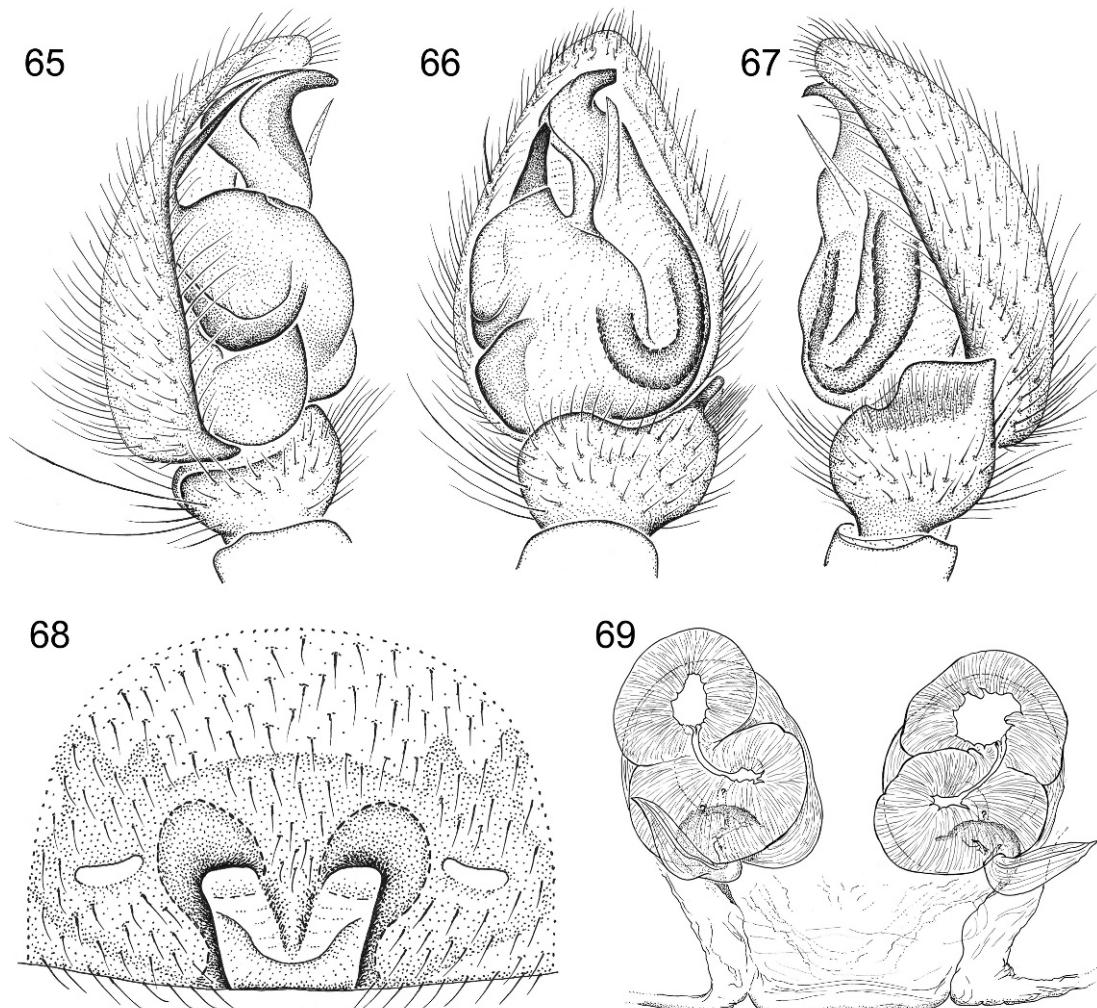
Figs. 60–64. *Platnickia wedalen*, new species. **60.** Left male palp, prolateral view. **61.** Same, ventral view. **62.** Same, retrolateral view. **63.** Epigynum, ventral view. **64.** Same, cleared, dorsal view.

with medially directed head (internally connected by relatively long stem, fig. 57).

VARIATION: The holotype (figs. 19–24) has the margins of the epigynum almost entirely parallel, delimiting an almost perfectly rectangular median field, but this shape varies among the specimens examined.

MATERIAL EXAMINED: CHILE: **Región de Coquimbo (IV):** Choapa: Céspedes, Illapel, Oct. 13–14, 1994, elev. 1100 m (L. Peña, AMNH), 4♀; El Bato, E Illapel, Oct. 10, 1985 (L. Peña, AMNH), 51♀, Oct. 11–13,

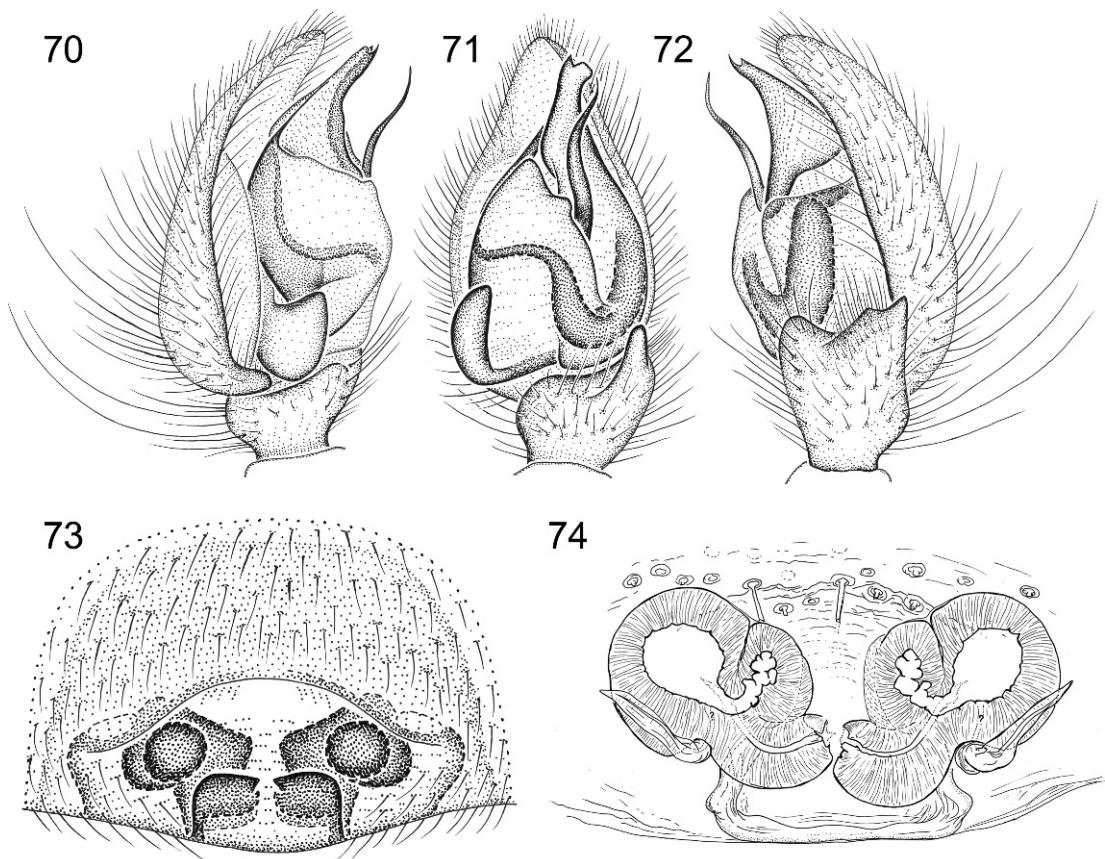
1994, elev. 800 m (L. Peña, AMNH), 1♀; Fundo Palo Colorado, 16 km N Pichidangui, Oct. 31, 1988 (E. Maury, C. Szumik, P. Goloboff, MACN), 1♀; N Los Vilos, Oct. 3, 1990 (L. Peña, AMNH), 1♀. **Región de Valparaíso (V):** Petorca: La Ligua, Sept. 27, 1980, relict forest (L. Peña, AMNH), 4♀; Ñagué, route 5, km 235, 10 km N Los Vilos, 31°49'53.5"S, 71°30'34.2"W, Feb. 2005, coastal fog-fed forest, elev. 90 m (M. Ramírez, F. Labarque, MACN), 2♂ (1 sent to La Serena); Petorca, Oct. 8, 1986 (L. Peña, AMNH), 7♀;



Figs. 65–69. *Platnickia bergi* (Simon). 65. Left male palp, prolateral view. 66. Same, ventral view. 67. Same, retrolateral view. 68. Epigynum, ventral view. 69. Same, cleared, dorsal view.

Pullalli, Dec. 16, 1980 (L. Peña, AMNH), 1♀. *Quillota*: Parque Nacional La Campana, Palmas de Ocoa, 32°57'40.4"S, 71°03'34.0"W, Feb. 18, 2005, elev. 770 m (M. Ramírez, F. Labarque, MACN), 2♂, 1♀ (♀ matured in lab). *Valparaíso*: Cuesta El Melón, near La Calera, Nov. 15, 1985 (L. Peña, AMNH), 22♀, Oct. 10–12, 1986 (L. Peña, AMNH), 1♀. **Región Metropolitana de Santiago**: *Chacabuco*: Cuesta La Dormida, N Tilitil, Nov. 13–18, 1982, elev. 800–1300 m (L. Peña, AMNH), 12♀. *Santiago*: Quilicura, Aug. 1979 (L. Peña, AMNH), 12♀. *Maipo*: La Obra, cajón de Río Maipo, Nov. 1984 (G.

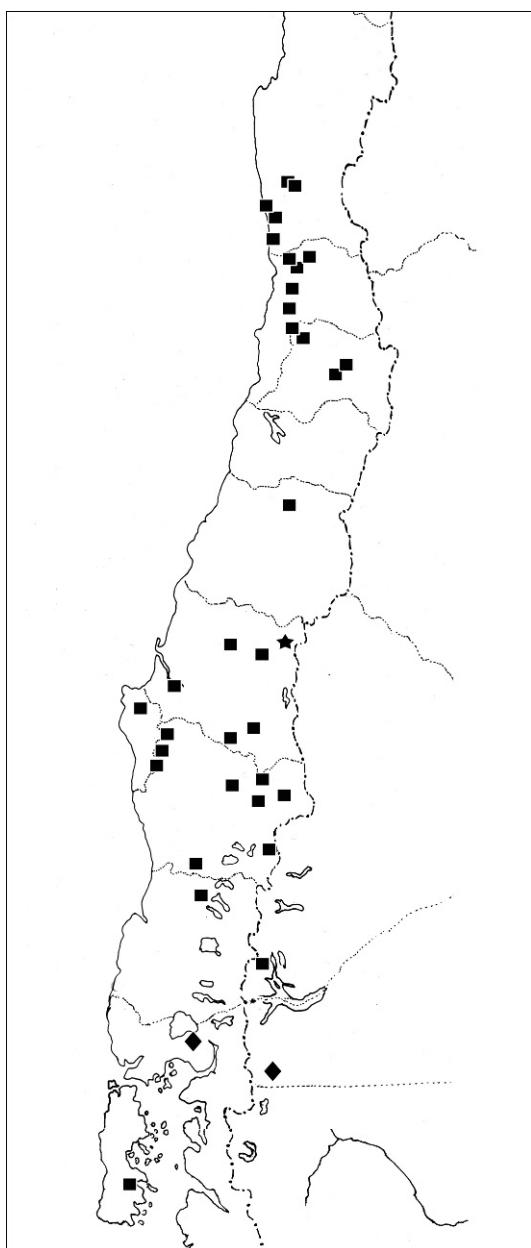
Arriagada, MNHNS), 1♀. **Región del O'Higgins (VI)**: *Cachapoal*: Pilai, Nov. 23–25, 1981 (L. Peña, AMNH), 4♀. **Región del Maule (VII)**: *Curicó*: Las Tablas, E Curicó, Feb. 1985 (L. Peña, AMNH), 52♂, 54♀. **Región del Bío-Bío (VIII)**: *Ñuble*: Chillan, Las Trancas, Feb. 1987 (L. Peña, AMNH), 10♂, 4♀; El Llano, Chillan, Jan.–Mar. 1983 (L. Peña, AMNH), 1♂; Recinto, Jan. 9, 1989 (M. Ramírez, E. Maury, MACN), 2♀; E Recinto, Las Trancas, Feb. 1987, elev. 1100 m (L. Peña, AMNH), 5♂, 2♀. *Concepción*: Palo Grande, road to Santa Juana, Dec. 29, 1996 (T. Cekalovic, AMNH), 1♀; Periquillo, Oct.



Figs. 70–74. *Platnickia bolson*, new species. 70. Left male palp, prolateral view. 71. Same, ventral view. 72. Same, retrolateral view. 73. Epigynum, ventral view. 74. Same, cleared, dorsal view.

17, 1992 (T. Cekalovic, AMNH), 1♀. *Bío-Bío*: El Manzano, near Contulmo, Dec. 15, 1985 (L. Peña, AMNH), 1♂; W Ralco, Santa Bárbara, Nov. 22–23, 1994, elev. 400 m (L. Peña, AMNH), 1♀. *Arauco*: 2 km S crossroad to Colico Norte, Oct. 20, 1996 (T. Cekalovic, AMNH), 3♀. **Región de La Araucanía (IX): Malleco**: Alto Caledonia, E Mulchen, Feb. 10–15, 1981, elev. 700 m (L. Peña, AMNH), 1♂, Feb. 14, 1992, elev. 740 m (N. Platnick, P. Goloboff, M. Ramírez, AMNH), 1♂, 3♀; 16 km N Curacautín, Feb. 15, 1992, elev. 800 m (N. Platnick, P. Goloboff, M. Ramírez, AMNH), 5♂, 1♀; Malalcahuello, Dec. 9–15, 1985 (L. Peña, AMNH), 1♂, 6♀; Monumento Nacional Contulmo, Jan. 12, 1989 (M. Ramírez, MACN), 1♀, Jan. 17, 1989, in armpits of colihue (*Chusquea* sp.) bamboo (M. Ramírez, MACN, sent to La Serena), 1♀;

Parque Nacional Nahuelbuta, 40 km W Angol, Feb. 13, 1992, elev. 1200 m (N. Platnick, P. Goloboff, M. Ramírez, AMNH), 1♂, 37♀, 37°49'39.0"S, 73°00'32.2"W, Feb. 12, 2005, *Nothofagus/Araucaria* forest, elev. 1100 m (M. Ramírez, F. Labarque, MACN), 5♂, 1♀ (including MACN ARAMR000224, 1♂, and MACN 10946, voucher for P. Michalik study, 1♂); Tolhuaca, Mar. 15–23, 1986 (L. Peña, AMNH), 1♀; Victoria, Nov. 26–29, 1990 (L. Peña, AMNH), 1♀. *Cautín*: 15–30 km S Cherquenco, Feb. 26, 1989 (L. Peña, AMNH), 1♂; Loncoche (G. Mann, MNHNS), 1♂; Quiñenahuin, N Curarrehue, Mar. 7–10, 1989, elev. 600 m (L. Peña, AMNH), 1♂. **Región de los Lagos (X): Valdivia**: Purolón, NW Panguipulli, Jan. 10, 1985 (L. Peña, AMNH), 1♀. *Chiloé*: Piopío, Mar. 10–12, 1987 (L. Peña, AMNH), 1♂.



Map 1. Southern Chile and adjacent Argentina, showing records of *Platnickia elegans* (squares), *P. roble* (star), and *P. bolson* (diamonds).

two white spots), sides, venter cream, except for two paraxial white bands and dark grey mark around spinnerets. Leg spination: femora: I d1-1-1, p1(subap); II d1-1-1; III d1(subap); IV d1(subprox); tibiae: I p1-1, v2(ap); II p11, v2(ap); III d1-1(last one very

thin), p1-1, r1-1, vp0-1-1(ap), vr1(ap); IV d1-1 (last one very thin), p1-1, r1-1, vp1-1-1(ap), vr1(ap); metatarsi: I p1(ap), v2(ap); II r1(ap), p2(ap), vp0-1-1(ap), vr0-1-1(ap); III v0-2-2(ap), p0-1-1(subap), dr0-1-1(ap); IV dp1(very thin)-1-1(subap), dr0-1-1, v0-2-2(ap), p1(ap), r1(ap); tarsi: III vr0-0-1-1, vp0-0-1; IV vr0-1-1-1, vp0-0-0-1. Epigynum with short, transverse median field (fig. 58); spermathecae globose, apparently simple (fig. 59).

OTHER MATERIAL EXAMINED: None.

DISTRIBUTION: Known only from the type locality in central Chile (map 1).

Platnickia wedalen, new species
Figures 28, 29, 40–43, 60–64

Storena bergi (misidentification): Schiapelli and Gerschman de Pikelin, 1974: 85, figs. 15–17 (male only; female is correctly identified).

TYPES: Male holotype and female allotype (together with one male and three female paratypes) taken at an elevation of 17 m at Chepu, Chiloé, Región de Los Lagos (X), Chile (Nov. 29, 1981; N. Platnick, R. Schuh), deposited in AMNH.

ETYMOLOGY: The specific name is from the Mapuche word “wëdalen”, meaning “to be separated or isolated from”, and refers to the large gap between the two known populations of this species, in the southern Andean forests and on the Falkland Islands.

DIAGNOSIS: Males resemble those of *P. bergi* in having a membranous tegular apophysis, but in this species the apophysis is slightly longer and runs closely parallel to the ventral surface of the tegular extension, which has a dorsal denticulate keel (figs. 60–62); the retro-lateral tibial apophysis has a very acute tip. Females are also very similar to those of *P. bergi* but have more rounded anterolateral margins on the epigynal median field and more elongated spermathecae (figs. 63, 64). Both sexes show reduced spination on all the legs.

MALE (holotype, figs. 28, 40, 41): Total length 4.28. Carapace 2.14 long, 1.34 wide. Femur II 1.14 long. Eye sizes and interdistances: AME 0.08, ALE 0.06, PME 0.08, PLE 0.06; AME-AME 0.08, AME-ALE 0.02, PME-PME 0.08, PME-PLE 0.12, ALE-PLE

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