



# Article

## New species of Chilean Hexathelidae (Araneae, Mygalomorphae)

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### Abstract

Several new species of Hexathelidae Simon (1892) from Chile are described. In *Scotinoecus* Simon (1892), a new species (*S. ruiles*) is described using females; a new species (*S. major*) is proposed for the male previously misidentified as *S. cinereopilosus* (Simon, 1889), and females are described; the male of *S. cinereopilosus* is described for the first time. In *Mediothele*, the female of *M. australis* is described for the first time, as well as five new species (*M. minima*, *M. lineares*, *M. nahuelbuta*, *M. anae* and *M. lagos*); all are based solely on females from Southern and Central Chile. The known geographic distributions of both genera are increased.

**Key words:** Hexathelidae, *Mediothele*, *Scotinoecus*, taxonomy, new species, Chile

### Resumen

Se describen varias nuevas especies chilenas de la familia Hexathelidae Simon (1892). En *Scotinoecus* Simon (1892), se describe una nueva especie (*S. ruiles*), usando hembras; se propone una nueva especie (*S. major*) para el macho previamente mal identificado como *S. cinereopilosus* (Simon, 1889), y las hembras son descritas; se describe por primera vez el macho de *S. cinereopilosus*. En *Mediothele*, se describe por primera vez la hembra de *M. australis*, así como cinco nuevas especies (*M. minima*, *M. lineares*, *M. nahuelbuta*, *M. anae* y *M. lagos*); todas están basadas únicamente en hembras del Sur y Centro de Chile. Se incrementa la distribución geográfica conocida para ambos géneros.

### Introduction

Spiders of the family Hexathelidae (Simon, 1892) have historically been seen as plesiomorphic mygalomorphs (Raven, 1980; Goloboff, 1993). The family is subdivided in three subfamilies: Hexathelinae, Macrothelinae and Plesiothelinae (Raven, 1980). The only subfamily represented in South America is Hexathelinae, with two genera: *Scotinoecus* Simon 1892, and *Mediothele* Raven & Platnick 1978. *Scotinoecus*, with two species, is found in Southern Argentina and Central and Southern Chile, while *Mediothele* is known only from a single male from Southern Chile.

The main problem with the taxonomy of this group in the region is the paucity of specimens available for study. The handful of specimens known from the region were adequately described and illustrated by Schiapelli and Gerschman (1968), Calderón (1973), and Raven and Platnick (1978), making it possible to reliably identify known taxa.

In field trips to Chile by the junior author, carried out in the mid '80s and early '90s, a significant number of specimens of this group were collected in Chile. These specimens (a total of 122 specimens) represent several previously undescribed species. In *Scotinoecus*, two new species (*S. major* and *S. ruiles*) are described, as well as the male of *S. cinereopilosus* (Simon, 1889) (since the male associated with the female type by Calderón 1973, collected at about 800 km from the type locality, represents the male of *S. major*). In *Mediothele*, five new species (*M.*

*minima*, *M. anae*, *M. nahuelbuta*, *M. lagos*, and *M. linares*) are described, as well as the female of *M. australis* Raven & Platnick, 1978.

## Methods and material

All measurements are given in millimeters and were taken on the left side of the specimens. As standard in Araneae, total lengths were taken with chelicerae, and cephalothorax lengths without chelicerae. Reference points for measurements followed Coyle (1974). All measurements were taken with a micrometric ocular on an Olympus SZ4045 stereoscope. The abbreviations and notation for leg spines follow Goloboff and Platnick (1987); variation in the sides of a specimen (in number of spines, cuspules, or teeth) is indicated as two numbers or formulae separated by a slash (“/”); when describing variation in chaetotaxy, only surfaces with different numbers of spines are listed. For the numbers of bristles in the metatarsal preening combs, the numbers are always given from anterior to posterior comb.

Collections sites were georeferenced by finding the locality specified on the label on GoogleEarth and then recording the coordinates; in the case of localities specified as distances from towns, this is only a rough approximation to the actual coordinates.

All the material studied is deposited in the Sección Aracnología of the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia” (MACN, Martín ramírez), and the American Museum of Natural History (AMNH, Norman I. Platnick), except the types, which are deposited in the Museo de Historia Natural de Santiago (MNHN, in the care of Mario Helgueta). Abbreviations: STC, superior tarsal claws; PLS, posterior lateral spinnerets; PMS, posterior median spinnerets; ALS, anterior lateral spinnerets.

## Taxonomy

### Scotinoecus Simon, 1892

*Scotinoecus* Simon, 1892: 188.

This genus is endemic of southern South America, with two described species, *S. cinereopilosus* (Simon 1889) and *S. fasciatus* Tullgren, 1901. Simon described the female of *S. cinereopilosus*, from Valdivia, Región X, Chile; 13 years later, Tullgren described the female of *S. fasciatus*, from Tierra del Fuego and Puerto Gallegos, Argentina; the two species remained known only from females for almost 70 years, until Schiapelli and Gerschman (1968) revised the genus describing the male of *S. fasciatus*. Subsequently, Calderón (1973) described a male from Valparaíso, Región V, attributing it to *S. cinereopilosus*, pointing out differences between this male and that of *S. fasciatus*. The low dispersal capabilities of these spiders (see Raven, 1980) and the enormous geographic distance between the female type and the male described by Calderón (1973) strongly suggest that the identification made by Calderón was in error.

In this paper, the male described as *S. cinereopilosus* was collected together with females, much closer to the type locality; those females are also very similar to those collected at no more than 15 km from the type locality of the species, allowing us to reliably establish the present association between males and females.

The most reliable differences between the species of *Scotinoecus* recognized here are in morphological characters (leg shape and spination, number of spigots in the ALS). The female spermathecae have complex and convoluted ducts, with variation in details even between specimens of the same locality (e.g., Figs 21–22, from the same locality, differ in the inner branch of the spermathecae). Other mygalomorphs with many spermathecal receptacles often present minor differences in the number or shape of receptacles of both sides (e.g., *Stenoterommata platense* Holmberg, 1881; see Goloboff, 1982, 1995); presumably, receptacles with thin, weak ducts may easily get broken during moults, producing minor differences in successive moults of the adult female. A conservative approach is followed here, considering as conspecific those females with general agreement in their morphology despite minor differences in spermathecal shape. Future work may well reveal that some of the species recognized here represent in fact more than one species.

**Type species.** *Hexathele cinereopilosa* Simon, 1889.

**Diagnosis.** Females of *Scotinoecus* differ from those of *Mediothele* by the labium and maxillae having many cuspules, the paired bilobate spermathecae, the STC with more numerous and longer teeth, longer (PLS) spinnerets, the ALS two-segmented as long as or shorter than PMS, and the more numerous spigots on the spinnerets (with 30–50 spigots per PLS article, as opposed to 10–30 in *Mediothele*). Several of these characters (STC teeth, spinneret length, and spigot number) are possibly associated with building sheet-webs.

**Habits.** All species of *Scotinoecus*, except *S. fasciatus*, spin a sheet web similar to that of ischnotheline diplurids. Vellard (1958) reported having collected specimens of *S. fasciatus* in burrows, with no webs.

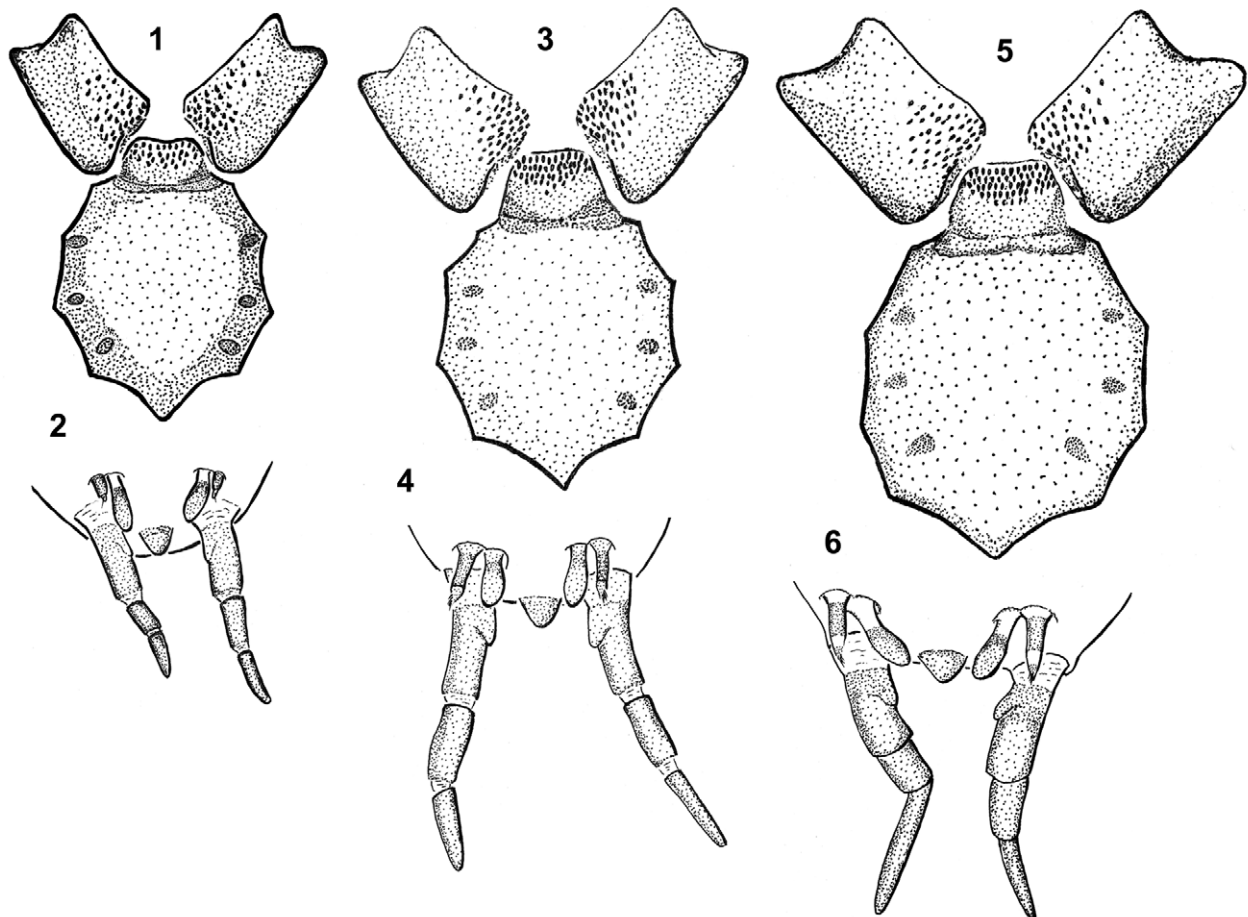
**Monophyly.** It differs from *Mediothele* in lacking its synapomorphies; *Scotinoecus* might thus well be paraphyletic in terms of that genus. The length of the spinnerets in *S. fasciatus*, together with the burrowing (rather than webbing) habits, tenuously suggest that that species might be more closely related to *Mediothele* than it is to the other *Scotinoecus*. However, as those characters are highly variable in other groups of mygalomorphs, they provide only weak evidence of relationships; consequently, no nomenclatorial action is taken here regarding *S. fasciatus*.

***Scotinoecus cinereopilosus* (Simon, 1889)**

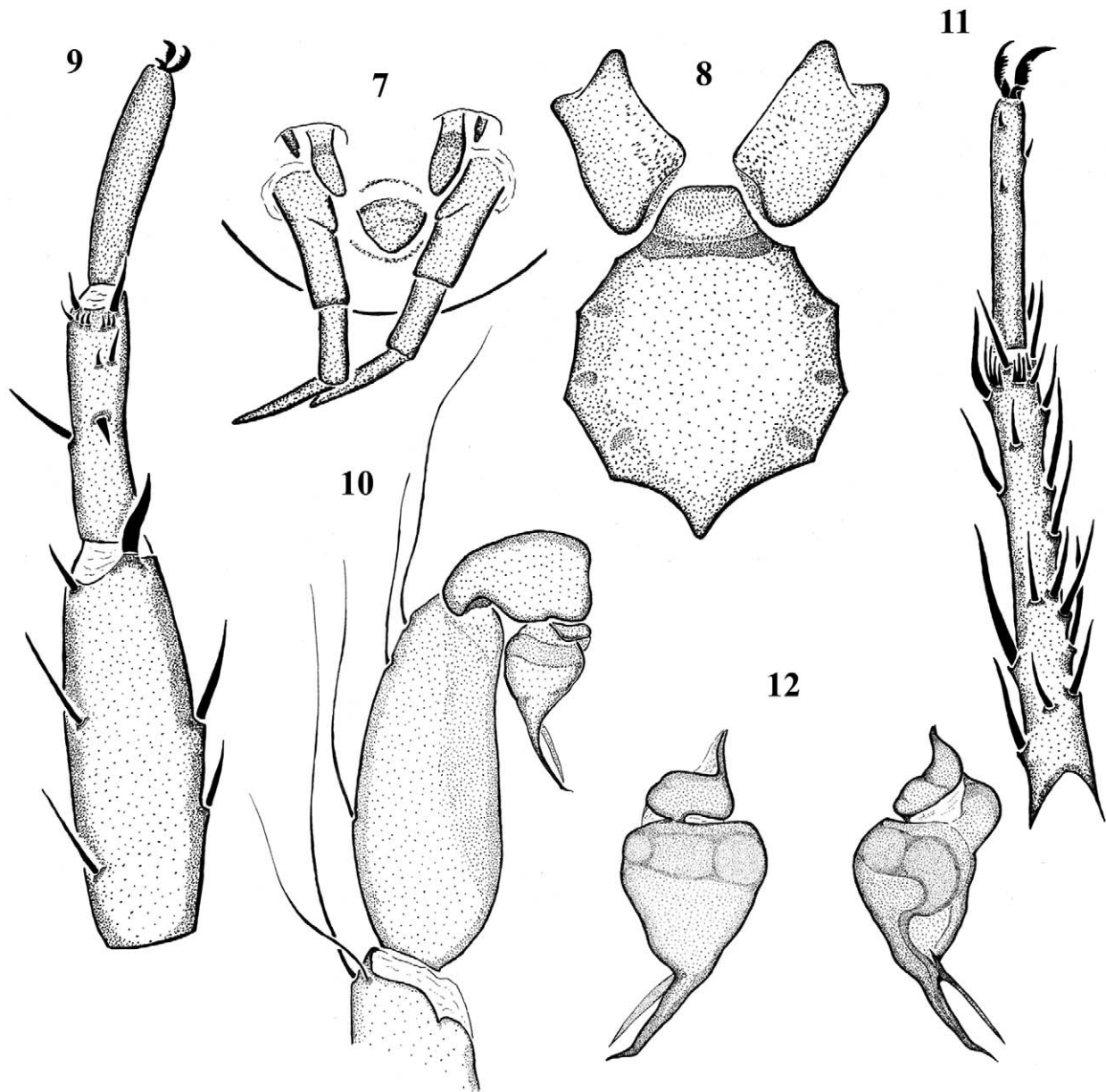
Figs 1–2; 7–13; 16–18

*Hexathele cinereo-pilosa* Simon, 1889: 222 (D♀).

*Scotinoecus cinereopilosus*: Simon, 1892: 188 (*new comb.*); Schiapelli & Gerschman, 1968: 318, figs 9–12 (♀); Calderón, 1973: 238, figs 1–7 (part, ♀ only); Gertsch & Platnick, 1979: 7, figs 27–28; Legendre & Calderón, 1984: 1056, pl. XIX, figs 1–18 (part, ♀ only).



**FIGURES 1–6.** Female *Scotinoecus*. Sternum and maxillae, and spinnerets. 1–2. *S. cinereopilosus*. 3–4. *S. ruiles* sp. nov. 5–6. *S. major* sp. nov.

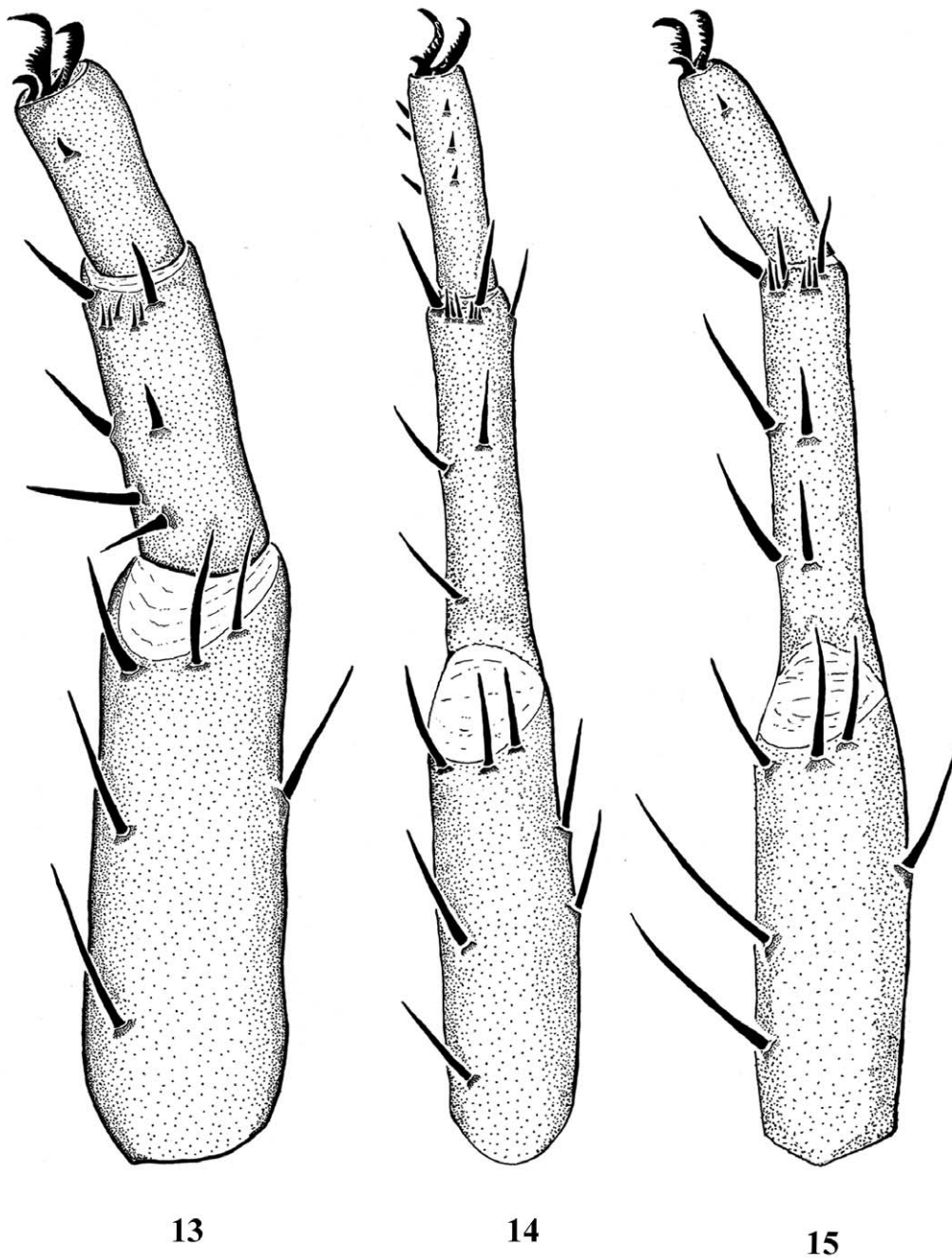


**FIGURES 7–12.** *Scotinoecus cinereopilosus*, male. 7. Spinnerets ventral view. 8. Sternum and maxillae. 9. Right leg I. 10. Right palp. 11. Right metatarsus and tarsus IV. 12. Right male bulb.

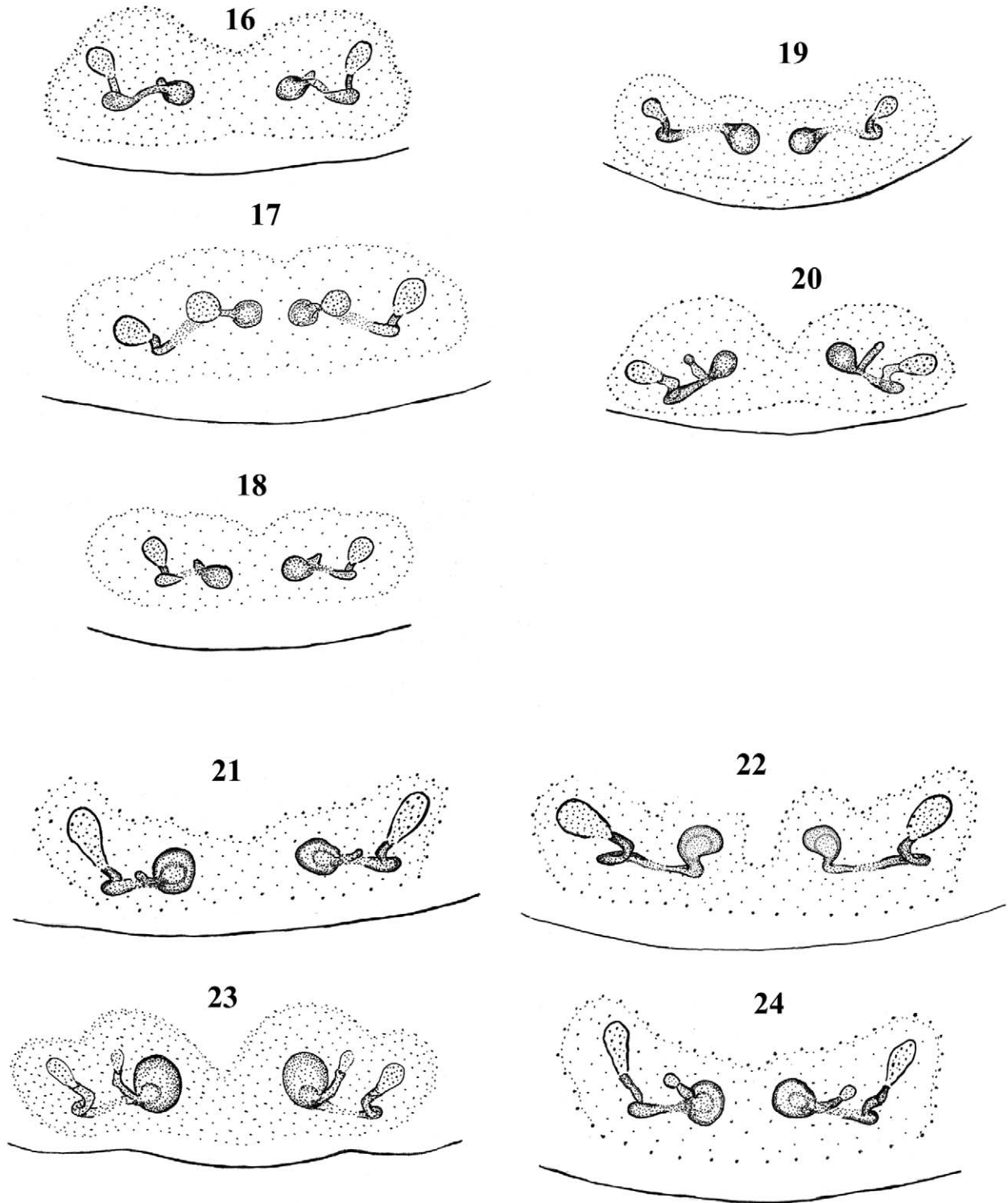
**Diagnosis.** *S. cinereopilosus* can be distinguished from the other species of the genus by its smaller size. Females can be distinguished by the shorter and thicker leg I, sternum with a dark marginal band, and smaller ALS with only 1–2 spigots. Males can be distinguished from those of *S. major* and *S. fasciatus* by the curved embolus tip; the conductor is longer and wider than in *S. major* (reaching almost the tip of the embolus), and thinner than in *S. fasciatus*; it has fewer spines on the tibiae and metatarsi I, more spines on metatarsi IV, and (unlike *S. major*) only 2 R and 1 P on tarsi IV.

**Female.** Total length 10.56. Cephalothorax length 3.60, width 2.64; cephalic region, length 2.40, width 2.04 mm; ALE larger than rest, both eye rows recurved, with 6 and 2 setae in front of, and behind, eye tubercle. Cephalothorax with mid-dorsal line of setae reaching fovea, in front of which they are thicker. Chelicerae large, with many dark antero-dorsal hairs, with 8 large promarginal teeth and 30 denticles towards middle–basal region of furrow, retromargin with long reddish hairs. Labium length 0.36, width 0.88, with 96 cuspules and 13 elongate setae on superior region. Palpal coxae with 91 cuspules. Sternum rounded, length 2.36, width 1.92, with dark marginal band along entire edge, with 3 pairs of sigilla. Leg formula 4123. Opisthosoma long, 5.52, brown with lighter mottling forming transverse lines not reaching middle. Spinnerets long, PLS with basal: medial: apical article of

lengths 1.12: 0.08: 1.04, PMS length 0.64, ALS with two articles, basal length 0.24, distal article very small and digitiform, with two spigots, length 0.08. **Chaetotaxy:** Femora: I–IV and palp with mid-dorsal line of attenuated setae, apical longest; III, 1 p m. Patellae: I, 0; II, 1 p a; III, 1–1–1 P, 1 R M, with many small thick setae; IV, 1 R M, with many small thick setae; palp, 0. Tibiae: I, 1 P M, 2 VA ANT, 1–1–1 V POST; II, 1 P M, 1–1–2 V ANT, 1–1–2 V POST; III, 0–1–1–0 R, 0–1–1–0 P, 1–2–2 V ANT; 1–1–1 V POST, with many small thick setae; IV, 0–1–1–0 P, 0–1–1–0 R, 1–2–2 V ANT, 1–1–1 V POST; palp, 1 P M, 1–0–1–2 V ANT, 1–1–0–2 V POST. Metatarsi: I, 0–1–1 V ANT, 1 V A, 1–1–0–1 V POST, 1–0–0–1 V, with 2 apical preening combs (of 2 bristles); II, 1–1–1 V ANT, 1 V A, 1–1–1 V POST, 0–1–0–1 P, with 3 apical preening combs (of 2–2–4 bristles); III, 1–1–1–1 P, 0–1–1–0 D, 1–1–1–1 V ANT, 1 V A, 1–1–0–1 V POST, with 3 apical preening combs (anterior of 4 or 5 bristles, middle and posterior of 3); IV, 0–1–1–1 P, 1–1–1–1–1 V ANT, 1–0–1–0–1 V POST, 0–1–0–1 D, with 3 apical preening combs (of 5–3–2 bristles). Tarsi: I, 1 V ANT INF; II, 1 P INF, 1 R INF; III, 0–1–1 P, 0–1–1 R; IV, 1–1–1–0 P, 0–1–1–1 R; palp, 1–1–1–1 P, 1–0–1–1 R, 1 V M. Trichobothria: Tarsi I, with 5, II–VI, with 6; metatarsi I–III with 9, IV with 12; tibiae with two rows of 6.



**FIGURES 13–15.** *Scotinoecus*, female right leg I. 13. *S. cinereopilosus*. 14. *S. ruiles* sp. nov. 15. *S. major* sp. nov.



**FIGURES 16–24.** *Scotinoecus*, spermathecae. 16–18. *S. cinereopilosus*. 19–20. *S. ruiles* sp.nov. 19 holotype, 20 variation (Talca: Gil de Vilches). 21–24. *S. major* sp. nov. 21 holotype, 22–24 variation. 22 (San Antonio: Quebrada Córdoba, 5 km E. El Tabo), 23–24 (Linares: El Peñasco–21 km. SE Linares ~200 m.a.s.l.).

**Male.** Total body length 7.80, cephalothorax length 3.36, width 2.76, cephalic region length 2.16, width 2.28; ALE larger than rest; both eye rows recurved; with 7 and 3 setae in front of, and behind, eye tubercle. Chelicerae with 8 large promarginal teeth, and 12–16 denticles towards base of furrow, retromargin with abundant reddish

hairs. Labium length 0.28, width 0.68, with 83 cuspules, and 12 elongate setae on superior region. Palpal coxae with 70 cuspules. Sternum length 1.92, width 1.80, with marginal band as in female. Opisthosoma length 3.60, colored as in female. Spinnerets long, with basal: medial: apical articles of PLS of lengths 0.88: 0.48: 0.72; PMS length 0.44; ALS biarticulate, with basal and apical articles of lengths 0.20 and 0.04. **Chaetotaxy:** Femora: I–IV with a series of 5–7 mid-dorsal line of attenuated setae. I, 1 p ant; II, 1–0–0–1 p; III, 2 p, 1–1–1 r; IV, 1 r, 1 p; palp, 1–1–1–1 d ant, long (anterior longest). Patellae: I, 1 d a (thick); II, 1 p a; III, 1–1–2 P, 1–1–0 R; IV, 1 R M, 1 r b; palp, 5 setae along margin, central ones longest. Tibiae: I, thickened, with 1–1–1 V, 1 V ANT (very thick), 0–1–1–0 P, 1 p b (thick); II, 0–1–1–0 P, 1–1–2 V ANT, 1–1–1 V POST; III, 0–1–1 V ANT, 1–1–1 V, 1–1–1 V POST, 1–1–1 R, 0–1–1 P, 2 d b; IV, 0–1–1–0 P, 0–0–1–1 R, 1–1–1 V ANT, 1–1–1 V, 1–1–1 V POST; palp, about 50 long setae on margin of furrow where bulb rests, 2–3 d (elongate and curved). Metatarsi: I, 0–1–2–1 V ANT, 0–1–0–1 V POST, with 3 preening combs (of 2–3–3 bristles) separated by apical spines; II, 1–1–1–1 V ANT, 1–1–1–1 V POST, 0–0–1–1 P, 1 V A, with 3 preening combs (of 3–2–3 bristles), separated by apical spines; III, 1 D ANT, 1–1–0–1–1 R, 1–1–1–1–0 P, 0–1–1–1–1 V ANT, 1–1–0–0–1 V, 1–1–0–1–1 V POST, with 3 preening combs (of 4–3–4 bristles), separated by apical spines; IV, 1–1–1–0 R, 0–0–1–2 D, 1–1–1–0 P, 1–1–1–1–1 V ANT, 0–1–0–0–1 V, 1–1–0–1–1 V POST, with 3 preening combs (of 4–3–2 bristles). Tarsi: I, 0; II, 1 P INF, 1 R INF; III, 0–0–1–1 R INF, 0–0–1–1 P INF; IV, 0–0–1–1 R, 0–0–0–1 P; palp, 0. Trichobothria: Tarsi 5; metatarsi I–III 8, IV 10; tibiae I–III with two rows of 5, IV with two rows of 9.

**Distribution and habitat.** Found in the southern-central region of the country, provinces of Arauco, Valdivia, Malleco, Cautín, and BioBio. The specimens collected built small webs under logs or rocks, in the forest.

**Other specimens examined.** Chile. Región VIII (Bio–Bio): *Arauco*: Monumento Natural “Contulmo” [38° 1'37"S 73°12'10"W], 11–12 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 13 ♀♀ (MACN), 1 juv. Sur de Contulmo, 14 Feb 1992 (M. Ramírez – N. Platnick – P. Goloboff) 1 ♀ (MACN), 1 juv. *Bio–Bio*: Alto Caledonia. 42 km. E. Mulchen, 470 m [37°46'53"S 71°45'39"W], 14 Feb 1992. (P. Goloboff – N. Platnick – M. Ramírez) 9 ♀♀ (MACN) 2 ♀♀ (AMHN), 1 juv. Región IX (de la Araucanía): *Malleco*: 16 km, de Curacautin (between Curacautin and Tolhuaca) [38°23'55"S 71°42'44"W], 15 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 1 ♀. *Cautín*: Parque Nacional “Conguillio” [38° 30' 0" S 71° 30' 0" W], 23 Feb 1992. (M. Ramírez – N. Platnick – P. Goloboff) 2 ♂♂ (MACN) 1 ♂ (AMNH), 13 ♀♀ (MACN) 2 ♀♀ (AMNH), 1 juv. Región X (de los Lagos): *Valdivia*: 6 km E. Niebla [39°53'13"S 73°19'42"W], 16 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez), 2 ♀♀ (MACN).

### *Scotinoecus ruiles* sp. nov.

Figures 3–4; 14; 19–20

**Type.** Female Holotype (6807 MNHN), Reserva Natural “Los Ruiles” [35° 37' 0" S 72° 21' 0" W], Cauquenes, Chile, 25 Feb 1992 (P. Goloboff–N. Platnick–M. Ramírez).

**Etimology.** The specific epithet is a noun in apposition, taken from the type locality.

**Diagnosis.** *S. ruiles* differs from *S. cinereopilosus* by its larger size, with a longer and proportionally more slender leg I, the ALS larger (almost as big as the PMS) and with 4 spigots. It differs from *S. major* by its smaller size, the narrower sternum (width: length ratio, 0.87), and metatarsi I with fewer spines. The anterior tarsi have more spines than in either of those species.

**Description (Holotype female).** Total length 11.52; cephalothorax length 4.20, width 3.36; pars cephalica length 2.16, width 2.64; ALE larger than rest, with both eye rows recurved, with series of 10 thick setae in front of and 7 behind OQ. Dorsal midline of cephalothorax with series of setae that reach fovea, in front of which are 2 longer ones, and 2 or 3 smaller setae inside pit. Chelicerae with 8 large promarginal teeth, and 30/33 denticles towards basal part of furrow; outer margin with abundant reddish hairs. Labium length 0.48, width 1.00, with 86 cuspules and 15 elongate setae along anterior margin. Palpal coxae with 93 cuspules. Sternum length 2.52, width 2.20, with darker spots along margin, and three pairs of sigilla (posterior ones largest). Opisthosoma length 5.28, light brown, with hairs intermixed with short setae; series of light mottles not reaching center form chevron. Spinnerets long; PLS with basal: medial: apical articles of lengths 1.48: 1.00: 1.28; PMS length 0.76; ALS biarticulate, with basal: apical articles of length 0.48: 0.32, apical one conic, with 4 spigots; PMS and ALS almost of same size. **Chaetotaxy:** Femora: I–IV, series of 5–8 d along midline (apical thickest); I, 1 p a; palp, 1–1–1–1–1 d (apical thickest), 1 p a. Patellae: I, 1 p a; II, 1–1 p sup; III, 0–1–1 r, 0–1–1 p sup; IV, 1 r m; palp, 1 p a. Tibiae: I, 0–1–1–0 P, 1–1–1 V

POST, 2 V A, all weak and slender; II, 1-1-1 V POST, 2-1-0 V ANT; III, 1-1 P, 0-1-1-0 R, 0-1-1 V ANT, 2-2-2 V; IV, 1-1 R, 0-0-1-1 V ANT, 1-1-1 V, 0-0-1-1 V POST; palp, 1-1-1 V ANT, 1 V, 1-1-1 V POST, 1 P. Metatarsi: I, 1-1-1 V POST, 1 V A, 0-1-1 V ANT, with 2 apical preening combs (of 2-3 bristles); II, 1-1-1-1-1 V POST, 1-1-1-0 D, 1 V A, 1 V B, 0-0-1-1 V ANT, 1 R A, on two sides of long apical spine, 2 preening combs (of 2-3 bristles); III, 1-1-0-1 R, 1-1-1-1 P, 1-1-1-1-1 V ANT, 1 V A, 1 V B, 1-1-0-1 V POST, with 3 apical preening combs (of 4-3-2 bristles); IV, 1-1-0-0-1 R, 1-1-0-1-1 P, 0-1-1-1-1 V ANT, 1 V A, 1 V M POST, 1 V B, with 2 apical preening combs (of 3 bristles). Tarsi: I, 1-1-1-0 R, 1-1-1-0 P; II, 0-1-1-1/1-1-1-1 R, 0-1-1-1/0-1-0-1 P; III, 0-1-1-1 P, 0-1-1-1 R; IV, 1-1-1-1/0-1-0-1 P, 0-1-1-1 R; palp, 1-0-2-1 R, 1 V A, 1-1-1-1 P, basal lateral spines longer. Trichobothria: Tarsi I-III 7, IV 9; metatarsi I-III 14, IV 21; tibiae I-III with 2 rows of 8, IV with 2 rows of 9.

**Variation in other females.** Patellae: III, 1 r m, 0-1-1 p sup. Tibiae: I, 1 P M, 2 V A ANT, 1-1-1 V POST; II, 1 P M, 2 V A ANT, 1-1-0-1 V POST; III, 1-1-1 R, 1-1-0 P, 0-1-2 V ANT, 1 V B, 1-1-1 V POST; IV, 0-1-1-0 R, 0-1-2 V ANT, 1 V B, 1 V A POST; palp, 1-1-2 V ANT, 1-1-2 V POST. Metatarsi: I, 0-1-0-1 V ANT, 1 V A, 1 V B, 1-1-1-1 V POST; II, 0-1-0-1 D, 0-1-1 V ANT, 1-0-1 V, 1-1-0-1 V POST, with three apical preening combs (of 2-2-4 bristles); III, 0-1-1-1 V ANT, 1-0-1 V, 1-1-0-1 V POST, 0-1-0-1 D POST, 1 D A ANT, 0-1-1-0 P, with 3 apical preening combs (of 4-2-4 bristles); IV, 0-1-1-1 V POST, 1 V B, 0-1-1-1 V ANT, 0-1-0-1 D A ANT, 0-1-0-1 P, with 2 apical preening combs (of 5-3 bristles). Tarsi: I, 0-1-1-0 P INF, 1 R INF; II, 0-1-1-0 P, 0-1-1-0 R; III, 0-1-1-0 R, 0-1-1-0 P; IV, 0-1-1 R, 0-1-1 P; palp, : 1-1-1-1 V ANT, 1 V M, 1-1-1-1 V POST. Trichobothria: tarsi I-III 5, IV 7; metatarsi I-III 9, IV 13; tibiae with 2 rows of 6.

**Male.** Unknown.

**Other specimens examined.** Chile. Región VII (del Maule): *Talca*: Gil de Vilches [35°33'56"S 70°55'51"W], 7 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 2 ♀♀ (MACN). *Cauquenes*: Reserva Natural “Los Ruiles” [35°37'0" S 72°21' 0" W], 25 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 1 ♀, 2 juv (MACN).

**Distribution.** Known from the provinces of Talca and Cauquenes.

**Note.** The specimens described here come from different localities and present minor differences in their spermathecae, size, and spination. All have the ALS as large as the PMS. In the absence of additional specimens, we prefer to be conservative and consider that all the specimens are conspecific.

### *Scotinoecus major* sp. nov.

Figs 5-6; 15; 21-24

*Scotinoecus cinereopilosus* Calderón, 1973: 238, figs 1-7 (♂ only, missidentified).

**Type.** Female holotype (MNHN 6808), from Quebrada Córdoba [33°29'22"S 71°37'49"W], Valparaíso, Chile. 6 Feb 1992 (P. Goloboff–N. Platnick–M. Ramírez).

**Etymology.** The specific epithet refers to the size of this species, the largest in the genus.

**Diagnosis.** It is distinguished from the other species in the genus by the larger spermathecae, more strongly sclerotized at the base, by having fewer spines on the anterior tarsi, and by the wider sternum (width: length ratio, 0.914). From *S. cinereopilosus*, it is further distinguished by lacking a dark marginal band on the sternum and the larger ALS (as big as the PMS) with 4 spigots, instead of only 1 or 2.

**Description (Female holotype).** Total length 14.40, cephalothorax length 4.92, width 3.96; pars cephalica length 3.12, width 3.12; ALE largest, both eye rows recurved, with group of 10 setae in front of OQ and 6 setae behind; series of 10-11 setae along midline, with 2 longer setae in front of fovea. Chelicerae with 9 large teeth on promargin, with *ca.* 40 denticles in fang furrow (11 denticles along posterior edge of this group of denticles larger than rest, almost resemble row of retromarginal teeth); palpal coxae with *ca.* 95 cuspules, and dense scopula of reddish hairs along anterior margin; labium length 0.72, width 1.12, with *ca.* 75 cuspules and 17 long setae on anterior margin. Sternum wide, length 2.80, width 2.56. Opisthosoma globose, length 6.6, dark brown with small mottling forming chevron of curved lines. Spinnerets long, PLS with basal: medial: apical articles of lengths 1.52: 1.00: 1.60; PMS length 0.80; ALS biarticulate, with basal: apical segments of lengths 0.48: 0.36; apical article of ALS conic, with 4 spigots; PMS and ALS about same size. **Chaetotaxy:** Femora: I, II, IV and palp, with series of 6 d along midline (middle and apical thickest); I, IV, 1 p a; III, long thick dorsal setae, 1 p sup, 1 r a, 1-1-0 d ant, 0-1-



1 d post. Patellae: I, 1 p a; II, 1–1 p m; III, 0–1–1 p sup, 1–1–0 r sup; IV, 1 r m; palp, 1 d m. Tibiae: I, 1 P M, 2 V A ANT, 1–1–1 V POST; II, 1 P M, 2 V A ANT, 1–1–1 V POST; III, 1–1 R SUP, 1–1 P SUP, 1–1–1 V POST, 1–2–2 V ANT; IV, 1–1 R SUP, 1 P M, 0–1–1–2 V ANT, 0–1–1 V POST; palp, 1–1–2 V ANT, 1–1–2 V POST, 1 P M. Metatarsi: I, 1–1–1 V ANT, 1–1–1 V POST, 1 V A, with 2 apical preening combs (of 2 or 3 bristles); II, 1–1–1 P SUP, 1–1–1 V ANT, 1–1–1 V POST, 1 V A, with 3 apical preening combs (of 2–2–3 bristles); III, 1–1–0–1 R SUP, 1–1–1–1 P SUP, 1–1–0–1 V POST, 1–1–1–1 V ANT, with 3 apical preening combs (of 4–2–4 bristles); IV, 0–1–0–1 R SUP, 0–1–1–1 P SUP, 0–1–0–1 V POST, 1–1–1–1–1 V ANT, with 2 apical preening combs (of 3–5 bristles). Tarsi: I, 1/1–1 P INF, 0/1 R INF; II, 1–1–1–2 P INF, 1–1–1 R INF, 1 V MED (left leg), or 1–1–1–1–1 P INF, 1 R INF (right leg); III, 0–1–1–1 P INF, 1 V M, 1–1–1 R INF; IV, 0–1–1–1 P INF, 1–2–1–1 R INF; palp, 1–1–1–1–1 P INF, 1 V M, 0–1–0–2–1 R INF. Trichobothria: Tarsi I–IV with 8; metatarsi I–III with 11, IV with 18; tibiae with 2 rows of 7.

**Variation in other females.** Femora: III, 1–1 p sup. Patellae: II, 1–1 p; Tibiae: II, 1–1 P SUP, 0–1–2 V ANT; III, 1–2–2 V ANT, 1–1–1 V POST; IV, 1–0–1–0 R SUP, 1–0–1–0 P SUP, 2 V ANT, 1–1V B, 0–1–0–1 V POST; palp, 1–1–1–2 V ANT. Metatarsi: II, 0–1–0–1 P SUP, 1–1–1–1 V ANT, 1–1–1–1 V POST, with 2 apical preening combs (of 2–3 bristles); III, 2–1–1–1–1 V ANT, 1 V A, 1–1–0–1–1 V POST, 1–0–1 R SUP, with 3 apical preening combs (of 2–3–3 bristles); IV, 2–1–1–1–1 V ANT, 1–1–0–1 V POST, with 2 apical preening combs (of 3–2 bristles). Tarsi: I, 1–1 P INF, 1 R INF; II, 1–1–1 P INF; IV, 1–1–1 R INF.

**Male.** Described by Calderón (1973) as the male of *Scotinoecus cinereopilosus*.

**Other specimens examined.** Chile. Región V (Valparaíso): *San Antonio*: Quebrada Córdoba, 5 km E. El Tabo [33°29'22"S 71°37'49"W], 6 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 4 ♀♀ (MACN) 1 ♀ (AMNH). Región VII (del Maule): *Linares*: El Peñasco (21 km SE Linares) ~200 m.a.s.l. [36° 1'35"S 71°32'48"W], 8 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 6 ♀♀ (MACN) 1 ♀ (AMNH). 16.3 km. E. Linares [35°50'58"S 71°25'15"W], 8 Feb 1992 (M. Ramírez – N. Platnick – P. Goloboff) 6 ♀♀ (MACN).

**Distribution and habitat.** Regions V and VII. The specimens were collected from sheet webs that were larger than in other species. Retreats were often at the base of plants or grasses; webs seemed more aerial than in other species, resembling those of *Ischnothele* (see Coyle 1995, figs. 4–6). The type and specimens from Linares Province come from localities separated by about 250 km. Although Linares is situated in a different biogeographical region, the specimens from El Peñasco were collected on banks and hills where the vegetation was more scrubby than typical for the region; specimens of *Calathotarsus* (Migidae, a genus typical from Central Chile, and collected as well in Quebrada Córdoba) were also collected there (see comments on natural history of *Acanthogonatus peni-asco* in Goloboff, 1995, p. 109). The specimens from 16.3 km E Linares were collected in the more typical vegetation of the region. Despite some morphological differences, specimens from all three localities agree in essential details –including the group of denticles in the fang furrow with those denticles along the posterior edge enlarged, and the large ALS with more numerous spigots– and thus all are concluded to be conspecific.

### *Scotinoecus fasciatus* Tullgren, 1901

*Scotinoecus fasciatus* Tullgren, 1901: 183; Carbonell, 1924: 184 (transcription of Tullgren's description); Schiapelli & Gerschman, 1968: 319, figs 1–8 (♀, D ♂); Legendre & Calderón, 1984: 1059, pl. XX, figs 1–14 (♂ ♀).

**Diagnosis.** Distinguished from other congeners by the smaller and more widely separated spermathecae and further from *S. cinereopilosus* in the absence of a darker marginal band on the sternum, from *S. ruiles* and *S. major* in the smaller apical segment of the ALS, with only 5–6 spigots. The male bulb is more rounded than in the other known males of the *Scotinoecus* (*S. major* and *S. cinereopilosus*), with a lamellar conductor.

**Male, female.** See Schiapelli & Gerschman (1968) and Legendre & Calderón (1984).

**Specimens examined** (all in MACN). Argentina: Prov. de Tierra del Fuego: entre Río Grande y Estancia “La Despedida”, Apr 1967 (E. Massoia), 1 ♂ 5995, 1 ♀ 5996 (labeled as “Allotypus” and “Lectotypus”, respectively).

## Genus *Mediothele* Raven & Platnick, 1978

### *Mediothele* Raven & Platnick, 1978: 74.

Until now, the genus *Mediothele* included a single species, *M. australis*, described from a single male from Southern Chile; no further males are known of the genus. The genus was originally included in Dipluridae, but later transferred (Raven, 1985) to Hexathelidae, proposing *Scotinoecus* as its sister group.

In this genus, morphological differences between species are more marked than in *Scotinoecus*, especially in leg, cephalothorax and sternum shape, and chaetotaxy. The much simpler spermathecae have only minor differences between species (often within the observed range of individual variation among specimens of a single locality).

**Type species.** *Mediothele australis* Raven & Platnick, 1978

**Diagnosis.** Differs from *Scotinoecus* in the labium and maxillae having few (female) or no (male) cuspules; fangs with basal outer tooth. PLS spinnerets short, ALS two-segmented much shorter than PMS; thickened femora III; patellae III with strong prolateral spines; patellae III and IV with many prolateral and dorsal anterior strong setae. Male tibia I with one large and one small spur, and associated thorn on metatarsus; bulb pyriform, without conductor.

Many of these somatic characters (fang tooth, shorter spinnerets, thickened femora, and patellae with strong spines and setae) are probably associated with a burrowing lifestyle.

**Habits.** Spiders of all known species live in small silk-lined burrows with an open entrance.

**Monophyly.** By out-group comparison, essentially all of the characters in which it differs from *Scotinoecus* are synapomorphies of *Mediothele*. The monophyly of the genus is thus well established. The low numbers of labial (and maxillary) cuspules are best interpreted as a reversal, as (according to Raven's 1978, 1985 hypotheses of hexathelid relationships) they occur in several successive sister groups.

### *Mediothele australis* Raven & Platnick, 1978

Figures 25–32

*Mediothele australis* Raven & Platnick, 1978: 74, figs 1–7.

**Diagnosis.** Females can be distinguished from those of all the other species except *M. minima* by the tarsi I without spines and metatarsi I with very few spines; and from all other *Mediothele* by the anteriorly narrowed sternum, the long spermathecae with the secondary lobe bent inwards, and the more numerous spigots (10–13) on the apical article of the ALS. (Males of other species remain unknown.)

**Female.** Total body length 8.64, cephalothorax long, slightly convex, length 3.00, width 2.28; pars cephalica length 1.92, width 1.80. Clypeus narrow, ALE largest, both eye rows recurved; with 10 setae in front, and 8 setae behind eye tubercle. Dorsal midline of cephalothorax with series of 7 setae reaching fovea; fovea procurved. Chelicerae robust, elongated; with strong apical hairs resembling “rastellum”; with 8 large promarginal teeth and 24 denticles occupying basal half of fang furrow. Palpal coxae with 13/15 cuspules; labium 0.28 long, 0.68 wide, without cuspules. Sternum as wide as long, 1.72, narrower in anterior part, with three pairs of small marginal sigilla. Leg formula 4123. Opisthosoma elongated, 3.96 long, brown with lighter chevron interrupted in middle. PLS long, with basal: medial: apical articles of lengths 0.64: 0.36: 0.32; PMS monoarticulate, length 0.48; ALS biarticulate, basal article length 0.16, apical segment of length 0.08, small, curved outwards and with 10/13 spigots. Tarsi I 0.56 long, 0.28 wide; metatarsi length 0.88. **Chaetotaxy:** All femora with series of dorsal setae along midline. Patellae: I, 0; II, 1 P A; III, 1 R M, 1–1–0–1 D, 9 P A (forming apical verticil), 7 P; IV, 1–1–2 P; palp, 0. Tibiae: I, 1 P M; II, 1–1–1–0 P, 1 V A ANT, 1–1–1 V POST; III, 1–1–1–0 D, 0–1–1–0 R, 4–3–0 P, 1–0–2 V ANT, 1 V A POST; IV, 1–1 R, 1 D B, 1–1–1–0 P, 1–1–2 V ANT, 1 V M, 1 V POST; palp, 0–1–2 V ANT, 1–1–2 V POST, all long, weak. Metatarsi: I, 1 V A ANT, 1 V POST, 1–1–0–0 V, with apical preening comb (of 3 bristles); II, 1 V A ANT, 1 V B, 0–1–0–1 V POST, with apical preening comb (of 4 bristles); III, 1–1–1 V ANT, 1 V A (thin), 1 V POST, 1–1–1 D, 3–2–2–1 P, with 3 apical preening combs (of 5–3–5 bristles); IV, 1–1–0–1 D, 1–1–1–1 P, 2–1–1 V ANT, 1 V B, 0–1–1 V POST, with 2 apical preening combs (of 7–4 bristles). Tarsi: I–III, 0; IV, 1 R A; palp, 0–1–1–0 V, 0–0–1–2 R INF,

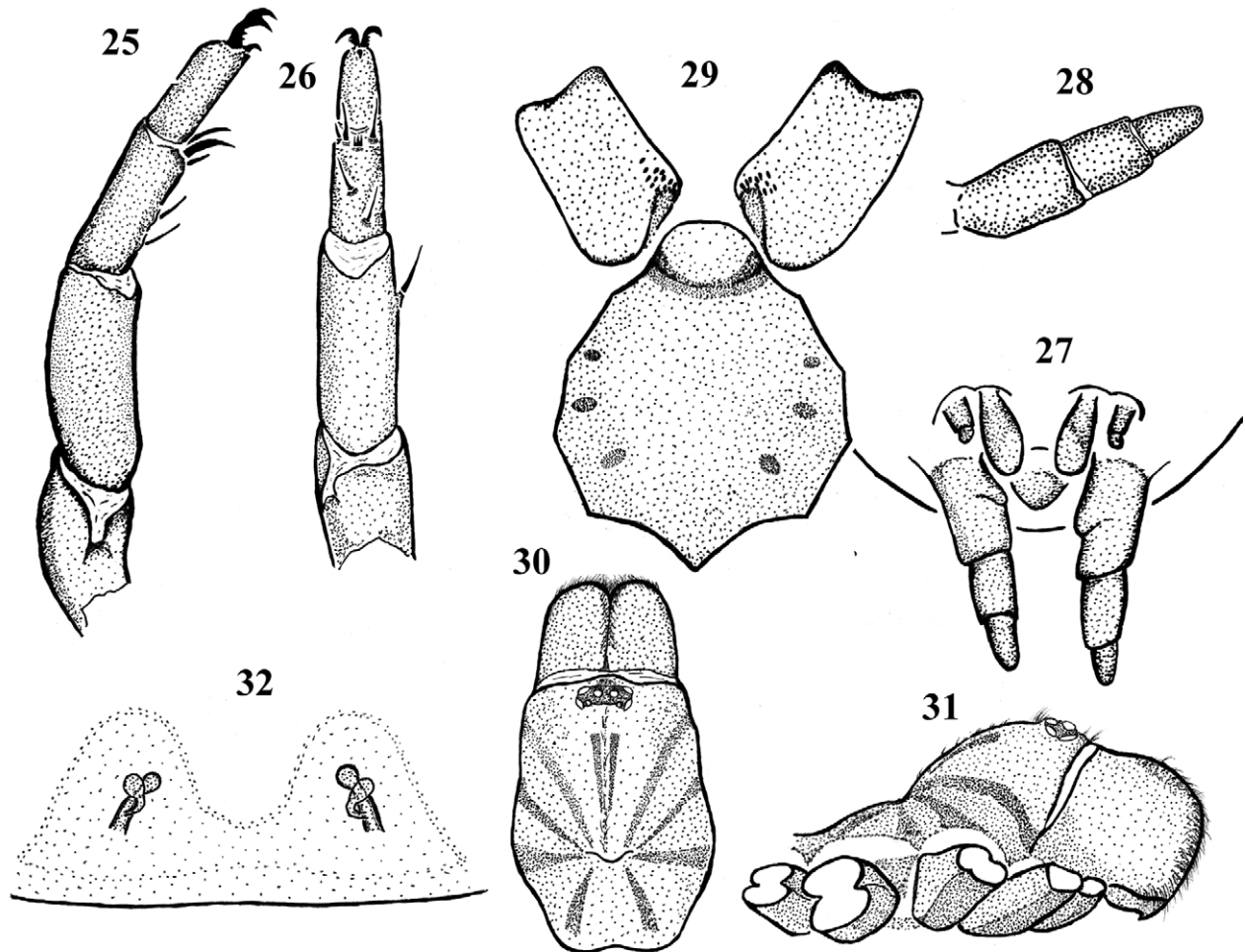
0–1–1–1 P INF, 6 P A. Trichobothria: all tarsi with 4, forming straight line; metatarsi I–III with 4, IV with 8; tibiae with double row of 4.

**Male.** Described by Raven and Platnick (1978).

**Distribution.** Chile: Región VIII (Del Bio–Bio): Provinces of *Concepción* (male) and *Arauco* (female)

**Other specimens examined.** Chile: Región VIII (del Bio–Bio): *Arauco*: Pata de Gallina, S. of Contulmo [38° 3'38"S 73°13'44"W], 14 Feb 1992 (M. Ramírez – N. Platnick – P. Goloboff) 2 ♀♀ (MACN).

**Note.** The females described here were not collected with the males; they are assigned to the species because of their similar size and relative geographic proximity (about 140 km).



**FIGURES 25–32.** *Mediothele australis*, female. 25–26. Right leg I, retrolateral and ventral views. 27–28. Spinnerets. 29. Sternum and maxillae. 30–31. Cephalothorax. 32. Spermathecae.

***Mediothele minima* sp. nov.**

Figures 33–38

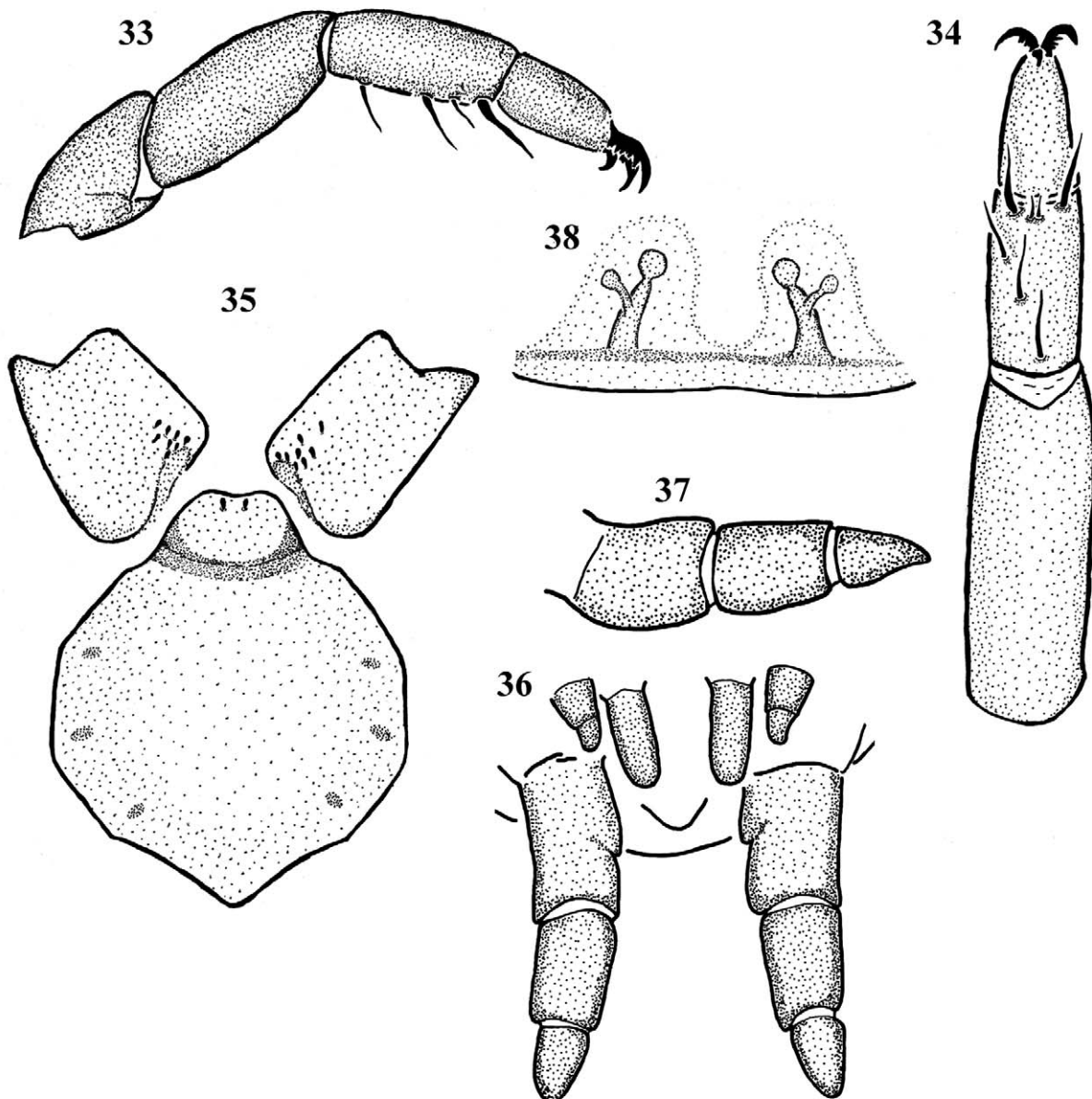
**Types.** Female holotype (6809 MNHN) from Casablanca [33°19'14"S 71°24'25"W], Valparaiso, Chile, 8 Jan 1984 (P. Goloboff).

**Etymology.** The specific epithet refers to the small size of this species.

**Diagnosis.** *M. minima* is the smallest species of the genus; females also differ from those of all the other species, except *M. australis*, by the shorter and thicker tarsi and metatarsi I; they can also be distinguished from all other *Mediothele* by the much more elongated spermathecae and rounded sternum.

**Female (Holotype).** Total body length 4.92; cephalothorax elongate, of length 1.56, width 1.08; pars cephalica length 0.96, width 0.96. ALE largest, both eye rows recurved, with 6 thick setae before, and 4 thick setae behind ocular group. Fovea straight; dorsal midline of cephalothorax with series of 8 setae reaching fovea. Chelicerae with

rastellum-like thick setae on anterior edge; with 6 large promarginal teeth and 10 denticles in basal part of fang furrow. Palpal coxae with 4–8 cuspules. Labium length 0.16, width 0.36, with 2 cuspules (other females with 1–3). Sternum wide, subcircular, 0.88 long, 0.92 wide, with three pairs of small marginal sigilla. Opisthosoma elongate, length 2.52, light brown, with lighter transverse bands forming chevron interrupted centrally. PLS with basal: medial: apical articles of lengths 0.36: 0.24: 0.12; PMS monoarticulate, length 0.28; ALS biarticulate, basal article 0.12 long, apical article very small, domed, of length 0.08, with 3–4 spigots. Tarsi I short, length 0.32, width 0.16; Metatarsi I 0.44 long. **Chaetotaxy:** All femora with series of dorsal setae along midline. Patellae: I, 0; II, 1 p a; III, 1–1 P, 1–2 D plus long basal dorsal seta, 7 P to D (from middle to edge); IV, 0–1–1 P; palp, 0. Tibiae: I, several long v and d setae; II, 1–1–1 v post (long and thin), 2 v a ant; III, 2 V A ANT, 2–2 P, 2–2 D, 1 R, with many r and d small and thickened setae; IV, 0–1–2 V A, 1 V A POST, 1 D B, 1 R ANT, 1–1–0 P; palp, 3 d a, 1–0–1–1 P, 1 V ANT, 2 V POST. Metatarsi: I, 1 V ANT, 1–1–0 V, 0–0–1–1 V POST, with apical preening comb (of 2 bristles); II, 1 P MED, 1 V A ANT, 1 V B, 0–1–1–2 V POST; III, 0–1–1–1–1 R, 1–1–1–1 P, 0–1–1 V ANT, 1 V A, with 2 apical preening combs (of 4 bristles each); IV, 1–1–0–1 D, 1–1–0–1 P, 1–1–1 V ANT, 1 V A, with 2 apical preening combs (of 5–3 bristles). Tarsi: I–IV, 0; palp, 0–1–1–1 P, 0–1–1–1 R. Trichobothria: all tarsi with 3; metatarsi I–III with 3, IV with 4; tibiae with 2 rows of 3.



**FIGURES 33–38.** *Mediothele minima* sp. nov., female. 33–34. Right leg I, retrolateral and ventral views. 35. Sternum and maxillae. 36–37. Spinnerets. 38. Spermathecae.

**Male.** Unknown.

**Distribution and habitat.** Known only from the type locality. The specimens were found in small burrows in a small forested gully.

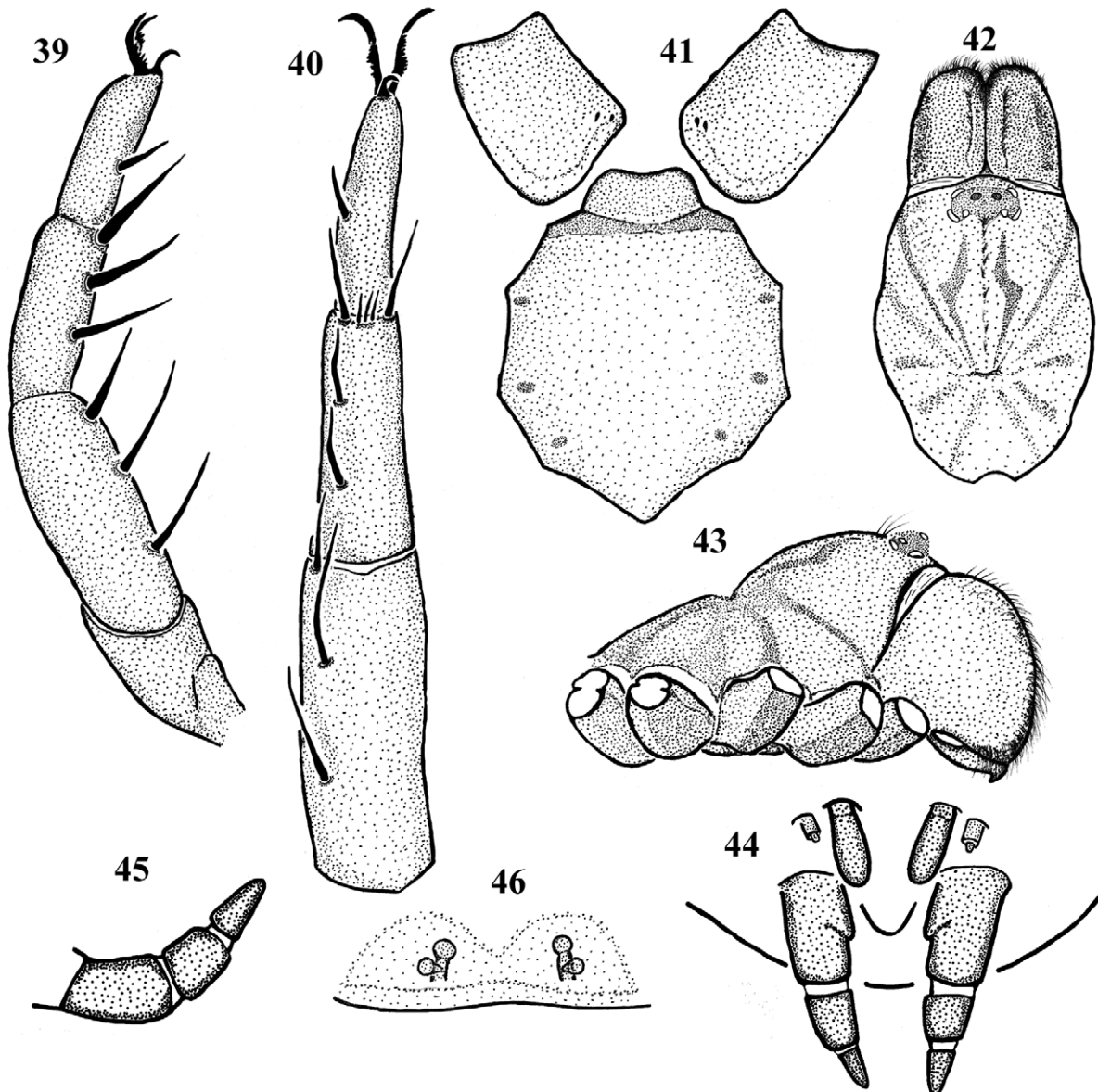
**Other specimens examined.** Chile: Región V (Valparaiso): *Valparaiso*: Casablanca [33°19'14"S 71°24'25"W], 8 Jan 1984 (P. Goloboff) 12 ♀♀ (MACN).

***Mediothele linares* sp. nov.**

Figures 39–46

**Type.** Female Holotype (6810 MNHN) from El Peñasco, 21 km. E. Linares [36° 1'35"S 71°32'48"W], Linares, Chile, Jan. 1984 (P. Goloboff).

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



**FIGURES 39–46.** *Mediothele linares* sp. nov., female. 39–46. Right leg I, retrolateral and ventral views. 41. Sternum and maxillae. 42–43. Cephalothorax. 44–45. Spinnerets. 46. Spermathecae.

**Diagnosis.** Females of *M. lineares* can be distinguished from those of all other species by the narrower and more elevated pars cephalica, the spermathecae with very short ducts, and the spination of the forelegs. From *M. minima*, they can also be distinguished by the thinner and more elongated tarsi and metatarsi I. From *M. lagos* and *M. nahuelbuta*, they can also be distinguished by the wider sternum.

**Female (Holotype).** Total body length 6.00; cephalothorax very narrow, and arched; length 2.28, width 1.68. Cephalic region length 1.56; width 1.44. ALE largest, both eye rows recurved, with 5 setae before ocular group and 3 behind. Fovea straight; dorsal midline of cephalothorax with series of 6–7 setae reaching fovea. Both sides of cephalic region with dark elongated S-shaped marks. Chelicerae with rastellum-like thick setae on anterior edge; with 7 large promarginal teeth and *ca.* 12 denticles irregularly placed in basal part of fang furrow. Palpal coxae with 2–4 cuspules. Labium length 0.24, width 0.52, without cuspules, and *ca.* 20 bristles on anterior margin. Sternum wide and rounded, 1.40 long, 1.04 wide; with three pairs of small sigilla. Opisthosoma length 3.00; light brown, with transverse bands forming chevron interrupted centrally. PLS with basal: medial: apical articles of lengths 0.40: 0.24: 0.28; PMS monoarticulate, length 0.36; ALS biarticulate, basal article 0.12 long, apical article very small and sharp, 0.04 long, with 2 spigots. Tarsi I long, length 0.52, width 0.20, metatarsi I 0.88 long. **Chaetotaxy:** All femora with series of dorsal setae along midline. Patellae, tibiae, and metatarsi III with many small thick p and d setae. Patellae: I–II, IV, 0; III, 0–1–3 P; palp, 1 P A INF. Tibiae: I, 1–1–1 V POST; II, 1–1–1 V POST; III, 1 R A, 1 D B, 1–1 P, 1 P A INF; IV, 1–1–1 V ANT (thin); palp, 1–1–2 V POST; 1–1–2 V ANT. Metatarsi: I, 0–1–1 V ANT, 1–1–2 V POST, with apical preening comb (of 3 bristles); II, 1 V A ANT, 1–1–1 V POST, with apical preening comb (of 3 bristles); III, 1 V A ANT, 1 V A POST, 0–1–1 P SUP, 0–1–1 R SUP, with 2 apical preening combs (of 5–4 bristles); IV, 0–1–0–1 P SUP, 0–1–1 V ANT, 1–1 R SUP, with apical preening comb (of 5 bristles). Tarsi: I, 1 R INF; II, 1–1–1 R; III–IV, 0; palp, 0–1–1–1–1 P, 0–1–1–1 R INF. Trichobothria: all tarsi with 4; metatarsi I, II, IV with 4, III with 5; all tibiae with two rows of 4.

**Male.** Unknown

**Distribution.** Region VII (*del Maule*), province of *Curicó* and Region VIII (*del Bio–Bio*), province of *Ñuble*.

**Other specimens examined.** Chile: Region VII (*del Maule*). *Linares*. El Peñasco, 21 km. E. Linares [36° 1'35"S 71°32'48"W], Jan. 1984 (P. Goloboff) 4 ♀♀ (MACN) 1 ♀ (AMNH). *Curicó*: Los Queñes, 5 km–O– [35° 0'15"S 70°52'6"W], Jan. 1984, (P. Goloboff), 5 ♀♀ (MACN). *Linares*: El Peñasco (21 km. SE. Linares ~ 200m) [36° 1'35"S 71°32'48"W], 8 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 1 juv (MACN). Region VIII (*del Bio–Bio*): *Ñuble*: 4.5 km, E. San Fabián (E. San Carlos). 820 m [36°34'8"S 71°30'13"W], 24 Feb 1990, (P. Goloboff – N. Platnick – M. Ramírez) 2 ♀♀ (MACN).

### *Mediothele nahuelbuta* sp. nov.

Figures 47–52

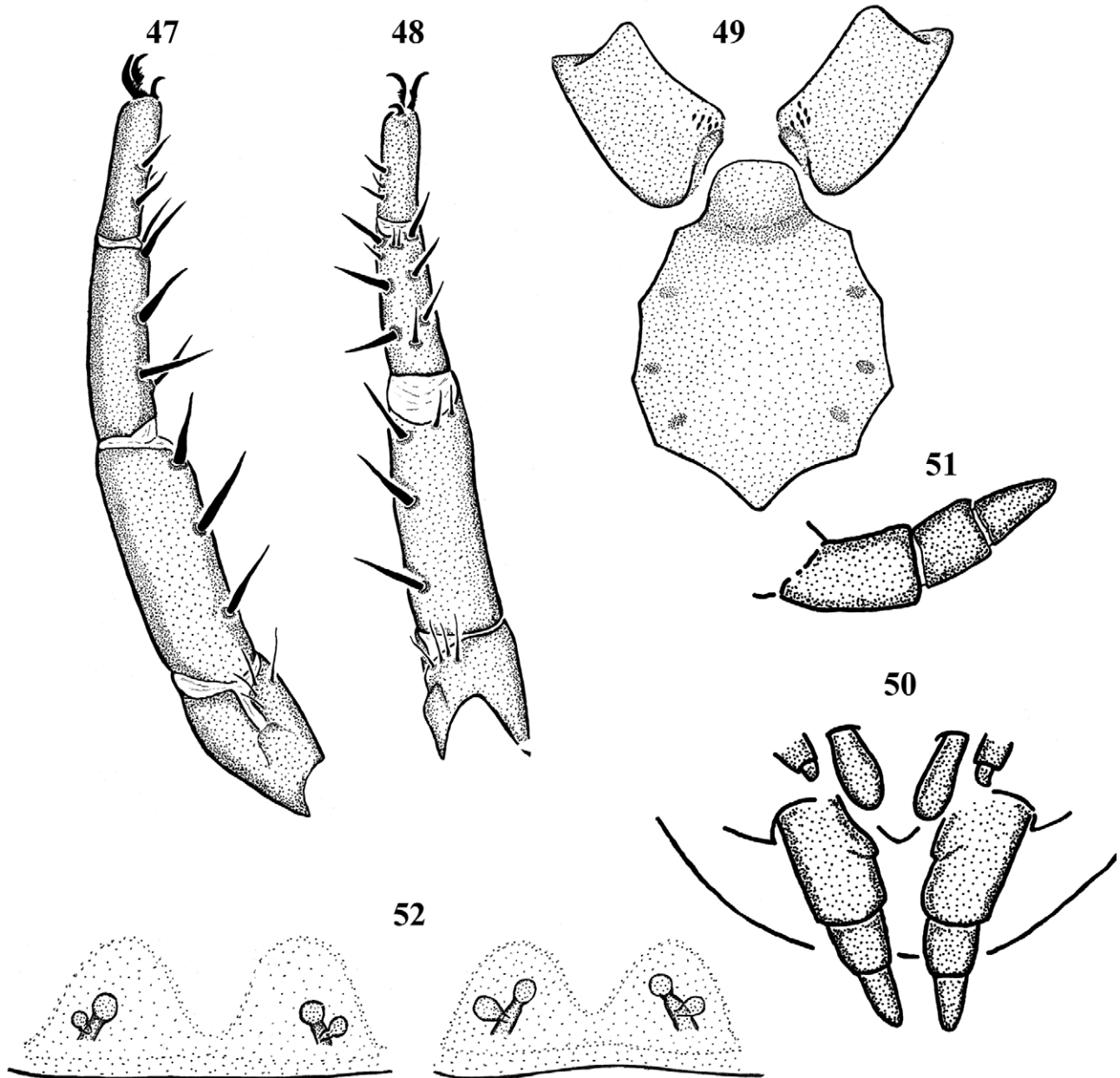
**Type.** Female Holotype (6811 MNHN) from Parque Nacional Nahuelbuta [37°47'47"S 72°59'43"W], Malleco, Chile. 13 Feb 1992 (M. Ramírez–N. Platnick–P. Goloboff).

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

**Diagnosis.** Females of *M. nahuelbuta* can be distinguished from those of *M. lagos* by their wider labium and shorter spermathecae, and from those of all the other congeners by the spination of leg I and the narrower sternum. They also differ from those of *M. minima* by their larger size, from those of *M. australis* by the shorter spermathecae, and from *M. lineares* by their wider cephalothorax.

**Female (Holotype).** Total body length 8.52. Cephalothorax wide, slightly arched, length 3.60, width 2.76. Cephalic region, length 2.28, width 2.28. ALE largest, anterior ocular row straight, posterior recurved, with 8 thick setae before, and 6 thick setae behind, ocular group. Fovea straight; dorsal midline of cephalothorax with series of 7 setae reaching fovea. Chelicerae robust, with rastellum-like thick setae on anterior edge, with 7 large promarginal teeth and 8 denticles in basal part of fang furrow. Palpal coxae with 4–7 cuspules. Labium length 0.32, width 0.68, without cuspules. Sternum rounded, 1.96 long, 1.76 wide, with three pairs of marginal sigilla. Opisthosoma length 4.08, light brown with lighter transverse bands forming chevron interrupted in center. PLS with basal: medial: apical articles of lengths 0.64: 0.40: 0.44; PMS monoarticulate, length 0.48; ALS biarticulate, basal article 0.20 long, apical article very small, 0.08 long, with 6–7 spigots. Tarsi I 0.84 long, 0.32 wide, metatarsi I length 1.32. **Chaetotaxy:** Patellae, tibiae and metatarsi III–IV with many small spine-like setae from P edge to dorsal midline. Femora:

I, 1-1-1-1-1 d; II, 1-1-1 d (1: 2 b); III, 0; IV, 1-1-1-1-1 d; palp, 1 p a sup, 1 p a inf. Patellae: I, 2 v a; II, 0; III, 0-1-2 P; IV, 0; palp, 1 P. Tibiae: I, 1-1-1 V POST; II, 1-2-1 V POST; III, 1-1-2 P, 1 D B, 1 R A; IV, 1-1-1 V ANT (thin); palp, 1-0-2-2 V ANT, 2-0-1-2 V POST. Metatarsi: I, 0-1-1-1 V ANT, 1-1-1 V POST, 1 V B, with apical preening comb (of 2 bristles); II, 1 V A ANT, 1-1-2 V POST, with apical preening comb (of 2 bristles); III, 0-1-1 R SUP, 1-1-1 P SUP, 1 V A ANT, 1 V A, 1 V A POST, with 3 apical preening combs (of 5-2-3 bristles); IV, 1-1-1-0-1 P, 0-1-0-1 R SUP, 1-0-1-1 V ANT, 1 V (thin), 2 V A POST, with 2 apical preening combs (of 7-5 bristles). Tarsi: I, 1-1-1-0 V POST; II, 1-1-0 V; III-IV, 0; palp, 1-1-1-1 P INF, 1-1-0-1-1 R INF, 1 V M. Trichobothria: tarsi I-III with 4, IV with 5; metatarsi I-III with 5, IV with 7; all tibiae with two rows of 4.



**FIGURES 47–52.** *Mediothele nauhelbuta* sp. nov., female. 44–48. Right leg I, retrolateral and ventral views. 49. Sternum and maxillae. 50–51. Spinnerets. 52. Spermathecae, holotype (left) and variation (right—*Malleco*: Monumento Natural Contulmo, 12 Jan 1989).

**Variation in other females.** Patellae: II, 1 p a; III, 1-1-2 P. Tibiae: II, 1-1-1 V POST; III, 1 D B, 0-1-1 R SUP, 1-0-1 P SUP, 0-1-1 P INF. Metatarsi: I, 0-1-1-1-1 V ANT, 0-1-1-1-2 V POST, 1-1-1-1 V (thin); II, 1-1-1-2 V POST, 1 V ANT, 0-1-0-1 P SUP, with 2 apical preening comb (of 2-3 bristles); III, 0-1-1-1 V ANT, 1 V A POST, 0-1-1-1 P SUP, 0-1-0-1 R SUP, with 3 apical preening combs (of 4-3-4 bristles); IV, 0-1-0-1 R SUP, 1-

1–1–0–1 P INF, 0–1–1–1 V ANT, 1 V A POST, with 2 apical preening combs (of 6–3 bristles). Tarsi: I, 2–1–1–0 R INF, 1 P M INF; II, 1–1–1 P INF (the two basal ones thinner). Trichobothria: Tarsi I, II, and IV with 4, III with 3; metatarsi I, II with 5, III with 4, IV with 7; tibiae I–IV with two rows of 4.

**Male.** Unknown.

**Distribución.** Known only from Region IX (*de la Araucanía*), province of *Malleco*.

**Other specimens examined.** Chile: Región IX (*de la Araucanía*): *Malleco*: Monumento Natural Contulmo [38° 1'41"S 73°12'10"W], 12 Jan 1989 (M. Ramírez – Maury) 5 ♀♀, 1 juv (MACN). 11–12 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 4 ♀♀ (MACN) 1 ♀ (AMNH), 2 juv., Parque Nacional Nahuelbuta [37°47'47"S 72°59'43"W], 13 Feb 1992 (M. Ramírez – N. Platnick – P. Goloboff) 2 ♀♀ (MACN).

**Observations.** Specimens from Contulmo present small differences from other specimens (the cephalothorax is shorter, with the fovea procurved, and the spermathecae are slightly different, see Fig. 52, right). They share the peculiar spination of the anterior tarsi and metatarsi. When more adults are known, the specimens from Contulmo may prove to belong to a different species.

### *Mediothele anae* sp. nov.

Figures 53–58

**Type.** Female Holotype (6812 MNHN) from Reserva Natural Los Ruiles [35°50'24"S 72°29'46"W], Cauquenes, Region VII, Chile. 25 Feb 1992 (P. Goloboff–N. Platnick–M. Ramírez).

**Etymology.** The specific name honors Ana Tamayo Espinosa, mother of the senior author.

**Diagnosis.** Females differs from those of *M. australis* and *M. nahuelbuta* by the more numerous spines on tarsi and metatarsi I and the smaller spermathecae with a more globose basal region. The cephalothorax of the female is wider and less elevated than in those of *M. linares*.

**Female (Holotype).** Total body length 10.80. Cephalothorax elongated, length 3.72, width 2.88. Cephalic region length 2.40, width 2.28. ALE larger than rest, anterior ocular row straight, posterior recurved. Fovea straight, dorsal midline of cephalothorax with series of 11 setae reaching fovea. Chelicerae with rastellum-like thick setae on anterior edge, with 7 large promarginal teeth and *ca.* 22 denticles irregularly placed in basal part of fang furrow. Palpal coxae with 6–7 cuspules. Labium length 0.32, width 0.76, with 2 cuspules. Sternum 2.04 long, 1.92 wide, with three pairs of sigilla. Opisthosoma length 4.80, light brown, with transverse bands forming chevron interrupted in middle. PLS with basal: medial: apical articles of lengths 0.72: 0.44: 0.52; PMS monoarticulate, length 0.56; ALS biarticulate, basal article 0.24 long, apical article very short, of length 0.12, with 5–6 spigots. Tarsi I length 0.8, width 0.28, metatarsi I 1.36 long. **Chaetotaxy:** Patellae and tibiae III–IV, and metatarsi III with many small spine-like setae around P edge to dorsal midline; such spines less numerous on metatarsi IV. All femora with 1–1–1–1–1 d; palp, 1 P A SUP, 1 P A INF. Patellae: I–II and IV, 0; III, 0–1–1–1 P SUP; palp, 1 P A. Tibiae: I, 1–1–1–1 V POST; II, 0–1–0–1 P, 0–1–0–1 V; III, 1 V ANT, 1–0–1 P SUP, 0–1–1 P INF, 1 D B, 0–1–1 R SUP; IV, 1–1–1 V ANT; palp, 1–1–2 V ANT, 1–1–2 V POST. Metatarsi: I, 0–1/0–1–1 V ANT, 0–1/1–0 V, 1–1–1–1–2 / 1–1–1 V POST, with apical preening comb (of 2 bristles); II, 1 V ANT, 1–1–1–1 V POST, with apical preening comb (of 3 bristles); III, 0–1–0–1 R SUP, 0–1–1–1 P, 0–0–1–1 V ANT, 1 V A POST, with 3 apical preening combs (of 5–3–5 bristles); IV, 1–1–1 P SUP, 1–1–1–1 V ANT, 1 V A POST, 0–1–0–1 R SUP, with 2 apical preening combs (of 6–4 bristles). Tarsi: I, 1–1–1–0 R INF; II, 1 P M INF; III–IV, 0; palp, 1–1–1–1–1 P INF, 0–1–1–1 R INF. Trichobothria: all tarsi with 5; metatarsi I–III with 6, IV with 8; all tibiae with two rows of 4.

**Male.** Unknown.

**Distribution.** Known only from the type locality.

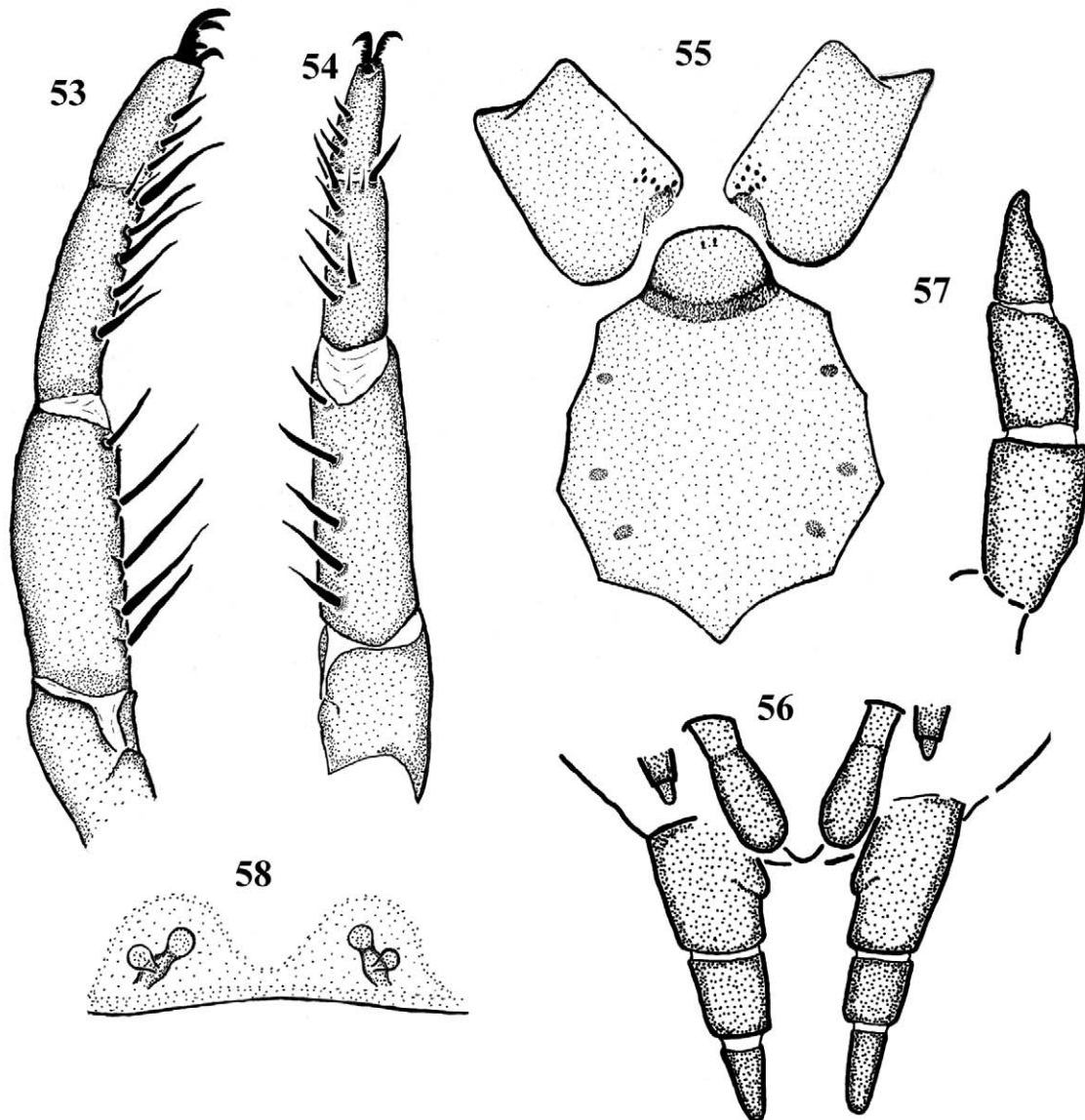
**Other specimens examined.** Chile: Región VII (*del Maule*): *Cauquenes*: Reserva Natural Los Ruiles [35°50'24"S 72°29'46"W], 25 Feb 1992 (P. Goloboff – N. Platnick – M. Ramírez) 2 ♀♀, 1 juv (MACN).

### *Mediothele lagos* sp. nov.

Figures 59–64

**Type.** Female Holotype (6813 MNHN) from Los Lagos, 6 km. E. Niebla [39°52'16"S 73°19'30"W], Valdivia, Chile. 16 Feb 1992 (P. Goloboff–N. Platnick–M. Ramírez).





**FIGURES 53–58.** *Mediothele anae* sp.nov., female. 53–54. Right leg I, retrolateral and ventral views. 55. Sternum and maxillae. 56–57. Spinnerets. 58. Spermathecae.

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

**Diagnosis.** Females of *M. lagos* can be distinguished from those of all other species of the genus by the more elongated sternum, and from all other species except *M. nahuelbuta*, by the larger number of spines on metatarsi I and the straighter and more elongated spermathecae. It also differs from *M. nahuelbuta* by the slightly more elongated labium and the stronger, more numerous prolateral spines on metatarsi I.

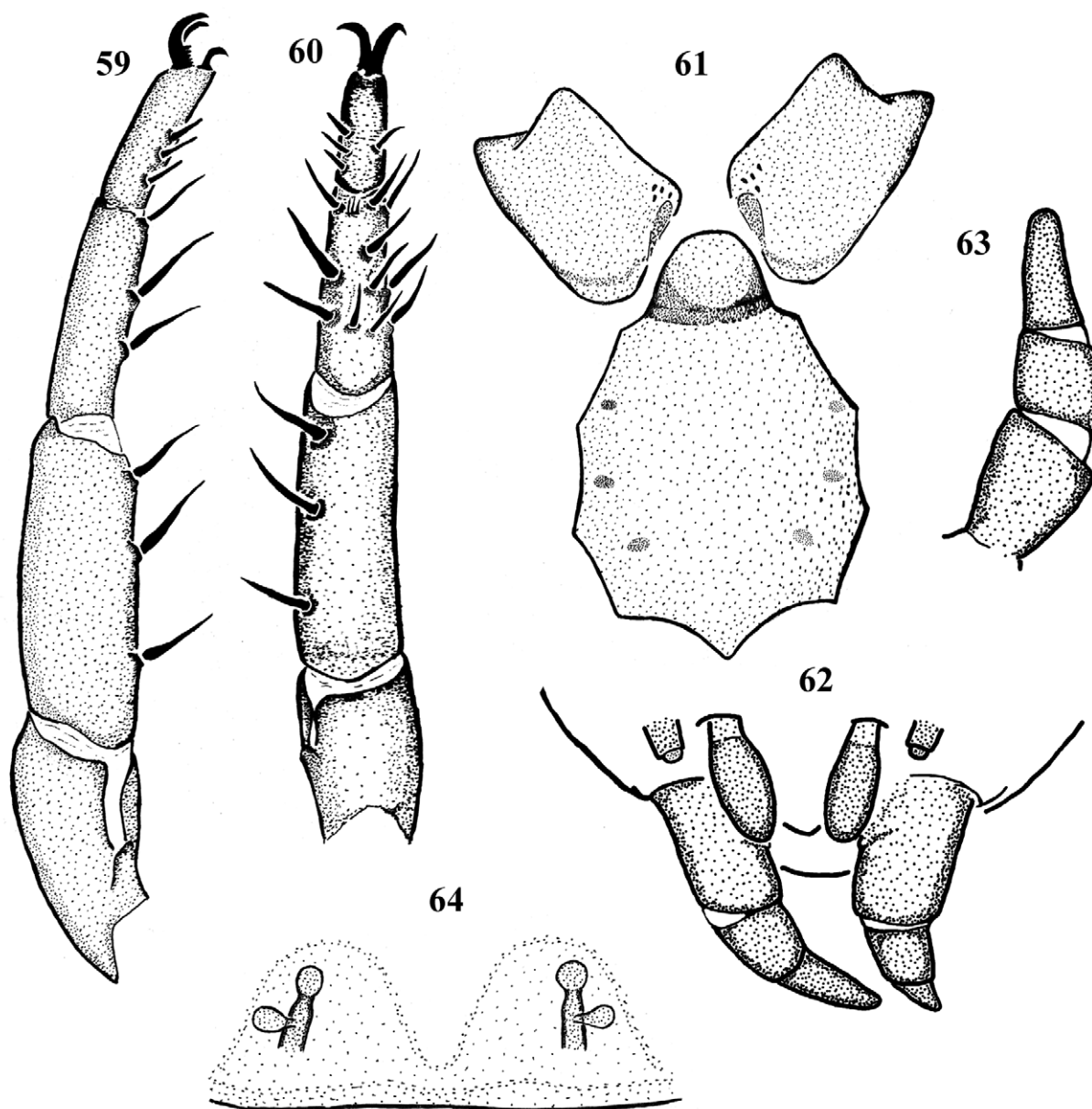
**Female (Holotype).** Total body length 10.44. Cephalothorax length 3.96, width 3.00 Cephalic region length 2.64, width 2.40. ALE larger than rest, anterior ocular row straight, posterior recurved, with 8 thick setae before and 5 thick setae behind OQ. Fovea procurved, dorsal midline of cephalothorax with series of 11 setae reaching fovea. Chelicerae with rastellum-like thick setae on anterior edge; with 7 promarginal teeth and about 18 denticles irregularly placed in basal part of fang furrow. Palpal coxae with 3 cuspules. Labium length 0.40, width 0.76, without cuspules. Sternum length 2.24, width 1.88; with three pairs of small sigilla. Opisthosoma length 4.32 light brown, with transverse bands forming chevron interrupted in middle. PLS with basal: medial: apical articles of lengths 0.72: 0.36: 0.60; PMS monoarticulate, length 0.52; ALS biarticulate, basal article 0.20 long, apical short, of length 0.12, with 7–8 spigots. Tarsi I length 0.92, width 0.32, metatarsi I 1.40 long. **Chaetotaxy:** Patellae and tibiae III–IV, and metatarsi III, with many small spine like setae from P edge to dorsal midline; such setae less numerous

on metatarsi IV. Femora, all with 1-1-1-1-1 d; palp, 1 p sup. Patellae: I-II and IV, 0; III, 0-1-2 P; palp, 1 P INF. Tibiae: I, 1-1-1 V POST; II, 1-1-1 V POST; III, 1 R A, 1 D B, 1 V A ANT, 1 V A POST (thin), 1-1-0 P SUP, 0-1-1 P INF; IV, 1-1-1 V ANT (thin); palp, 1-1-2 V ANT, 1-1-2 V POST, 1 P M. Metatarsi: I, 1-1-1-1 V ANT, 1-1-1 V POST, 1-1-0-1 P SUP, 1-0-0-1 V, with apical preening comb (of 2 bristles); II, 0-1-1 V ANT, 1-0-0-1 V, 1-1-2 V POST, with 2 apical preening combs (of 3-5 bristles); III, 1-1-1 V ANT, 0-1-1 V POST, 1-1-1 P SUP, 0-1-0-1 R SUP, with 3 apical preening combs (of 5-2-4 bristles); IV, 0-1-0-1 R SUP, 1-1-0-1 P, 0-1-1-1-1 V ANT, 1 V B, 1 V A POST, with 2 apical preening combs (of 3-5 bristles). Tarsi: I, 1 P B INF, 1-1-1-0 V POST; II, 1 P M INF, 1-1-0 R INF; III-IV, 0; palp, 1-1-1-1 P, 1-1-1-1 R, 1 V M. Trichobothria: Tarsi I, II, IV with 5, III with 3; metatarsi I-III with 6, IV with 9; all tibiae with two rows of 4.

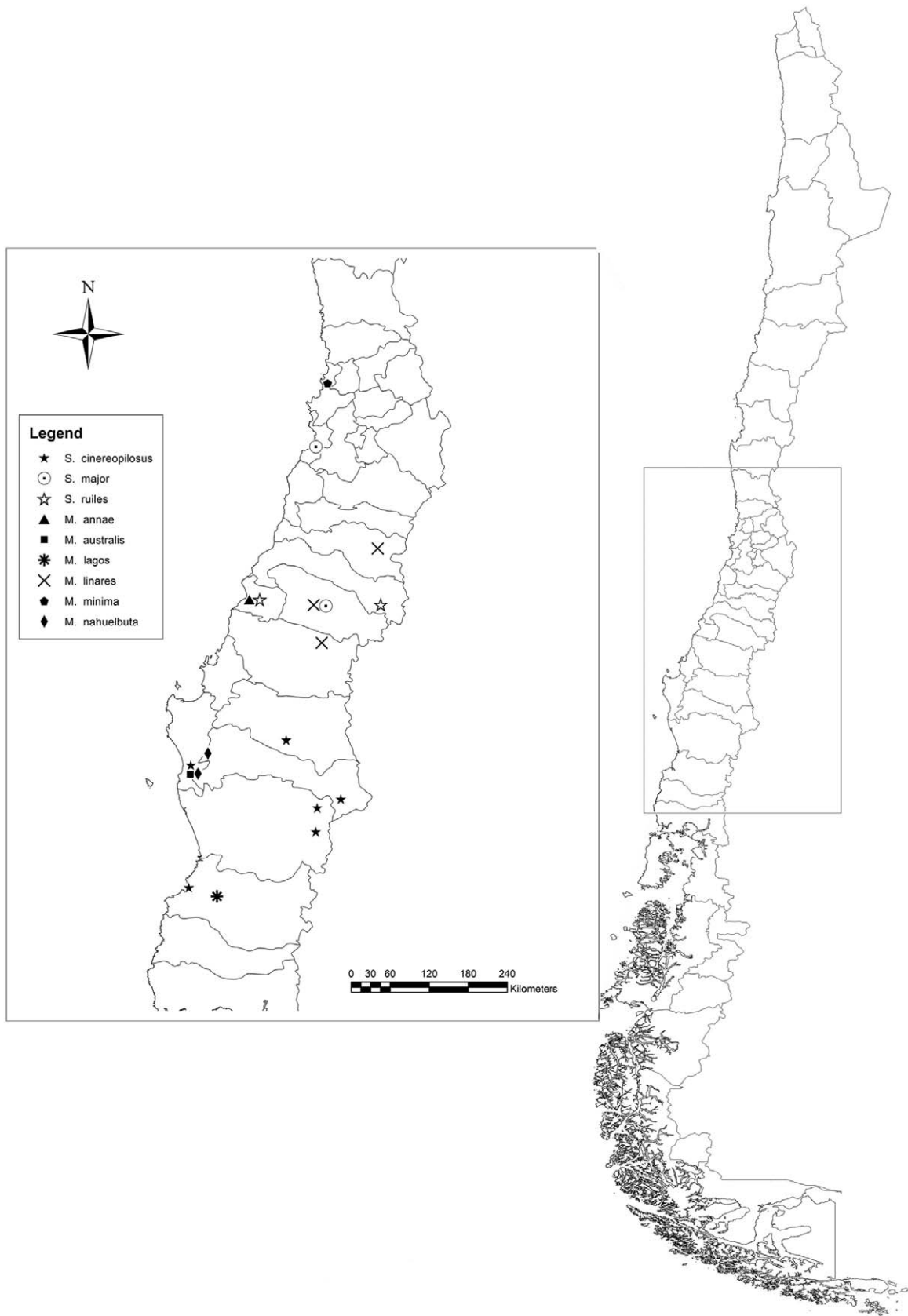
**Male.** Unknown.

**Distribution.** Known only from the type locality.

**Other specimens examined.** Chile: Región X (los Lagos): *Valdivia*: 6 km, E. Niebla [39°52'16"S 73°19'30"W], 16 Feb 1992 (P. Goloboff - N. Platnick - M. Ramírez) 2 ♀♀, 1 juv (MACN).



**FIGURES 59–64.** *Mediothele lagos* sp. nov., female. 59–60. Right leg I, retrolateral and ventral views 61. Sternum and maxillae. 62–63. Spinnerets. 64. Spermathecae.



**FIGURE 65.** Known distribution of *Scotinoecus* and *Mediothele*.

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