A review of the Chilean spider genus *Olbus*, with notes on the relationships of the Corinnidae (Arachnida, Araneae)

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The Chilean spider genus *Olbus* is revised to include five species: *Olbus sparassoides* (Nicolet), and four new species, *O. jaguar*, *O. nahuelbuta*, *O. eryngiophilus*, and *O. krypto*. The genus is diagnosed by the presence of one apical thickened seta on the palpal tarsus. Differing from the subfamilies Corinninae, Castianeirinae and Trachelinae, the median apophysis is retained on the male palpal bulb, as occurs also in the corinnid genera *Ianduba* Bonaldo, *Mandaneta* Strand, *Procopius* Thorell and *Pseudocorinna* Simon. *Olbus* and these genera are placed in Corinnidae incertae sedis. A particular arrangement of enlarged cylindrical gland spigots, at least three on posterior median spinnerets, and two on posterior laterals, is proposed as a synapomorphy of Corinnidae. *O. krypto*, only known from a male with quite divergent characters, is placed provisionally in the genus.

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Introduction

The genus *Olbus* was proposed by Simon (1880) for a Chilean spider that he had seen only from a poorly preserved specimen, described by Nicolet (1849) as a heteropodid, *Olios sparassoides*. In fact, the general appearance of this and some other species of the genus is quite similar to that of many heteropodids, because of the pale color with dark dots. Some years later, Simon (1897) changed his mind, and attributed the genus to a group of distinctive tropical anyphaenid spiders with recurved posterior eye rows. In 1904, after having examined a fresh female, he became aware of the confusion, returned *Olbus* to the Heteropodidae, and erected the genus *Olboptalmus* for the anyphaenids *Olbus personatus* Simon and *Olbus gonnellei* Simon. Mello-Leitão (1943) described what he believed to be the male of *O. sparassoides*, based on a specimen from Maullín, in Llanquihue Province. The specimen could not be found, but his illustration of the copulatory bulb allow us to identify the species as a new one, described below.

Relationships

According to current and newly discovered knowledge, *Olbus* is most closely related with some Corinnidae. First, the apical dorsal projection on the metatarsi is sclerotized, wide, and unilobate (Fig. 8, 20), differing from the membranous trilobate piece typical of heteropodids (e.g., Jäger 1998). The trichobothrial bases have the characteristic elongated ridge traversing a lowered plate (Fig. 10) which is a synapomorphy of Corinnidae (Bonaldo 1997), excluding *Oedignatha* Thorell, the sole member of *Oedignathinae* (ABB pers. obs., Robert Raven, pers. comm.). Furthermore, females have enlarged cylindrical gland spigots, in a disposition that seems to be characteristic for Corinnidae: three on the median (one anterior, two posteriors) forming a triangle, and
Figures 1, 2. (1) *Olbus sparassoides* (Nicolet), female from Alto Caledonia; (2) *O. jaguar* sp. n., male from Contulmo.
Figures 3-7. *Olbus eryngiophilus* sp. n., from Contulmo: (3) female; (4) female feeding on a beetle; (5) eggsacs; (6) same, translucent spiderlings (speedlight from behind); (7) the plant *Eryngium* cf. *paniculatum*, with leaves united by silk threads (arrow).
two on the lateral posterior spinnerets (Fig. 11, 12). The same pattern is present in the castianeirines (e.g., Castianeira Keyserling, pers. obs.), the basal corinnids Ianduba Bonaldo (Bonaldo 1997), Mandaneta Strand and Procopius Thorell, as well as in Stethorrhagus
Olbus Simon (Bonaldo & Brescovi 1994) and in the other 16 genera recognized as typical corinines by Bonaldo (2000). Oedignatha has reduced posterior spinnerets, but shows the same pattern of cylindrical gland spigots (R. Raven, pers. comm.). In the trachelines the basic pattern of cylindrical gland spigots on posterior median spinnerets seems to be further modified, having an additional pair posterior to the original triangle (e.g., Meriola Banks [Platnick & Ewing 1995: fig. 9]; South American species of Trachelas, pers. obs.), or multiple rows of several spigots (Trachelopachys Simon, pers. obs.). The morphology of the trichobothrial bases suggests that all corinines except Oedignatha form a monophyletic group. The many plesiomorphic conditions present in Olbus and Ianduba undermine support for placing them in the subfamilies Corinninae, Castianeirinae or Trachelinae. Differing from the three of them, both genera bear a well developed median apophysis, and do not have a coiled spermathecal duct as in the Corinninae (Platnick & Baptista 1995; Bonaldo 2000), a pear-shaped male palpal bulb with the special modifications of the Castianeirinae (Reiskind 1969), or the leg cusp typical of the Trachelinae. On the other side, we are not aware of any putative synapomorphy linking Olbus or Ianduba with Oedignatha, which also has a normally developed median apophysis.

The absence of the median apophysis suggests close relationship of Corinninae, Castianeirinae and Trachelinae, but other characters suggest conflicting relationships. At least Olbus and Ianduba share with Corinninae widened and sclerotized pulmonary openings (Fig. 35, 42), as well as a complex pattern of male palpal tibial apophyses. Olbus also shares with some corinines an apical ventral globose tibial process, just prolateral to the articulation with the cymbium. Groups of modified apical setae on palpal tarsi similar to those of Olbus (Fig. 14, 22-24) are found in males of Medmassa cf. nitida (Lawrence 1937), which apparently belongs to an undescribed African genus, and in males of certain trachelines. Until a thorough analysis is made, Olbus is left incertae sedis in Corinnidae, together with Ianduba and the African genera Mandoneta, Procoptus and Pseudocorinna Simon.

Material and methods

The format of the descriptions follows Ramirez & Grismado (1997), with slight modifications for spine distribution: if left and right spines of a segment differ, right and left counts are separated by a slash. The symbol < indicates that a spine is smaller than the rest or replaced by a bristle. If two spines are not exactly, but approximately paired, they are noted in parentheses. For example, 0-d1-1(1d1) is equivalent to 0-0-0-1-0-0-1-d1. All measurements are expressed in millimeters. Tracheae were observed after digestion of noncuticular tissues with 10-20% KOH solution at 100°C in a double boiler. Vulvae were dissected and digested with a protease enzyme (contact lenses cleaner Hydrocare™), and observed in lactic acid or clove oil with compound microscope. Vulvae of additional specimens were observed in clove oil, without digestion. See Acknowledgments for acronyms of institutions.

Genus Olbus Simon


Diagnosis. – Males, females and immatures can be distinguished from other corinines by bearing one apical thickened seta on the palpal tarsus.

Note. – Olbus krypto is placed here provisionally, because its females are still unknown, and the male has several modified setae on the cymbial tip (instead of only one), as is found in an undescribed African genus.

Description. – Total length 4.15-16.45. Carapace oval in dorsal view, moderately flattened (except O. krypto). Thoracic groove longitudinal, long. Clypeal height approximately equal to AME diameter, anterior eye row slightly procurred or straight in frontal view, posterior slightly recurved or straight in dorsal view. Median ocular quadrangle approximately square. All eyes subequal, medians circular, laterals slightly oval or circular. Anterior lateral eyes on tubercles, posterior laterals slightly projecting. Chilum reduced, weakly sclerotized, bipartite (except O. krypto, entire), not haired. Chelicerae robust, globose, with three teeth on promargin (median larger), and two (except O. krypto, three) on retromargin, not sexually dimorphic (except in O. eryngiophilus). Endites with prolateral margin curved around the
Figures 14-17. *Olbus eryngiophilus* sp. n., female from Contulmo: (14) tip of pedipalp showing claw and modified seta, prolateral view; (15) tarsal organ, left leg IV; (16, 17) tip of left tarsus IV, prolateral claw tuft torn off.
labium (except *O. krypto*, straight). Labium short, slightly notched apically, with lateral constrictions at base. Sternum slightly longer than wide, anterior margin curved, covered by short setae, thickened at base. Legs formula 1243 or (1=2)43. Legs moderately long, scopulae on tarsi and metatarsi (Fig. 21), only on distal third of metatarsi of legs III, IV (Fig. 21). Two pectinate claws, tarsal claw tufts dense, composed by slightly spatulate setae, not precisely aligned (Fig. 16, 17). Tarsal organ capsule, with ovate aperture (Fig. 15). Tarsal trichobothria in 2 rows, trichobothrial bases with elongated ridge(s) traversing a lowered plate (Fig. 10). Rectocoxal window (a low mound on first coxae, with unsclerotized apex, Fig. 18, 19; Raven 1998) present. Female palpal tarsus clavate, with pectinate claw, and prolateral, thick, blunt modified seta (Fig. 14); males have similar seta on cymbium, but with acute tip (Fig. 22-24). Trochanters not notched (except *O. krypto*). Spines very strong on legs I, II, 5-6 pairs on tibia and 2 pairs on metatarsi, divergent, appearing raptorial. Pattern of spines quite variable among individuals, and between sides of one individual. Metatarsi III, IV with ventral apical cluster of setae (Fig. 20), ventral apical spines absent on all metatarsi, and tibiae I, II. (*O. krypto* has different pattern of spines.) Abdomen oval, without scutum. Margin of pulmonary opening wide, sclerotized (Fig. 9, 42). Some species have tracheal spiral with anterior margin sclerotized, slightly projecting (tracheal tubercle in Bonaldo 2000). Four simple tracheae limited to abdomen (only *O. jaguar* examined). Colulus small, unlobate, hairy. Anterior lateral spinnerets conical, convergent, subcontiguous, two-segmented, distal segment short, truncate (Fig. 11). Posterior median spinnerets of females slightly oval, with three large cylindrical gland spigots with short, coadapted, enlarged bases and long cylindrical shafts (Fig. 12). Those of males longer, weaker, without cylindrical gland spigots (Fig. 13). Posterior lateral spinnerets two-segmented, conical, convergent, those of females with two cylindrical gland spigots similar in shape like those of posterior median spinnerets. Anal tubercle small, not modified. Male palp (see Fig. 26-31) with femur and patella unmodified, tibia with complex pattern of apophyses, simplified in some species, the general elements are: basal retrolateral lobe, weakly sclerotized, covered by short setae, thickened at base; distal retrolateral apophysis, biramous, ventral branch movable in some species; prolateral apical globose process, ventral, just prolateral to tibia-cymbium membranous articulation. Cymbium elongate, with apical dorsal scopula, some species with retrolateral basal rounded projection. Basal haematodocha large, petiolus triangular, subtegmentum cup-shaped, with anelli, and concavity where heavily sclerotized condiulus of tegulum fits. Median haematodocha small, indistinct. Tegulum large, voluminous portion displaced basally, often with rounded lobe prolateral to base of median apophysis. Spermatic duct running clockwise (left palp ventral view), thicker basal segment surrounding distal haematodocha, then narrowing basally, describing two curves into base of tegulum, first one to dorsal, second to ventral side. Embolic division articulate, with conspicuous basal embolic process, embolus variable in length, if long, running counterclockwise. Median apophysis often biramous, articulate. Conductor variable, often translucent, with canal where embolus lies (except *O. krypto*), arising apically, just ventral to basal segment of spermatic duct. Epigynum with lateral lobes separate or contiguous, with curved opposing borders (except *O. eryngiophilus*). Proximal copulatory ducts intricate, weakly sclerotized, copulatory openings difficult to locate. Secondary spermathecae (Bonaldo 2000; referred as accessory bulb, diverticulum, or head of spermatheca by other authors) with medium to long shafts. Distal copulatory ducts long, contorted, spermathecae irregular.

**Composition.** – Five species here reviewed.

**Distribution.** – All species are endemic to central to south Chile.

*Olbus sparassoides* (Nicolet)  
(Fig. 1, 26-31)  
*Olios sparassoides* Nicolet 1849: 415; Simon 1864: 410 (syntypes 1♂ lacking palps and 1♀ No. 4111, and 1 immature lacking abdomen No. 4112 from Chile, no specific locality, in MNHN, examined). *Olbus sparassoides* Simon 1880: 296; 1897: 93, 101, 102; 1904: 99; Petrunkevitch 1911: 497; 1928: 159.

Figures 18-25. (18-21) *Olbus nahuelbuta* sp. n., female from P. Nac. Nahuelbuta; (22-25) *O. jaguar* sp. n., male from 2-3 km NW of Ensenada: (18) leg I, retrolateral view (arrow to retrocoxal window); (19) detail of retrocoxal window; (20) hind metatarsus, showing ventral tuft of setae, and unmodified dorsal projection; (21) scopula setae on hind tarsus, prolateral view; (22) modified seta on tip of cymbium, ventral view; (23, 24) same, details; (25) tip of conductor, ventral view.

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L.E. Peña, Iq (AMNH); El Manzano, nr. Contulmo, 15.XI.1985, L. E. Peña, Iq (AMNH), CONCEPCIÓN PROV.; Bajada Chivilingo, 15.XI.1992, T. Cekalovic, Iq (AMNH); Caleta Chome, 30.XI.1991, T. Cekalovic, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Zq (AMNH); El Manzano, 8.XI.1992, T. Cekalovic, Iq (AMNH); Escuadrón, S Concepción, elev. 5m, 36°57'S, 73°09'W, 18.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Escuadrón, S Concepción, elev. 5m, 36°57'S, 73°09'W, 18.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Escuadrón, S Concepción, elev. 5m, 36°57'S, 73°09'W, 18.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH); Cerro Caracol, Concepción city, elev. 200m, 36°51'S, 73°02'W. 17.XI.1993, N. Platnick, K. Catley, M. Ramírez, T. Allen, Iq (AMNH).
Figures 26-31. Olbus sparassoides (Nicolet): (26) left male palp, ventral view; (27) same, retrolateral view; (28) female epigynum, ventral view; (29) epigynum, dorsal view, cleared; (30) left male palp, expanded, copulatory bulb approximately in posterior view (arrow to pointed projection of subtegulum); (31) same, copulatory bulb in retrolateral view. aMA = apical portion of MA; BH = basal haematodocha; bMA = basal portion of MA; brTA = basal retrolateral tibial apophysis; drTA = distal retrolateral tibial apophysis; C = conductor; CD = copulatory duct; E = embolus; EP = embolar process; S = spermatheca; SS = secondary spermatheca; ST = subtegulum; T = tegulum.

depression anterior to median field. Copulatory openings not visible. Copulatory duct arising wide, weakly sclerotized, following margins of lateral lobe, then narrowed, tightly coiled, lumen becoming partitioned, contorted near irregular spermatheca. Secondary spermatheca with curved
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Figures 32-35. (32-34) Stridulatory structures on male *Oebus jaguar* sp. n., from Chepu: (32) modified setae on femur III, dorsal-retrolateral-apical view; (33) same, detail; (34) retrolateral ridge on femur IV; (35) *Corinna ducke* Bonaldo, margin of the wide and sclerotized pulmonary spiracle.

Natural history. – Specimens were collected beating foliage.
Distribution. – Southern Chile, from Cauquenes to Cautín Provinces.

Olbus jaguar sp. n. (Fig. 2, 10-13, 22-25, 32-34, 36-41, 42-49)


Other material examined. – CHILE: REGIÓN VIII
Figure 42. *Olbus jaguar* sp. n., holotype male, ventral view.

Etymology. — The specific name refers to the mottled body and fierce aspect.

Diagnosis. — Males and females resemble those of *Olbus nahuelbuta*, males are distinguished by the shorter posterior horn on the median apophysis, the wide embolar process, and the chisel-shaped dorsal branch of the distal retrolateral tibial apophysis (Fig. 45, 46), females by the more posteriorly situated lateral lobes of the epigynum (Fig. 48).

Description. — Male (holotype): Total length 9.62. Carapace 5.09 long, 3.92 wide. Legs II longest. Stridulatory files: Femur IV with sclerotized, longitudinal retrolateral ridge (Fig. 34), corresponding with field of setae, with enlarged, sclerotized bases, anteriorly on sides of abdomen (Fig. 39-41). Prolateral surface of same femur with file, formed by tight, regularly arranged small setae with modified bases (Fig. 36-38), oposing to similar file on retrolateral side of femur III, composed of evenly spaced small-setae with transversly enlarged bases (Fig. 32, 33). Length of tibiae/metatarsi: I 4.80/4.24; II 5.74/5.45; III 3.08/2.76; IV 4.00/4.08. Sternum 2.44 long, 2.22 wide. Abdomen 4.93 long, 3.68 wide. Spines: Leg I, femur d 1-1-1-1, p 0-0-d1-1-0, r l-1; patella d 1-1-0-1-1; tibia v 2-2-2-2-p1 / 2-2-2-2-p1-2; metatarsus v 2-2-0. II, femur d 0-1-1-0, p 0-d1-1, r 1-d1-1 / 0-d1-1; patella d 1-1-0-0; tibia v 2-2-2-2 (irregular pairing); metatarsus v 2-2-r1-0 / 2-2-0-0 (irregular pairing). III, femur d 1-1-1, p 0-d1-1, r d1ap / 0; patella d 1-0-0-1; tibia v 2-2-0 / 2-2-r1 (irregular pairing); metatarsus p 1-0-1ap, r 0-0-1ap / 1-0-1ap, v 2-2-0. IV, femur d 0-1-1-2; patella d 1-1-0-1; tibia p 0-0-1-1, r 0-0-1, v p1-2-0-r1ap; metatarsus p 1-0-1ap, r 1-0-1ap, v 2-2-0. Color: Body yellowish orange with small black spots on abdomen and legs (Fig. 2). Tracheal tubercle present. Palp (Fig. 43-47): Tibia with retrolateral side covered by short hairs with thick bases. Distal retrolateral apophysis short, biramous, dorsal branch flat-
Tenened, with straight serrated border, ventral branch rounded. Ventral prolateral apophysis bulbous, narrower at base. Membranous articulation tibia-cymbium well extended ventrally through tibia. Cymbium elongate, with an apical blunt modified seta, and two setae of intermediate shape between modified and normal ones. Retrolateral margin weakly sclerotized at base, almost membranous. Basal margin of alveolus slightly projecting. Tegulum displaced basally, forming ring with central apical hematodocha, where apical sclerites arise. Base of tegulum with heavily sclerotized lobe interlocking into cavity in subtegulum, visible in posterior view (Fig. 47, arrow). Globose lobe of tegulum just prolateral to posterior projection of median apophysis. Spermatic duct gradually narrowing, with two posterior open curves dorsal to median apophysis. Embolus long, thin, sinuous, basal process prominent, sclerotized, produced as wide, thin, slightly concave piece. Conductor conspicuous, mostly translucent, forming wide sinuous canal where embolus lies. Median apophysis conspicuous, anteriorly projecting in long piece, with pointed projection on rounded apex; thin, curved horn on base.

Female (paratype): Total length 9.21. Carapace 4.48 long, 3.52 wide. Leg II longest. Stridulatory files weaker than in male, without retrolateral ridge on femur IV or modified abdominal setae. Length of tibiae/metatarsi: I 3.92/3.60; II 4.85/4.52; III 2.68/2.44; IV 3.64/3.76. Palpal tarsus 1.72 long. Sternum 2.24 long, 2.04 wide. Abdomen 4.93 long, 3.48 wide. Spines: Leg I, femur d 1-1-1-, p 0-(d1-1)-0, r 0-d1-1; patella d 1-0-1-; tibia v 2-2-2-2-2 / 2-2-2-2-2-(2-p1); metatarsus v 2-2-0. II, femur d 1-1-1 / 1-1-0, p 0-d1-1, r 0-d1-1; patella d 1-0-1-; tibia v 2-2-2-2-0 (very irregular pairing); metatarsus v 2-2-0. III, femur d 1-1-1, p 0-d1-d1-0, r d1ap; patella d 1-0-0-1-; tibia p 0-1, r 1-1, v 2-2-0; metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0. IV, femur d 1-1-2; patella d 1-0-0-1-; tibia p 1-1, r 1-1, v p1-2-r1ap;
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Figures 45-49. *Olbus jaguar* sp. n.: (45) left male palp, ventral view; (46) same, retrolateral view; (47) copulatory bulb, posterior view (arrow to condylus on tegulum); (48) female epigynum, ventral view; (49) same, dorsal view, cleared. C= conductor; EP= embolar process; MA= median apophysis; S= spermatheca; SS= secondary spermatheca; ST= subtegulum; T= tegulum.

metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0. Color as in male. Epigynum (Fig. 48, 49) large, weakly sclerotized, with anterior folded area, and two lateral parallel more sclerotized bands. Lateral lobes separate, with semicircular elevate borders. Median field depressed, narrowed between lateral lobes. Copulatory ducts very long, following elevate borders of lateral lobes, then irregularly
Figures 50-53. *Olbus nahuelbuta* sp. n.: (50) right male palp, ventral view (drawing inverted); (51) same, retrolateral view; (52) female epigynum, ventral view; (53), same, dorsal view, cleared. EP= embolar process.
coiled. Spermatotheca quite irregular, heavily sclerotized with irregular lumen. Secondary spermatotheca with straight, longitudinal duct, connected to copulatory duct near copulatory openings.

Variability. – There is some variability in degree of sclerotization of the female epigynum, but the general shape is quite constant.

Natural history. – Specimens were collected beating foliage.

Distribution. – Southern Chile, from Bio-Bío to Palena Provinces. At least in Chacamó (Cautín Province) they seem to be sympatric with *O. nahuelbuta*.

**Olbus nahuelbuta** sp. n. (Fig. 18-21, 50-53)

**Types.** – Male holotype from Chile, Región IX, Cautín Province, Chacamó, NW of Nueva Imperial, W of Temuco, 16-24.II.1981, L. E. Peña (AMNH).


**Note.** – Male and female were not collected together, but in relatively close localities; they are matched provisionally on the basis of their overall similarity.

**Etymology.** – The specific name refers to the region where the few known specimens were collected.

**Diagnosis.** – Males and females resemble those of *Olbus jaguar*, males are distinguished by the longer posterior horn on the median apophysis, the elongate embolar process, and the horn-shaped posterior projection of median apophysis (Fig. 50, 51), females by the more anteriorly situated lateral lobes of the epigynum (Fig. 52).

**Description.** – Male (holotype): Total length 10.10 (approximate, abdomen separated from carapace). Carapace 4.72 long, 3.76 wide. Stridulatory files as in *Olbus jaguar*. Length of tibiae/metatarsi: I 3.64/3.12; II 4.08/3.68; III 2.44/2.24; IV 3.32/3.40. Palpal tarsus 1.64 long. Sternum 2.32 long, 2.12 wide. Abdomen 5.58 long, 3.72 wide. Spines: Leg I, femur d 1-1-0, p 0-(d1-1)-0, r 0-0-1 / 1<-0-1-1; patella d 1<-0-1; tibia v 2-2-2-2 / 2-r1-2-2-2 (irregular pairing); metatarsus v 2-2-0. III (left regenerated, slightly smaller), femur d 1-1-1, p 0-d1-d1; patella d 1<-0-1; tibia v 2-2-0; metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0 (irregular pairing). IV, femur d 1-1-2; patella d 1<-0-1; tibia v p1-0-p1-0-rlap / p1-0-p1-p1-rlap; metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0 (very irregular pairing). Color: Carapace, legs, chelicerae pale orange, with dark spots, carapace with dark, short, radial lines. Abdomen yellowish with dark dots. Tracheal tubercle absent. Palp (Fig. 50, 51): Tibia with retrolateral side covered by short hairs with thick bases. Distal retrolateral apophysis biramous, dorsal branch acute, ventral branch finger shaped, projecting anteriorly, with rounded, weakly sclerotized apex. Ventral prolateral apophysis bulbous, curved, slightly narrower at base. Cymbium elongate, with one apical blunt modified seta, and three setae of intermediate shape between modified and normal ones. Retrolateral margin weakly sclerotized at base, almost membranous. Tegulum displaced basally, with conspicuous bulbous elevation prolateral to posterior projection of median apophysis. Embolus long, thin, sinuous, basal process prominent, sclerotized, with very long pointed projection and small flattened basal salience. Conductor mostly translucent, forming wide sinuous canal where embolus lies (Fig. 50). Median apophysis conspicuous, with two horn-like projections, posterior one thinner, longer. Bulb not dissected, not examined in posterior view.

Female (Nahuelbuta): Total length 10.10 (approximate, abdomen separated from carapace). Carapace 4.72 long, 3.76 wide. Stridulatory files as in *Olbus jaguar*. Length of tibiae/metatarsi: I 3.64/3.12; II 4.08/3.68; III 2.44/2.24; IV 3.32/3.40. Palpal tarsus 1.64 long. Sternum 2.32 long, 2.12 wide. Abdomen 5.58 long, 3.72 wide. Spines: Leg I, femur d 1-1-0, p 0-(d1-1)-0, r 0-0-1 / 1<-0-1-1; patella d 1<-0-1; tibia v 2-2-2-2 / 2-r1-2-2-2-0; metatarsus v 2-2-0. II, femur d 1-1-0, p 0-d1-1, r 0-1-1; patella d 1<-0-1; tibia v 2-2-2-2-0; metatarsus v 2-2-0. III, femur d 1-1-1, p 0-d1-1; patella d 1<-0-1; tibia p 2-2-2-2-2-0; metatarsus p 2-2-0. IV, femur d 0-1-1-2; patella d 1<-0-1; tibia p d1-d1, r d1-d1, v 2-2-0; metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0. IV, femur d 0-1-1-2; patella d 1<-0-1; tibia p d1-d1, r d1-d1, v p1-2-r1ap; metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0 (irregular pairing). Color as in male. Tracheal tubercle absent. Epigynum (Fig. 52, 53) large, weakly sclerotized, with anterior folded areas. Lateral lobes scarcely separate or
contiguous, with anterior semicircular elevate borders. Median field depressed, narrowed between lateral lobes. Copulatory ducts very long, following elevate borders of lateral lobes, then irregularly coiled. Spermathecae quite irregular, heavily sclerotized with irregular lumen. Secondary spermatheca with oblique shaft, connected to copulatory duct in unclear point, perhaps duct following curves of proximal copulatory ducts. Copulatory openings not visible.

*Natural history.* – Unknown.

*Distribution.* – Only known from two localities in Cordillera Nahuelbuta. At least in Chacamó (Cautín Province) they seem to be sympatric with *O. jaguar.*

**Olbus eryngiophilus sp. n.**

(Fig. 3-9, 14-17, 54-57)

*Types.* – Male holotype from Chile, Región IX, Malleco Province, Monumento Natural Contulmo, 12.I.1989, M. Ramírez, (MHNS); female paratype from same locality, 13.II.1992, M. Ramírez, N. Platnick, P. Goloboff (MHNS).


*Etymology.* – The specific name refers to the plants on which this species lives.

*Diagnosis.* – Easily distinguishable by their large size, specimens can also be recognized by the large sclerotized conductor (Fig. 54, 55) and by the simple, posteriorly projecting epigynum (Fig. 56).

*Description.* – Male (holotype): Total length
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12.39. Carapace 6.14 long, 4.93 wide. Legs I, II equal in length, longer than others, metatarsi I, II long, apically curved. Stridulatory files: Slight crest on hind femur, like that of male *Olbus jaguar*. Length of tibiae/metatarsi: I 5.90/5.90; II 6.87/6.95; III 3.76/3.56; IV 5.01/5.25. Chelicerae larger than those of female, with thicker fangs, retrofateral apical tooth larger, truncate; globose expansion retrofateral to fang base. Sternum 3.08 long, 2.68 wide. Abdomen 7.27 long, 4.28 wide. Spines: Leg I, femur d 1-1-1 / 1-1-0, p 0-d1-1, r 0-d1-1; patella d 1<-0-1; tibia v 2-2-2-2-2-r1 (irregular pairing); metatarsus v 2-2-0-0 (very irregular pairing). II, femur d 1-1-0, p 0-d1-1, r 0-d1-1; patella d 1<-0-1; tibia v 2-2-2-2-2-r1; metatarsus v 2-2-0-0. III, femur d 1-1-1, p 0-d1-1, r d1-ap; patella d 1<-1-0-1; tibia p d1-d1, r dl-d1, v 2-2-2-2-2; metatarsus p d1-d1-d1ap / d1-d1ap, r d1-ap / d1-d1ap, v 2-2-0. IV, femur d 1-1-1, r dl-ap; patella d 1<-0-1; tibia p d1-d1, r d1-d1, v 2-2-2ap / p1-p1-2; metatarsus p d1-d1ap, r d1-d1ap, v 2-2-0. Color as in male (Fig. 3). Epigynum (Fig. 56, 57) projecting posteriorly, median area wide with curved posterior margin. Copulatory openings (presumably) on epigastric furrow, copulatory ducts confuse, proximally wide, weakly sclerotized, with some loops reaching posterior margin, then narrowed, sclerotized, coiled, lumen becoming contorted near small, irregular spermatheca. Secondary spermatheca with very long, thin duct, connected (presumably) close to copulatory opening. Some females have copulatory plugs in epigastric furrow.

Variability. — Several specimens of both sexes have, on legs of one side, additional spines just basal to the normal ones, mostly on femora.

Natural history. — Adults of this species were only collected on *Eryngium* cf. *paniculatum* (Umbelliferae), common in the region, and this seems to be a highly specific association. The only exception was a freshly moulted male caught at night, hanging from a thread from bamboo foliage, about 1.7 m high. Juveniles can be collected beating foliage. During day the adults hide in the axillae of the long, spinose leaves, and came out at night to prey on medium-sized insects (Fig. 4). Females spin a few strong strips of silk threads uniting the leaves of the plant, presumably to keep them together (Fig. 7). Eggsacs are attached on the upper concave surface of the leaves, but are not guarded by the female. The external side of the eggsac is very resistant, paperlike, as is typical for corinnids (Fig. 5-6). It is possible that the females open the eggsac to help the spiderlings disperse: from an eggsac taken to the lab, about 25 spiderlings developed normally, but started dying inside the hard silk layer. Empty eggsacs on leaves each had a small perforation.
**Distribution.** – Southern Chile, from Malleco to Valdivia Provinces.

**Olbus krypto sp. n.**

(Fig. 58-60)

*Types.* – Male holotype from Chile, Región IV, Choapa Province, Nagüé, 10 km N Los Vilos, rt. 5 km 236, elev. 40m, 31°50’S, 71°31’W, 13.XI.1993, N. Platnick, K. Catley, M. Ramirez, T. Allen (AMNH).

*Other material examined.* – None.

*Etymology.* – The specific name is a noun in aposition, taken from Federico ‘Krypto’ Menéndez, friend of MJR.

*Diagnosis.* – Males of this small species are easily distinguishable by the conspicuous basal retrolateral projection on the cymbium (Fig. 58).

*Description.* – Male (holotype): Total length 4.15. Carapace 2.12 long, 1.58 wide, thoracic area elevate, higher than cephalic. Lateral eyes close to each other, median ocular quadrangle wider posteriorly. Leg I longest. Femora III, IV with ventral, proximal patch of short, thick spines, more conspicuous on femur III. All trochanters notched. Stridulatory files absent. Length of tibiae/metatarsi: I 1.92/1.84; II 1.34/1.28; III 1.08/1.16; IV 1.80/1.76. Chelicerae not robust, straight, with long fang, three teeth on promargin and three smaller ones on retromargin. Chilum entire. Endites with prolateral margins straight, parallel. Sternum 1.04 long, 0.90 wide, with tuft of 4-5 thick setae between hind coxae; anterior margin straight. Abdomen 2.14 long, 1.54 wide. Spines: Leg I, femur d 0-1-2ap / 0-1-p1ap, p 0-1; tibia p 1-1, r 0-0-1, v 2-2-2ap; metatarsus d 2ap, p 1-1ap, r 1-1ap, v 2-2-1ap. II, femur d 1-1-2; tibia p 1-1, r 1-1, v 2-2-2ap; metatarsus d 2ap, p d1-1ap, r d1-1ap, v 2-p1-1ap. III, femur d 1-1-2; tibia p 1-1, r 1-1, v 2-2-2ap; metatarsus d 2-2-0-2ap, p 1ap, r 1ap, v 2-0-1ap. IV, femur d 1-1-2; tibia p 1-1, r 1-1, v 2-2-2ap; metatarsus d 2-2-0-2ap (very irregular pairing), p 1ap, r 1ap, v 2-p1-1ap. Color:
Carapace pale orange with dark longitudinal lines, one median, and one on each side. Chelicerae brown. Legs pale orange with dark spot on each spine base. Abdomen, sternum pale yellow. Chelicerae brown. Abdomen with median longitudinal patch of dark hairs, some detached, perhaps covering more extended area. Palp (Fig. 58-60): Tibia short, oblique, with rounded retrolateral mound where curved, ventrally concave apophysis arises; dorsal and ventral margins of apophysis flattened, projecting, forming canal, opposed to conspicuous retrolateral cymbial basal projection. Cymbial apex with eight thick, blunt modified setae. Tegulum hemispherical, distal part membranous, where apical sclerites arise. Spermatic duct thick, narrowing before entering embolus, then widened inside embolus base, narrowing again to end in corner of very wide, flattened piece (Fig. 59). Embolus base conspicuous, slightly convex. Median apophysis curved, internally concave. Conductor short, convoluted, translucent. Bulb not dissected, not examined in posterior view.

Female. Unknown.

Natural history. — The type was collected sifting leaf litter.

Distribution. — Known only from type locality.

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