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A revision of the Chilean Brachyglutini – Part 5. Revision of Achilia Reitter, 1890: A. cornuta, A. spinifer, A. cribratifrons, and A. monstrata species groups (Coleoptera: Staphylinidae: Pselaphinae)

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A revision of the Chilean Brachyglutini – Part 5. Revision of *Achilia* Reitter, 1890: *A. cornuta*, *A. spinifer*, *A. cribratifrons*, *and A. monstrata* species groups (Coleoptera: Staphylinidae: Pselaphinae)

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Abstract: The *A. cornuta*, *A. spinifer*, *A. cribratifrons*, and *A. monstrata* species groups *sensu* Jeannel (1962) of the species-rich genus *Achilia* Reitter, 1890 are revised. Of the ten taxa placed in these four groups of species, two belong to different groups and will be treated in a subsequent part of our revision of *Achilia* (i.e. *A. caneloi* Franz, 1996 and *A. simpsoni* Franz, 1996 with the *A. cosmoptera* and the *A. bicornis* groups, respectively), two names are placed in synonymy – *A. parangulifrons* Franz, 1996 = *A. lobifera* Jeannel, 1962 **syn**. **nov**., and *A. monstrata chilota* Jeannel, 1962 = *Achilia monstrata* (Reitter, 1885) **syn**. **nov**. – and *A. pseudangulifrons* Franz, 1996 is considered as a *species inquirenda*. The remaining five species are redescribed, and the new species *Achilia pullastra* **n. sp.**, attributed to the *A. spinifer* group, and *Achilia pugila* **n. sp.**, attributed to the *A. cribratifrons* group, are described. For all these species the distribution is detailed and mapped, and habitat/collecting data are summarized.

Keywords: *Achilia* - Chile - taxonomy - new species - distribution.

INTRODUCTION

This article is the fifth contribution to our series aiming at a taxonomic revision of the Brachyglutini of the temperate region of southern South America, and the fourth dedicated to the genus *Achilia* Reitter, 1890 (Kurbatov & Sabella, 2015; Sabella *et al.*, 2017; Kurbatov *et al.,* 2018; Sabella *et al.*, 2019).

We here focus on the *A. cornuta*, *A. spinifer*, *A. cribratifrons*, and *A. monstrata* species groups (*sensu* Jeannel, 1962). All the members of these groups are critically reexamined, and their synonymic framework is detailed. These species are redescribed, and two new species placed in these groups are described.

Regarding the prevalence of the spelling of the genus *Achilia* vs *Achillia* see Sabella *et al.* (2017: 120). The species groups of *Achilia* as defined by Jeannel (1962), which are mainly based on male sexual dimorphism, as well as their possible phylogenetic relationships will be reassessed later. A key to identification of the species of *Achilia* will be provided only at the end of this series of contributions.

MATERIAL AND METHODS

This study is based on the examination of 202 specimens. The acronyms used in the present study refer to the following collections (relevant curator/collection manager are acknowledged in parentheses):

DBUC Department of Biological, Geological and Environmental Sciences, University of Catania, Italy
FMNH Field Museum of Natural History, Chicago, U.S.A. (J. Boome)
JEBC Colección Entomológica Y Museo Juan Enrique Barriga – Tuñón, Curicò, Chile (J. E. Barriga – Tuñón)
MHNG Muséum d'Histoire Naturelle, Genève, Switzerland
MNHN Muséum National d'Histoire Naturelle, Paris, France (T. Deuve and A. Taghavian)
MNHS Museo Nacional de Historia Natural, Santiago, Chile (M. Elgueta Donoso and Y. J. Sepulveda Guaico)

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MSNG Museo Civico di Storia Naturale "G. Doria", Genova, Italy (R. Poggi)
NHMW Naturhistorische Museum, Wien, Austria (H. Schillhammer)
PHPC Private collection of Peter Hlavác, Prague, Czech Republic (P. Hlavác)
UNHC University of New Hampshire Arthropod Collection, Durham, NH, U.S.A. (D.S. Chandler)

Under the sections "type material" or "additional material" the locality data are standardized, with indications of major administrative units (regions and provinces) and names of collectors; for the holotypes of older specimens the labels are also given verbatim.
Images were taken using a Leica DFC425 camera in conjunction with a Leica M205-C compound microscope. Zerene Stacker (version 1.04) was used for image stacking. All images were modified and grouped using Adobe Photoshop and Illustrator CS6.
The body length is measured from the anterior clypeal margin to the posterior margin of the last visible abdominal tergite. The length and width of the body parts were measured between points of maximum extension, e.g. the head length is measured between the anterior clypeal margin and the posterior margin of the neck, the head width includes the eyes, the elytral length along the suture line, and the elytral width is the total width of the two elytra taken together. The abdominal tergites are numbered based on order of visibility. Morphological terminology follows that of Chandler (2001), except our use of "ventrite" instead of "sternite" when describing meso- and metathoracic structures, and that the sclerotized features of the dorsal plate of the aedeagus termed "dorsal strips" in Sabella *et al*. (2017) are here termed "longitudinal struts".

TAXONOMY

All the species described below show the following common features. Pubescence decumbent, consisting of long setae sparse and uniform over entire body. Anterior portion of lateral margins of pronotum convergent posteriorly and posterior portion of lateral margins subparallel and sinuate, surface of pronotal disc smooth and shiny with some punctures; basal margin of pronotum bordered with row of contiguous shallow impressions. Elytra together wider than long (only in *A. cribratifrons* slightly wider than long) with protruding humeri; elytral disc smooth, shiny, with punctures; sutural stria entire. Abdomen smooth, with some minute punctures; first abdominal tergite with short and sparse setal brush between basal striae. Legs with trochanters elongate; profemora and mesofemora of male slightly thickened.
In order to keep the text more concise, these features are not repeated in their respective descriptions.

Achilia cornuta species group

Jeannel (1962: 397, 415) characterized this group as follows: elytra with 3 basal foveae; basal striae of first abdominal tergite separated at most by one-third of tergal width; head with frons of male with highly raised and pubescent median horn overhanging narrow transverse fissure; antennomeres of male antennal club modified. Parameres of aedeagus without setae, and internal sac with two large subequal copulatory pieces. The group includes only *A. cornuta* Jeannel, 1962.

Achilia cornuta Jeannel, 1962

Figs 1, 12, 18, 27, 34-35, 55

Achilia cornuta Jeannel 1962: 415, figs 169 (habitus), 170 (head), 171 (aedeagus).

Type material (3 ex.): MHNS; 1 ♂ (holotype); Chili; labels verbatim "Type / Chili / *Achillia cornuta* / *Achillia cornuta* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo, n. 1778". – MNHN; 2 ♂ (paratypes); labels verbatim "Paratype / Chili, Germain / *A. cornuta* (handwritten by Jeannel) ".

Additional material examined (80 ex.): SOUTHERN AND CENTRAL CHILI: Región Aysén: Aysén prov.: MHNG; 2 ♂; 30 km N Puyuhuapi, station 107; 100 m; 29.I.1985; S. & J. Peck. – DBUC; 1 ♂; same data. – Región Los Lagos: Osorno prov.: FMNH (FMHD #85-933, #85-48); 2 ♂; 3 km S Maicolpué, Bahia Mansa; 200 m; 03.II.1985; S. & J. Peck; mixed forest litter. – MHNG; 19 ♂ and 11 ♀; same locality; 21.XII.1984; S. & J. Peck; mixed forest litter. – DBUC; 1 ♀; same data. – FMNH; 1 ♂ and 1 ♀; Hills S of Maicolpué; 160 m; 21.XII.1982; A. Newton & M. Thayer; 2ª Valdivian forest, berlese, leaf & log litter, forest floor. – FMNH (FMHD #2002-087); 3 ♀; Puyehue National Park, W side Paso Cardenal Samoré; 40° 42.65'S 71° 56.66'W; 1305 m; 17.XII.2002; A. Newton, M. Thayer & A. Solodovnikov 1069; timberline *Nothofagus pumilio* forest with snow patches, berlese, leaf & log litter. – Región Los Ríos: Ranco prov: MHNG; 2 ♂ and 2 ♀; 34 km WNW La Unión, station 36; 700 m; 17.XII.1984; S. & J. Peck; litter mixed evergreen forest. – MHNG; 12 ♂ and 7 ♀; 35 km WNW La Union; 700 m; 07.II.1985; S. & J. Peck; litter mixed forest. – Valdivia prov: PCPH; 2 ♂; 12 km NW of Valdivia; WDS-T-201; 39° 42'S 73° 19'W; 21-22.II.2008; W.D. Shepard; sifting litter. – Región Araucanía: Cautín prov.: MHNG; 3 ♂ and 1 ♀; Huerquehue National Park, Lago Cicho, station 18a; 1250-1350 m; 23.XII.1990; M. Agosti & D. Burckhardt; forest litter. – FMNH (FMHD #96-239); 1 ♂; Villarica National Park, Volcàn Villarica, road to sky center; 39° 22.48'S 71° 58.30'W; 1180 m; 26.XII.1996/03.II.1997; A. Newton & M. Thayer 980; *Nothofagus dombeyi* forest w/*Chusquea*, berlese, leaf & log litter. – FMNH; 2 ♂; Volcán Villarrica, site 653; 1250 m; 15-29.XII.1982; A. Newton & M. Thayer;

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Nothofagus dombeyi/pumilio forest w/*Chusquea*, berlese, leaf & log litter, forest floor. – UNHC; 2 ♂; same data; A. Newton & M. Thayer. – FMNH; 1 ♂; same locality; 15-29.XII.1982; A. Newton & M. Thayer; *Nothofagus dombey/pumilio* forest w/*Chusquea*, flight intercept (windows) trap. – Región Bio Bio: Ñuble prov.: FMNH; 1 ♀; Las Trancas 19.5 km ESE Recinto, site 647; 1250 m; 10.XII.1982/03.I.1983; A. Newton & M. Thayer; *Nothofagus* forest, berlese, leaf & log litter. – MHNG; 3 ♀; 10 km W Termas de Chillán, station 5a; 1250 m; 12-13.XII.1990; M. Agosti & D. Burckhardt; *Nothofagus* forest litter.

Description: Body 1.30-1.40 mm long, entirely dark brown with reddish, reddish-brown, or sometimes brown elytra; antennae and legs reddish, palpi yellowish, more or less darkened at apex. Head wider than long with vertexal sulcus impressed. Pronotum wider than head and wider than long, with disc slightly convex; median antebasal fovea slightly smaller than lateral ones. Elytra with four basal foveae (two lateral foveae very close and sometimes coalesced to form one very large fovea); discal stria extending to less than elytral midlength.

First abdominal tergite with diverging basal striae extending to about one-fourth of paratergal length, and separated at base by about one-third of tergal width; first abdominal sternite with large median carina extending from its posterior margin to about one-third of its length.

Male: Head as in Figs 34-35, with occipital region strongly raised as median protuberance separated by deep transverse sulcus from frons, the latter also raised at middle. Anterior portion of frons and frontal lobe flattened and shiny. Eyes protruding and about as long as slightly convex temples. Antennae (Fig. 12) with scape and pedicel longer than wide; antennomeres III-VI distinctly wider than long, antennomere VII slightly wider than long, its mesal margin slightly widened, VIII strongly transverse, its mesal margin distinctly protruding at middle, the latter antennomere bearing one long seta, two other long setae inserted near lateral margin; antennomere IX flattened and strongly transverse with very protruding mesal margin pointed at middle, and bearing 4-5 long setae, while four other long setae are inserted near lateral margin; antennomere X large and slightly wider than long, bearing some long setae on its mesal margin, its basal half excavated; antennomere XI very elongate, with denticulate margins, and distinctly longer than VII-X combined, bearing two long subbasal setae on mesal margin. Metaventrite raised at middle, with wide medial sulcus. Ventral margin of protrochanters projecting at middle as very small spine (Fig. 18), surface of mesotrochanters bearing numerous long bristles; mesotibiae with bifid subapical spur on medial margin (Fig. 27), distal half of metatibiae slightly sinuate. Abdominal tergites and sternites unmodified. Aedeagus (Fig. 1, dorsal longitudinal struts not shown) 0.35-0.36 mm long; with quadrangular dorsal plate, dorsal longitudinal struts reduced and divergent; internal sac with pair of large and subequal medial sclerites pointed at their apex, apices curved laterad. Parameres wide with one thin seta on small outer lobe; tips enlarged, bearing two thin subapical setae.

Female: The female of this species had not been previously described. It is similar to the male except: head not modified, but with posterior part of frons and occipital region distinctly convex at middle, and with large vertexal foveae beside each eye; eyes smaller than for male, shorter than temples; antennae unmodified, thinner than for male; metaventrite and legs unmodified.

Collecting data: Collected from December to February, in different types of forests at elevations ranging from 100 m to 1350 m. All specimens came from sifted samples of leaf and log litter, except for one specimen collected by flight intercept traps.

Distribution: *Achilia cornuta* was generically mentioned for Chile in the original description, without further indication of locality, although Jeannel (1962: 416) mentioned that the specimens could have come from the Valdivian forest of Chillàn or of Pemehue. Based on our data, the species is distributed in Southern and Central Chile (Fig. 55: red circles), ranging from Aysén province to Ñuble province.

Comments: The male of this species is easily distinguished from its congeners by the shape of the head (Figs 34-35), antennae (Fig. 12), and aedeagus (Fig. 1).

Achilia spinifer species group

Jeannel (1962: 397, 415) characterized this group as follows: elytra with 2 basal foveae; basal striae of first abdominal tergite separate at most by one-third of tergal width; frons of male with two lateral pits with outer edge toothed; antennomere II of male modified, depressed and toothed; internal sac of aedeagus with two large copulatory pieces.

The group currently includes only *A. spinifer* Jeannel, 1962, to which we add here *A. pullastra* n. sp., decribed below.

Achilia spinifer Jeannel, 1962

Figs 2, 10, 21, 28, 40, 42, 44, 55

Achilia spinifer Jeannel 1962: 416, figs 172 (head and antennae), 173 (aedeagus).

Type material (38 ex.): CENTRAL CHILI: Región Coquimbo: Elquì prov.: MHNS; 1 ♂ (holotype) labels verbatim "Type / Talinay, 23.X.1957, G. Kuschel / *Achillia spinifer* / *Achillia spinifer* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo n. 1779". – MNHN; 4 ♂ and 5 ♀ (paratypes); labels verbatim "Paratype

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/ Talinay, 23.X.1957, G. Kuschel / *Achillia spinifer* (handwritten by Jeannel)". – MNHN; 13 ♂ and 15 ♀ (paratypes); labels verbatim "Paratype / Talinay, 16.X.1957, G. Kuschel".

Additional material examined (18 ex.): CENTRAL CHILI: Región Coquimbo: Elquì prov.: MHNS; 11 ♂ and 2 ♀ (mislabelled as paratypes of *Achilia spinifer* n. 1780-1792); Talinay; 23.X.1957. – MHNS; 3 ♂ (mislabelled as paratypes of *Achilia spinifer* n. 1793-1795); same locality; 16.X.1957; G. Kuschel. – MHNS; 1 ♂ (mislabelled as paratype of *Achilia spinifer* n. 1796); same locality; 22.XI.1954; G. Kuschel. – MHNG; 1 ♂; Bsq. Talinay; costa S Coquimbo; 22.IV.1955; L. E. Peña.

Description: Body 1.70-1.85 mm long, entirely dark brown with reddish, or reddish-brown elytra; antennae and legs reddish, and palpi yellowish, sometimes slightly darker. Head with eyes not very protruding, shorter than convex temples. Pronotum wider than long; pronotal disc convex; median antebasal fovea as large as lateral ones, but shallower. Elytra with three basal foveae (two lateral foveae very close, sometimes coalesced as one large fovea); discal stria extending to about elytral midlength. First abdominal tergite with basal striae extending to about one-quarter of paratergal length, and separated at base by about one-third of tergal width. First abdominal sternite with median carina extending from its posterior margin to about one-quarter of its length.
Male: Head as in Figs 40, 42, 44, with temporal spine above and behind each eye, temporal spine bordered at base by large pit. Vertex slightly raised at middle, its surface smooth and shiny; frons raised and slightly enlarged, dorsally bearing large punctures. Anterior margin of frontal lobe distinctly concave at middle. Clypeus bearing stout medial tooth with two large apical setae. Antennae (Fig. 10) with scape longer than wide, with mesal margins protruding for distal half; pedicel as long as wide, with medial surface flattened, very protruding mesal margins pointed for distal half; antennomere III strongly transverse; antennomers IV-VIII distinctly wider than long with toothed margins; antennomere IX transverse with denticulate margins, the medial one more protruding on distal half, its surface with two tubercles; antennomere X slightly wider than long, with denticulate margins, mesal margin more protruding on distal half, its surface with some tubercles; antennomere XI elongate and distinctly longer than IX-X combined, its surface with many tubercles. Pronotum narrower than head. Metaventrite raised at middle, this area with some very fine punctures and divided by medial sulcus. Ventral surface of protrochanters (Fig. 21) bearing some long bristles, its ventral margin projecting posteriorly as short spine; protibiae slightly enlarged at middle; mesotibiae (Fig. 28) at middle slightly bulging and bearing tuft of short setae, with subapical spur on medial margin; metatibiae enlarged and sinuate on distal half, medial surface flattened for apical third. Abdominal tergites unmodified, first sternite slightly raised and flattened at middle. Aedeagus (Fig. 2) 0.30-0.31 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent. Copulatory pieces with pair of long and wide medial sclerites recurved and sclerotized at base; each sclerite formed by two pieces, the first sclerite wide with apex pointed at its lateral corner, second sclerite thinner and spine-shaped. Parameres wide with one large seta on well-developed outer lobe, apex bent backward and bearing one large subapical seta.
Female: Similar to male except: head not modified, lacking temporal spines; frons with some large punctures only on anterior half; vertexal sulcus impressed; anterior margin of frontal lobe protruding at middle; clypeus without median tooth; large vertexal foveae on each side of eyes, eyes less developed than for male; antennae thinner than for male, with pedicel unmodified; pronotum as wide as head; metaventrite, abdomen, and legs unmodified.

Collecting data: The only available information for this species is that it was collected in October at the coastal massif of Talinay.

Distribution: *Achilia spinifer* is known only from Talinay (Coquimbo Region, Central Chile) (Fig. 55: red squares).

Comments: *Achila spinifer* is the only members of the genus to have the male clypeus bearing a spine. It resembles *A. pullastra* n. sp. in many aspects, notably by the basal striae of first abdominal tergite separated at most by one-third of the tergal width, the frons of the male having two lateral pits with their outer edge toothed, the antennomeres II of the male depressed and toothed, and the endophallus possessing two large copulatory pieces. Characters to distinguish these species in both sexes are provided in the "Comments" section for *A. pullastra.* In the original description Jeannel (1962: 417) mentions that this species was described from 50 specimens collected by Kuschel in Talinay on 23.X.1957. However the type series housed in MNHN consists of only 9 specimens collected on this date (i.e. the holotype and 8 paratypes), and 28 additional specimens also collected by Kuschel in Talinay and labelled as paratypes, but were collected on 16.X.1957, a detail most likely overlooked by Jeannel.

Achilia pullastra n. sp.

Figs 3, 11, 20, 30, 41, 43, 45, 55

Holotype: FMNH (FMHD #2002-027); 1 ♂; CENTRAL CHILI: Región Valparaíso: Quillota prov.: La Campana National Park (sector Granizo), Sendero Los Peumos; 32° 58.3'S 71° 06.4'W; 900 m; 30.XI.2002; A. Solodovnikov; sclerophyll scrub with

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Nothofagus obliqua on steepslope, berlese, dry forest, leaf litter.

Paratypes (30 ex.): CENTRAL CHILI: Región Valparaíso: Quillota prov.: FMNH (FMHD #2002-027); 1 ♂; La Campana National Park (sector Granizo), Cajón La Opositora; 32° 58.81'S 71° 07.7'W; 545 m; 29.XI.-29.XII.2002; A. Newton & M. Thayer 1044; sclerophyll forest, flight intercept trap. – FMNH (FMHD #2002-027); 5 ♂ and 16 ♀; La Campana National Park (sector Granizo), Sendero Los Peumos; 32° 58.3'S 71° 06.4'W; 900 m; 30.XI.2002; A. Solodovnikov; sclerophyll scrub with *Nothofagus obliqua* on steep slope, berlese, dry forest, leaf litter. – MHNS; 1 ♂ and 1 ♀; same data. – MHNG (# MHNG-ENTO-45598-45603); 3 ♂ and 3 ♀; same data.

Description: Body 1.65-1.80 mm long, entirely dark brown with reddish, or reddish-brown elytra, abdomen sometimes paler, antennae and legs reddish, and palpi yellowish. Head with eyes moderately protruding, shorter than convex temples. Pronotum wider than long; pronotal disc convex; median antebasal fovea as large as lateral ones, but shallower. Elytra with three basal foveae (two lateral foveae very close, sometimes coalesced as one large fovea); discal stria extending to about elytral midlength. First abdominal tergite with basal striae extending to about one-quarter of paratergal length, and separated at base by about one-third of tergal width. First abdominal sternite with large medial carina extending from its posterior margin to about one-quarter of its length.
Male: Head as in Figs 41, 43, 45, similar to that of *A. spinifer*, but with temporal spines shorter and with deeper basal pits; vertex more conspicuously raised at middle, its surface with large punctures; frons distinctly raised and more densely punctate, anterior margin of frontal lobe straight. Antennae (Fig. 11) with scape longer than wide and mesal margin slightly protruding at middle; pedicel slightly wider than long with flattened medial surface, with slightly protruding mesal margins; antennomeres III-IV transverse; antennomere V longer than wide; antennomere VI as long as wide; antennomere VII slightly longer than wide; antennomere VIII wider than long; antennomere IX slightly wider than long, with denticulates margins, mesal margin protruding, its surface with some small tubercles; antennomere X slightly wider than long, with denticulates margins, its surface with few tubercles; antennomere XI elongate and slightly longer than IX-X combined, its surface with many tubercles. Pronotum narrower than head. Metaventrite raised at middle, and entirely traversed by medial sulcus. Protrochanters (Fig. 20) with ventral margin protruding at middle and bearing some short bristles; protibiae slightly enlarged at middle; mesotibiae (Fig. 30) at middle slightly bulging and bearing a tuft of short setae, with very small subapical spur on medial margin; metatibiae enlarged and sinuate on distal half, their medial surface flattened for apical third. Abdominal tergites unmodified; first sternite slightly raised and flattened at middle. Aedeagus (Fig. 3) 0.29-0.30 mm long; dorsal plate ovoid with dorsal longitudinal struts diverging. Copulatory pieces consisting of pair of long and wide medial sclerites that are recurved and strongly sclerotized at base, sclerites apically pointed, with some small spines on distal third; medial sclerites associated on each side with two short and pointed secondary sclerites. Parameres wide with one large seta on well-developed outer lobe, paramere apex bent backward and bearing one large subapical seta.
Female: Similar to male except: head not modified, without temporal spines; vertex and frons slightly convex with large punctures; vertexal sulcus impressed; clypaeus without median tooth; large vertexal foveae on each side of eyes, the latter less developed than for male; antennae with pedicel unmodified, and antennomeres thinner than for male; pronotum as wide as head; metaventrite, abdomen, and legs unmodified.

Collecting data: Collected in November and December in dry forest from 545 m to 900 m elevation by sifting litter, and with only one specimen taken by a flight intercept trap.

Distribution: *Achilia pullastra* n. sp. is known only from La Campana National Park (Valparaíso Region, Central Chile) (Fig. 55: green diamonds).

Comments: *Achilia pullastra* n. sp. is similar to *A. spinifer,* from which it is easily distinguished by the male features of the head (compare Figs 40 and 41, 42 and 43, 44 and 45), antennae (compare Figs 10 and 11), protrochanters (compare Figs 20 and 21), mesotibiae (compare Figs 28 and 30), and the copulatory pieces of the aedeagus (compare Figs 2 and 3). The females of the two species are very similar, but *A. pullastra* n. sp. has the posterior region of the head punctate, while it is smooth in *A. spinifer*, and the frontal lobe is wider than for *A. spinifer*. See also "Comments" under *A. spinifer*.

Achilia cribratifrons species group

Jeannel (1962: 397, 415) characterized this group as follows: elytra with 2 basal foveae; basal striae of first abdominal tergite separated at most by one-third of tergal width; frons of male with wide median protuberance that is flattened and strongly punctate, without lateral pits; antennomeres of male unmodified. Franz (1996: 120) proposed a new group of species, the *A. angulifrons* group, to hold those species where the parameres had a sickle-shaped apical portion. In addition to *A. angulifrons*, previously attributed by Jeannel (1963: 353, 356) to the *A. cribratifrons* group, he included in this group *A. caneloi* Franz, 1996, *A. parangulifrons* Franz, 1996, *A. pseudangulifrons* Franz, 1996 and *A. simpsoni* Franz, 1996. We consider the establishment of the *A. angulifrons*

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group unjustified, as its delimitation overlaps that of the *A. cribratifrons* group, includes species having little else in common. Therefore we treat all the species included by Franz in his *A. angulifrons* group as members of the *A. cribratifrons* group, which would thus consist in: *A. cribratifrons* Jeannel, 1962, *A. angulifrons,* Jeannel 1963, *A. caneloi* Franz, 1996, *A. parangulifrons* Franz, 1996, *A. pseudangulifrons* Franz, 1996, and *A. simpsoni* Franz, 1996.

However our study of the types and other materials revealed that 1) *A. parangulifrons* is a junior synonym of *A. lobifera* Jeannel, 1962, 2) *A. caneloi* is rather a member of the *A. cosmoptera* group, 3) *A. simpsoni* is rather a member of the *A. bicornis* group, and 4) *A. pseudangulifrons* is to be considered as a *species inquirenda*. As a result the *A. cribratifrons* group now only holds *A. cribratifrons* Jeannel, 1962, *A. angulifrons,* Jeannel 1963, and the new species *A. pugila* n. sp. described below.

Achilia cribratifrons Jeannel, 1962

Figs 4, 8, 24, 29, 46, 48, 50, 55

Achilia cribratifrons Jeannel, 1962: 417, figs 174, 175.

Type material (3 ex.): CENTRAL CHILI: Región Bío Bío: Ñuble prov.: MHNS; 1 ♂ (holotype); labels verbatim "Type/ Chillàn, Germain / *Achillia cribratifrons* / *Achillia cribratifrons* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo n. 1797". – MNHN; 1 ♂ and 1 ♀ (paratypes); labels verbatim "Paratype / Chillàn, P. Germain / *Achillia cribratifrons* (handwritten by Jeannel)".

Additional material examined (4 ex.): CENTRAL CHILI: Región Bío Bío: Ñuble prov.: MHNS; 1 ♂ (mislabelled as paratype of *Achilia cribratifrons* n. 1798); Chillàn; P. Germain. – Región Santiago: Santiago prov.: MHNG; 1 ♂; Environs of Santiago, El Arraya; 1963; H. Franz. – MHNW; 1 ♂; same data. – FMNH (FMHD #2002-028); 1 ♂; Road to Farellones, curva 18, Estero Manzanito, NE Santiago; 1890 m; 33°20.90"S 70° 19.63"W; 01.XII.2002; M. Thayer; A. Newton; A. Solodovnikov; D. J. Clarke 1050; dry sclerophyll on slope, introduced trees along stream below, berlese and direct coll., wet debris along stream.

Description: Body 1.65-1.75 mm long, head, pronotum and elytra reddish-brown, abdomen dark brown, antennae and legs reddish, and palpi yellowish. Head wider than long with vertexal sulcus well-impressed; eyes slightly protruding, shorter than very weakly convex temples. Pronotum wider than head and wider than long; pronotal disc convex; median antebasal fovea smaller than lateral ones. Elytra with two basal foveae, the lateral one very large; discal stria extending to about elytral midlength. First abdominal tergite with basal striae extending to about one-quarter of paratergal length, and separated at base by about one-third of tergal width. First abdominal sternite with medial carina extending from its posterior margin to about one-quarter of its length.

Male: Head as in Figs 46, 48, 50, with vertex and frons raised and flattened with carinate lateral margins, and dorsal surface densely and strongly punctate; one small tooth curved medially above each eye; anterior margin of frontal lobe straight and carinate; clypeal area deeply hollowed, its anterior margin raised and pubescent. Antennae (Fig. 8) with scape distinctly longer than wide; pedicel longer than wide; antennomeres III-IV distinctly wider than long; antennomere V as long as wide; antennomere VI transverse; antennomere VII slightly wider than long; antennomere VIII transverse, its mesal margin slightly protruding; antennomere IX transverse with very protruding mesal margin pointed at middle; antennomere X wider than long with protruding mesal margin; antennomere XI elongate and slightly shorter than VII-X combined, its surface with many tubercles. Metaventrite with wide median ovoid depression occupying its distal half to posterior margin, depression densely punctate. Ventral surface of protrochanters bearing some long setae; protibiae (Fig. 24) distinctly enlarged for distal half with indented distal apex; mesotibiae (Fig. 29) at middle slightly bulging and bearing tuft of short setae, with small subapical spur on medial margin; distal half of metatibiae slightly sinuate. Abdominal tergites unmodified, surface of first ventrite slightly raised and flattened at middle, this area finely punctate. Aedeagus (Fig. 4) 0.275-0.280 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent. Copulatory pieces consisting of pair of long medial recurved sclerites, sclerites strongly sclerotized at base and apically pointed, associated on each side with one long pointed sclerite. Parameres wide with one long seta on well-developed outer lobe, and apex bent backward and bearing one very large subapical seta.

Female: Similar to male except: head not modified; vertex and frons slightly convex with large punctures; small vertexal foveae on each side of eyes, the latter less developed than for male; antennae thinner than for male; metaventrite, abdomen and legs unmodified.

Collecting data: The only detailed collecting data available refer to a male found in December at an altitude of 1890 meters in a dry sclerophyll forest.

Distribution: *Achilia cribratifrons* is known only from Ñuble and Santiago provinces in Central Chile (Fig. 55: blue triangles).

Comments: This species is easily distinguished from its congeners by the unique shape of the male head (Figs 46, 48, 50), and the morphology of the aedeagus (Fig. 4).

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Achilia pugila n. sp.

Figs 5, 13, 25, 31, 47, 49, 51, 55

Holotype: MHNG (# MHNG-ENTO-45604); 1 ♂; CENTRAL CHILI: Región Santiago: Santiago prov.: Cuesta El Melon; 03.XI.1965; Nr. P-B.80-3; Loksa; Hungarian Soil-Zool. Exp.

Description: Body 1.60 mm long, entirely dark brown with reddish elytra darker at base; antennae and legs reddish, palpi yellowish. Head wider than long, with vertexal sulcus shallowly impressed; eyes very protruding, longer than very weakly convex temples. Pronotum about as wide as head, wider than long; pronotal disc slightly convex; median antebasal fovea smaller than lateral ones. Elytra with two basal foveae, lateral one very large; discal stria extending to about elytral midlength. First abdominal tergite with basal striae extending to about one-fourth of paratergal length, and separated at base by about one-fourth of tergal width. First abdominal sternite with median carina extending from its posterior margin to about one-fourth of its length.

Male: Head as in Figs 47, 49, 51, similar to that of *A. cribratifrons*, but the raised area slightly punctate with smaller and sparse punctures, larger tooth above each eyes, clypeal area barely hollowed, its anterior margin scarcely raised. Antennae (Fig. 13) with scape distinctly longer than wide; pedicel about as long than wide, antennomeres III-VII distinctly transverse, antennomere VIII also transverse, its medial margin widened and pointed at basal corner, antennomere IX strongly transverse with strongly protruding mesal margin that is pointed at the middle and bears 2 long setae, two other long setae are inserted on its dorsal surface; antennomere X very large, longer than wide, with protruding mesal margin bearing some short setae at basal corner and two long setae at distal corner; its medial surface hollowed in basal third and bearing some long setae, antennomere XI elongate and about as long as IX-X combined. Metaventrite with wide median ovoid depression occupying its distal half up to its posterior margin. Surface of depression densely punctate. Protibiae (Fig. 25) distinctly enlarged for distal half and with two small subapical spurs on medial margin; mesotibiae (Fig. 31) at basal third distinctly bulging, bearing tuft of short setae and with subapical spur on medial margin; distal half of metatibiae slightly sinuate. Abdominal tergites unmodified, surface of first ventrite slightly raised and flattened at middle, this area finely punctate. Aedeagus (Fig. 5, dorsal longitudinal struts partially shown) 0.275 mm long; with ovoid dorsal plate, dorsal longitudinal struts divergent. Copulatory pieces consisting of pair of long medial recurved sclerites, strongly sclerotized at base and apically pointed and curved inwards, associated on each side with one shorter bifid sclerite. Wide parameres with one thin seta on well-developed outer lobe, and apex bent backward and bearing one large subapical seta.

Female: Unknown.

Collecting data: The only specimen was collected in November.

Distribution: *Achilia pugila* n. sp. is known only from Cuesta El Melon (Santiago province, Central Chili) (Fig. 55: fuchsia stars).

Comments: *Achilia pugila* n. sp. is similar to *Achilia cribratifrons* from which it is easily distinguished by features of the male antennae (compare Figs 8 and 13), head (compare Figs 47, 49 and 51, with Figs 46, 48 and 50), protibiae (compare Figs 24 and 25), mesotibiae (compare Figs 29 and 31), and the copulatory pieces of the aedeagus (compare Figs 4 and 5).

Achilia angulifrons Jeannel, 1963

Figs 6, 9, 22, 26, 32, 52-55

Achilia angulifrons Jeannel, 1963: 353, 365 figs. 12 (head and antennae), 13 (aedeagus).

Type material (1 ex.): CENTRAL CHILI: Región Valparaíso: Valparaíso prov.: MNHN; 1 ♂ (holotype); labels verbatim "Type / Cerro El Roble, 18.VIII.1961, F. Castri / *Achillia anguliceps* (handwritten by Jeannel)".

Description: Body 1.65 mm long, entirely reddish, with dark brown abdomen; antennae and legs reddish, palpi yellowish. Head wider than long with vertexal sulcus impressed; eyes very protruding, longer than very slightly convex temples. Small vertexal foveae beside eyes. Pronotum narrower than head, slightly wider than long, with disc slightly convex; median antebasal fovea smaller than lateral ones. Elytra with two basal foveae, the lateral one very large; discal stria extending to about elytral midlength. First abdominal tergite with basal striae extending to about one-fourth of paratergal length, separated at base by about one-third of tergal width. First abdominal sternite with median carina extending from posterior margin to about one-fourth of its length.

Male: Head as in Figs 52-54, triangular, densely punctate, with frontal lobe narrow and pointed, and sides strongly convergent; frons flattened and slightly raised; vertex with carinate sides; supra-ocular margins forming small tooth. Antennae (Fig. 9) with scape and pedicel distinctly longer than wide; antennomeres III-IV distinctly wider than long; antennomere V as long as wide; antennomeres VI-VII slightly wider than long; antennomere VIII distinctly wider than long; antennomeres IX-X wider than long; antennomere XI elongate and longer than VII-X combined, its surface with many tubercles. Metaventrite with wide medial ovoid depression occupying its distal half up to its posterior margin, surface of depression densely punctate. Ventral margin of protrochanters (Fig. 22) and mesotrochanters with some long setae; protibiae (Fig. 26) enlarged and slightly flattened in distal half with indented distal apex; mesotibiae (Fig. 32) at middle slightly bulging, bearing tuft of short setae and small

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subapical spur on medial margin; distal half of metatibiae slightly sinuate. Abdominal tergites unmodified, surface of first sternite slightly raised and flattened at middle, this area finely punctate. Aedeagus (Fig. 6) 0.385 mm long; with ovoid dorsal plate, dorsal longitudinal struts divergent. Copulatory pieces consisting of pair of long medial recurved sclerites strongly sclerotized at base, apically pointed and slightly curved inwards, associated on each side with shorter large sclerite narrowed and apically pointed. Parameres very wide, bearing very long well-developed seta on outer lobe, and one large and thin subapical setae.

Female: Unknown.

Collecting data: The only specimen of this species was collected in August, 210 m above sea level, 20 cm deep in leaf litter at the foot of a *Nothofagus nitida* (Jeannel, 1963: 351).

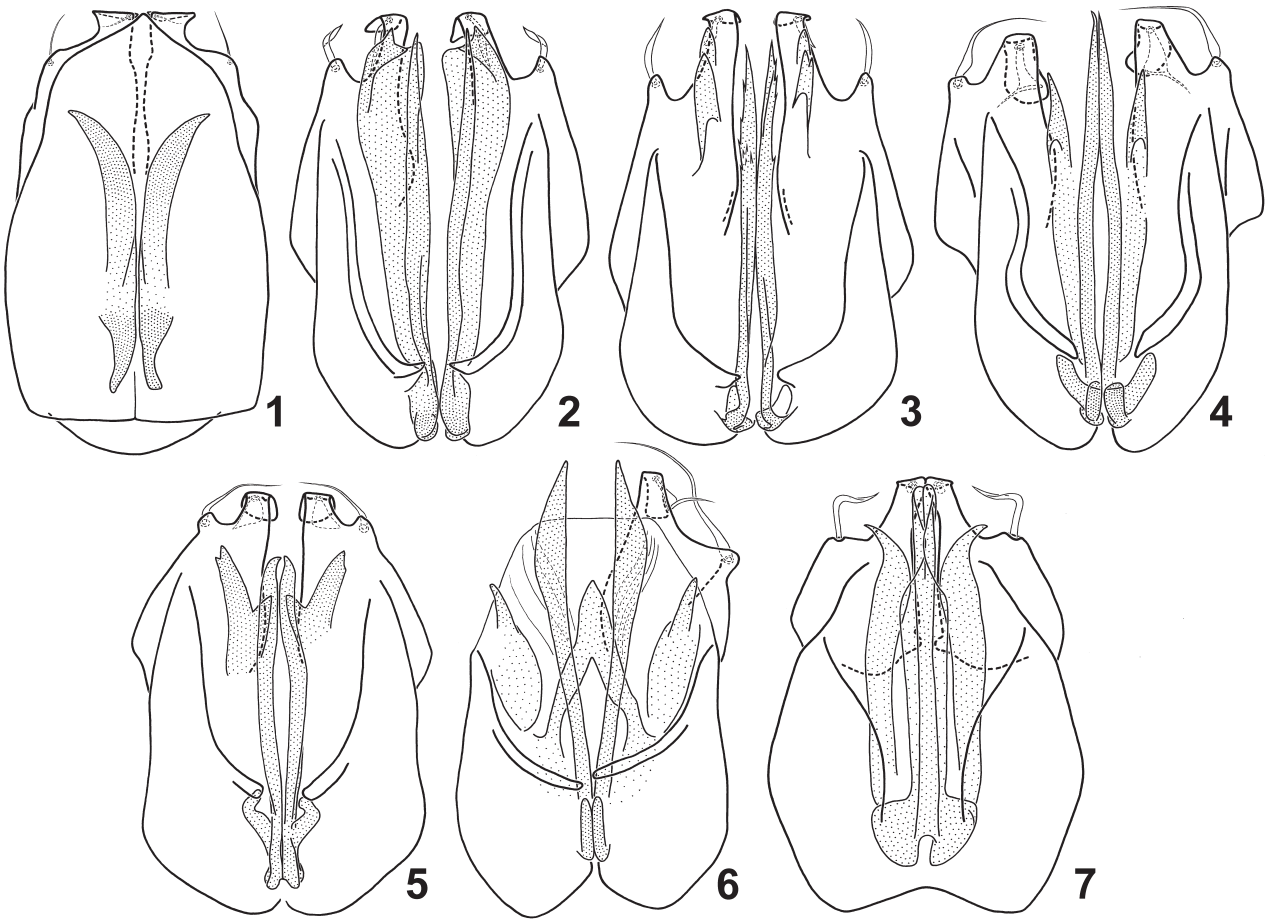
Distribution: *Achilia angulifrons* is known only from Cerro el Roble (Valparaíso province, Central Chili) (Fig. 55: square edged in green).

Comments: The label "*Achillia anguliceps*" hand-written by Jeannel and attached to the holotype is a labeling mistake of Jeannel, as the locality data correspond perfectly to those mentioned in the description, and no "*Achillia anguliceps*" was ever described. The male of *A. angulifrons* is easily separated from its congeners by the diagnostic morphology of the head (Figs 52-54) and of the aedeagus (Fig. 6). See the "Comments" section below for *A. pseudangulifrons*.

Achilia caneloi Franz, 1996

Achilia caneloi Franz, 1996: 122.

Comments: We have examined the holotype and only known specimen of *A. caneloi*, which is housed in NHMW. It appears to be a member of the *cosmoptera* group, and therefore will be dealt in a subsequent part of our revision of *Achilia*.



Figs 1-7. Aedeagi of *Achilia* species. (1) *A. cornuta.* (2) *A. spinifer.* (3) *A. pullastra* n. sp. (4) *A. cribratifrons.* (5) *A. pugila* n. sp. (6) *A. angulifrons.* (7) *A. monstrata*.

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Achilia parangulifrons Franz, 1996

Achilia parangulifrons Franz, 1996: 121, fig. 72 (aedeagus).

Type material (1 ex.): CENTRAL CHILI: Región Bío Bío: Concepción prov.: MHNW; 1 ♂ (holotype); labels verbatim "Holotype / Chili, Periquillo, 26.VIII.1991, H. Franz / *Achillia parangulifrons* (handwritten by Franz)".

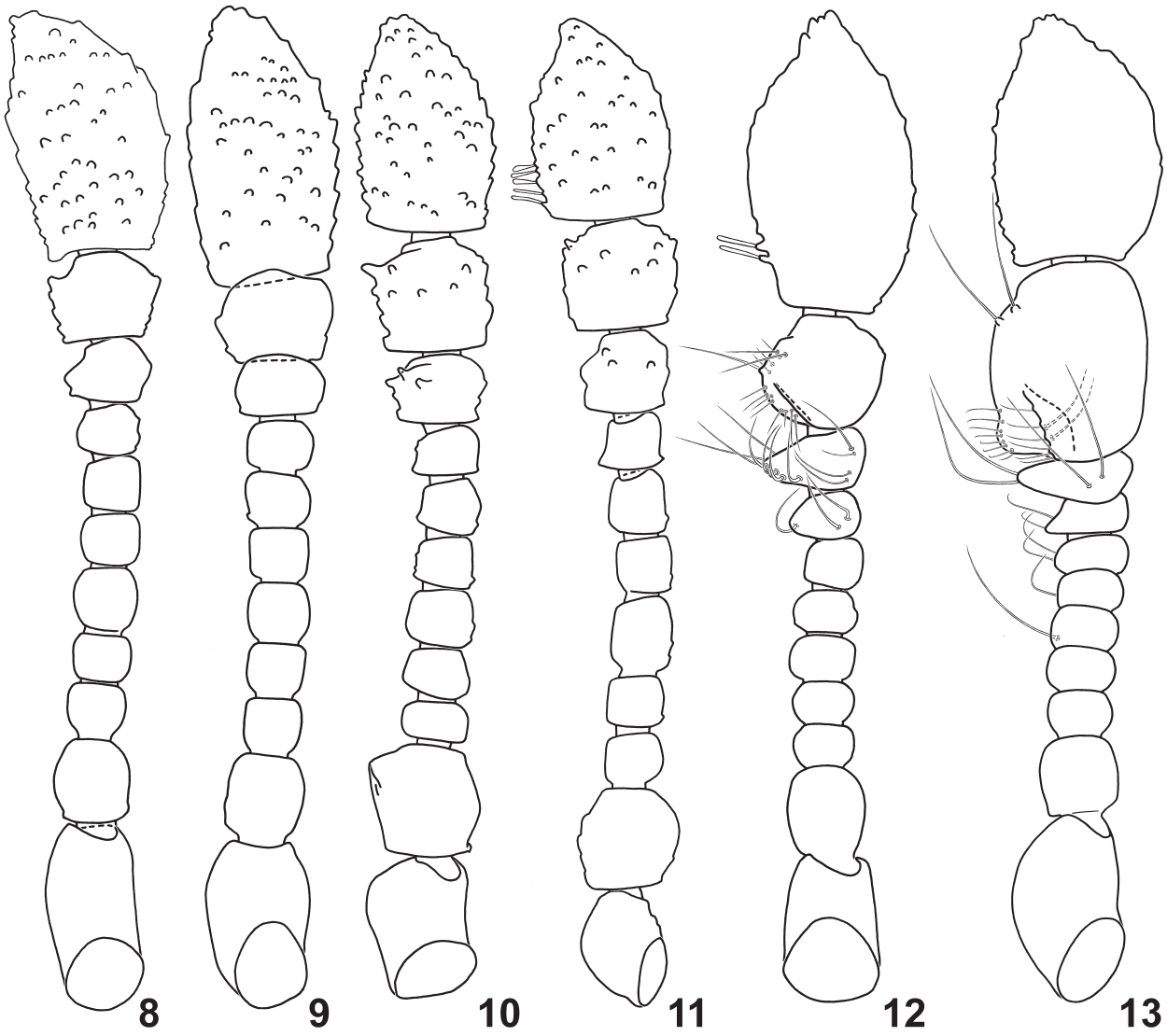
Comments: We have examined the holotype, which appeared to be a male of *A. lobifera* Jeannel, 1962, a species we recently revised (Sabella *et al*., 2017). Therefore, we here place *A. parangulifrons* Franz, 1996 as a junior synonym of *A. lobifera* Jeannel, 1962 (**syn. nov.**).

Franz (1996: 121) described also *A. parangulifrons* var. *mehuini*, based on a male labeled "Cordillera de la Costa bei Mehuin, Cerro Mutro, ca. 600 m, Bosque Valdiviano, Waldstreugesiebe, 31.X.1968, leg. Franz". According to Franz it differed from *A. parangulifrons* only by the configuration of the lateral sclerites of the internal sac of the aedeagus, which were not illustrated. We could not locate this specimen in the Franz collection. Anyways it referred to a taxon of infra-subspecific rank described after 1960, and thus unavailable with respect to the ICZN (1999).

Achilia pseudangulifrons Franz, 1996

Achilia pseudangulifrons Franz, 1996: 120.

Comments: Franz (1996) described *A. pseudangulifrons* based on a single male collected on Chiloé Island. We could not find this type, which should have been in his collection now housed in NHMW. According to the original description, the species is very similar to *A. angulifrons* from Valparaiso,



Figs 8-13. Male antennae of *Achilia* species. (8) *A. cribratifrons*. (9) *A. angulifrons*. (10) *A. spinifer*. (11) *A. pullastra* n. sp. (12) *A. cornuta*. (13) *A. pugila* n. sp.

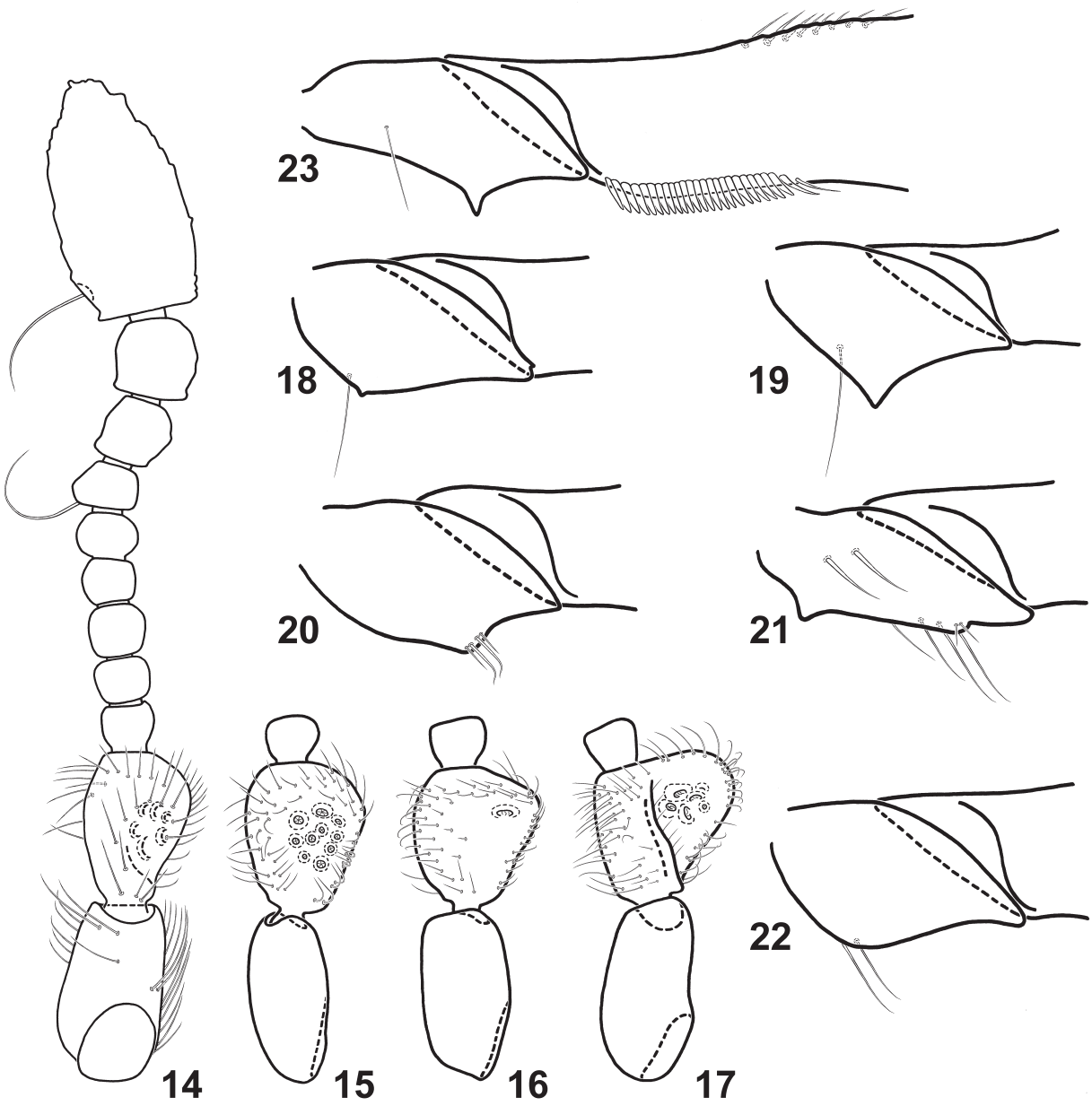
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notably with respect to the shape of the male head being triangular in dorsal view. However, the genitalia of *A. pseudangulifrons*, which was unfortunately not illustrated, was characterized as possessing parameres that lacked an outer lobe, and their apical part was only half as long as wide. These features are in sharp contrast with all the other species of the *A. cribratifrons* group, which all possess parameres with a well-developed outer lobe that have their apical part long and slender. At this time we have no idea as to which group of species *A. pseudangulifrons* could belong, and even the possibility that the species was described based on a chimeric specimen remains open. Therefore we have decided to consider this taxon as a *species inquirenda.*

Achilia simpsoni Franz 1996

Achilia simpsoni Franz, 1996: 121 fig. 73 (aedeagus).

Comments: We have examined the types (i.e. the holotype and four paratypes) of this species, which are housed in NHMW. It appeared that they belong rather to the *A. bicornis* group of species, which will be treated afterwards.



Figs 14-23. Male antenna (14), variability of the base of antennae (15-17), protrochanters (18-22), mesotrochanter and base of mesofemur (23) of *Achilia*. (14-16) *A. monstrata*, specimens from Laguna Triangulo to Alerce Andino National Park. (17, 19, 23) *A. monstrata*, specimen from Alerce Costero National Park. (18) *A. cornuta.* (20) *A. pullastra* n. sp. (21) *A. spinifer*. (22) *A. angulifrons*.

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Achilia monstrata species group

Jeannel (1962: 397-398, 418) characterized this group as follows: elytra with 3 basal foveae; basal striae of first abdominal tergite separated at most by one-third of tergal width; frons of male with high median protuberance concave on anterior margin; antennal pedicel of male medially bulging; internal sac of aedeagus with two large subequal copulatory pieces.

Achilia monstrata (Reitter, 1885)

Figs 7, 14-17, 19, 23, 33, 36-39, 55

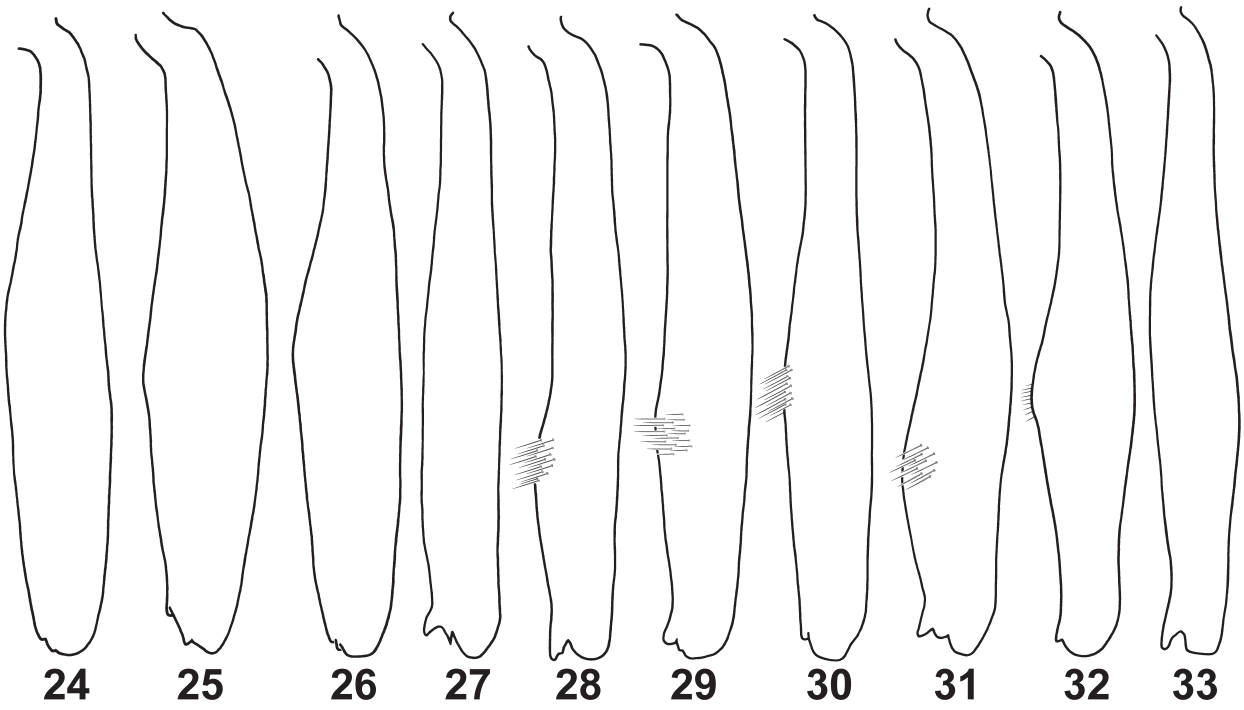
Bryaxis monstrata Reitter, 1885: 327, pl. 2 fig. 6 (head and antennae).

Achilia monstrata monstrata Jeannel, 1962: 418, figs 176 (habitus), 177 (head), 178 (aedeagus).

Achilia monstrata chilota Jeannel, 1962: 418, (**syn. nov.)**.

Type material (4 ex.): MNHN; 1 ♂ (holotype of *A. monstrata*); Chile; labels verbatim "Type / Chili / *Achillia monstrata* (handwritten by Jeannel)". – SOUTHERN CHILI: Región Los Lagos: Chiloé prov.: MHNS; 1 ♂ (holotype of *Achilia monstrata chilota*); labels verbatim "Type / CHILE, Chiloé, Sn. Pedro, 08.XI.1958, Kuschel / *Achilia monstrata chilota* Jeannel / *A. monstrata* v. *chilota* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo, n. 1799". – MNHN; 1 ♂ and 1 ♀ (paratypes of *Achilia monstrata chilota*); labels verbatim "Type / CHILE / San Pedro, 08.XI.1958, Kuschel / *A. monstrata* v. *chilota* (handwritten by Jeannel)".

Additional material examined (18 ex.): SOUTHERN CHILI: Región Los Lagos: Llanquihue prov.: MHNG; 1 ♂ and 1 ♀; Alerce Andino National Park, above Laguna Chaiquenes, station 37; 41° 40'S 72° 35'W; 350-650 m; 04.I.1993; D. Burckhardt; mixed *Fitzroya cupressoides* forest with thick moss cover inside, sifting of moss on floor and tree trunks and vegetational debris, hardwoods, berlese, litter. – MHNG; 3 ♂; Alerce Andino National Park, Laguna Triàngulo, station 38b; 41° 40'S 72° 35'W; 550 m; 05-06.I.1993; D. Burckhardt; sclerophill rain forest, sifting of moss on tree trunks and of vegetational debris. – FMNH (FMHD #97-28); 1 ♂; Alerce Andino National Park, near Sargazo entrance, 11.4 km from Correntoso; 41° 30'S 72° 37'W; 350 m; 19.I.1997; A. Newton & M. Thayer 998; Valdivian rainforest, berlese, leaf & log litter. – FMNH (FMHD #97-26); 1 ♂ and 2 ♀; Lago Chapo, 1.2 km N of NW end; 41° 25'S 72° 35'W; 265 m; 19.I.1997; A. Newton & M. Thayer 996; small secondary *Nothofagus dombeyi* w/Valdivian rainforest understory, berlese, leaf & log litter. – Chiloé prov.: MHNS; 1 ♀ (mislabeled as paratype of *Achilia monstrata chilota* n. 1800) San Pedro; 08.XI.1958; G. Kuschel. – MHNG; 1 ♂; Chiloé, H. Franz. – MHNG; 1 ♀; Piruquina; 23.I.1970; T. Cekalovic. – PHPC; 1 ♂; Chiloé Island, Cucao; WDS-T-209; 02.III.2008; 42° 35'S 74° 05'W; W. D. Shepard, sifting litter. – Región Los Ríos: Valdivia prov.: MHNG; 3 ♂; Parque Nacional Alerce Costero, Chaihuin; 350 m; 16.II.2018; G. Sabella & D. Mifsud; sifting litter. – MHNG; 2 ♀; same locality; 0-100 m; 16.II.2018; S. Kurbatov; forest litter.



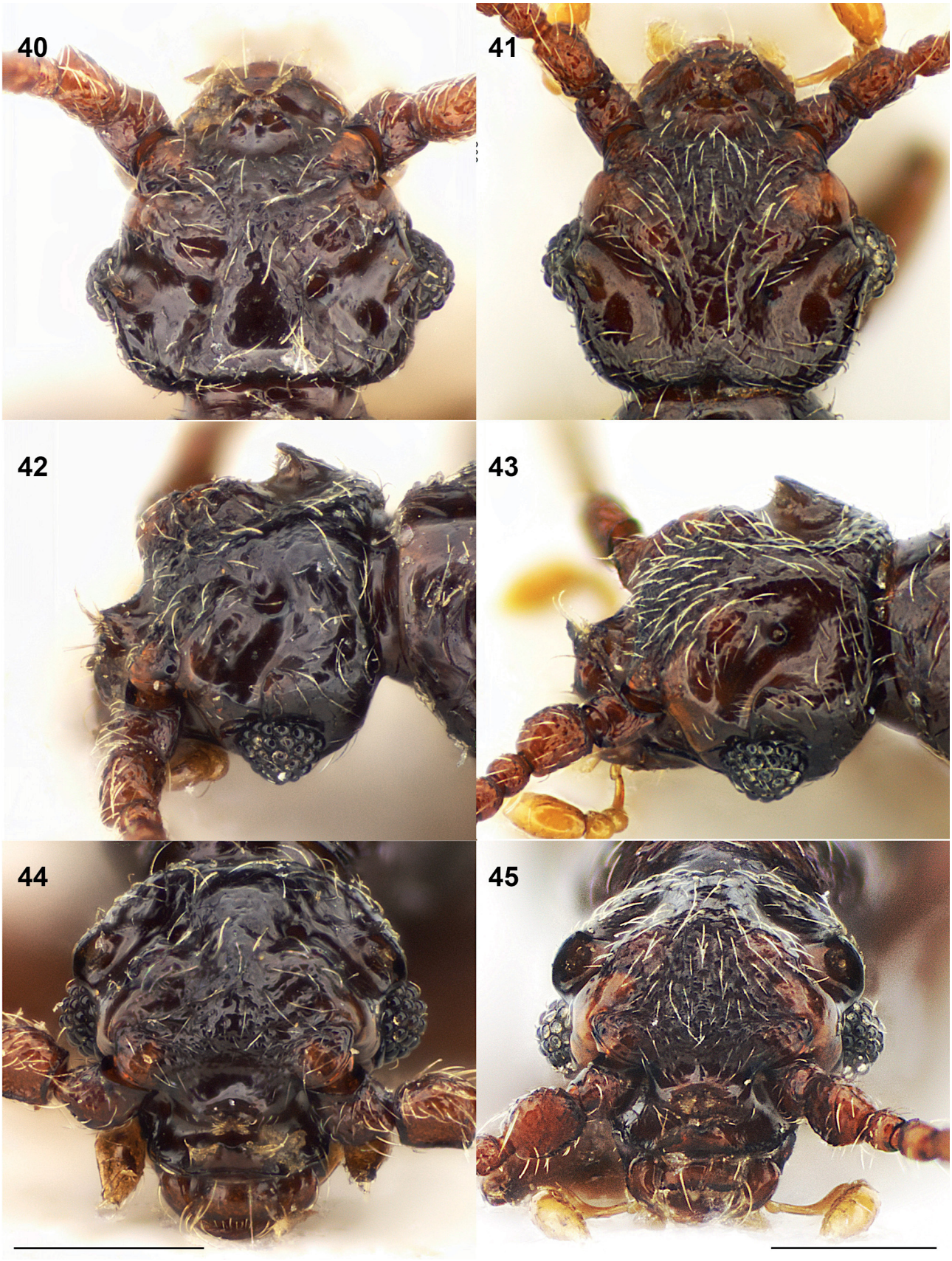
Figs 24-33. Male protibiae (24-26) and mesotibiae (27-33) of *Achilia.* (24, 29) *A. cribratifrons*. (25, 31) *A. pugila* n. sp. (26, 32) *A. angulifrons*. (27) *A. cornuta*. (28) *A. spinifer*. (30) *A. pullastra*. (33) *A. monstrata*.

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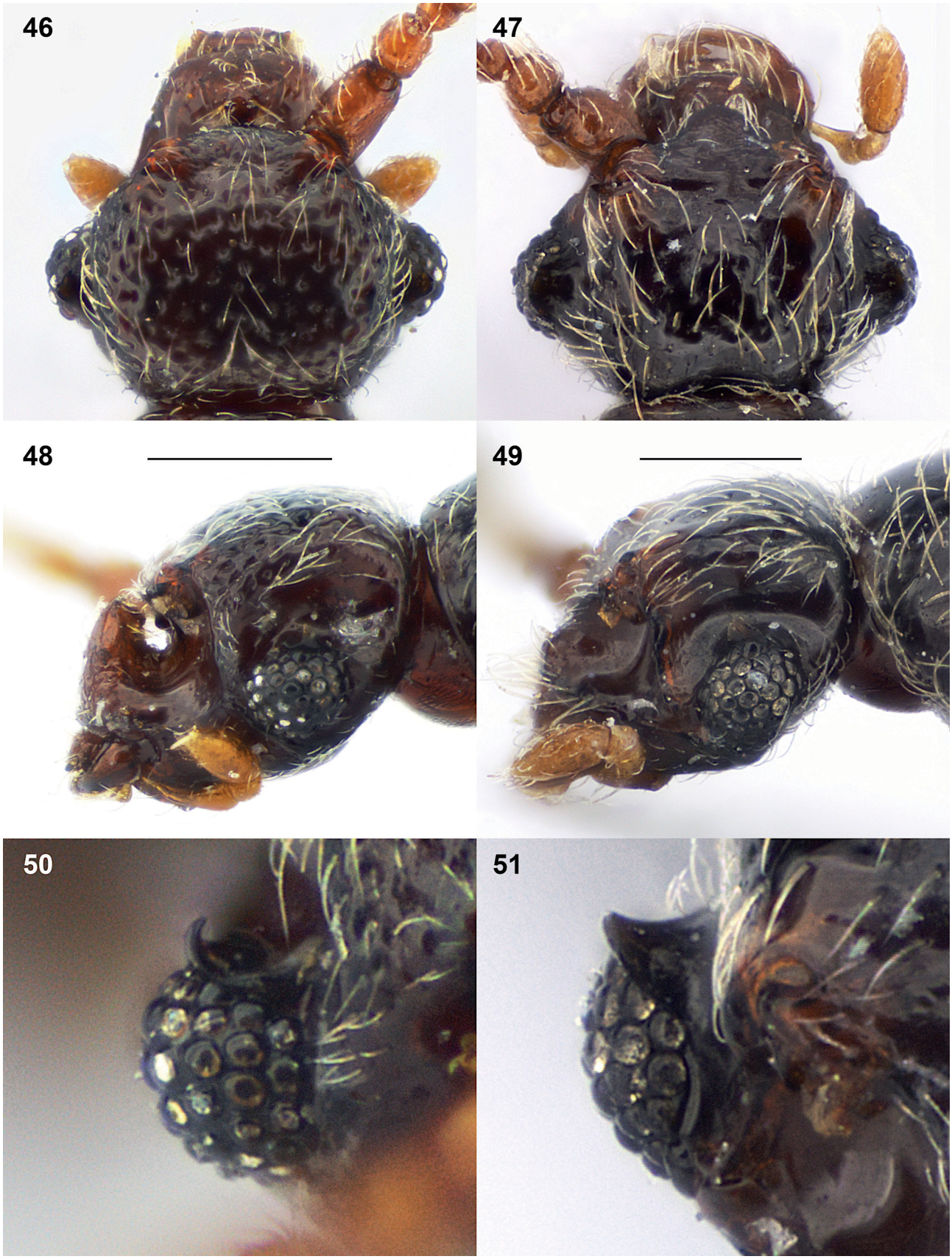
Figs 34-39. (34-35) *Achilia cornuta*. (36-39) *A. monstrata* from (36-37) Llanquihue and (38-39) Valdivia. Male head in (34, 36, 38) dorsal and (35, 37, 39) lateral views. Scale bars (200 µm) vertical for (34-35) and horizontal for (36-39).

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Figs 40-45. (40, 42, 44) *Achilia spinifer*. (41, 43, 45) *A. pullastra* n. sp. Male head in (40-41) dorsal, (42-43) lateral and (44-45) frontal views. Scale bars (200 µm) left for (40, 42, 44) and right for (41, 43, 45).

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Figs 46-51. (46, 48, 50) *Achilia cribratifrons*. (47, 49, 51) *A. pugila* n. sp. Male head in (46-47) dorsal, (48-49) lateral views, and (50-51) male eye in frontal view. Scale bars (200 µm) left for (46, 48) and right for (47, 49).

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Figs. 52-54. *Achilia angulifrons*. Male head in (52) dorsal and (53) lateral views, and (54) male eye in frontal view. Scale bar (200 µm) for (52-53).

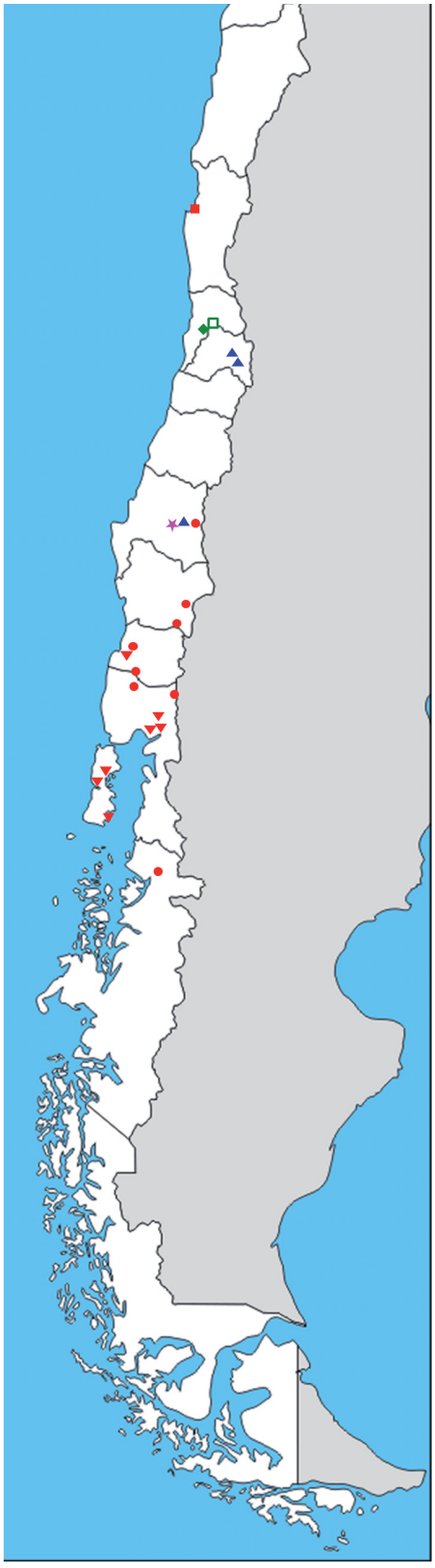


Fig. 55. Distribution map. (● red circles) *Achilia cornuta*. (■ red squares) *A. spinifer*. (◆ green diamonds) *A. pullastra* n. sp. (▲ blue triangles) *A. cribratifrons*. (★ fuchsia stars) *A. pugila* n. sp. (▣ squares edged in green) *A. angulifrons*. (▼ red inverted triangles) *A. monstrata*.

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Description: Body 1.6-1.75 mm long, colouration variable from entirely reddish to reddish with darkened abdomen, or entirely brown with reddish elytra; antennae and legs reddish, palpi yellowish. Head wider than long, lacking vertexal sulcus; eyes protruding, longer than very slightly convex temples. Pronotum wider than head and wider than long; pronotal disc convex. Elytra with four basal foveae (two lateral foveae very close); discal stria extending to about elytral midlength. First abdominal tergite with diverging basal striae extending to about one-fourth of paratergal length, separated at base by about one-third of tergal width. First abdominal ventrite with median carina extending from its posterior margin to about one-fourth of its length.

Male: Head as in Figs 36-39. Vertex and posterior half of frons raised in rectangular plate with sides more or less narrower anteriorly, anterior margin of this plaque excavated, in front of it large median tubercle bifid, bearing dense tuft of bristles at each apex; anterior margin of frontal lobe protruding. Antennae (Figs 14-17) with scape distinctly longer than wide; ventral surface of pedicel with some large pores, more or less excavated and variable from longer than wide with distal half of mesal margin protruding to wider than long with distal half of mesal margin very protruding; antennomeres III-IV about as wide as long, antennomere V as long as wide, larger than previous ones; antennomeres VI-VII slightly wider than long; antennomere VIII distinctly wider than long, its mesal margin enlarged and at basal half pointed and with long bristle; antennomere IX slightly wider than long; antennomere X about as long as wide; antennomere XI elongate, longer than VII-X combined. Metaventrite raised at middle, this area with some fine punctures and divided by wide medial sulcus, with ventral margin of protrochanters (Fig. 19) and mesotrochanters (Fig. 23) projecting posteriorly as spine; basal third of ventral margin of mesofemurs densely covered with large bristles (Fig. 23); mesotibiae (Fig. 33) with apical spur on medial margin; distal half of metatibiae slightly sinuate. Abdominal tergites unmodified; first ventrite raised from middle up to and including its posterior margin. Aedeagus (Fig. 7) 0330-0.340 mm long; with ovoid dorsal plate, dorsal longitudinal struts reduced and divergent. Copulatory pieces consisting of median sclerite associated with pair of recurved longer and thinner medial sclerites, strongly sclerotized at base, apically pointed and curved inwards, associated on each side with one long sclerite that is apically pointed and recurved outwards. Parameres wide with one very large seta on well-developed outer lobe, apex bent backward and bearing one subapical seta.

Female: Similar to male except: head not modified, its dorsal surface slightly concave anteriorly, sparsely punctate; pair of large vertexal foveae between eyes, the latter less developed than for male; antennae shorter and thinner than for male; metaventrite, abdomen and legs unmodified.

Collecting data: Collected from November to February in different types of forests at elevations ranging from 0 m to 650 m. All specimens came from sifted samples of leaf and log litter, sometimes mixed with moss.

Distribution: *Achilia monstrata* is known from Southern Chili ranging from Llanquihue Province to Valdivia Province (Fig. 55: red inverted triangles). Jeannel (1964: 10) also reported it for Nahuelbuta National Park (37° 45' S), 650 m, F. Di Castri, IV.1962, 1 ♀. We did not found this specimen in the MNHN collection, and considering that this report was based on a female from a region quite distant from the area currently delimited for this species, this placement requires confirmation. We did not take this record into consideration for the distribution map.

Comments: Jeannel (1962: 419) recognized two subspecies of *A. monstrata* – i.e. *A. m. monstrata* from Valdivia, and *A. m. chilota* from Chiloé Island – distinguished by characters of the male head. According to Jeannel the nominal subspecies has the frontal plate rectangular and longer than wide, with the sides not restricted anteriorly, and the anterior margin of the frontal lobe is "engraved" at the middle, while for *A. m. chilota* the frontal plate is distinctly shorter (wider than long), with the sides restricted anteriorly, and the anterior margin of frontal lobe is not "engraved". The aedeagal conformation of all males examined, including the two holotypes, is widely comparable to that shown in Fig. 7, without significant differences. Moreover the males of this taxon show significant variability of the shape of the frontal plate of the head (cf. Figs 36 and 38, and 37 and 39), and of the pedicel of the antennae (cf. Figs 14-17), even in specimens from the same locality. Therefore we consider that *Achilia monstrata chilota* Jeannel, 1962 is a junior synonym of *Achilia monstrata* (Reitter, 1885) (**syn**. **nov**.).

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