Revision of the Chilean Brachyglutini – Part 9. The last unrevised species of Achilia Reitter, 1890 and of the other genera of Chilean Brachyglutini, with description of Estamentula stultissima gen. nov. sp. nov. and three new species of Achilia (Coleoptera: Staphylinidae: Pselaphinae)

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Revision of the Chilean Brachyglutini – Part 9. The last unrevised species of *Achilia* Reitter, 1890 and of the other genera of Chilean Brachyglutini, with description of *Estamentula stultissima* gen. nov. sp. nov. and three new species of *Achilia* (Coleoptera: Staphylinidae: Pselaphinae)

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Abstract: *Achilia nigrita* Jeannel, 1962 and the members of all the other genera of Brachyglutini from the temperate region of southern South America are revised. Ten genera are placed in synonymy: *Achillidia* Jeannel, 1962 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Rybaxidia* Jeannel, 1962 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Achilliotes* Jeannel, 1962 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Pseudachillia* Jeannel, 1963 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Mallecoa* Franz, 1996 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Mehuinia* Franz, 1996 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Cautinia* Franz, 1996 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Atacamia* Franz, 1996 = *Achilia* Reitter, 1890 **syn**. **nov**.; *Parachillia* Franz, 1996 = *Achilia* Reitter, 1890 **syn**. **nov**., and *Pseudachillidia* Franz, 1996 = *Achilia* Reitter, 1890 **syn**. **nov**. The remaining 4 genera of Brachyglutini (*Byraxorites* Jeannel, 1962, *Bryaxinella* Jeannel, 1962, *Ectopocerus* Raffray, 1904 and *Leptachillia* Jeannel, 1962) and their constitutive members are redescribed. The new genus and species *Estamentula stultissima* **gen. nov**. **sp. nov.** are described, as well as the new species *Achilia cipolla* **sp. nov.**, *Achilia mifsudi* **sp. nov.** and *Achilia caprae* **sp. nov.** Six new combinations are proposed: *Leptachillia coquimboensis* Franz, 1996 = *Estamentula coquimboensis* (Franz, 1996) **comb**. **nov**.; *Bryaxis bituberculata* Reitter, 1885 = *Achilia bituberculata* (Reitter, 1885) **comb**. **nov**.; *Rybaxidia torticornis* Jeannel, 1962 = *Achilia torticornis* (Jeannel, 1962) **comb**. **nov**.; *Pseudachillia bicolor* Jeannel, 1963 = *Achilia bicolor* (Jeannel, 1963) **comb**. **nov**.; *Pseudachillia dolichocephala* Jeannel, 1964 = *Achilia dolichocephala* (Jeannel, 1964) **comb**. **nov**.; *Mallecoa abnormis* Franz, 1996 = *Achilia abnormis* (Franz, 1996) **comb**. **nov**. *Rybaxidia kuscheli* Jeannel, 1962 is renamed *Achilia kuscheliana* **nom**. **nov**., consequently to its transfer to *Achilia* and its secondary homonymy with *Achilia kuscheli* Jeannel, 1962, which is a synonym of *Achilia valdiviensis* (Blanchard, 1851). Ten species are placed in synonymy: *Cautinia brevicornis* Franz, 1996 = *Achilia torticornis* (Jeannel, 1962) **syn**. **nov**.; *Achilia andina* Franz, 1996 = *Achilia dolichocephala* (Jeannel, 1964) **syn**. **nov**.; *Achilia maiopensis* Franz, 1996 = *Achilia dolichocephala* (Jeannel, 1964) **syn**. **nov**.; *Pseudachillidia andina* Franz, 1996 = *Achilia dolichocephala* (Jeannel, 1964) **syn**. **nov**.; *Parachillia longicornis* Franz, 1996 = *Achilia dolichocephala* (Jeannel, 1964) **syn**. **nov**.; *Parachillia similis* Franz, 1996 = *Achilia simulans* (Reitter, 1885) **syn**. **nov**.; *Parachillia parva* Franz, 1996 = *Achilia bifossifrons* (Reitter, 1883) **syn**. **nov**.; *Paractium mochae* Franz, 1996 = *Achilia elfridae* Raffray, 1904 **syn**. **nov**.; *Mehuinia inexpectata* Franz, 1996 = *Achilia puncticeps* (Reitter, 1883) **syn**. **nov**.; *Atacamia paludosa* Franz, 1996 = *Achilia temporalis* Jeannel, 1962 **syn**. **nov**. The holotypes of *Byraxorites alticola* Jeannel, 1962, *Achilia nigrita* Jeannel, 1962, *Rybaxidia kuscheli* Jeannel, 1962, *Rybaxidia torticornis* Jeannel, 1962, *Bryaxinella nodicornis* Jeannel, 1962, *Decarthron verticicornis* Reitter, 1885, and *Leptachillia laevissima* Jeannel, 1962 are fixed. Lectotypes are designated for *Bryaxis bituberculata* Reitter, 1885, *Achilia brevicornis* Raffray, 1904, and *Pseudachillia dolichocephala* Jeannel, 1964. For all species their distribution is detailed and mapped, and habitat/collecting data are summarized. A key to the genera of Brachyglutini of the temperate region of southern South America is provided.

Keywords: Brachyglutini genera - Chile and Argentina - taxonomy - new genus - new species - new synonymies - distribution.

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INTRODUCTION

This article is the ninth and penultimate contribution to our series aiming at revising the taxonomy of Brachyglutini of southern South America (Kurbatov & Sabella, 2015; Sabella *et al.,* 2017; Kurbatov *et al.,* 2018; Sabella *et al.,* 2019; Kurbatov *et al.,* 2019; Sabella *et al.,* 2020; Kurbatov *et al.,* 2021; Sabella *et al.,* 2024). Over the years we examined more that 14,000 specimens of *Achilia* Reitter, 1890, which allowed us to redefine thirthy-nine species and to describe nineteen new species. Here, we deal with the last unrevised species of *Achilia* Reitter, 1890 (i.e. *Achilia nigrita* Jeannel, 1962) and the members of the fourteen other genera of Brachyglutini of this region, all described by Raffray (1904), Jeannel (1962, 1963) and Franz (1996).

The alpha-taxonomy of *Achilia* has been quite confusing and sorting it out was a real challenge, as is suggested by the twenty-nine new synonymies (43% of the specific epithets) for this genus. Unfortunately, the beta-taxonomy of Brachyglutini of the temperate region of southern South America is similar in that no less that two-thirds of the current generic names are, according to us, synonyms of *Achilia*. In order to enhance the reader's comfort in reading this paper, the narrative has been structured so that the genera of Raffray and Jeannel are reviewed first, including descriptions of three new species that we consider close to those placed by Jeannel in his brachyglutine genera. Then we review the genera described by Franz, describe a new genus, and at the end we provide a key to the genera of Brachyglutini of Chile and some very preliminary zoogeographical considerations.

In the next and last part of this series (Part 10) we plan to redefine *Achilia* in light of our knowledge accumulated since its preliminary diagnosis given by Kurbatov & Sabella (2015), describe a dozen new species of *Achilia*, propose a key to the reassessed species groups for this genus, and provide a catalogue of the species of this genus.

MATERIAL AND METHODS

This study is based on the examination of 1147 specimens. The acronyms used in the present study refer to the following collections (relevant curator/collection manager are acknowledged in parentheses):

BMNH British Museum of Natural History, London, England (D. Telnov)

DBUC Department of Biological, Geological and Environmental Sciences, University of Catania, Italy

FMNH Field Museum of Natural History, Chicago, U.S.A. (M. Turcatel)

JEBC Colección Entomológica y Museo Juan Enrique Barriga – Tuñón, Curicó, Chile (J. E. Barriga – Tuñón)

MHNG Muséum d'histoire naturelle de Genève, Geneva, Switzerland

MNHN Muséum national d'Histoire naturelle, Paris, France (A. Montilleri)

MNHS Museo Nacional de Historia Natural, Santiago, Chile (M. Elgueta Donoso and Y. J. Sepulveda Guaico)

MSNG Museo Civico di Storia Naturale "G. Doria", Genova, Italy (R. Poggi)

NHMW Naturhistorische Museum, Wien, Austria (H. Schillhammer)

PCTS Private collection of Tim Struyve, Mechelen, Belgium (T. Struyve)

PCVB Private collection of Volker Brachat, Geretsried, Germany (V. Brachat)

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).

Only critical references are cited for the species. 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. For MHNG material additional information pertaining to sampling sites are used to enrich unpublished locality lists when available.

For the method of selection of the type material see Sabella *et al*. (2017).

The aedeagi and other body parts illustrated here were mounted in Canada balsam on acetate slides, and drawn using a drawing tube mounted on a Zeiss Axioskop compound microscope. 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 CC 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 aedeagus termed "dorsal strips" in Sabella *et al*. (2017) are here termed "longitudinal struts".

TAXONOMY

Genera of Chilean Brachyglutini described by Raffray and Jeannel

Byraxorites Jeannel, 1962
Fig. 85

Byraxorites Jeannel, 1962: 387, 389; Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 60.
Type species: *Byraxorites alticola* Jeannel, 1962

Tegument pubescent. Head with pair of tentorial pits, lacking median frontal fovea and infraocular carinae, and ventrally with medial elevation limited on both sides by pair of longitudinal sutures. Pronotum lacking any foveae, carinae or transverse row of contiguous basal impressions, with dark spot instead of median antebasal fovea. Elytra with 3 basal foveae; sutural stria entire; discal stria very short, extended from outer basal fovea; humeri well-marked; subhumeral fovea and lateral sulcus lacking. Abdominal tergite 1 (IV) longer than tergite 2 (V), with pair of discal carinae; presence of mediobasal and basolateral foveae not investigated (not visible on dry specimen). Prosternum with pair of paranotal carinae and pair of anteroprosternal foveae. Mesometaventrite with median mesoventral, pair of lateral mesoventral and pair of mesocoxal foveae; lacking transverse lateral suture delimiting meso- and metaventrite. Abdominal sternite 2 (IV) with pair of mediobasal and pair of basolateral foveae. Male secondary sexual characters localized on head, antennae, mesotibiae, metaventrite, and abdominal sternite 6 (VIII); abdominal sternite 7 (IX) not exposed, but aedeagus dorsally possibly fused with it.

Comments: We had at our disposal only the holotype of the single species of this genus, so we didn't investigate some characters visible only by pursuing semi-destructive preparations. *Byraxorites* is most likely an element of the Neotropical fauna, but with our current level of knowledge of Neotropical Brachyglutini we are unable to hypothesize its precise relationships with other genera of this realm.
Jeannel expressed his opinion on the relationships of the genus in a contradictory way. He placed *Byraxorites* in his phyletic lineage Bryaxina, which according to his key (Jeannel, 1962: 386) is characterized by the pronotum with lateral foveae well separated from rounded and deep antebasal fovea. However, according to the key to genera of this phyletic lineage and the description of *Byraxorites*, these foveae are missing (Jeannel, 1962: 387, 389), which is in accordance with our observations. The aedeagal structure of the only representative of this genus that is illustrated by Jeannel strongly differs from what we observed. For example, on Jeannel's illustration the aedeagus has two symmetrical parameres with each bearing an apical bristle, while the aedeagus that is provided has only one paramere bearing three distinct apical bristles (Figs 1-2). Although we cannot exclude that the aedeagus was originally furnished with two parameres, we did not find a second paramere in Jeannel's preparation, nor observed any traces of possible attachment of this second paramere to the basal bulb. Therefore, until the appearance of new material on this genus, we consider that *Byraxorites* aedeagus has only one setiferous paramere.
The genus includes only *Byraxorites alticola* Jeannel, 1962 (Fig. 85).

Byraxorites alticola Jeannel, 1962
Figs 1-2, 7-8, 17, 85-91, 202

Byraxorites alticola Jeannel, 1962: 389-390, figs 131 (head and antennae of male), 132 (maxillary palpus), 133 (male antenna), 134 (aedeagus); Franz, 1996: 110; Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 60.

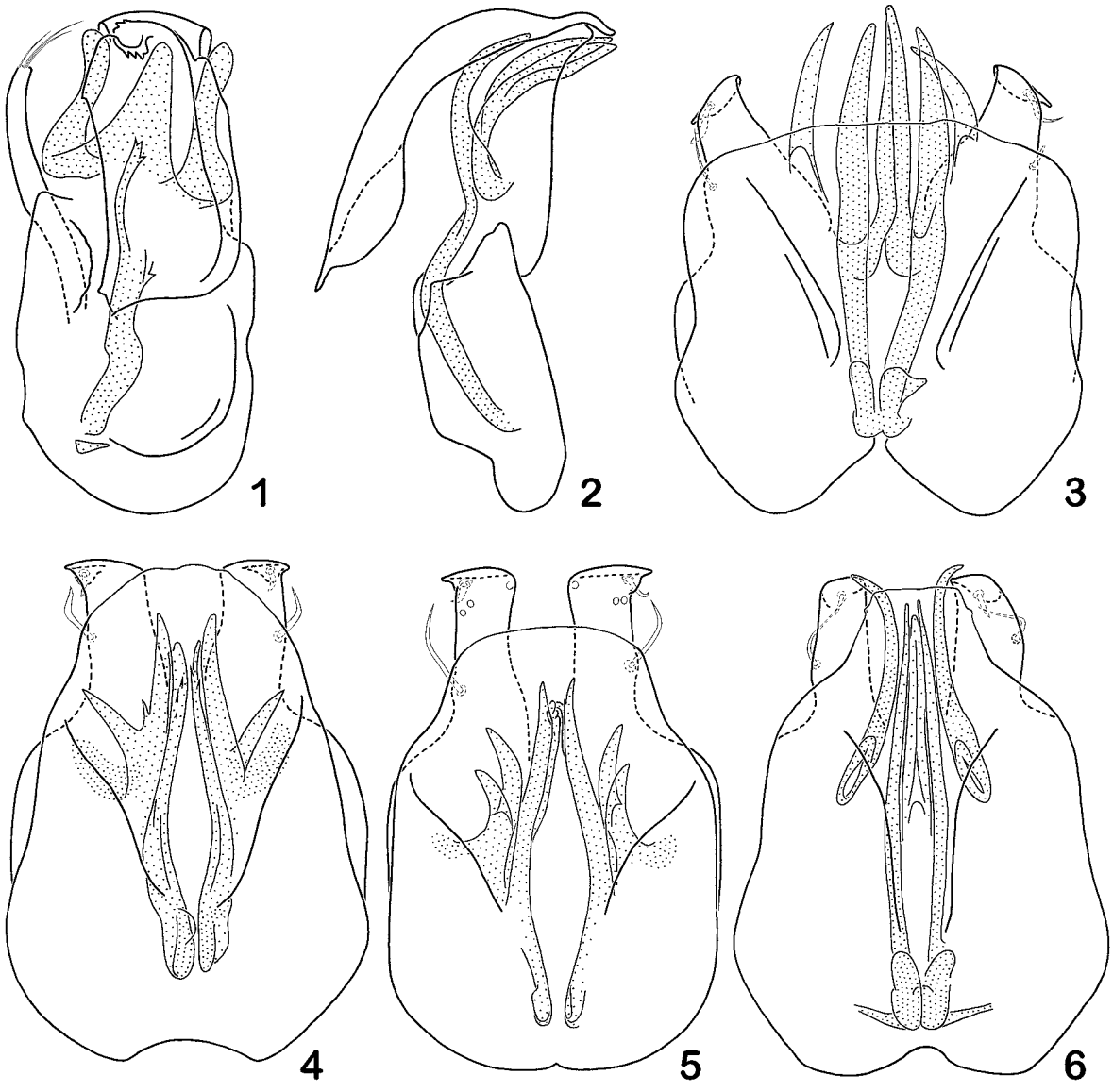
Type material (1 ex.): NORTHERN CHILE: Región Arica y Paranicota: Arica prov.: MNHN; 1 ♂ (Holotype of *Byraxorites alticola* here fixed); labels verbatim: "Holotype (red label) / Chile - Tarapaca; Paranicota; 4400 m; 7.12.46 / Coll.; Kuschel / *Byraxorites*; *alticola* (handwritten by Jeannel) / *Byraxorites*; *alticola* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Description: Habitus as in Fig. 85. Body 2 mm long, dark brown (including appendages) with black abdomen; pubescence long, decumbent and very sparse. Head wider than long, in male so modified anteriorly that vertexal foveae can not be seen; eyes moderately protruding, about as long as tempora; tempora weakly convex. Maxillary palpi small with last palpomere elongate. Pronotum about as wide as long and slightly narrower than head; disc convex, its surface smooth and shiny with only some punctures; anterior portion of lateral margins distinctly convergent and sinuate; posterior portion of lateral margins slightly convergent. Elytra together wider than long, with protruding humeri; disc smooth and shiny; basal foveae big; discal carinae extended to about one-third of elytral length. Abdomen smooth, with some minute punctures; first tergite with short and sparse setal brush between divergent basal carinae, the latter carinae extended to about one-third of paratergal length and separated at base by about one-third of tergal width.
Male: Head as in Figs 86-91; antennal tubercles with pair of long and thick tufts of adherent setae angled towards each other; frons deeply depressed centrally, this depression (Fig. 91) margined anteriorly by bilobed diaphragm and bearing at center two thin upwardly directed curved setal tufts that are interlocked apically; frontoclypeus with two flat tufts of translucent setae projecting anteriorly and angled toward each other. Antennae (Figs 7-8) with scape longer than wide, the latter slightly concave on anterior surface; pedicel longer than wide, compressed and twisted proximally, basal third of medial margin deeply incised; antennomere III small,

wider than long, antennomeres IV-IX with toothed lateral margin bearing long setae; antennomere IV about as wide as long; antennomere V wider than long; antennomere VI longer than wide; antennomeres VII-VIII slightly wider than long; antennomere IX distinctly wider than long; antennomere X slightly wider than IX; antennomere XI longer than wide, longer than IX-X combined. Metaventrite shallowly impressed medially on posterior two-thirds, with thin medial carina. Mesotibiae (Fig. 17) with mesal margin deeply hollowed in proximal third and apically prolonged as robust spine. Aedeagus (Figs 1-2) 0.60 mm long; dorsal plate sub-ovoidal, surmounted by plate on dorsal portion of which lies another plate posteriorly elongated and pointed at both apices (Fig. 2). Paramere relatively long and thin with three long apical setae; copulatory pieces consisting of three stout sclerites in apical portion, and a long mediobasal sclerite bearing small spines near middle and apical portions.

Female: Unknown.

Collecting data: The holotype of *Byraxorites alticola* was collected in December at about 4400 m. Franz (1996: 110) mentions 4 specimens (1 male and 3 females) of this species collected on 11 October 1968, along the road from Arica to Putre at around 4000 m, sifting under cushions of *Laretia* spp. along with numerous specimens of the carabid beetle *Trechisibius setulosus* Mateu & Negre, 1972. In the NHMW collections we were able to examine the remains of 4 specimens collected by Franz in Arica (Plateau near Putre) and identified by him as *Byraxorites alticola*.



Figs 1-6. Aedeagi of Brachyglutini. (1) *Byraxorites alticola*, dorsal view. (2) *Byraxorites alticola*, lateral view. (3) *Achilia cipolla* sp. nov. (4) *Achilia quinteroi,* dorsal view. (5) *Achilia pseudangularis,* dorsal view. (6) *Achilia bituberculata,* dorsal view..

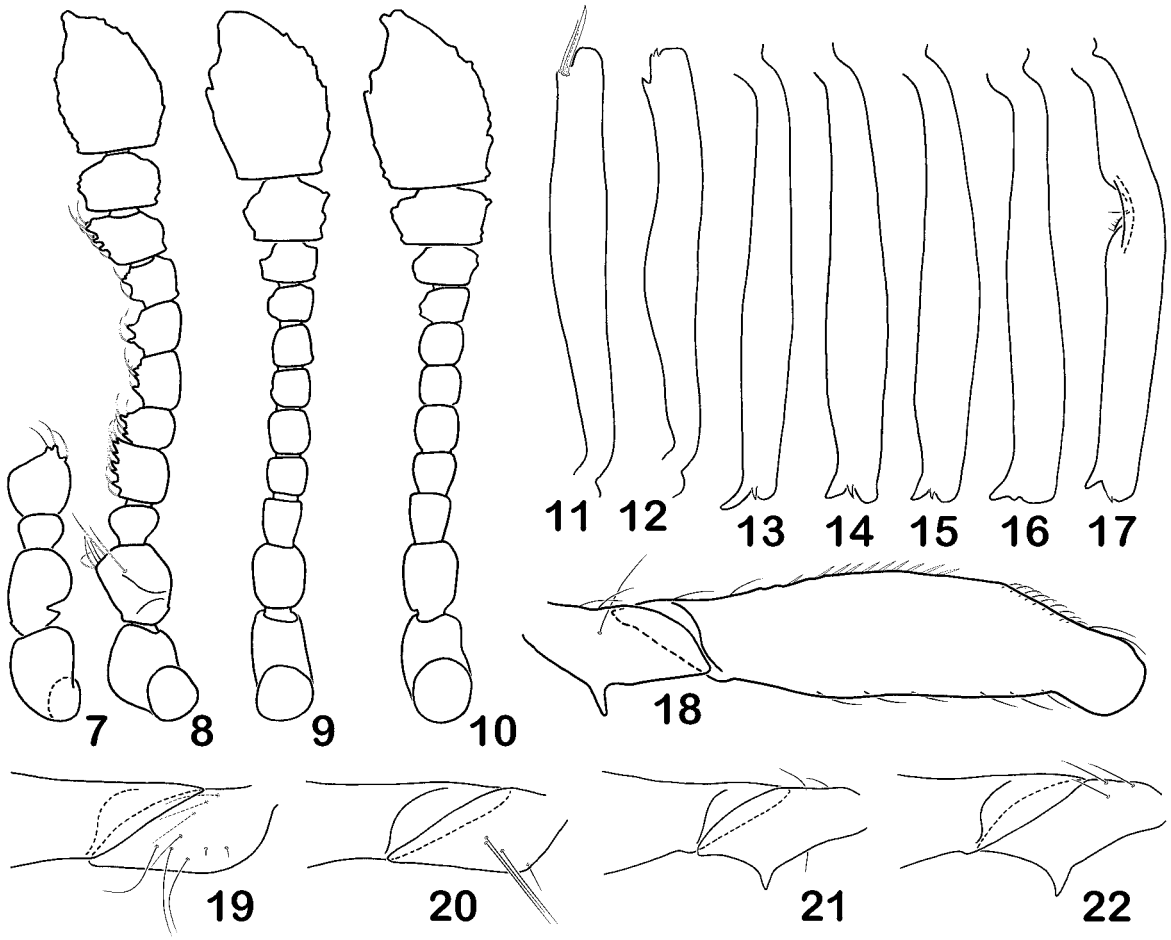
These specimens and their aedeagal preparations are unfortunately severely damaged, nevertheless their aedeagi seem indeed similar to that of *B. alticola*.

Distribution: The species is known only from the province of Arica (Region of Arica y Paranicota); we plotted on the map both the type locality and the second location reported by Franz (1996) [see previous paragraph (Fig. 202 fucsia stars)].

Comments: According to Jeannel (1962: 390) the species has been described from a single male collected on Mount Paranicota, which should have been deposited in the collection of the MNHS. However, this taxon is not listed in the catalog of the MHNS holotypes of insects (Camousseight, 1980). In the collection of the MNHN we found a specimen identified as *B. alticola* by Jeannel and labelled as from "Paranicota". Although this specimen does not bear any type labels and has the aedeagus with only one paramere instead of two (see comments for *Braxorites*), it perfectly fits Jeannel's description in every other aspect and we consider that there is no reason to doubt that it is indeed the holotype of *Byraxorites alticola.*

Jeannel (1962: 390) noted that this species, linked to high altitudes, is found well beyond the latitude of 32° S, which seems to represent the extreme limit of the Chilean area occupied by Pselaphids and in particular by members of *Achilia*. This led him to hypothesize that *Byraxorites* was more closely related to Brachyglutini of the *Bryaxina* phyletic series, which are native to "Inabresia" (a term coined by Jeannel for the still undivided Gondwana including the Brazilian area, Africa, Madagascar, and India and Malaysia), rather than to *Achilia* (see Jeannel, 1942: 164).

The male of *Byraxorites alticola* is easily distinguished from that of the other species of Chilean Brachyglutini by the lack of the pronotal antebasal foveae, and by the shape of the head (Figs 86-91), of the antennae (Figs 7-8), of the mesotibiae (Fig. 17) and of the aedeagus (Figs 1-2).



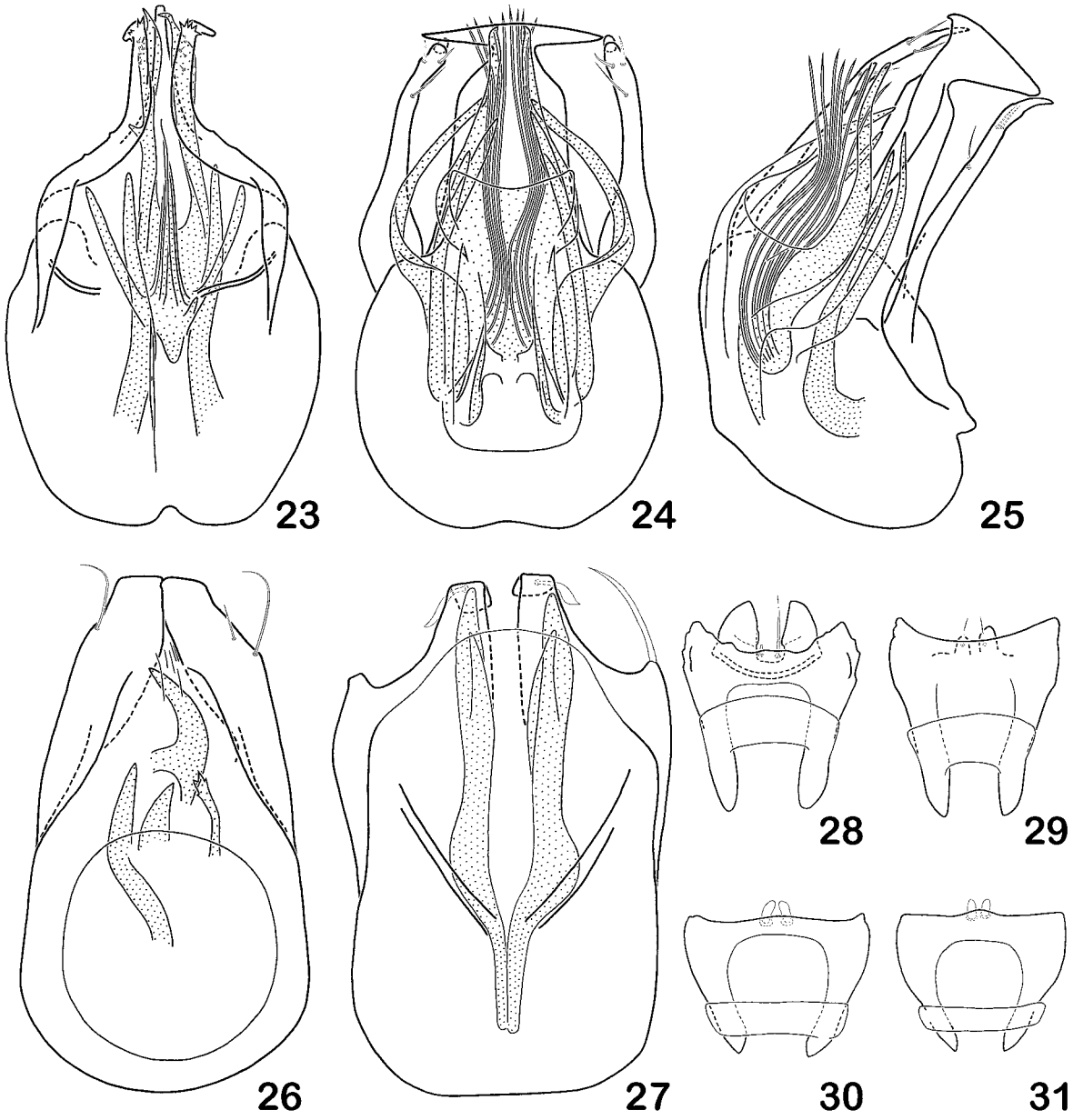
Figs 7-22. Antennae (8-10), base of antenna (7), protibiae (11-12), mesotibiae (13-17), mesofemur (18), protrochanters (19-20), and mesotrochanters (18, 21-22) of Brachyglutini in dorsal view. (7, 8, 17) *Byraxorites alticola*. (9, 14, 20, 22) *Achilia quinteroi*. (10-11, 15, 21) *Achilia pseudangularis*. (12, 16, 18) *Achilia cipolla* sp. nov. (13, 19) *Achilia bituberculata*.

Achillidia Jeannel, 1962

Achillidia Jeannel, 1962: 391; Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 57.
Type species: *Bryaxis bituberculata* Reitter, 1885

According to Jeannel (1962: 386) this genus belongs to the phyletic series of *Achilia*, characterized by the pronotum with the lateral antebasal foveae distinctly separated from the rounded and deep median antebasal fovea, and by the aedeagus with parameres each bearing one seta on their lateral margin and never at the apex. Within this phyletic series, *Achillidia* should differs from the other genera by the parameres of the aedeagus being narrow and elongate, the pronotum with a big median antebasal fovea, the elytra with 3 basal foveae, abdominal tergite 1 (IV) being longer than tergite 2 (V) and possessing long and oblique basal carinae, and the presence of sexual features on abdominal tergite 1 (IV) in males (Jeannel, 1962: 390).

We have examined the lectotype and paralectotypes of *Achillidia bituberculata*, and the comparison with many species of different species groups of *Achilia* led us to the conclusion that the characters used by Jeannel to distinguish this genus from *Achilia* are not convincing, in particular the shape of the aedeagal parameres, the size of the pronotal median antebasal fovea, and the length of abdominal tergite 1 (IV) with respect to tergite 2 (V)



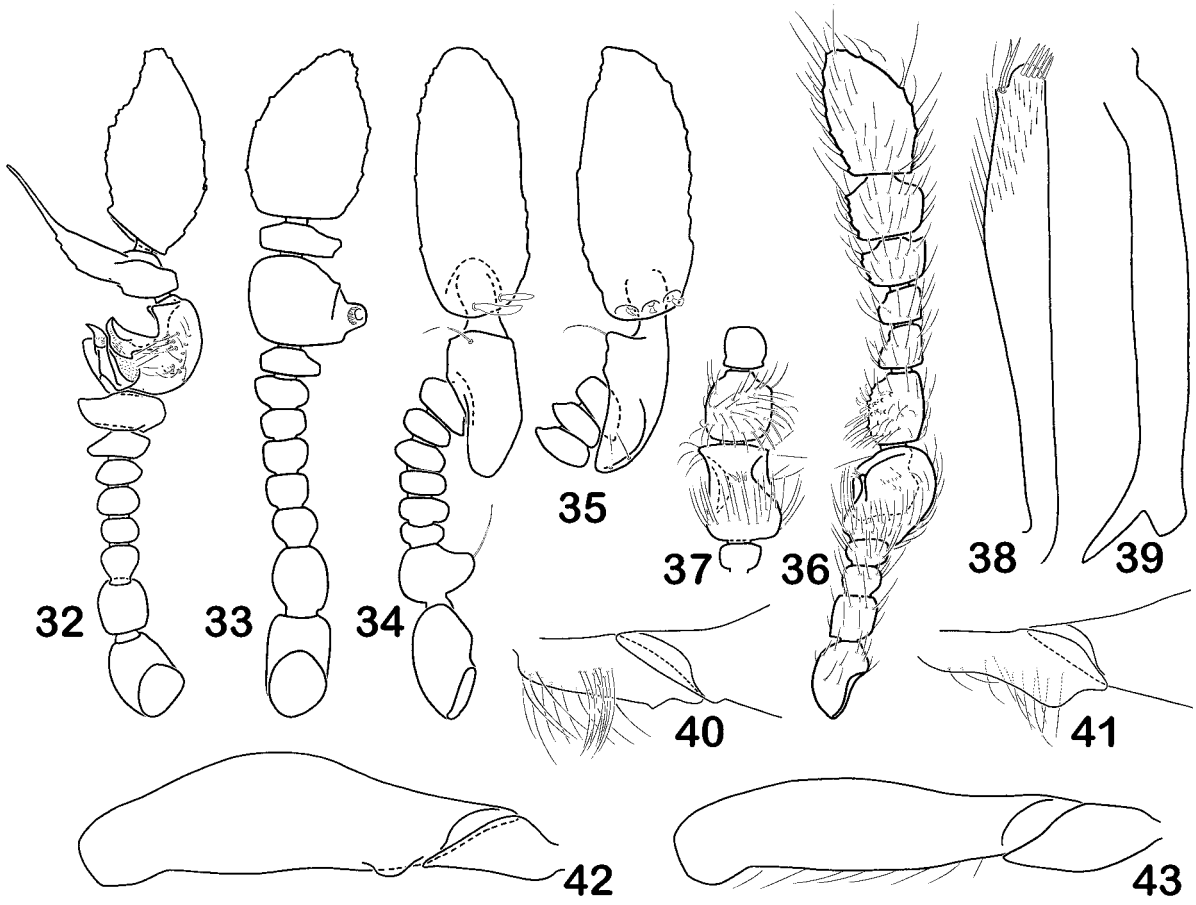
Figs 23-31. Aedeagi dorsal (23-24, 26-27) and lateral (25) views, labrum of male (28, 31) and female (29, 31) of Brachyglutini. (23-24, 28-29) *Achilia torticornis*. (24-25, 30-31) *Achilia kuscheliana*. (26) *Bryaxinella nodicornis*. (27) *Ectopocerus verticicornis*.

is very similar, if not identical to that of many species of *Achilia*. Remaining is the presence of two tubercles on abdominal tergite 1 (IV) of the males to distinguish *Achillidia* from *Achilia*. However, the latter character is a secondary sexually dimorphic feature, which is a category of characters we think should not be used to separate the two genera. Therefore, we consider that *Achillidia* Jeannel, 1962 is as synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.), and the name *Achillidia bituberculata* must become *Achilia bituberculata* (Reitter, 1885) (**comb**. **nov**.).

Among the other species examined, three others are similar to *A. bituberculata* with respect to the conformation of the aedeagus and to the presence of male secondary sexual characters on the abdominal tergite 1 (IV). These are *A. pseudangularis* Franz, 1996 and *A. quinteroi* Franz, 1996, according to Franz belonging to the *A. angularis* group, and *A. cipolla* sp. nov. described below.

These four taxa all possess the following common features: dense decumbent pubescence consisting of long yellowish setae over entire body, especially on abdominal tergites, combined with shorter sub-erect setae especially on antennomeres and palpomeres; head modified in male, slightly wider than long, with two small vertexal foveae about at level of anterior eye margins and separated from eyes; eyes slightly longer than temples, the latter short and weakly convex; pronotum wider than long, wider than head, with disc weakly convex and possessing some punctures; median antebasal fovea about as wide as lateral foveae; anterior portion of lateral pronotal margins distinctly convergent and sinuate anteriorly; posterior portion of lateral pronotal margins slightly convergent; basal pronotal margin bordered with row of shallow impressions; elytra together wider than long, with protruding humeri; elytral disc with few punctures; elytra with four basal foveae, outer one large, and two more medial foveae smaller and merged together in some specimens; sutural stria entire; elytral discal stria extended to about elytral mid-length; abdomen smooth, with some minute punctures; abdominal tergite 1 (IV) with short and sparse setal brush between subparallel basal striae, the latter striae extended to about one-third of paratergal length.

In order to keep the text more concise, these features are not repeated in the following four species descriptions.



Figs 32-43. Antennae (32-34, 36), antennal apex (35), antennomeres 4-7 (37), protibia (38), mesotibiae (39), protrochanter (40), mesotrochanter (41), and mesofemora (42-43) of Brachyglutini in dorsal view. (32) *Achilia torticornis*. (33, 38, 40-41) *Achilia kuscheliana*. (34-35, 43) *Ectopocerus verticicornis*. (36-37, 39, 42) *Bryaxinella nodicornis*.

In our opinion *Achilia nigrita* Jeannel, 1962, known only from females, seems to be belong to this group (Sabella *et al.,* 2024: 155-156) and, consequently, we will also treat it in this section.

Achilia bituberculata (Reitter, 1885) comb. nov.

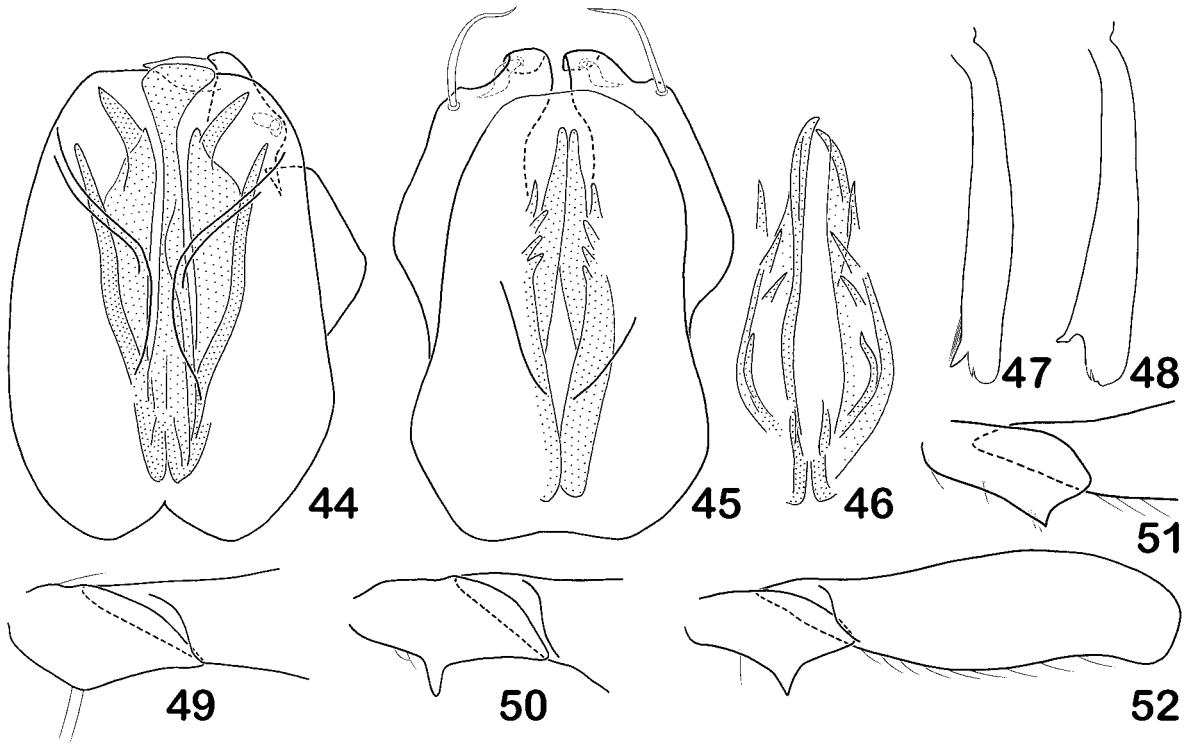
Figs 6, 13, 19, 92-97, 203

Bryaxis bituberculata Reitter, 1885: 325, 330.
Achillidia bituberculata, Jeannel, 1962: 391, figs 135 (habitus of male), 136 (aedeagus); Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 57.

Type material (**5 ex**.)**:** SOUTHERN CHILE: Región Los Ríos: Valdivia prov.: MNHN; 1 ♂ (Lectotype of *Achilia bituberculata* here designated); labels verbatim: "Lectotype (red label) / TYPE (red label) / Chile / Museum Paris 1917; coll. Raffray / *A*.; *bituberculata;* det. A. Raffray / *Achillidia*; *bituberculata* (handwritten by Jeannel) / *Achillidia*; *bituberculata* (Reitter, 1885) =; *Achilia bituberculata* (Reitter, 1885, Sabella, Cuccodoro & Kurbatov 2023 det.) / *Achilia*; *bituberculata* (Reitt.) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.". – MNHN; 4 ♂ (Paralectotypes of *Achilia bituberculata* here designated); labels verbatim: "/ Paralectotype (red label) / Chile / Museum Paris 1917; coll. Raffray / *A*.; *bituberculata;* det. A. Raffray / *Achilia*; *bituberculata* (Reitt.) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material examined (**58 ex**.)**:** SOUTHERN CHILE: Región Los Ríos: Valdivia prov.: PCVB; 1 ♂; Panguipulli. – Región Bío Bío: Concepción prov.: MSNG; 1 ♂ and 2 ♀; Escuadron, TC-239; 17.IX.1989; T. Cekalovic. – MNSG; 2 ♂ and 1 ♀; Escuadron (ex charca), TC-243; 12.X.1989; T. Cekalovic. – MHNG; 1 ♂; same data. – MSNG; 2 ♂ and 3 ♀; Puente Pelun, TC-358; 21.II.1993; T. Cekalovic. – MHNG; 1 ♂ and 1 ♀; same data. – MHNG; 1 ♂; El Manzano, TC-492; 12.X.1996, ex *Chusquea quila*; T. Cekalovic. – MSNG; 4 ♂ and 6 ♀; Fundo El Manzano, TC-503; 17.XI.1996; T. Cekalovic. – MHNG; 1 ♂ and 4 ♀; same data. – PCVB; 2 ♂ and 1 ♀; El Manzano; 06.I.1988; T. Cekalovic. – FMNH; 11 ♂ and 6 ♀; Patagual, TC-369; 29.XI.1993; T. Cekalovic. – MHNG; 4 ♂ and 3 ♀; same data.

Description: Body 1.5-1.6 mm long, brown or blackish, with elytra reddish; antennae, legs and palpi reddish or yellowish; some specimens paler. Antennae similar in both sexes; scape and pedicel longer than wide; antennomeres III-VII distinctly longer than wide; antennomere VIII slightly longer than wide; antennomere IX slightly wider than long; antennomere X longer and wider than IX; antennomere XI longer than wide, about as long as VIII-X combined. Pronotum wider than long, and wider than head. Abdominal tergite 1 (IV) about twice longer than tergite 2 (V); basal striae separated at base by about half tergal width.



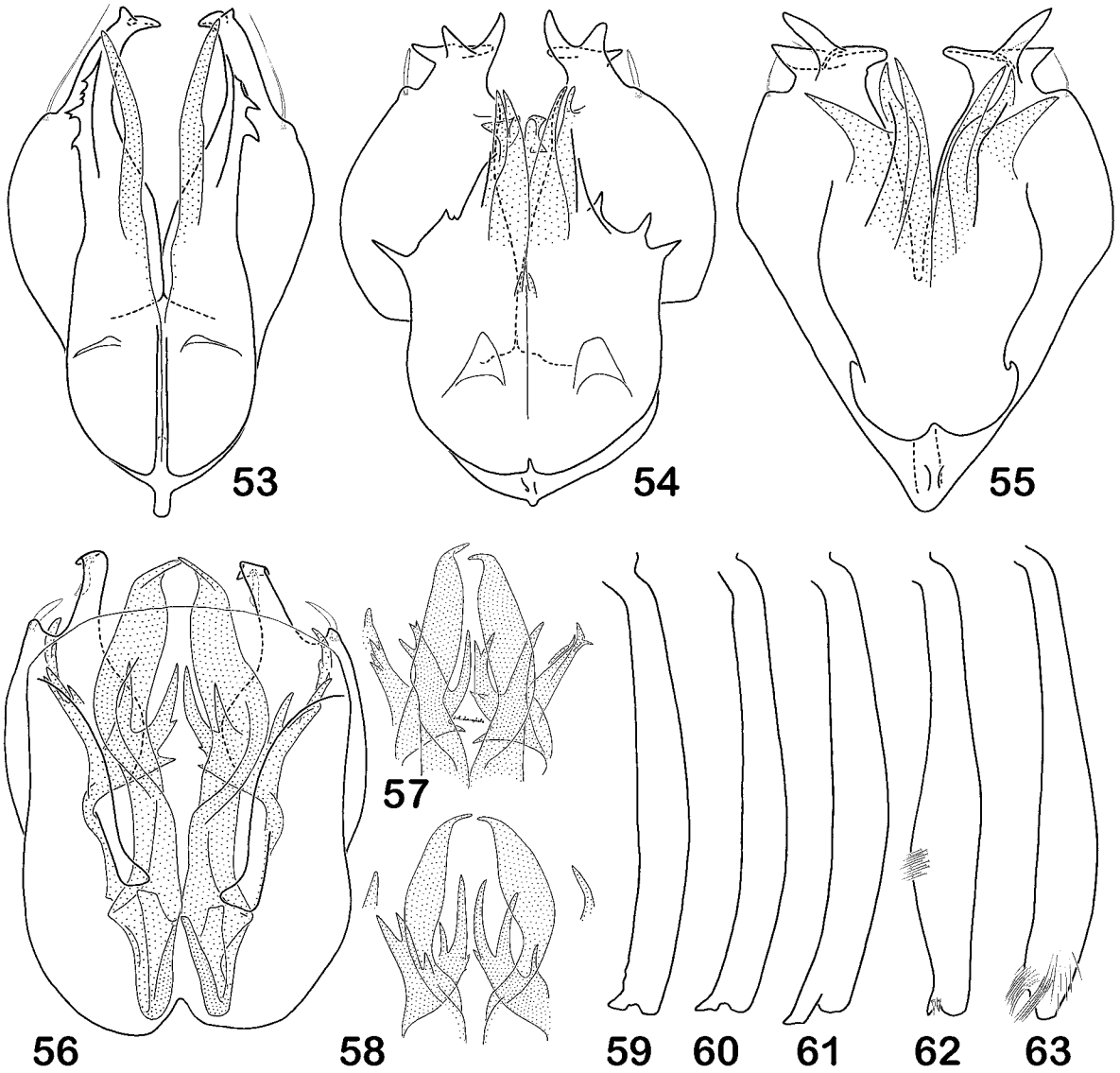
Figs 44-52. Aedeagi (44-45), internal sac (46), mesotibiae (47-48), protrochanter (49), mesotrochanters (50-51), and mesofemur (52) of Brachyglutini in dorsal view. (44, 47, 49-50) *Achilia brevicornis*. (45, 48, 51) *Leptachillia laevissima*, holotype. (46, 52) *Leptachillia laevissima*, specimen from Contulmo National Monument.

Male: Head as in Figs 92-95; posterior part convex, smooth; anterior part depressed in middle with anterior sides convergent, wide and swollen also laterally; frontal lobe relatively wide and flat, separated from frons by shallow narrow transverse sulcus. Protrochanters long, bearing some long setae (Fig. 19); femora enlarged, especially profemora; mesotibiae (Fig. 13) with mesal margin apically prolonged as long recurved spine. Metaventrite possessing for almost entire length large semi-oval medial depression with margins raised and protruding, especially posteriorly. Abdominal tergite 1 (IV) (Figs 96-97) projecting on each side near anterior margins large tubercle bearing apical pointed tuft of short setae; first paratergites slightly paler and more densely pubescent. Aedeagus (Fig. 6) 0.265-0.275 mm long; dorsal plate ovoidal, narrowed apically; dorsal longitudinal struts divergent. Parameres stout with long seta at apical third of lateral margin; apical portion slightly recurved posteriorly, bearing short medioventral seta. Copulatory pieces consisting of median sclerite connected mesally to apically pointed slender medial sclerite and laterally to recurved and apically pointed stouter lateral sclerites.

Female: Similar to male except head, protrochanters, femora, mesotibiae, metaventrite, abdominal tergite 1 (IV), and paratergites unmodified.

Collecting data: Collected from October to February. No other data available.

Distribution: The species is known only from Los Ríos (Valdivia province) and Bío Bío (Concepción province) Regions in Southern Chile (Fig. 203, squares edged in blue).



Figs 53-63. Aedeagi (53-56), internal sacs (57-58), mesotibiae (59-62), and metatibiae (63) of Brachyglutini in dorsal view. (53, 59) *Achilia bicolor*. (54, 60) *Achilia mifsudi* sp. nov. (55, 61) *Achilia caprae* sp. nov. (56) *Achilia andina*, holotype. (57, 62-63) *Achilia dolichocephala*, holotype. (58) *Achilia maipoensis*, holotype.

Comments: Reitter (1885: 330) described this species based on five specimens collected in Valdivia, and did not specify whether they were males or females. Jeannel (1962: 392) redescribed *A. bituberculata* and mentioned 4 males and 1 female collected in Valdivia that were housed in the MNHN collection. In Raffray's collection in the MNHN we found indeed 5 males identified as *A. bituberculata* by both Raffray and Jeannel, with the first male of this series bearing a "TYPE" red label. Although these 5 specimens are labelled as from "Chili" without further indication, we consider that there is no reason to doubt that they belong to the series used by Reitter to describe this species. The male bearing the red label "TYPE", which corresponds perfectly to Reitter's original description, is therefore designated here as lectotype of *Achilia bituberculata*, and the remaining 4 males as paralectotypes.

The males of *Achilia bituberculata* are easily distinguished from those of the other species of *Achilia* by the shape of abdominal tergite 1 (IV), which is about twice as long as tergite 2 (V) and projecting on each side as a large tubercle bearing a short, apically pointed tuft of setae (Figs 96-97). The morphology of the head (Figs 92-95) and aedeagus (Fig. 6) are also diagnostic.

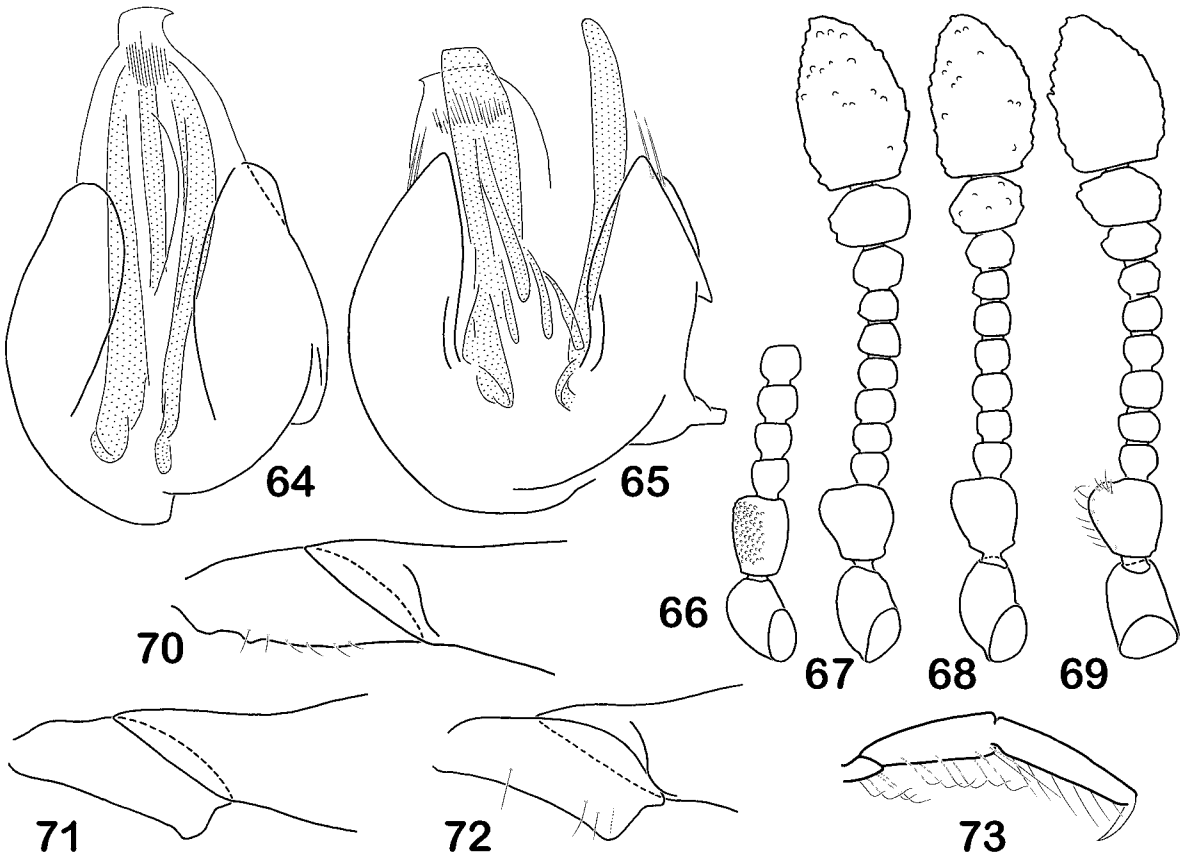
Achilia pseudangularis Franz, 1996

Figs 5, 10-11, 15, 21, 98-103, 203

Achilia pseudangularis Franz, 1996: 118 fig. 68 (aedeagus); Kurbatov, Cuccodoro & Sabella, 2021: 155.

Type material (1 aedeagus): SOUTHERN CHILE: Región Aysén: Coyhaique prov.: NHMW; 1 aedeagus (holotype of *A. pseudangularis*); label verbatim "♂ / Holotype (red label) / Umg. Coihiaique; Chile; *leg.* Franz / *Achillia; pseudangularis* m. (handwritten by Franz) / HOLOTYPUS; *Achilia; pseudangularis*; Franz, 1996 (red label) / *Achilia pseudangularis* Franz, 1996; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material examined (25 ex.): SOUTHERN CHILE: Región Bío Bío: Concepci**ó**n prov.: NHMW; 1 ♂ (identified as *A. bifrons*); Periquillo; 24.X.1992. – MSNG; 3 ♂ and 2 ♀; Periquillo, TC-541b; 01.IV.1997; T. Cekalovic. – MHNG; 2 ♂ and 2 ♀; same data. – MSNG; 1 ♂; same locality; TC-485; 16.IX.1996; T. Cekalovic. – MSNG; 1 ♀; same locality; TC-516; 30.I.1997; T. Cekalovic. – MSNG; 6 ♂ and 1 ♀; Camino a Hualqui, 17.X.1992; T. Cekalovic. – MHNG; 3 ♂ and 1 ♀; same data. – Ñuble prov.: MHNG; 2 ♂; near Recinto, about 60 km E Chillan, station 7a; 400-

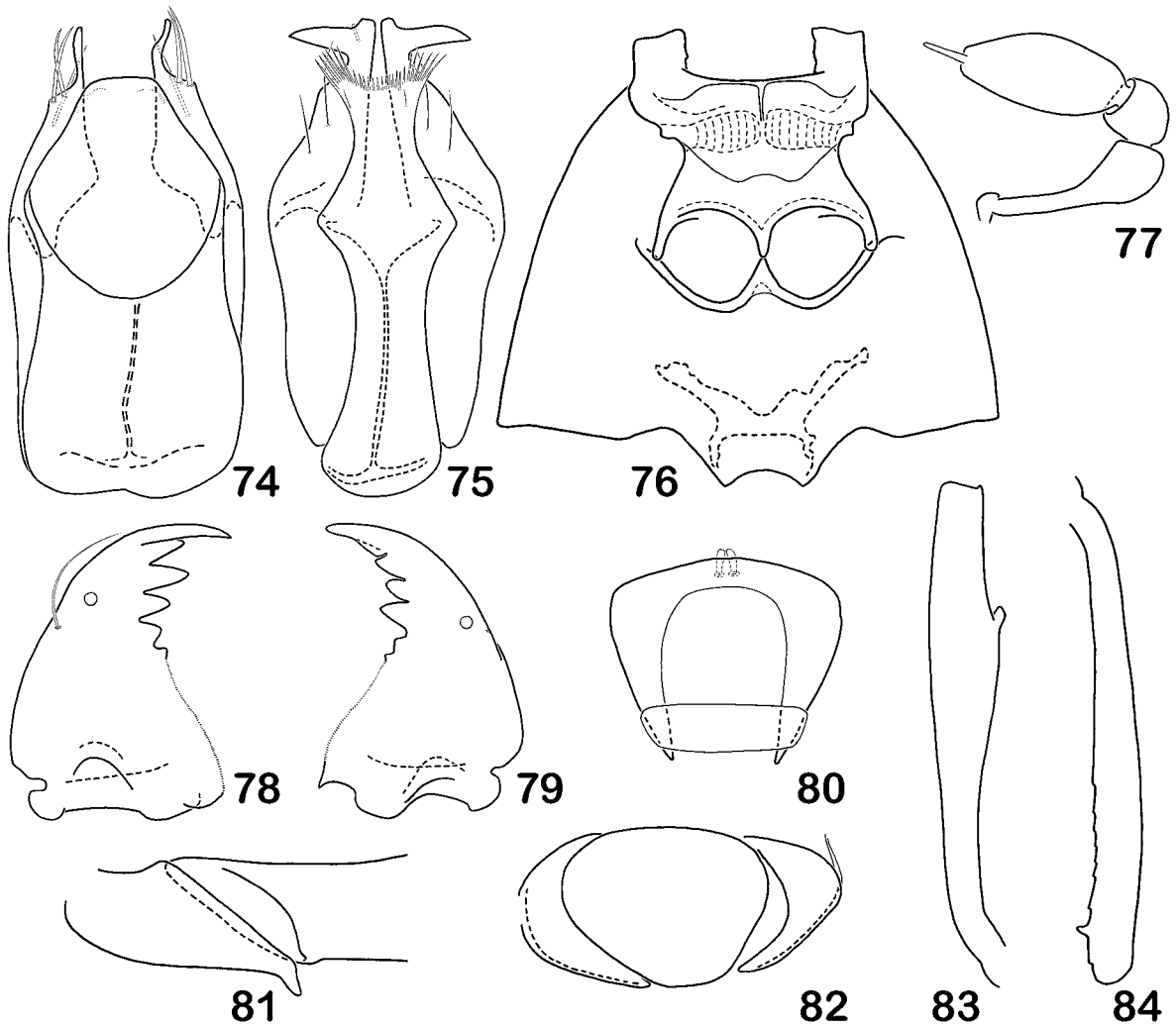


Figs 64-73. Aedeagi (64-65), antennal base (66), antennae (67-69), mesotrochanters (70-72), and protarsus (73) of Brachyglutini in dorsal view. (64) *Mallecoa abnormis*, holotype. (65) *Mallecoa abnormis*, paratype. (66,70) *Achilia dolichocephala*. (67, 71) *Achilia bicolor*. (68) *Achilia mifsudi* sp. nov. (69, 72-73) *Achilia caprae* sp. nov.

450 m; 12.XII.1990; M. Agosti & D. Burckhardt; forest litter.

Description: Body 1.5-1.6 mm long, brown or blackish, with elytra reddish; antennae, legs and palpi reddish or yellowish; some specimens paler. Antennae (Fig. 10) similar in both sexes; scape and pedicel longer than wide; antennomere III longer than wide; antennomere IV about as long as wide; antennomere V slightly longer than wide; antennomeres VI and VII about as long as wide; antennomere VIII slightly wider than long; antennomere IX wider than long and wider than VIII; antennomere X wider than long, wider than IX; antennomere XI longer than wide, about as long as VIII-X combined. Abdominal tergite 1 (IV) about as long as tergite 2 (V); basal striae separated at base by about one-third of tergal width.

Male: Head as in Figs 98-101; posterior part weakly convex, smooth and barely punctate, separated from anterior part by large transverse sulcus widening further at middle; anterior margins convergent. Mesotrochanters (Fig. 21) with posterior margin prolonged as spine; femora slightly enlarged; protibiae (Fig. 11) subapically notched at mesal angle and bearing two long setae; mesotibiae (Fig. 15) with mesal margin apically prolonged as short spine. Metaventrite with large semi-oval medial depression (larger than in *A. bituberculata*) extending about two-thirds its length. Abdominal tergite 1 (IV) (Figs 102-103) projecting on each side as large smooth glabrous tubercle near posterior margin; first and second paratergites with mesal margin slightly raised and bearing posteriorly tufts of long setae. Aedeagus (Fig. 5) 0.25-0.26 mm long; dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres stout with long seta at distal third of lateral margin. Parameres with apical portion recurved posteriorly, prolonged laterally as spine, and bearing short ventral medial seta. Copulatory



Figs 74-84. Aedeagi (74-75), meso- and metaventrite (76), maxillary palpus (77), mandibulae (78-79), labrum (80), protrochanter (81), sternite IX (82), protibia (83-84) of *Estamentula* gen. nov. in dorsal view (74, 76-83) *Estamentula stultissima* sp. nov. (75, 84) *Estamentula coquimboensis*.

pieces on each side consisting of apically pointed long medial sclerite and two shorter lateral spines that recurve laterally.
Female: Similar to male except head, mesotrochanters, femora, protibiae, mesotibiae, metaventrite, and abdominal tergite 1 (IV) unmodified.

Collecting data: Collected from October to April. No other data available.

Distribution: The species is known only from Aysén (Coyhaique province) and Bío Bío (Concepción province) Regions (Fig. 203 green squares).

Comments: This species was described by Franz (1996: 118) based on a single male collected in Coyhaique. In Franz's collection housed in the NHMW we found 1 undissected female pinned together with a quite well-preserved preparation of an aedeagus perfectly matching the aedeagus of *Achilia pseudangularis* illustrated by Franz (1996: 139, Fig. 68). We believe that the aedeagus in this preparation must be considered as the holotype of *Achilia pseudangularis* Franz, 1996. However, the female pinned with the aforementioned preparation of aedeagus apparently is a member of *Achilia praeclara* (Reitter, 1885).
The males of this species are similar to those of the other species of *Achilia* possessing tubercles on abdominal tergite 1 (IV) (i.e. *A. bituberculata*, *A. quinteroi* and *A. cipolla* sp. nov.). Among these, *A. pseudangularis* uniquely shares with *A. quinteroi* Franz, 1996 abdominal tergite 1 (IV) being approximately as long as tergite 2 (V) (in the other two species abdominal tergite 1 is about twice as long as the second). The male of *A. pseudangularis* differs from that of *A. quinteroi* in the morphology of the head (cf. Figs 98-101 and 104-107) and of the aedeagus (cf. Figs 4 and 5). The females of the two species are very similar and difficult to separate.

Achilia quinteroi Franz, 1996

Figs 4, 9, 14, 20, 22, 104-109, 203

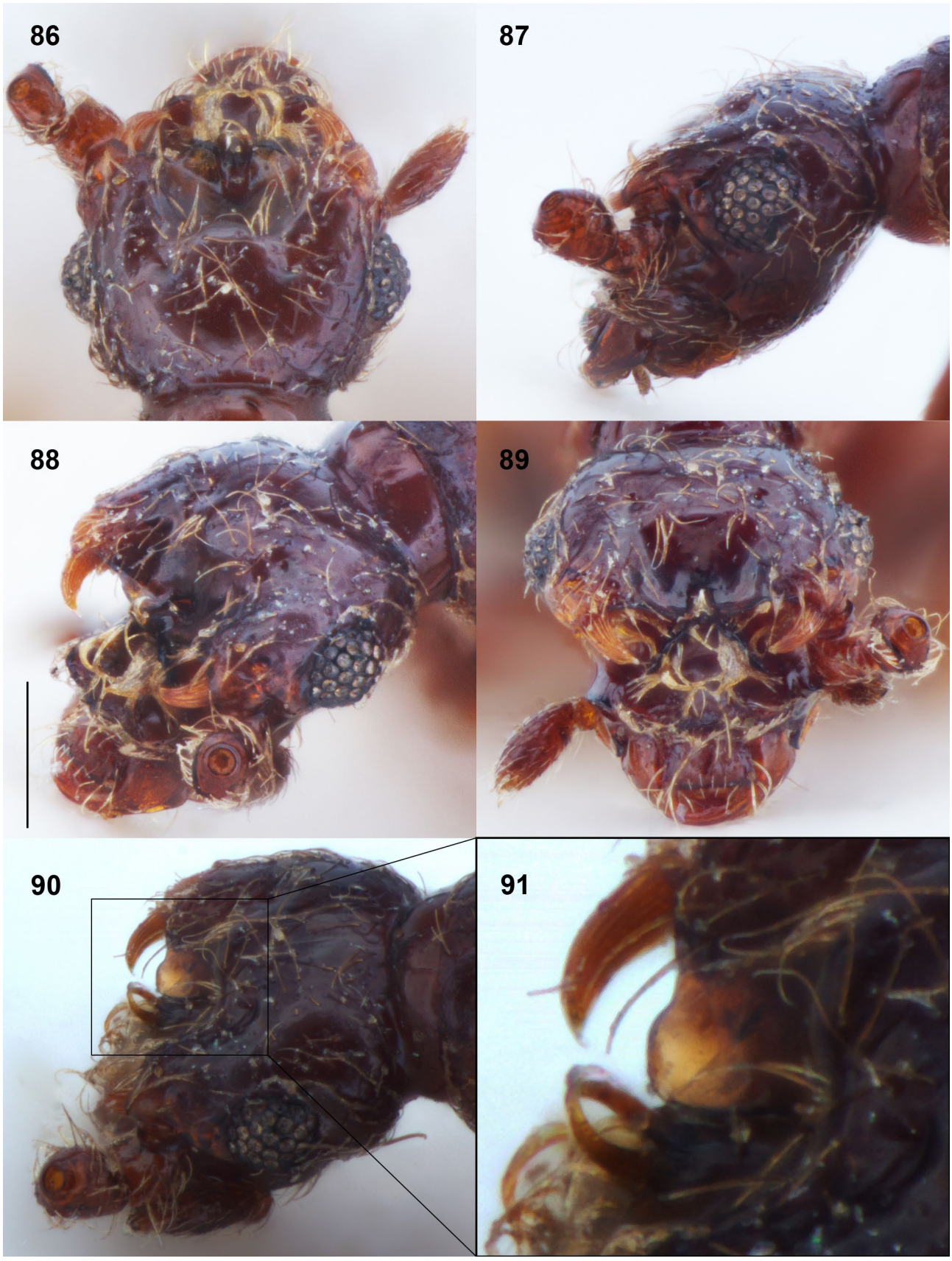
Achilia quinteroi Franz, 1996: 118, fig. 69 (aedeagus); Kurbatov, Cuccodoro & Sabella, 2021: 156.

Type material (2 ex.): CENTRAL CHILE: Región Valparaíso: Valparaíso prov.: MNHW; 1 ♂ (Holotype of *Achilia quinteroi*); labels verbatim: "Holotypus (red label) / Bosque de Quintero; Prov. Santiago de Chile; *lg.* H. Franz 1963 / *Achillia*; *quinteroi* m. (handwritten by Franz) / HOLOTYPUS, *Achilia*; *quinteroi*; Franz, 1996 (red label) / *Achilia quinteroi* ♂; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♂ (paratype of *Achilia quinteroi*); labels verbatim: "♂ / Bosque de Quintero; Prov. Santiago de Chile; *lg.* H. Franz 1963 / *Achillia*; *quinteroi* m. (handwritten by Franz); PARATYPUS / *Achilia quinteroi* ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

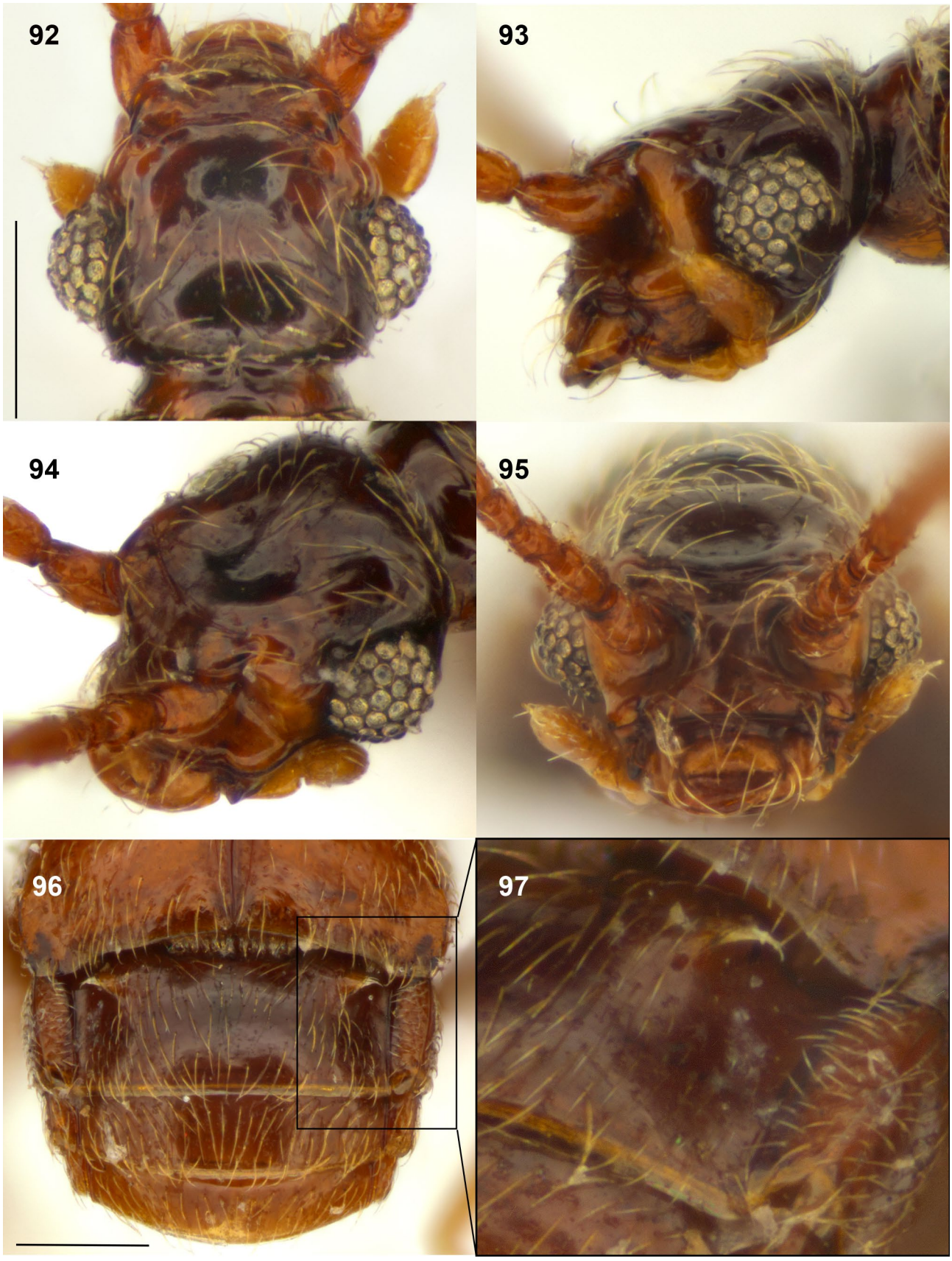
Additional material examined (114 ex.): CENTRAL CHILE: Región Valparaíso: San Antonio prov: NMHN; 1 ♂; Algarrobo; G. Kuschel. – Quillota prov.: FMNH (FMHD #2002-026); 1 ♂ and 1 ♀; La Campana National Park (sector Ocoa), vic. Quebrada Bruitera; 32° 55.89'S 71° 05.10'W; 415 m; 30.XI.2002; M. Thayer, A. Newton, A. Solodovnikov & M. J. Clarke 1047; sclerophyll woodland w/ *Jubaea chilensis* palms *Trichoceraeus* cacti; berlese, flood debris at small stream. – FMNH (FMHD #85-889); 1 ♀; La Campana National Park, Olmue; 02.XII.1984; S. & J. Peck P# 85-4; hygrophilous forest, berlese. – MHNG; 2 ♂ and 4 ♀; same data. – FMNH; 1 ♂ and 1 ♀; same data. – Petorca prov.: MNHN; 1 ♀; Zapallar; 20.III.1957. – Región Coquimbo: Choapa prov: FMNH; 1 ♂; Ñague, Los Vilos; V-VI.1960; L. Peña. – NHMW; 12 ♂ and 81 ♀; Bosque de Canelo, North of Los Vilos; H. Franz. – MHNG; 2 ♂ and 4 ♀; same data. – Elqui prov: FMNH (FMHD #96-207); 1 ♀; La Vega vicinity; 33° 02.71'S 71° 01.63'W; 15.XII.1996; 940 m; A. Newton & M. Thayer 1014; sclerophyll forest with *Eucalyptus*; berlese, damp litter in dry stream bed.

Description: Body 1.45-1.6 mm long, brown or blackish, with elytra reddish; antennae, legs and palpi reddish or yellowish; some specimens paler. Antennae (Fig. 9) similar in both sexes; scape and pedicel longer than wide; antennomere III longer than

Fig. 85. *Byraxorites alticola,* holotype, habitus. Scale bar = 500 μm.

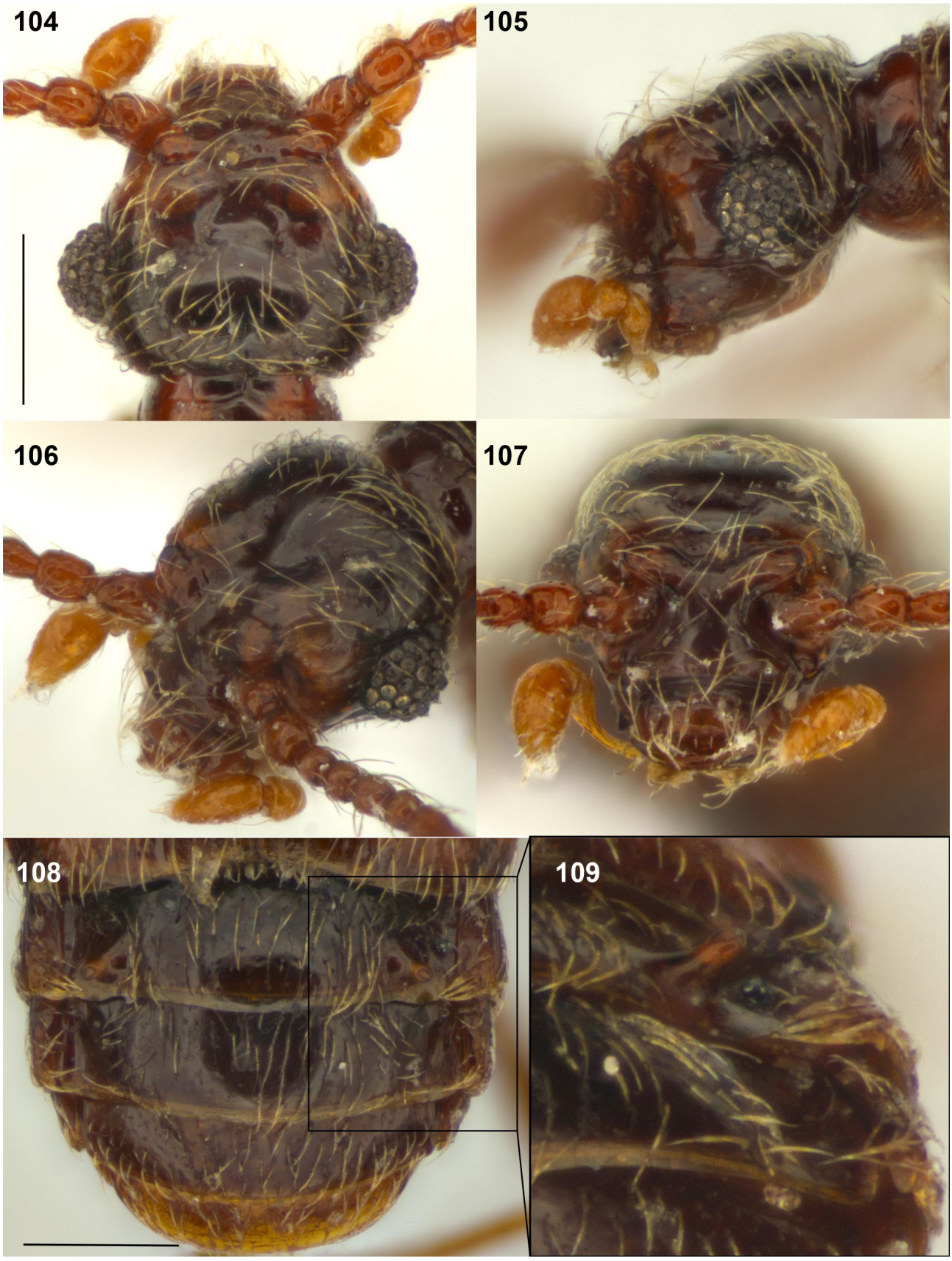


Figs 86-91. *Byraxorites alticola*, holotype. Head (86-91) in (86) dorsal, (87) fronto-semilateral, (88) lateral, (89) frontal and (90) postero-semilateral views; (91) detail of (90). Scale bar = 200 µm.



Figs 92-97. *Achilia bituberculata.* Head (92-95) in (92) dorsal, (93) fronto-semilateral, (94) lateral and (95) frontal views. (96-97) Abdomen in (96) dorsal view; (97) = detail of (96) in postero-semilateral view. Scale bars (200 µm), vertical for (92-95) and horizontal for (96).

Figs 98-103. *Achilia pseudangularis*. Head (98-101) in (98) dorsal, (99) fronto-semilateral, (100) lateral and (101) frontal views. (102-103) Abdomen in (103) dorsal view; (103) = detail of (102) in posterior view. Scale bars (200 µm), vertical for (98-101) and horizontal for (102).



Figs 104-109. *Achilia quinteroi.* Head (104-107) in (104) dorsal, (105) fronto-semilateral, (106) lateral and (107) frontal views. (108-109) Abdomen in (108) dorsal view; (109) = detail of (108) in posterior view. Scale bars (200 µm), vertical for (104-107) and horizontal for (108).

wide; antennomere IV wider than long; antennomere V slightly longer than wide; antennomeres VI and VII about as long as wide; antennomere VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X wider than long, longer and wider than IX; antennomere XI longer than wide, about as long as VIII-X combined. Abdominal tergite 1 (IV) about as long as tergite 2 (V); basal striae separated at base by about one-third of tergal width.

Male: Head as in Figs 104-107; posterior part weakly convex, smooth, and barely punctate; anterior part flat in middle; anterior sides convergent. Protrochanters (Fig. 20) long, bearing few long setae; mesotrochanters (Fig. 22) with posterior margin prolonged as spine; femora slightly enlarged; mesotibiae (Fig. 14) with mesal margin apically prolonged as short spine. Metaventrite possessing a large semi-oval medial depression for about two-thirds its length with posterior margins raised and protruding. Abdominal tergite 1 (IV) (Figs 108-109) projecting on each side near posterior margin as a large tubercle with a short apical tuft of very short setae. Aedeagus (Fig. 4) 0.23-0.25 mm long; dorsal plate ovoidal. Copulatory pieces similar to those of *A. pseudangularis*, but stouter.

Female: Similar to male except head, mesotrochanters, femora, protibiae, mesotibiae, metaventrite, and abdominal tergite 1 (IV) unmodified.

Collecting data: Collected during almost the whole year from November to June, both in xerophilous woods and in humid forests at elevations ranging from 400 to about 950 m. All specimens for which there is data on the collection method came from sifted samples.

Distribution: The species was collected in two Regions (Valparaíso and Coquimbo) of Central Chile (Fig. 203 triangles edged in blue). Bosque de Quintero is really located in the Valparaíso Region and not in the Region Metropolitana of Santiago, as stated by Franz (1996: 118).

Comments: See "Comments" section for *A. pseudangularis*.

Achilia cipolla sp. nov.

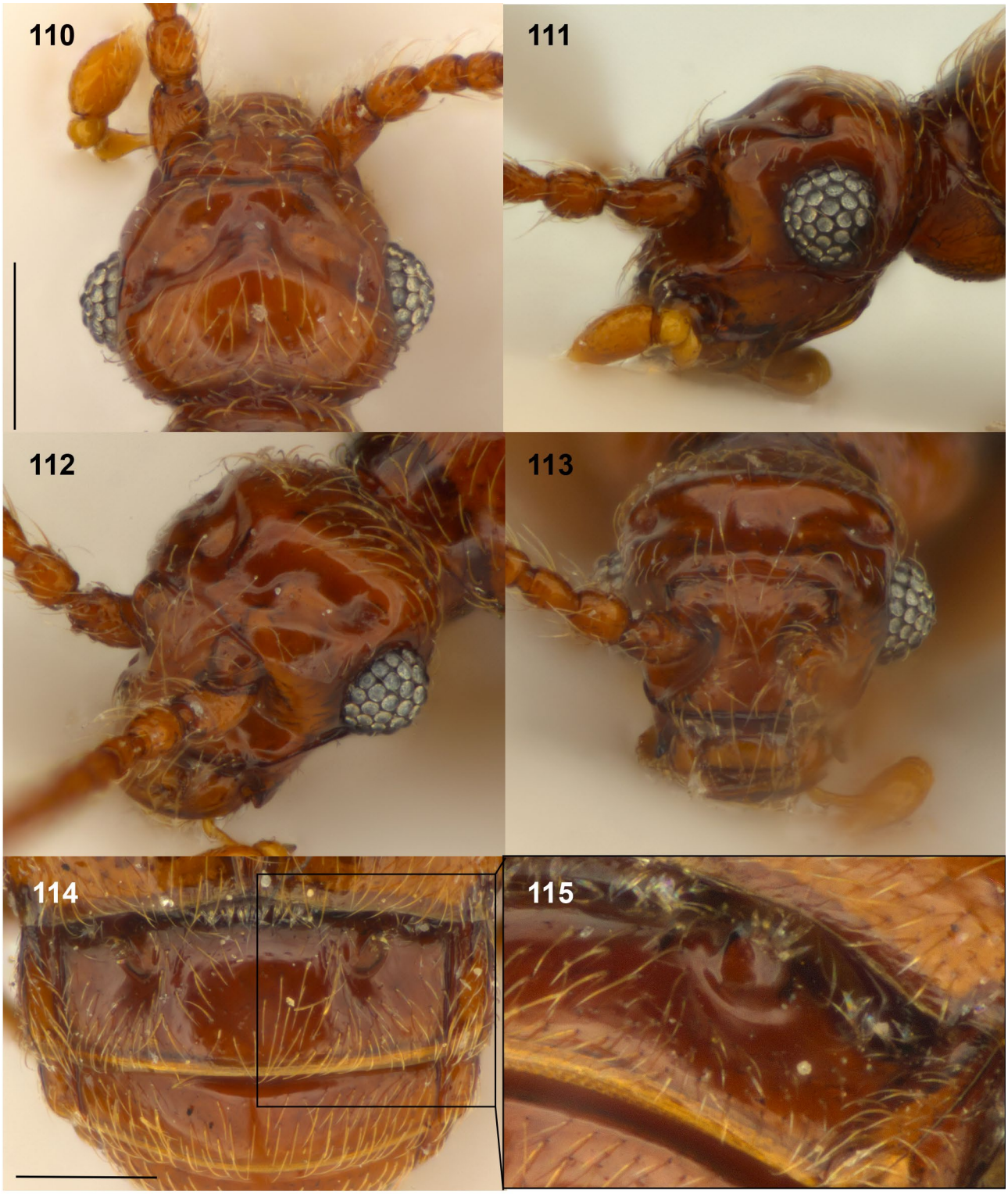
Figs 3, 12, 16, 18, 110-115, 203

Holotype: CENTRAL CHILE: FMNH (FMHD# 96-214); Región Maule: Talca prov.: 1 ♂; Area de Protectíon Vilches, above Quebrada Piedra del Plato; 35° 36.46'S 71° 04.34'W; 1180 m; 18.XII.1996; *Nothofagus* spp. & other forest, *Chusquea* understory, berlese, wet old flood debris at stream edge; A. Newton & M. Thayer 972.

Paratypes (18 ex.): CENTRAL CHILE: Región Maule: Talca prov.: FMNH (FMHD# 96-214); 4 ♂ and 3 ♀; Area de Protección Vilches, above Quebrada Piedra del Plato; 35° 36.46'S 71° 04.34'W; 1180 m; 18.XII.1996; *Nothofagus* spp. & other forest, *Chusquea* understory, berlese, wet old flood debris at stream edge; A. Newton & M. Thayer 972. – MHNG (# MHNG-ENTO-0261246–0261248); 1 ♂ and 2 ♀; same data. – FMNH (FMHD# 96-214); 1 ♀; same data; Newton & M. Thayer 953. – FMNH (FMHD #96-208); 1 ♀; Area de Protección Vilches, Piedras Tacitas area; 35° 36.53'S 71° 04.10'W; 1185 m; 17.XII.1996; *Nothofagus* spp. with shrubs along stream, berlese, leaf & log litter; A. Newton & M. Thayer 101. – FMNH (FMHD #96-209); 1 ♂ and 1 ♀; same data; *Nothofagus* ssp. with shrubs along stream, berlese, wet litter at seep; A. Newton & M. Thayer 1011. – FMHD (FMHD #2002-031); 1 ♀; R. N. Altos del Lircay, vic. Centro de Visitantes Piedras Tacitas; 35° 36.39'S 71° 04.23'W; 1210 m; 03.XII.2002; *Nothofagus* spp. forest, berlese, flood debris small stream; A. Newton & M. Thayer 1073. – MHNG (# MHNG-ENTO-0261249–0261250); 1 ♂ and 1 ♀; same data.

Description: Body 1.6-1.7 mm long, entirely brown; antennae and legs reddish; palpi yellowish; some specimens with darker head and abdomen. Anterior sides of head strongly convergent. Antennae similar in both sexes; scape and pedicel longer than wide; antennomere III longer than wide; antennomere IV about as long as wide; antennomere V slightly longer than wide; antennomeres VI and VII about as long as wide; antennomere VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X wider than long, longer and wider than IX; antennomere XI longer than wide, about as long as VIII-X combined. Abdominal tergite 1 (IV) about twice as long as tergite 2 (V); basal striae separated at base by about one-third of tergal width.

Male: Head as in Figs 110-113; posterior part weakly convex, smooth and barely punctate, separated from anterior part by large transverse sulcus widened at middle. Mesotrochanters with posterior margin prolonged as spine (Fig. 18); mesofemora (Fig. 18) enlarged with anterior margin bearing dense short and stout setae; protibiae (Fig. 12) subapically notched, bearing small subapical mesal spine; mesotibiae (Fig. 16) with mesal margin prolonged apically as short spine. Metaventrite possessing for about two-thirds of its length a large semi-oval medial depression with posterior margins raised and protruding. Abdomen with first tergite bearing on each side near anterior margin a tubercle with short apical pubescence (Figs 114-115). Aedeagus (Fig. 3) 0.26-0.275 mm long; dorsal plate subrectangular, large; dorsal longitudinal struts divergent; copulatory pieces on each side with long apically pointed medial sclerite bearing at apex long mesal spine and inwardly recurved lateral spine. Parameres stout with seta on apical third of lateral margin; apical portion curved anteriorly, prolonged laterally as spine bearing medioventral seta.



Figs 110-115. *Achilia cipolla* sp. nov. (110-113). Head (110-113) in (110) dorsal, (111) fronto-semilateral, (112) lateral and (113) frontal views. (114-115) Abdomen in (114) dorsal view; (115) = detail of (114) in posterior view. Scale bars (200 µm), vertical for (110-113) and horizontal for (114).

Female: Similar to male except head, mesotrochanters, mesofemora, protibiae, mesotibiae, metaventrite, and abdominal tergite 1 (IV) unmodified.

Collecting data: Collected only in December in *Nothofagus* forest at about 1200 m. All specimens came from sifted samples.

Distribution: The species was collected only in Talca province (Maule Region) in Central Chile (Fig. 203 blue triangles).

Comments: *Achilia cipolla* sp. nov. is similar to *A. bituberculata*, from which it is easily distinguished by the anterior margins of the head being strongly convergent. The males of the two species differ also by the morphology of the head (cf. Figs 92-95 and 110-113), of the protibiae (cf. Figs 11 and 12), of the mesotibiae (cf. Figs 13 and 16), and of the aedeagus (cf. Figs 3 and 6).

Achilia nigrita Jeannel, 1962

Achilia nigrita Jeannel, 1962: 442; Sabella, Cuccodoro & Kurbatov, 2024: 173.

Type material (1 ex.): CENTRAL CHILE: Región Metropolitana de Santiago: Santiago prov.: MHNH; 1 ♀ (Holotype of *Achilia nigrita*, here fixed); labels verbatim: "Holotype (red label) / Rio Clarillo; 10.2.1957 / *Achillia*, *nigrita* (handwritten by Jeannel) / *Achillia, nigrita* Jeannel, 1962 ♀; Sabella, Cuccodoro & Kurbatov 2023 det."

Additional material examined (6 ex.): CHILE: MNHN; 2 ♀; Chili. – CENTRAL CHILE: Región Valparaíso: San Antonio prov.: Algarrobo; MNHS; 2 ♀; Algarrobo; 21.VII.1951; G. Kuschel & L. E. Peña. – MNHN; 2 ♀; Algarrobo; G. Kuschel.

Description: *Male*: Unknown.
Female: Body 1.45-1.5 mm long, blackish with reddish elytra blackened along suture and at margins; antennae blackish; maxillary palpi reddish-brown; legs dark brown. Pubescence predominantly yellowish, fine and decumbent, denser on elytra and on abdominal tergites, and consisting of shorter and blackish suberect setae on antennae, maxillary palpi and pronotal margins. Head transverse; vertex slightly raised, separated from frontal lobe by faint transverse sulcus; two small vertexal foveae at level of about middle of eyes; frontal margin slightly pointed; eyes very large, prominent, longer than tempora; tempora convex. Antennae with scape longer than wide; pedicel longer than wide, slightly shorter than scape; antennomeres III-VIII small; antennomere IX wider than long, wider than VIII; antennomere X wider than long, wider than IX and about as wide as XI; antennomere XI longer than wide, ovoidal, about as long as VII-X combined. Pronotum wider than long, wider than head; disc convex, smooth and shiny with only few punctures; median antebasal foveae slightly smaller than lateral antebasal foveae; maximal pronotal width distinctly before mid-length; anterior portion of lateral margins distinctly convergent and sinuate; posterior portion of lateral margins slightly convergent; basal margin of pronotum with contiguous row of shallow impressions. Elytra together distinctly wider than long, with protruding humeri; disc smooth with sparse punctures; 2 large basal foveae; sutural stria entire; discal stria extended to about one-third of elytral length. Abdomen smooth, with some punctures, especially on abdominal tergite 1 (IV); abdominal tergite 1 more than twice as long as tergite 2 (V), with short and sparse setal brush between subparallel basal striae, the latter striae extended to about one-third of paratergal length and separated at base by about half of tergal width; all abdominal tergites slightly convex in middle.

Collecting data: Collected only in February and July. No other data available.

Distribution: The species were collected only in the Región Metropolitana de Santiago and Valparaíso Regions in the Central Chile (Fig. 203 fucsia stars).

Comments: Jeannel (1962: 442) described *A. nigrita* based on a female collected in Río Clarillo in the Region of Santiago. Although he stated that the holotype is deposited in the collections of the MNHS, this taxon is not listed in the catalog of the MHNS holotypes of insects (Camousseight, 1980). In Raffray's collection housed in the MNHN we found one female identified as such by Jeannel and labeled "Rio Clarillo, 10.2.1957", but without "TYPE" red label. This female corresponds perfectly to Jeannel's original description and we consider that there is no reason to doubt that it is the holotype of *A. nigrita*. According to Jeannel (1962: 442) *A. nigrita* is a species well-characterized by its squat shape, dark colour, and especially by its broadly spaced basal striae of abdominal tergite 1 (IV), the latter character being without equivalent in any other Chilean species of Brachyglutini.

Rybaxidia Jeannel, 1962

Rybaxidia Jeannel, 1962: 390, 392; Newton & Chandler, 1989: 44; Asenjo *et al*., 2019: 64.
Type species: *Rybaxidia kuscheli* Jeannel, 1962

According to Jeannel (1962: 386) this genus belongs to the phyletic series of *Achilia*, characterized by the pronotum with rounded and deep median antebasal fovea distinctly separated from the lateral antebasal foveae, and by the aedeagus with each paramere bearing one seta on its lateral margin and never apically. Still, according to Jeannel (1962: 390) *Rybaxidia* is distinguished from other genera in this phyletic series by the parameres being narrow and elongate, the pronotum with large median antebasal fovea, the elytra

with 3 basal foveae, abdominal tergite 1 (IV) as long as tergite 2 (V) and possessing short basal carinae, and the males possessing sexual characters on the antennal club.
We have examined the holotypes of *Rybaxidia kuscheli* and *Rybaxidia torticornis*, the only two species placed in this genus, and through comparison with many species of different species groups of *Achilia* we found that the characters used by Jeannel to distinguish *Rybaxidia* from *Achilia* are not significant, as these features also occur in many species of *Achilia*. We here consider *Rybaxidia* Jeannel, 1962 to be a junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.). Consequently, *Rybaxidia kuscheli* would be named *Achilia kuscheli* (Jeannel, 1962), but this name is preoccupied by *Achilia kuscheli* Jeannel, 1962, now synonym of *Achilia valdiviensis* (Blanchard, 1851) (see Sabella *et al.*, 2020: 141); therefore, we propose the new name *Achilia kuscheliana* **nom**. **nov**. for *Rybaxidia kuscheli* Jeannel, 1962. Also, *Rybaxidia torticornis* Jeannel, 1962 must be named *Achilia torticornis* (Jeannel, 1962) **comb**. **nov**. These two taxa will be dealt with below. They possess in common the following features: pubescence long, decumbent and dense over entire body; head slightly modified in male, wider than long, with two vertexal foveae about at level of middle of eyes, the eyes not very protruding and shorter than slightly convex tempora; pronotum distinctly wider than long, wider than head, with disc convex, smooth and shiny with only some punctures; maximal pronotal width distinctly before mid-length; anterior portion of pronotal lateral margins distinctly convergent and sinuate anteriorly; posterior portion of pronotal lateral margins slightly convergent; median and lateral antebasal foveae well-impressed; basal margin of pronotum with contiguous row of shallow impressions; elytra together wider than long with very protruding humeri; elytral disc smooth and shiny; elytra with four big basal foveae, except for some specimens with three basal foveae due to coalescence of two lateral foveae; elytra with sutural stria entire; elytral discal stria extended to about elytral mid-length; abdomen smooth, with some minute punctures; abdominal tergite 1 (IV) about as long as tergite 2 (V), with short and sparse setal brush between basal striae, the basal striae extending to about one-quarter of paratergal length and separated at base by about one-third of tergal width.
In order to keep the text more concise, these features are not repeated in the following descriptions.

Achilia kuscheliana nom. nov.

Figs 24-25, 30-31, 33, 38, 40-41, 116-121

Rybaxidia kuscheli Jeannel, 1962: 392-393, figs 137 (habitus male); 138 (antenna male); 139 (antenna female); 140 (aedeagus); Newton & Chandler, 1989: 44; Asenjo *et al*., 2019: 64.

Type material (1 ex.): SOUTHERN CHILE: Región de Magallanes y de la Antártica Chilena: Magallanes prov.: MNHN; 1 ♂ (holotype of *Rybaxidia kuscheli* here fixed); labels verbatim: "Holotype (red label) / P. Eden; 4.12.58 / *Rybaxidia; kuscheli* (hanwritten by Jeannel) / *Rybaxidia kuscheli* Jeannel = *Achilia kuscheliana* Kurb., Cuc. & Sab.; Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia; kuscheliana* Kurb., Cuc. & Sab. ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

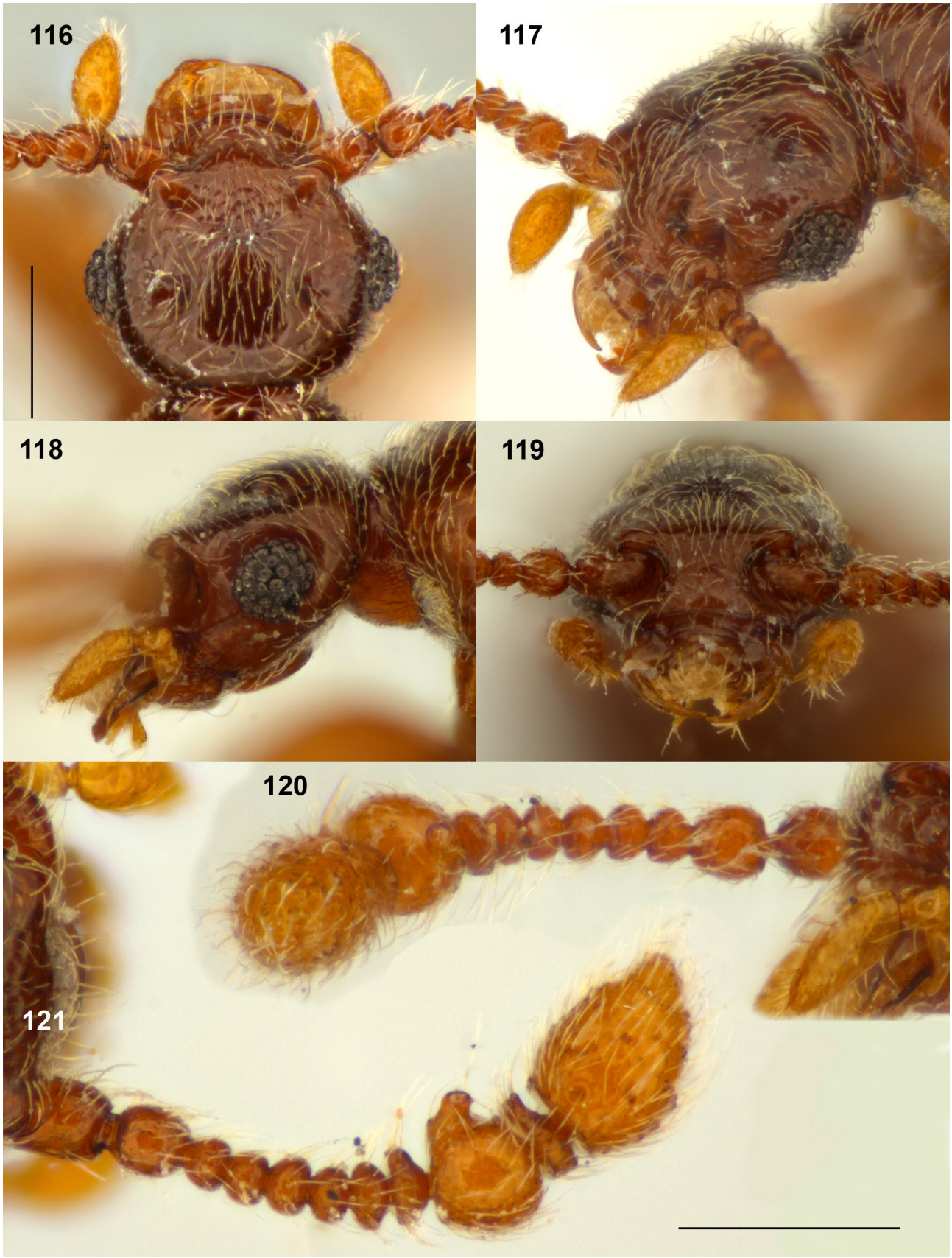
Additional material examined (210 ex.): SOUTHERN CHILE: Región Aysén: Aysén prov.: BMNH (E-2003-12); 2 ♀; Queulat National Park; beating; 21.XI/12.XII.2003; P. M. Hammond; FIT. – BMNH (E-2003-12); 1 ♂; Queulat National Park, roadside W base Camp; XII.2003; P. M. Hammond. – 1 ♂; same locality, edge nr. base; XII.2003; P. M. Hammond; litter. – BMNH (E-2003-12); 3 ♂ and 3 ♀; same locality; XI.2003; D. Inward; transect litter. – BMNH (BM-1999-107); 1 ♂; Laguna San Rafael National Reserve; II.III.1999; P. M. Hammond & K. A. Jackson; FIT in forest. – MHNS; 1 ♀; Laguna San Rafael, P.ta Leopardo; 19.I.1978; J. Solervicens. – MHNG; 2 ♂ and 5 ♀; 30 km N Puyuhuapi, station 107; 100 m; 29.I.1985; S. & J. Peck; sifted moos on logs. – MNHG; 3 ♂; 15 km S Las Juntas, 30 km N Puyuhuapi; 100 m; 30.XII.1984/29.I.1985; S. & J. Peck; FIT, *Nothofagus* forest. – FMNH (FMHD #85-990, #85-107); 2 ♂; same locality; 29.I.1985; S. & J. Peck; sifted moos on logs. – Coyhaique prov.: MHNG; 1 ♂; Umg. Coyhaique; H. Franz. – Región Los Lagos: Palena prov.: MHNG; 1 ♂; 4 km NW Chaitén, station 108; 10 m; 30.I.1985; S. & J. Peck; mixed forest litter with soofy fungus. – FMNH (FMHD #97-33); 4 ♂ and 7 ♀; Austral Highway km 84.0 (17.8 km W Hornopirén); 42°00.57'S 72° 37.02'W; 140 m; 23.I.1997; A. Newton & M. Thayer 1003; disturbed valdivian rainforest near ridge-top, berlese, leaf & log litter. – Llanquihue prov.: MHNG; 3 ♂ and 25 ♀; Alerce Andino National Park, road from park entrance to Laguna Chaiquenes, 41°40'S 72°35'W, station 36b; 200-350 m; 03-06.I.1993; D. Burckhardt; sifting of moss on rock, dead wood and forest floor and of vegetational debris. – MHNG; 19 ♂ and 20 ♀; Alerce Andino National Park, above Laguna Chaiquenes, 41°40'S 72°35'W, station 37; 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. – MHNG; 1 ♂; Alerce Andino National Park, Laguna Triángulo, 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 #97-30); 6 ♂; Alerce Andino National Park, N side Laguna Sargazo; 41° 30'S 72° 36'W; 400 m; 21.I.1997; A. Newton & M. Thayer 1000; *Fitzroya cupressoides* w/ valdivian rainforest understory steep slope, berlese, leaf & log litter. – FMNH (FMHD #2002-81); 1 ♂; Vicente Perez Rosales National Park, SW slope Volcán Osorno, km 10 to La Burbuja; 41° 08.33'S 72° 32.16'W; 910 m; 15.XII.2002; M. Thayer & A. Solodovnikov 1066;

Nothofagus dombeyi w/mixed understory, berlese, leaf & log litter. – FMNH (FMHD #2002-84); 1 ♂; Vicente Perez Rosales National Park, SW slope Volcán Osorno, road to Ref. La Picada; 41° 01.05'S 72° 32.90'W; 430 m; 16.XII.2002; M. Thayer 1068; *Nothofagus dombeyi* w/conifers, berlese, rotting wood litter. – UHNC; 1 ♂; Lago Chapo, 13.5 km E Correntoso, site 656; 310 m; 16-27.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flight intercept (windows) trap. – Chiloé prov.: MNHS; 1 ♂ (mislabelled as holotype n° 1572 of *Rybaxidia kuscheli*); Chepu; 30.X.1958; G. Kuschel. – MNHS; 1 ♂ (mislabelled as paratype n° 1573 of *Rybaxidia kuscheli*); Chepu; 17.X.1958; G. Kuschel. – MSNG; 1 ♂; Chepu, TC-624; 26.I.2000; T. Cekalovic. – MHNG; 5 ♂ and 2 ♀; near Cucao, 30 km SW Castro, 42°37'S 74°08'W, station 34b; 10-70 m; 28.XII.1992/01.I.1993; D. Burckhardt; sifting of moss on forest floor trees and dead trunks and vegetational debris. – MHNG; 3 ♂ and 8 ♀; Chiloé National Park, Cucao, 30 km SW Castro, station 29a; 30 m; 04-06.I.1991; M. Agosti & D. Burckhardt; temperate rain forest. – MHNG; 1 ♂ and 6 ♀; Rancho Grande, near Cucao, station 30a; 300-600 m; 04.I.1991; M. Agosti & D. Burckhardt; *Fitzroya* forest. – UHNC; 1 ♂ and 1 ♀; Ahoni Alto; 70 m; III.1988; L. Peña; malaise. – FMNH (FMHD# 97-21); 1 ♂ and 2 ♀; Puente La Caldera, 9.8 km E of Cucao; 42° 39.96'S 74° 00.70'W; 10 m; 14.I.1997; A. Newton & M. Thayer 991; valdivian rainforest, berlese, leaf & log litter. – FMNH (FMHD #2002-068); 1 ♂; Quemchi, 11 km W of (11 km E Hwy 5); 42° 10.40'S 73° 35.73'W; 140 m; 10.XII.2002; A. Solodovnikov & A. Newton 1060; valdivian rainforest remnant w/thick bamboo understory; berlese, leaf & log litter. – Osorno prov.: MHNG; 3 ♀; 65 km W Osorno, 40°28'S 73° 43'W, station 21; 150 m; 04.XII.1984; D. Burckhardt; valdivian rain forest sifting of moss on dead tree trunks, branches and rocks and of plant debris. – PHPC; 1 ♂; Puyehue National Park, 26.2 km E Entre Lagos, near Termas Aguas Calientes; 40° 44.130'S 72° 18.427'W; 460 m; 09-12.III.2008; H. Wood & C. Griswold; sifting litter. – MHNG; 1 ♀; Puyehue National Park, Aguas Calientes; 500 m; 28.XII.1984/08.II.1985; S. & J. Peck sifted forest stick litter, Pionero track. – MHNG; 5 ♂ and 13 ♀; same locality, station 25a; 400-500 m; 31.XII.1990/01.I.1991, M. Agosti & D. Burckhardt. – MHNG; 7 ♂ and 22 ♀; Puyehue National Park, Aguas Calientes, station 20b; 40° 40'S 72° 20'W; 450-600 m; 01/03.XII.1992; D. Burckhardt; moss on dead tree trunks, branches and rocks and of plant debris. – UHCN; 1 ♂ and 2 ♀; Puyehue National Park, 4.1 km E Anticura, trap site 662; 430 m; 19-26.XII.1982; A. Newton & M. Thayer; valdivian rainforest; screen sweeping at dusk. – FMNH; 1 ♂ and 3 ♀; same data. – FMNH (FMHD #96-244); 1 ♂; Puyehue National Park, Antillanca road, 7.2 km above Aguas Calientes; 40° 45.55'S 72° 17.82'W; 660 m; 29.XII.1996/01.II.1997; A. Newton & M. Thayer 982; valdivian rainforest w/ *Saxegothea* dominant, dense *Chusquea,* flight intercept trap. – Región Los Ríos: Valdivia prov.: NHMW; 2 ♀; Ñancul; 24.II.1991.

Description: Body 1.6-1.7 mm long, black or blackish with reddish elytra, antennae, and legs; maxillary palpi yellowish; some specimens paler or uniformly brown.
Male: Head as in Figs 116-119 with surface more or less punctate; medial posterior part weakly convex, separated from anterior part by transverse sulcus; anterior margins convergent anterior to eyes. Antennae (Figs 33, 120-121) with scape and pedicel longer than wide; antennomere III wider than long; antennomeres IV to VII wider than long; antennomere IX wider than long, wider than VIII, with mesal margin very enlarged from basal part up to about middle, forming protuberance bearing apical tubercle; antennomere X strongly transverse, much shorter and narrower than IX; antennomere XI longer than wide, longer than VIII-X combined. Labrum (Fig. 30) with pair of stout setae. Protrochanters (Fig. 40) and mesotrochanters (Fig. 41) with dorsal surface pubescent; femora swollen, especially mesofemora; protibiae (Fig. 38) densely pubescent on apical third, apically notched and bearing small subapical spine at mesal angle. Metaventrite possessing a large semi-oval medial depression with posterior margins raised and protruding for about two-thirds of its length. Aedeagus (Figs 24-25) 0.38-0.39 mm long; dorsal plate ovoid, short, with upper margin of ventral lamina recurved anterad and forming two short latero-apical spines; dorsal longitudinal struts short, divergent, arranged almost at flat angle; copulatory pieces consisting of very large medial sclerite associated with other long and thin medial sclerites frayed as numerous long and thin spines on distal half, and on each side consisting of long pointed sclerite with distal half curved medially and 4-5 shorter spiniform sclerites. Parameres thin and recurved medially, bearing 3 long subapical setae.
Female: Similar to male except head, antennae, protrochanters, mesotrochanters, femora, protibiae, and metaventrite unmodified. Labrum (Fig. 31) with pair of setae shorter than in male.

Collecting data: Collected from October to March in *Nothofagus* spp., *Araucaria* spp., *Saxegothaea* spp., *Fitzroya cupressoides*, and mixed forests, where it was found also in stunted, in remnant, and in boundary forests at elevations ranging from 10 m up to about 1000 m. Most specimens came from sifted samples of leaf and log litter, moss, dead trunks, plant debris, and sometimes mushrooms, but other collecting techniques included flight intercept (window) traps, Malaise traps, and screen sweeping.

Distribution: The species is widespread in Southern Chile from Magallanes y de la Antártica Chilena to Los Ríos Regions (Fig. 203, circles edged in green).



Figs 116-121. *Achilia kuscheliana*. Head (116-119) in (116) dorsal, (117) fronto-semilateral, (118) lateral and (119) frontal views. (120-121) Antenna in (120) frontal and (121) dorsal views. Scale bars (200 µm), vertical for (116-119) and horizontal for (120-121).

Comments: The species was described by Jeannel (1962: 392-393) from four specimens: 1 male and one female collected by G. Kuschel on 04.XII.1958 at Puerto Eden, and 1 male and 1 female also collected by G. Kuschel on 17.XII.1958 at Chepu. Jeannel (l. c.: 393) mentioned the holotype as coming from P[uerto]. Eden and preserved in the collection of the MNHS. In the collection of the MNHS we located two male specimens from "Chepu, 30.12.58, G. Kuschel" and "Chepu, 17.12.58, G. Kuschel" labeled as holotype and paratype of *Rybaxidia kuscheli*, respectively. In the collections of the MNHN we located a third male specimen of *R. kuscheli* from "P. Eden, 4.12.58, G. Kuschel", but without any type label. This specimen, which is housed in the MNHN, is clearly the holotype of *R. kuscheli*, while the two males housed in the MNHS have erroneously been labelled as holotype and paratype of this species and listed as such in the catalog of the MHNS holotypes of insects (Camousseight, 1980: 16).
The males of *A. kuscheliana* are easily distinguished from those of *A. torticornis* by the shape of the antennae (cf. Figs 32, 126-127 and 33, 120-121), labrum (cf. Figs 28 and 30), and of the aedeagus (cf. Figs 23 and 24-25). The females of *A. kuscheliana* are also easily distinguished from those of *A. torticornis* by the distinctly wider head with the anterior margins only slightly convergent (strongly convergent in *A. torticornis*), and by the shape of the labrum (cf. Figs 29 and 31).

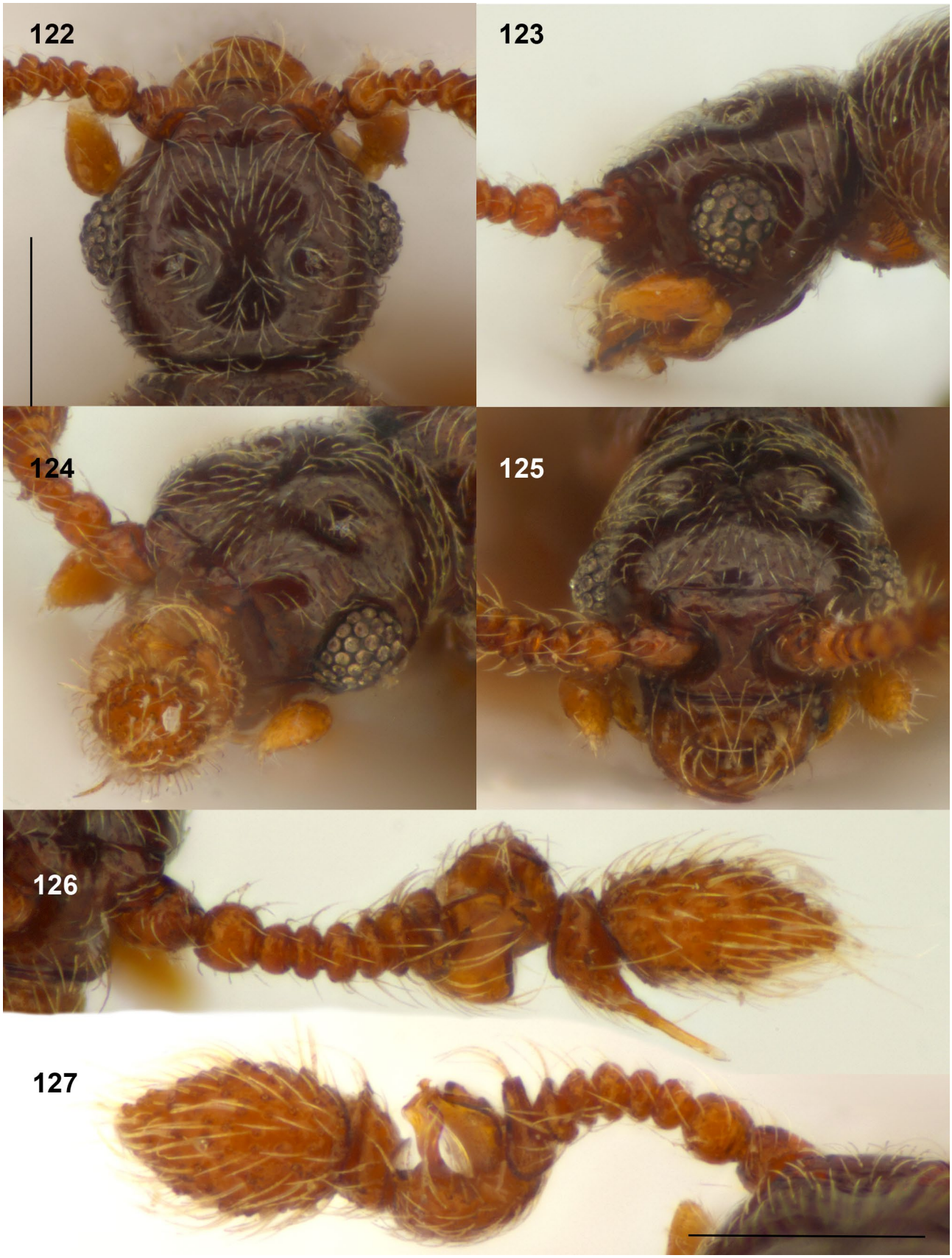
Achilia torticornis (Jeannel, 1962) comb. nov.

Figs 23, 28-29, 32, 122-127, 203

Rybaxidia torticornis Jeannel, 1962: 393-394.
Cautinia brevicornis Franz, 1996:108, fig. 51 (aedeagus); Asenjo *et al*., 2019: 50 (**syn**. **nov**.).

Type material (3 ex.): SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: MNHN; 1 ♂ (Holotype of *Rybaxidia torticornis* here fixed); labels verbatim: "Holotype (red label) / San Pedro; Chili, 10.XI.58(2 / *Rybaxidia; torticornis;* Jeannel / *Rybaxidia; torticornis* (hanwritten by Jeannel) / *Rybaxidia; torticornis* Jeann. =; *Achilia torticornis* (Jeann.); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia; torticornis* (Jeann.) ♂; Sabella, Cuccodoro & Kurbatov 2023 det."; Llanquihue prov.: MNHN; 1 ♂ (paratype of *Rybaxidia torticornis* here fixed); labels verbatim: "Paratype (red label) / Frutillar, 20.IX.57 / *Achilia; torticornis* (Jeann.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023"; Región Araucanía: Cautín prov: NHMW; 1 ♂ (Holotype of *Cautinia brevicornis*); labels verbatim: "Holotype (red label) / CHILE; Prov. Cautín; Lago Caburgua; Febrero 21, 94; T. Cekalovic col.; TC-395 / *Cautinia; brevicornis* m. (handwritten by Franz) / *Cautinia; brevicornis* Franz = *Achilia torticornis* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *torticornis* (Jeannel) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material examined (559 ex.): SOUTHERN CHILE: Región Aysén: General Carrera prov.: MNHS; 1 ♂ (mislabelled as holotype n° 1574 of *Rybaxidia torticornis*); Río Murta; 25.I.1956; G. Kuschel. – Aysén prov.: BMNH (E-2003-12); 1 ♂; Queulat National Park, Glacier Path; 21.XI/12.XII.2003; P. M. Hammond; FIT. – BMNH (E-2003-12); 2 ♂ and 1 ♀; same data; beating. – BMNH (E-2003-12); 1 ♂; Queulat National Park, Base Camp Area; 21.XI/12.XII.2003; P. M. Hammond. – BMNH (BM-1999-107); 8 ♂ and 1 ♀; Laguna San Rafael National Park, base camp, 46°44'44''S 73°56'34''W; II.III.1999; P. M. Hammond & K. A. Jackson; FIT in forest. – BMNH (E-2003-12); 4 ♂ and 8 ♀; Queulat National Park; XI.2003; D. Inward; transect litter. – MHNG; 10 ♂; 33 km E Puerto Aysén, Río Simpson NP; 70 m; 31.XII.1984/26.I.1985; S. & J. Peck; FIT select cut forest. – MHNG; 1 ♂; 34 km W P. to Aysén, San Sebastian; 150 m; 24.I.1995; S. & J. Peck. – MHNG; 4 ♂; 16 km NW Cisnes, Medio Río Grande; 200 m; 30.XII.1984/28.I.1985; S. & J. Peck; FIT mature beech forest. – MHNG; 3 ♂ and 11 ♀; 30 km N Puyuhuapi, station 107; 100 m; 29.I.1985; S. & J. Peck; sifted moss on logs. – FMNH (FMHD #85-990, #85-107); 1 ♂; 30 km N Puyuhuapi, 29.I.1985; S. & J. Peck; sifted moss on logs. – Coyhaique prov.: FMNH (FMHD #85-982, #85-90); 1 ♂; 10 km NW Coyhaique, reserva Nacional; 900 m; 22.I.1985; S. & J. Peck; mossy logs and leaf litter, beech forest, berlese. – Región Los Lagos: Palena prov.: MHNG; 1 ♂; 4 km NW Chaitén, station 108; 10 m; 30.I.1985; S. & J. Peck mixed forest litter with soft fungus. – MHNG; 2 ♂; 37 km SE Chaitén; 60 m; 28.XII.1984/30.I.1985; S. & J. Peck; riverside 2nd forest. – FMNH (FMHD #97-31); 1 ♀; Austral Highway km 60.2 (4.0 km S Contao turnoff); 41°49.87'S 72° 42.33'W; 140 m; 23.I.1997; A. Newton & M. Thayer 1001; young secondary valdivian rainforest, berlese, leaf & log litter. – FMNH (FMHD #97-32); 5 ♂; Austral Highway km 67.9 (11.7 km S Contao turnoff); 41°55'S 72° 42'W; 220 m; 23.I.1997; A. Newton & M. Thayer 1002; young secondary valdivian rainforest, berlese, leaf & log litter. – FMNH (FMHD #97-33); 3 ♂; Austral Highway km 84.0 (17.8 km W Hornopirén); 42°00.57'S 72° 37.02'W; 140 m; 23.I.1997; A. Newton & M. Thayer 1003; disturbed valdivian rainforest near ridge-top, berlese, leaf & log litter. – FMNH (FMHD #97-34); 2 ♀; Austral Highway km 89.5 (12.3 km W Hornopirén); 41°59.10'S 72° 34.12'W; 10 m; 24.I.1997; A. Newton & M. Thayer 1004; low secondary valdivian rainforest, berlese, leaf & log litter. – Llanquihue prov.: MHNG; 3 ♂; Frutillar Bajo, University Chile Forest Reserve; 100 m; 22. XII.1984/02.II.1985; S. & J. Peck; FIT ravine mixed forest. – MHNG; 1 ♀; Lago Chapo, 34 km E Puerto Montt; 300 m; 24.XII.1984; S. & J. Peck; beech forest sifted bracket fungi. – UHNC; 2 ♂; Lago Chapo, 13.5 km E Correntoso, site 656; 310 m; 16-27.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flight



Figs 122-127. *Achilia torticornis*. Head (122-125) in (122) dorsal, (123) fronto-semilateral, (124) lateral and (125) frontal views. (126-127) Antenna in (126) frontal and (127) dorsal views. Scale bars (200 µm), vertical for (122-125) and horizontal for (126-127).

intercept (windows) trap. – UHNC; 1 ♂; same data, berlese, leaf & log litter, forest floor. – FMNH (FMHD #97-16); 1 ♂ and 1 ♀; Lago Chapo, near SE end, km 9.9 on road from Rollizo; 41° 30.63'S 72° 23.98'W; 385 m; 04.I.1997; A. Newton & M. Thayer 989; valdivian rainforest on steep slope, berlese, leaf & log litter. – FMNH (FMHD #97-26); 8 ♂ 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. – MHNG; 1 ♂; La Arena, 45 km SE Puerto Montt; 100 m; 25.XII.1984; S. & J. Peck. – FMNH (FMHD #97-39); 5 ♂ and 5 ♀; Puerto Montt, 50 km SW on Hwy 5, 0.7 km NE jct. to Maullín; 41° 43.20'S 73° 22.27'W; 60 m; 20.I.1997; A. Newton & M. Thayer 999; secondary valdivian rainforest remnants, berlese, leaf & log litter. – MHNG; 1 ♂; Alerce Andino National Park, road from park entrance to Laguna Chaiquenes, station 36b; 41° 40'S 72° 35'W; 200-350 m; 03-06.I.1993; D. Burckhardt; sifting of moss on rock, dead wood and forest floor and of vegetational debris. – MHNG; 3 ♂ and 8 ♀; Alerce Andino National Park, Laguna Tríangulo, station 38b; 41° 40'S 72° 35'W; 550 m; 05-06.I.1993; D. Burckhardt; sclerophil rain forest, sifting of moss on tree trunks and of vegetational debris. – MHNG; 1 ♀; Petrohué; 30.I.1979; Chambrier. – UHNC; 1 ♂; Saltos Petrohué, 6.4 km SW Petrohué; 140 m; 28.XII.1982; A. Newton & M. Thayer; valdivian raiforest, berlese, leaf & log litter, forest floor. – MHNG; 4 ♂ and 41 ♀; V. Perez National Park, Salto Petrohué; 150 m; 23. XII.1984; S. & J. Peck; mixed forest litter Berlese – MHNG; 5 ♂; same locality; 04.II.1985; S. & J. Peck; mixed forest litter. – FMNH (FMHD #85-938, #85-54); 1 ♂; Vicente Perez Rosales National Park, Salto Petrohué; 150 m; 23.XII.1984; S. & J. Peck; mixed forest litter, berlese. – FMNH (FMHD #97-8); 4 ♂; Vicente Perez Rosales National Park, 9.2 km NE Ensenada, on road to Petrohué; 41° 10.20'S 72° 27.10'W; 125 m; 02-28.I.1997; A. Newton & M. Thayer 987; valdivian rainforest w/ *Nothofagus* spp., flight intercept trap. – FMNH (FMHD #97-10); 9 ♂; same locality; 02.I.1997; A. Newton & M. Thayer 987; valdivian rainforest w/ *Nothofagus* spp., berlese, leaf & log litter. – FMNH (FMHD #97-38); 3 ♂; Vicente Perez Rosales National Park, SW slope Vn Osorno, km 4 to La Burbuja; 41° 09.95'S 72° 30.80'W; 310 m; 27.I.1997; A. Newton & M. Thayer 1007; secondary valdivian rainforest w/*Nothofagus dombeyi- Eucryphia cordifolia* berlese, leaf & log. – FMNH (FMHD #97-11); 2 ♂; Vicente Perez Rosales National Park, SW slope Vn Osorno, km 10.1 to La Burbuja; 41° 08.30'S 72° 32.15'W; 925 m; 03-27.I.1997; A. Newton & M. Thayer 988; *Nothofagus dombeyi* & *Podocarpus nubigena* w/valdivian rainforest understory, flight intercept trap. – FMNH; 1 ♂ and 1 ♀; Vicente Perez Rosales National Park, SW slope Volcán Osorno, road to Ref. La Picada; 41° 01.05'S 72° 32.90'W; 430 m; 16.XII.2002; A. Newton, A. Solodovnikov & M. Chani 1068; *Nothofagus dombeyi* w/pyr.-fogging old logs & stumps. – FMNH (FMHD #2002-83); 4 ♂ and 2 ♀; same data but berlese, leaf & log litter. – Chiloé prov.: MSNG; 1 ♂; 5 km SW Chonchi, TC-560; 21.I.1998; T. Cekalovic. – MSNG; 1 ♂; same locality; 14.I.1999; T. Cekalovic. – MSNG; 1 ♂; Puente La Caldera, TC-565; 24.I.1998, T. Cekalovic. – MHNG; 2 ♀; 30 km SW Castro, 42° 37'S 74° 08'W, station 34b; 10-70 m; 28. XII.1992/01.I.1993; D. Burckhardt; sifting of moss on forest floor trees and dead trunks and vegetational debris. – MHNG; 2 ♂; Cucao, 30 km SW Castro, station 29a; 30 m; 04-06.I.1991; M. Agosti & D. Burckhardt; temperate rainforest. – MHNG; 1 ♂; Mocopulli; 02. II.1985; T. Cekalovic. – UHNC; 1 ♂; Ahoni Alto; 70 m; 22.II.1988; L. Masner; primary forest. – FMNH; 1 ♂; Quemchi, 11 km W of (11 km E Hwy 5); 42° 10.40'S 73° 35.73'W; 140 m; 10.XII.2002; M. Thayer, A. Solodovnikov, D. J. Clarke & A. Newton 1060; valdivian rainforest remnant w/thick bamboo understory; pyr fogging large old stumps & logs. – FMNH (FMHD #58-55); 1 ♀; Ancud Dept., Dalcahue; 42° 23'S 73°40'W; VII.1958; L. Peña. – FMNH (FMHD #97-24); 1 ♂ and 1 ♀; Colonia Yungay Road to (3.6 km W Hwy) 5; 42° 59'S 73° 41'W; 90 m; 17.I.1997; A. Newton & M. Thayer 995; grazed secondary valdivian rainforest remnants, berlese, leaf & log litter. – Osorno prov.: MHNG; 2 ♂; 65 km W Osorno; 40° 28'S 73° 43'W, station 21; 150 m; 04.XII.1984; D. Burckhardt; valdivian rainforest sifting of moss on dead tree trunks, branches and rocks and of vegetable detritus. – UHNC; 1 ♂; Puyehue National Park, Anticura; 250 m; 12-14.II.1988; L. Masner; *Nothofagus* forest, pan trap. – MHNG; 1 ♂ and 1 ♀; Puyehue National Park, Anticura Repucura trail, station 41; 500 m; 19.XII.1984; S. & J. Peck; bracket fungi with soft fungi. – MHNG; 1 ♂; same locality; 500 m; 06. II.1985; S. & J. Peck; forest litter. – UHNC; 5 ♂ and 9 ♀; Puyehue National Park, 4.1 km E Anticura, trap site 662; 430 m; 19-26.XII.1982; A. Newton & M. Thayer; valdivian rainforest; screen sweeping at dusk. – FMNH; 4 ♂ and 84 ♀; same data. – FMNH; 4 ♂ and 2 ♀; same data but berlese, leaf & log litter, forest floor, vouchers associated with larvae. – UHNC; 1 ♂ and 2 ♀; same data; fligth intercept (windows) traps. – UHNC; 5 ♂; same data; berlese, leaf & log litter, forest floor. – UHNC; 1 ♂; 4.1 km W Anticura, site 663; 270 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flight intercept (windows) trap. – UHNC; 1 ♂; same data; berlese, leaf & log litter, forest floor. – FMNH (FMHD# 96-250); 3 ♂; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30. XII.1996/30.I.1997; A. Newton & M. Thayer 985-1; valdivian rainforest w/large, *Saxegothea,* flight intercept trap. – FMNH (FMHD# 97-41); 4 ♂ and 3 ♀; same data but berlese, leaf & log litter. – FMNH (FMHD# 97-4); 2

♂; same locality; 01-30.I.1997; A. Newton & M. Thayer 985-2; valdivian rainforest w/large, *Saxegothea,* flight intercept trap. – FMNH (FMHD# 97-40); 2 ♂ and 1 ♀; same data but berlese, leaf & log litter. – FMNH (FMHD# 97-5); 2 ♂ and 2 ♀; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30.I.1997; A. Newton & M. Thayer 985-3; valdivian rainforest w/large, *Saxegothea*, flight intercept trap. – FMNH (FMHD# 97-39); 2 ♂ and 4 ♀; same data but berlese, leaf and log litter. – FMNH; 2 ♂; Puyehue National Park, Antillanca road; 470 m; 20-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log litter, forest floor. – UHNC; 2 ♂ and 11 ♀; Puyehue National Park, Antillanca road; 470-720 m; 18-24.XII.1982; A. Newton & M. Thayer; valdivian rainforest; screen sweeping at dusk. – UHNC; 2 ♂ and 1 ♀; Puyehue National Park, Antillanca road, trap site 658; 965 m; 18-25.XII.1982; A. Newton & M. Thayer; *Nothofagus pumilio* forest, berlese, leaf & log litter, forest floor. – FMNH; 2 ♀; same data. – MHNG; 5 ♂; Puyehue National Park, Antillanca road; 500-1000 m; 18-20.XII.1984; S. & J. Peck; car netting. – FMNH 3 ♂ and 4 ♀; same data. – MHNG; 2 ♂ and 1 ♀; Puyehue National Park, Antillanca, 40° 45'S 72° 15'W, station 18b; 1000 m; 30.XI.1992; mixed *Nothofagus* forest; D. Burckhardt; sifting of moss on tree trunks and forest floor and of vegetational debris. – MHNG; 3 ♂; 3 km S Maicolpué, Bahia Mansa; 200 m; 03.II.1985; S. & J. Peck; mixed forest litter. – MHNG; 1 ♀; Puyehue National Park, road Aguas Calientes-Antillanca, station 19b; 40°45'S 72°15-20'W; 750-850 m; 30.XI/01.XII.1992; D. Burckhardt; sifting of moss on tree trunks and forest floor and vegetational debris. – MHNG; 7 ♂ and 23 ♀; Puyehue National Park, Aguas Calientes, station 20b; 40° 40'S 72° 20'W; 450-600 m; 01/03.XII.1992; D. Burckhardt; moss on dead tree trunks, branches and rocks and of vegetable detritus. – MHNG; 5 ♂ and 7 ♀; Puyehue National Park, Aguas Calientes, station 25a; 400-500 m; 31.XII.1990/01.I.1991; M. Agosti & D. Burckhardt. – MHNG; 5 ♂ and 6 ♀; Puyehue National Park, Aguas Calientes to Antillanca, station 27a; 1000 m; 02.I.1991; M. Agosti & D. Burckhardt. – UHNC; 2 ♂ and 1 ♀; Puyehue National Park, Volcan Casa Blanca, trap site 668; 1270 m; 22-25.XII.1982; A. Newton & M. Thayer; just above tree line; berlese, alpine shrub litter. – FMNH; 1 ♂ and 1 ♀; same data. – FMNH (FMHD #2002-88); 2 ♂; Puyehue National Park, Ruta 215; near Laguna Las Mellizas; 40° 40.8'S 71° 59.4'W; 1000 m; 19.XII.2002; A. Newton & M. Thayer 1070; *Nothofagus pumilio* forest w/ dense bamboo understory, berlese, wet debris in large stream. – FMNH (FMHD #2002-90); 2 ♂; Puyehue National Park, Ruta 215; km 4.5 of Aduana station; 40° 40.23'S 72° 05.21'W; 580 m; 19.XII.2002; A. Newton, M. Thayer, D. J. Clarke & M. Chani 1071; valdivian rainforest, berlese, leaf & log litter. – FMNH; 1 ♀; same locality; 19.XII.2002; A. Newton, M. Thayer, A. Solodovnikov, D. J. Clarke & M. Chani 1071; valdivian rainforest, pyr-fogging old logs. – Región Los Ríos: Ranco prov.: MHNG; 1 ♂; 34 km WNW La Union, stat. 36; 700 m; 17.XII.1984; S. & J. Peck; litter mixed evergreen forest. – Valdivia prov.: MHNG; 2 ♂; Parque Nacional Alerce Costero, Chaihuín; 500 m; 15.II.2018; sifting litter; S. Kurbatov. – Región Araucanía: Cautín prov.: MHNG; 3 ♂ and 8 ♀; Conguillío National Park, station 12a; 950 m; 19-21.XII.1990; M. Agosti & D. Burckhardt; forest litter. – FMNH (FMHD# 96-226); 1 ♂; Conguillío National Park, 11.1 km SE Laguna Captrén guard sta.; 38° 40.05'S 71° 37.21'W; 1080 m; 23.XII.1996/05.II.1997; A. Newton & M. Thayer 976; *Nothofagus obliqua* & *alpina*, dense *Chusquea* understory, flight intercept trap. – FMNH (FMHD# 96-229); 1 ♂; Conguillío National Park, 1.5 km E Laguna Captrén guard sta.; 38° 38.67'S 71° 41.37'W; 1365 m; 23.XII.1996/05.II.1997; A. Newton & M. Thayer 977; *Nothofagus dombeyi* & decidous spp., *Araucaria araucana* with *Chusquea* understory, flight intercept trap. – MHNG; 3 ♂ and 4 ♀; Huerquehue National Park, station 16a; 800-900 m; 22-24.XII.1980; M. Agosti & D. Burckhardt; forest litter. – MHNG; 1 ♀; Huerquehue National Park, station 17a; 800 m; 22-25.XII.1980; M. Agosti & D. Burckhardt; forest litter. – MHNG; 4 ♀; Huerquehue National Park, Lago Cicho, station 18a; 1250-1350 m; 23.XII.1990; M. Agosti & D. Burckhardt; forest litter. – UHNC; 3 ♂; Volcán Villarica, site 653; 1250 m; 15-29.XII.1982; *Nothofagus dombey* and *pumilio* forest w/*Chusquea*, berlese, flight intercept (window) trap; A. Newton & M. Thayer. – FMNH (FMHD# 96-239); 5 ♂; Villarica National Park, Volcán Villarica, road to ski center; 39° 22.48'S 71° 58.30'W; 1180 m; 26.XII.1996; A. Newton & M. Thayer 980; *Nothofagus dombeyi* forest w/*Chusquea*, berlese, leaf & log litter. – Malleco prov.: MHNG; 1 ♂ and 1 ♀; Nahuelbuta National Park, 40 km W Angol; 1200-1500 m; 19.XII.1984/17.II.1985; S. & J. Peck; *Nothofagus-Araucaria*, FIT. – MHNG; 1 ♂ and 1 ♀; Nahuelbuta National Park; 19.XI.1981; T. Cekalovic. – MHNG; 3 ♂ and 1 ♀; Nahuelbuta National Park, 37° 50'S 73° 00'W, station 30b; 1.100 m; 23.XII.1992, D. Burckhardt; sifting of moss on stone, dead wood and of vegetational debris in *Araucaria-Nothofagus dombeyi* forest along creak with river. – FMNH; 4 ♂ and 2 ♀; Nahuelbuta National Park, 2.3 km W Los Portones entrance; 37° 49.41'S 72° 58.95'W; 1150 m; 07.XII.2002; A Newton & M. Thayer 1057; *Nothofagus dombeyi* + ¿ *antarctica*, mostly open understory, pyr.-fogging; berlese, leaf & log litter, live trunks. – FMNH (FMHD #97-48); 2 ♂ and 21 ♀; Nahuelbuta National Park, 2.3 km W Los Portones entrance; 37° 49.32'S 72° 58.73'W; 1190 m; 07.II.1997; A. Newton & M. Thayer 1010; *Nothofagus* spp. forest (evergreen & deciduous); berlese, leaf & log litter. – FMNH (FMHD #96-224); 1 ♂; Nahuelbuta National Park, 4.5 km W Los Portones entrance; 37° 49.25'S 72° 59.82'W; 1300 m;

21.XII.1996; A. Newton & M. Thayer 975; *Nothofagus* spp., emergent *Araucaria araucana, Chusquea* understory, berlese, leaf & log litter. – FMNH (FMHD #2002-054); 1 ♀; Nahuelbuta National Park, Comallín area, between Guardería and pic nic area; 37° 48.33'S 73° 00.98'W; 1200 m; 06.XII.2002; A. Solodovnikov; *Nothofagus-Araucaria*-bamboo, sun-extracted sifted litter. – FMNH (FMHD #2002-041); 1 ♂; Nahuelbuta National Park, E of Guarderia Pichinahuel; 37° 48.20'S 73° 01.41'W; 1290 m; 05-24.XII.2002; A. Newton, M. Thayer, A. Solodovnikov; D. J. Clarke & M. Chani 1054; *Araucaria-Nothofagus dombeyi* with *Chusquea* bamboo, flight intercept trap. – FMNH (FMHD #2002-047); 1 ♀; Nahuelbuta National Park, road to Piedra del Águila; 37° 49.29'S 73° 01.90'W; 1360 m; 06.XII.2002; A. Newton & M. Thayer 1055; *Nothofagus dombeyi* & *pumilio*, large *Araucaria*, bamboo + shrub understory, berlese, leaf & log litter. – PCVB; 1 ♂; Road to Laguna Blanca, 22 km ENE Curacautín; *Araucaria-Nothofagus* mixed forest, 1250-1450 m; 38° 21'S 71° 39'W; dead wood, leaves, moss; 11.I.2006; M. Schülke [9].

Description: Body 1.4-1.55 mm long, brown or blackish with reddish elytrae, antennae, and legs; maxillary palpi yellowish; some specimens paler or uniformly brown.

Male: Head as in Figs 122-125; posteromedial part weakly convex, separated from anterior part by transverse sulcus; anterior margins strongly convergent anterior to eyes. Antennae (Figs 32, 126-127) with scape and pedicel longer than wide; antennomere III about as wide as long; antennomeres IV, V and VI wider than long; antennomeres VII and VIII much wider than long, with lateral margin enlarged; antennomere IX wider than long, large, laterally with deep notch margined on both sides by lamelliform processes; antennomere X much wider than long, with lateral margin prolonged into long spiniform apophysis; antennomere XI longer than wide. Labrum (Fig. 28) with pair of big processes each bearing long basal seta. Femora slightly swollen; protibiae densely pubescent on apical third, subapically slightly notched, bearing long and flat mesal seta. Metaventrite with posterior half raised and divided by narrow medial sulcus, anterior portion possessing large semi-oval depression with prominent posterior margins. Aedeagus (Fig. 23) 0.39-0.40 mm long; dorsal plate ovoid, strongly narrowed apically; dorsal longitudinal struts short, divergent, arranged almost at flat angle; copulatory pieces consisting of medial sclerite associated with long pointed sclerite and 2-3 shorter spiniform sclerites on each side. Parameres thin and sinuate; apical portion curved anteriorly, with 3-4 apical spines.

Female: Similar to male except head, antennae, femora, protibiae, and metaventrite unmodified. Labrum (Fig. 29) with pair of processes smaller than for male.

Collecting data: Collected from November to July, in *Nothofagus* spp., *Araucaria* spp., *Saxegothaea* spp., sclerophyll and mixed forests, where it was found also in stunted, in remnant, and in boundary forests at elevations ranging from 10 m up to 1500 m. Most specimens came from sifted samples of leaf and log litter, moss, dead trunks, plant debris, and sometimes mushrooms, but other collecting techniques included flight intercept (window) traps, car-netting, pan traps, and screen-sweeping.

Distribution: The species is widespread in Southern Chile from Aysén to Araucanía Regions (Fig. 203 red circles).

Comments: The species was described by Jeannel (1962: 393-394) from five specimens: 1 male collected by G. Kuschel on 20.IX.1954 at Frutillar, 1 male and 1 female collected on 10.XI.1958 at Cerros de San Pedro, and 1 male and 1 female collected on 25.I.1956 at Río Murta. According to Jeannel (l. c.: 394) the holotype is from San Pedro and housed in the collections of the MNHS. In the collections of the MNHS we located one male specimen from "Rio Murta, 25.I.56, G. Kuschel" and labeled as holotype of *Rybaxidia torticornis*. In the collections of the MNHN we located a second male specimen from "San Pedro, 10.11.58", but without any type label. This specimen housed in the MNHN is clearly the holotype of *R. torticornis*, while the male housed in the MNHS has erroneously been considered as the holotype of this species, and is listed as such in the catalog of the MHNS holotypes of insects (Camousseight, 1980: 16).

For convenience we will deal here with *Cautinia brevicornis* Franz, 1996, although this taxon technically belongs to the "Genera described by Franz in 1996", which are treated later in this paper. We have examined the holotype and only known specimen of this species, which Franz attributed to the tribe Euplectini, but it is a member of the tribe Brachyglutini. Indeed, the male holotype of *Cautinia brevicornis* Franz, 1996 belongs to *Achilia torticornis* (Jeannel, 1962) (**syn. nov.**), and, since *C. brevicornis* is the type species of the monospecific genus *Cautinia* Franz, 1996, *Cautinia* becomes a new junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.).

A. torticornis is very similar to *A. kuscheliana*, with the two species being distinguished as discussed above in the "Comments" paragraph of *A. kuscheliana*.

Bryaxinella Jeannel, 1962

Fig. 128

Bryaxinella Jeannel, 1962: 391, 394; Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 59.

Type species: *Bryaxinella nodicornis* Jeannel, 1962

Tegument glabrous. Head dorsally with similarly shaped pair of tentorial pits and medial frontal fovea, lacking infraocular carinae, and ventrally with medial elevation limited on both sides by pair of longitudinal sutures.

Pronotum with very small median antebasal fovea and pair of lateral antebasal foveae. Prosternum with pair of paranotal carinae reaching middle of prosternal length; it seems that there is a pair of anteroprosternal foveae. Meso-metaventrite with median mesoventral, pair of lateral mesoventral, pair of mesocoxal and pair of metaventral foveae; lacking transverse lateral suture delimiting meso- and metaventrite. Elytra with 3 basal foveae; sutural stria entire; discal stria long, extending from outer basal fovea almost to posterior elytral margin; humeri well-marked; subhumeral fovea and lateral sulcus lacking. Abdominal tergite 1 (IV) longer than tergite 2 (V), with pair of weakly marked small discal carinae; pair of basolateral foveae present (it is uncertain whether these are mediobasal foveae, as they are not visible on dry specimens). Abdominal sternite 2 (IV) with pair of mediobasal and pair of basolateral foveae. Male secondary sexual characters localized on antennae, mandibles, mesolegs, and abdominal sternites; abdominal sternite 7 (IX) not exposed.

Comments: We had at our disposal only the holotype of the single species of this genus, so we could not study some of the characters that would be visible only by using semi-destructive preparations. *Bryaxinella* is most likely an element of the Neotropical fauna, and with the current level of knowledge of Neotropical Brachyglutini we are unable to hypothesize its precise relationships with the other genera of this realm.

According to Jeannel (1962: 386) this genus belongs in the phyletic series of *Achilia* characterized by the pronotum with a rounded and deep median antebasal fovea distinctly separated from the lateral antebasal foveae, and by the aedeagus with each paramere bearing one seta on its lateral margin and never at the apex. Jeannel (1962: 390-391) noted that *Bryaxinella* is distinguished from other genera in this phyletic series by the aedeagus possessing an ovoidal basal capsule with a "dorsal window" (= dorsal diaphragm opening), the lamellar parameres being wide at their bases with convex lateral margins, the elytra with 3 basal foveae, and the males with sexual characters on the antennal funiculus.

The genus includes only *Bryaxinella nodicornis* Jeannel, 1962 (Fig. 128).

***Bryaxinella nodicornis* Jeannel, 1962**

Figs. 26, 36-37, 39, 42, 128-134, 202

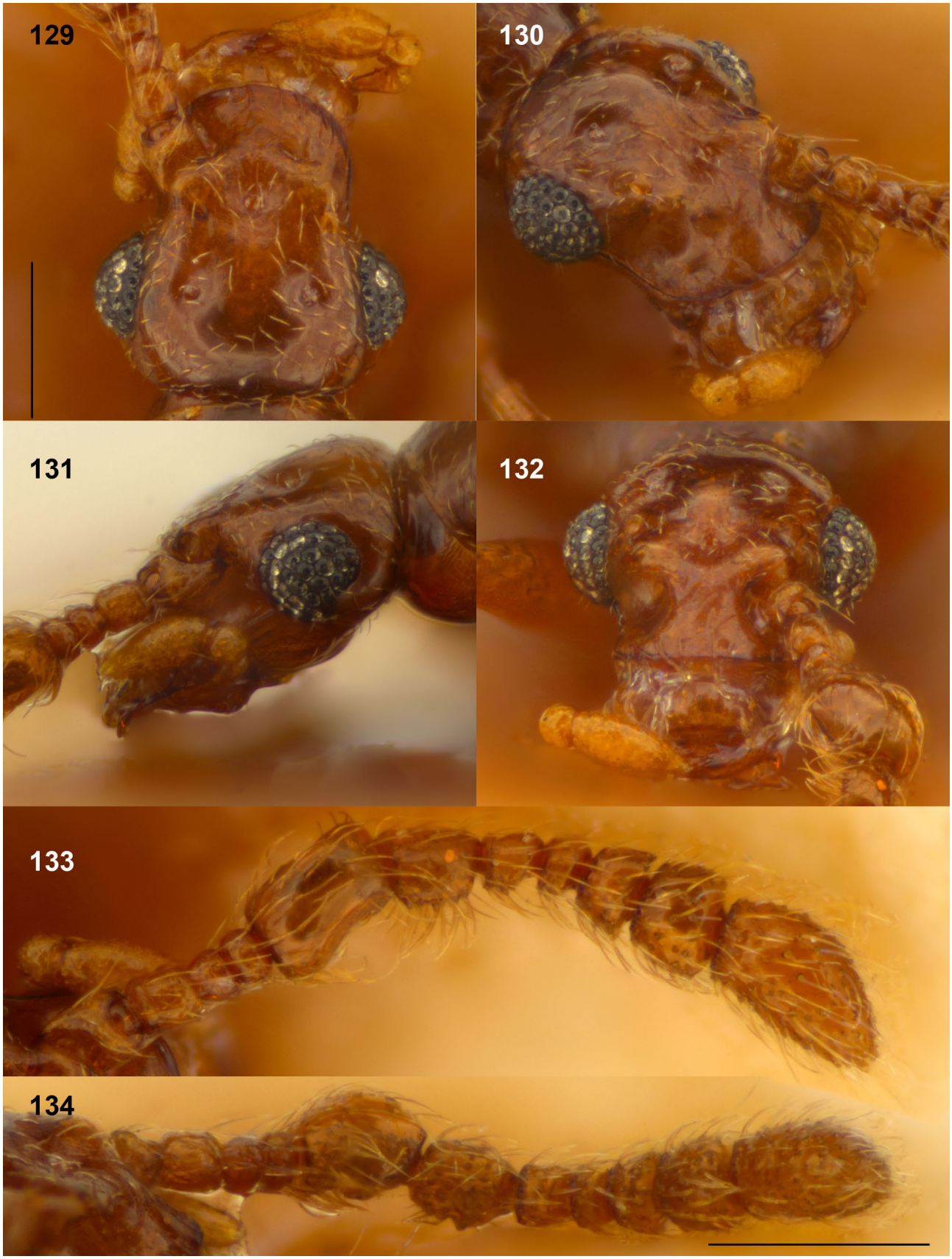
Bryaxinella nodicornis Jeannel, 1962: 394-395, figs 141 (habitus male); 142 (antenna male); 143 (aedeagus); Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 59.

Type material (1 ex.): CENTRAL ARGENTINA: San Juan prov.: MNHN; 1 ♂ (Holotype of *Bryaxinella nodicornis* here fixed); labels verbatim: "Holotypus (red label) / Rio Sasso; III.58 / Rep. Argentina; Delamare / *Neotrissemus*; *nodicornis* (handwritten by Jeannel) / *Bryaxinites*; *nodicornis* m. (handwritten by Jeannel) / *Bryaxinella*; *nodicornis* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det."

Description: Habitus as in Fig. 128. Body 1.8 mm long, reddish-testaceous with darker abdomen; maxillary palpi yellowish; tegument smooth and shiny; pubescence very short and sparse, except densely pubescent antennae. Head wider than long; eyes protruding, slightly longer than tempora; tempora weakly convex. Pronotum slightly wider than long; disc convex, its surface smooth and shiny; median antebasal fovea smaller than lateral foveae; anterior portion of lateral margins convergent; posterior portion of lateral margins slightly convergent. Elytra together wider than long, with protruding humeri; disc smooth and shiny; basal foveae large; discal stria extended to about entire elytral length. Abdomen smooth, with some minute punctures; abdominal tergite 1 (IV) about twice as long as tergite 2 (V), with short and sparse setal brush between divergent basal striae, these striae very short and separated at base by about one-fourth of tergal width.

Male: Head (Figs 129-132) apparently not modified, with margins clearly convergent anteriorly. Mandibles with small thin outgrowth at middle portion of outer margin. Antennae (Figs 36-37, 133-134) with scape longer than wide; pedicel about as long as wide; antennomeres III-

Fig. 128. *Bryaxinella nodicornis*, holotype, habitus. Scale bar = 500 μm.



Figs 129-134. *Bryaxinella nodicornis*, holotype. Head (129-132) in (129) dorsal, (130) fronto-semilateral, (131) lateral and (132) frontal views. (133-134) Antenna in (133) frontal and (134) dorsal views. Scale bars (200 µm), vertical for (129-132) and horizontal for (133-134).

IV wider than long, small; antennomere V longer than wide, with lateral margin enlarged and medial margin slightly arcuate; antennomere VI longer than wide, also enlarged; antennomeres VII-VIII slightly wider than long; antennomere IX wider than long and wider than VIII; antennomere X transverse and wider than IX; antennomere XI longer than wide, slightly longer than IX-X combined. Metaventrite flat on posterior three-quarters, except center shallowly depressed. Mesocoxae with small truncate apophysis; mesofemora enlarged, with flat tubercle at base of mesal margin (Fig. 42); mesotibiae with mesal margin apically prolonged as long spine (Fig. 39). Abdominal sternites 2-4 (IV-VI) slightly depressed at middle; sternite 6 (VIII) densely punctate. Aedeagus (Fig. 26) 0.325 mm long; diaphragm opening ovoidal, apical portion pointed; longitudinal dorsal struts lacking; copulatory pieces consisting of 3 stout sclerites and a thinner sclerite bearing 4 small apical spines. Parameres stout with one or two setae on distal third of outer margin.
Female: Unknown.

Collecting data: According to Jeannel (1962: 396) the holotype and single known specimen of *Bryaxinella nodicornis* was collected in April at about 2000 m. However, the locality label of the holotype bears the date March 1958. Jeannel (l. c.) specified that this specimen was "deeply buried in the soil", with no further explanation.

Distribution: The species is known only from the holotype from the Río Sasso (province San Juan; Southern Argentina) (Fig. 202 green diamonds).

Comments: Jeannel described this species based on one male collected at Río Sasso by Delamare in April 1959. In the collection of the MNHN we found one male from "Río Sasso, III.1954 Delamare" without any type label and identified by Jeannel as "*Neotrissemus nodicornis*" and "*Bryaxinites nodicornis*", which are two unpublished names. As this specimen does match perfectly Jeannel's original description of *Bryaxinella nodicornis*, we think that there is no reason to doubt that it is indeed the holotype of this species.
In addition to the combination of characters provided in the generic description, this taxon can be easily distinguished from the southern South American Brachyglutini by the aedeagus possessing an ovoidal basal capsule with a dorsal diaphragm opening, an internal sac lacking longitudinal dorsal struts, and by the mesocoxae subcontiguous and bearing a very small apophysis.

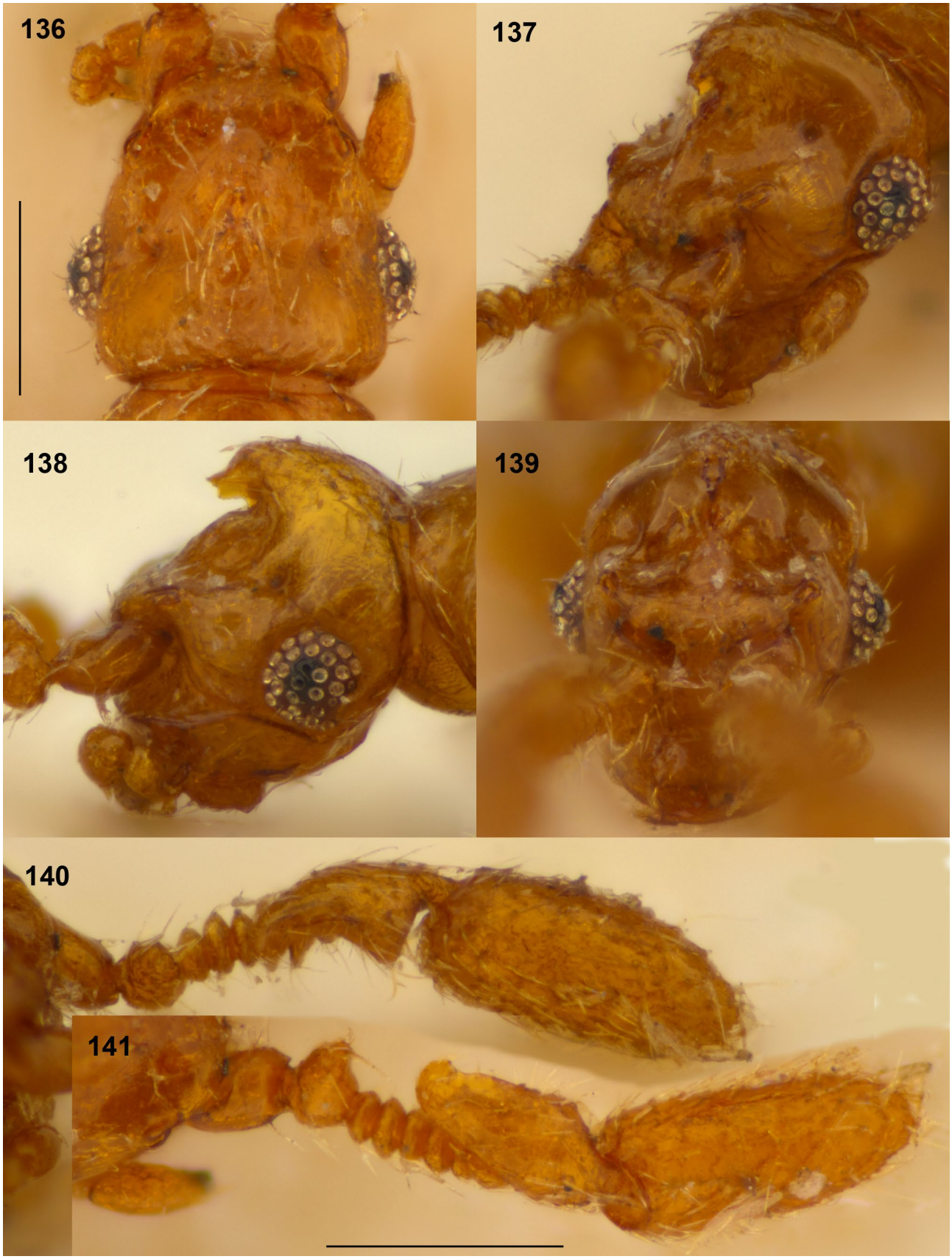
***Ectopocerus* Raffray, 1904**
Fig. 135

Ectopocerus Raffray, 1904: 114, 149, 218; Raffray, 1908: 196, 226; O. Park, 1942: 124, 185; Jeannel, 1962: 391, 443; Newton & Chandler, 1989: 43; Asenjo *et al*., 2019: 61.
Type species: *Decarthron verticicornis* Reitter, 1885

Tegument with pubescence sparse. Antennae with 10 antennomeres. Pronotum with median antebasal and lateral foveae; basal margin with contiguous row of shallow impressions. Elytra with three basal foveae; sutural stria entire; discal stria short. Abdominal tergite 1 (IV) much longer than tergite 2 (V), with pair of discal carinae.
Male secondary sexual characters localized on head, antennae, and metaventrite.

Comments: We had at our disposal only two males (including the holotype) of the type species of this monotypic genus, so we could not investigate properly several key characters that would be visible only by semi-destructive preparations. However, except for their 10-segmented antennae, these specimens seem to follow the same bauplan as the members of the genus *Achilia*. In absence of female specimens of *Ectopocerus* we also could not investigate if the reduced number of antennomeres is a non-sex-related character, or that the highly modified 9th antennomere of the male

Fig. 135. *Ectopocerus verticicornis*, holotype, habitus. Scale bar = 500 µm.



Figs 136-141. *Ectopocerus verticicornis*, holotype. Head (136-139) in (136) dorsal, (137) fronto-semilateral, (138) lateral and (139) frontal views. (140-141) Antenna in (140) frontal and (141) dorsal views. Scale bars (200 µm), vertical for (136-139) and horizontal for (140-141).

rather results from the fusion of two antennomeres. In the latter case, *E. verticicornis* could well represent only a peculiar member of *Achilia*. In the interests of stability of nomenclature and until new specimens of *E. verticicornis* with allow the proper reassessment of the status of *Ectopocerus*, we refrain from synonymizing these two genera here.
Ectopocerus includes only *E. verticicornis* (Reitter, 1885) (Fig. 135).

Ectopocerus verticicornis (Reitter, 1885)
Figs 27, 34-35, 43, 135-141, 202

Decarthron verticicornis Reitter, 1885: 323, pl. II, fig. 3 (head and antenna of male);
Ectopocerus verticicornis Raffray, 1904: 218; Raffray, 1908: 227, pl. 4 fig. 8 (habitus); O. Park, 1942: 185; Jeannel, 1962: 444, figs 220 (habitus male); 221 (antenna male) 222 (aedeagus); Newton & Chandler, 1989: 43; Asenjo *et al*., 2019: 61.

Type material (**1 ex**.): CHILE: MNHN; 1 ♂ (Holotype of *Decarthron verticicornis*); labels verbatim: "Holotype (red label) / TYPE (red label) / Chile / Museum Paris 1917; coll. Raffray / *E.*; *verticicornis;* det. A. Raffray / *Ectopocerus*; *verticicornis* (handwritten by Jeannel) / *Ectopocerus*; *verticicornis* (Reitt.) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material examined (**1 ex**.): SOUTHERN CHILE: Región Araucanía: Cautín prov.: MNSG; 1 ♂; Río Pedregoso, Fundo Nueva Pomerania; TC-433; 25.I.1995; T. Cekalovic.

Description: Habitus as in Fig. 135. Body 1.45-1.50 mm long, light brown; maxillary palpi yellowish; tegument smooth and shiny; pubescence long and sparse. Head wider than long; eyes not very protuberant, slightly longer than tempora; tempora short and weakly convex. Pronotum wider than long; disc convex, its surface smooth and shiny; median antebasal fovea smaller than lateral foveae; anterior portion of lateral margins convergent anteriorly; posterior portion of lateral margins slightly convergent. Elytra together wider than long, with slightly protruding humeri; disc smooth and shiny; basal foveae big; sutural stria entire; discal stria extending to about elytral mid-length. Abdomen smooth, with some minute punctures. Abdominal tergite 1 (IV) about twice as long as tergite 2 (V), with short and sparse setal brush between subparallel discal carinae, these carinae very short and separated at base by about one-third of tergal width.
Male: Head as in Figs 136-139; posterior portion bearing medial horn projecting anteriorly above excavated anterior portion. Antennae (Figs 34-35, 140-141) consisting of only 10 antennomeres; scape distinctly longer than wide; pedicel wider than long, its medial margin strongly enlarged at middle and bearing long seta; antennomeres III-VIII wider than long; antennomere IX very large, dorsally convex and ventrally concave, extended posteriorly as large retrograde elliptical lobe covering previous three antennomeres; antennomere X ovoidal, about 2.5 times longer than wide, with basal margin slightly concave, bearing 3 short and stout setae. Posterior half of metaventrite very shallowly concave at middle. Mesofemora with fringe of thin setae on mesal margin (Fig. 43). Aedeagus (Fig. 27) 0.325 mm long; basal plate subrectangular; dorsal longitudinal struts divergent; copulatory pieces consisting of 4 long spines fused at base and spread out to form 2 symmetrical pairs. Parameres stout with one long seta on outer lobe.
Female: Unknown.

Collecting data: Jeannel (1962: 444) noted that the holotype of *Ectopocerus verticicornis* was collected in Valdivia by sifting humus.

Distribution: The species is known from Valdivia (Region Los Ríos) and Río Pedrigoso (Region Araucanía: Cautín province) (Fig. 202 red squares).

Comments: Reitter (1885: 323) described this species as *Decarthron verticicornis* based on a single male collected in Valdivia. In the Raffray collection (MNHN) we found one male from "Chile" identified by Raffray and Jeannel as *Ectopocerus verticicornis,* and bearing a red "TYPE" label. Although the locality label bears only its country of origin, this male specimen does match perfectly Reitter's original description. We consider that there is no reason to doubt that this male is the specimen used by Reitter to describe this taxon and, consequently, we fix it here as the holotype of *Decarthron verticicornis*.

Achilliotes Jeannel, 1962
Fig. 142

Achilliotes Jeannel, 1962: 445; Newton & Chandler, 1989: 42; 62; Asenjo *et al*., 2019: 57.
Type species: *Achilia brevicornis* Raffray, 1904

According to Jeannel (1962: 386) this genus belongs to the phyletic series of *Achilia*, characterized by the pronotum with a rounded and deep median antebasal fovea distinctly separated from the lateral antebasal foveae, and by the aedeagus with each paramere bearing one seta on its lateral margin and never at its apex. Jeannel (1962: 390-391) noted that within this phyletic series *Achilliotes* is distinguished from other genera by the aedeagus lacking a diaphragm opening and possessing dorsal struts, by the lamellar parameres that are wide at their base with convex lateral margins lacking setae, by the pronotum and elytra with basal foveae, and by abdominal tergite 1 (IV) being as long as tergite 2 (V). Of the feature listed above the only one that would allow us to distinguish *Achilliotes* from *Achilia* is the absence of setae on the parameres. We have examined the types of

Achilliotes brevicornis and it appears that the parameres of the aedeagus of *Achilliotes brevicornis* do possess a seta on the lateral margin. Consequently, we consider *Achilliotes* Jeannel, 1962 to be a junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.), and, as originally hypothesized by Raffray (1904: 139), *Achilliotes brevicornis* belongs indeed to the genus *Achilia* and must again be named *Achilia brevicornis* Raffray, 1904 (Fig. 142).

Fig. 142. *Achilia brevicornis*, holotype, habitus. Scale bar = 500 µm.

Achilia brevicornis Raffray, 1904
Figs 44, 47, 49-50, 142-148

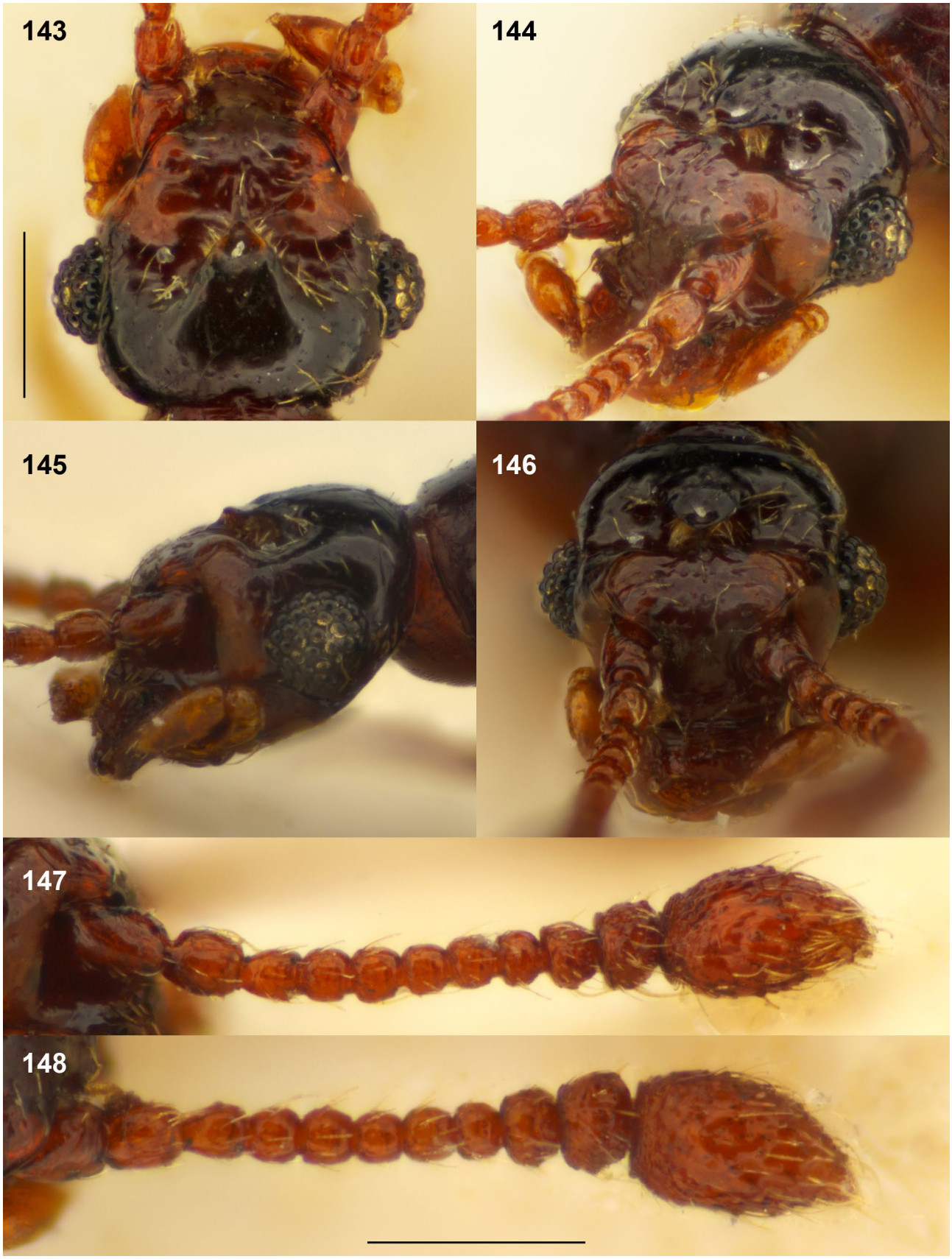
Achilia brevicornis Raffray, 1904: 139-140;
Achilliotes brevicornis, Jeannel, 1962: 445, figs 223 (habitus male), 224 (aedeagus); Newton & Chandler, 1989: 42; Asenjo *et al*., 2019: 57.

Type material (**2 ex**.): CHILE: MNHN; 1 ♂ (Lectotype of *Achilia brevicornis* here designated); labels verbatim: "Lectotype (red label) / TYPE (red label) / Chile / Museum Paris 1917; coll. Raffray / *A. brevicornis*; det. A. Raffray / *Achilliotes*; *brevicornis*; Raff. (handwritten by Jeannel) / *Achilliotes*; *brevicornis* (Raff.) =; *Achilia brevicornis* Raffray; Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *brevicornis* (Raffray) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.". MNHN; 1 ♂ (Paralectotype of *Achilia brevicornis* here designated); labels verbatim: "Paralectotype (red label) / Chile / Museum Paris 1917; coll. Raffray / *A. brevicornis*; det. A. Raffray / *Achilia*; *brevicornis* (Raffray) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Description: Habitus as in Fig. 142. Body 1.7-1.8 mm long, dark brown, with abdomen blackish and elytra, legs and antennae reddish; maxillary palpi yellowish; tegument smooth and shiny; pubescence long and sparse. Head wider than long; eyes hemispherical, slightly longer than tempora; tempora weakly convex. Antennae (Figs 147-148) with scape, pedicel and antennomere III slightly longer than wide; antennomeres IV-VII about as long as wide; antennomere VIII wider than long; antennomere IX wider than long, wider than VIII; antennomere X wider than long, wider than IX; antennomere XI longer than wide, slightly longer than IX-X combined. Pronotum wider than long; disc convex, its surface smooth and shiny; median antebasal fovea wider than lateral foveae; anterior portion of lateral margins convergent anteriorly; posterior portion of lateral margins slightly convergent; basal margin with contiguous row of shallow impressions. Elytra together wider than long, with protruding humeri; disc smooth and shiny; 2 big basal foveae; sutural stria entire; discal stria extending to about elytral mid-length. Abdomen smooth, with some minute punctures; tergite 1 about as long as 2, with short and sparse setal brush between basal striae, these striae very short and separated at base by about one-third of tergal width.
Male: Head as in Figs. 143-146; posterior portion moderately convex, slightly punctate, laterally deeply hollowed and medially prolonged as pointed process reaching frons; frons fairly flat with margins convergent. Protrochanters (Fig. 49) with middle of posterior margin angulate and bearing two long setae; mesotrochanters (Fig. 50) with posterior margin prolonged as medial spine; mesotibiae (Fig. 47) with mesal margin apically prolonged as spine that is densely pubescent at base. Along almost its entire length metaventrite possessing large semi-oval medial depression with slightly raised posterior margin. Aedeagus (Fig. 44) 0.325 mm long; dorsal plate subrectangular; dorsal longitudinal struts subparallel at base and divergent in distal half; copulatory pieces consisting of apically enlarged medial sclerite associated on each side with large apically bifid sclerite ending in two spines that are curved laterally. Parameres stout, bearing seta on lateral margin.
Female: Unknown.

Collecting data: No data.

Distribution: This species is known only from the two male type specimens that Jeannel (1962: 446) noted: "undoubtedly coming from the collections of the Misses Kindermann in Valdivia" (Region Los Ríos). However, Raffray (1904: 139) never specified the number of



Figs 143-148. *Achilia brevicornis*, holotype. Head (143-146) in (143) dorsal, (144) fronto-semilateral, (145) lateral and (146) frontal views. (147-148) Antenna in (147) posterior and (148) dorsal views. Scale bars (200 μm), vertical for (143-146) and horizontal for (147-148).

specimens he used for the original description of *Achilia brevicornis*, nor did he detail the collecting locality of the types more precisely than "Chile". For this reason, the species is not represented in the distribution maps.

Comments: The species has been described by Raffray (1904: 139-140) from an unspecified number of specimens from Chile. Jeannel (1962: 446) mentions two males of this species and in the Raffray collection (MNHN) we found two males from "Chile" identified by Raffray as *Achilia brevicornis*. The first specimen of this series also bears an identification label" *Achilliotes brevicornis*" handwritten by Jeannel. We designate this male specimen as the lectotype of *Achilia brevicornis*, and the other male as paralectotype.
The males of *A. brevicornis* are easily distinguished from those of other species of *Achilia* by the shape of the head (Figs 143-146) and of the aedeagus (Fig. 44).

Leptachillia Jeannel, 1962
Fig. 149

Leptachillia laevissima Jeannel, 1962: 446; Newton & Chandler, 1989: 46; Asenjo *et al*., 2019: 62.
Type species: *Leptachillia laevissima* Jeannel, 1962

Tegument almost glabrous. Head with vertexal foveae. Pronotum without median antebasal and lateral foveae, and lacking antebasal sulcus; basal margin lacking contiguous row of shallow impressions. Elytra without basal foveae and discal stria. Mesoventrite with median mesoventral and pair of lateral mesoventral foveae. Metaventrite with pair of lateral metaventral and pair of lateral mesocoxal foveae. Abdominal tergite 1 (IV) about twice as long as tergite 2 (V), lacking foveae and discal carinae. Structure of aedeagus as in *Achilia*, including apical part of parameres angled ventrally.
Male secondary sexual characters localized on metaventrite and mesolegs.

Comments: We had at our disposal only the holotype of the type species and a second conspecific specimen unfortunately blackened likely due to some kind of oxidation during its conservation in alcohol and acetic acid. As a result we could not investigate several key characters that would be visible only from semi-destructive preparations. Nervertheless, based on our observations, it appears that *Leptachillia* is very similar to the genus *Achilia*, from which it differs mainly by the absence of pronotal and elytral foveae.
Newton & Chandler (1989: 46) attributed this genus to the subtribe Pselaptina Park, 1976, which was subsequently synonymized with Brachyglutina by Chandler (2001: 291) and reestablished on a new basis by Kurbatov & Sabella (2015: 303). In its current concept Pselaptina does not include *Leptachillia*, with this genus currently placed in the Brachyglutina.
Jeannel (1962: 446) described *Leptachillia* for only one species (*L. laevissima* Jeannel, 1962), and Franz

Fig. 149. *Leptachillia laevissima*, holotype. Habitus. Scale bar = 500 µm.

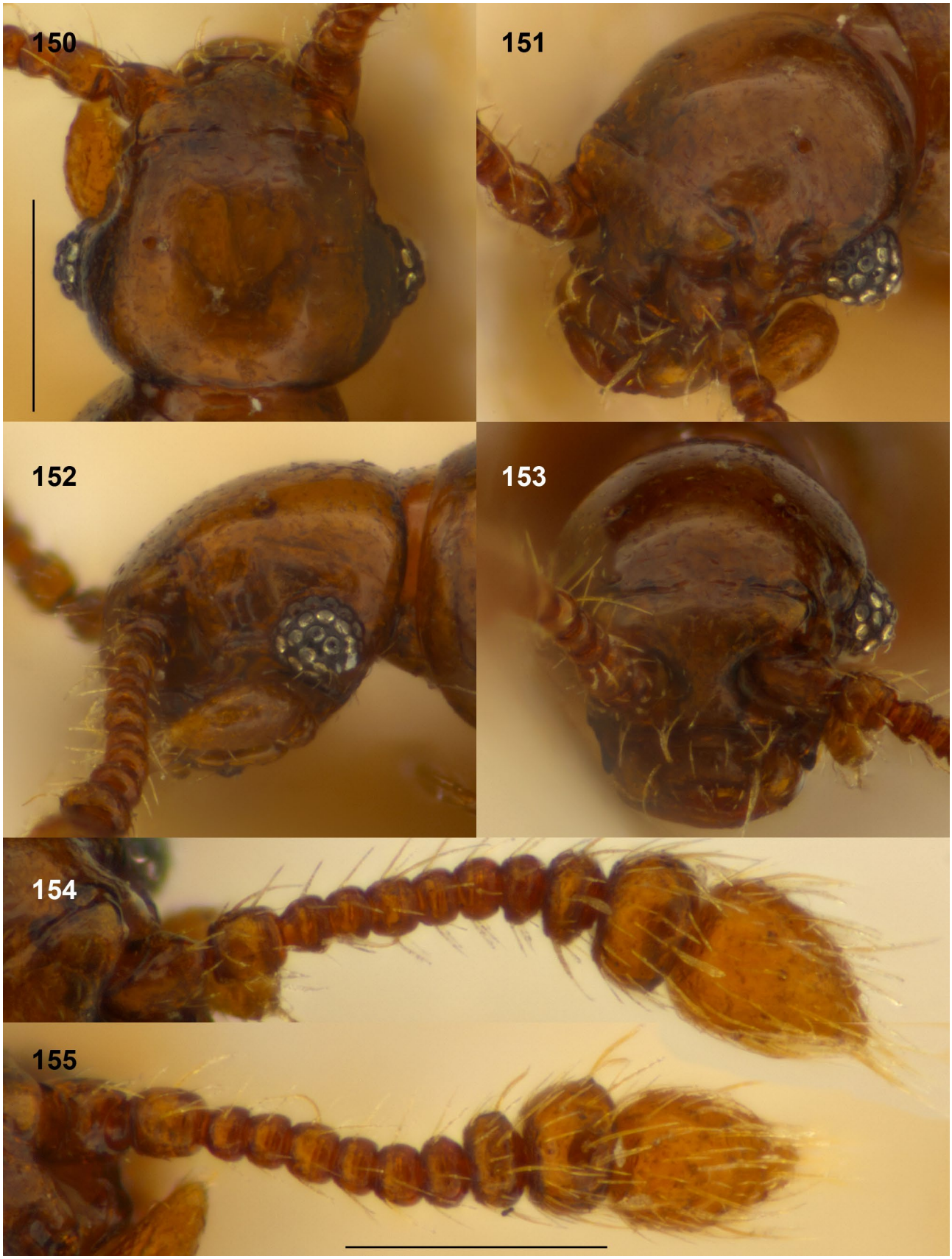
(1996: 123) added to that genus a second species (*L. coquimboensis* Franz, 1996). We examined the type materials of *L. coquimboensis* and it appears to belong to a new genus (*Estamentula* **gen**. **nov**.), into which this species is formally tranferred into later in the present contribution. Consequently, *Leptachillia* includes only *Leptachillia laevissima* Jeannel, 1962 (Fig. 149).

Leptachillia laevissima Jeannel, 1962
Figs 45-46, 48, 51-52, 149-155, 202

Leptachillia laevissima Jeannel, 1962: 446, figs 225 (habitus male); 226 (maxillary palpus); 227 (aedeagus); Newton & Chandler, 1989: 46; Asenjo *et al*., 2019: 62.

Type material (**1 ex**.)**:** CENTRAL CHILE: Región Valparaíso: Petorca prov.: MNHN; 1 ♂ (Holotype of *Leptachillia laevissima* here fixed); labels verbatim: "Holotype (red label) / Zapallar; AC 20.3.57 / *Leptachillia*; *laevis* (handwritten by Jeannel) / *Leptachillia*; *laevissima* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material examined (**1 ex**.)**:** SOUTHERN CHILE: Región Araucanía: Malleco prov.: MHNG; 1 ♂; Purén, Contulmo Natural Monument; 350 m; 13.II.1985; S. & J. Peck; mixed forest litter.



Figs 150-155. *Leptachillia laevissima*, holotype. Head (150-153) in (150) dorsal, (151) fronto-semilateral, (152) lateral and (153) frontal views. (154-155) Antenna in (154) dorsal and (155) frontal views. Scale bars (200 µm), vertical for (150-153) and horizontal for (154-155).

Description: Habitus as in Fig. 149. Body 1.4 mm long, glossy reddish-testaceous; maxillary palpi yellowish; tegument smooth and shiny; almost glabrous. Head (Figs 150-153) wider than long, moderately convex, with some punctures; vertexal foveae small; eyes hemispherical, slightly longer than tempora; tempora short and moderately convex. Antennae (Figs 154-155) with scape and pedicel slightly longer than wide; antennomeres III-VI about as long as wide; antennomeres VII-VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X much wider than long, wider than IX, as wide as XI; antennomere XI longer than wide, about as long as VIII-X combined. Pronotum wider than long; disc convex, its surface smooth and shiny; anterior portion of lateral margins convergent anteriorly; posterior portion of lateral margins slightly convergent. Elytra together wider than long, with humeri not protruding; disc smooth and shiny.
Male: Legs with posterior margin of mesotrochanters (Figs 51-52) prolonged as median spine; mesofemora (Fig. 52) enlarged with mesal margin bearing row of long setae; mesotibiae (Fig. 48) with mesal margin prolonged as subapical spine. Metaventrite slightly concave medially for posterior two-thirds. Aedeagus (Figs 45-46) 0.23-0.25 mm long; dorsal plate subrectangular, dorsal longitudinal struts short, divergent; copulatory pieces consisting of two pointed medial sclerites associated on each side with 4 short spines. Parameres relatively stout with apical portion recurved anteriorly, bearing long medioapical seta and long seta on apical third of lateral margin.
Female: Unknown.

Collecting data: Jeannel (1962: 447) noted that one specimen (the holotype) was collected in the "espinal area" on 20.III.1954, while a second specimen was collected at 350 m in mixed forest litter in February.

Distribution: The species is known only from the male holotype collected in Zapallar (Region Valparaíso: Petorca province) and a second specimen was collected in Malleco province (Region Araucanía) (Fig. 202 circles edged in red).

Comments: The species was described from a single male collected in Zapallar, which Jeannel (1962: 390) should have deposited in the collection of the MNHS. However, this taxon is not listed in the catalog of the MHNS holotypes of insects (Camousseight, 1980). In the collection of the MNHN we found only one male identified by Jeannel as *"Leptachillia laevis*" that was labelled as from "Zapallar", but lacking a type label. This specimen perfectly fits Jeannel's original description of this taxon and we consider that there is no reason to doubt that it is indeed the holotype of *Leptachillia laevissima*, here fixed.

Pseudachillia Jeannel, 1963

Pseudachillia Jeannel, 1963: 353, 367; Newton & Chandler, 1989: 43; Asenjo *et al*., 2019: 63.
Type species: *Pseudachillia bicolor* Jeannel, 1963

Jeannel (1963: 367) placed this genus in the phyletic series of *Achilia*, characterized by the pronotum with a rounded and deep median antebasal fovea distinctly separated from the lateral antebasal foveae, and by the aedeagus with each paramere bearing one seta on its lateral margin and never at the apex. Jeannel (1963: 368) noted that within this phyletic series *Pseudachillia* is allied to *Leptachillia* because they also share the maxillary palpi with the last palpomere ovoidal and possessing a very long distal seta, but *Pseudachillia* can be distinguished from *Leptachillia* by the pronotum and elytra possessing basal foveae and striae. We have examined the holotype of *Pseudachillia bicolor* and compared it with many species of various species group of *Achilia* and found that the above-mentioned characters, in particular the morphology of the maxillary palpi and of the aedeagus, fall within the variation observed in the genus *Achilia*. So, we place *Pseudachillia* Jeannel, 1963 as a junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.), and consequently its two constitutive members (*Pseudachillia bicolor* Jeannel, 1963 and *P. dolichocephala* Jeannel, 1964) become *Achilia bicolor* (Jeannel, 1963) **comb**. **nov**. and *Achilia dolichocephala* (Jeannel, 1964) **comb**. **nov**. In the seventh part of this series (Kurbatov *et al.,* 2021: 155-156), we mentioned that *Achilia andina* Franz, 1996 and *A. maiopensis* Franz, 1996 strongly resemble members of *Pseudachillia*; the fate of these two species of Franz will be discussed in the "Comments" paragraph of *A. dolichocephala*.
Among the materials examined, two additional species were found to be very similar to *A. bicolor* and *A. dolichocephala* with respect to the secondary sexual dimorphism of the head and of the pedicel of antennae, and to the morphology of the aedeagus; these appear to be two new species: *Achilia mifsudi* sp. nov. and *Achilia caprae* n. sp. These four taxa will be dealt with below.
These four taxa all possess the following common features: decumbent pubescence consisting of long yellowish setae over entire body, denser on anterior part of head (except in *A. dolichocephala*), combined with shorter sub-erect setae, especially on antennomeres and palpomeres; head modified in male, wider than long, with two small vertexal foveae at level of about middle of eyes and separated from them; eyes about as long as temples (distinctly longer than temples in *A. dolichocephala*), the latter short and weakly convex; pronotum wider than long, wider than head, with disc weakly convex and possessing some punctures; median antebasal fovea slightly smaller than lateral foveae; maximal pronotal width anterior to its mid-length (at mid-length in *A. dolichocephala*); anterior portion of lateral pronotal margins distinctly

convergent and sinuate anteriorly; posterior portion of lateral pronotal margins slightly convergent; basal pronotal margin bordered with contiguous row of shallow impressions; elytra together wider than long, with protruding humeri; elytral disc with punctures; elytra with four basal foveae, except in some specimens with only three basal foveae due to coalescence of two outerfoveae; elytral sutural stria entire; elytral discal stria extending to about elytral mid-length; abdomen smooth, with some minute punctures; abdominal tergite 1 (IV) slightly longer than tergite 2 (V) (about twice as long as tergite 2 in *A. dolichocephala*), with short and sparse setal brush between slightly divergent basal striae, these striae extending to about one-third of paratergal length and separated at base by about one-third of tergal width. In order to keep the text more concise, these features are not repeated in the following descriptions.

Achilia bicolor (Jeannel, 1963) comb. nov.

Figs 53, 59, 67, 71, 156-161, 202

Pseudachillia bicolor Jeannel, 1963: 353, 367, figs 16 (head and antenna), 17 (head lateral view), 18 (aedeagus); Jeannel, 1964: 11; Newton & Chandler, 1989: 43; Asenjo *et al*., 2019: 63.

Type material (1 ex.): Región Araucanía: Malleco prov.: MNHN; 1 ♂ (holotype of *Pseudachillia bicolor* here fixed); labels verbatim: "Holotypus (red label) / Nahuelbuta; F. Castri 1961 / *Pseudachillia*; *bicolor* (handwritten by Jeannel); *Pseudachillia*; *bicolor* Jeannel = *Achilia bicolor* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *bicolor* (Jeannel) ♂; Sabella, Cuccodoro & Kurbatov 2023 det."

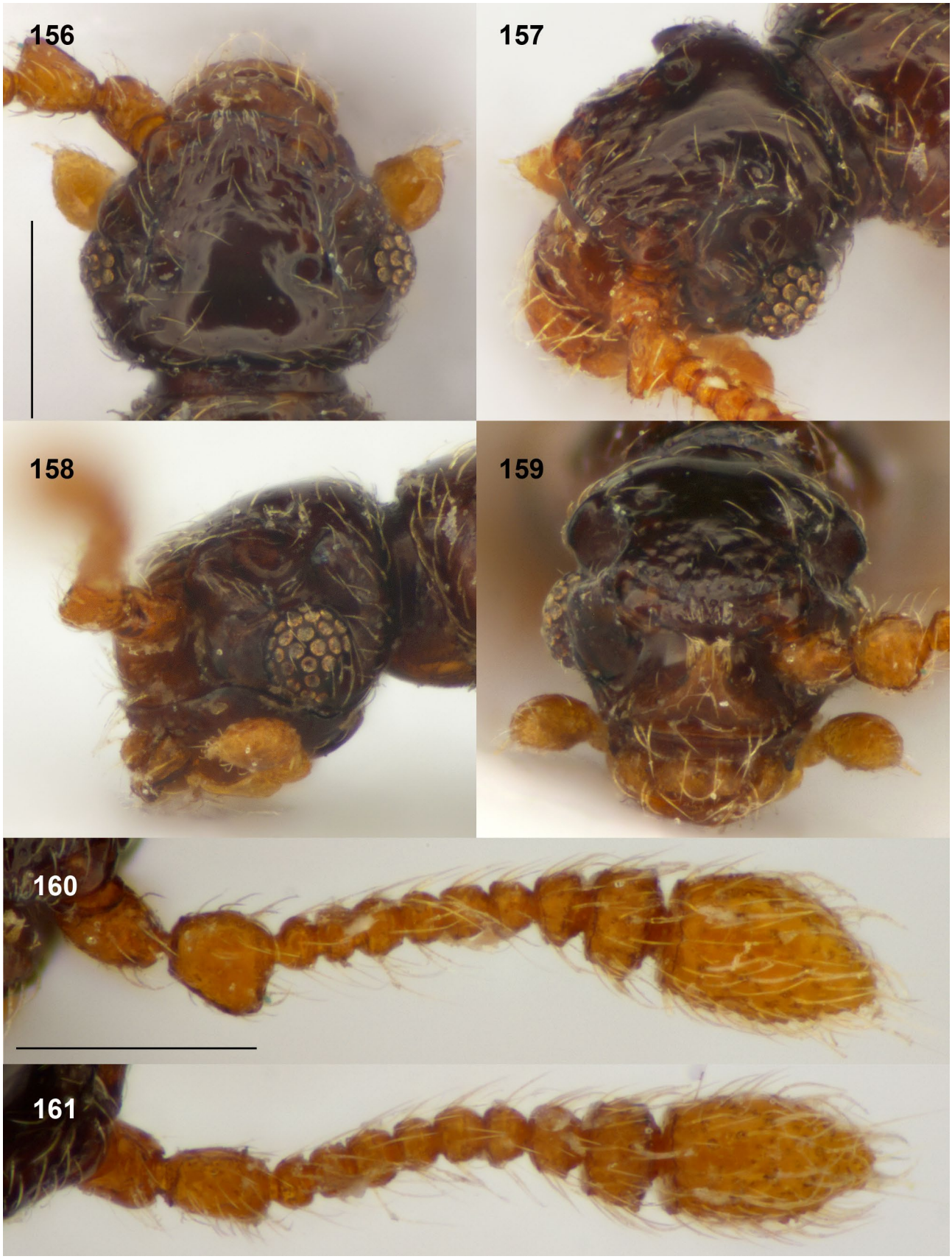
Additional material (8 ex.): Región Araucanía: Malleco prov.: MHNG; 1 ♂; Nahuelbuta National Park, station 30b; 37° 50'S 73° 00'W; 1100 m; 23.XII.1992; D. Burckhardt; sifting of moss on stone, dead wood and of vegetational debris in *Araucaria-Nothofagus dombeyi* forest along creak with river. – MHNG; 1 ♂; Nahuelbuta National Park, Piedra del Aquila, station 10a; 1450 m; 15.XII.1990; M. Agosti & D. Burckhardt. – FMNH (FMHD #2002-047); 1 ♂; Nahuelbuta National Park, road to Piedra del Águila; 37° 49.29'S 73° 01.90'W; 1360 m; 06.XII.2002; A. Newton & M. Thayer 1055; *Nothofagus dombeyi* & *pumilio*, large *Araucaria*, bamboo + shrub understory, berlese, leaf & log litter. – FMNH (FMHD #2002-041); 1 ♂; Nahuelbuta National Park, E of Guarderia Pichinahuel; 37° 48.20'S 73° 01.41'W; 1290 m; 05-24.XII.2002; A. Newton, M. Thayer, A. Solodovnikov; D. J. Clarke & M. Chani 1054; *Araucaria-Nothofagus dombeyi* with *Chusquea* bamboo, flight intercept trap. – FMNH (FMHD #85-898, #85-13); 2 ♂ and 1 ♀; Nahuelbuta National Park, 45 km W Angol; 1500 m; 09.XII.1984; S. & J. Peck; *Nothofagus* forest litter, berlese. – FMNH (FMHD #96-221); 1 ♂; Nahuelbuta National Park, Comallín, 8.2 km NW Los Portones entrance area; 37° 48.21'S 73° 00.89'W; 1260 m; 21.XII.1996; A. Newton & M. Thayer 974; *Nothofagus* spp. - *Araucaria araucana* forest, berlese, leaf & log litter.

Description: Body 1.35-1.4 mm long, blackish, with reddish elytra, antennae, legs and maxillary palpi.
Male: Head as in Figs 156-159 dorsally with medial portion convex; lateral portions excavated dorsal to eyes, with dorsal outer edges ending posteriorly as more or less developed tooth; anterior portion with big and sparse punctures; anterior clypeal margin bearing medial triangular lamina with apical pair of tufts of setae. Antennae (Figs 67, 160-161) with scape longer than wide; pedicel about as long as wide, wider that other antennomeres including scape, with ventral surface slightly concave and mesal margin enlarged especially in distal half; antennomeres III-VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X much wider than long, wider than IX; antennomere XI longer than wide, about as long as VII-X combined, bearing some tubercles. Mesotrochanters (Fig. 71) with distal portion of posterior margin enlarged, forming rounded process; mesotibiae (Fig. 59) with mesal margin notched and prolonged apically as spine. Metaventrite with posterior half convex at middle, anteriorly with medial carina; anterior half with rhomboid-shaped medial depression with strongly raised edges. Abdominal sternite 1 (IV) shallowly concave at middle. Aedeagus (Fig. 53) 0.35-0.36 mm long; dorsal plate elongate, its apical portion bilobed with lateral margins serrate; dorsal longitudinal struts subparallel; copulatory pieces consisting of two long medial sclerites pointed apically. Parameres long with apex ending as two spines, bearing long and thin seta at distal third of lateral margin.
Female: Similar to male except head, antennae, mesotrochanters, mesotibiae, metaventrite and abdominal sternite 1 (IV) unmodified.

Collecting data: Collected from December to April, in *Nothofagus dombeyi*, *Araucaria araucana*, mixed forests, also with bamboo; at elevations ranging from 650 m up 1500 m. Most specimens came from sifted samples of leaf and log litter, moss, dead trunks, plant debris, and one male was collected with a flight intercept (window) trap.

Distribution: The species is known only from the National Park of Nahuelbuta in Malleco province (Region Araucanía), from which it is mentioned also by Jeannel (1964: 11) based on two female specimens collected at 650 m by F. Castri in IV-1968 (Fig. 202 triangles edged in red).

Comments: *Achilia bicolor* is very similar to *A. mifsudi* sp. nov. and *A. caprae* sp. nov., with the three species being mainly distinguished by male sexual characters (see "Comments" paragraph of these two latter species).

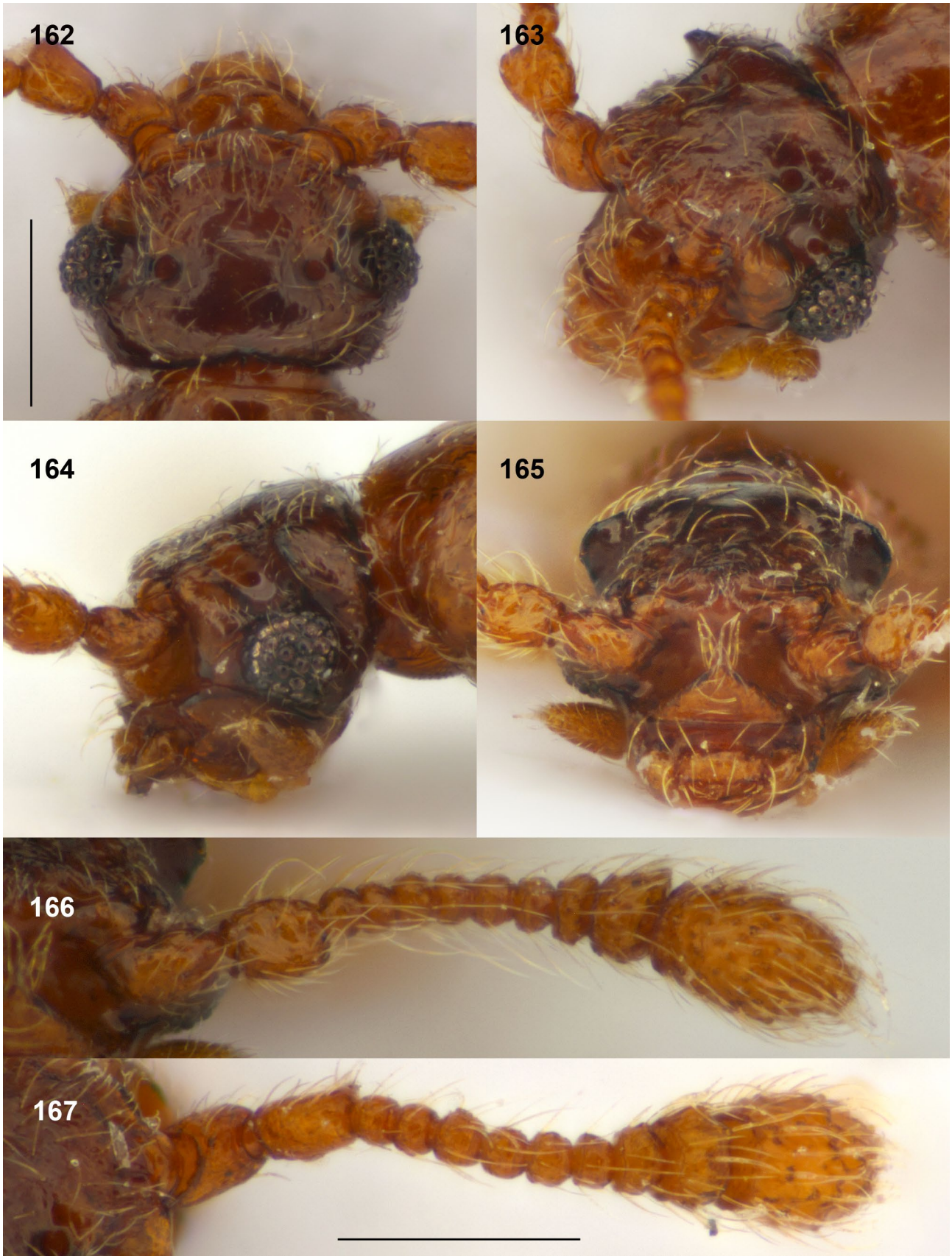


Figs 156-161. *Achilia bicolor*. Head (156-159) in (156) dorsal, (157) fronto-semilateral, (158) lateral and (159) frontal views. (160-161) Antenna in (160) frontal and (161) dorsal views. Scale bars (200 μm), vertical for (156-159) and horizontal for (160-161).

***Achilia mifsudi* sp. nov.**
Figs 54, 60, 68, 162-167, 202

Holotype: SOUTHERN CHILE: Región Araucanía: Malleco prov.: MHNG (# MHNG-ENTO- 0261251); 1 ♂; E from Malalcahuello; 38° 26.3'S 71° 29.7'W; 1400 m; 12.II.2018; forest litter near dead log; S. Kurbatov.

Paratypes (**180 ex**.): CENTRAL ARGENTINA: Neuquén prov.: MNHN; 3 ♂ (identified as female of *Achilia crassicornis*); San Martin de los Andes; 15.IV.1959; C. Delamare. – SOUTHERN AND CENTRAL CHILE: Región Los Lagos: Osorno prov.: FMNH (FMHD# 97-5); 2 ♂; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30.I.1997; A. Newton & M. Thayer 985-3; valdivian rainforest w/large, *Saxegothea,* flight intercept trap. – Región Araucanía: Cautín prov.: MHNG (# MHNG-ENTO-0261252–0261260); 5 ♂ and 4 ♀; Conguillío National Park, station 12a; 950 m; 19-21. XII.1990; M. Agosti & D. Burckhardt; forest litter. – MHNG (# MHNG-ENTO-0261261–0261262); 1 ♂ and 1 ♀; Conguillío National Park, Playa Linda, station 13a; 1150 m; 19-20.XII.1990; M. Agosti & D. Burckhardt; forest litter. – FMNH (FMHD #96-226); 1 ♂; Conguillío National Park, 11.1 km SE Laguna Captrén guard sta.; 38° 40.05'S 71° 37.21'W; 1080 m; 23.XII.1996/05.II.1997; A. Newton & M. Thayer 976; *Nothofagus obliqua* & *alpina*, dense *Chusquea* understory, flight intercept trap. – FMNH (FMHD #96-229); 4 ♂; Conguillío National Park, 1.5 km E Laguna Captrén guard sta.; 38° 38.67'S 71° 41.37'W; 1365 m; 23.XII.1996/05.II.1997; A. Newton & M. Thayer 977; *Nothofagus dombeyi* & decidous spp., *Araucaria araucana* with *Chusquea* understory, flight intercept trap. – FMNH (FMHD #96-241); 2 ♂; Villarica National Park, Volcán Villarica, road to sky center; 39° 23.27'S 71° 57.82'W; 1390 m; 27.XII.1996/03.II.1997; A. Newton & M. Thayer 981; *Nothofagus pumilio* forest, flight intercept trap. – FMNH (FMHD #96-243); 1 ♂; same locality; 27.XII.1996; A. Newton & M. Thayer 981; *Nothofagus pumilio* forest, berlese, leaf & log litter. – FMNH; 1 ♂ and 6 ♀; Volcán Villarrica, site 653; 1250 m; 15-29.XII.1982; A. Newton & M. Thayer; *Nothofagus dombey* & *N. pumilio* forest with *Chusquea*, berlese, leaf & log litter, forest floor. – MHNG (# MHNG-ENTO-0261263); 1 ♂; Huerquehue National Park, Lago Cicho, station 18a; 1250-1350 m; 23.XII.1990; M. Agosti & D. Burckhardt; forest litter. – MHNG (# MHNG-ENTO-0261264); 1 ♂; Caburgua Lake; 04.XII.1977; T. Cekalovic. – MHNG (# MHNG-ENTO-0261265); 1 ♀; same locality; 01.XII.1978; T. Cekalovic. – FMNH (FMHD #85-905, #85-19); 6 ♂; Caracautín (40 km E); 1500 m; 12.XII.1984/16.II.1985; S. & J. Peck; *Nothofagus-Araucaria* forest, malaise trap. – MHNG (# MHNG-ENTO-0261266); 1 ♂; same data. – Malleco prov.: MHNS; 4 ♂ (identified as *Pseudachillia bicolor*) Termas de Tolhuaca; 12.II.1998, sobre coigne; M. Guerrero. – FMNH (FMHD #96-236); 2 ♂ and 4 ♀; Malalcahuello, 11.1 km E on road to Lonquimay; 38° 26.32'S 71° 30.11'W; 1350 m; 24.XII.1996; A. Newton & M. Thayer 957; *Nothofagus dombesyi-Araucaria araucana* forest selectively logged, leaf & log litter. – FMNH; 4 ♀; 12 km E Malalcahuello, site 650; 1350 m; 13-31.XII.1982; A. Newton & M. Thayer; *Nothofagus dombey-Araucaria* forest, berlese, leaf & log litter, forest floor. – FMNH; 1 ♀; same data, but flight intercept (windows) trap. – FMNH; 2 ♂ and 12 ♀; 6.5 km E Malalcahuello, site 651; 1080 m; 13-31. XII.1982; A. Newton & M. Thayer; *Nothofagus dombey* forest with *Chusquea*, berlese, leaf & log litter, forest floor. – UHNC; 1 ♂ and 1 ♀; same data. – UNHC; 3 ♂; same locality; A. Newton & M. Thayer; flight intercept (windows) trap. – FMNH; 2 ♂; same data. – MHNG (# MHNG-ENTO-0261267–0261284); 8 ♂ and 10 ♀; E from Malalcahuello, 38° 26.3'S 71° 29.7'W; 1400 m; 12.II.2018; forest litter near dead log; S. Kurbatov. – MHNG (# MHNG-ENTO-0261285–0261292); 2 ♂ and 6 ♀; same data, but litter near stream. – MHNG (# MHNG-ENTO-0261293–0261294); 1 ♂ and 1 ♀; E from Malalcahuello, 38° 26.2'S 71° 29.3'W; 1500 m; 13.II.2018; forest litter near stream; S. Kurbatov. – MHNG (# MHNG-ENTO-0261295); 1 ♀; E from Malalcahuello; 800 m; 10.II.2018; forest litter; S. Kurbatov. – MHNG (# MHNG-ENTO-0261296); 1 ♂; Old road Malalcahuello-Lonquimay, El Colorado; 38°25' 56''S 71°30' 47''W; 1200 m; 11.II.2018; G. Sabella & D. Mifsud. – MHNG (# MHNG-ENTO-0261297–0261315); 5 ♂ and 14 ♀; Old road Malalcahuello-Lonquimay; 38°26' 20''S 71°13' 46''W; 1400 m; 12.II.2018; G. Sabella & D. Mifsud. – MHNG (# MHNG-ENTO-0261316–0261319); 1 ♂ and 3 ♀; Old road Malalcahuello-Lonquimay; 38°26' 10''S 71° 23' 40''W; 1500 m; 13.II.2018; G. Sabella & D. Mifsud. – MHNG; 3 ♂; Purén, Contulmo Natural Monument; 350 m; 11.XII.1984-13.II.1985; S. & J. Peck; mixed forest litter. – Región Bío Bío: Ñuble prov.: FMNH; 3 ♂; 22.7 km ESE Recinto, site 646; 1330 m; 10.XII.1982/03.I.1983; A. Newton & M. Thayer; *Nothofagus* forest, windows trap. – UNHC; 2 ♂; same data. – 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, flight intercept (windows) trap. – UHNC; 1 ♂; same data; A. Newton & M. Thayer. – MHNG (# MHNG-ENTO-0261320–0261323); 4 ♀; 2 km ENE Las Trancas; 35°54' 50''S 71°27' 34''W; 1300 m; 18.II.2018; G. Sabella & D. Mifsud. – MHNG (# MHNG-ENTO-0261324); 1 ♀; 10 Km ENE Las Trancas; 35°54' 26''S 71°24' 39''W; 1600 m; 19.II.2018; G. Sabella & D. Mifsud. – MHNG (# MHNG-ENTO-0261325–026138); 3 ♂ and 11 ♀; Las Trancas, 36°54.8 S 71°27.7 W; 1300 m; 18.II.2018, forest litter; S. Kurbatov. – MHNG (# MHNG-



Figs 162-167. *Achilia mifsudi* sp. nov. Head (162-165) in (162) dorsal, (163) fronto-semilateral, (164) lateral and (165) frontal views. (166-167) Antenna in (166) frontal and (167) dorsal views. Scale bars (200 µm), vertical for (162-165) and horizontal for (166-167).

ENTO-0261339–0261350); 2 ♂ and 10 ♀; 10 km NE Las Trancas, 36°54.4 S 71°24.7 W; 1700 m; 19.II.2018, forest litter near stream; S. Kurbatov. – MHNG (# MHNG-ENTO-0261351); 1 ♂; 10 km W Termas de Chillán, station 5a; 1250 m; 12-13.XII.1990; M. Agosti & D. Burckhardt; *Nothofagus* forest litter. – Concepción prov.: MNSG; 4 ♂ and 3 ♀; Hualpén Park; TC-36; 10.XII.1971; T. Cekalovic. – Región Maule: Talca prov.: FMNH (FMHD #96-208); 1 ♂; Area de Protección Vilches, Piedras Tacitas area; 35° 36.53'S 71° 04.10'W; 1185 m; 17.XII.1996; A. Newton & M. Thayer 1011; *Nothofagus* spp., with shrubs along stream, berlese, leaf & log litter.

Description: Body 1.3-1.4 mm long, blackish with reddish elytra, antennae, legs and palpi; some specimens paler or entirely light reddish.
Male: Head as in Figs 162-165, similar to that of *A. bicolor*. Antennae (Figs 68, 166-167) similar to those of *A. bicolor*, but medial margin of pedicel less enlarged in distal half. Mesotibiae (Fig. 60) with mesal margin notched and prolonged apically as spine. Metaventrite and first abdominal sternite as in *A. bicolor*. Aedeagus (Fig. 54) 0.35-0.36 mm long; dorsal plate with base rounded and narrowed apical portion bilobed, with lateral margins bearing 3-4 big teeth; dorsal longitudinal struts subparallel, very short; copulatory pieces consisting of pair of apically pointed medial sclerites and a pair of shorter sclerites apically curved laterally. Parameres stout with apex ending with four spines, bearing short seta at distal third of lateral margin.
Female: Similar to male except head, antennae, mesotibiae, metaventrite, and first abdominal sternite unmodified.

Collecting data: Collected from December to April, in *Nothofagus dombeyi, N. pumilio*, *Araucaria araucana*, and Valdivian forests some with bamboo, where it was found at elevations ranging from 460 m to 1700 m. Most specimens came from sifted samples of leaf and log litter, moss, dead trunks, and plant debris, but a good number of specimens were collected by flight intercept (window) traps and some also by malaise traps.

Distribution: The species is present in Southern and Central Chile from Los Lagos (Osorno province) to Maule (Talca province) Regions, and is also found in Central Argentina in San Martin de los Andes (Neuquén province) (Fig. 202 red circles).

Comments: *Achilia mifsudi* sp. nov. resembles most *A. bicolor* specimens. The males of these two species differ in the morphology of the antennae (cf. Figs 67, 160-161 and 68, 166-167) and of the aedeagus (cf. Figs 53 and 54), in particular by the parameres ending with four spines for *A. mifsudi* sp. nov. instead of two for *A. bicolor. Achilia mifsudi* sp. nov. and *A. bicolor* are also very similar to *A. caprae* sp. nov. (see "Comments" paragraph of this last species), and the females of these three species are very similar and difficult to separate.

Achilia caprae sp. nov.

Figs 55, 61, 69, 72-73, 168-173, 202

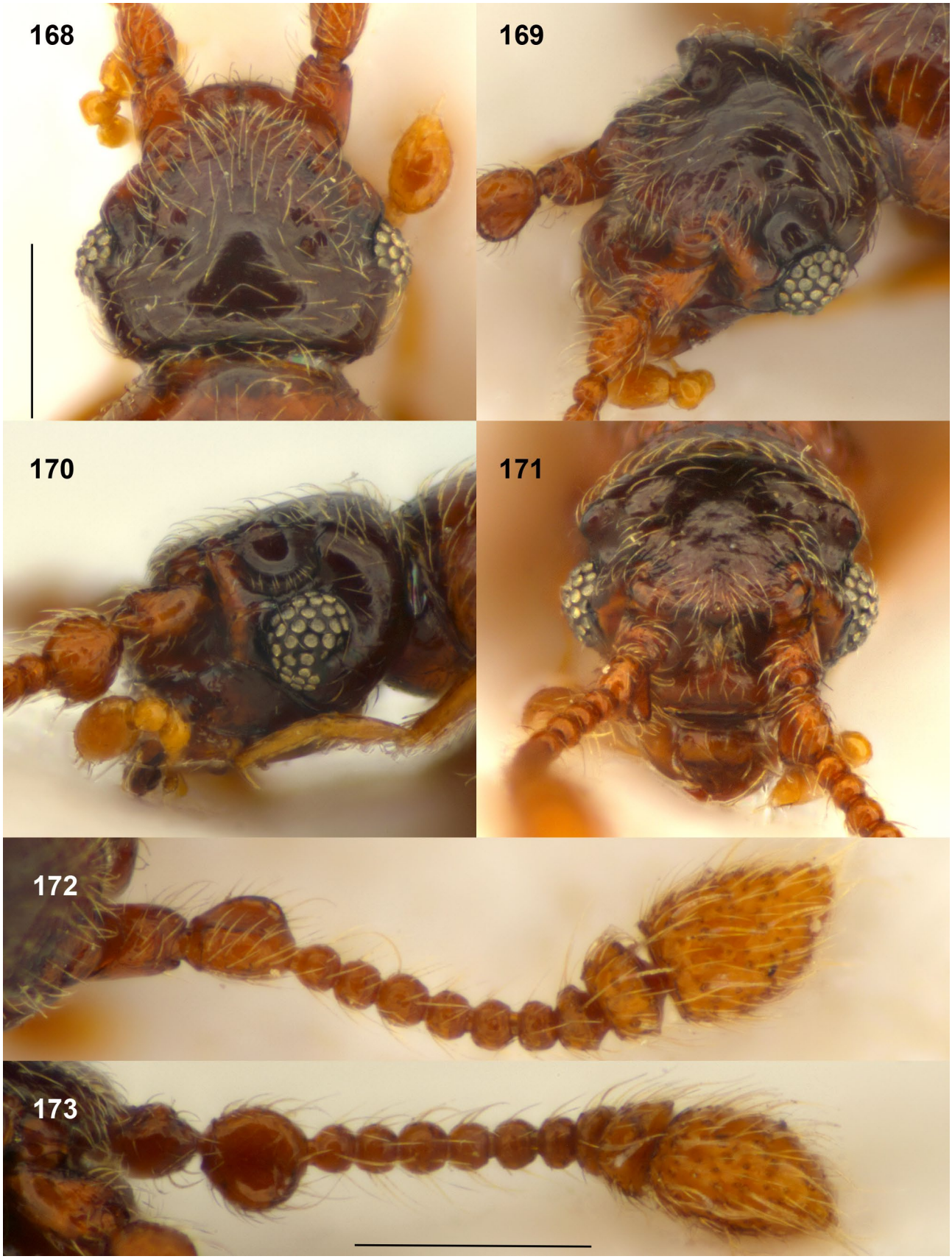
Holotype: SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: MHNG (# MHNG-ENTO-0261352); 1 ♂; Isla Chiloé, Vilupulli; TC-563; 23.I.1998; T. Cekalovic.

Paratypes (51 ex.): SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: MSNG; 5 ♂ and 6 ♀; Isla Chiloé, Vilupulli; TC-563; 23.I.1998; T. Cekalovic. – MHNG (# MHNG-ENTO-0261353–0261355); 1 ♂ and 2 ♀; same data. – MHNS; 1 ♂ and 1 ♀; same data. – MNSG; 1 ♂ and 3 ♀; Chiloé Island, Estero Llicaldad; TC-608; 19.I.2000; T. Cekalovic. – MHNG (# MHNG-ENTO-0261356–0261358); 1 ♂ and 3 ♀, same data. – Osorno prov.: MHNG (# MHNG-ENTO-0261359); 1 ♂; Puyehue National Park, Anticura Repucura trail; 500 m; 06.II.1985; S. & J. Peck; forest litter. – FMNH; 4 ♂ and 7 ♀; 7.7 km NE Termas de Puyehue, site 664; 200 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log litter, forest floor. – UNHC; 1 ♂ and 6 ♀; same data. – Región Los Ríos: Valdivia prov.: FMNH; 2 ♂ and 5 ♀; 4.1 km W Anticura, site 663; 270 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flight intercept (windows) trap. – UNHC; 1 ♂; same data.

Description: Body 1.4-1.5 mm long, dark brown with reddish elytra, antennae, legs, and maxillary palpi; some specimens paler, others light reddish, either unicolourous or with blackish head.
Male: Head as in Figs 168-171, similar to that of *A. bicolor*. Antennae (Figs 69, 172-173) similar to those of *A. bicolor*, but pedicel with pubescent medial margin rounded and more concave ventrally. Protarsi (Fig. 73) with segments slightly swollen and pubescent; mesotrochanters (Fig. 72) with posterior margin enlarged distally; mesotibiae (Fig. 61) with mesal margin prolonged apically as large long spine. Metaventrite and abdominal sternite 1 (IV) as in *A. bicolor*. Aedeagus (Fig. 55) 0.33-0.34 mm long; dorsal plate basally narrowed, enlarged apical portion bilobed; dorsal longitudinal struts subparallel, very short; copulatory pieces consisting of pair of 3 apically pointed sclerites. Parameres relatively long and ending with 3 spines, bearing short seta at distal quarter.
Female: Similar to male except head, antennae, mesotrochanters, mesotibiae, protarsi, metaventrite, and abdominal sternite 1 (IV) unmodified.

Collecting data: Collected from December to February in forests at elevations ranging from 200 m up to 500 m. Most specimens came from sifted samples of leaf and log litter, some specimens were collected with flight intercept (window) traps.

Distribution: The species is present in Southern Chile from Los Lagos to Los Ríos Regions (Fig. 202 blue cross).



Figs 168-173. *Achilia caprae* sp. nov. Head (168-171) in (168) dorsal, (169) fronto-semilateral, (170) lateral and (171) frontal views. (172-173) Antenna in (172) dorsal and (173) frontal views. Scale bars (200 µm), vertical for (168-171) and horizontal for (172-173).

Comments: *Achilia caprae* sp. nov. is very similar to *A. bicolor*. The males of these two species differ in the morphology of the antennae (cf. Figs 67, 160-161 and 69, 172-173), mesotibiae (cf. Fig. 59 and 61), and of the aedeagus (cf. Figs 53 and 55), in particular by the parameres ending with three spines for *A. caprae* instead of two for *A. bicolor. Achilia caprae* sp. nov. also strongly resembles *A. mifsudi* sp. nov., whose males possess parameres ending with four spines (see "Comments" paragraph for that species). The females of these three species are very similar and difficult to separate.

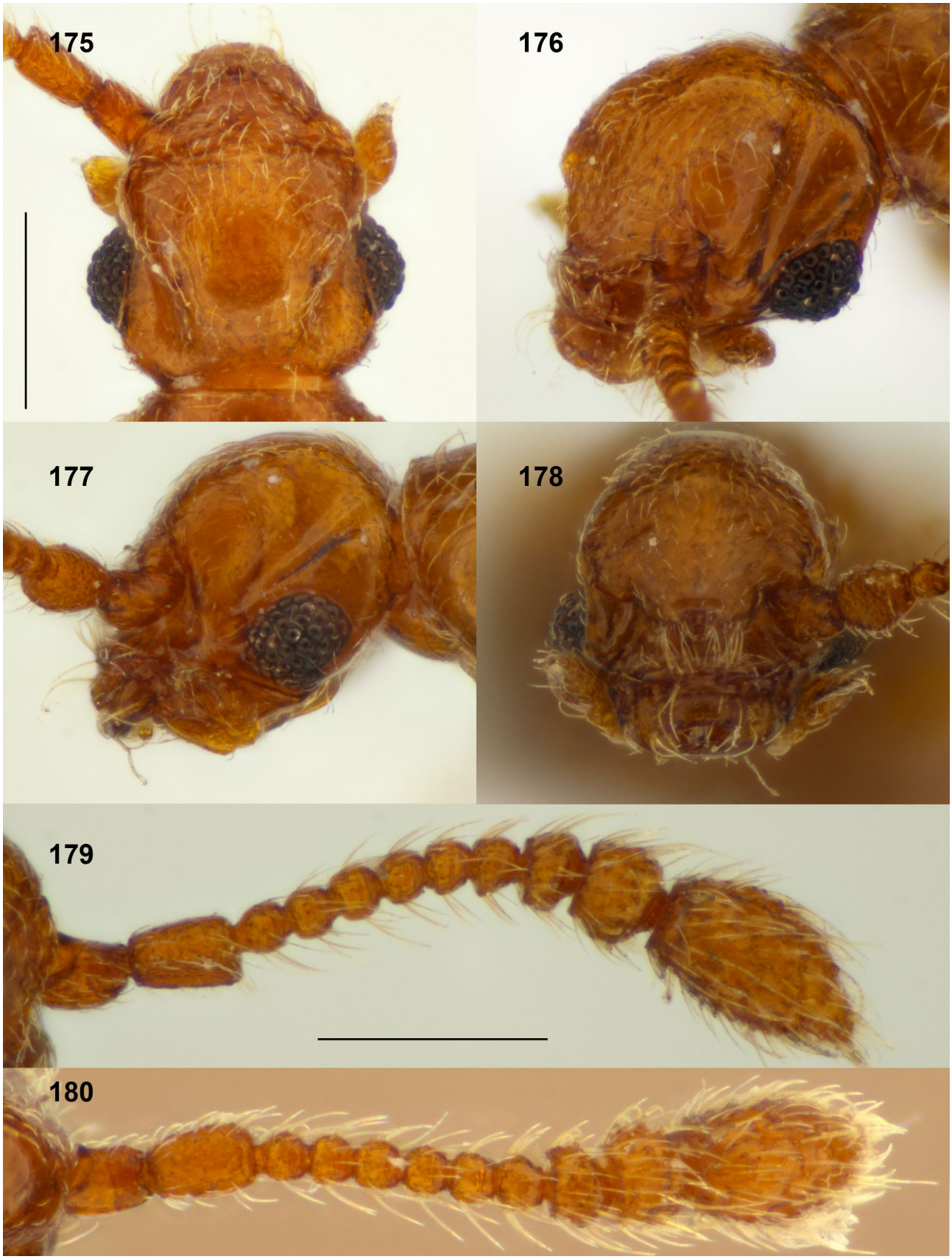
Achilia dolichocephala (Jeannel, 1964) comb. nov.

Figs 56-58, 62-63, 66, 70, 174-180, 202

Pseudachillia dolichocephala Jeannel, 1964: 11, figs 4 (head and male antenna) and 5 (aedeagus).
Achilia andina Franz, 1996: 119 fig. 70 (aedeagus); Kurbatov, Cuccodoro & Sabella, 2021: 155 (**syn**. **nov**.).
Achilia maipoensis Franz, 1996: 119, fig. 71 (aedeagus); Kurbatov, Cuccodoro & Sabella, 2021: 155 (**syn**. **nov**.).
Pseudachillidia andina Franz, 1996: 112, fig. 57 (aedeagus); Asenjo *et al*., 2019: 63 (**syn**. **nov**.; new junior secondary homonym of *Achilia andina* Franz, 1996).
Parachillia longicornis Franz, 1996: 112, fig. 58 (aedeagus); Asenjo *et al*., 2019: 63 (**syn**. **nov**.).

Type material (**13 ex**.)**:** CENTRAL CHILE: Región Metropolitana de Santiago: Santiago prov.: MNHN; 1 ♂ (lectotype of *Pseudachillia dolichocephala* here designated); labels verbatim: "Lectotype (red label) / La Parva / 250 / *Pseudachillia*; *dolichocephala* (handwritten by Jeannel) / *Pseudachillia*; *dolichocephala* Jeannel = *Achilia dolichocephala* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *dolichocephala* (Jeannel) ♂; Sabella, Cuccodoro & Kurbatov 2023 det." – MNHN; 1 ♂ and 3 ♀ (paralectotypes of *Pseudachillia dolichocephala* here designated); labels verbatim: "Paralectotype (red label) / La Parva / *Achilia*; *dolichocephala* Jeannel; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♂ (holotype of *Achilia andina*); labels verbatim: "Holotypus (red label) / Mina de La Dispu-; tada 3000-3400 / Anden b. Santiago; Chile, *lg.* Franz / *Achillia*; *andina* m. (handwritten by Franz); det. H. Franz / HOLOTYPE; *Achilia*; *andina*; Franz 1996 (red label) / *Achilia*; *andina* Franz = *Achilia dolichocephala* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *dolichocephala* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♂ and 1 ♀ (Paratypes of *Achilia andina*); labels verbatim: "Mina de La Dispu-; tada 3000-3400 / Anden b. Santiago; Chile, *lg.* Franz / *Achillia*; *andina* m. (handwritten by Franz) PARATYPUS / *Achilia*; *dolichocephala* Jeannel; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♂ (holotype of *Achilia maiopensis*); labels verbatim: "Holotypus (red label) / Cajon de Maipó / Anden b. Santiago; Chile, *lg.* Franz / *Achillia*; *maiopensis* m. (handwritten by Franz); det. H. Franz / HOLOTYPE; *Achilia*; *maiopensis*; Franz 1996 (red label) / *Achilia*; *maiopensis* Franz = *Achilia dolichocephala* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *dolichocephala* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♂ and 1 ♀ (Paratypes of *Achilia maiopensis*); labels verbatim: "Cajon de Maipó / Anden b. Santiago; Chile, *lg.* Franz / *Achillia*; *maiopensis* m. (handwritten by Franz) PARATYPUS / *Achilia*; *dolichocephala* Jeannel; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♀ (Holotype of *Pseudachillidia andina*); labels verbatim: "♂ / Holotypus (red label) / Mina de La Dispu-; tada 3000-3400 / Anden b. Santiago; Chile, *lg.* Franz / *Pseudachillidia*; *andina* m. (handwritten by Franz) / *Pseudachillidia*; *andina* Franz = *Achilia dolichocephala* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *dolichocephala* Jeannel ♀; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♂ (Holotype of *Parachillia longicornis*); labels verbatim: "♂ / Holotypus (red label) / Mina de La Dispu-; tada 3000-3400 / Anden b. Santiago; Chile, *lg.* Franz / *Pseudachillia*; *longicornis* m. (handwritten by Franz) / *Parachillia; longicornis* Franz = *Achilia dolichocephala* (Jeannel); Sabella, Cuccodoro & Kurbatov 2023 det. /

Fig. 174. *Achilia dolichocephala*, holotype. Habitus. Scale bar = 500 μm.



Figs 175-180. *Achilia dolichocephala*, holotype. Head (175-178) in (175) dorsal, (176) fronto-semilateral, (177) lateral and (178) frontal views. (179-180) Antenna in (179) dorsal and (180) posterior views. Scale bars (200 µm), vertical for (175-178) and horizontal for (179-180).

Achilia; *dolichocephala* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material (**11 ex**.)**:** CENTRAL CHILE: Región Metropolitana de Santiago: Santiago prov.: NHMW; 4 ♂ and 3 ♀ (identified as *Achilia andina*); Mina de La Disputada, Anden b. Santiago; 3000-3400 m; H. Franz. – MHNG; 1 ♂ and 1 ♀, same data. – NHMW; 2 ♀; Cajon de Maipó, Anden b. Santiago; H. Franz.

Description: Habitus as in Fig. 174. Body 1.45-1.6 mm long, dark brown with reddish elytra, antennae, and legs; some specimens uniformly light reddish.
Male: Head as in Figs 175-178, dorsally with medial portion convex, bearing sparse big punctures; lateral portions excavated above eyes, with dorsal outer margins ending posteriorly as more or less developed tooth to each side. Antennae (Figs 66, 179-180) with scape longer than wide; pedicel longer than wide, about as long as scape, mesal margin enlarged with surface strongly cribrose; antennomeres III-VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X much wider than long, wider than IX; antennomere XI longer than wide, about as long as VII-X combined, bearing some tubercles. Mesotrochanters (Fig. 70) bearing series of short setae on posterior margin; mesotibiae (Fig. 62) with mesal margin enlarged on apical half and bearing tuft of long setae; metatibiae (Fig. 63) subapically enlarged and densely pubescent. Metaventrite with posterior two-thirds raised at middle, middle area shallowly concave. Aedeagus (Figs 56-58) 0.32-0.33 mm long; dorsal plate subrectangular; dorsal longitudinal struts divergent, long; copulatory pieces consisting of pair of long and large apically narrowed medial sclerites with apices mesally curved, each of these sclerites combined with distally bifid sclerite ending with 3-4 spines on each diverging branch. Parameres relatively stout, apical portion recurved anteriorly bearing large medial seta; outer lobe bearing seta at apical third.
Female: Similar to male except head, antennae, mesotrochanters, mesotibiae, metatibiae, and metaventrite unmodified.

Collecting data: Ecological information on this species can be obtained from Jeannel (1964) and Franz (1996). The typical series was collected by Castri, at an altitude of 2900 m, under stones near a stream in October 1962. Franz collected this species in the Andes at elevations between 2500 and 3400-3500 m in November of different years by sifting under dwarf shrubs near streams.

Distribution: The species is known from only high-elevation sites in the Región Metropolitana de Santiago (Fig. 202 red X).

Comments: Jeannel (1964: 11) described *Pseudachillia dolichocephala* from five specimens (2 males and 3 females) collected at La Parva. In the MNHN collection we located five specimens (2 males and 3 females) from "La Parva" that were identified as *Pseudachillia dolichocephala* by Jeannel, but were lacking type labels. We consider that there is no reason to doubt that these specimens are those used by Jeannel to describe the species. Consequently, we here designate one male corresponding perfectly to Jeannel's original description of this taxon as the lectotype of *Pseudachillia dolichocephala* Jeannel, 1964, and the remaining 4 specimens as paralectotypes.
Franz (1996: 119) described *Achilia andina* based on a male holotype and 14 paratypes (without further indications) from "Mina de la Disputada". We located ten specimens (6 males and 4 females) in the NHMW collection identified as such by Franz which was labelled as from "Mina de la Disputada", but only 3 of them had type labels: the holotype (male) and two paratypes (male and female). All these specimens are conspecific with *Achilia dolichocephala* (Jeannel, 1964). We here consider *Achilia andina* Franz, 1996 to be a junior synonym of *Achilia dolichocephala* (Jeannel, 1964) (**syn**. **nov**.).
Franz (1996: 119) described *Achilia maiopensis* based on a male holotype and 4 paratypes (without further indications) from "Cajon de Maipó, environs of Embalse de Yeso, 2500 m, 17.11.1965". We located five specimens (2 males and 3 females) in the collections of the NHMW identified as such by Franz and labelled as from "Cajon de Maipó", but only 3 of them bear type labels: the holotype (male) and two paratypes (male and female). All of these specimens are conspecific with *Achilia dolichocephala* (Jeannel, 1964). We here consider *Achilia maiopensis* Franz, 1996 to be a junior synonym of *Achilia dolichocephala* (Jeannel, 1964) (**syn**. **nov**.).
For convenience, we will deal here with *Pseudachillidia andina* Franz, 1996 and *Parachillia longicornis* Franz, 1996, although these two taxa technically belong to the "Genera described by Franz in 1996" treated later in this paper.
We have located the holotype of *Pseudachillidia andina* in the collections of the NHMW. This specimen appears to be a female, in contradiction to the statement of Franz that it was a male, which we could unambiguously identify as a member of *Achilia dolichocephala* (Jeannel, 1964). We here consider *Pseudachillidia andina* Franz, 1996 to be a junior synonym of *Achilia dolichocephala* (Jeannel, 1964) (**syn**. **nov**.). As *Pseudachillidia andina* Franz, 1996 was the type species of the monotypic genus *Pseudachillidia* Franz, 1996, the latter genus becomes a new junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.). Note that following these new synonymies *Pseudachillidia andina* Franz (1996: 112) also becomes a junior homonym of *Achilia andina* Franz (1996: 119).
We have located also the holotype of *Parachillia longicornis* Franz, 1996, in the collection of the NHMW. This specimen, collected at Mina de la Disputada on 9.11.1968, appears to be a male of *Achilia dolichocephala* (Jeannel, 1964). We here consider

Parachillia longicornis Franz, 1996 to be a junior synonym of *Achilia dolichocephala* (Jeannel, 1964) (**syn**. **nov**.). As *Parachillia longicornis* Franz, 1996 was the type species of the genus *Parachillia* Franz, 1996, the latter genus becomes a new junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.). The fate of the two other members of *Parachillia* Franz, 1996 – *Parachillia similis* Franz, 1996 and *Parachillia parva* Franz, 1996 – will be discussed later in the paragraph dealing with that genus in the following section titled "Genera of Chilean Brachyglutini described by Franz".

The males of *Achilia dolichocephala* are easily distinguished from those of all the other species of *Achilia* by the peculiar morphology of their head (Figs 175-178); the shape of their antennae (Figs 67, 179-180) and of their aedeagus (Fig. 66) is also diagnostic. The females of *A. dolichocephala* are also easily recognizable by the morphology of their head possessing the frons distinctly prolonged anteriorly with the margins convergent to form a pointed apex.

Genera of Chilean Brachyglutini described by Franz

Here it is time to say a few words about Prof. Herbert Franz (1908-2002) and his 1996 paper entitled "Neue Beiträge zur Kenntnis der Pselaphidenfauna von Chile und Argentinien (Coleoptera: Pselaphidae)". When the paper was published he was 88 years old. We were able to examine his collection of Chilean pselaphines through the courtesy of Dr Harald Schillhammer, curator of the Naturhistorische Museum, Wien. This collection was quite puzzling, to say the least. Its structure was largely inconsistent with that of his paper. The number of specimens in type series and the label data of specimens often did not correspond to those given in the article. Several type series consisted of specimens pertaining to different species possessing conspicuously different secondary male sexual characters. Sometimes, type series of taxa of Brachyglutini included specimens pertaining to other higher taxa of pselaphines, such as Euplectitae. There were also opposing cases in which typical Brachyglutini were described and assigned by him to other supertribes of Pselaphinae. We faced situations where the pin of a "holotype" bearing the expected locality labels was affixed to a female and the aedeagal preparation was completely different from his drawing of the aedeagus in his paper. In many cases, the specimens were almost entirely destroyed; the same can be said of the aedeagal preparations, for the study of which it was almost always necessary to remount the preparation. We were also quite perplexed by the holotype labels bearing up to 14 pin holes.

Under these circumstances we had to make a serious effort to deal with the wide array of problems that consistently arose: taxonomic, nomenclatural, and others. We believe that we finally coped quite well with all these problems, as is hopefully reflected in the comments on the various taxa described by Franz (1996) that we had to deal with in both this, the 9th paper in this series, and in the previous parts of our revision of the Chilean Brachyglutini. Anyway, the section of the collection Franz devoted to this taxonomic group is now in an adequate state of organisation, and this is an achievement of which we are definitely quite proud.

In the section below we deal with the remaining taxa of Chilean Brachyglutini described by Franz (1996).

Atacamia Franz, 1966

Atacamia paludosa Franz, 1996: 111; Asenjo *et al*., 2019: 58.
Type species: *Atacamia paludosa* Franz, 1996

Atacamia paludosa Franz, 1966

Atacamia paludosa Franz, 1996: 111, fig. 56 (aedeagus); Asenjo *et al*., 2019: 58.

Type material (**3 ex**.)**:** NORTHERN CHILE: Región Coquimbo; Choapa prov.: NHMW; 1 ♂ (Holotype of *Atacamia paludosa*); labels verbatim: "Holotypus (red label) / Bosque de Canelo; nördlich Los Vilos Chile, *lg.* Franz / *Atacamia*; *paludosa* m. (handwritten by Franz) / *Atacamia; paludosa* Franz = *Achilia temporalis* Jeannel; Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *temporalis* Jeannel ♂; Sabella, Cuccodoro & Kurbatov 2023 det."; NHMW; 2 ♀ (Paratypes of *Atacamia paludosa*); labels verbatim: "Bosque de Canelo; nördlich Los Vilos Chile, *lg.* Franz / *Atacamia*; *paludosa* m. (handwritten by Franz); PARATYPUS / *Achilia*; *temporalis* Jeannel ♀; Sabella, Cuccodoro & Kurbatov 2023 det.".

Additional material (**1 ex**.)**:** NORTHERN CHILE: Región Coquimbo; Choapa prov.: NHMW; 1 ♂; Bosque de Canelo, nördlich Los Vilos; H. Franz.

Comments: The monospecific genus *Atacamia* was described by Franz (1996: 111) based on four specimens (holotype and 3 paratypes) of the type species *Atacamia paludosa* Franz, 1996. In the Franz collection we located three specimens (one male and two females) labeled by Franz as holotype (male) and paratypes (2 females) of *Atacamia paludosa*, together with a male collected at the same locality as the type material, but without paratype and identification labels. It appears that these four specimens are members of *Achilia temporalis* Jeannel, 1962, so we here place *Atacamia paludosa* Franz, 1996 as a junior synonym of *Achilia temporalis* Jeannel, 1962 (**syn**. **nov**.). Since *Atacamia paludosa* Franz, 1996 is the type species of this monospecific genus, *Atacamia* Franz, 1996 is here placed as a junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.).

Cautinia brevicornis Franz, 1996

Cautinia Franz, 1996: 108; Asenjo *et al*., 2019: 50.
Type species: *Cautinia brevicornis* Franz, 1996

Comments: We have demonstrated above (see "Comments" paragraph of *Achilia torticornis*) that the type species of this genus (*Cautinia brevicornis* Franz, 1996) is a junior synonym of *Achilia torticornis* (Jeannel, 1962), and that *Cautinia* Franz, 1996 is thus a junior synonym *Achilia* Reitter, 1890.

Mallecoa Franz, 1996

Mallecoa abnormis Franz, 1996: 110; Asenjo *et al*., 2019: 62.
Type species: *Mallecoa abnormis* Franz, 1996

Achilia abnormis (Franz, 1996) comb. nov.
Figs 64-65, 202

Mallecoa abnormis Franz, 1996: 111, figs 55a-55b (aedeagus), 55c (antenna); Asenjo *et al*., 2019: 62.

Type material (**2 ex**.)**:** SOUTHERN CHILE: Región Araucanía; Curacautín prov.: NHMW; 1 ♂ (Holotype of *Mallecoa abnormis*); labels verbatim: "♂/ Holotypus (red label) / Umg. Malalcahuello; S Chile, *lg.* Franz / *Mallecoa; abnormis* m. (handwritten by Franz) / *Mallecoa; abnormis* Franz = *Achilia abnormis* (Franz); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *abnormis* (Franz) ♂; Sabella, Cuccodoro & Kurbatov 2023 det."; NHMW; 1 ♂ (Paratype of *Mallecoa abnormis*); labels verbatim: "♂ / Paratypus / Umg. Malalcahuello; S Chile, *lg.* Franz / *Mallecoa; abnormis* m. (handwritten by Franz) / *Achilia*; *abnormis* (Franz) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Comments: The monospecific genus *Mallecoa* was described by Franz (1996: 110) based on three male specimens (the holotype and 2 paratypes) of the type species *Mallecoa abnormis* Franz, 1996.
In the Franz collection we located two specimens labeled by Franz as holotype and paratype of *Mallecoa abnormis*, of which very little remained apart from the aedeagi (Figs 64-65), which are quite damaged. Given the state of conservation of the two males examined, nothing particular can be said regarding the external morphology of this species. Nevertheless, from the examination of the two quite damaged aedeagi, we came to the conclusion that these specimens most likely represent an additional member of *Achilia*, possibly of the *A. puncticeps* group of species. Therefore, we consider that *Mallecoa abnormis* Franz, 1996 must be named *Achilia abnormis* (Franz, 1996) **comb**. **nov**. *Mallecoa abnormis* Franz, 1996 is the type species of this monospecific genus, with *Mallecoa* Franz, 1996 here placed as a junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.).

Distribution: The species is known only from Malalcahuello Araucanía Region (Curacautín province) (Fig. 202 squares edged in red).

Mehuinia Franz, 1996

Mehuinia Franz, 1996: 107; Asenjo *et al*., 2019: 50.
Type species: *Mehuinia inexpectata* Franz, 1996

Mehuinia inexpectata Franz, 1996

Mehuinia inexpectata Franz, 1996: 108, fig. 51 (aedeagus); Asenjo *et al*., 2019: 50.

Type material (**1 ex**.)**:** SOUTHERN CHILE: Región Los Ríos: Valdivia prov.: NHMW; 1 ♂ (Holotype of *Mehuinia inexpectata*); labels verbatim: "Holotype (red label) / Cordillera de la; Costa b. Mehuín; S Chile, *lg.* Franz / *Mehuinia; inexpectata* m. (handwritten by Franz) / *Mehuinia; inexpectata* Franz = *Achilia puncticeps* (Reitt.); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *puncticeps* (Reitt.) ♂; Sabella, Cuccodoro & Kurbatov 2023 det.".

Comments: In the Franz collection we located the holotype and only specimen of this taxon (mentioned by Franz in the original description as being from Cordillera de Mehuín, between San José and Mehuín, Cerro Mutro, about 600 m, Bosque Valdiviano, sifting litter, 31.X.1968, *leg.* Franz), which he described in the Euplectini. It appears that the holotype (male) of *Mehuinia inexpectata* Franz, 1996 is a member of the Brachyglutini, in particular of *Achilia puncticeps* (Reitter, 1883) (**syn**. **nov**.). Consequently, as *Mehuinia inexpectata* Franz, 1996 is the type species of this monospecific genus, *Mehuinia* Franz, 1996 is a junior synonym of *Achilia* Reitter, 1890 (**syn**. **nov**.).

Parachillia Franz, 1996

Parachillia Franz, 1996: 112; Asenjo *et al*, 2019: 63.
Type species: *Parachillia longicornis* Franz, 1996

The genus *Parachillia* was described by Franz (1996: 112) for 3 species from Chile: *P. longicornis* Franz, 1996, *P. similis* Franz, 1996 and *P. parva* Franz, 1996. We have already discussed above (see "Comments" paragraph of *Achilia dolichocephala*) that the type species of this genus (*Parachillia longicornis* Franz, 1996) is a junior synonym of *Achilia dolichocephala* (Jeannel, 1964) and, consequently, that *Parachillia* Franz, 1996 is a junior synonym of *Achilia* Reitter, 1890.
We have also examined the types of the other two species contained in this genus, and both turned out to be also junior synonyms (see below) of members of *Achilia*.

Parachillia longicornis Franz, 1996

Comments: We have already discussed (see "Comments" paragraph of *Achilia dolichocephala*) why *Parachillia longicornis* Franz, 1996 is a junior synonym of *Achilia dolichocephala* (Jeannel, 1964).

Parachillia similis Franz, 1996

Parachillia similis Franz, 1996: 113, fig. 59 (aedeagus).

Type material (**2 ex**.)**:** SOUTHERN CHILE: Región Bío Bío; Concepción prov.: NHMW; 1 ♂ (Holotype of *Parachillia similis*); labels verbatim: "♂ / Holotypus (red label) / Pinares; 10.10.91 / prov. Concepción; Chile *lg.* Cec. / *Pseudoachillia*; *similis* m. (handwritten by Franz) / *Parachillia; similis* Franz = *Achilia simulans* (Reitter); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *simulans* ♂; Sabella, Cuccodoro & Kurbatov 2023 det."; NHMW; 1 ♂ (Paratype of *Parachillia similis*); labels verbatim: "Pinares; 10.10.91; Concepción / *Pseudoachillia*; *similis* m. (handwritten by Franz) PARATYPUS / *Achilia*; *bifossifrons* (Reitt.) ♂; Sab., Cucc. & Kurb. 2016 det.".

Comments: In the Franz collection we located the male holotype of *Parachillia similis* Franz, 1996, which is a member of *Achilia simulans* (Reitter, 1885) (**syn**. **nov**.), a species treated in Sabella *et al.* (2024: 170). We also found a second male labeled by Franz as a paratype of *Parachillia similis* although not mentioned in the original description, which is a member of *Achilia bifossifrons* (Reitter, 1883), a species treated in Sabella *et al.* (2017: 127).

Parachillia parva Franz, 1996

Parachillia parva Franz, 1996: 113, fig. 60 (aedeagus).

Type material (**2 ex**.)**:** SOUTHERN CHILE: Región Los Ríos; Chiloé prov.: NHMW; 1 ♂ (Holotype of *Parachillia parva*); labels verbatim: "♂ / Holotypus (red label) / Isla Chiloé; Coinco 8.2.93 / *Achillia*; *parva* m. (handwritten by Franz) / *Parachillia; parva* Franz = *Achilia bifossifrons* (Reitter); Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *bifossifrons* ♂; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 1 ♀ (Paratype of *Parachillia parva*); labels verbatim: "Isla Chiloé; Coinco 8.2.93 / *Achillia*; *parva* m. (handwritten by Franz) PARATYPUS / *Achilia*; *bifossifrons* ♀; Sabella, Cuccodoro & Kurbatov 2023 det."

Additional material (**1 ex**.)**:** SOUTHERN CHILE: Región Los Ríos; Chiloé prov.: NHMW; 1 ♀; Isla Chiloé, Coinco; 08.II.93.

Comments: In the Franz collection we located two specimens (holotype male and paratype female) of *Parachillia parva* Franz, 1996. It appears that these two specimens are members of *Achilia bifossifrons* (Reitter, 1885) (**syn**. **nov**.), a species treated in Sabella *et al.* (2017: 127). There is also an additional female identified by Franz as *Parachillia parva* that is not labeled as paratype, which also belongs to *Achilia bifossifrons*.

Paractium mochae Franz, 1996

Paractium mochae Franz, 1996: 91, fig. 18 (aedeagus).

Type material (**2 ex**.)**:** CENTRAL CHILE: Región Bío Bío: Arauco prov.: NHMW; 1 ♂ (Holotype of *Paractium mochae*); labels verbatim: "Holotype (red label) / Isla Mocha; *lg.* Cekal. Chile / *Paractium*; *mochae* m. (handwritten by Franz) / *Paractium*; *mochae* Franz = *Achilia elfridae* Raffray; Sabella, Cuccodoro & Kurbatov 2023 det. / *Achilia*; *elfridae* Raffray ♂; Sabella, Cuccodoro & Kurbatov 2023 det."; NHMW; 1 ♀ (Paratype of *Paractium mochae*); labels verbatim: "Isla Mocha; Chile *lg.* Cekal. / *Paractium*; *mochae* m. (handwritten by Franz); PARATYPUS / *Achilia*; *excisa* (Schaufuss) ♀; Sabella, Cuccodoro & Kurbatov 2023 det."

Comments: In the Franz collection we located the holotype and the paratype of this species (mentioned by Franz in the original description as being collected at "Insel Mocha, Hacienda La Rinconada, 40 m, 19.I.1995, *leg.* Cekalovic"), which he described in the Euplectini. It appears that the two type specimens (1 male and 1 female) belong to two different species of Brachyglutini: the holotype (male) of *Paractium mochae* Franz, 1996 is a member of *Achilia elfridae* Raffray, 1904 (**syn**. **nov**.), while the paratype (female) belongs to *Achilia excisa* (Schaufuss, 1880).

Pseudachillidia Franz, 1996

Pseudachillidia andina Franz, 1996: 112; Asenjo *et al*., 2019: 63.
Type species: *Pseudachillidia andina* Franz, 1996

Pseudachillidia andina Franz, 1996

Comments: We have already discussed above (see "Comments" paragraph of *Achilia dolichocephala*) that the type species of this genus (*Pseudachillidia andina* Franz, 1996) is a junior synonym of *Achilia dolichocephala* (Jeannel, 1964), and that *Pseudachillidia* Franz, 1996 is thus a junior synonym of *Achilia* Reitter, 1890. Also, *Pseudachillidia andina* Franz, 1996 is a junior homonym of *Achilia andina* Franz, 1996, with the latter species being also a synonym of *Achilia dolichocephala* (Jeannel, 1964).

Description of a new genus

Estamentula gen. nov.
Figs 74-84, 181-182

Type species: *Estamentula stultissima* sp. nov.
Gender: feminine.

Description: Habitus as in Figs 181-182. Head with pair of small vertexal foveae; ventrally with distinct

medial elevation delimited by pair of longitudinal sutures, and with pair of partially reduced infraocular carinae. Labrum (Fig. 80) with anterior margin uniformly rounded; left mandible (Figs 78-79) with only one long medial macroseta on outer margin; maxillary palpi (Fig. 77) with palpomere 4 barely wider than palpomere 3. Antennae elongate; antennomeres 1-7 longer than wide. Pronotum with very small median antebasal fovea and pair of lateral antebasal foveae; lacking any sulci or carinae; lacking row of contiguous basal impressions. Elytra without any foveae and striae, humeri not protruding. Abdominal tergites 1-4 (IV-VII) approximately equal in length; tergite 1 (IV) with pair of basolateral foveae, lacking mediobasal foveae and discal striae. Prosternum with pair of small anteroprosternal foveae. Mesometaventrite (Fig. 76) with only pair of lateral mesoventral foveae; lateral transverse sutures between meso- and metaventrites lacking. Abdominal sternites 2-5 (IV-VII) more or less equal in length; sternite 2 (IV) with only pair of basolateral foveae. Development of male sexual characters of prolegs different between species; within type species variable and possibly correlating with development of eyes. Males also have exposed abdominal sternite 7 (IX) split into three sclerites, with medial one (penial plate) large and rather oval (Fig. 82). Aedeagus symmetrical; basal bulb with characteristic inverted T-shaped sclerotized structure; internal sac without any sclerites. Parameres well-developed, setiferous at apex.

Comments: Among the genera of the Chilean fauna of Brachyglutini, *Estamentula* gen. nov. stands apart in many aspects. First of all, abdominal tergites 1-4 (IV-VII) and sternites 2-5 (IV-VII) are all of similar lengths. Besides, males have abdominal sternite 7 (IX) exposed and split into three parts (as, for example, representatives of *Rybaxis* Saulcy, 1876 and *Batraxis* Reitter, 1882; see Chandler, 2001: p. 36 & Kurbatov, 2024: pp. 330, 333). According to our collegue and the specialist on Neotropical Pselaphinae, Don Chandler, this new genus most closely resembles members of the genera *Xybarida* Raffray, 1897 and *Globa* Raffray, 1887. We could examine three species of the genus *Xybarida*, including the type species *X. clavata* Raffray, 1897 (disarticulated), and three species of the genus *Globa* (one of them dismembered), from which the new genus differs quite significantly, namely:

1. Head ventrally with infraocular carinae, which are simple, not bifurcate, strongly reduced and visible only on anterior third of head in *Estamentula*, while in *Xybarida* and *Globa* these carinae are bifurcate and well-expressed along entire length of head.
2. Antennae elongate, with antennomeres 3-7 longer than wide in *Estamentula*, while in *Xybarida* and *Globa* they are not longer than wide.
3. Labrum with anterior margin uniformly rounded in *Estamentula*, while in *Xybarida* and *Globa* this margin is slightly concave with denticle-like anterolateral angles.
4. Mesometaventrite with only one pair of lateral mesoventral foveae in *Estamentula*, while members of *Xybarida* and *Globa* also possess a median mesoventral fovea, a pair of mesocoxal foveae, and a pair of metaventral foveae expressed in varying degrees.
5. Abdominal tergite 1 (IV) about as long as 2 (V) in *Estamentula*, instead of tergite 1 about two times longer than 2 in *Xybarida* and *Globa*.
6. Abdominal sternite 2 (IV) about as long as 3 (V) in *Estamentula*, instead of sternite 2 about two times longer than 3 in *Xybarida* and *Globa*.
7. Male abdominal sternite 7 (IX) exposed, with two visible lateral sclerites in *Estamentula*, in contrast these are not exposed in *Xybarida* and *Globa*.

In addition, *Estamentula* differs from *Xybarida* by the lack of a pair of curved longitudinal carinae on the prosternum, which are present in *Xybarida* and located anterolaterally from the procoxal cavities.

In addition to the type species, *Estamentula* also includes *Leptachillia coquimboensis* Franz, 1996, which was described in *Leptachillia*, now a junior synonym of *Achilia;* it corresponds fully with our concept of *Estamentula*, where it is here transferred and becomes *Estamentula coquimboensis* (Franz, 1996) (**comb**. **nov**.).

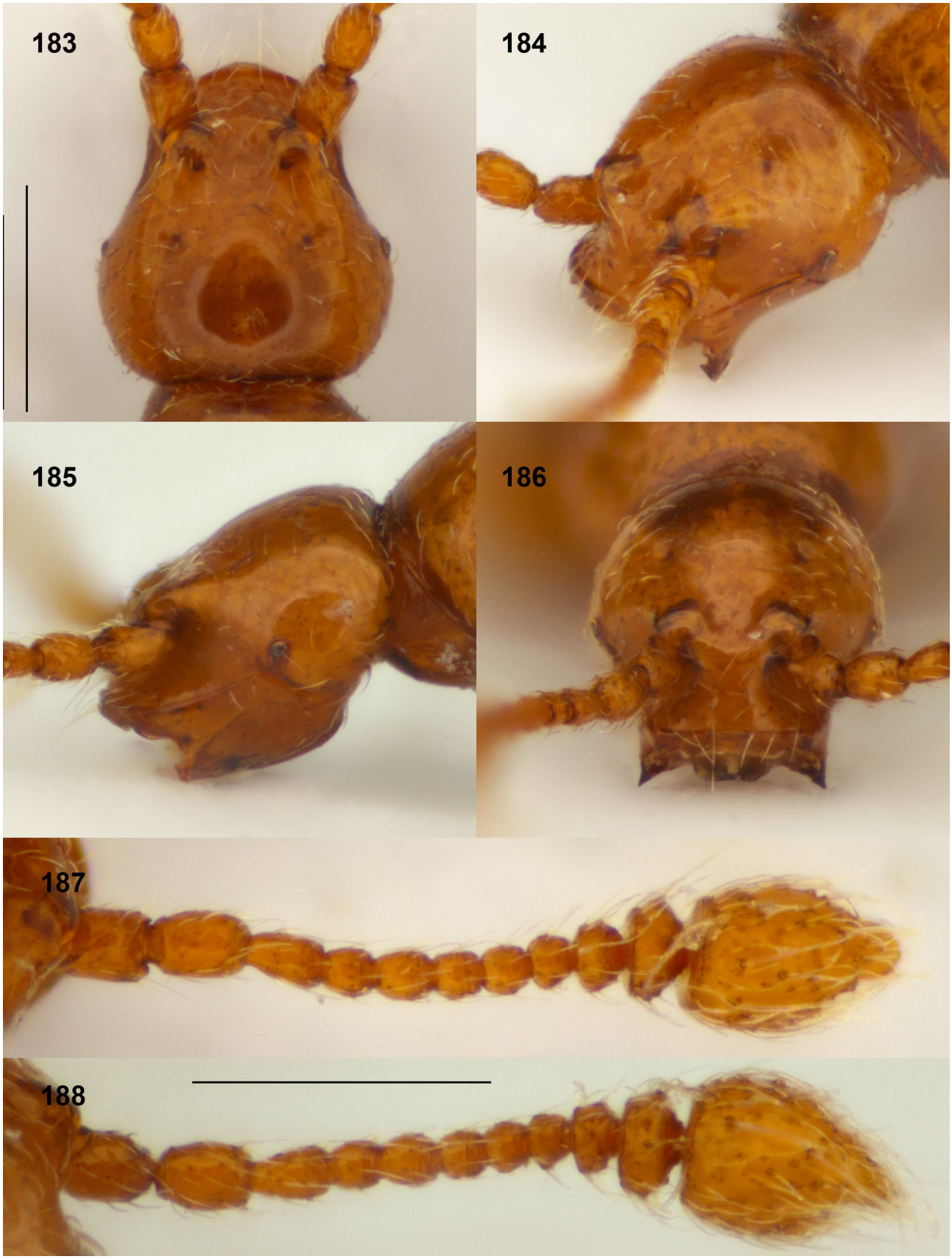
Estamentula stultissima sp. nov.

Figs 74, 76-83, 181-194, 202

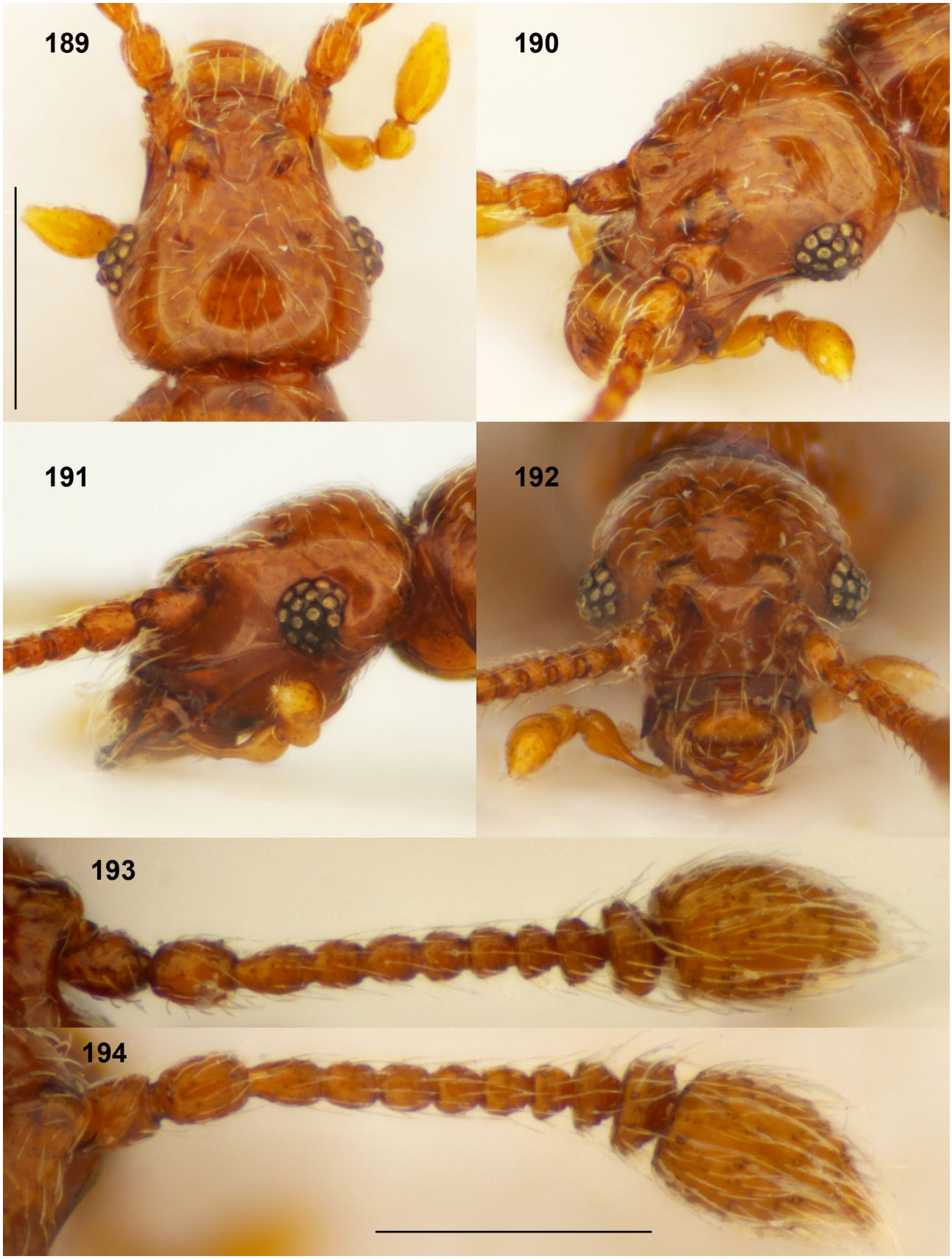
Holotype: CENTRAL CHILE: FMNH (FMHD# 96-214); Región Maule: Talca prov.: (FMHD #2002-032); 1 ♂ (macrophthalmic); R. N. Altos del Lircay, Sendero Laguna del Alto; 35° 36.62'S 71° 03.92'W; 1240 m; 03-26.XII.2002; *Nothofagus dombeyi* & *antarctica* forest, dense understory, flight intercept trap; A. Newton, M. Thayer & M. J. Clarke 1052.

Paratypes (**32 ex**., 19 microphthalmic and 13 macrophthalmic): SOUTHERN AND CENTRAL CHILE: Región Bío Bío: Concepción prov.: MSNG; 1 ♂ (microphthalmic); Lagunillas; TC-206; 10.IV.1988; T. Cekalovic. – MSNG; 1 ♂ (microphthalmic); Escuadron; TC-204; 02.IV.1988; T. Cekalovic; ex *Peumus boldus*. – Ñuble prov.: MSNG; 10 ♂ (microphthalmic); Los Lleuques; TC-299; 07.XII.1991; T. Cekalovic. – Región Maule: Talca prov.: (FMHD #2002-032); 7 ♂ and 3 ♀ (macrophthalmic) R. N. Altos del Lircay, Sendero Laguna del Alto; 35° 36.62'S 71° 03.92'W; 1240 m; 03-26.XII.2002; *Nothofagus dombeyi* & *antarctica* forest, dense understory, flight intercept trap; A. Newton, M. Thayer & M. J. Clarke 1052. – MHNG (# MHNG-ENTO-0261360–0261362); 2 ♂ and 1 ♀ (macrophthalmic); same data. – FMNH (FMHD# 96-213); 4 ♂ (microphthalmic); Area de Protectíon

Figs 181-182. *Estamentula stultissima* sp. nov. Habitus (181-182) of (181) macrophtalmic and (182) microphtalmic forms. Scale bar = 500 µm.



Figs 183-188. *Estamentula stultissima* sp. nov., microphthalmic form. Head (183-186), mouthparts missing, in (183) dorsal, (184) fronto-semilateral, (185) lateral and (186) frontal views. (187-188) Antenna in (187) dorsal and (188) frontal views. Scale bars (200 µm), vertical for (183-186) and horizontal for (187-188).



Figs 189-194. *Estamentula stultissima* sp. nov., macrophthalmic form. Head (189-192), mouthparts missing, in (189) dorsal, (190) fronto-semilateral, (191) lateral and (192) frontal views. (193-194) Antenna in (193) dorsal and (194) frontal views. Scale bars (200 µm), vertical for (189-192) and horizontal for (193-194).

Vilches, above Quebrada Piedra del Plato; 35° 36.46'S 71° 04.34'W; 1180 m; 18.XII.1996; *Nothofagus* spp., & other forest, *Chusquea* understory, berlese, wet old flood debris at stream edge; A. Newton & M. Thayer 972. – MHNG (# MHNG-ENTO-0261363); 1 ♂ (microphthalmic); same data. – FMNH (FMHD #96-208); 1 ♂ (microphthalmic); Area de Protección Vilches, Piedras Tacitas area; 35° 36.53'S 71° 04.10'W; 1185 m; 17.XII.1996; A. Newton & M. Thayer 101; *Nothofagus* spp. with shrubs along stream, berlese, leaf & log litter.

Description: Habitus as in Figs 181 (male macrophthalmic) and 182 (male microphthalmic). Body 1.2-1.3 mm long (microphthalmic form) / 1.35-1.4 mm long (macrophthalmic form). Head in microphthalmic form (Figs 183-186) about as wide as long with very small eyes (1-4 ommatidia); in macrophthalmic form (Figs 189-192) wider than long with well-developed eyes (10-12 ommatidia). Antennae (Figs 187-188 and 193-194) similar in both forms (macro- and microphthalmic), slightly thinner in female; scape and pedicel longer than wide, similar in length; antennomere III longer than wide, slightly narrowed at base; antennomeres IV and V slightly longer than wide; antennomeres VI-VII about as long as wide; antennomere VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X much wider than long, wider than IX; antennomere XI longer than wide, longer than VII-X combined, bearing some tubercles. Microphthalmic form with all femora distinctly swollen at middle.
Male: Legs usually unmodified; some specimens with posterior margin of protrochanters (Fig. 81) prolonged as rounded process, and medial margin of protibiae (Fig. 83) prolonged as short process that is apically truncate in distal third. Aedeagus (Fig. 74) 0.25-0.27 mm long (microphthalmic males), 0.21-0.24 mm long (macrophthalmic males), but identical in morphology; dorsal plate subrectangular, elongate, slightly narrowed apically; internal sac lacking sclerites. Parameres strongly narrowed and slightly recurved apically, distal third bearing two large dorsal and one ventral seta.
Female: Very similar to male except gular region less convex, antennae with thinner segments, and last abdominal sternite unmodified.

Collecting data: Collected from December to April in forests of *Nothofagus dombeyi* & *antarctica* or *Peumus boldus*, also with *Chusquea* spp. at elevations ranging from 1180 m up to 1240 m. The specimens came from sifted samples of leaf and log litter, and also from flight intercept (window) traps.

Distribution: The species is known only from Bío Bío (Concepción and Ñuble provinces) and Maule (Talca province) Regions (Fig. 202 blue triangles).

Comments: *Estamentula stultissima* sp. nov. shows considerable intraspecific variability. First of all, there are microphthalmic (1-4 ommatidia) and macrophthalmic specimens (10-12 ommatidia), that have never been collected together at the same locality. Furthermore, the microphthalmic form is smaller (1.2-1.3 mm) than the macrophthalmic form (1.4-1.45 mm). The microphthalmic form has longer legs with the femora swollen at the middle. Even the aedeagus, identical in both forms from a morphological point of view (see Fig. 74), is significantly longer in the microphthalmic males (0.25-0.27 mm) than in the macrophthalmic forms (0.21-0.24 mm). Finally, two microphthalmic males collected in the province of Concepción have modified protrochanters (Fig. 81) and protibiae (Fig. 83), while in the other males they are simple (unmodified). Despite this significant variability, the morphology of the aedeagus in all the specimens examined is identical to that shown in Fig. 74. For this reason, we prefer to consider *E. stultissima* as a single species characterized by high intraspecific variability, rather than describing two new taxa possessing indiscriminant genitalia.
E. stultissima sp. nov. is similar to *E. coquimboensis*, and their main diagnostic features are discussed in the "Comments" paragraph of *E. coquimboensis*.

Estamentula coquimboensis (Franz, 1996) comb. nov.

Figs 75, 84, 195-202

Leptachillia coquimboensis Franz, 1996: 123, fig. 75 (aedeagus).

Type material (5 ex.): CENTRAL CHILE: Región Coquimbo; Choapa prov.: NHMW; 1 ♂ (Holotype of *Leptachillia coquimboensis*); labels verbatim: "/ Holotypus (red label) / red label without any writing / Quebrada La Palma; Prov. Coquimbo; Chile, *lg.* H. Franz / Hacienda de La Palma; sudliech. Ovalle, Chile; *lg.* H. Franz 1963 *Leptachillia coquimboensis* m. (handwritten by Franz) / *Estamentula*; *coquimboensis* (Franz) ♂; Sabella, Cuccodoro & Kurbatov 2023 det." – NHMW; 3 ♂ and 1 ♀ (Paratypes of *Leptachillia coquimboensis*); Paratype (red label) / Quebrada La Palma; Prov. Coquimbo; Chile, *lg.* H. Franz / *Estamentula*; *coquimboensis* (Franz) ♂; Sabella, Cuccodoro & Kurbatov 2023 det."

Description: Habitus as in Fig. 195. Body 1.45-1.6 mm long. Head (Figs. 196-199) wider than long; eyes small (2-6 ommatidia). Antennae (Figs 200-201) similar in both sexes; scape and pedicel longer than wide, similar in length; antennomere III longer than wide, slightly narrowed at base; antennomeres IV and V longer than wide; antennomeres VI-VII about as long as wide; antennomere VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X much wider than long, wider than IX; antennomere XI longer than wide, longer than VII-X combined, bearing

Fig. 195. *Estamentula coquimboensis* sp. nov., habitus. Scale bar = 500 µm.

some tubercles. Femora slightly swollen at middle (more in male than in female).
Male: Protibiae (Fig. 84) with medial margin indented in distal half. Aedeagus (Fig. 75) 0.35-0.37 mm long; dorsal plate subrectangular, elongate, apically enlarged and ending with many spines; internal sac lacking sclerites. Parameres strongly recurved apically, forming stout spiniform process that is recurved laterally, distal third bearing two large dorsal and one ventral setae.
Female: Very similar to male except gular region not convex, antennae with thinner segments, and last abdominal sternite unmodified.

Collecting data: According to Franz (1962: 447) the only known specimens was collected in a sclerophyll forest by sifting leaf litter on 20.IX.1965.

Distribution: The species is known only from Quebrada La Palma (Coquimbo Region, Choapa province) (Fig. 202 blue triangle inverted).

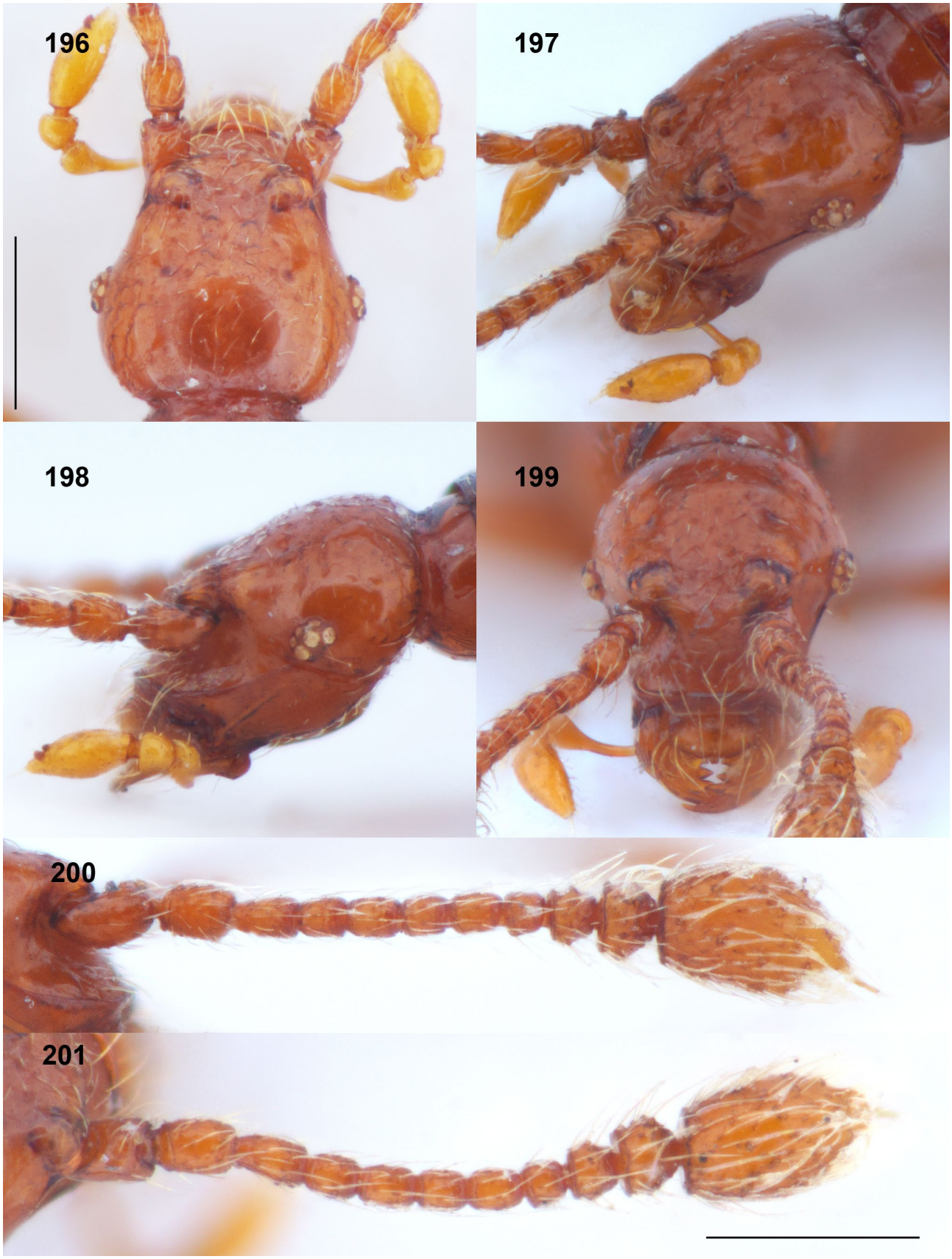
Comments: *E. coquimboensis* differs from *E. stultissima* by its larger body size (1.2-1.4 mm long for *E. stultissima* instead of 1.45-1.6 mm long for *E. coquimboensis*), the lateral margins of the head are less convergent anteriorly (cf. Figs 183-186, 189-192 and 196-199), antennomeres IV-V are distinctly longer than wide (slightly longer than wide for *E. stultissima*), and by the morphology of the aedeagus (cf. Figs 74 and 75).

DISCUSSION

At this stage of our knowledge of the Brachyglutini fauna of South America it is difficult to present an adequate zoogeographical characterisation in relation to the genera studied above. Nevertheless, in our opinion the overwhelming majority of the representatives of the Chilean Brachyglutini are elements of the Valdivian fauna that have strongly radiated in the local conditions. This includes the genus *Achilia* with more than 70 species, and the genera *Ectopocerus* and *Leptachillia* with one species each. They are united by peculiarities of the aedeagal structure that are not characteristic for other Brachyglutini genera. Several of these peculiarities

Key of Chilean Brachyglutini

1A Abdominal tergites 1-4 (IV-VII) equal in length ..... *Estamentula*
1B Abdominal tergite 1 (IV) distinctly longer than any of tergites 2-4 (V-VII) 2
2A Antennae with 11 antennomeres 3
2B Antennae with 10 antennomeres ..... *Ectopocerus*
3A Pronotum lacking lateral antebasal foveae 4
3B Pronotum with lateral antebasal foveae 5
4A Elytra each with three basal foveae ..... *Byraxorites*
4B Elytra lacking basal foveae ..... *Leptachillia*
5A Frons with median fovea similar in form to vertexal foveae. Last (VIII) abdominal sternite without median outgrowths. Basal bulb of aedeagus with oval dorsal diaphragm opening (Fig. 26); distal part of parameres not recurved ventrally, visible in dorsal view. Argentina (eastern macro-slope of the Andes north-east of Santiago) ... . [*Bryaxinella*]
5B Frons differently arranged. Last (VIII) abdominal sternite with anterior margin possessing two long and thin adjacent medial outgrowths (clearly visible only in preparations of the detached sternite). Basal bulb of aedeagus lacking dorsal diaphragm opening, but instead with two oblique sclerotised dorsal struts beginning in basal half and diverging laterally (Figs 3-6, 27); distal part of parameres recurved ventrally, not visible in dorsal view ..... *Achilia*



Figs 196-201. *Estamentula coquimboensis* sp. nov. Head (196-199), in (196) dorsal, (197) fronto-semilateral, (198) lateral and (199) frontal views. (200-201) Antenna in (200) frontal and (201) dorsal views. Scale bars (200 μm), vertical for (196-199) and horizontal for (200-201).

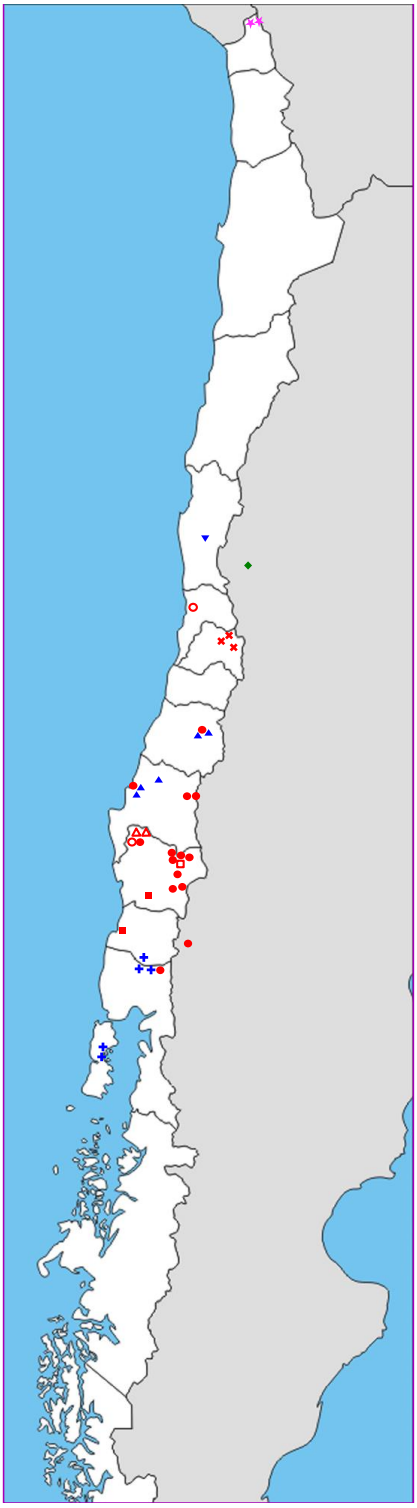


Fig. 202. Distribution map of Chilean Brachyglutini. (★ fuchsia stars) *Byraxorites alticola*. (◆ green diamonds) *Bryaxinella nodicornis*. (■ red squares) *Ectopocerus verticicornis*. (○ circles edged in red) *Leptachillia laevissima*. (▲ blue triangles) *Estamentula stultissima* sp. nov. (▼ blue inverted triangles) *E. coquimboensis*. (◘ squares edged in red) *Achilia abnormis*. (△ triangles edged in red) *A. bicolor*. (● red circles) *A. mifsudi* sp. nov. (✚ blue cross) *A. caprae* sp. nov. (X red x) *A. dolicocephala.*

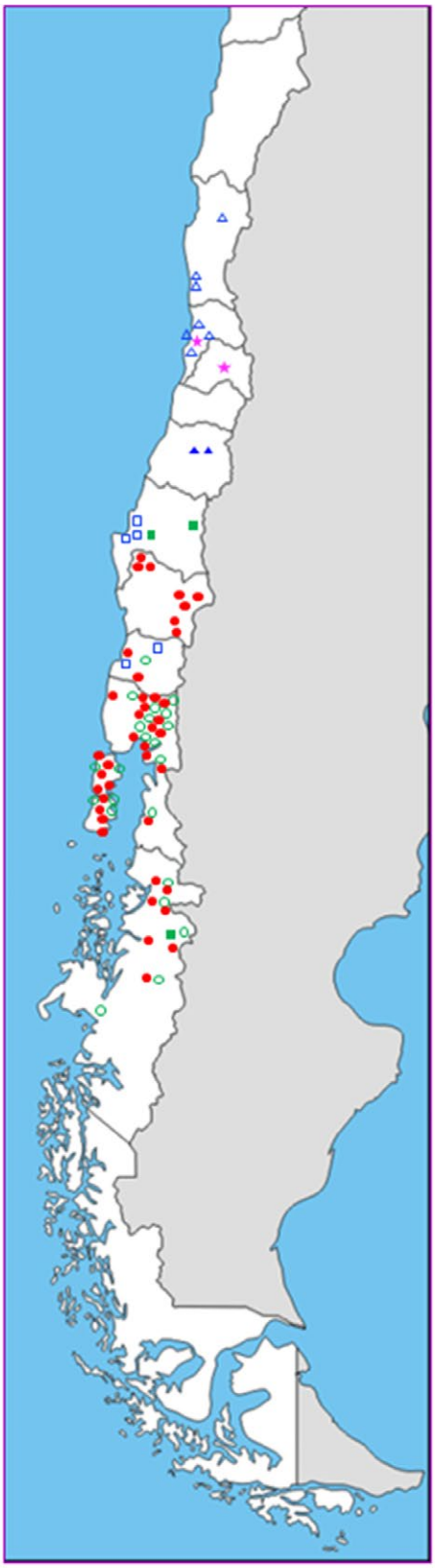


Fig. 203. Distribution map of *Achilia*. (◘ squares edged in blue) *A. bituberculata*. (■ green squares) *A. pseudangularis*. (△ triangles edged in blue) *A. quinteroi*. (▲ blue triangles) *A. cipolla* sp. nov. (★ fuchsia stars) *A. nigrita*. (○ circles edged in green) *A. kusceliana*. (● red circles) *A. torticornis*.

are indicated in the key couplet devoted to *Achilia*. The pecularities of the structure of their aedeagus will be given in full in the last (tenth) part of our revision, along with a re-description of the genus *Achilia*. Note that both *Ectopocerus* and *Leptachillia* apparently differ from *Achilia* only by reductions (see Comments for the respective genera), which are of little phylogenetic significance.

With regard to the genus *Estamentula*, it is possible that it is also of Valdivian origin, though clearly unrelated to *Achilia*. In any case, both species of this genus are distributed not in the periphery, but in the center of this region (Central and Southern Chile), and we could not find genera close to *Estamentula* in the Neotropical region.

As for the genera *Byraxorites* and *Bryaxinella*, the former inhabits the highland region bordering Peru and Bolivia, while the latter is known from Argentina near the border with Chile (northeast of Santiago) but occurs on the eastern macro-slope of the Andes, and both are more likely associated with elements of the Neotropical fauna.

A paper has just been issued in which the authors (Andújar *et al.,* 2024) describe the diversity of Chilean endogean Coleoptera collected by deep soil floatation. Among the photographs of beetles intended for subsequent barcoding there are also specimens of Brachyglutini, misidentified by the authors as *Pseudachillia* sp. (now synonym of *Achilia*). When comparing photographs of these specimens (Andújar *et al.,* 2024: Fig. 3 and S3 Figs 19-20, GR0425, GR0435, GR0438) with representatives of the indicated taxon, it can be noticed that the depicted beetles differ at least by (a) absence of basal elytral foveae, (b) absence of discal elytral stria, (c) abdominal tergite 1 (IV) not longer than any of the subsequent tergites, and in whole the general shape of the body does not correspond to that of *Achilia* spp. It seems that these are rather representatives of the new genus *Estamentula* described here, but more precise identification requires direct study of this material.

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