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A revision of the Chilean Brachyglutini – Part 8. Revision of Achilia Reitter, 1890: A. sinuaticornis, A. kindermanni, A. humidula, A. praeclara, A. nigrita, A. rufula species groups, and Achilia incertae sedis species (Coleoptera: Staphylinidae: Pselaphinae)

Authors: Sabella, Giorgio, Cuccodoro, Giulio, and Kurbatov, Sergey A.

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A revision of the Chilean Brachyglutini – Part 8. Revision of *Achilia* Reitter, 1890: *A. sinuaticornis*, *A. kindermanni*, *A. humidula*, *A. praeclara*, *A. nigrita*, *A. rufula* species groups, and *Achilia incertae sedis* species (Coleoptera: Staphylinidae: Pselaphinae)

Giorgio Sabella[1], Giulio Cuccodoro[2*] & Sergey A. Kurbatov[3]

[1] *Dipartimento di Scienze Biologiche, Geologiche ed Ambientali dell'Università – sezione Biologia Animale, via Androne 81, I-95124 Catania, Italy; sabellag@unict.it*

[2] *Muséum d'histoire naturelle de Genève, C. P. 6434, CH-1211 Geneva 6, Switzerland*

[3] *Museum of Entomology, All-Russian Plant Quarantine Center, Pogranichnaya 32, Bykovo 140150, Russia; pselaphidae@yandex.ru*

[*] *Corresponding author: giulio.cuccodoro@ville-ge.ch*

Abstract: The *Achilia sinuaticornis, A. kindermanni, A. humidula*, *A. praeclara*, *A. nigrita,* and *A. rufula* species groups *sensu* Jeannel (1962 and 1963), and *Achilia incertae sedis* species according to Jeannel (1962) and Franz (1996) of the species-rich genus *Achilia* Reitter, 1890 are revised. Of the seventeen taxa placed in these seven species groups (including *incertae sedis* species), seven names are placed in synonymy: *A. curta* Jeannel, 1962 = *A. longiceps* (Reitter, 1885) **syn. nov.**, *A. elongata* Jeannel, 1962 = *A. humidula* (Reitter, 1885) **syn. nov.**, *A. occipitalis* Jeannel, 1962 = *A. humidula* (Reitter, 1885) **syn. nov.**, *A. diademata* Jeannel, 1962 = *A. humidula* (Reitter, 1885) **syn. nov.**, *A. parvula* Jeannel 1962 = *A. humidula* (Reitter, 1885) **syn. nov.**, *A. dicastrii* Franz, 1996 = *A. bicornis* Jeannel, 1962 **syn. nov.**, *A. latifrons* Raffray, 1904 = *A. longiceps* (Reitter, 1885) **syn. nov.** *Achilia nigrita* Jeannel, 1962 belongs to a different genus and will be treated in forthcoming papers. The remaining ten species are redescribed, and two new species belonging to the *A. sinuaticornis* group are described*: A. fokkata* **sp. nov.** and *A. lapsus* **sp. nov.** The lectotypes of *A. longiceps* (Reitter, 1885), *A. convexiceps* Raffray, 1904, *A. quadraticeps* Raffray, 1904, and *A. latifrons* Raffray, 1904 are designated. For all these species their distribution is detailed and mapped, and habitat/collecting data are summarized.

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

INTRODUCTION

This article is the eighth contribution to our series aiming at a taxonomic revision of the Brachyglutini of the temperate region of southern South America, and the seventh dedicated to the genus *Achilia* Reitter, 1890 (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).

We here focus on the *A. sinuaticornis, A. kindermanni, A. humidula*, *A. praeclara*, *A. nigrita,* and *A. rufula* species groups (*sensu* Jeannel, 1962 and 1963), and *Achilia incertae sedis* species according to Jeannel (1962) and Franz (1996). All members of these groups are critically reexamined and their synonymic framework is detailed, the species are redescribed, and two new species are described in the *A. sinuaticornis* group.

Regarding the prevalence of the spelling of the genus *Achilia* vs *Achillia* see Sabella *et al.* (2017: 120). The species groups of *Achilia* as defined by Jeannel (1962 and 1963), which are mainly based on male sexual dimorphism, as well as their possible phylogenetic relationships will be reassessed later. A key to identification of the species of *Achilia* will be provided only at the end of this series of contributions.

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MATERIAL AND METHODS

This study is based on the examination of 1616 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)
HNMB Hungarian National Museum, Budapest, Hungary (Gy. Makranczy)
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 (O. Montreuil)
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 the collectors; for the holotypes of older specimens the labels are also given verbatim. For MHNG material additional information pertaining to sampling sites are enriched from 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.

Paired structures of the body (such as foveae) are treated as plural, while parts of the paired appendages are treated as singular to simplify the characterizations.

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 the sclerotized features of the aedeagus termed "dorsal strips" in Sabella *et al*. (2017) are here termed "longitudinal struts".

TAXONOMY

Achilia sinuaticornis species group

Jeannel (1963: 353, 366) characterized this group as follows: elytra with three basal foveae; first abdominal tergite with long and oblique basal striae separated by one third of tergal width; anterior half of male head modified; male antennomeres modified; aedeagus quadrangular with dorsal longitudinal struts subparallel; parameres relatively wide with one seta on short outer lobe; copulatory pieces bifid, and apically recurved.

According to Jeannel (1963: 366-367) this group is closely related to the *A. grandiceps* group. It included only *A. sinuaticornis,* to which we add two new species described below – i. e. *A. fokkata* sp. nov. and *A. lapsus* sp. nov. – for a total of three species.

The species of the *A. sinuaticornis* group possess the following common features: pubescence decumbent, consisting of long setae sparse over entire body; head wider than long, strongly modified in male, due to expanded vertexal foveae not visible in dorsal view, while for females these vertexal fovea are big; eyes moderately protruding and longer than tempora; maxillary palpi small with last palpomere elongate; antennae with antennomeres strongly modified in male; pronotum wider than long and wider than head with disc slightly convex, disc surface smooth and shiny with only few scattered punctures; median antebasal fovea smaller than lateral foveae; anterior portion of lateral margins of pronotum distinctly convergent and sinuate anteriorly; posterior portion of lateral margins of pronotum slightly convergent; basal margin of pronotum bordered with row of contiguous shallow impressions; elytra together wider than long with protruding humeri; elytral disc smooth, shiny, elytra with three big basal foveae, sutural stria entire; elytral discal stria extending to about elytral mid-length; abdomen smooth, with some minute punctures;

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first abdominal tergite distinctly longer than second and with diverging basal striae extending to about one-third of paratergal length, separated at base by about one-third of tergal width with short and sparse setal brush between basal striae.
In order to keep the text concise, these features are not repeated in their respective descriptions of the species of this group.

Achilia sinuaticornis Jeannel, 1963
Figs 3-8, 11-16, 18-24, 62-71, 117

Achilia sinuaticornis Jeannel, 1963: 353, 366, figs 14 (head and antennae of male) and 15 (aedeagus).

Type material (1 ex.): CENTRAL CHILE: **Región Valparaíso**: Valparaíso prov.: MNHN; 1 ♂ (holotype of *A. sinuaticornis,* here fixed); labels verbatim "Holotype (red label) / Cerro El Roble; 18.VIII.1961 / *Achillia torticornis* (handwritten by Jeannel)" / *Achilia; sinuaticornis* Jeannel; det. Sabella, Cuccodoro & Kurbatov 2022".

Additional material examined (15 ex.): CENTRAL CHILE: **Región Araucanía**: Cautín prov.: MHNG; 1 ♂; Huerquehue National Park, station 16a; 800-900 m; 22-24.XII.1980; forest litter; M. Agosti & D. Burckhardt. – MHNG; 1 ♂; Huerquehue National Park, station 17a; 800 m; 25.XII.1980; forest litter; M. Agosti & D. Burckhardt. – FMNH (FMHD# 96-228); 1 ♂ and 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; *Nothofagus obliqua* & *N. alpina*, dense *Chusquea* understory, berlese, leaf & log litter; A. Newton & M. Thayer 976. – PCTS; 5 ♂ (4 semi-destroyed); Palguin, 39,43°S 71,79°W; 05.XII.2013; litter layer. – **Región Bío Bío**: Ñuble prov.: FMNH; 3 ♂; 22.7 km ESE Recinto, site 646; 1330 m; 10.XII.1982/03.I.1983; *Nothofagus* forest, window trap; A. Newton & M. Thayer. – UNHC; 2 ♂; same data. – **Región Maule**: Talca prov.: FMNH (FMHD #85-892, #85-7); 1 ♂; 70 km E Talca, Alto de Vilches; 05.XII.1984; streamside *Nothofagus* litter, berlese S. & J. Peck.

Description: Body 1.50-1.65 mm long. Varying in colour from entirely yellowish with abdomen slightly darker to reddish with abdomen and head darker, or testaceous with abdomen blackish.
Male: Head in Figs 62-65 and 67-70 shows variability. Head of holotype (Figs 62-65) with rounded occipital region, its anterior margin pubescent, sharply angulate at middle of strongly projecting anterior half of head; each anterior margin of excavation with rounded bump bearing two tufts of short and thick yellowish setae; entire excavation divided by median longitudinal carina with posterior portion projecting as apophysis ending in pubescent lozenge. Frontal lobe flattened and weakly punctate [in most of other specimens examined (Figs 67-70) anterior margin of occipital region has large median incision, anterior portion of sides that delimit excavation is more rounded and raised, and frontal lobe is larger and more flattened]. Antennae (Figs 11-14, 66, 71) with scape longer than wide; pedicel wider than long with widened medial margin; antennomere III distinctly wider than long; antennomeres IV-VIII much wider than long, flattened and lenticular, with medial margin sharp-edged and bearing tuft of long setae – (these antennomeres show some intraspecific variability, see Figs 66 and 71); antennomere IX wider than long, flattened and lenticular; antennomere X slightly longer than wide; antennomere XI longer than wide, longer than III-IX combined, its surface with scattered tubercles (antennomere XI sometimes with base of lateral margin forming two prominent tubercles bearing each one thin seta, or covered in basal fifth with short fine setae, or bearing one longer seta, see Figs 11-14). Distal half of metaventrite with large ovoidal median impression bearing long setae. Legs variable in shape: protibiae varying from simple (Fig. 18) to more or less enlarged and flattened (Figs 19-24); protarsi simple (Figs 5-6) or with penultimate tarsomere enlarged and pubescent (cf. Figs 7-8); mesofemora more or less enlarged with long and sparse setae on entire distal margin (Fig. 15), or with shorter setae denser but only on basal half of distal margin (Fig. 16). Aedeagus (Figs 3-4) 0.24-0.25 mm long, with dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with one long seta on distal third; apical portion of parameres recurved backwards (Fig. 4) and bearing one long ventral medial seta; copulatory pieces consist of two subequal sclerites that are apically enlarged and pointed, each bearing spine at distal third.
Female: Similar to male except head, antennae, metaventrite and legs unmodified.

Collecting data: Collected from August to January; found in different types of forests, sometimes with *Araucaria araucana* and *Chusquea*, at elevations ranging from 300 m to about 1300 m. Most of the material come from sifted samples of leaf and log litter; some specimens were collected with windows traps.

Distribution: *Achilia sinuaticornis* is known from the Araucanía and Valparaíso Regions (Fig. 117 squares edged in blue).

Comments: The species was described from a single male collected in Cerro El Roble on 18.VIII.1961, not on X.1961 as stated by Jeannel (1963: 353), a contradiction to what he stated on page 351 of the same publication where he reported the correct date of August 1961. We have examined this unique specimen which, however, did not carry any label designating it as a holotype; furthermore, the determination label that was handwritten by Jeannel bears the caption "*Achilia torticornis*" instead of "*Achilia sinuaticornis*".
Despite the significant variability shown by the males with respect to the morphology of the head (Figs 62-65 and 67-70), antennomeres (Figs 66 and 71), protibiae (Figs 18-24), protarsi (Figs 5-8), and mesofemora (Figs 15-16), the morphology of the aedeagus in all the specimens examined is identical to that shown by Fig. 3.

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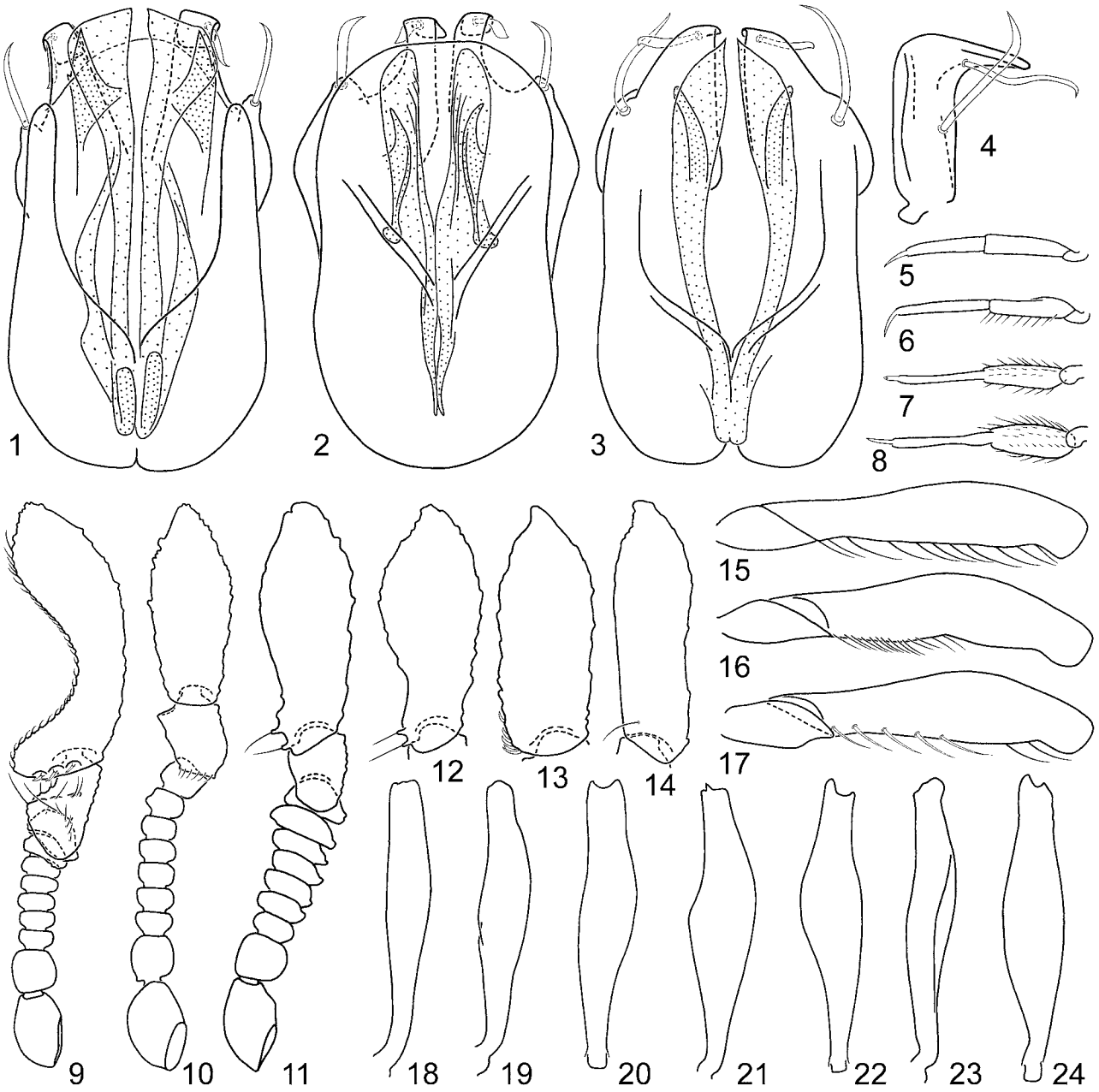
For this reason, we prefer to consider *A. sinuaticornis* a single species characterized by high variability, rather than describing new taxa possessing undiscriminant genitalia.

The males of *A. sinuaticornis* are easily distinguished from those of the other species of the *A. sinuaticornis* group by the shape of the head (Figs 62-65 and 67-70), antennae (Figs 11, 66, 71), and aedeagus (Fig. 3). The females of *A. sinuaticornis* are very similar to those of *A. lapsus* sp. nov.; for characters to distinguish females of these two species see the "Comments" section of the latter species.



Figs 1-24. *Achilia sinuaticornis* group. (1, 10, 17) *Achilia fokkata*. (2, 9) *A. lapsus*. (3-8, 11-16, 18-24) *A. sinuaticornis*. (3-5, 13, 15, 18) *A. sinuaticornis*, specimen from Recinto. (6, 7, 12) *A. sinuaticornis*, specimen from Palguin. (8, 21, 22) *A. sinuaticornis*, specimen from Conguillio. (14, 23, 24) *A. sinuaticornis*, specimen from Alto de Vilches. (16, 19, 20) *A. sinuaticornis*, specimen from Huerquehue. (1-3) Aedeagi, (4) paramere in lateral view, protarsi in (5, 6) lateral and (7, 8) ventral views, (9-11) antennae, (12-14) antennomere 11, (15-17) mesofemora, and protibiae in (18, 19, 21, 23) lateral and (20, 22, 24) dorsal views.

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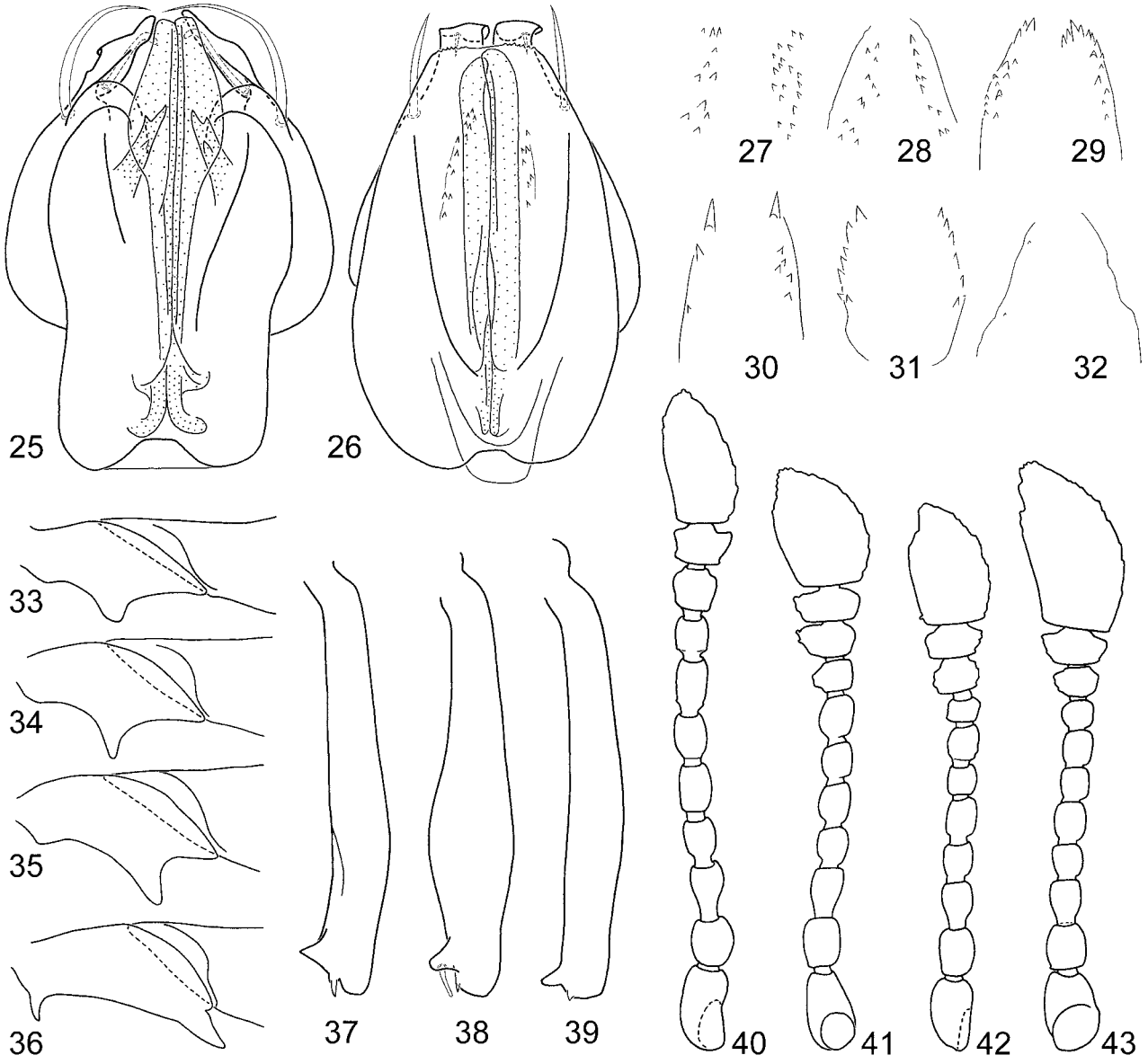
Achilia fokkata sp. nov.

Figs 2, 9, 72-76, 117

Holotype: SOUTHERN CHILE: FMNH (FMHD# 96-241); Región Araucanía: Cautín prov.: 1 ♂; 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; *Nothofagus pumilio* forest, flight intercept trap; A. Newton & M. Thayer 981.

Paratypes (25 ex.): SOUTHERN CHILE: Región Los Lagos: Llanquihue prov.: FMNH (FMHD #97-35); 1 ♂; Vicente Perez Rosales National Park, SW slope Vn Osorno, km 11 to La Burbuja; 41° 07.91'S 72° 32.16'W; 1065 m; 27.I.1997; low *Nothofagus dombeyi* w/mixed understory, berlese, leaf & log litter; A. Newton & M. Thayer 1005. – FMNH (FMHD #2002-82); 1 ♂ and 4 ♀; Vicente Perez Rosales National Park, SW slope Volcán Osorno, road to Ref. La Picada; 41° 03.25'S 72° 30.18'W; 660 m; 16.XII.2002; *Nothofagus dombeyi* w/conifers dense *Chusquea* bamboo understory, flat area, berlese, leaf & log litter; A. Solodovnikov, A. Newton & M. Thayer 1067. – **Osorno prov.:** FMNH; 1 ♂; Puyehue National Park, Antillanca road, trap site 658; 965 m; 18-25. XII.1982; *Nothofagus pumilio* forest, berlese, leaf & log litter, forest floor; A. Newton & M. Thayer. – MHNG (# MHNG-ENTO-120825-120826); 2 ♂; Puyehue National Park,



Figs 25-43. *Achilia kindermanni* group. (25, 38) *Achilia kindermanni*, specimen from Cordillera de Parral. (37, 43) *Achilia kindermanni*, specimen from Salto Petrohué. (26, 36, 39, 42) *Achilia longiceps*, specimen from Fundo El Manzano. (27) *Achilia longiceps*, specimen from Escuadron. (28, 34, 41) *Achilia longiceps*, specimen from Puente Pelun. (29) *Achilia curta*, holotype Chepu. (30) *Achilia longiceps*, specimen from Isla Chiloé. (31) *Achilia longiceps*, lectotype. (32, 35, 40) *Achilia longiceps*, specimen from Chili, Museum Paris. (33) *Achilia longiceps*, specimen from Chillán. (25-26) Aedeagi, (27-32) homologous elements of internal sacs, (33-36) mesotrochanters, (37-39) mesotibiae, (40-43) antennae.

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Antillanca Road; 500-1000 m; 18-20.XII.1984; car netting; S. & J. Peck. – Región Araucanía: Cautín prov.: FMNH (FMHD# 96-239); 1 ♂; Villarica National Park, Volcán Villarica, road to sky center; 39° 22.48'S 71° 58.30'W; 1180 m; 26.XII.1996; *Nothofagus dombeyi* forest w/*Chusquea*, berlese, leaf & log litter; A. Newton & M. Thayer 980. – 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; *Nothofagus pumilio* forest, flight intercept trap; A. Newton & M. Thayer 981. – FMNH; 5 ♂; Volcán Villarica, site 653; 1250 m; 15-29.XII.1982; *Nothofagus dombey* and *pumilio* forest w/*Chusquea*, berlese, leaf & log litter, forest floor; A. Newton & M. Thayer. – MNHS; 1 ♂; same data. – UNHC; 5 ♂; same data. – FMNH; 1 ♀; Volcán Villarica, site 653; 1250 m; 15-29.XII.1982; *Nothofagus dombey* and *pumilio* forest w/*Chusquea*, berlese, leaf & log litter, forest floor; A. Newton & M. Thayer. – FMNH; 1 ♀; Bellavista, North shore Lago Villarica, site 655; 310 m; 15-30.XII.1982; valdivian rainforest, flood debris forest stream; A. Newton & M. Thayer.

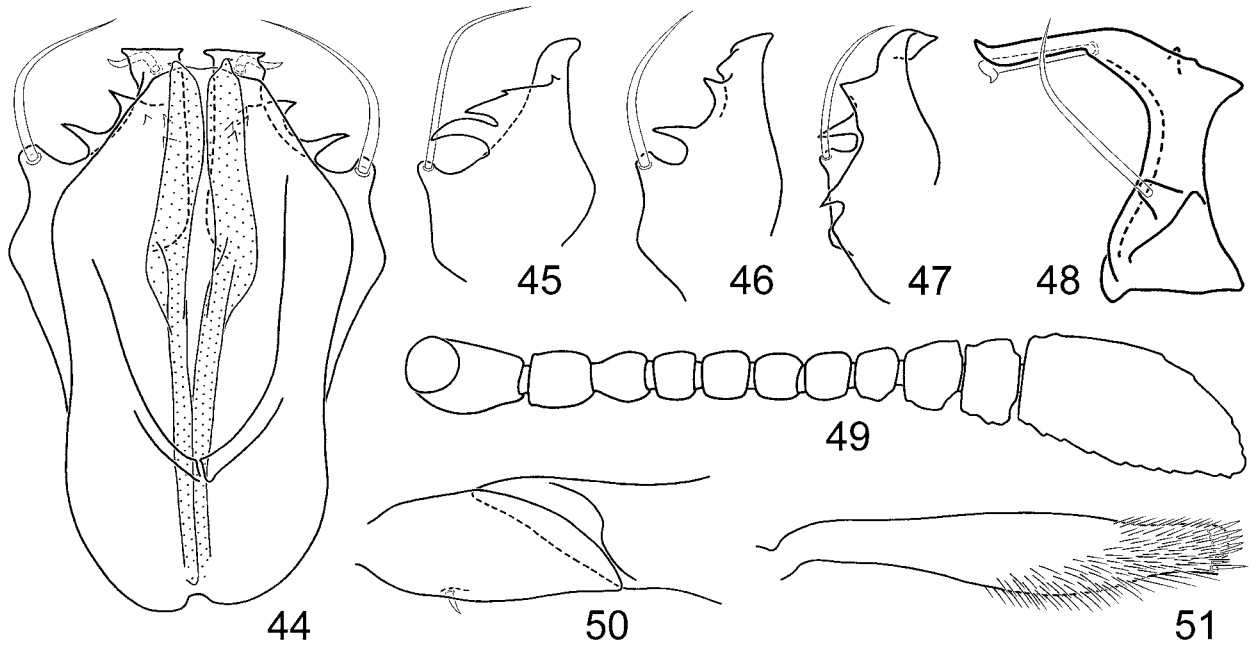
Description: Body 1.5-1.75 mm long, brown testaceous or blackish with elytra and sometimes pronotum reddish; antennae and legs reddish, and palpi yellowish; some specimens are dark, almost blackish with this color likely due to some kind of oxidation during their conservation in alcohol and acetic acid.

Male: Head as in Figs 72-75 with very rounded occipital region with scattered punctation, anterior margin densely pubescent and strongly angulate and pointed at middle, with overhanging deep excavation on anterior half of head; anterior and lateral sides of excavation bearing dense and long pubescence; middle of excavation distinctly raised as large tubercle rounded at apex; frontal lobe flattened and strongly angled, distinctly wrinkled. Antennae (Figs 9, 76) with scape longer than wide; pedicel wider than long with distinctly widened medial margin; antennomeres III-VIII much wider than long; antennomere IX also much wider than long, wider than VIII, distal margin bearing some short setae; antennomere X about two times longer than wide bearing some setae on surface and on lateral margin; antennomere XI much longer than wide, longer than II-X combined, surface covered with scattered tubercles, lateral margin concave and covered with very short and dense setae. Distal half of metaventrite convex. Legs without notable features. Aedeagus (Fig. 2) 0.24-0.25 mm long, with dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with one long seta on outer lobe; apical portion of parameres recurved backwards, bearing one long medioventral seta. Copulatory pieces consisting of two subequal sclerites; sclerites apically enlarged and rounded, each bearing curved spine at distal third.

Female: Similar to male except head and antennae unmodified.

Collecting data: Collected from December to January, mainly in forests of *Nothofagus dombey* and *N. pumilio* at elevations ranging from 310 m to about 1250 m. Most of the specimens came from sifted samples of leaf and log litter; some specimens have also been collected by car netting and by FIT.

Distribution: *Achilia fokkata* sp. nov. is known from the Los Lagos and Araucanía Regions (Fig. 117 green squares).



Figs 44-51. *Achilia humidula* group. (44, 48-51) *Achilia humidula*. (45) *Achilia diademata*, holotype. (46) *Achilia elongata*, holotype. (47) *Achilia occipitalis*, holotype. (44) Aedeagus, parameres in (45-47) dorsal and (48) lateral views, (49) antenna, (50) mesotrochanter, and (51) mesotibiae.

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Comments: The males of *Achilia fokkata* sp. nov. differ from the other species of the *A. sinuaticornis* group notably by the shape of the head (Figs 72-75), antennae (Figs 9, 76), and aedeagus (Fig. 2). The females are very similar to those of other species of this group, from which they can be distinguished by the median area of the occipital region of the head which is distinctly more convex.

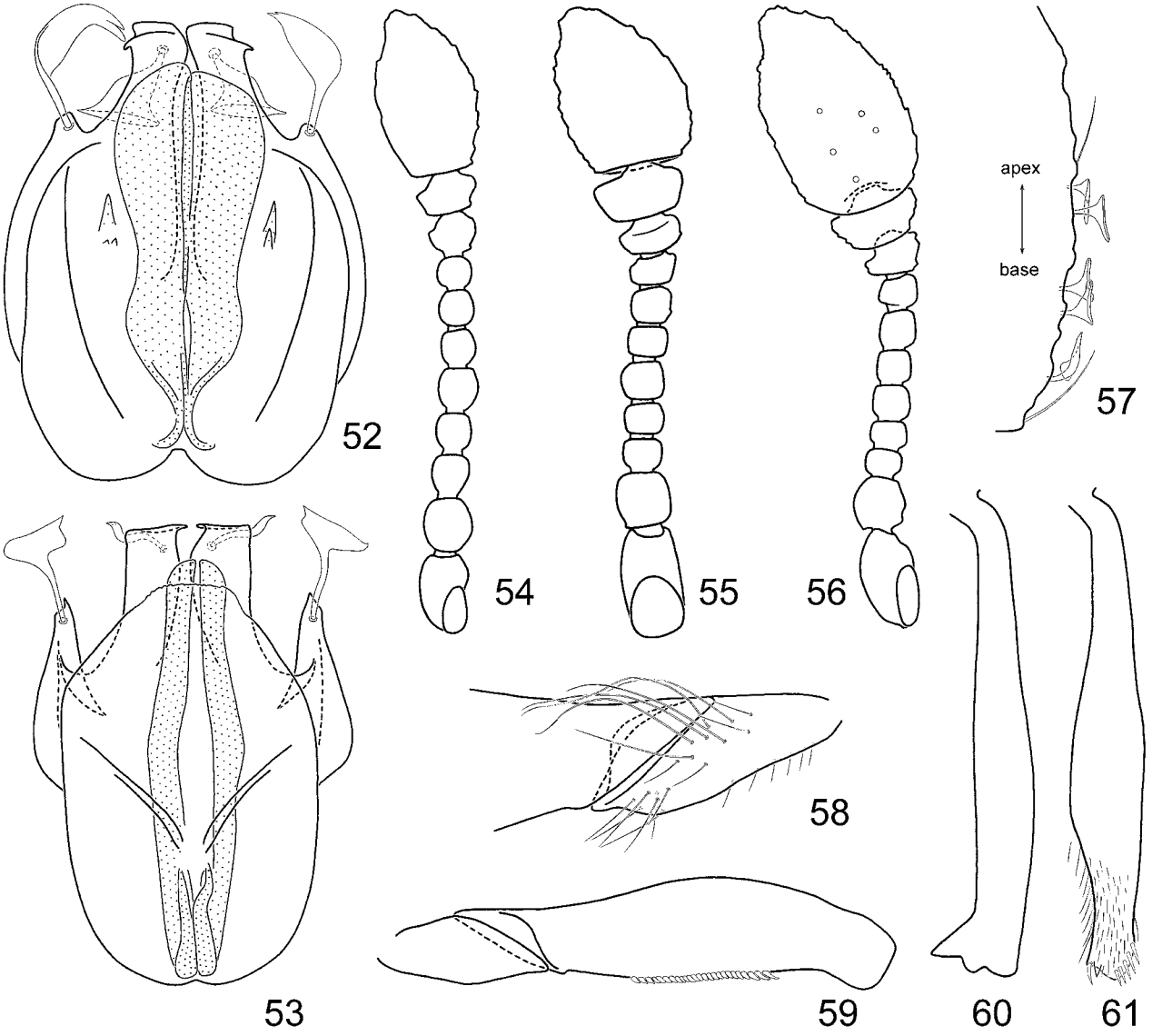
Achilia lapsus sp. nov.

Figs 1, 10, 17, 77-81, 117

Holotype: MHNG (# MHNG-ENTO-120827); 1 ♂; SOUTHERN CHILE: Región Los Ríos: Ranco prov.: 34 km WNW La Union; 700 m; 17.XII.1984; litter mixed evergreen forest; S. & J. Peck #36.

Paratypes (29 ex.): SOUTHERN CHILE: Región Los Lagos: Osorno prov.: FMNH (FMHD #96-248); 1 ♂ and 1 ♀; 15.1 km W Puaucho; 40° 34.97'S 73° 37.68'W; 50 m; 30.XII.1996; valdivian rainforest remnant in sm. ravine, w/ large ferns, berlese, leaf & log litter; A. Newton & M. Thayer 984. – Región Los Ríos: Ranco prov.: MHNG (# MHNG-ENTO-120828 through 120849); 14 ♂ and 8 ♀; 34 km WNW La Union; 700 m; 17.XII.1984; litter mixed evergreen forest; S. & J. Peck #36. – MNHS; 1 ♂ and 1 ♀; 1 FMNH (FMHD #85-921, #85-36); 1 ♀; same data; S. & J. Peck. – Valdivia prov.: PCTS; 1 ♂ (identified as *A. monstrata*); P. N. Alerce Costero, 40,17 S 73,47 W; 09.XII.2013, litter layer. – Región Araucanía: Cautín prov.: MHNG (# MHNG-ENTO-120850); 1 ♂; Villarica National Park, VolcànVillarica, 10 km S Pucón; 900 m; 15.XII.1984/10.II.1985; *Nothofagus*, grove on ash; S. & J. Peck.

Description: Body 1.6-1.7 mm long, entirely dark testaceous or blackish brown with elytra reddish, or



Figs 52-61. *Achilia praeclara* group. (52, 54, 58, 60) *Achilia praeclara*. (53, 55) *Achilia simulans*, specimen from Nahuelbuta. (56-57, 59, 61) *Achilia simulans*, specimen from Cerro Nielo. (52-53) Aedeagi, (54-56) antennae, (57) dorsal face of antennomere 11 in lateral view, (58) mesotrochanter, (59) mesofemur, and (60-61) mesotibiae.

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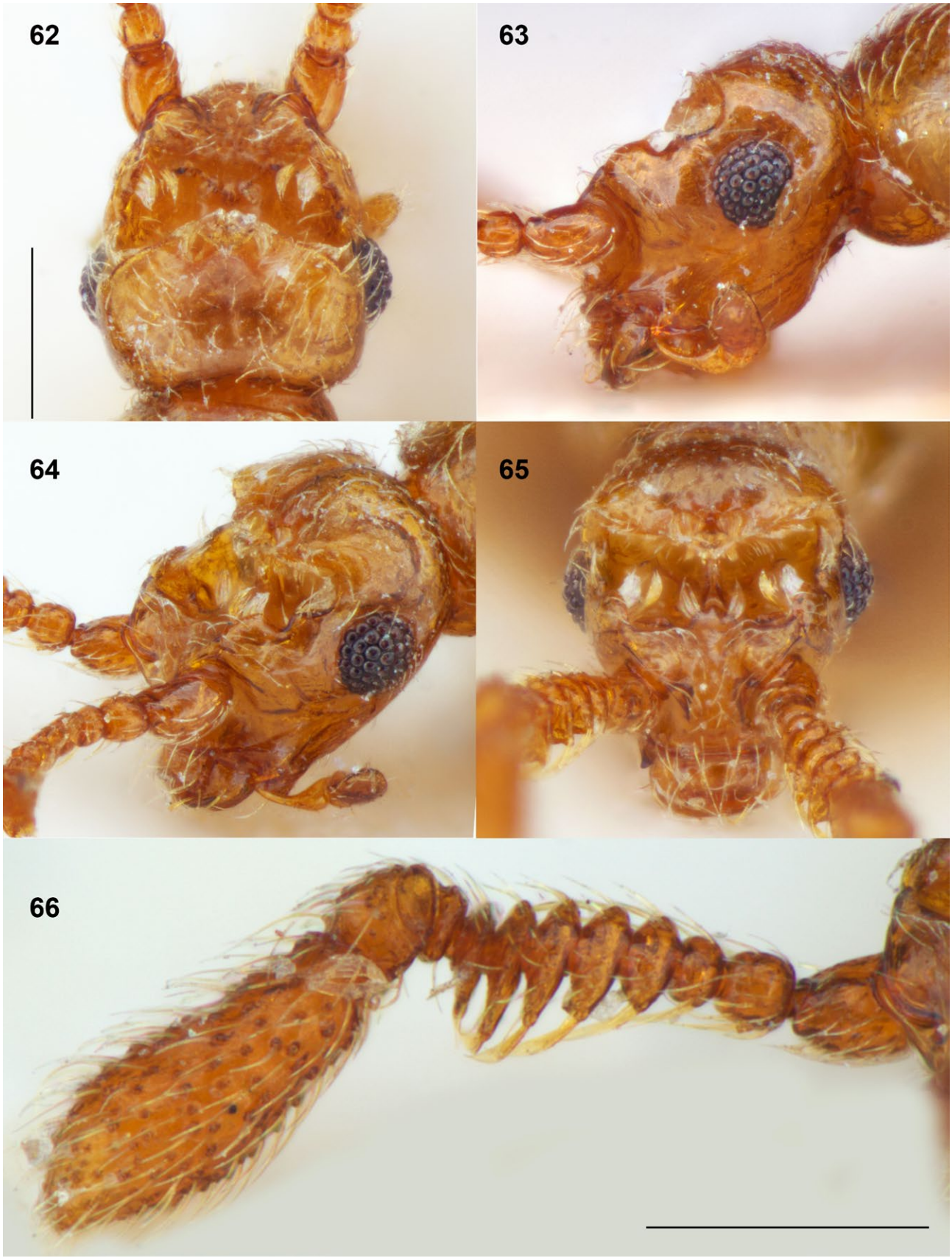

Figs 62-66. *Achilia sinuaticornis,* male, holotype. Head (62-65) in (62) dorsal, (63) lateral, (64) oblique and (65) frontal views. Right antenna (66) in oblique view. Scale bars (200 µm), vertical for (62-65) and horizontal for (66).

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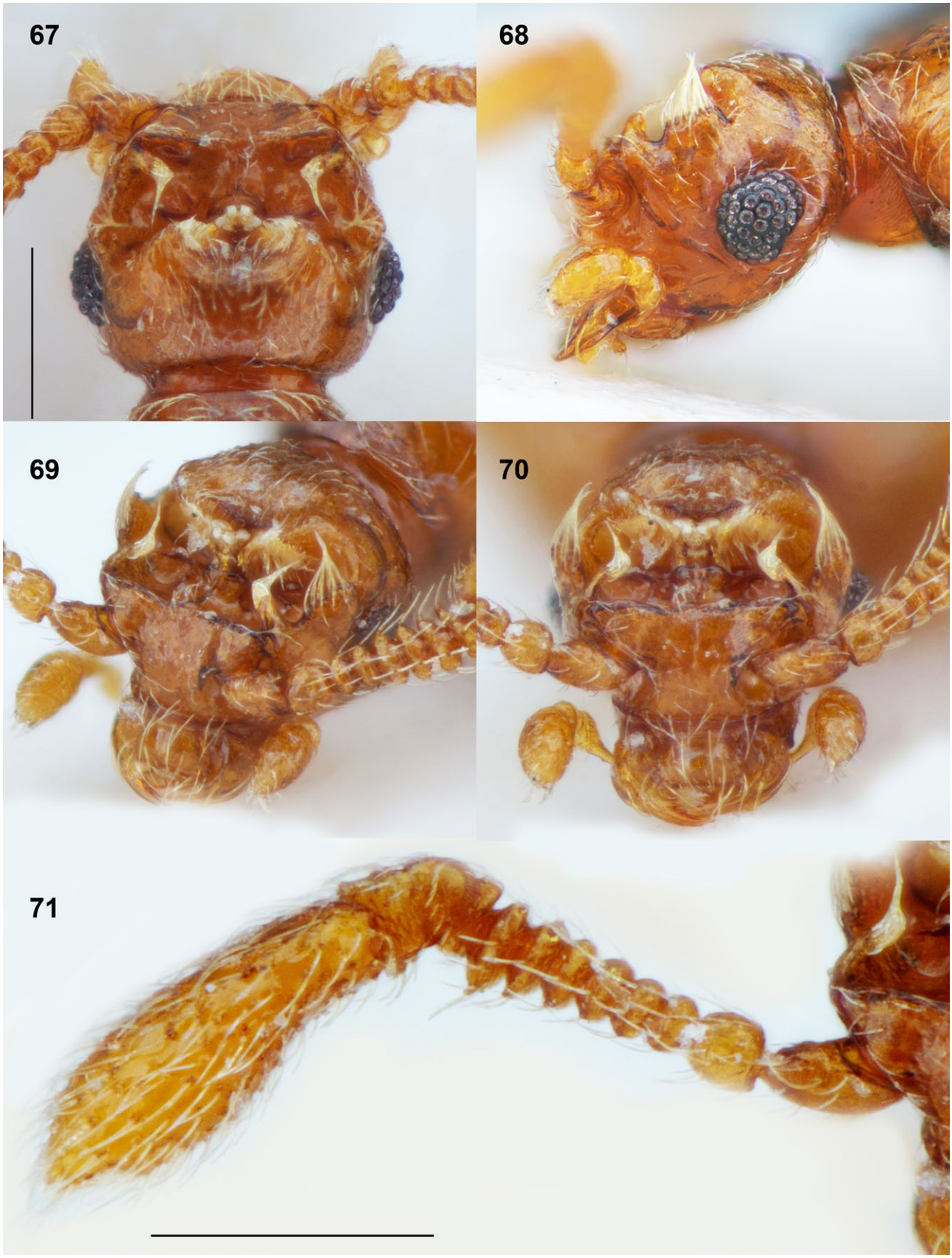

Figs 67-71. *Achilia sinuaticornis,* male, specimen from Cautín Province. Head (67-70) in (67) dorsal, (68) lateral, (69) oblique and (70) frontal views. Right antenna (71) in oblique view. Scale bars (200 µm), vertical for (67-70) and horizontal for (71).

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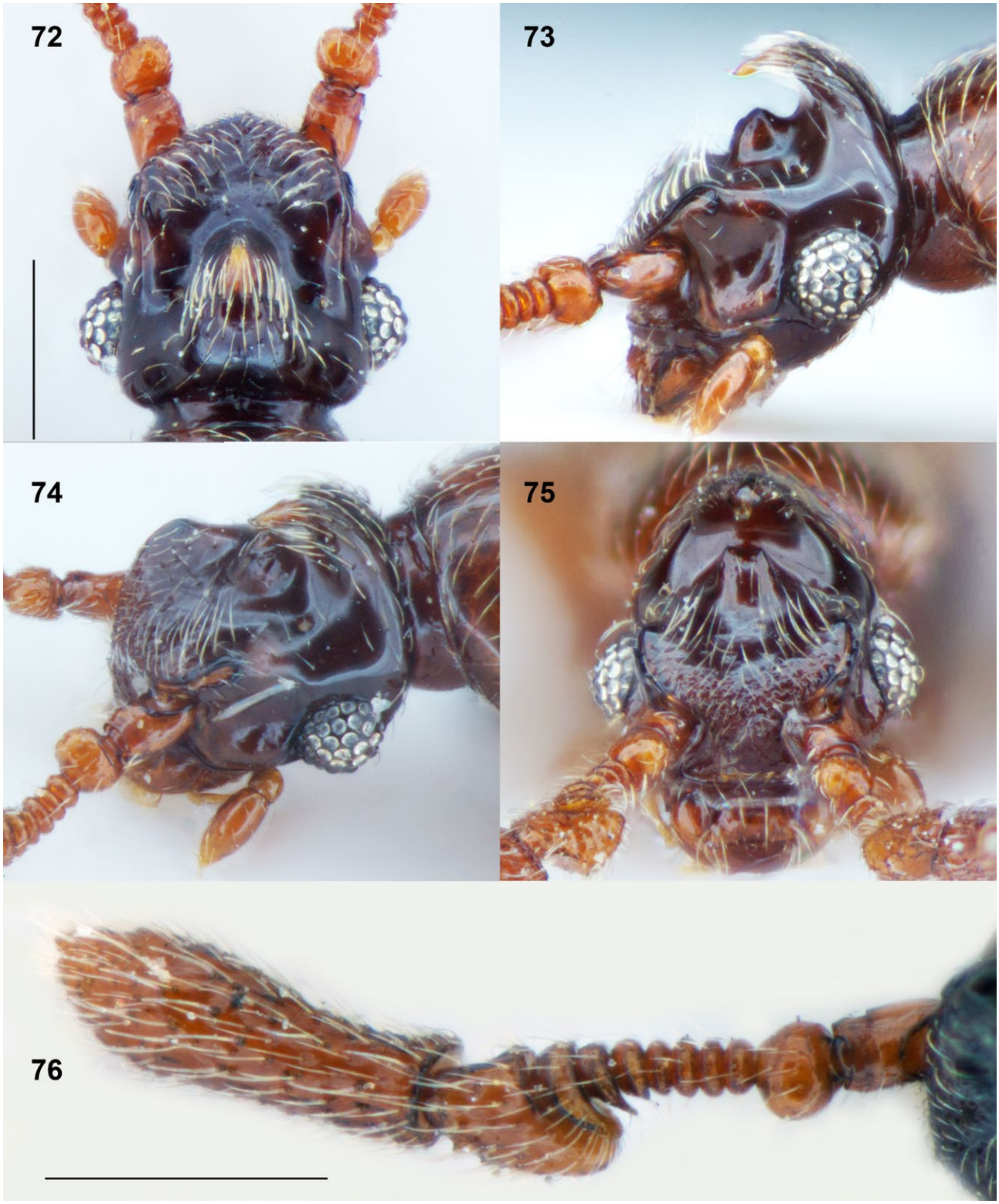

Figs 72-76. *Achilia fokkata,* male, holotype. Head (72-75) in (72) dorsal, (73) lateral, (74) oblique and (75) frontal views. Right antenna (76) in oblique view. Scale bars (200 µm), vertical for (72-75) and horizontal for (76).

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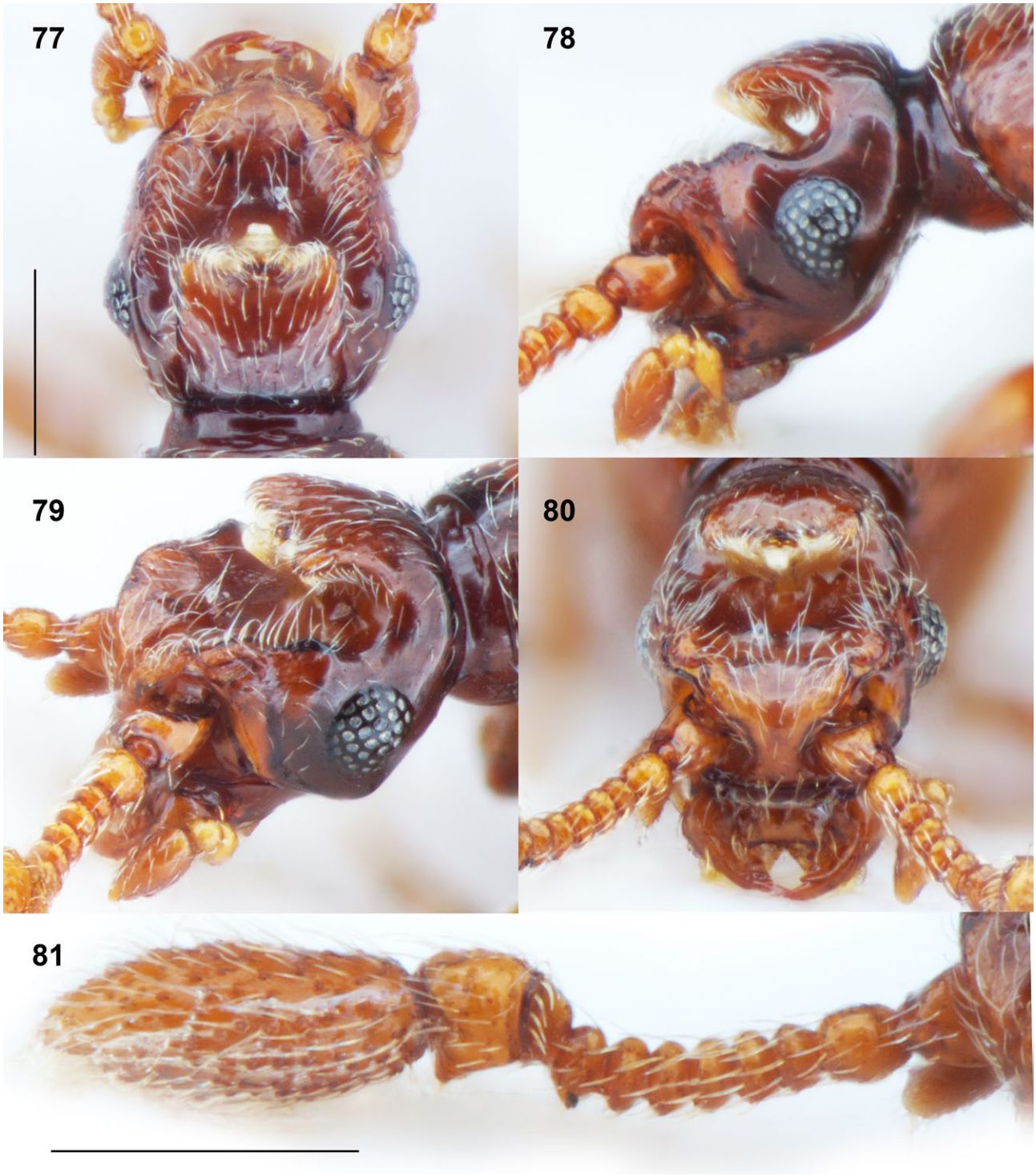

Figs 77-81. *Achilia lapsus*, male, holotype. Head (77-80) in (77) dorsal, (78) lateral, (79) oblique and (80) frontal views. Right antenna (81) in oblique view. Scale bars (200 µm), vertical for (77-80) and horizontal for (81).

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testaceous with elytra, antennae and legs reddish, palpi yellowish; some specimens with dark, almost blackish color likely resulting from some kind of oxidation during their conservation in alcohol and acetic acid.

Male: Head as in Figs 77-80 with occipital region very rounded, strongly projecting anteriorly above deep excavation of anterior half of head; occipital region with marked V-shaped medial impression; anterior margin of occipital region with large medial incision with margins densely pubescent; anterior excavation with upwardly oriented medial apophysis originating within incision of anterior border of occipital region, this apophysis apically enlarged and covered with dense pubescence consisting of short yellowish setae; anterior and lateral sides of excavation sharp and densely covered with long setae; frontal lobe flattened and lightly punctate. Antennae (Figs 10, 81) with scape longer than wide; pedicel wider than long; antennomere III-IX wider than long; antennomere X distinctly longer than wide, about as wide as antennomere XI, with posterior margin bearing some thin setae; antennomere XI longer than wide, longer than V-X combined, its surface bearing scattered tubercles. Distal half of metaventrite convex. Legs with mesofemora more or less enlarged with long and sparse setae on entire distal margin (Fig. 17). Aedeagus (Fig. 1) 0.24-0.25 mm long, with dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with one long seta at distal third of outer lobe; apical portion of parameres recurved backwards, each bearing one long mesoventral seta. Copulatory pieces consist of two subequal sclerites that are apically very enlarged, each bearing very large spine at distal quarter.

Female: Similar to male except head, antennae, and legs unmodified.

Collecting data: Collected from December to February in different types of forests at elevations ranging from 50 m to about 900 m. All the specimens came from sifted samples of leaf and log litter.

Distribution: *Achilia lapsus* sp. nov. is known from the Los Lagos and Araucanía Regions (Fig. 117 triangles edged in blue).

Comments: *Achilia lapsus* sp. nov. strongly resembles *A. sinuaticornis*, but the males of the new species are easily distinguished from those of *A. sinuaticornis* by the shape of the head (cf. Figs 77-80 with 62-65 and 67-70), antennae (cf. Figs 10, 81 with 11, 66, 71), and aedeagus (cf. Figs 1 and 3). In addition, the distal half of the metaventrite of *A. lapsus* sp. nov. is convex, while that of *A. sinuaticornis* possesses a medial ovoidal impression bearing long setae. The females of *A. lapsus* sp. nov. are very difficult to distinguish from those of *A. sinuaticornis*; the only difference we noted, which remains difficult to appreciate, pertains to the medial occipital region of the head, which is more elevated and more convex in the new species.

Achilia kindermanni species group

Jeannel (1962: 398, 431) characterized this group as follows: elytra with three basal foveae; basal striae of first abdominal tergite separated at most by a quarter of the tergal width; frontal lobe of male head modified; male antennomeres unmodified; funicular antennomeres distinctly longer than wide; aedeagal parameres without long apophysis at insertions of setae.

According to Jeannel (1962) this group of species consists of *A. cordicollis* Raffray, 1904, *A. curta* Jeannel, 1962, *A. kindermanni* (Reitter, 1883), and *A. longiceps* (Reitter, 1885).

However, after examination of the types of these taxa we concluded that *A. curta* is a junior synonym of *A. longiceps* (Reitter, 1885) (**syn. nov.**). In addition, we examined the types of *A. latifrons* Raffray, 1904, which is treated in this chapter for convenience although it technically belongs to the "Species *incertae sedis*" group according to Jeannel (1962) and Franz (1996), and concluded that it is also a junior synonym of *A. longiceps* (Reitter, 1885) (**syn. nov.**). Consequently the *A. kindermanni* group contains now only *A. kindermani*, *A. cordicollis,* and *A. longiceps*.

The species of the *A. kindermanni* group possess the following shared features: pubescence decumbent, consisting of long setae sparse over the body, setae very sparse on elytra; head slightly wider than long, vertexal foveae at level of about half length of eyes; eyes longer or slightly longer than temples; antennae with antennomeres III-VIII about same width; pronotum wider than long, slightly wider than head; disc slightly convex, smooth and shiny with some punctures; median antebasal fovea about as wide as lateral ones (smaller than lateral one in *A. longiceps*); anterior portion of lateral margins of pronotum distinctly convergent and sinuate anteriorly; posterior portion of lateral margins of pronotum slightly convergent; basal margin of pronotum bordered with row of contiguous shallow impressions; elytra together wider than long with very protruding humeri; elytral disc smooth, shiny, with very few punctures; elytra with four basal foveae, outer two closely spaced fovae merged together in some specimens; sutural stria entire; elytral discal stria extended to about elytral mid-length; abdomen smooth, with some minute punctures; first abdominal tergite with subparallel basal striae extending to about one-fourth of paratergal length and separated at base by about one-third of tergal width, with short and very sparse setal brush between basal striae.

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

Achilia cordicollis Raffray, 1904

Achilia cordicollis Raffray, 1904: 136; Jeannel, 1962: 431, 434.

Type material (1 ex.): CHILE: MNHN; 1 ♀ (holotype of *A. cordicollis*); labels verbatim "Holotype (red label) / TYPE (red

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label) / Chile; (Pampas) / Museum Paris; 1917; coll. Raffray / *A. cordicollis*; A. Raffray det. / *cordicollis* Raff. (handwritten by Jeannel) / *Achilia; cordicollis* Raff. ♀; det. Sabella, Cuccodoro & Kurbatov 2022".

Description: *Male*: Unknown.
Female: Body 1.40 mm long, reddish-brown with head and abdomen darkened, antennae and legs reddish, palpi yellowish. Pubescence fine and very sparse. Head slightly convex, possessing two big vertexal foveae; sides subparallel, distinctly narrowed anteriorly; frontal lobe delimited by deep transversal sulcus; eyes well developed and about as long as tempora, the latter flat. Antennae with scape slightly wider than long; pedicel distinctly longer than wide; antennomeres III-VI slightly longer than wide; antennomere VII as long as wide; antennomere VIII slightly wider than long; antennomere IX wider than long, wider than VIII; antennomere X wider than long, wider than IX; antennomere XI longer than wide, about as long as VII-X combined. Pronotum distinctly wider than long, widest at middle; disc weakly convex; lateral margins anteriorly converging, posteriorly subparallel. Metaventrite with suboval medial impression extending from base to midlength. Trochanters slightly angulate at middle.

Collecting data: None available.

Distribution: Raffray (1904: 137) described this species based on a single specimen from Chile, without further indications. Jeannel (1962: 434) redescribed the species, mentioning it was from the Pampas of Chile. The holotype, which is the only known specimen of *A. cordicollis*, is labelled as from "Chile, Pampas". Jeannel (l. c.) hypothesized that this label indicates that the species was from the northernmost regions of Chile. However, in our opinion this consideration is questionable, since there is a locality named "Las Pampas" in the Region of Los Lagos (southern Chile). The indication could also refer to the open environment where the specimen was collected.

Comments: Raffray (1904: 137) considered *A. cordicollis* to be very similar to *A. picea* (now a synonym of *A. elfridae*). Jeannel (1962: 434) placed it with uncertainty in the *A. kindermanni* group, and mentioned that the discovery of the male might result in the separation of this species from the genus *Achilia*.

Achilia kindermanni (Reitter, 1883)
Figs 25, 37-38, 43, 82-86, 117

Bryaxis kindermanni Reitter, 1883: 51; Reitter, 1885: 328, pl. 2 fig. 11 (head and antenna of male).
Achilia kindermanni Jeannel, 1962: 431, 432 figs 201 (male habitus) and 202 (aedeagus).

Type material (**1 ex**.): SOUTHERN CHILE: Región Los Ríos: Valdivia prov.: MNHN; 1 ♂ (holotype of *A. kindermanni* here fixed); labels verbatim: "Holotype (red label) / Chili / 1880, Chile; Valdivia; leg. Kindermann / *Bryaxis Kindermanni* m.; Valdivia (hanwritten by Reitter) / Museum Paris; 1917; coll. Raffray / *A. Kindermanni*; A. Raffray det. / *A. kindermanni* (handwritten by Jeannel) / *Achilia; kindermanni* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2022".

Additional material examined (643 ex.): CHILE: HNMB; 1 ♀; Chili. – MNHN; 3 ♂ and 1 ♀; Chili. – SOUTHERN AND CENTRAL CHILE: Región Los Lagos: Chiloé prov.: NHMW; 4 ♂ and 9 ♀ (identified as *A. bifossifrons*); Chiloé, Isla Quinchao. – MSNG; 4 ♂ and 7 ♀; Rio Pudeto, SyTC-226; 21.II.1989; S. & T. Cekalovic. – MSNG; 1 ♀; Chepu, TC-275; 19.II.1991; T. Cekalovic. – Llaquinque prov.: NHMW; 2 ♂ and 6 ♀ (identified as *A. tumidifrons*); locality name understandable. – MHNG; 5 ♂ and 1 ♀; Frutillar Bajo, Universitad Chile Forest Reserve; 100 m; 22.XII.1984-02.I.1985; ravine mixed forest FIT; S. & J. Peck. – NHMW; 7 ♂ and 12 ♀ (identified as *A. tumidifrons*); Frutillar Bajo, TC-349; 08.II.1993; T. Cekalovic. – NHMW; 3 ♂ and 2 ♀ (identified as *A. tumidifrons*); same locality. – MSNG; 21 ♂ and 28 ♀; same locality, TC-283; 23.II.1992; T. Cekalovic. – FMNH (FMHD #85-938, #85-54); 4 ♂ and 2 ♀; Vicente Perez Rosales National Park, Salto Petrohué; 150 m; 23.XII.1984; S. & J. Peck; mixed forest litter, berlese. – FMHN; 51 ♂ and 22 ♀; same data. – MNSG; 4 ♂ and 12 ♀; Puerto Octay, TC-356; 13.II.1993; T. Cekalovic. – Osorno prov.: FMNH (FMHD# 96-250); 1 ♂; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30.XII.1996/30.I.1997; valdivian rainforest w/large, *Saxegothea*, flight intercept trap; A. Newton & M. Thayer 985-1. – FMHD; 1 ♂ and 4 ♀; same locality, trap site 662; 430 m; 19-26.XII.1982; valdivian rainforest; A. Newton & M. Thayer. – FMNH (FMHD #96-249); 1 ♀; 15.1 km W Puaucho; 40° 34.97'S 73° 37.68'W; 50 m; 30.XII.1996; A. Newton & M. Thayer 984; valdivian rainforest remnant in sm. ravine, w/ large ferns, berlese, litter under large ferns. – Región Los Ríos: Valdivia prov.: PCVB; 2 ♂ and 1 ♀; Panguipulli. – FMNH (FMHD #97-18); 1 ♂; Rincón de La Piedra, turnoff, 14.8 km SE Valdivia; 39° 55' 32''S 73° 06' 27''W; 50 m; 11.I–01.II.1997; A. Newton & M. Thayer 990; disturbed valdivian rainforest, with *Nothofagus dombeyi* and *Podocarpus saligna*, flight intercept (windows) trap. – NHMW; 1 ♀; Ñancul, TC-359; 28.II.1993; T. Cekalovic. – NHMW; 1 ♂ (identified as *A. approximans*); same locality; 28.II.1993. – MHNG; 1 ♂; Parque Nacional Alerce Costero, Chaihuin; 350 m; 16.II.2018; G. Sabella & D. Mifsud; sifting litter. – Región Araucanía: Cautín prov.: UNHC; 3 ♂; Bellavista, North shore Lago Villarica, site 655; 310 m; 15-30. XII.1982; A. Newton & M. Thayer; valdivian rainforest, flood debris forest stream. – FMNH; 3 ♂; same data. – Malleco prov.: FMNH; 1 ♂; Contulmo Natural Monument, Sendero Lemu Mau; 38° 00.74'S 73° 11.13''W; 410 m; 08.XII.2002; A. Newton & A. Solodovnikov 1059; *Nothofagus obliqua-Eucryphia cordifolia* w/fern & bamboo understory, sifted litter, hand collected. – NHMW; 1 ♂ (identified as *A. approximans*); Rio Pedregoso; 12.II.1994. – MHNG; 1 ♀; National Park of Nahuelbuta; 19.XI.1981; T. Cekalovic. – Región Bío Bío: Arauco prov.: NHMW; 1 ♂ and 2 ♀ (identified as *A. occipitalis*); Isla Mocha; T. Cekalovic. – NHMW; 2 ♂ and 2 ♀ (identified as *A. elongata*); same data. – NHMW; 3 ♂ (identified as *A. tumidifrons*); same data. – Bío Bío prov.: NHMW; 2 ♂ and 4 ♀ (identified as *A. auriculata*); Mitrihue; (Bío Bío); 19.XII.1993. – Concepción prov.: PCVB; 1 ♂; Concepción; 05.XI.1987; T. Cekalovic. – FMNH; 10 ♂ and 16 ♀; same locality; 09.IV.1977; T. Cekalovic. – PCVB; 7 ♂ and 1 ♀; Cruce Camino

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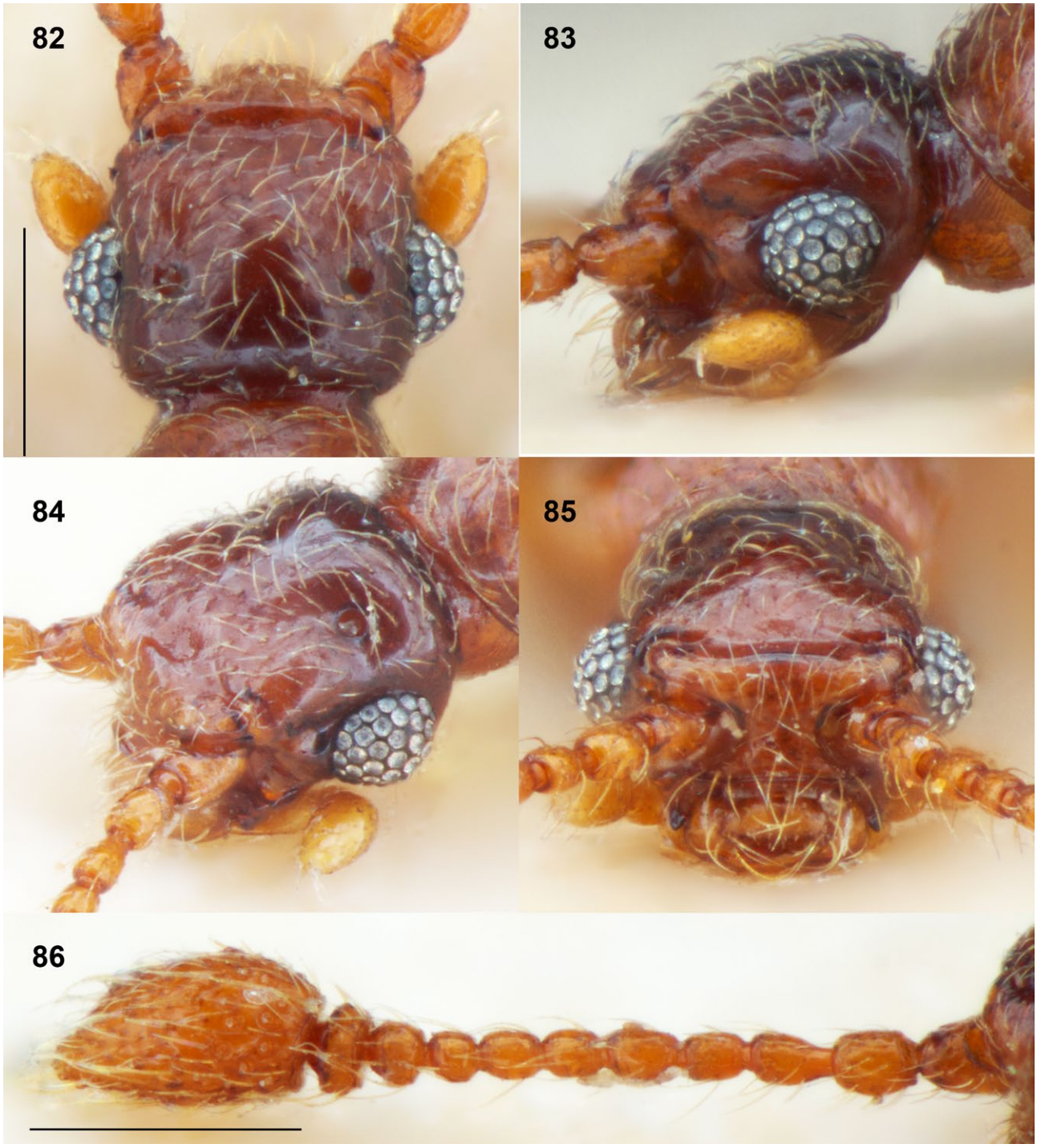
a Ramuntcho, TC-150; 25.I.1985; T. Cekalovic. – PCVB; 1 ♂ and 2 ♀; Paradero El Horno, 8 km SE Copiulemu, TC-190; 10.I.1988; T. Cekalovic. – FMNH; 1 ♂ and 1 ♀; Puente Pelun, TC-342; 18.I.1993, T. Cekalovic. – MSNG; 1 ♀; same locality, TC-358; 21.II.1993; T. Cekalovic. – NHMW; 1 ♂ (identified as *A. testacea*); Puente Pelun (Santa Juana); 28.II.1992. – NHMW; 1 ♂ (identified as *A. valdiviensis*); same locality; 28.II.1992. – NHMW; 3 ♂ and 1 ♀; same data. – FMNH; 4 ♂; Estero Nonguén, TC-605; 19.XI.1999, T. Cekalovic. – MSNG; 4 ♂ and 3 ♀; same locality, TC-540; 26.III.1997; T. Cekalovic. – MHNG; 5 ♂ and 8 ♀; same locality; 21.IV.1976; T. Cekalovic. – MHNG; 7 ♂; same locality; 13.III.1977; T. Cekalovic. – MHNG; 1 ♀; same locality; 15.III.1977; T. Cekalovic. – MHNG; 1 ♂ and 2 ♀; same locality; 16.IV.1977; T. Cekalovic. – MHNG; 1 ♀; same locality; 21.IV.1977; T. Cekalovic. – MHNG; 1 ♀; same locality; 15.X.1977; T.



Figs 82-86. *Achilia kindermanni,* male, holotype. Head (82-85) in (82) dorsal, (83) lateral, (84) oblique and (85) frontal views. Right antenna (86) in oblique view. Scale bars (200 µm), vertical for (82-85) and horizontal for (86).

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Cekalovic. – MHNG; 9 ♂ and 7 ♀; same locality; 29.IV.1978; T. Cekalovic. – MHNG; 1 ♀; same locality; 29.VIII.1978; T. Cekalovic. – MSNG; 4 ♂ and 11 ♀; same locality, TC-541a; 27.III.1997; T. Cekalovic. – MSNG; 8 ♂ and 14 ♀; same locality, TC-544; 20.I.1997; T. Cekalovic. – MSNG; 1 ♂ and 1 ♀; same locality, TC-292; Cekalovic. – MHNG; 2 ♂ and 7 ♀; Nonguén; 25.IX.1976; T. Cekalovic. – NHMW; 1 ♂ and 1 ♀ (identified as *A. tumidifrons*); Las Escaleras, TC-359; 29.VIII.1993; ex *Chusquea* sp.; T. Cekalovic. – MSNG; 47 ♂ and 28 ♀; same locality, TC-420; 04.I.1995; T. Cekalovic. – NHMW; 8 ♂ (identified as *A. tumidifrons*); El Manzano; T. Cekalovic. – NHMW; 1 ♂ and 2 ♀; same locality; 11.I.1992. –MSNG; 3 ♂ and 5 ♀; same locality, TC-329; 08.XI.1992; T. Cekalovic. – MSNG; 4 ♀; Fundo El Manzano, TC-503; 17.XI.1996; T. Cekalovic. – NHMW; 4 ♂ and 3 ♀; Collico; 22.I.1993; T. Cekalovic. – MSNG; 1 ♀; Chiguayante, TC-236; 11.IX.1990, T. Cekalovic. – MSNG; 20 ♂ and 35 ♀; Caleta Chome, TC-511; 01.I.1997; T. Cekalovic. – MHNG; 5 ♂ and 10 ♀; same data. – DBUC; 2 ♂ and 5 ♀; same data. – MHNG; 12 ♂ and 11 ♀; Hualpén; 05.III.1977; T. Cekalovic. – MSNG; 1 ♂; Peniquillo, TC-311; 15.IX.1992; T. Cekalovic. – MSNG; 1 ♂; same locality, TC-486; 21.IX.1996; T. Cekalovic. – NHMW; 2 ♂ and 3 ♀; Cuesta Chivilingo. – Ñuble prov.: MNHS; 1 ♀ (identified as *A. testacea*); Chillán, Germain. – Región Maule: Cauquenes prov.: JEBC; 1 ♂; Los Ruiles, 20 km W of Cauquenes; 01.X.2003; J. E. Barriga - Tuñón. – Linares prov.: FMNH (FMHD #57-123); 1 ♂ and 2 ♀; Cordillera de Parral, 36°00'S 71°20'W; V.1957; L. Peña.

Description: Body 1.45-1.65 mm long, usually entirely light reddish with elytra lighter and head darker, the latter also blackish; palpi usually yellowish, antennae and legs often yellowish; abdomen and pronotum often darker.

Male: Head as in Figs 82-85, vertexal foveae small; medial part of frons posteriorly convex, becoming broad and flat anteriorly with marked deep transverse sulcus. Antennae (Figs 43, 86) with scape and pedicel longer than wide; antennomere III distinctly longer than wide; antennomeres IV-VII slightly longer than wide; antennomere VIII slightly wider than long; antennomeres IX-X wider than long with enlarged medial margin; antennomere X distinctly wider than IX; antennomere XI 1.5-2.0 times longer than wide, longer than VI-X combined, covered with scattered tubercles. Distal half of metaventrite distinctly impressed, with large medial ovoidal pit, posterior margin of pit surmounted by medial tubercle. Legs with mesotibiae (Figs 37-38) more or less enlarged and sinuate on distal third, bearing stout apical spine on medial margin. Abdomen with sternites flattened at middle, first sternite broadly so. Aedeagus (Fig. 5) 0.26-0.275 mm long; dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with long seta at distal third; apical portion narrowed and bearing ventral medial seta. Copulatory pieces consisting of two subequal sclerites that are apically rounded, with two subequal trifid spines at distal third of internal sac.

Female: Similar to male except head with shorter frons and posterior portion of vertex flat; antennae shorter, antennomere XI shorter; basal third of metaventrite impressed only at middle; abdominal sternites and legs unmodified.

Collecting data: Collected almost throughout the year. Most of the material lacks ecological indications; however, the little information available indicates that the species occurs in different types of forests at elevations ranging from 50 m to about 460 m. The material was collected from sifted samples of leaf and log litter, and flight intercept traps (FIT).

Distribution: *Achilia kindermanni* is widespread in Southern and Central Chile, where it was found from the Los Lagos to the Maule Regions (Fig. 117 red circles).

Comments: *Achilia kindermanni* was described by Reitter (1883: 51) based on a single male specimen from Valdivia. We identified the holotype as a male specimen from the Raffray collection of the MNHN that matches the original description, comes from Valdivia, and moreover bears locality and identification labels handwritten by Reitter (see section at the beginning of this species treatment covering "Type material").

The males of *A. kindermanni* are easily distinguished from those of the other species of the *A. kindermanni* group by the shape of the head (Figs 82-85), antennae (Figs 43, 86), and aedeagus (Fig. 25). The females of *A. kindermanni* are similar to those of *A. longiceps*; for characters to distinguish females of these two species see the "Comments" section of the latter species.

Achilia longiceps (Reitter, 1885)

Figs 26-36, 39-42, 87-96, 118

Bryaxis longiceps Reitter, 1885: 327 pl. 2 fig. 8 (head and antenna of male).

Achilia longiceps Jeannel, 1962: 431, 432 figs 203 (male head), 211 (male habitus) and 217 (aedeagus).

Achilia curta Jeannel, 1962: 431, 433 figs 210 (male habitus) and 215 (aedeagus) (**syn. nov.**).

Achilia latifrons Raffray, 1904: 138; Jeannel, 1962: 443 (**syn. nov.**).

Type material (**9 ex.**)**:** CHILE: MNHN; 1 ♂ (Lectotype of *A. longiceps* here designated); labels verbatim: "Lectotype (red label) / TYPE (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. longiceps*; A. Raffray det. / *A. longiceps* (handwritten by Jeannel) / *Achilia; longiceps* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2022". – MNHN; 4 ♂ (Paralectotypes of *A. longiceps* here designated); labels verbatim: "Paralectotype (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. longiceps*; A. Raffray det. / *Achilia; longiceps* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2022". – MNHN; 1 ♀ (Lectotype of *A. latifrons* here designated); labels verbatim: "Lectotype (red label) / TYPE (red label) / Grov. Chili / Museum Paris; 1917; coll. Raffray / *A. latifrons*; A. Raffray det. / *latifrons*; Raff. (handwritten by Jeannel) / *Achilia*; *latifrons* Raffray =; *Achilia longiceps* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 2 ♀

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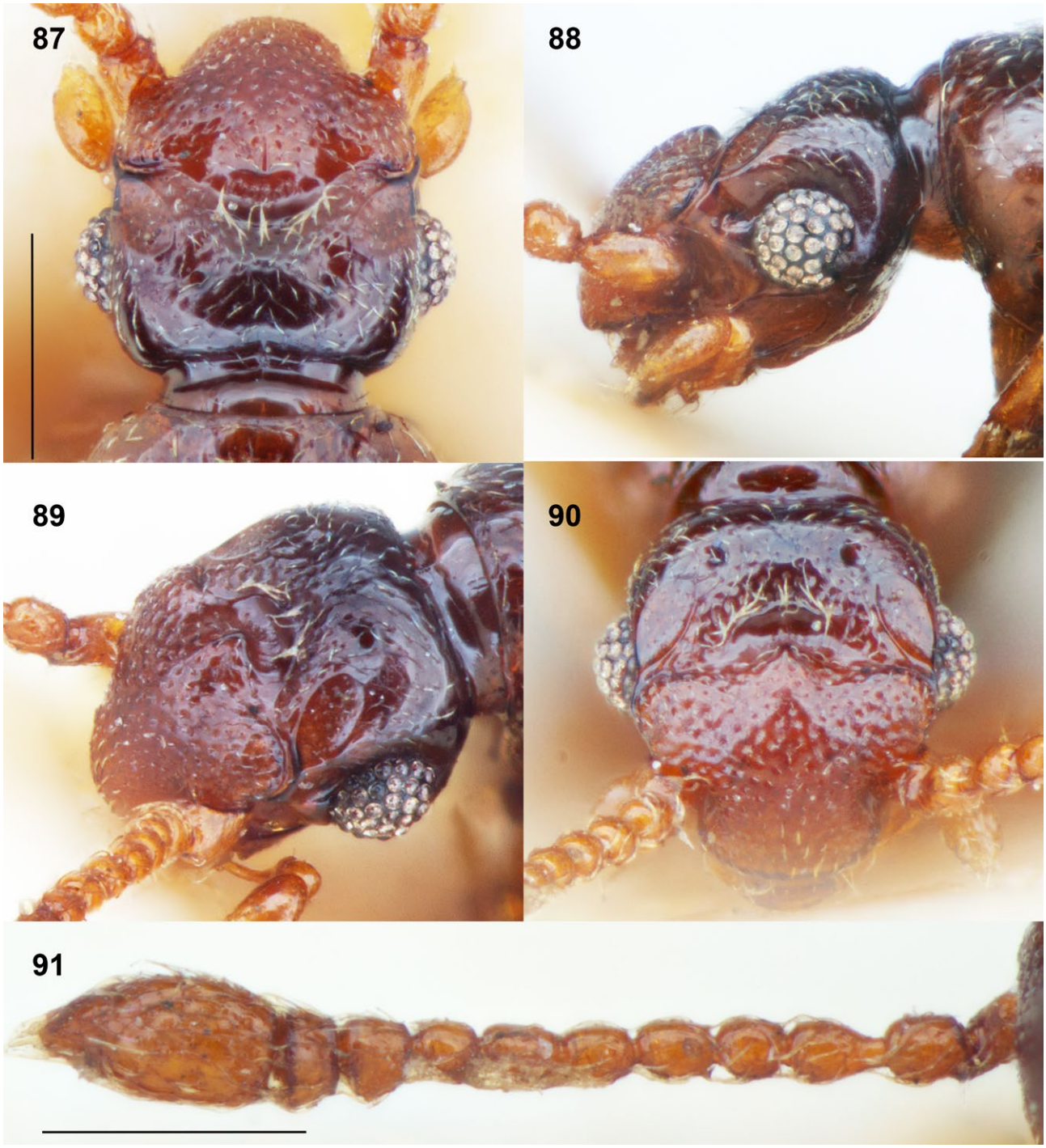
(Paralectotype of *A. latifrons* here designated); labels verbatim: "Paralectotype (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. latifrons*; A. Raffray det. / *Achilia*; *latifrons* Raffray =; *Achilia longiceps* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023". Región Los Lagos: Chiloé prov.: MNHN; 1 ♂ (Holotype of *A. curta* here fixed); labels verbatim: "Holotype (red label) / Chepu; 13.10.58 / *Achillia; curta* m. (handwritten by Jeannel) / *Achilia; curta* Jeann. =; *Achilia longiceps* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023.

Additional material examined (174 ex.): SOUTHERN AND CENTRAL CHILE: Región Los Lagos: Chiloé prov.: PCVB; 1 ♂; Mocopulli; 04.II.1988; T. Cekalovic; ex *Berberis buxifolia*. – MHNG; 1 ♂; Chiloé National Park, Cucao, station 55b; 42° 37'S 74° 08'W; 50 m; 13.I.1994; D. Burckhardt. – FMNH (FMHD# 2002-069); 1 ♂; Chiloé National Park; (sector Chanquin) Sendero Dunas de Cucao; 42° 37.36'S 74° 06.82'W; 1 m; 11-22.XII.2002; A. Newton & M. Thayer 1061; dune evergreen forest w/ large ferns & shrubby understory. – MSNG;



Figs 87-91. *Achilia longiceps,* male, lectotype. Head (87-90) in (87) dorsal, (88) lateral, (89) oblique and (90) frontal views. Right antenna (91) in oblique view. Scale bars (200 µm), vertical for (87-90) and horizontal for (91).

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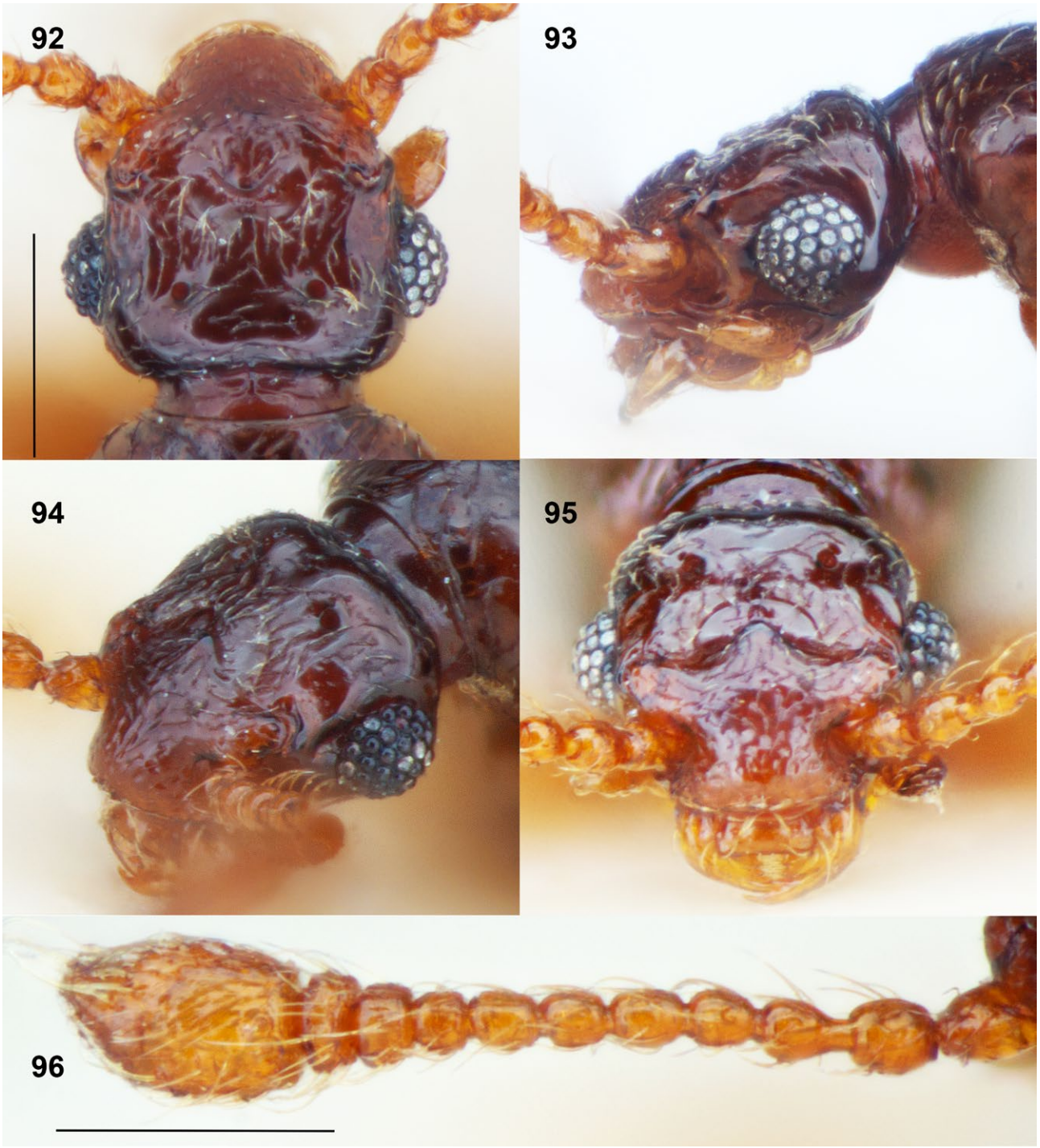
1 ♀; 5 km SW Chonchi, 14.I.1999; T. Cekalovic. – Llanquihue prov.: MNHS; 1 ♀ (mislabelled as holotype of *Achilia curta* n. 1855); La Esperanza; 17.II.1954; G. Kuschel leg. – MNHN, 1 ♀; same data. – Región Bio-Bio: Concepción prov.: PCVB; 4 ♂ and 16 ♀; Escuadrón, TC-239; 17.IX.1989; T. Cekalovic. – MHNG; 2 ♂ and 1 ♀ same data. – MSNG; 1 ♂ and 4 ♀; same locality, TC-207; 16.IV.1988; T. Cekalovic. – MSNG; 8 ♂ and 29 ♀; same locality TC-207; 17.IX.1989, T. Cekalovic. – MHNG; 3 ♂ and 4 ♀; same data. – MSNG; 2 ♂ and 18 ♀; same locality, TC-243; 12.X.1989, T. Cekalovic. – MHNG; 1 ♂ and 4 ♀; same data. – Escuadrón Mayo, TC-232; VII.1989; T. Cekalovic. – FMNH; 7 ♂ and 19 ♀; Patagual, TC-369; 29.XI.1993; T. Cekalovic. – MHNG; 2 ♂ and 4 ♀; same data. – MSNG; 8 ♂ and 17 ♀; Camino a Coronel, TC-237; 15.IX.1989, T. Cekalovic. – MHNG; 1 ♂ and 4 ♀; same data. – MHNG; 1 ♂; Hualpén; 06.IV.1977; T. Cekalovic. – PCVB; 1 ♂; Concepción;



Figs 92-96. *Achilia longiceps,* male, holotype of *A. curta*. Head (92-95) in (92) dorsal, (93) lateral, (94) oblique and (95) frontal views. Right antenna (96) in oblique view. Scale bars (200 µm), vertical for (92-95) and horizontal for (96).

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05.IX.1985; T. Cekalovic. – MHNG; 1 ♂; Cerro Caracol, TC-290; 14.IX.1991; T. Cekalovic. – MSNG; 3 ♂; Puente Pelun, TC-358; 21.II.1993, T. Cekalovic. – MHNG; 1 ♂; same data. – PCVB; 5 ♀; El Manzano; 06.I.1988; T. Cekalovic. – MSNG; 3 ♂; same locality, TC-503; 17.XI.1996, T. Cekalovic. – MHNG; 1 ♂; same data. – FMNH; 1 ♂; Estero Nonguén, TC-605; 19.XI.1999, T. Cekalovic. – Ñuble prov.: MNHN; 1 ♂; Chillán. – FMNH; 1 ♂; Las Trancas, 19.5 km ESE Recinto, site 647; 1250 m; 10.XII.1982/03.I.1983; A. Newton & M. Thayer; *Nothofagus* forest; berlese, leaf and log litter, forest floor.

Description: Body 1.35-1.50 mm long, generally entirely dark brown with elytra, antennae and legs reddish, palpi yellowish; many specimens lighter in color.

Male: Head as in Figs 87-90 and 92-95, possessing two small vertexal foveae; median occipital region more or less sparsely punctate and more (Figs 87-88, 90) or less convex (Figs 92-93, 95) with surface separated from frons by deep arcuate transverse sulcus, frons densely to sparsely punctate and more (Figs 87, 89-90) or less (Figs 92, 94-95) elongate anteriorly. Antennae (Figs 40-42, 91, 96) also slightly variable; scape longer than wide; pedicel longer than wide (Figs 41-42) or about as long as wide (Fig. 40); antennomere III distinctly longer than wide; antennomere IV about as long as wide; antennomeres V-VI distinctly longer than wide (Fig. 40) or about as long as wide (Figs 41-42); antennomere VII longer than wide; antennomere VIII about as long as wide (Fig. 40) or wider than long (Figs 41-42); antennomeres IX-X about as long as wide (Fig. 40) or wider than long with enlarged medial margin (Figs 41-42); antennomere XI twice as long as wide (Fig. 40) or shorter (Figs 41-42). Metaventrite with large and deep medial sulcus on posterior half. Middle leg with posterior margin of mesotrochanters more or less pointed at middle (Figs 33-35), or with two lateral spines (Fig. 36); mesotibia (Fig. 39) slightly enlarged on distal third with stout apical spine on medial margin. Aedeagus (Fig. 26) 0.26-0.27 mm long; dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with one seta at distal third; apical portion recurved basally and bearing one small medioventral seta. Copulatory pieces consist of two subequal sclerites that are rounded apically. Internal sac with variable number of small spines (Figs 26-32).

Female: Similar to male except with shorter antennae; head, metaventrite, and legs unmodified.

Collecting data: The available information indicates that this species was collected from July to February at elevations ranging from sea level to about 1250 m.

Distribution: *Achilia longiceps* is known from the Regions of Los Lagos and Bío-Bío (Fig. 118 blue inverted triangles); the lack of records from the intervening regions of Los Ríos and Araucanía is suspicious.

Comments: Reitter (1885: 323, 327-328) described *A. longiceps* based on an unknown number of males collected from Valdivia, specifying that the female was unknown. Jeannel (1962: 433) redescribed this species mentioning that 5 males collected in Valdivia are present in the MNHN collections, and also stated that the female was unknown. In the Raffray collection housed in the MNHN we found indeed 5 males identified as *A. longiceps* by both Raffray and Jeannel, with the first male of this series bearing a "TYPE" red label. Despite the fact that these 5 specimens are labelled as from "Chili" without further indication, we consider that there is no reason to doubt that these 5 males 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 the lectotype of *A. longiceps,* and the remaining 4 males as paralectotypes.

Jeannel (1962: 433) described *A. curta* on the basis of one male from Chepu (Chiloé province), and one male and one female from La Esperanza (Llanquihue province), stating that the holotype of *A. curta* from Chepu was housed in the MNHS. We examined the specimen listed in the catalog of the MNHS holotypes of insects (Camousseight, 1980: 17): it is indeed a male of *A. curta*, but labeled as from "La Esperanza". On the other hand, we found in the MNHN collection one male of *A. curta* labeled as from Chepu, identified as such by Jeannel and bearing a "TYPE" red label. So, the latter specimen housed in the MNHN is the holotype of *A. curta*.

According to Jeannel (1962: 433) the males of *A. curta* differ from those of *A. longiceps* by the shorter and narrower head, the shorter antennae, and the aedeagus with copulatory pieces longer and slenderer. We have compared the lectotype and paralectotypes of *A. longiceps* with the holotype of *A. curta*, and their aedeagal conformation is nearly identical (Figs 26-32). Furthemore, after examination of extensive additional material, our opinion is that the morphological differences between these two types fall within the intraspecific variability of what we hold as one species. Consequently, we place *A. curta* as a junior synonym of *A. longiceps* (**syn. nov.**).

For convenience we will deal here with *A. latifrons* Raffray, 1904, although it technically belongs to the "Species *incertae sedis*" according to Jeannel (1962) and Franz (1996). Raffray (1904: 138) described *A. latifrons* based on an unknown number of specimens from Chile, without further geographic indication. In the Raffray Collection housed in the MNHN we found three females identified as such by Raffray and labeled as from "Chili", one of them bearing also a red "TYPE" label. Jeannel (1962: 433) redescribed this species and mentioned only three females from Chile as being present in the MNHN collection. We consider that there is no reason to doubt that these three females belong to the series used by Raffray to describe this species. The female bearing the red "TYPE" label, which corresponds perfectly to

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Reitter's original description, is here designated as the lectotype of *A. latifrons*, and the remaing two females as paralectotypes.

We have closely examined the types of *A. latifrons*, which fit perfectly in our concept of *A. longiceps* (see treatment of this species above). Consequently, we place *A. latifrons* as a junior synonym of *A. longiceps* (**syn. nov.**).

The males of *A. longiceps* are easily distinguished from those of the other species of the *A. kindermanni* group by the shape of the head (Figs 87-90, 92-95), antennae (Figs 40-42, 91, 96), mesotrochanters (Figs 33-36), mesotibiae (Fig. 39), and aedeagus (Fig. 26). The females of *A. longiceps* are easily distinguished from those of *A. kindermanni* by the subparallel lateral margins of the head and the frontal lobe wide in *A. longiceps*, while in *A. kindermanni* the lateral margins of the head are anteriorly convergent and the frontal lobe is narrow.

Achilia humidula species group

Jeannel (1962: 398, 435) characterized this group as follows: elytra with three basal foveae; basal striae of first abdominal tergite separated at most by a quarter of tergal width; frontal lobe of male's head modified; male's antennomeres unmodified; funicular antennomeres not longer than wide; aedeagal parameres with denticulate distal margin; aedeagal internal sac with a pair of copulatory pieces.

According to Jeannel (1962) this group contained three species: *A. elongata* Jeannel, 1962, *A. humidula* (Reitter, 1995) and *A. occipitalis* Jeannel, 1962. According to Sabella *et al.* (2017: 120) we should also add to these species *A. parvula* Jeannel, 1962. However, after close examination of the holotypes of these taxa as well as that of *A. diademata* Jeannel, 1962 (the latter species assigned by Jeannel (1962) to the group of *A. praeclara*) we came to the conlusion that these four names are junior synonyms of *A. humidula* (**syn. nov.**). Consequently, the *A. humidula* group is reduced to only *A. humidula.*

Achilia humidula (Reitter, 1885)

Figs 44-51, 97-101, 118

Bryaxis humidula Reitter, 1885: 329, pl. 2 fig. 13 (head and antennae of male).

Achilia humidula Jeannel, 1962: 435, 436 figs 205 (male head) and 208 (aedeagus).

Achilia diademata Jeannel, 1962: 438, 439, fig. 214 (aedeagus) (**syn. nov.**).

Achilia elongata Jeannel, 1962: 435 figs 206 (aedeagus) and 209 (male habitus) (**syn. nov.**).

Achilia occipitalis Jeannel, 1962: 435, 436, fig. 207 (aedeagus) (**syn. nov.**).

Achilia parvula Jeannel, 1962: 401 (**syn. nov.**).

Type material (27 ex.): CHILE: MNHN; 1 ♂ (Holotype of *A. humidula*); labels verbatim: "Holotype (red label) / TYPE (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. humidula*; A. Raffray det. / *humidula*; Reitt. (handwritten by Jeannel) / *Achilia; humidula* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023". – SOUTHERN AND CENTRAL CHILE: Región Los Lagos: MNHS; 1 ♂ (Holotype of *A. diademata*); labels verbatim: "Zapallar; 20.3.57; leg. G. Kuschel / TYPE (red label) / Chile M.N.H.N./ tipo n° 1858 / *Achillia; diademata* m. (handwritten by Jeannel) / *Achillia diademata*; Jeannel / *Achilia; diademata* Jeann. =; *Achilia humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023 / *Achilia; humidula* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 1 ♂ (paratype of *A. diademata*); labels verbatim: "Paratype (red label) / Zapallar; 20.3.57 / *Achillia; diademata* m. (handwritten by Jeannel) / *Achilia; diademata* Jeann. =; *Achilia humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023" / *Achilia; humidula* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 2 ♀ (Paratypes of *A. diademata*); labels verbatim: "Paratype (red label) / Zapallar; 20.3.57 / *Achilia; humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 1 ♂ (Holotype of *A. elongata* here fixed); labels verbatim: "Holotype (red label) / Chepu; 13.10.58 / *Achillia; elongata* m. (handwritten by Jeannel) / *Achilia; elongata* Jeann. =; *Achilia humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023". – MNHS; 1 ♂ (Holotype of *A. occipitalis*); labels verbatim: "Chepu; 4.10.58; leg. G. Kuschel / TYPE (red label) / *Achillia; occipitalis* m. (handwritten by Jeannel) / *Achillia*; *occipitalis*; Jeannel / Chile M.N.H.N./ tipo n° 1856 / *Achilia; occipitalis* Jeann. =; *Achilia humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023/ *Achilia; humidula* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 1 ♂ (Paratype of *A. occipitalis*); labels verbatim: "Paratype (red label) / Chepu; 13.10.58 / *Achillia; occipitalis* m. (handwritten by Jeannel) / *Achilia; occipitalis* Jeann. =; *Achilia humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023" / *Achilia; humidula* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 3 ♂ and 10 ♀ (Paratypes of *A. occipitalis*); labels verbatim: "Paratype (red label) / Chepu; 13.10.58 / *Achilia; humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 1 ♂ and 4 ♀ (Paratypes of *A. occipitalis*); labels verbatim: "Paratype (red label) / Chepu; 04.10.58 / *Achilia; humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 1 ♀ (Holotype of *A. parvula,* here fixed); labels verbatim: "Holotype (red label) / Chepu; 9.10.58 / *Achilia; parvula* (handwritten by Jeannel) /*Achilia; parvula* Jeannel =; *Achilia humidula* (Reitt.); det. Sabella, Cuccodoro & Kurbatov 2023".

Additional material examined (100 ex.): SOUTHERN AND CENTRAL CHILE: Región Los Lagos: Llanquihue prov.: PCVB; 1 ♂; Abtao, TC-201; 07.II.1988; T. Cekalovic. – MNHN; 2 ♂; Frutillar; 20.IX.1957. – Chiloé prov.: MHNG; 4 ♂; Chiloé Island, Huillinco Lake; 31.I.1983; T. Cekalovic. – MHNG; 1 ♂; Vilupulli; 26.II.1976; T. Cekalovic. – MSNG; 3 ♂ and 6 ♀; Estero Tablin, TC-609; 19.I.2000; T. Cekalovic. – MSNG; 1 ♀; Puente La Caldera, TC-466; 15.II.1996; T. Cekalovic. – MSNG; 1 ♀; Chepu, TC-624; 26.I.2000; T. Cekalovic. – Osorno prov.: MNHW; 1 ♀; Umg. Osorno; H. Franz. – FMNH; 1 ♂; 7.7 km NE Termas de Puyehue, site 664; 200 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian raiforest, window traps. – Región Los Ríos: Valdivia prov.: MHNG; 1 ♂ and 1 ♀; Parque Nacional Alerce Costero, Chaihuín; 0-100 m; 16.II.2018; forest litter; S. Kurbatov. – Región Araucanía: Cautín Prov.: PCVB;

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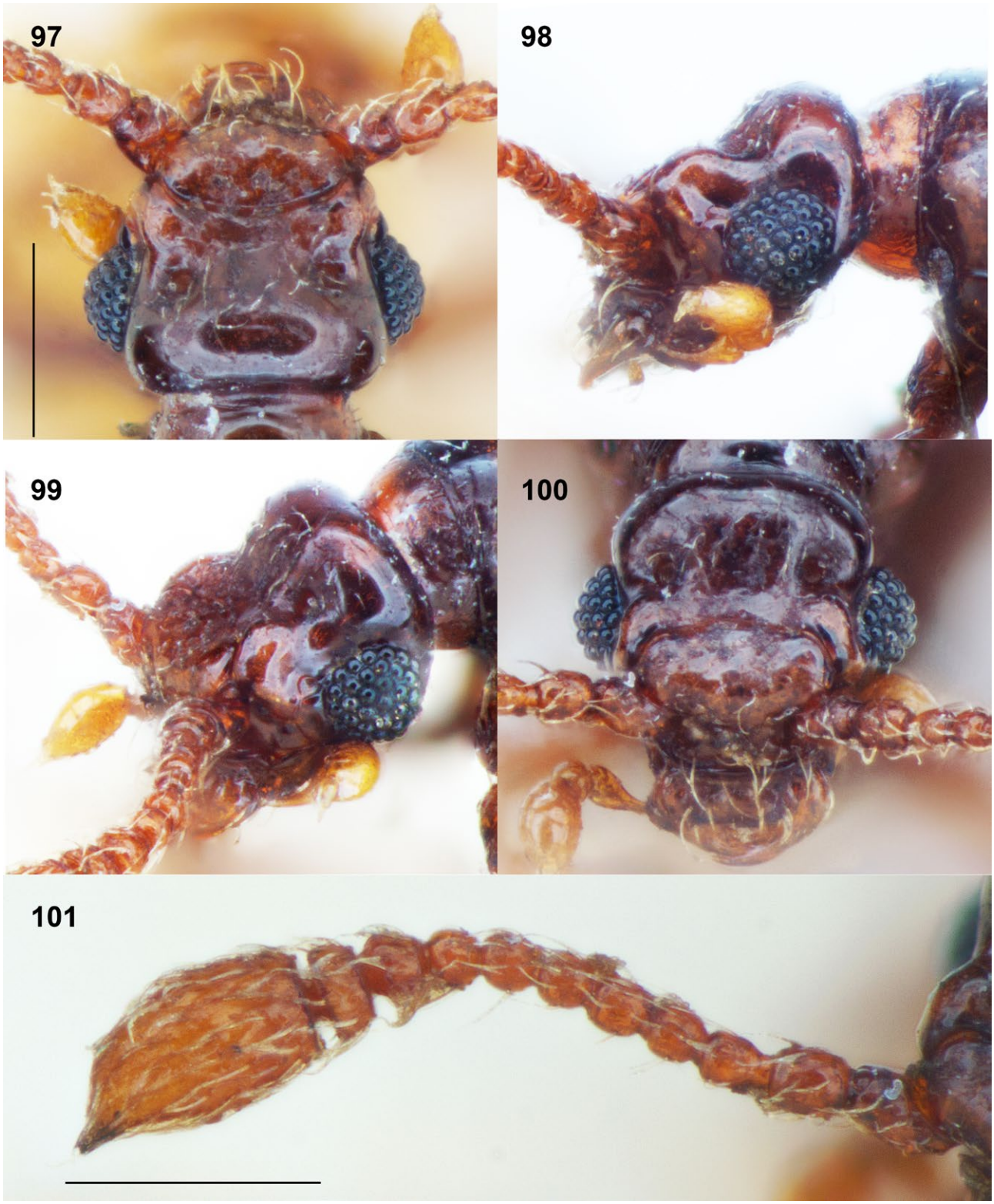

Figs 97-101. *Achilia humidula,* male, holotype. Head (97-100) in (97) dorsal, (98) lateral, (99) oblique and (100) frontal views. Right antenna (101) in oblique view. Scale bars (200 µm), vertical for (97-100) and horizontal for (101).

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1 ♀; 15 km E Cherquenco, TC-202; 10.II.1988; T. Cekalovic. – MHNG; 11 ♂; 15 km NE Villarica, Flor del Lago; 300 m; 14.XII.1984/10.II.1985; S. & J. Peck; 2 FIT *Nothophagus* forest. – Región Bío Bío: Arauco prov.: MNHS; 5 ♂ and 2 ♀ (identified as *A. occipitalis*); Isla Mocha; 12.X.1959; G. Kuschel. – MNHN; 2 ♂ and 6 ♀; same locality; 12.X.1959. – NHMW; 10 ♂ and 42 ♀ (identified as *A. tumidifrons*); same locality; T. Cekalovic – Concepción prov.: NHMW; 1 ♀ (identified as *Achilia tumidifrons*); Peniquillo; 24.IX.1993. – Región Valparaíso: Petorca prov.: MNHS; 2 ♀ (mislabbelled as paratypes n. 1859 and 2081 of *A. diademata*); Zapallar; 20.III.57; G. Kuschel.

Description: Body 1.40-1.50 mm long, head and abdomen usually dark brown, sometimes blackish, pronotum more or less dark brown, elytra, antennae and legs reddish, palpi yellowish; some specimens lighter in color; pubescence uniform, very sparse and decumbent, consisting of very few long setae. Head wider than long, with vertexal foveae approximately at level (but separated) of anterior eye margins; eyes longer than temples. Pronotum wider than long, wider than head; disc convex, smooth and shiny; median antebasal fovea approximately as big as lateral foveae; anterior portion of lateral margins convergent and slightly sinuate anteriorly; posterior portion of lateral margins slightly convergent and rounded; basal margin bordered with row of contiguous shallow impressions. Elytra together wider than long with very prominent humeri; disc smooth, shiny, with very few punctures; usually with four basal foveae, outer fovea very wide, more mesally with two smaller foveae merging together in some specimens; sutural stria entire; discal stria extended to about elytral mid-length. Abdomen smooth, with some minute punctures; first tergite with divergent basal striae extending to about one-fourth of paratergal length and separated at base by about one-third of tergal width, with very short and sparse setal brush between basal striae.

Male: Head as in Figs 97-100, with occipital region and posterior region of frons distinctly raised, anterior part of frons flattened with lateral margins protruding, anteriorly with deep and large arcuate transverse sulcus. Antennae (Figs 49, 101) with scape longer than wide; pedicel and antennomere III about as long as wide; antennomeres IV-VII slightly wider than long; antennomere VIII wider than long; antennomeres IX-X wider than long with medial margin enlarged; antennomere XI about 2 times longer than wide, longer than VII-X combined. Distal half of metaventrite with large and deep ovoidal dimple with lateral margins pubescent. Abdominal ventrites slightly flattened at middle. Legs with posterior margin of mesotrochanters bearing seta at middle (Fig. 50); mesotibia (Fig. 51) distinctly enlarged and thickly pubescent on distal third. Aedeagus (Figs 44-48) 0.30-0.31 mm long; dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide, with lateral margin on distal third bearing two teeth fairly variable in shape (Figs 44-47); outer lobe of parameres bearing long seta; apical portion of lobe of parameres recurved basally, bearing small medioventral seta. Copulatory pieces consisting of two subequal sclerites that are apically pointed. Internal sac with some small spines.

Female: Similar to male except head, metaventrite, abdominal sternites, and legs unmodified.

Collecting data: The available information indicates that this species was collected from September to March at elevations ranging from sea level to about 300 m.

Distribution: *Achilia humidula* is known from the Regions of Los Lagos and Valparaíso (Fig. 118 green diamonds). The lack of records from the Regions of Maule, Libertador General Bernardo O'Higgins, and Metropolitana is surprising.

Comments: Reitter (1885: 325, 329) described *A. humidula* based on one male from Valdivia, stating that he wasn't sure if it was really a male. Jeannel (1962: 433) redescribed the species mentioning only one male collected in Valdivia that was present in the MNHN collection, stating that the female was unknown. In the Raffray Collection housed in the MNHN we indeed found only a single male identified as *A. humidula* by both Raffray and Jeannel, and bearing a red "TYPE" label. Despite the fact that the specimen is only labelled as from "Chili" without further information, we have no reason to doubt that this male, which corresponds perfectly with Reitter's original description, is the holotype of *A. humidula*.

Jeannel (1962: 438-439) described *A. diademata* based on five specimens collected in Zapallar on 20.III.1957, stating that the holotype of this species was housed in the MNHS. We found this holotype in the MNHS collection, and was listed as such in the catalog of the MNHS holotypes of insects (Camousseight, 1980: 16).

According to Jeannel (1962: 438-439) *A. diademata* could belong to the *A. praeclara* group. However, we have compared the holotype of *A. humidula* with the types of *A. diademata* and their aedeagal conformation is nearly identical (Figs 44-45). In our opinion the few subtile differences between the males of these series fall within the intraspecific variability of what we hold as one species. Consequently, we place *A. diademata* as a junior synonym of *A. humidula* (**syn. nov.**). Jeannel (1962: 435) described *A. elongata* on the basis of one male collected in Chepu on 13.X.1958, stating that this holotype was housed in the MNHS. However, in the MNHS collections we could not find any specimens of *A. elongata* and this species is not listed in the catalog of the MNHS holotypes of insects (Camousseight, 1980). Instead, we found in the MNHN one male of this species identified as such by Jeannel and labeled as being from Chepu, and bearing a red "TYPE" label. Our opinion is that there is no reason to doubt that this specimen is the holotype of *A. elongata*. According to Jeannel (1962: 435-436) the male of *A. elongata* differs from that of *A. humidula* by its larger

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size (1.6 mm instead of 1.4 mm of *A. humidula*), the head and pronotum are longer than wide (no longer than wide in *A. humidula*), and by the morphology of aedeagus with the parameres more rounded on the lateral margins and straighter apically, with the copulatory pieces less arched distally than in *A. humidula*. We have compared the holotypes of *A. humidula* and *A. elongata*, and their aedeagal conformation is nearly identical (Figs 44, 46). Furthemore, after examination of extensive additional material, our opinion is that the morphological differences between these two holotypes fall within the intraspecific variability of what we hold as one species. Consequently, we relegate *A. elongata* as a junior synonym of *A. humidula* (**syn. nov.**). Jeannel (1962: 435-436) described *A. occipitalis* based on numerous specimens collected in Chepu on 13.X.1958 and 20.X.1958, and stated that the holotype of that species was housed in the MNHS. We found this holotype in the MNHS collection, and it was listed in the catalog of the MNHS holotypes of insects (Camousseight, 1980: 16).

According to Jeannel (1962: 435-437) the male of *A. occipitalis* differs from that of *A. humidula* by a larger frontal lobe that has a flattened surface and a very deep and wide anterior transverse sulcus (frontal lobe narrower, with concave surface and barely visible anterior transverse sulcus in *A. humidula*), and by the morphology of aedeagus, which is shorter and broader than that of *A. humidula* with very large lateral teeth of the parameres, apex of the parameres strongly curved. We have compared the type materials of *A. humidula* and *A. occipitalis*, and their aedeagal conformation is nearly identical (Figs 44-47). Furthemore, after examination of extensive additional material, our opinion is that all the morphological differences between these two types fall within the intraspecific variability of what we hold as one species. Consequently, we place *A. occipitalis* as a junior synonym of *A. humidula* (**syn. nov.**).

Jeannel (1962: 401) described *A. parvula* based on one female collected in Chepu on 09.X.1958. In the MNHN collection we found a single female identified as *A. parvula* by Jeannel, but lacking a red "TYPE" label. Although not bearing a type label, this female corresponds perfectly with Jeannel's original description. Therefore, we labeled it as the holotype of *A. parvula.*

We have examined the holotype of *A. parvula* and found it to fit perfectly our concept of *A. humidula.* Consequently, we place *A. parvula* as a junior synonym of *A. humidula* (**syn. nov.**).

The males of *A. humidula* are easily distinguished by the shape of the head (Figs 97-100), antennae (Figs 49, 101), mesotrochanters (Fig. 50), mesotibiae (Fig. 51), and the conformation of the aedeagus (Figs 44-48).

Achilia praeclara species group

Jeannel (1962: 398, 438) characterized this group as follows: elytra with three basal foveae; subparallel basal striae of first abdominal tergite separated by one third of tergal width; frontal lobe of male head modified; male antennomeres unmodified; aedeagal parameres with long apophysis at insertion of the seta.

The *A. praeclara* group currently includes 4 species: *A. convexiceps* (Reitter, 1885), *A. praeclara* (Reitter, 1885), *A. quadraticeps* Raffray, 1904, and *A. simulans* (Reitter, 1885). Previously this group also included *A. diademata*, which we synonymized above with *A. humidula* (see under this species).

The species of the *A. praeclara* group possess the following shared features: body pubescence decumbent, consisting of long very sparse setae on elytra and sparse on rest of body; head slightly wider than long, vertexal foveae at level of about half height of eyes; with antennomeres III-VIII about equal in width; pronotum wider than long, slightly wider than head, with disc slightly convex, its surface smooth and shiny with few scattered punctures; median antebasal pronotal fovea slightly smaller than lateral foveae; anterior portion of lateral margins of pronotum markedly convergent and sinuate anteriorly; posterior portion of lateral margins of pronotum slightly convergent; basal margin of pronotum bordered with row of contiguous shallow impressions; elytra together wider than long, with very prominent humeri; elytral disc smooth, shiny, with very few punctures; sutural stria entire; elytral discal stria extending to about elytral mid-length; abdomen smooth, with some minute punctures; first abdominal tergite with basal striae subparallel, extending to about one-fourth of paratergal length and separated at base by about one-third of tergal width, with short and very sparse setal brush between basal striae.

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

Achilia convexiceps Raffray, 1904

Achilia convexiceps Raffray, 1904: 135; Jeannel, 1962: 438, 440.

Type material (**2 ex.**)**:** CHILE: MNHN; 1 ♀ (Lectotype of *A. convexiceps* here designated); labels verbatim: "Lectotype (red label) / TYPE (red label) / 7 Grow.; Chili / Museum Paris; 1917; coll. Raffray / *A. convexiceps*; A. Raffray det. / *convexiceps*; Raff. (handwritten by Jeannel) / *Achilia; convexiceps* Raffr. ♀; det. Sabella, Cuccodoro & Kurbatov 2023". – MNHN; 1 ♀ (Paralectotype of *A. convexiceps* here designated); labels verbatim: "Paralectotype (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. convexiceps*; A. Raffray det. / *Achilia; convexiceps* Raffr. ♀; det. Sabella, Cuccodoro & Kurbatov 2023".

Description: *Male*: Unknown.

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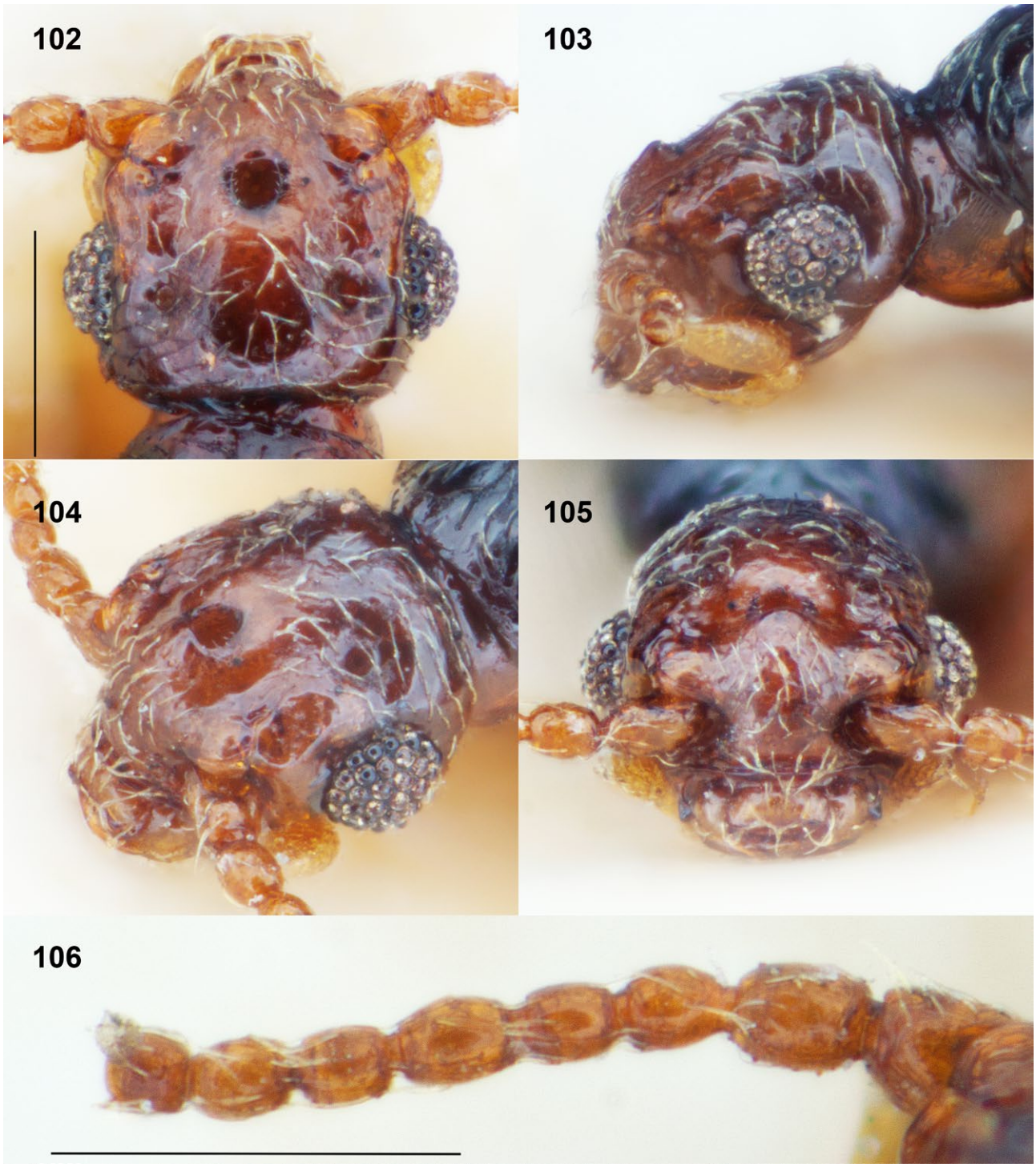
Female: Body 1.55 mm long, elytra reddish, palpi yellowish. Head shining, with sides anteriorly convergent; frons distinctly raised at middle, frontal lobe with marked transverse sulcus; tempora convex, about as long as eyes. Antennae with scape and pedicel slightly longer than wide; antennomeres III-VIII about as long as wide; antennomeres IX-X wider than long; antennomere X distinctly larger than IX; antennomere XI longer than wide, about as long as VII-X combined. Elytra with three basal foveae; humeral area not very prominent. Distal half of metaventrite slightly impressed at middle. Legs with posterior margin of protrochanters pointed at middle.



Figs 102-106. *Achilia praeclara,* male, holotype. Head (102-105) in (102) dorsal, (103) lateral, (104) oblique and (105) frontal views. Right antenna (106) in oblique view, antennomeres 9-11 missing. Scale bars (200 µm), vertical for (102-105) and horizontal for (106).

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Collecting data: No data available.

Distribution: No precise data available.

Comments: Raffray (1904: 135) described *A. convexiceps* based on an unknown number of specimens from Chile, without further indication of locality, possibly all females (l. c.: 136). Jeannel (1962: 433) redescribed this species, mentioning only two females from Chile present in the MNHN collection. In the Raffray collection housed in the MNHN we found two females labeled as from "Chili" identified by both Raffray and Jeannel as *A. convexiceps*. The first specimen was bearing a red "TYPE" label. These two females match perfectly Reitter's original description of the species, and there is thus no reason to doubt that they belong to the type series. Consequently, we designate the specimen bearing the red "TYPE" label as the lectotype of *A. convexiceps*, and the other as a paralectotype.
According to Raffray (1904: 136) *A. convexiceps* is similar to *A. approximans* (Reitter, 1885), a species we synonymized with *A. puncticeps* (Reitter, 1883) (see Sabella *et al.,* 2019). We share his opinion that *A. convexiceps* resembles more closely species of the *A. puncticeps* group than those of the *A. praeclara* group. Nevertheless, in absence of male specimens, we leave this placement as it is until the reliability of the species groups within *Achilia* are reassessed.

Achilia praeclara (Reitter, 1885)

Figs 52, 54, 58, 60, 102-106, 118

Bryaxis praeclara Reitter, 1885: 329, pl. 2 fig. 12 (male head).
Achilia praeclara Jeannel, 1962: 438, 439, figs 204 (male head) and 216 (aedeagus).

Type material (1 ex.): CHILE: MNHN; 1 ♂ (holotype of *A. praeclara* here fixed); labels verbatim "Holotype (red label) / TYPE (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. praeclara*; A. Raffray det. / *praeclara*; Reitt. (handwritten by Jeannel) / *Achilia*; *praeclara* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023".

Additional material examined (294 ex.): SOUTHERN AND CENTRAL CHILE: Región Aysén: Aysén prov.: FMNH (FMHD #85-990, #85-107); 1 ♂ and 2 ♀; 30 km N Puyuhuapi, 29.I.1985; S. & J. Peck; sifted moss on logs. – MHNG; 2 ♂ and 2 ♀; same data. – BMNH (E-2003-12); 5 ♂ and 5 ♀; Queulat National Park; XI.2003; D. Inward; transect litter. – MNHW; 1 ♂; Coyhaique; H. Franz. – Región Los Lagos: Llanquihue prov.: FMNH (FMHD #97-16); 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 #97-8); 1 ♀; 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* ssp., flight intercept trap. – FMNH (FMHD #97-28); 2 ♀; Alerce Andino National Park, near Sargazo entrance, 11.4 km from Correntoso; 41° 30'S 72° 37'W; 350 m; 19.I.1997; A. Newton & M. Thayer 998; valdivian rainforest, berlese, leaf & log litter. – FMNH (FMHD #97-11); 2 ♂ and 1 ♀; 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* & *Podocapus nubigena* w/valdivian rainforest understory, flight intercept trap. – FMNH (FMHD #2002-77); 1 ♂ and 7 ♀; Miraflores road to, ca 0.6 km W Ruta 5; 42° 46.74'S 73° 47.70'W; 130 m; 12.XII.2002; A. Newton & M. Thayer 1063; secondary Valdivian rainforest with few conifers, berlese, leaf & log litter. – Chiloé prov.: UHNC; 1 ♂; Ahoni Alto; 70 m; III.1988; L. Peña, malaise. – MHNG; 1 ♂; Chiloé National Park, near Cucao, 30 km SW Castro, station 34b; 42° 37'S 74° 08'W; 10-70 m; 28.XII.1992/01.I.1993; D. Burckhardt; sifting of moss on forest floor trees and dead trunks and vegetational debris. – MSNG; 2 ♂; 5 km SW Chonchi; 14.I.1999; T. Cekalovic. – MSNG; 1 ♂ and 1 ♀; 1 km W of Lago Huillinco, TC-564; 24.I.1998; T. Cekalovic. – FMNH (FMHD #2002-72); 1 ♂; S side of Huillinco lake, road to Bellavista; 1.3 km S road of Cucao; 42°41.81'S 73° 55.88'W; 45 m; 12-22.XII.2002; A. Newton & M. Thayer 1062; valdivian rainforest w/emergent *Saxegothea conspicua*, flight intercept trap. – MSNG; 1 ♂; Chepu; TC-275; 19.II.1991; T. Cekalovic. – MSNG; 1 ♂; same locality; TC-580; 09.II.1999; T. Cekalovic. – MSNG; 1 ♂; same locality, TC-610; 20.I.2000; T. Cekalovic. – MSNG; 3 ♂ and 7 ♀; same locality, TC-625; 26.I.2000, T. Cekalovic. – MHNG; 2 ♂ and 2 ♀; same data. – FMNH (FMHD #97-24); 3 ♂ and 7 ♀; 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. – FMNH (FMHD #2002-77); 1 ♂ and 7 ♀; Miraflores road to, ca 0.6 km W Ruta 5; 42° 46.74'S 73° 47.70'W; 130 m; 12.XII.2002; A. Newton & M. Thayer 1063; secondary Valdivian rainforest with few conifers, berlese, leaf & log litter. – Osorno prov.: FMHD; 42 ♂ 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; flight intercept (windows) traps. – UHNC; 15 ♂; same data. – MHNG; 6 ♂; same data. – FMNH; 2 ♂ and 18 ♀; same locality; 19-26.XII.1982; A. Newton & M. Thayer; valdivian rainforest, vouchers associated with larvae, berlese, leaf & log litter, forest floor. – FMNH; 8 ♂ and 42 ♀; same locality; 19-26.XII.1982; A. Newton & M. Thayer; valdivian rainforest, screen sweeping. – MHNG; 3 ♂ and 4 ♀; same data. – FMNH (FMHD# 96-250); 2 ♂; 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# 97-4); 1 ♂ and 1 ♀; same locality; 01-30.I.1997; A. Newton & M. Thayer 985-2; valdivian rainforest w/large, *Saxegothea,* flight intercept trap. – FMNH (FMHD# 97-5); 1 ♂; same data; A. Newton & M. Thayer 985-3; valdivian rainforest w/large, *Saxegothea,* flight intercept trap. – FMNH; 4 ♀; 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; 1 ♂; Puyehue National Park, Antillanca road, 720 m, site 659; 18-24.XII.1982; A. Newton & M. Thayer; *Nothofagus* ssp. forest, flight intercept (windows) trap. – FMNH (FMHD #85-923, #85-38); 1 ♂; Puyehue National Park, Antillanca road; 500-1000 m; 18-20.XII.1984; S. & J. Peck; car netting. – MHNG; 7 ♂ and 2 ♀; same data. – FMNH; 6 ♂; 7.7 km NE Termas de Puyehue; 200 m, site 664; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log

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litter, forest floor. – UHNC; 6 ♂; same data. – MHNG; 1 ♂ and 1 ♀; Pucatrihue, 65 km W Osorno, station 21; 40° 28'S 73° 43'W; 150 m; 04.XII.1984; D. Burckhardt; valdivian rain forest, sifting of moss on dead tree trunks, branches and rocks and of vegetable detritus. – MHNG; 2 ♂; Puyehue National Park, Aguas Calientes; 500 m; 20.XII.1984; S. & J. Peck; forest litter on trail, sifting. – FMNH (FMHD #2002-90); 1 ♂; 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 (FMHD #2002-82); 4 ♂; Vicente Perez Rosales National Park, SW slope Volcàn Osorno, road to Ref. La Picada; 41° 03.25'S 72° 30.18'W; 660 m; 16.XII.2002; A. Solodovnikov, A. Newton & M. Thayer 1067; *Nothofagus dombeyi* w/conifers dense *Chusquea* bamboo understory, flat area, berlese, leaf & log litter. – Región Araucanía: Cautín prov.: FMNH; 1 ♂; Bellavista, North shore Lago Villarica, site 655; 310 m; 15-30.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flood debris forest stream. – MHNG; 3 ♂ and 1 ♀; 15 km NE Villarica, Flor del Lago; 500 m; 10.II.1985; S. & J. Peck; forest litter, berlese. – Malleco prov.: MHNG; 4 ♂; Purén, Contulmo Natural Monument; 350 m; 13.II.1985; S. & J. Peck; mixed forest litter. – Región Bío Bío: Concepción prov.: MHNG; 1 ♂; Pinares, 17.XI.1979, T. Cekalovic.

Description: Body 1.45-1.50 mm long, generally blackish with reddish elytra, antennae and legs, palpi yellowish, some specimens lighter. Eyes longer than temples. Elytra with three basal foveae, outer fovea large, the latter formed by two smaller foveae in some specimens; humeri very prominent.

Male: Head as in Figs 102-105; occipital region and posterior region of frons between vertexal foveae distinctly raised; anterior portion of frons slightly raised, extended anteriorly, with lateral margins protruding, with large circular hole at middle, anterior margin of that hole raised and pointed at middle; transverse sulcus lacking. Antennae (Figs 54, 106) with scape slightly longer than wide; pedicel and antennomeres III-IV about as long as wide; antennomere V slightly wider than long; antennomeres VI-VIII about as wide as long; antennomeres IX-X wider than long with thickened margin; antennomere XI longer than wide, longer than VII-X combined. Distal half of metaventrite with very large and deep ovoidal dimple with lateral margins rounded and markedly raised. Abdominal ventrites all shallowly impressed at middle. Legs with protrochanters bearing very long setae on ventral surface, with shorter setae along posterior margin (Fig. 58); mesotibiae (Fig. 60) slightly enlarged for distal third, with stout spine at apex of mesal margin. Aedeagus (Fig. 52) 0.24-0.25 mm long; dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with long seta on outer lobe apically enlarged; apical portion of outer lobes of parameres recurved basally and bearing one large medioventral seta. Copulatory pieces consist of two subequal stout sclerites that are rounded apically. Internal sac with two or three small spines on each side.

Female: Similar to male except head, metaventrite, abdominal sternites, and legs unmodified.

Collecting data: Collected from September to March; mainly in forests of *Nothofagus* spp. at elevations ranging from 45 m to about 1000 m. Most specimens, especially males, came from FIT, car netting, and malaise traps, but were also taken in sifted samples of leaf and log litter.

Distribution: *Achilia praeclara* is known from the Aysén and Bío Bío Regions (Fig. 118 circles edged in blue).

Comments: Reitter (1885: 325, 329) described *A. praeclara* based on one male from Valdivia, mentioning that the specimen was not in a good state of preservation, and without further details. Jeannel (1962: 439-440) redescribed this species, mentioning that only one male from Valdivia was present in the MNHN collection, adding that this specimen had the distal half of the elytra damaged. After a careful search through all of the MNHN collections, we found one male labeled as from "Chili", identified by both Raffray and Jeannel as *A. praeclara*, and bearing a red "TYPE" label. This specimen is indeed in a poor state of preservation (in particular the last antennomeres of both antennae are missing), but its elytra are still intact. The specimen carries only a "Chili" location label without further precision, and its state of conservation doesn't match the details given by Jeannel. However, it is otherwise a male in perfect accordance with Reitter's original description, and we believe that it is indeed likely the holotype of *A. praeclara*.

The males of *A. praeclara* are easily distinguished by the shape of the head (Figs 102-105), antennae (Figs 54, 106), protrochanters (Fig. 58), mesotibiae (Fig. 61), and aedeagus (Fig. 52).

Achilia quadraticeps Raffray, 1904

Achilia quadraticeps Raffray, 1904: 133; Jeannel, 1962: 438, 440.

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

Description: *Male*: Unknown.

Female: Body 1.40-1.45 mm long, dark brown with elytra, antennae and legs reddish, palpi yellowish. Head with occipital region and frons raised with subparallel margins; frontal lobe lacking transverse sulcus; tempora convex, shorter than eyes. Antennae with scape slightly longer than wide; pedicel distinctly longer than

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wide; antennomeres III-VIII about as long as wide; antennomeres IX-X wider than long; antennomere X distinctly larger than IX; antennomere XI longer than wide, about as long as VII-X combined. Elytra with two basal foveae; humeral area not very prominent. Distal half of metaventrite slightly convex. Legs not modified, except metatibiae bear long, setiform medioapical apophysis.

Collecting data: None available.

Distribution: No precise data available.

Comments: *Achilia quadraticeps* was described by Raffray (1904: 135) based on an unknown number of specimens from Chile without any further indication of locality; possibly all females (l. c.: 136). Jeannel (1962: 433) redescribed this species, mentioning only two females from Chile that were present in the MNHN collection. The Raffray collection which is housed in the MNHN holds two females from "Chili", identified by both Raffray and Jeannel as *A. convexiceps*", with one of these two specimens bearing a red "TYPE" label. These two females correspond perfectly with Reitter's original description of *A. quadraticeps,* and we believe that there is no doubt that they belong to the type series. Consequently, we designate the specimen bearing the red "TYPE" label as the lectotype of *A. convexiceps*, and the other specimen as a paralectotype.
According to Raffray (1904: 137) this species is similar to *A. picea* Raffray, 1904, which we synonymized with *A. elfridae* Raffray, 1904 (see Kurbatov *et al.,* 2021). We share his opinion that this species resembles more closely species of the *A. cosmoptera* group than that of the *A. praeclara* group. Nevertheless, in absence of male specimens, we will follow the current placement until the reliability of the species groups within *Achilia* are reassessed.

Achilia simulans (Reitter, 1885)

Figs 53, 55-57, 59, 61, 107-116, 118

Bryaxis simulans Reitter, 1885: 328, pl. 2 fig. 10 (head and antenna of male).
Achilia simulans Jeannel, 1962: 438, 441, figs 218 (male habitus) and 219 (aedeagus).

Type material (**1 ex**.)**:** CHILE: MNHN; 1 ♂ (holotype of *A. simulans* here fixed); labels verbatim "Holotype (red label) / TYPE (red label) / Chili / Museum Paris; 1917; coll. Raffray / *A. simulans*; A. Raffray det. / *A. simulans;* Reitt. (handwritten by Jeannel) / *Achilia; simulans* (Reitt.) ♂; det. Sabella, Cuccodoro & Kurbatov 2023".

Additional material examined (**286 ex**.)**:** SOUTHERN AND CENTRAL CHILE: Región Araucanía: Cautín prov.: MHNG; 5 ♂ and 2 ♀; Cerro Nielo National Park, Temuco; 300 m; 13.XII.1984; S. & J. Peck; mixed forest litter. – MHNG; 6 ♂ and 3 ♀; Conguillío National Park, station 12a; 950 m; 19-21.XII.1990; M. Agosti & D. Burckhardt; forest litter. – MHNG; 1 ♂ and 4 ♀; Conguillío National Park, Playa Linda, station 13a; 1150 m; 19-20.XII.1990; M. Agosti & D. Burckhardt; forest litter. – FMNH (FMHD #85-909, P#85-23); 1 ♂; Cerro Ñielol National Park, Temuco; 300 m; 13.XII.1984; S. & J. Peck; mixed forest litter. – FMNH; 1 ♂; Ñielol National Park, near Temuco, site 652; about 250 m; 14/30.XII.1982; A. Newton & M. Thayer; native forest remnants with *Nothofagus*, vouchers associated with larvae, leaf & log litter, forest floor. – FMNH (FMHD# 96-232); 1 ♂; Conguillío National Park, 4.0 km E Laguna Captrén guard sta.; 38° 38.98'S 71° 39.77'W; 1255 m; 23.XII.1996/05.II.1997; A. Newton & M. Thayer 976; *Nothofagus dombeyi* forest, berlese, flood debris along stream. – FMNH (FMHD #81-149); 1 ♂ and 1 ♀; 1 mi W of Nueva Imperial, W of Temuco; 16-22.II.1981; L. E. Peña; ex *Nothofagus* litter. – FMNH (FMHD# 96-226); 17 ♂ and 20 ♀; 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. – MHNG; 4 ♂ and 5 ♀; same data. – Malleco prov.: MNHN; 1 ♀ (identified as *A. pachycera*); Nahuelbuta; 1961; F. Castri. – JEBC; 26 ♂ and 17 ♀; Malleco, National Park Nahuelbuta, Pichinahuel; III.2001, J. E. Barriga-Tuñón. – JBEC; 11 ♂ and 10 ♀; same locality; 1200 m; 37° 47' S 73° 00' W; 22.XI.2004, fogging s/*Nothofagus dombeyi Araucaria araucana*; J. E. Barriga-Tuñón. – MHNG; 1 ♂; Nahuelbuta National Park, 45 km W Angol; 1400 m; 09.XII.1984/16.II.1985; S. & J. Peck; *Notophagus-Araucaria* forest, car trap. – FMNH (FMHD #2002-041); 20 ♂ and 11 ♀; 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. – MHNG; 2 ♂ and 2 ♀; same data. – Región Bio-Bio: Concepción prov.: MHNW; 9 ♂ and 2 ♀ (identified as *Achilia tumidifrons*); Escuadrón; 05.II.1994. – MSNG; 10 ♂ and 17 ♀; same locality, TC-205; 03.IV.1988. T. Cekalovic; bajo *Chusquea* sp. – MHNG; 2 ♂ and 2 ♀; same data. – MSNG; 6 ♂ and 6 ♀; same locality, TC-207; 16.IV.1988, T. Cekalovic. – MHNG; 1 ♂; Hualpén; 08.IV.1977; T. Cekalovic. – MSNG; 1 ♂; Las Escaleras, TC-249; 18.IX.1989; T. Cekalovic. – MSNG; 12 ♂ and 7 ♀; same locality, TC-247; 18.XI.1989; T. Cekalovic. – MHNG; 1 ♂ and 1 ♀; same data. – MSNG; 1 ♂; Caleta Chome, TC-511; 01.I.1997, T. Cekalovic. – MHNG; 1 ♀; Cerro Caracol, TC-290; 14.IX.1991; T. Cekalovic. – MSNG; 35 ♂ and 25 ♀; Lagunillas, TC-206; 10.IV.1988; T. Cekalovic. – MHNG; 4 ♂ and 4 ♀; same data. – Región Maule: Cauquenes prov.: JEBC; 1 ♂; Los Ruiles, 20 km W of Cauquenes; 01.X.2003; J. E. Barriga-Tuñón.

Description: Body 1.45-1.6 mm long, generally reddish-testaceous with antennae and legs reddish, palpi yellowish, some specimens darker, more are lighter; the dark, almost blackish color of some specimens likely is due to some kind of oxidation during their conservation in alcohol and acetic acid. Tempora longer than eyes. Elytra with three basal foveae, outer fovea large, the latter formed by two smaller foveae in some specimens; humeri protruding.
Male: Head as in Figs 107-110 and 112-115; occipital region and posterior portion of frons between vertexal foveae distinctly raised, anterior portion flattened and

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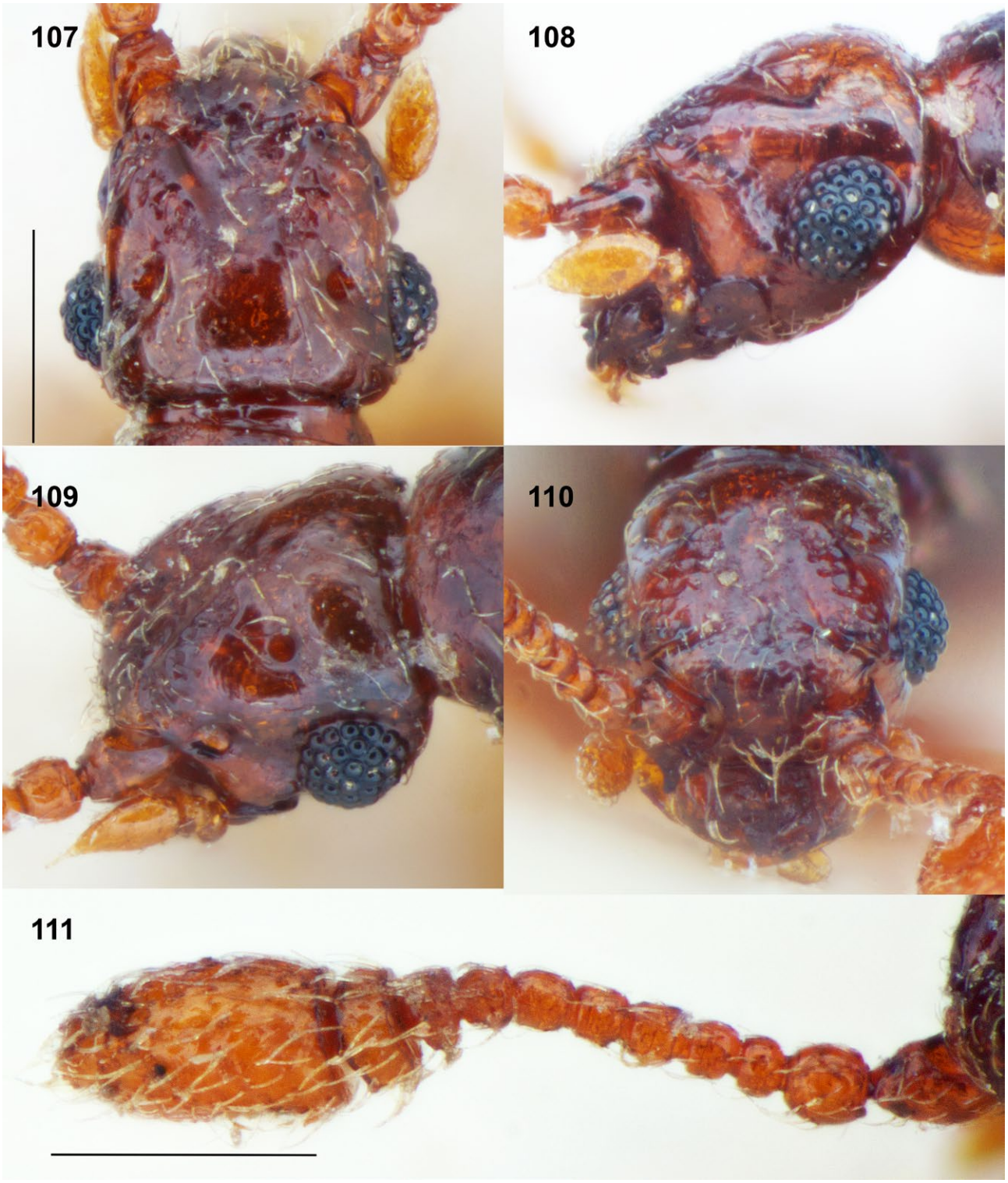

Figs 107-111. *Achilia simulans,* male, holotype. Head (107-110) in (107) dorsal, (108) lateral, (109) oblique and (110) frontal views. Right antenna (111) in oblique view. Scale bars (200 µm), vertical for (107-110) and horizontal for (111).

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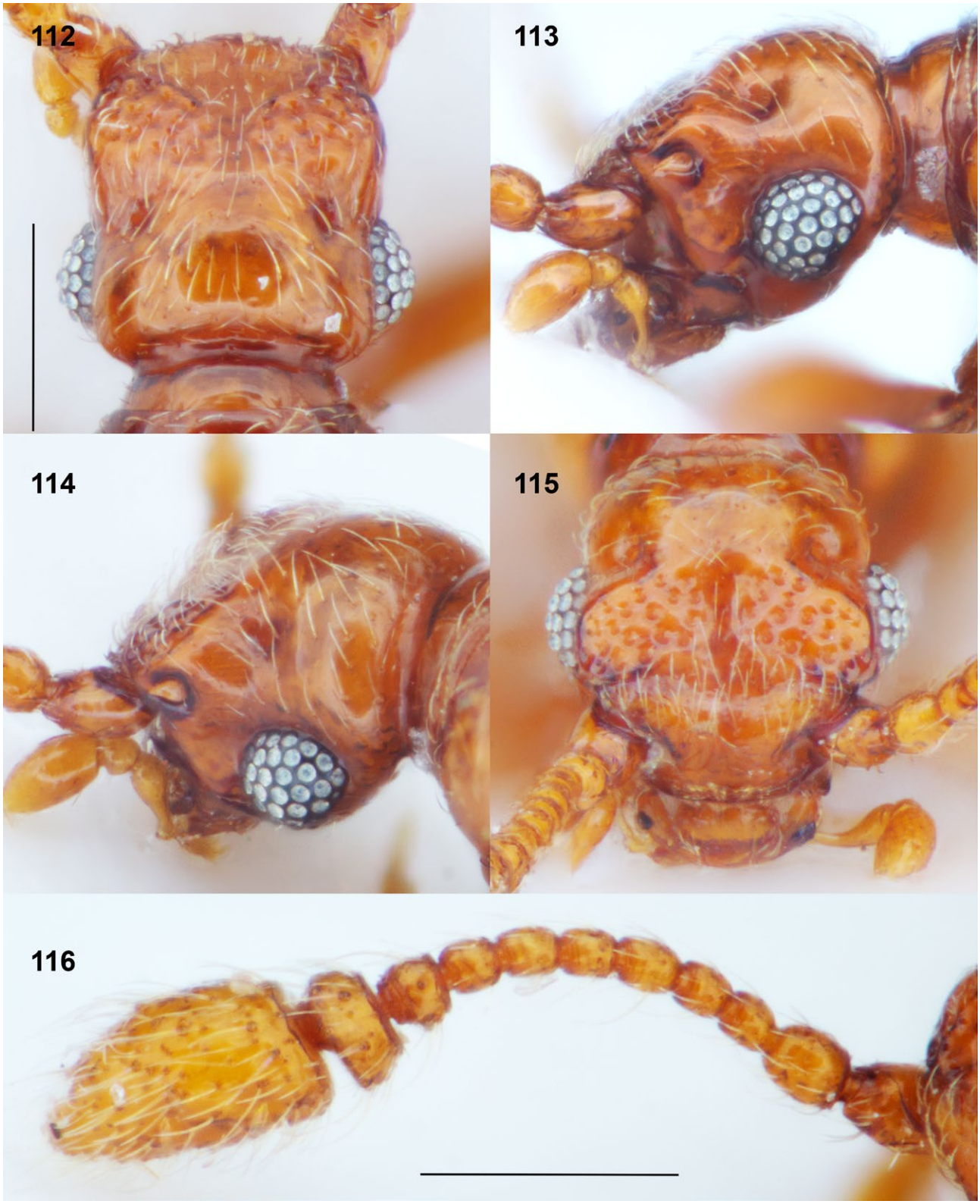

Figs 112-116. *Achilia simulans,* male, specimen from Concepción Province. Head (112-115) in (112) dorsal, (113) lateral, (114) oblique and (115) frontal views. Right antenna (116) in oblique view. Scale bars (200 µm), vertical for (112-115) and horizontal for (116).

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coarsely punctate (Figs 107, 110, 112, 115), lateral margins of head more or less sharp and prominent, slightly convergent anteriorly (Fig. 107) or subparallel (Fig. 112); frontal lobe more or less pubescent and punctate, extending anteriorly with margins convergent (Fig. 107) or subparallel (Fig. 112), separated from frons by large inverted V-shaped sulcus. Antennae (Figs 55-57, 111, 116) with scape distinctly longer than wide; pedicel about as long as wide; antennomeres III-VIII wider than long; antennomeres IX-X wider than long with enlarged medial margin; antennomere XI longer than wide, longer than VII-X (Fig. 55) or than VI-X (Fig. 56) combined, in the latter case its dorsal side with barely visible peculiar thin transparent, apically enlarged setae (Fig. 57). Distal half of metaventrite impressed in middle. Legs with ventral margin of mesofemora covered at middle by broad, short and thick setae (Fig. 59); mesotibiae (Fig. 61) strongly enlarged near middle, distinctly narrowed apically, sinuate and densely pubescent on distal third. Aedeagus (Fig. 52) 0.24-0.25 mm long; dorsal plate ovoidal; dorsal longitudinal struts divergent. Parameres relatively wide with long seta apically strongly enlarged on outer lobe; apical portion of parameres recurved basally and bearing small medioventral seta. Copulatory pieces consist of two subequal sclerites that are rounded apically.
Female: Similar to male except head, antennae, and legs unmodified, and metaventrite slightly impressed.

Collecting data: Collected from September to April; mainly collected in forests of *Nothofagus* spp. and mixed forest at elevations ranging from 250 m to about 1400 m. Many specimens, especially males, came from FIT and car netting, but also were taken from sifted samples of leaf and log litter.

Distribution: *Achilia simulans* occurs in the Regions of Araucanía, Bío-Bío, Los Ríos and Maule (Fig. 118, blue triangles). Of the 287 specimens we have examined of this species it appears that the only record for the Los Ríos Región is the holotype, from Valdivia. As the holotype has only "Chili" on its locality label it could be questioned wether it really comes from Valdivia (see paragraph "Comments" below).

Comments: Reitter (1885: 325, 328-329) described *A. simulans* based on a single male from Valdivia. Jeannel (1962: 433) redescribed the species mentioning only one male from Valdivia that was present in the MNHN collection, stating that the female was unknown. In the MNHS collections we found one male identified by both Raffray and Jeannel as *A. simulans*, and bearing a red "TYPE" label. Although this specimen is only labeled as being from "Chili" without any further indication, it corresponds perfectly with the descriptions of Reitter and Jeannel, and we believe that this is the holotype of *A. simulans*.
The males of *A. simulans* are easily distinguished by the shape of the head (Figs 107-110 and 112-115), antennae (Figs 55-57, 111, 116), mesofemora (Fig. 59), mesotibiae (Fig. 61), and aedeagus (Fig. 53).
The females of *A. simulans* are also easily distinguished by the shape of the head, which has the posterior portion slightly raised, and the anterior portion elongate with slightly convergent margins that are separated from the clypeus by a distinct inverted V-shaped sulcus.

Achilia nigrita species group

Jeannel (1962: 399, 442) characterized this group as follows: species stout and black; elytra with two basal foveae; basal striae of first abdominal tergite separated by half tergal width.

Achilia nigrita Jeannel, 1962

Achilia nigrita Jeannel, 1962: 442.

After examination of the holotype and only known specimen of *A. nigrita*, it appears that it likely belongs to the genus *Achillidia* Jeannel, 1962. However, we will formally transfer it only in our next paper of this series, which will be dedicated to all the other genera of Chilean Brachyglutini.

Achilia rufula species group

Jeannel (1962: 399, 442) characterized this group as follows: rear body swollen; elytra with two basal foveae; basal striae of first abdominal tergite lacking; legs very long.

Achilia rufula Jeannel, 1962

Achilia rufula Jeannel, 1962: 442.

Type material (**2 ex**.)**:** CENTRAL CHILE: Región Santiago Metropolitan: Santiago prov.: MNHS; 1 ♀ (Holotype of *A. rufula*); labels verbatim: "Chile - Stgo; Rio Clarillo; 18.11.57; Kuschel leg. / TYPE (red label) / *Achillia*; *rufula* n. sp. (handwritten by Jeannel) / *Achilia; rufula*; Jeannel / CHILE M.N.H.N.; Tipo n° 1860 / *Achilia*; *rufula* Jeannel ♀; Sabella, Cuccodoro & Kurbatov 2022 det.". – MNHN; 1 ♀ (Paratype of *A. rufula*); labels verbatim: "Paratype (red label) / Rio Clarillo; Sant. 29.X.54 / *Achilia*; *rufula* m. (handwritten by Jeannel) / *Achilia*; *rufula* Jeannel ♀; Sabella, Cuccodoro & Kurbatov 2022 det.".

Description: *Male*: Unknown.
Female: Body 1.50-1.65 mm long, testaceous-reddish with palpi yellowish. Head wider than long, vertexal foveae about at level of anterior margin of eyes; tempora shorter that eyes. Antennae with scape and pedicel longer than wide; antennomeres III-VIII about as long as wide; antennomeres IX-X wider than long; antennomere XI longer than wide, about as long as VII-X combined. Pronotum with small median antebasal fovea similar to lateral foveae. Elytra (missing on holotype) with two

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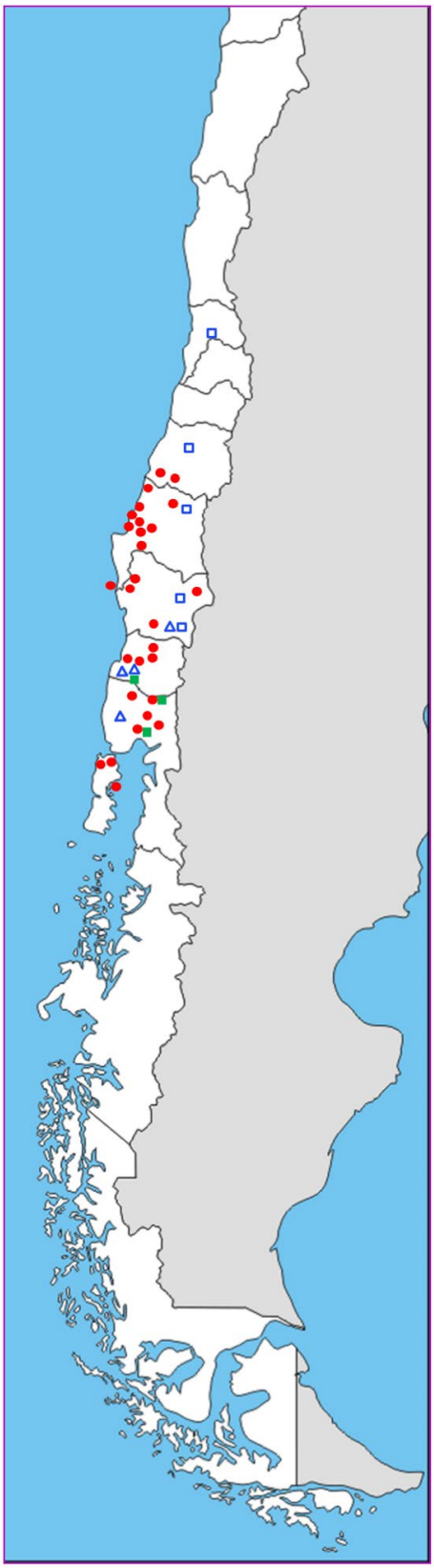

Fig. 117. Distribution map of *Achilia*. (□ squares edged in blue) *Achilia sinuaticornis*. (△ triangles edged in blue) *A. lapsus* sp. nov. (■ green squares) *A. fokkata* sp. nov. (● red circles) *A. kindermanni*.

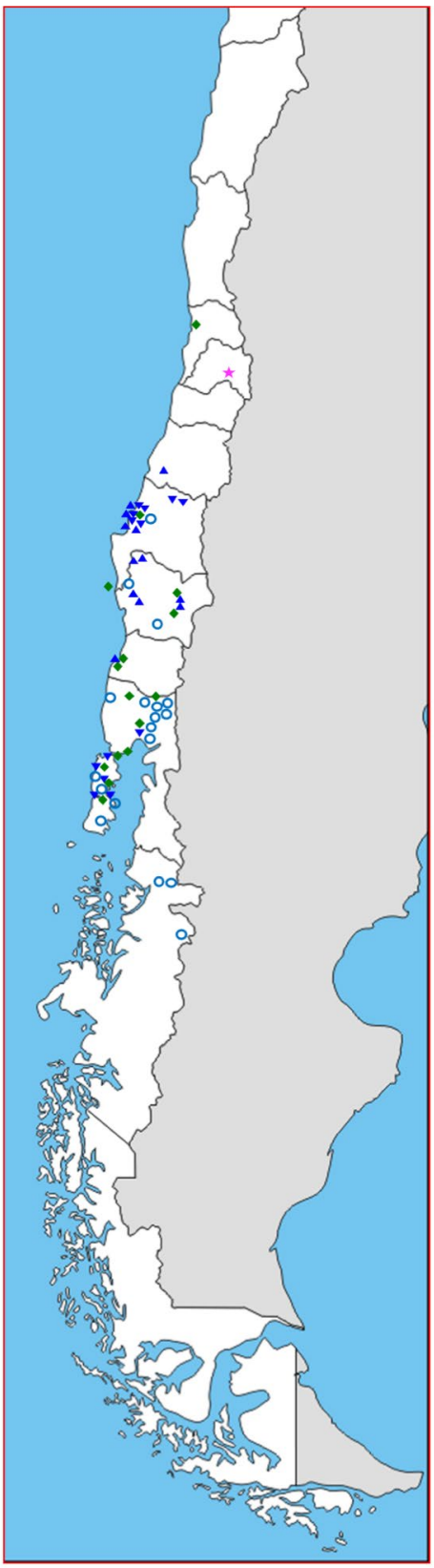

Fig. 118. Distribution map of *Achilia*. (▼ blue inverted triangles) *A. longiceps*. (◆ green diamonds) *A. humidula*. (○ circles edged in blue) *A. praeclara*. (▲ blue triangles) *A. simulans*. (★ fuchsia star) *A. rufula*.

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basal foveae; humeri only slightly prominent. Abdominal tergites without basal striae.

Collecting data: None available.

Distribution: *Achilia rufula* is known only from Rio Clarillo in Santiago province (Santiago Metropolitan Region) (Fig. 118 fuchsia star).

Comments: Jeannel (1962: 443) attributed this species to *Achilia* with some doubts, notably concerning its habitus which he considered to be atypical for that genus.
We have examined both the holotype and the paratype of this species. The holotype, which lacks both elytra, is much smaller (1.45 mm) than the paratype (1.65 mm) and is distinctly darker. Moreover, the vertexal foveae of the holotype are distinctly larger than those of the paratype. It is our opinion that these two specimens are not conspecific. However, only the examination of more abundant material from the type locality might allow clarification of this problem, which remains thus open.

Species *incerta sedis*

Achilia dicastrii Franz, 1996

Achilia dicastrii Franz, 1996: 122, fig. 74 (aedeagus).

Type material (1 ex.): CHILE: MNHS; 1 ♂ (Holotype of *A. dicastrii*); labels verbatim: "Holotype (red label) / Chiloé, S Chile; lg. H. Franz / *Achilia; dicastrii* nov. spec. (handwritten by Raffray) / *Achilia; dicastrii* Franz =; *Achilia bicornis* Jeannel / det. Sabella, Cuccodoro & Kurbatov 2023"

We have examined the holotype and only known specimen of *A. dicastrii* Franz, 1966, which fits perfectly with our concept of *A. bicornis* Jeannel, 1962 (see Sabella *et al*., 2020). Consequently, we place *A. dicastrii* Franz, 1996 as a junior synonym of *A. bicornis* Jeannel, 1962 (**syn. nov.**).

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