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A revision of the Chilean Brachyglutini – Part 6. Revision of *Achilia* Reitter, 1890: *A. grandiceps, A. valdiviensis,* and *A. bicornis* species groups (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. E-mail: sabellag@unict.it*
[2] *Muséum d'histoire naturelle, CP 6434, CH-1211 Genève 6, Switzerland.*
[3] *Museum of Entomology, All-Russian Plant Quarantine Center, Pogranichnaya 32, Bykovo 140150, Russia. E-mail: pselaphidae@yandex.ru*
[*] *Corresponding author: giulio.cuccodoro@ville-ge.ch*

Abstract: The *Achilia grandiceps*, *A. valdiviensis,* and *A. bicornis* species groups *sensu* Jeannel (1962) of the species-rich genus *Achilia* Reitter, 1890 are revised. Of the eigth taxa placed in these three groups of species, two subspecies, i.e. *A. grandiceps grandiceps* Jeannel, 1962 and *A. grandiceps delamarei* Jeannel, 1962 are raised to species level – *A. grandiceps* Jeannel, 1962 **stat. nov.** and *A. delamarei* Jeannel, 1962 **stat. nov.** – while three names are placed in synonymy – *A. alticola* Jeannel, 1962 = *A. grandiceps* Jeannel, 1962 **syn**. **nov**., *A. kuscheli* Jeannel, 1962 = *A. valdiviensis* (Blanchard, 1851) **syn**. **nov**., and *A. chilotides* Newton, 2017 = *A. excisa* (Schaufuss, 1880) **syn**. **nov**. – The remaining five species are redescribed, and the new species *A. franzi* **n. sp.**, *A. jeanneli* **n. sp.**, and *A. elguetai* **n. sp.**, attributed to the *A. grandiceps* group, are described. A new synonymy *A. simpsoni* Franz, 1996 = *A. bicornis* Jeannel, 1962 **syn. nov.** is also established, and the lectotypes of *A. delamarei* Jeannel, 1962 and *A. valdiviensis* (Blanchard, 1851) 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 sixth contribution to our series aiming at a taxonomic revision of the Brachyglutini of the temperate region of southern South America, and the fifth 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).

We here focus on the *A. grandiceps*, *A. valdiviensis*, and *A. bicornis* species groups (*sensu* Jeannel, 1962). All the members of these groups are critically reexamined, and their synonymic framework is detailed. These species are redescribed, and three new species placed in the *A. grandiceps* group are described.

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

MATERIAL AND METHODS

This study is based on the examination of 2495 specimens. The acronyms used in the present study refer to the following collections (relevant curator/collection manager are acknowledged in parentheses):

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

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MSNG Museo Civico di Storia Naturale "G. Doria", Genova, Italy (R. Poggi)
NHMW Naturhistorische Museum, Wien, Austria (H. Schillhammer)
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)

Under the sections "type material" or "additional material" the locality data are standardized, with indications of major administrative units (regions and provinces) and names of collectors; for the holotypes of older specimens the labels are also given verbatim. For MHNG materials additional informations 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 and Illustrator CS6. The body length is measured from the anterior clypeal margin to the posterior margin of the last visible abdominal tergite. The length and width of the body parts were measured between points of maximum extension, e.g. the head length is measured between the anterior clypeal margin and the posterior margin of the neck, the head width includes the eyes, the elytral length along the suture line, and the elytral width is the total width of the two elytra taken together. The abdominal tergites are numbered based on order of visibility. Morphological terminology follows that of Chandler (2001), except our use of 'ventrite' instead of 'sternite' when describing meso- and metathoracic structures, and that the sclerotized features of the aedeagus termed "dorsal strips" in Sabella *et al*. (2017) are here termed "longitudinal struts".

TAXONOMY

All the species described below show the following common features: pubescence decumbent, consisting of long setae sparse and uniform over entire body; surface of pronotal disc smooth and shiny with some punctures; basal margin of pronotum bordered with row of contiguous shallow impressions; elytra together wider than long with protruding humeri; elytral disc smooth, shiny, with punctures, and with four basal foveae (two lateral foveae very close and sometimes coalesced to form one very large fovea), sutural stria entire; abdomen smooth, with some minute punctures; first abdominal tergite with short and sparse setal brush between basal striae; first abdominal sternite with medial carina starting at its anterior margin and extended on about one third of its length; legs with trochanters elongate; profemora and mesofemora of male slightly thickened.
In order to keep the text more concise, these features are not repeated in their respective descriptions.

Achilia grandiceps species group

Jeannel (1962: 398, 419) characterized this group as follows: elytra with 3 basal foveae (note that as mentioned above in reality there are four basal foveae with two lateral foveae very close and sometimes coalesced); basal striae of first abdominal tergite separated about by one third of tergal width; very large male's frons with two large occipital lobes separated by large and deep median notch; distal end of longitudinal struts of aedeagus spatulate.
Among the species groups we have revised so far this is certainly the most complex regarding recognition of the distinct species. Difficulties come notably from the very similar structure of the aedeagus of most of the species, in combination with the variability of several characters usually quite stable in the other congeners, such as the proportions of antennomeres, some male secondary sexual character on trochanters and tibiae, etc. Due to the very poorly discriminant aedeagi, we considered it appropriate to define species mainly based on characters of the external morphology, such as the shape of head, antennae and legs, which often show clear and stable differences even between sympatric taxa. Moreover, in most cases we could identify even the females of the species as defined below.
The strong similarities of the aedeagal morphology (with the exception of *A. denticornis*), as well as that of the mesotrochanters (with the exception of *A. denticornis*) and mesofemora, the relative stability of some characters (i. e. morphology of the head and the antennae in both sexes, and of some characters of the protibiae and mesotibiae), the variability of others (i. e. protrochanters, and pubescence of mesotibiae), and also the fact that in many cases two or three of these taxa were caught in the same samples without observation of any specimens showing intermediate character states, suggest that speciation in this group is currently active at different levels of completion, hence the difficulties we faced in the taxonomic treatment of this group.
Until now this group included *A. grandiceps grandiceps* Jeannel, 1962, *A. grandiceps delamarei* Jeannel, 1962, *A. alticola* Jeannel, 1962 and *A. denticornis* Jeannel, 1962. However, after examination of the types we

concluded that: 1) *A. grandiceps grandiceps* Jeannel, 1962 and *A. grandiceps delamarei* Jeannel, 1962, should be considered as two distinct species and treated accordingly – i. e. *A. grandiceps* Jeannel, 1962 (**stat. nov.**), and *A. delamarei* Jeannel, 1962 (**stat. nov.) –** and that 2) *A. alticola* Jeannel, 1962 is a junior subjective synonym of *A. grandiceps* Jeannel, 1962 (**syn. nov**.). As a result, the *A. grandiceps* group now consists in *A. grandiceps* Jeannel, 1962, *A. delamarei* Jeannel, 1962 and *A. denticornis* Jeannel, 1962, to which we add here three new species – i. e. *A. jeanneli* n. sp., *A. franzi* n. sp. and *A. elguetai* n. sp. – described below.

All the species of the *A. grandiceps* group show the following common features: head distinctly wider than long with two vertexal foveae spaced by approximately one eye's diameter from eyes, the latter protruding and about as long as slightly convex temples. Pronotum wider than long, with convex disc; median antebasal fovea slightly smaller than lateral ones (only in many specimens of *A. grandiceps* it is as large as lateral ones). Anterior portion of lateral margins of pronotum distinctly convergent and sinuate anteriorly. Elytral discal stria extended at most to elytral midlength. Head of male with clypeus slightly elongate and with slightly convergent sides, its anterior margin slightly prominent and rounded. All abdominal ventrites of male unmodified. Female with vertexal foveae larger than for male, antennae thinner and with shorter antennomere XI than for male; metaventrite and legs unmodified.

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

Achilia grandiceps Jeannel, 1962 (stat. nov.)

Figs 1, 12, 22, 29, 40-41, 51-54, 83

Achilia grandiceps grandiceps Jeannel, 1962: 421, figs 181 (habitus), 182 (aedeagus).

Achilia grandiceps Kurbatov & Sabella, 2015: 304, fig. 62 (habitus).

Achilia alticola Jeannel, 1962: 421, 423, fig. 185 (aedeagus) (**syn. nov**.).

Type material (10 ex.): SOUTHERN CHILI: Región Los Lagos: Chiloé prov.: MHNS; 1 ♂ (holotype of *A. grandiceps grandiceps*); labels verbatim "Type / Chepu, 17.X.1958, G. Kuschel / *Achillia grandiceps* / *grandiceps* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo, n. 1839". – MNHN; 1 ♀ (paratype of *A. grandiceps grandiceps*); same data. – MNHN; 1 ♀ (paratype *of A. grandiceps grandiceps*); same data, but 01.X.1958. – MNHN; 1 ♂ (paratype of *A. grandiceps grandiceps*); same data, but 02.X.1958 – MNHN; 1 ♀ (paratype of *A. grandiceps grandiceps*); labels verbatim "Chepu, 09.X.1958, Kuschel". – MNHN; 3 ♀ (paratypes of *A. grandiceps grandiceps*); same data, but 11.X.1958. – MNHN; 1 ♀ (paratype of *A. grandiceps grandiceps*); same data, but 16.X.1958. – MHNS; 1 ♂ (holotype of *A. alticola*); labels verbatim "Type / San Pedro, 10.XI.1958, G. Kuschel / *Achillia alticola* / *alticola* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo, n. 1842".

Additional material examined (443 ex.): SOUTHERN AND CENTRAL CHILI: Región Los Lagos: Chiloé prov.: NHMW; 1 ♂ and 1 ♀ (the latter identifed by Franz as *A. bicornis*); Chiloé; H. Franz. – MHNG; 1 ♂; same data. – MHNS; 1 ♀ (mislabelled as paratype of *A. grandiceps* n. 2043); Chepu; 17.X.1958; G. Kuschel. – MHNS; 2 ♀ (mislabelled as paratypes of *A. grandiceps* n. 2044-45); same data, but 11.X.1958. – FMNH (FMHD #2002-77); 1 ♂ and 9 ♀; road to Miraflores, ca 0.6 km W Ruta 5; 42° 46.74'S 73° 47.70'W; 130 m; 12.XII.2002; site 1063, secondary valdivian rainforest with few conifers, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #2002-78); 1 ♀; road to Colonia Yungay, ca 4 km NW Ruta 5; 42° 59.12'S 73° 42.02'W; 110-115 m; 13. XII.2002; site 1064, disturbed valdivian rainforest w/ recent selective cutting, berlese, leaf & log litter; A. Solodovnikov & M. Thayer. – FMNH (FMHD #2002-068); 3 ♂ and 3 ♀; Quemchi, 11 km W of (11 km E Hwy 5); 42° 10.40'S 73° 35.73'W; 140 m; 10. XII.2002; site 1060, valdivian rainforest remnant w/ thick bamboo understory, berlese, leaf & log litter; A. Solodovnikov & A. Newton. – MHNG; 2 ♀; Chiloé National Park, Rancho Grande, near Cucao; 300-600 m; 04.I.1991; site 30a, *Fitzroya* forest; D. Agosti & D. Burckhardt. – MHNG; 1 ♀; Chiloé National Park, Rancho Grande, near Cucao; 42° 33'S 74° 02'W; 250-400 m; 29.XII.1992; site 35b, sifting of moss on forest floor trees and vegetational debris; D. Burckhardt. – Llanquihue prov.: MHNS; 3 ♂ and 1 ♀ (mislabelled as paratypes of *A. grandiceps* n. 2046-47 and 1840-41); Los Riscos; 11.IV.1954; G. Kuschel. – MNHN; 7 ♂ and 2 ♀; same data. – MHNG; 1 ♂ and 2 ♀; Alerce Andino National Park, above Laguna Chaiquenes; 41° 40'S 72° 35'W; 350-650 m; 04.I.1993; site 37, mixed *Fitzroya cupressoides* forest with thick moss cover inside, sifting of moss on floor and tree trunks and vegetational debris, hardwoods, berlese, litter; D. Burckhardt. – MHNG; 1 ♂; Alerce Andino National Park, Laguna Triàngulo; 41° 40'S 72° 35'W; 550 m; 05-06.I.1993; site 38b, sclerophyll rainforest, sifting of moss on tree trunks and of vegetational debris; D. Burckhardt. – MHNG; 1 ♂; road to Alerce Andino National Park, 40° 20'S 73° 43'W; 07.XII.2013; car net. – FMNH (FMHD #97-28); 25 ♂ and 31 ♀; Alerce Andino National Park, near Sargazo entrance, 11.4 km from Correntoso; 41° 30'S 72° 37'W; 350 m; 19.I.1997; site 998, valdivian rainforest, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-30); 3 ♂ and 9 ♀; Alerce Andino National Park, N side Laguna Sargazo; 41° 30'S 72° 36'W; 400 m; 21.I.1997; site 1000, *Fitzroya cupressoides* w/valdivian rainforest, understory steep

slope, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-26); 5 ♀; Lago Chapo, 1.2 km N of NW end; 41° 25'S 72° 35'W; 265 m; 19.I.1997; site 996, small secondary *Nothofagus dombeyi* w/valdivian rainforest understory, berlese, leaf & log litter; A. Newton & M. Thayer. – MHNG; 5 ♂ and 6 ♀; Lenca, 41°58'S 72° 57'W; 18.XII.2013; layer litter. – PCTS; 14 ♂ and 7 ♀; same data. – FMNH (FMHD #97-11); 3 ♂; 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; site 988, *Nothofagus dombeyi* & *Podocarpus nubigena* w/valdivian rainforest understory, flight intercept trap; A. Newton & M. Thayer. – Osorno prov.: NHMW; 4 ♂ (1 identified by Franz as *A. spinifer*) and 4 ♀ (1 identified by Franz as *A. denticornis*); Puyehue National Park, Osorno; H. Franz. – FMNH; 2 ♂ and 1 ♀; Puyehue National Park, Antillanca road; 470 m; 20-25.XII.1982; valdivian rainforest, leaf & log litter, berlese, vouchers associated with larvae; A. Newton & M. Thayer. – UNHC; 1 ♂; Puyehue National Park, Antillanca road; 720 m; 18-24. XII.1982; site 659, *Nothofagus* ssp. forest, forest floor, leaf & log litter, berlese; A. Newton & M. Thayer. – UNHC; 7 ♂ and 13 ♀; Puyehue National Park, Antillanca road; 690 m; 18-24.XII.1982; site 661, valdivian rainforest, window trap; A. Newton & M. Thayer. – UNHC; 1 ♂; Puyehue National Park, Antillanca road; 470-720 m; 18-24.XII.1982; valdivian rainforest, pyrethrin fogging moss; A. Newton & M. Thayer. – MHNG; 2 ♂; Puyehue National Park, Antillanca road; 500-1000 m; 18-20.XII.1984; car netting; S. & J. Peck. – MHNG; 2 ♂ and 10 ♀; Puyehue National Park, Aguas Calientes, 400-500 m; 31. XII.1990/1.I.1991; site 25a, sifting of vegetational and alluvial debris, and moss; D. Agosti & D. Burckhardt. – MHNG; 5 ♂; Puyehue National Park, Aguas Calientes; 500 m; 20.XII.1984-08.II.1985; FIT derumbes forest trail, sifting; S. & J. Peck. – FMNH (FMHD #85-928, #85-43); 1 ♀; same locality, but 20.XII.1984; forest litter on trail, sifting; S. & J. Peck. – PCTS; 8 ♂; Aguas Calientes, 40° 74'S 72° 27'W; 13.XII.2013; car net. – PCTS; 3 ♂ and 8 ♀; same data, but 14.XII.2013; litter layer. – FMNH (FMHD #96-244); 14 ♂; Puyehue National Park, Antillanca road, 7.2 km above Aguas Calientes; 40° 45.55'S 72° 17.82'W; 660 m; 29. XII.1996/01.II.1997; site 982, valdivian rainforest w/ *Saxegothea* dominant, dense *Chusquea,* flight intercept trap; A. Newton & M. Thayer. – PHPC; 1 ♂ and 2 ♀; Puyehue National Park, 26.2 km E Entre Lagos, near Termas Aguas Calientes; 460 m; 40° 44.130'S 72° 18.427'W; 09-12.III.2008; sifting litter; H. Wood & C. Griswold. – PHPC; 2 ♂ and 4 ♀; Puyehue National Park on Antillanca road, 30.9 km ESE Entre Lagos, Aguas Calientes; 760 m; 40° 46.569'S 72° 15.791'W; 11-12.III.2008; H. Wood & C. Griswold. – MHNG; 2 ♂ and 10 ♀; Puyehue National Park, Anticura Repucura trail; 500 m; 06.II.1985; forest litter; S. & J. Peck. – FMNH (FMHD #85-996, #85-113); 2 ♀; same data. – FMNH (FMHD# 96-250); 6 ♂; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30. XII.1996/30.I.1997; site 985-1, valdivian rainforest w/ large, *Saxegothea*; flight intercept trap; A. Newton & M. Thayer. – FMNH (FMHD# 97-4); 3 ♂ and 1 ♀; same data, but 01-30.I.1997; 985-2. – FMNH (FMHD# 97-5); 10 ♂; same data, but 30.I.1997; site 985-3. – FMNH (FMHD# 97-39); 1 ♂ and 2 ♀; same data, but berlese, leaf & log litter. – FMNH (FMHD# 97-41); 3 ♂ and 5 ♀; same data, but site 985-1. – FMNH (FMHD# 97-40); 1 ♂ and 12 ♀; same data, but site 985-2, berlese, leaf and log litter. – FMNH; 1 ♂ and 5 ♀; Puyehue National Park, 4.1 km E Anticura; 430 m; 19-26.XII.1982; trap site 662, valdivian rainforest; A. Newton & M. Thayer. – FMNH (FMHD #2002-90); 3 ♂ and 8 ♀; Puyehue National Park, Ruta 215; km 4.5 of Aduana station; 40° 40.23'S 72° 05.21'W; 580 m; 19.XII.2002; site 1071, valdivian rainforest, berlese, leaf & log litter; A. Newton, M. Thayer, D. J. Clarke & M. Chani. – MHNG; 1 ♂ and 2 ♀; 3 km S Maicolpué, Bahia Mansa; 200 m; 21.XII.1984; mixed forest litter; S. & J. Peck. – MHNG; 2 ♂ and 17 ♀; same locality; 03.II.1985; mixed forest litter; S. & J. Peck. – FMNH (FMHD #2002-083); 6 ♂ and 7 ♀; Vicente Perez Rosales National Park, SW slope Volcàn Osorno, road to Ref. La Picada; 41° 01.05'S 72° 32.90'W; 430 m; 16.XII.2002; site 1068, *Nothofagus dombeyi* w/conifers, berlese, leaf & log litter; A. Newton, A. Solodovnikov & M. Chani. – FMNH (FMHD #2002-82); 2 ♂ and 25 ♀; Vicente Perez Rosales National Park, SW slope Volcàn Osorno, road to Ref. La Picada 41° 03.25'S 72° 30.18'W; 660 m; site 1067, *Nothofagus dombeyi* w/ conifers dense *Chusquea* bamboo understory, flat area, berlese, leaf & log litter; A. Solodovnikov, A. Newton & M. Thayer. – Región Los Ríos: Ranco prov.: MHNG; 10 ♂ and 27 ♀; 35 km WNW La Unión; 700 m; 07. II.1985; forest mixed litter; S. & J. Peck. – Valdivia prov.: NHMW; 3 ♂ and 2 ♀ (1 ♂ and 1 ♀ sub *A. denticornis*); Cordillera de la Costa, Mehuín; H. Franz. – PCPH; 5 ♀; Oncol Park, 12 km NW Valdivia, Sendero Bonifacio; WDS-T-201; 39° 42'S 73° 19'W; 22.II.2008; sifting litter; W. D. Shepard. – PHPC; 1 ♀; Valdivia; 485 m; T. Cekalovic. – Región Araucanía: Cautín prov.: FMNH (FMHD #85-999, #85-116); 1 ♂ and 1 ♀; 15 km NE Villarrica, Flor del Lago; 500 m; 10.II.1985; site 16, forest litter; S. & J. Peck. – Malleco prov.: MHNG; 1 ♂; Purén, Contulmo Natural Monument; 350 m; 11.XII.1984-13.II.1985; S. & J. Peck 85-16.

Description: Body 1.35-1.55 mm long, dark brown with reddish elytra, sometimes darker apically, and along sutural stria; antennae and legs reddish or reddish-brown; palpi yellowish. Pronotum with disc moderately convex; posterior portion of lateral margins slightly converging. First abdominal tergite with diverging basal

striae extending to about one-fourth of paratergal length, separated at base by more than one-third of tergal width. *Male*: Head as in Figs 51-54, very wide, with occipital region and basal half of frons raised in two quadrangular protuberances, wider than long, and separated by large U-shaped median notch; lateral arms of notch densely pubescent apically; anterior portion of frons deeply excavated; median apophysis curved and directed backwards, originating inside median notch from very broad median sub-basal clypeal hump, tip in dorsal view triangle with densely pubescent sides; median sub-basal clypeal hump covered by very thick and long converging bristles. The head morphology of all the male specimens examined does not show significant differences. Antennae (Fig. 12) with scape and pedicel longer than wide; antennomeres III-VIII wider than long; antennomere IX slightly wider than VIII and wider than long; antennomere X distinctly wider than long and wider than IX; antennomere XI very elongate, a little longer than VI-X combined, bearing occasionally one long subbasal setae on mesal margin. Distal half of metaventrite pubescent, raised at middle on two thirds of its distal portion, this surface entirely divided by medial sulcus. Protrochanters (Fig. 22) bearing one long seta; mesotrochanters (Fig. 29) with ventral margin forming spine on basal third; mesofemora (Fig. 29) with ventral margin covered by broad, short and thick setae on basal third; mesotibiae with medial margin forming short and rounded apical spine, without setae (Fig. 40) except for specimen from Malleco (Fig. 41) with some setae there that are not recurved; apical margin forming very small second spine. Aedeagus (Fig. 1) 0.30-0.32 mm long, with suboval dorsal plate, dorsal longitudinal struts slightly divergent. Parameres relatively wide with large seta on small outer lobe; tips of parameres slightly enlarged, laterally pointed, bearing small broad median seta. Copulatory pieces consisting of pair of thin and subequal lateral sclerites that are sharp and laterally curved at their apices, with pair of long and wide medial sclerites recurved and sclerotized at bases, and with distal half frayed as numerous long and thin spines.
Female: Similar to male except body sometimes paler than male, head not modified with frons slightly depressed medially behind sparsely impressed frontal sulcus.

Collecting data: Collected from October to April in different types of forest, at elevations ranging from 110 m to 1000 m. Most of the specimens came from sifted samples of leaf and log litters, sometimes including moss and vegetational debris, but a number of males of this species have also been collected by flight intercept traps, window traps, and car netting.

Distribution: *Achilia grandiceps* is distributed in southern and central Chile (Fig. 83: green diamonds) from Chiloé province to Malleco province.

Comments: Jeannel (1962: 422) described two subspecies (*A. grandiceps grandiceps* and *A. grandiceps delamarei*), distinguishing them by the following characters of the male head: 1) an apical tuft of setae on each side of median apohysis in *A. g. grandiceps* (without apical tuft of setae in *A. g. delamarei*); 2) two densely pubescent lobes covering the semicircular sulcus at the base of the clypeus in *A. g. grandiceps* (no trace of pubescence at the base of the clypeus in *A. g. delamarei*).
We have examined the holotype of *A. grandiceps grandiceps* Jeannel, 1962 and the lectotype of *A. grandiceps delamarei* Jeannel, 1962, and found that in addition to the differences outlined by Jeannel (though some not well-described) the males of these two taxa differ also significantly with respect to the morphology of the head (cfr. Figs 51-54 and 55-58), antennae (cfr. Figs 12 and 13), mesotibiae (cfr. Figs 40-41 and 42), and lateral sclerites of the copulatory pieces of the aedeagus (cfr. Figs 1 and 2). Examination of abundant additional specimens pertaining to these two taxa has shown that these differences are stable, and that there are not intermediate character states even in where they occur together. Moreover, even the females of these two taxa can be distinguished by the following characters: 1) antennomeres III and V longer than wide in *A. g. delamarei* (transverses or at most as long as wide in *A. g. grandiceps*); 2) Frontal sulcus well-impressed in *A. g. delamarei* (scarsely impressed in *A. g. grandiceps*); 3) anterior margin of frontal lobe slightly pointed in *A. g. delamarei* (straight in *A. g. grandiceps*); 4) median part of frons distinctly depressed behind frontal sulcus in *A. g. delamarei* (slightly depressed in *A. g. grandiceps*). Also, the shape of the pronotum is slightly different: disc more convex, and with lateral margins subparallel in posterior portion in *A. g. delamarei* (disc less convex, lateral margins convergent in posterior portion in *A. g. grandiceps*). Based on these observations, we decided to raise the two subspecies proposed by Jeannel to species level, and to treat them accordingly – i.e. *A. grandiceps* Jeannel, 1962 (**stat. nov.**) and *A. delamarei* Jeannel, 1962 (**stat. nov.**).
We have also examined the holotype of *A. alticola* Jeannel, 1962. It corresponds in all the characters of the external morphology (head, antennae, metaventrite, legs, etc.) to *A. grandiceps* Jeannel, 1962, and consequently we consider *A. alticola* Jeannel, 1962 as a junior synonym of *A. grandiceps* Jeannel, 1962 (**syn. nov**.).

Achilia delamarei Jeannel, 1962 (stat. nov.)

Figs 2, 13, 23, 30, 42, 55-58, 83

Achilia grandiceps delamarei Jeannel, 1962: 421, 422.

Type material (4 ex.): SOUTHERN ARGENTINA: Rio Negro prov.: MNHN; 1 ♂ (lectotype, here designated); labels verbatim "Lectotype / Nahuel Huapi, B31, Cl. Delam. / *grandiceps* (handwritten by

Jeannel) / *Achilia delamarei* ♂, Sabella, Cuccodoro & Kurbatov det. 2019". – MNHN; 1 ♀ (paralectotype, here designated); same data as lectotype. – MNHN; 2 ♀ (paralectotypes, here designated); labels verbatim "Paralectotype / Parc Nat. Nahuel Huapi, B27 / *Achilia delamarei* ♀, Sabella, Cuccodoro & Kurbatov det. 2019".

Additional material examined (141 ex.): SOUTHERN AND CENTRAL CHILE: Región Aysén: Aysén prov.: MHNG; 1 ♀; 30 km N Puyuhuapi; 100 m; 29.I.1985; site 107, sifted moss on logs; S. & J. Peck. – Región Los Lagos: Palena prov.: MHNG; 20 ♂ and 58 ♀; 4 km NW Chaitén; 10 m; 30.I.1985; mixed forest litter, sooty fungus, berlese, S. & J. Peck. – FMNH (FMHD #85-991, P #85-108); 2 ♂ and 5 ♀; same data; S. & J. Peck. – PCTS; 12 ♀; Homopirén, 41° 87'S 72° 36'W; 17.XII.2013; forest layer. – MHNG; 1 ♂ and 1 ♀; same data. – Osorno prov.: UNHC; 1 ♂ and 1 ♀; Puyehue National Park, 4.1 km E Anticura; 430 m; 19-26. XII.1982; trap site 662, valdivian rainforest; A. Newton & M. Thayer. – FMNH; 8 ♀; same data. – FMNH (FMHD# 97-5); 1 ♂; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30.I.1997; site, 985-3 valdivian rainforest w/large *Saxegothea,* flight intercept trap; A. Newton & M. Thayer. – MHNG; 2 ♂; Puyehue National Park, Aguas Calientes; 500 m; 20.XII.1984-08.II.1985; *Nothofagus* forest; S. & J. Peck. – PCTS; 2 ♂ and 5 ♀; Aguas Calientes, 40° 74'S 72° 30'W; 13.XII.2013; car net. – PCTS; 3 ♂ and 7 ♀; Aguas Calientes, 40° 74'S 72°27'W; 14.XII.2013; litter layer. – FMNH (FMHD #2002-083); 1 ♀; Vicente Perez Rosales National Park, SW slope Volcàn Osorno, road to Ref. La Picada; 41° 01.05'S 72° 32.90'W; 430 m; 16.XII.2002; site 1068, *Nothofagus dombeyi* w/conifers, berlese, leaf & log litter; A. Newton, A. Solodovnikov & M. Chani. – Región Araucanía: Cautín prov.: MHNG; 1 ♂ and 9 ♀; Huerquehue National Park; 800-900 m; 22-24.XII.1980; site 16a, forest litter; D. Agosti & D. Burckhardt.

Description: Body 1.55-1.75 mm long, dark brown with reddish elytra, sometimes darker basally and apically, and along sutural stria; antennae and legs reddish or reddish-brown; palpi yellowish. Pronotum with disc slightly more convex than in *A. grandiceps*; posterior portion of lateral margins subparallel. First abdominal tergite with diverging basal striae extending to about one-fourth of paratergal length, and separated at base by about one-third of tergal width.

Male: Head as in Figs 55-58, similar to that of *A. grandiceps* except: the two quadrangular protuberances wider than long, and separated by U-shaped median notch narrower at base than that for *A. grandiceps*; lateral arms of notch densely pubescent apically; anterior portion of frons very deeply excavated; median apophysis originating from very broad median sub-basal clypeal hump, tip in dorsal view lozenge-shaped with pubescent sides; median sub-basal clypeal hump with sides sharply margined and bearing only some short setae. Also in this species the head morphology of all the male specimens does not show substantial differences. Antennae (Fig. 13) with scape slightly longer than wide and slightly enlarged on lateral margin; pedicel distinctly longer than wide; antennomere III longer than wide; antennomere IV as wide as long; antennomere V longer than wide; antennomeres VI-VIII wider than long; antennomere IX wider than VIII and wider than long; antennomere X wider than long; antennomere XI elongate, and longer than VII-X combined. Metaventrite with distal half pubescent, raised at middle for two thirds of its distal portion, this surface entirely divided by broad medial sulcus. Protrochanters (Fig. 23) bearing one long seta; mesotrochanters (Fig. 30) with ventral margin forming spine on basal third; mesofemora (Fig. 30) with ventral margin covered by broad, short and thick setae on basal third, these setae longer than in *A. grandiceps*; mesotibiae with medial margin forming short and rounded apical spine, always with recurved setae (Fig. 42); apical margin forming second tiny spine at middle. Aedeagus (Fig. 2) 0.32-0.33 mm long, similar to that of *A. grandiceps* except lateral sclerites thicker, distinctly pointed and apically recurved, and medial sclerites with two-thirds of distal portion frayed and bearing numerous long and thin spines.

Female: Similar to male except body sometimes paler than male, head not modified with frons depressed behind frontal sulcus which is well-impressed, and anterior margin of frontal lobe pointed at middle.

Collecting data: Collected from December to March in different types of forests, at elevations ranging from 10 m to 900 m. Most specimens came from sifted samples of leaf and log litter, and some males have also been collected by flight intercept traps and car netting.

Distribution: *Achilia delamarei* is distributed in southern Argentina and southern and central Chile (Fig. 83: red squares) ranging from Aysén province to Cautín province.

Comments: Jeannel (1962: 422) in the original description mentions 1 male and 3 females collected by Cl. Delamare in March 1959 in the province of Rio Negro (Argentina) in the Nahuel Huapi reserve (about 41° latitude S) at an altitude of about 1000 meters, and claimed (l. c.: 421) that the type of this taxon is in the MNHN collections. In the general collection of Chilean Pselaphinae at the MNHN we found 1 male and 3 females labeled as being from Nahuel Huapi, with only the male bearing a label "*grandiceps* (handwritten by Jeannel)", and none bearing red "Type" labels. For this reason, we designate here the only male of this series as the lectotype and the 3 females as paralectotypes. The lectotype of *A. delamarei* has all antennomeres slightly longer that those of the other males examined,

in particular the pedicel is two times longer than wide, while in the other males it is typically one and a half times longer than wide. For the distinctive characters that separate *A. delamarei* and *A. grandiceps* see the "Comments" section under *A. grandiceps*.

Achilia jeanneli n. sp.

Figs 3, 17, 24, 32, 45-46, 59-62, 83

Holotype: MHNG (# MHNG-ENTO-81519); 1 ♂; CENTRAL CHILE: Región Araucanía: Malleco prov.: Nahuelbuta National Park, Piedra del Aquila; 37° 48'S 73° 02'W; 1300 m; 24.XII.1992; site 31b, sifting of moss on rock and tree trunks and vegetational debris; D. Burckhardt.

Paratypes (70 ex.): CENTRAL CHILE: Región Araucanía: Malleco prov.: MHNG (# MHNG-ENTO-81520-29); 7 ♂ and 3 ♀; same data as holotype. – MHNS; 1 ♂ and 1 ♀; same data. – MHNG (# MHNG-ENTO-81530-73); 9 ♂ and 35 ♀; Nahuelbuta National Park, Piedra del Aquila; 1450 m; 15.XII.1990; site 10a, sifting of vegetational debris; M. Agosti & D. Burckhardt. – FMNH (FMHD #2002-045); 2 ♀; Nahuelbuta National Park, road to Piedra del Aquila; 37° 49.29'S 73° 01.90'W; 1360 m; 06-24.XII.2002; site 1055, *Nothofagus dombey & pumilio*, large *Araucaria* and bamboo, shrub understory; flight intercept traps; M. Thayer, A. Newton, A. Solodovnikov, D. J. Clarke & M. Chani. – FMNH (FMHD #2002-096); 2 ♀; Nahuelbuta National Park, road to Piedra del Águila; 37° 49.7'S 73° 01.9'W; 1360 m; 25.XII.2002; *Nothofagus* and *Araucaria*, berlese, leaf & log litter; A. Solodovnikov. – MHNG (# MHNG-ENTO-81574-79); 3 ♂ and 3 ♀; Nahuelbuta National Park; 1100 m; 14-17.XII.1990; site 9a, forest litter; M. Agosti & D. Burckhardt. – NHMW; 1 ♂ and 2 ♀; Cordillera Nahuelbuta; H. Franz. – FMNH (FMHD #96-224); 1 ♀; Nahuelbuta National Park, 4.5 km W Los Portones entrance; 37° 49.25'S 72° 59.82'W; 1300 m; 21.XII.1996; site 975, *Nothofagus* spp. emergent *Araucaria aracauna, Chusquea* understory, berlese, leaf & log litter; A. Newton & M. Thayer.

Description: Body 1.60-1.70 mm long, brown with reddish elytra, sometimes also head and pronotum reddish; antennae and legs reddish; palpi yellowish. Pronotum with disc slightly more convex than in *A. grandiceps*; posterior portion of lateral margins subparallel. First abdominal tergite with diverging basal striae extending to about one-fourth of paratergal length, and separated at base by about one-third of tergal width.
Male: Head as in Figs 59-62, with occipital region and basal half of frons raised as two triangular protuberances, longer than wide, and separated by U-shaped median notch; lateral arms of notch thickly pubescent apically; anterior portion of frons deeply excavated; median apophysis curved and directed backwards, originating from broad median sub-basal clypeal hump, tip in dorsal view horseshoe-shaped with pubescent sides; median sub-basal clypeal hump with sides bearing only some sparse setae. Antennae (Fig. 17) with scape longer than wide, slightly swollen and slightly flattened; pedicel wider than long, slightly excavated on medial surface and with broadened lateral margin; antennomere III about as long as wide, antennomeres IV-VIII wider than long and slightly swollen; antennomere IX transverse with protruding mesal margin pointed at middle, antennomere X wider than long with denticulate margins and protruding mesal margin pointed at middle; antennomere XI elongate, with denticulate margins, shorter than VII-X combined. Metaventrite entirely covered by dense pubescence formed by long converging bristles, raised at middle for two- thirds of its distal portion, this surface entirely divided by broad median sulcus. Protrochanters with ventral margin forming median spine rounded or apically truncate, with long bristle at base of spine (Fig. 24); mesotrochanters (Fig. 32) with ventral margin forming spine on basal third; mesofemora (Fig. 32) with ventral margin similar to those of *A. grandiceps*, covered by broad, short and thick setae on basal third; mesotibiae with medial margin bearing recurved setae (Fig. 45), or not (Fig. 46), and forming short apical spine. Aedeagus (Fig. 3) 0.43-0.44 mm long; similar to that of *A. grandiceps* except lateral sclerites shorter, distinctly pointed and apically bent outwards.
Female: Similar to male except head not modified with frons slightly depressed behind scarcely impressed frontal sulcus.

Collecting data: Collected in December in different types of forest, at elevations ranging from 1110 m to 1450 m. All specimens came from sifted samples of leaf and log litter, sometimes with moss and vegetational debris included. Two females were collected by flight intercept traps.

Distribution: The species is known only from central Chile (Fig. 83: fuchsia star) in Nahuelbuta National Park (Malleco province).

Etymology: The species is dedicated to the French entomologist R. Jeannel.

Comments: Within the *A. grandiceps* group, the males of *A. jeanneli* n. sp. are easily distinguished from the other species by the shape of the head (Figs 59-62) and antennae (Fig. 17). The females of this species are very similar to those of *A. grandiceps*, from which they can be distinguished by their larger body size (1.6-1.7 mm for *A. jeanneli* versus 1.35-1.55 mm for *A. grandiceps*), and by the slightly swollen antennal scape of *A. jeanneli* n. sp.

Achilia franzi n. sp.

Figs 4, 14, 25, 33, 47-48, 63-66, 83

Holotype: MHNG (# MHNG-ENTO-81580); 1 ♂; SOUTHERN CHILE: Región Los Lagos: Llanquihue prov.: Alerce Andino National Park, Laguna Triángulo; 41° 40'S 72° 35'W; 550 m; 05-06.I.1993; sclerophyll rainforest, site 38b, sifting of moss on tree trunks and forest floor, and of vegetational debris; D. Burckhardt.

Paratypes (96 ex.): SOUTHERN CHILE: Región Los Lagos: Llanquihue prov.: MHNG (# MHNG-ENTO-81581-672); 51 ♂ and 40 ♀; same data as holotype. – MNHS; 1 ♂ and 1 ♀, same data. – Osorno prov.: UNHC; 1 ♂; Puyehue National Park, Antillanca road; 690 m; 18-24.XII.1982; site 661, valdivian rainforest, window trap; A. Newton & M. Thayer. – FMNH; 1 ♂; same data. – MHNG (# MHNG-ENTO-81673); 1 ♂; Puyehue National Park, Antillanca road; 500-1000 m; 18-20.XII.1984; car netting; S. & J. Peck.

Description: Body 1.45-1.60 mm long, dark brown with reddish elytra; antennae and legs reddish, palpi yellowish. Pronotum with disc moderately convex; posterior portion of lateral margins subparallel. First abdominal tergite with diverging basal striae extending to about one-fourth of paratergal length, and separated at base by more than one-third of tergal width.

Male: Head as in Figs 63-66, with occipital region and basal half of frons raised with V-shaped median notch; lateral arms of notch densely pubescent apically; anterior portion of frons deeply excavated; median apophysis curved and directed backwards, originating from very large median sub-basal clypeal hump, tip in dorsal view fusiform; sub-basal clypeal hump sparsely pubescent. Antennal tubercles very prominent. Antennae (Fig. 14) with scape and pedicel distinctly longer than wide; antennomeres III and V distinctly longer than wide; antennomeres IV and VI-VIII wider than long; antennomere IX wider than long with protruding mesal margin pointed at distal angle; antennomere X wider than long, with protruding mesal margin; antennomere XI elongate, slightly longer than VII-X combined, with denticulate margins. Metaventrite with distal half pubescent, raised at middle for two thirds of its distal portion, this surface entirely divided by median sulcus. Protrochanters (Fig. 25) bearing one long seta; profemora slightly enlarged at middle and slightly hollowed medially near ventral margin; mesotrochanters (Fig. 33) with ventral margin forming spine at basal third; mesofemora (Fig. 33) with basal third of ventral margin covered by broad, short and thick setae, very similar to mesofemora of *A. jeanneli* n. sp.; mesotibiae with medial margin bearing recurved setae (Fig. 48), or not recurved (Fig. 47) and forming very short and rounded apical spine; apical margin denticulate. Aedeagus (Fig. 4) 0.27-0.29 mm long; similar to that of *A. grandiceps* except parameres wider with larger outer lobe, and copulatory pieces with lateral sclerites wider, longer, pointed and apically bent outwards.

Female: Similar to male except: head not modified, but frons flattened behind frontal sulcus, which is well impressed, anterior margin of the frontal lobe pointed in the middle.

Collecting data: Collected from December to January in sclerophyll or valdivian rainforest, at elevations ranging from 550 m to 1000 m. The specimens came from sifted samples of moss and vegetational debris, windows traps, and car netting.

Distribution: *Achilia franzi* n. sp. is known only from southern Chile (Fig. 83: squares edged in fuchsia) in Llanquihue and Osorno provinces (Región Los Lagos).

Etymology: This species is dedicated to the Austrian entomologist H. Franz.

Comments: Within the *A. grandiceps* group, the males of *A. franzi* n. sp. are easily distinguished from the other species by the peculiar shape of their head (Figs 63-66) and antennae (Fig. 14). The females of this species are characterized by antennomeres wider than long, or at most as wide as long, the frontal sulcus well-impressed, the anterior margin of frontal lobe distinctly pointed in middle, and the frons flattened behind the frontal sulcus.

Achilia elguetai n. sp.

Figs 5, 15, 26-27, 34, 37, 49, 67-70, 83

Holotype: MHNG (# MHNG-ENTO-81674); 1 ♂; SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: Isla Chiloé, Vilupulli; 26.II.1976; T. Cekalovic.

Paratypes (29 ex.): SOUTHERN CHILE Región Los Lagos: Chiloé prov.: MHNG (# MHNG-ENTO-81675-80); 6 ♀; same data as holotype. – MSNG; 1 ♂; Puente La Caldera, 15.II.1996; site TC-466; T. Cekalovic. – FMNH (FMHD# 97-21); 5 ♂ and 5 ♀; Puente La Caldera, 9.8 km E of Cucao; 42° 39.96'S 74° 00.70'W; 10 m; 14.I.1997; site 991, valdivian raiforest, berlese, leaf & log litter; A. Newton & M. Thayer. – MHNG (# MHNG-ENTO-81681-82); 1 ♂ and 1 ♀; same data. – MNHS; 1 ♂ and 1 ♀; same data; A. Newton & M. Thayer 991. – MHNG (# MHNG-ENTO-81683-84); 2 ♀; Isla Chiloé, Castro; 26.II.1976; T. Cekalovic. – MHNG (# MHNG-ENTO-81685); 1 ♂; Chiloé National Park, Rancho Grande, near Cucao; 42° 33'S 74° 02'W; 250-400 m; 29.XII.1992; site 35b, sifting of moss on forest floor trees and vegetational debris; D. Burckhardt. – FMNH (FMHD #2002-72); 5 ♂; 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; site 1062, valdivian rainforest w/emergent *Saxegothea conspicua*, flight intercept trap; A. Newton & M. Thayer.

Description: Body 1.60-1.70 mm long, brown with reddish, or sometimes yellowish elytra; antennae and legs reddish or yellowish; palpi yellowish. Pronotum with disc very convex; posterior portion of lateral margins suparallel. First abdominal tergite with diverging basal striae extending to about one-third of paratergal length, and separated at base by about one-third of tergal width.
Male: Head as in Figs 67-70, with occipital region and basal half of frons raised as two quadrangular protuberances, and separated by U-shaped median notch; lateral arms of notch extended anteriorly as pubescent pointed process that is densely pubescent apically; anterior portion of frons deeply excavated; median apophysis curved and directed backwards, originating from large median sub-basal clypeal hump, tip in dorsal view lozenge-shaped with pubescent sides; median sub-basal clypeal hump with sides sharp and bearing sparse bristles. Antennae (Fig. 15) with scape barely longer than wide; pedicel distinctly longer than wide; antennomeres III-V distinctly longer than wide; antennomere VI slightly longer than wide; antennomeres VII and VIII wider than long; antennomeres IX-X transverse with slightly protruding lateral margin, antennomere X wider than IX; antennomere XI elongate with denticulate margins, and shorter than VII-X combined. Metaventrite with distal half densely pubescent, raised at middle for two-thirds of its distal portion, this surface entirely divided by median sulcus. Protrochanters with one long seta and some shorter setae, ventral margin forming median spine (Fig. 26), this spine sometimes truncate (Fig. 27); protibiae (Fig. 37) strongly recurved and sinuate for distal half; mesotrochanters with ventral margin forming sharp spine at basal third (Fig. 34); mesofemora (Fig. 34) with basal third of ventral margin covered by broad, short and thick setae, similar to those of *A. jeanneli* n. sp.; mesotibiae with medial margin without recurved setae (Fig. 49), forming very short and rounded apical spine; apical margin forming very small second spine. Aedeagus (Fig. 5) 0.31-0.32 mm long; very similar to that of *A. delamarei* except parameres slightly wider, and copulatory pieces with medial sclerites with only the distal third frayed with numerous long and thin spines.
Female: Similar to male except head not modified with frons flattened, and frontal sulcus scarcely impressed.

Collecting data: Collected from December to February in valdivian rainforest at elevations ranging from 10 m to 400 m. The specimens came from sifted samples of leaf & log litter, or from moss and vegetational debris, some also collected by flight intercept traps.

Distribution: *Achilia elguetai* n. sp. is known only from southern Chile (Fig. 83: red inverted triangles) in Chiloé province (Región Los Lagos).

Etymology: This species is dedicated to the Chilean entomologist M. Elgueta Donoso.

Comments: *Achilia elguetai* n. sp. is easily distinguished from the other species of the *A. grandiceps* group by the peculiar characters of the males, especially the features of the head (Figs 67-70), the antennae (Fig. 15), and the protibiae (Fig. 37). The females of this species are characterized by their very large head, which is flattened but not excavated behind the scarcely impressed frontal sulcus, the frontal lobe is distinctly pointed at the middle, the antennae have antennomeres III and V distinctly longer than wide, antennomeres VI and VII are slightly longer than wide, and the protibiae are enlarged for their distal half.

Achilia denticornis Jeannel, 1962

Figs 7-8, 16, 21, 38, 44, 71-74, 83

Achilia denticornis Jeannel, 1962: 421, 423 figs 183 (head and antennae), 184 (aedeagus).

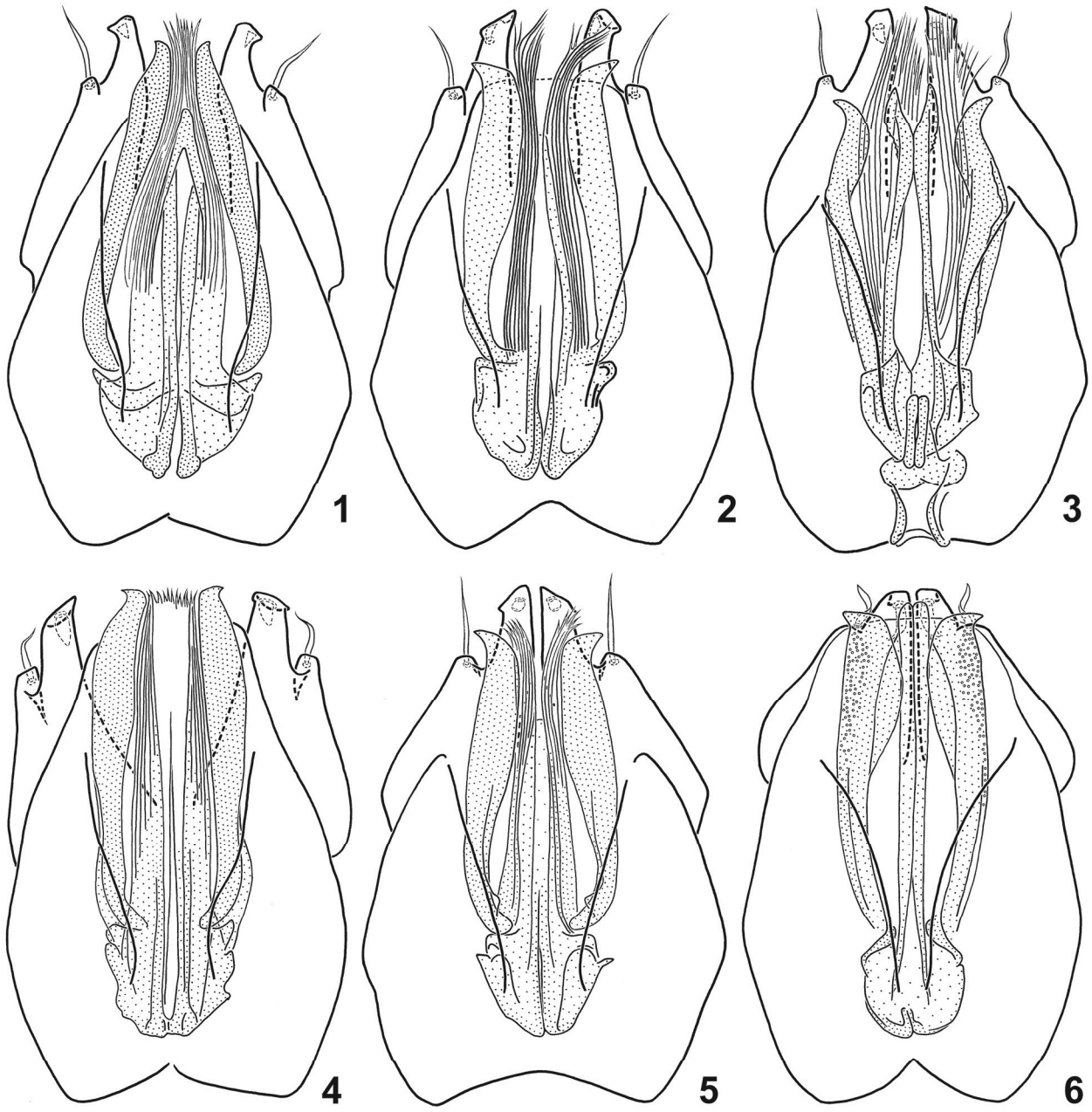
Type material (27 ex.): SOUTHERN CHILI: Región Los Lagos: Chiloé prov.: MHNS; 1 ♂ (holotype); labels verbatim "Type / Chepu, 03.X.1958, G. Kuschel / *Achillia denticornis* / *denticornis* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo, n. 1845". – MNHN; 13 ♂ and 11 ♀ (paratypes); labels verbatim "Paratype / Chepu, 03.X.1958, Kuschel". – MNHN; 1 ♂ (paratype); labels verbatim "Paratype / Chepu, 04.X.1958, Kuschel". – MNHN; 1 ♂ (paratype); labels verbatim "Paratype / Chepu, 11.X.1958, Kuschel".

Additional material examined (48 ex.): SOUTHERN CHILI: Región Los Lagos: Chiloé prov.: MHNS; 4 ♂ and 14 ♀ (mislabelled as paratypes of *A. denticornis* n. 1846-47, n. 1849 and n. 2053-67); Chepu; 03.X.1958; G. Kuschel. – MHNS; 1 ♂ and 4 ♀ (mislabelled as paratypes of *A. denticornis* n. 1848 and 2068-71); Chepu; 04.X.1958; G. Kuschel. – MHNG; 2 ♂ and 5 ♀; Isla Chiloé, Mocopulli; 2.II.1983; T. Cekalovic. – MHNG; 1 ♀; Isla Chiloé, Piruquina; 19.II.1983; T. Cekalovic. – Llanquihue prov.: FMNH (FMHD #97-38); 2 ♂ and 1 ♀; Vicente Perez Rosales National Park, SW slope Volcan Osorno, km 4 to La Burbuja; 41° 09.95'S 72° 30.80'W; 310 m; 27.I.1997; site 1007 secondary valdivian rainforest w/*Nothofagus dombeyi* - *Eucryphia cordifolia,* berlese, leaf & log; A. Newton & M. Thayer. – FMNH (FMHD #97-16); 1 ♂ and 2 ♀; 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; site 989, valdivian rainforest on steep slope, berlese, leaf & log litter; A. Newton & M. Thayer. – Osorno prov.: PCTS; 1 ♂; Aguas Calientes, 40° 74'S 72° 27'W; 13.XII.2013; car net. – MHNG; 1 ♂ and 7 ♀; Aguas Calientes, 40° 74'S 72° 27'W; 14.XII.2013; litter layer. – FMNH; 1 ♀; Puyehue National Park, Antillanca road; 470 m; 20-25.XII.1982; valdivian rainforest, leaf & log litter, berlese, vouchers associated with larvae; A. Newton & M. Thayer. – 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; site 1071, valdivian rainforest, berlese, leaf & log litter; A. Newton, M. Thayer, D. J. Clarke & M. Chani.

Description: Body 1.60-1.70 mm long, dark brown with reddish elytra; antennae and legs reddish; palpi yellowish. Pronotum with disc moderately convex; posterior portion of lateral margins subparallel. First abdominal tergite with diverging basal striae extending to about one-fourth of paratergal length, and separated at base by about one-third of tergal width.

Male: Head as in Figs 71-74, with occipital region and basal half of frons raised as two protuberances, and separated by U-shaped median notch; lateral arms of notch extended anteriorly to form pubescent pointed process; anterior portion of frons very deeply excavated; median apophysis curved and directed backwards, sides rounded, originating at base of clypeus from ridge connecting base of antennal tubercles, tip in dorsal view triangular with rounded and pubescent sides; anterior margin of transverse clypeal ridge pointed at middle. Antennae (Fig. 16) with scape and pedicel longer than wide, scape slightly swollen; antennomere III sligthly longer than wide; antennomere IV slightly wider than



Figs 1-6. Aedeagi of *Achilia* species. (1) *A. grandiceps.* (2) *A. delamarei.* (3) *A. jeanneli* n. sp. (4) *A. franzi* n. sp. (5) *A. elguetai* n. sp. (6) *A. valdiviensis.*

long; antennomere V with distal third of medial margin strongly widened and forming tooth-like process bearing six long apical bristles; antennomeres VI-VIII distinctly wider than long; antennomere IX transverse with distal third of mesal margin protruding to form small tooth; antennomere X wider than long with protruding mesal margin; antennomere XI elongate, distinctly longer than VII-X combined, with margins denticulate. Metaventrite with distal half not pubescent, shiny, raised at middle on apical two-thirds of length, this surface entirely divided by broad and deep median sulcus. Protibiae (Fig. 38) slightly enlarged at middlle, medial margin forming tiny apical spine; mesotrochanters (Fig. 31) with small tubercle near distal third of ventral margin; mesofemora (Fig. 31) with basal third of ventral margin covered by broad, short and thick setae, similar to those of *A. grandiceps*; mesotibiae (Fig. 44) with medial margin forming conspicuous stout spine at middle and with thin apical spine, without recurved setae. Aedeagus (Figs 7-8) 0.30-0.31 mm long; with suboval dorsal plate, dorsal longitudinal struts slightly divergent. Parameres wide without outer lobe, with enlarged and rounded apex, apex bearing three long and thin bristles. Copulatory pieces consisting of pair of stout lateral sclerites subequal in length, slightly pointed laterally and apically rounded, with pair of long, wide medial sclerites that are basally recurved and sclerotized, these sclerites frayed with numerous long and thin spines.

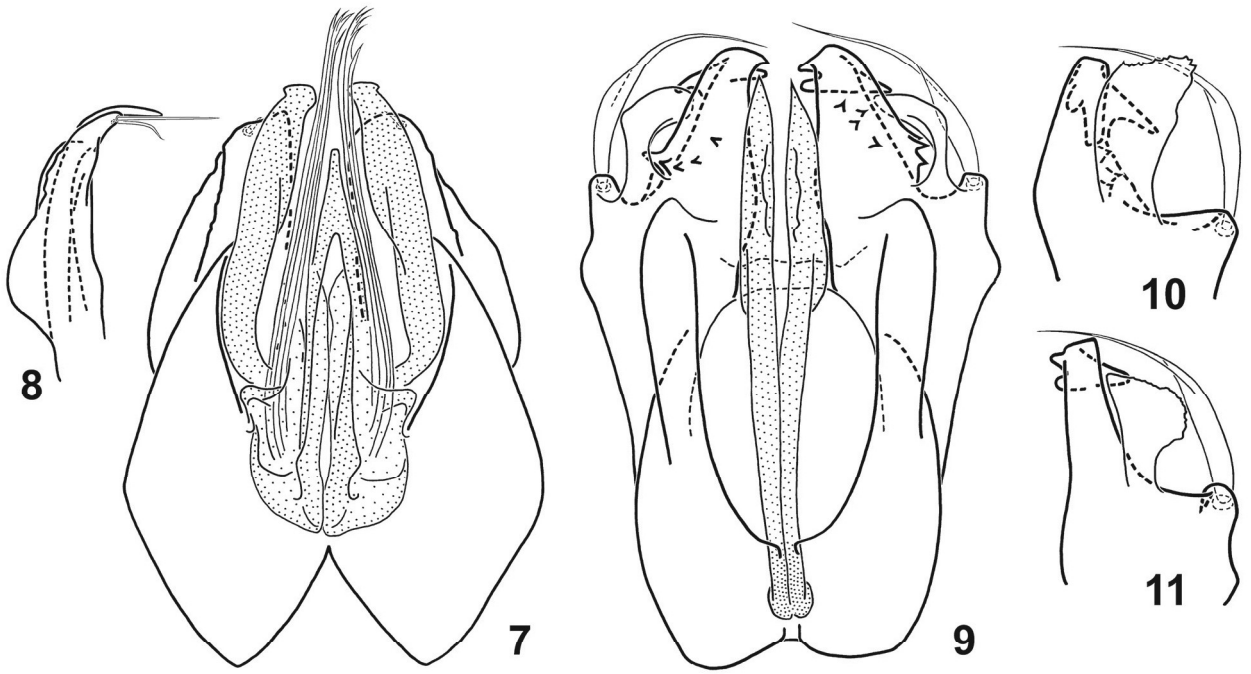
Female: Similar to male except antennae and head not modified, with frons shallowly depressed behind scarcely impressed frontal sulcus.

Collecting data: Collected from October to February in valdivian rainforest at elevations ranging from 310 m to 580 m. All specimens came from sifted samples of leaf and log litter, except for one male collected by car net.

Distribution: The species is known only from the Los Lagos Región (southern Chile) (Fig. 83: blue triangles).

Comments: The males of *A. denticornis* are easily distinguished from the other species of the *A. grandiceps* group by the shape of their mesotibiae (Fig. 44). The form of their head (Figs 71-74), antennae (Fig. 16), protibiae (Fig. 38), and aedeagus (Figs 7-8) are also diagnostic. The females of this species are characterized by their large head with the frons shallowly depressed behind the barely impressed frontal sulcus, antennomeres III-IV are longer than wide, antennomere V is distinctly longer than wide and is longer than all other antennomeres of the funicle. Medial margin of antennomere V slightly widened in the distal third. Jeannel (1962: 423) claims that the antennomeres V of the female of *A. denticornis* possess a small tubercle with two bristles, but we did'nt found this feature in all the females examined.

In the original description Jeannel (1962: 423) mentions that this species was described from 50 specimens collected by Kuschel in Chepu on 3.X.1958. Howewer, upon examination of the type series of Kuschel for the



Figs 7-11. Aedeagi (7, 9) and parameres in lateral view (8, 10-11) of *Achilia* species. (7) *A. denticornis.* (8) *A. denticornis,* same specimen. (9) *A. bicornis,* specimen from Chiloé, Mocopulli. (10) *A. bicornis,* specimen from Osorno, Bahia Mansa. (11) *A. bicornis,* specimen from Cautín, Huerquehue National Park.

dates indicated by Jeannel we found only 25 specimens (holotype and paratypes). Two other males of the typical series, that are housed in MNHN, were collected by Kuschel in Chepu and are labeled as paratypes, but were collected on different dates (i.e. 1 male paratypes on 04.X.1958; and 1 male paratypes on 11.X.1958), a detail most likely overlooked by Jeannel.

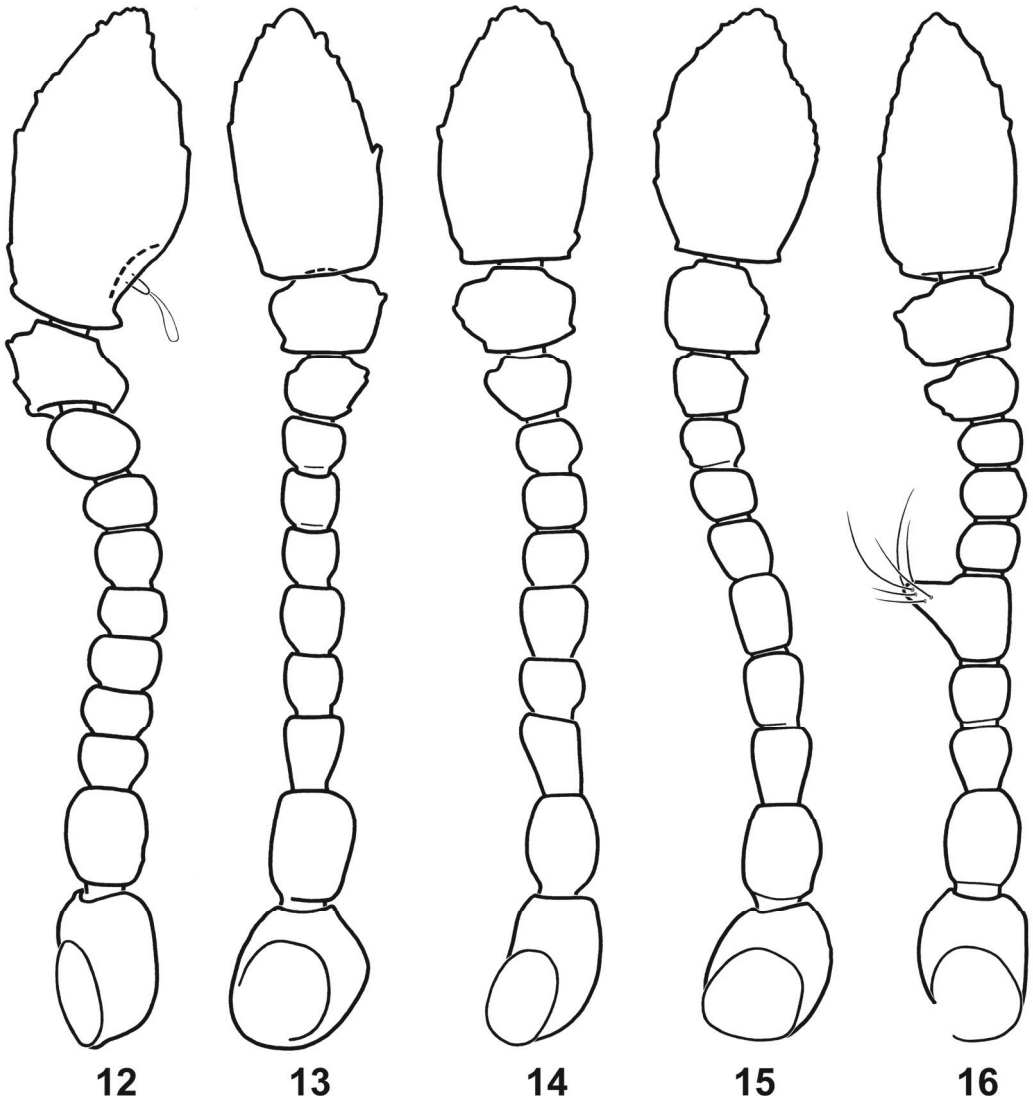
Achilia valdiviensis species group

Jeannel (1962: 398, 424) characterized this group as follows: elytra with 3 basal foveae; basal striae of first abdominal tergite separated by about a third of the tergal width; clypeus of the male head protruding in the form of a duck bill; antennae of the male with enlarged pedicel; distal end of longitudinal struts of aedeagus spatulate.
The group includes *Achilia valdiviensis* (Blanchard, 1851) and *A. kuscheli* Jeannel, 1962. Howewer our study of the type material revealed that *Achilia kuscheli* Jeannel, 1962 is a junior subjective synonym of *A. valdiviensis* (Blanchard, 1851) (**syn. nov**.). Consequently the *A. valdiviensis* group now holds only *A. valdiviensis* (Blanchard, 1851).

Achilia valdiviensis (Blanchard, 1851)

Figs 6, 18-19, 28, 35, 39, 43, 75-78, 84

Pselaphus valdiviensis Blanchard, 1851: 563.
Achilia valdiviensis Raffray, 1904: 138; Raffray, 1908: pl. 2, fig. 13 (habitus); Jeannel, 1962: 424, fig. 189 (aedeagus); (nec *valdiviensis* Reitter, 1885).
Bryaxis nasuta Reitter, 1885a: 327, pl. 2, fig. 7 (head and antennae).
Bryaxis anas Reitter, 1885b: 317 (new name for *Bryaxis nasuta*).
Bryaxis nasina Reitter, 1893: 261 (new name for *Bryaxis nasuta*).

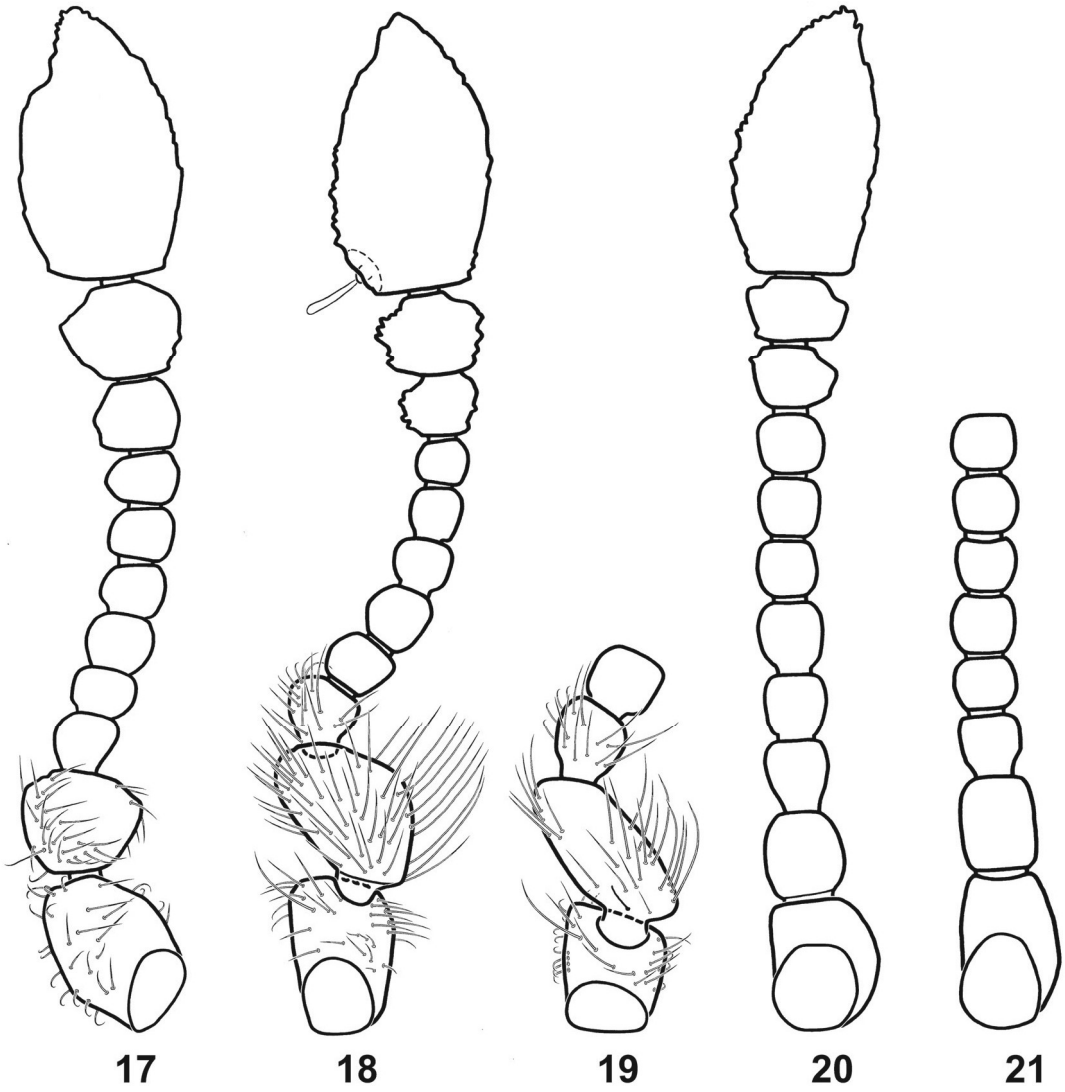


Figs 12-16. Male antennae of *Achilia* species. (12) *A. grandiceps.* (13) *A. delamarei.* (14) *A. franzi* n. sp. (15) *A. elguetai* n. sp. (16) *A. denticornis*.

Achilia kuscheli Jeannel, 1962: 424, 425, figs 186 (habitus), 187 (head of female), 188 (aedeagus) (**syn. nov**.).

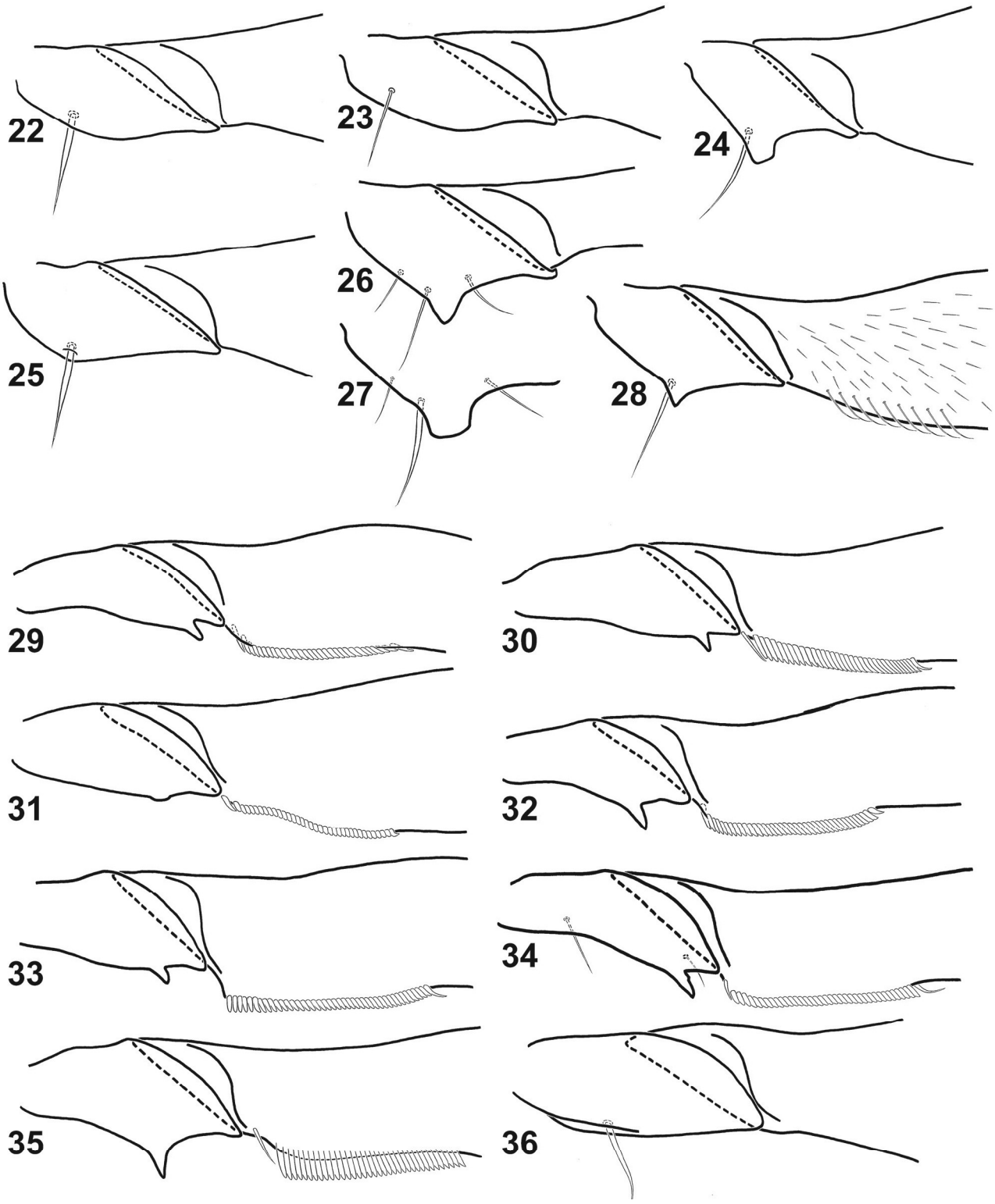
Type material (14 ex.): SOUTHERN CHILE Región Los Rios: Valdivia prov.: MNHN; 1 ♂ (Lectotype, here designated); label verbatim: "Lectotype / Museum Paris, Chili, Gay 1849 / H 49 / Valdivia / Gen. *Achilia* Reitt. =, *Bryaxis* Raffr., = *Pselaphus* Blanchard / *valdiviensis*, Blanch. = *nasina* Reitter, = *nasuta* Reitt., A. Raffray det. 1904 / *valdiviensis* Bl. (handwritten by Jeannel) / *Achilia valdiviensis* Sabella, Cuccodoro & Kurbatov det. 2019". – MNHN; 1 ♂ (Paralectotype, here designated); label verbatim: "Paralectotype / Museum Paris, Chili, Gay 1849 / H 49/ Valdivia / *Achilia valdiviensis* Blch., A. Raffray det. 1904 / *Achilia valdiviensis* Sabella, Cuccodoro & Kurbatov det. 2019". Región Los Lagos: Chiloé prov.: MHNS; 1 ♂ (holotype of *A. kuscheli*); labels verbatim "Type / Chepu, 03.X.1958, G. Kuschel / *Achillia kuscheli* / *kuscheli* (handwritten by Jeannel) / CHILE; M.N.H.N.; Typo, n. 1850". – MNHN, 1 ♂ and 9 ♀ (paratypes of *A. kuscheli*); labels verbatim "Paratype / Chepu, 03.X.1958, Kuschel". – MNHN; 1 ♀ (paratype of *A. kuscheli*); labels verbatim "Paratype / Chepu, 11.X.1958, Kuschel".

Additional material examined (65 ex.): MNHN; 1 ♂ (probably holotype of *A. nasina* Reitter, 1893); labels verbatim "Chili / Museum Paris, 1917, coll. Raffray / Type / *chilensis* Reitter / *A. valdiviensis*, A. Raffray det. / *valdiviensis* Bl. (handwritten by Jeannel)". SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: MHNG; 1 ♂; Chiloe; H. Franz. – MHNS; 7 ♀ (mislabelled as paratypes of *A. kuscheli* n. 1851 and



Figs 17-21. Male antennae (17-18, 20), and variability of the base of antennae (19-21) of *Achilia*. (17) *A. jeanneli* n. sp. (18) *A. valdiviensis*, specimen from Valdivia, Reserva Costera Valdiviana, Chaihuín. (19) *A. valdiviensis,* specimen from Chiloé, Puente La Caldera. (20) *A. bicornis,* specimen from Chiloé, Mocopulli. (21) *A. bicornis,* specimen from Osorno, Bahia Mansa.

n. 2072-77); Chepu; 03.X.1958; G. Kuschel. – FMNH (FMHD# 97-21); 15 ♂ and 17 ♀; Puente La Caldera, 9.8 km E of Cucao; 42° 39.96'S 74° 00.70'W 10 m; 14.I.1997; site 991, valdivian rainforest, berlese, leaf & log litter; A. Newton & M. Thayer. – MHNG; 7 ♂ and 6 ♀; same data. – MHNS; 2 ♂ and 2 ♀; same data. – PCPH; 1 ♂ and 1 ♀; same data. – Región Los Ríos: Valdivia prov.: MHNG; 1 ♂; Corral, 39° 95'S

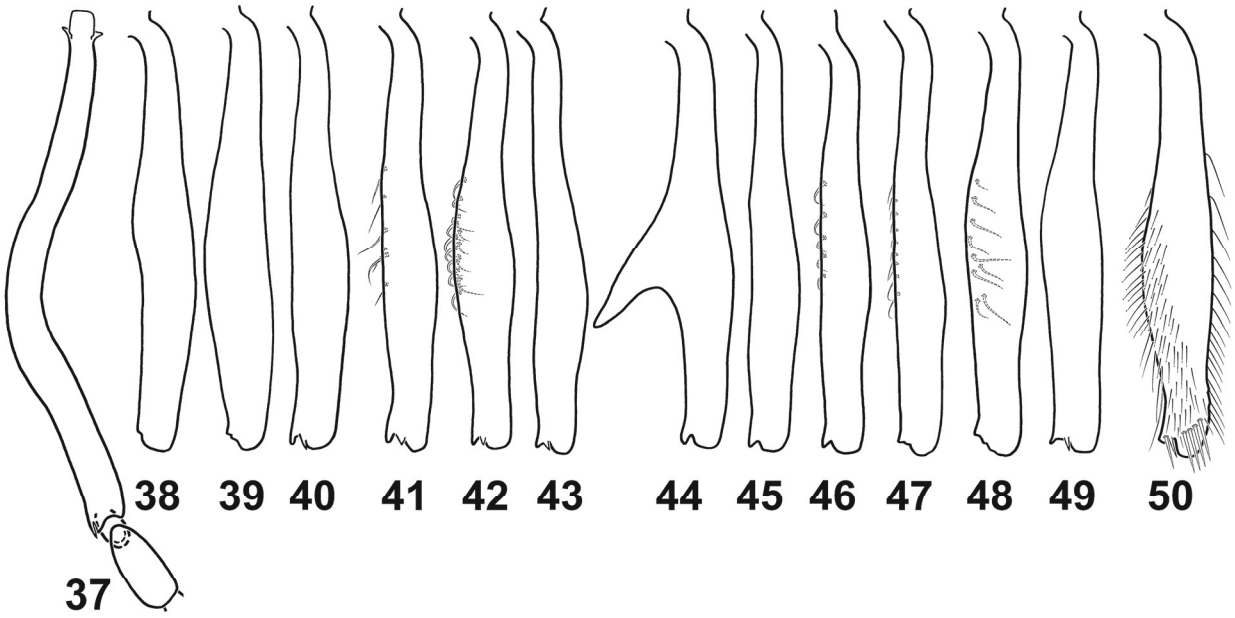


Figs 22-36. Male protrochanters (22-28), mesotrochanters and base of mesofemur (29-36) of *Achilia*. (22, 29) *A. grandiceps*. (23, 30) *A. delamarei*. (24, 32) *A. jeanneli* n. sp. (25, 33) *A. franzi* n. sp. (26-27, 34) *A. elguetai* n. sp. (28, 35) *A. valdiviensis*. (31) *A. denticornis*. (36) *A. bicornis*.

73° 20'W; 06.XII.2013; car net. – PCPH; 2 ♂; Reserva Costera Valdiviana, Chaihuín; WDS-T-207; 39°58.6'S 73° 35'W; 27.II.2008; sifting litter; W. D. Shepard. – FMNH; 1 ♂; same data. – MHNG; 1 ♂; same data.

Description: Body 1.50-1.70 mm long; dark brown with reddish elytra, the latter generally darker at apex and along sutural stria, sometimes also at base; antennae and legs reddish; palpi yellowish. Head wider than long. Pronotum slightly wider than head and wider than long; disc moderately convex; median antebasal fovea slightly smaller than lateral ones; lateral margins with anterior portion distinctly convergent and sinuate anteriorly, and posterior portion slightly convergent and not sinuate. Elytra with discal stria extending to about elytral midlength. First abdominal tergite with slightly diverging basal striae extending to about one-third of paratergal length, and separated at base by more than one-third of tergal width.

Male: Head as in Figs 75-78, sub-triangular; frons slightly raised, its surface with some sparse big punctures at middle; two very big and deep vertexal foveae at center of frons at point even with center of eyes, at same distance from each other as from nearest eye; frontal sulcus lacking; frontal lobe pointed in middle, with thick tuft of straight yellowish bristles extended forwards; clypeus strongly prolonged forward, duck's beak-shaped. Eyes protruding, distinctly longer than short, with convex temples. Antennae (Figs 18-19) with scape longer than wide, more (Fig. 19) or less (Fig. 18) elongated; pedicel misaligned, flattened and excavated on medial surface, as long as wide with mesal apical edge very pronounced (Fig. 18), or subrectangular in shape and distinctly longer than wide (Fig. 19); antennomere III slightly longer than wide; antennomere IV wider than long; antennomere V as long as wide; VI slightly wider than long; antennomere VII slightly longer than wide; antennomere VIII transverse; antennomere IX transverse with denticulate margins and protruding mesal margin; antennomere X wider than IX, wider than long with denticulate margin and protruding mesal margin; antennomere XI very elongate, also with denticulate margins, distinctly longer than VII-X combined, usually bearing long subbasal seta on mesal margin. Metaventrite with distal half covered by convergent long bristles, raised at middle for two-thirds of its distal portion, this surface entirely divided by median sulcus. Protrochanters (Fig. 28) with ventral margin formed as spine bearing one long basal seta; mesotrochanters (Fig. 35) with ventral margin forming long spine at basal third; mesofemora (Fig. 35) with basal third of ventral margin covered by broad, short and thick setae, those setae longer than in *A. grandiceps*. Protibiae (Fig. 39) enlarged for distal half, with medial margin forming small apical spine; mesotibiae (Fig. 43) with medial margin without recurved setae, apical margin forming two short spines. First abdominal sternite very long, projecting over second sternite which is thus almost entirely concealed. Aedeagus (Fig. 6) 0.29-0.31 mm



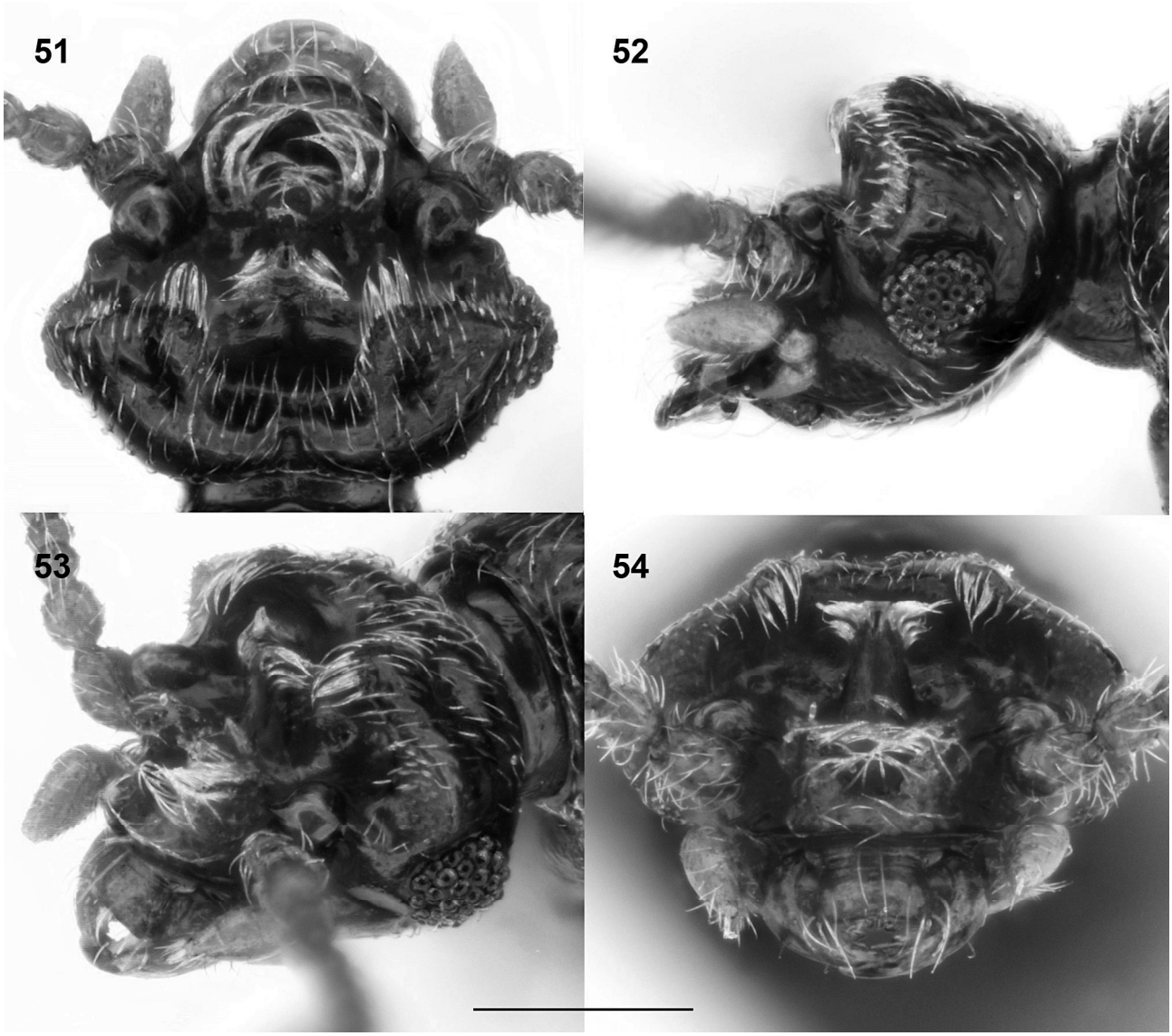
Figs 37-50. Male protibiae (37-39) and mesotibiae (40-50) of *Achilia.* (37, 49) *A. elguetai* n. sp. (38, 44) *A. denticornis*. (39) *A. vadiviensis*. (40-41) *A. grandiceps*, specimen from: (40) Llanquihue, Alerce Andino National Park, Laguna Triàngulo; (41) Malleco, Purén, Contulmo Natural Monument. (42) *A. delamarei*. (43) *A. valdiviensis*. (45-46) *A. jeanneli* n. sp., specimen from: (45) Malleco, Nahuelbuta National Park, Piedra del Aquila, station 31b; (46) Malleco, Nahuelbuta National Park, Piedra del Aquila, station 10a. (47-48) *A. franzi* n. sp., specimen from: (47) Llanquihue, Alerce Andino National Park, Laguna Triàngulo; (48) Osorno, Antillanca road. (50) *A. bicornis*.

long; with suboval dorsal plate, dorsal longitudinal struts slightly divergent. Parameres relatively wide with large and short seta on small outer lobe; tips rounded bearing large median seta. Copulatory pieces consisting of a pair of long wide medial sclerites basally recurved, sclerotized and apically rounded, with pair of thin lateral sclerites subequal in length, recurved, enlarged, sclerotized at base, with distal half thickly pitted near lateral margin.
Female: Similar to male except eyes smaller and less protruding, frontal lobe barely pointed at middle and without tuft of setae, clypeus just slightly elongated, antennae with pedicel barely misaligned, subrectangular and not excavated. Metaventrite, abdominal sternites, and legs unmodified.

Collecting data: Collected from October to February in valdivian rainforests, presumably at low elevations. All specimens came from sifted samples of leaf and log litter, except for one male collected by car net.

Distribution: The species is known only from southern Chile (Fig. 84: green squares) from Chiloé and Valdivia provinces.

Comments: Blanchard described *Pselaphus valdiviensis* (1851: 563) based on an unspecified number of specimens from Valdivia. The description, very concise, did not report clear diagnostic characters such that subsequent authors (Reitter, 1885a; Schaufuss, 1886; and Raffray, 1895) thought this species was a member of the Tyrini.
Reitter (1883: 50) described *Bryaxis valdiviensis* (technically *valvidiensis* in the original description due to a *lapsus calami*) based on an unspecified number of specimens from Valdivia, without any mention of *Pselaphus valdiviensis*, and two years later he described (Reitter 1885a: 325 and 327) *Bryaxis nasuta* based on a single male specimen from Valdivia that had been collected by the cousins Elsbeth and Elfride Kindermann.



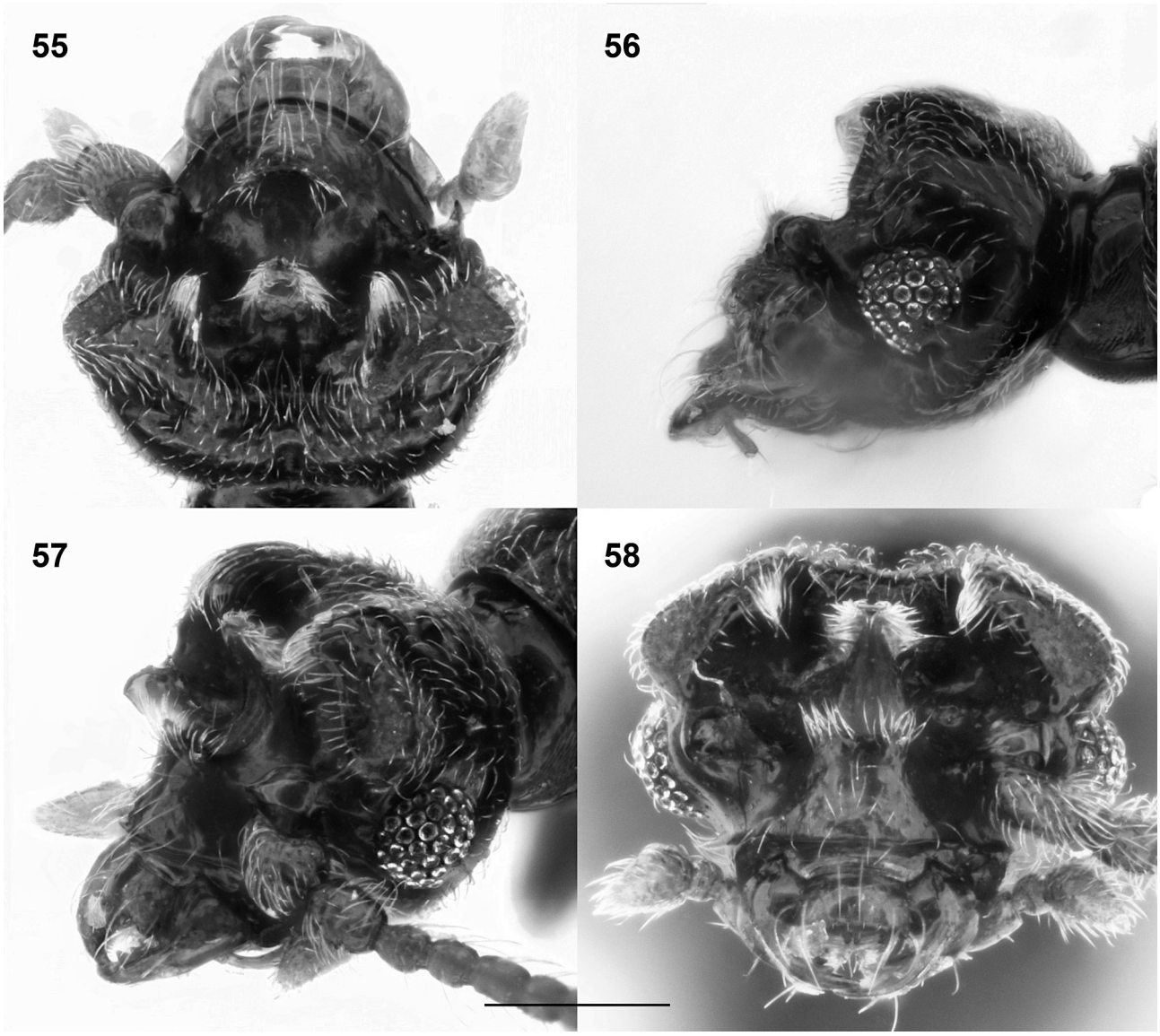
Figs 51-54. *Achilia grandiceps*. Male head in (51) dorsal, (52) lateral, (53) semilateral, and (54) frontal views. Scale bars (200 μm).

In the same year Reitter (1885b: 317), realizing that the name *Bryaxis nasuta* was preoccupied, proposed to change the species name to *Bryaxis anas*. Later Reitter (1893: 261), apparently forgetting he already done so, proposed a second name for *Bryaxis nasuta*, but this time as *Bryaxis nasina*.

Raffray (1904: 138), having studied the type of *Pselaphus valdiviensis* Blanchard, 1851, which he believed to be in the MNHN collections, established that this species was not a member of the Tyrini, but should be transferred to *Achilia* in the Brachyglutini, and therefore proposed the substitute name *Achilia blanchardi* Raffray, 1904 for *Bryaxis valdiviensis* Reitter, 1883, and pointing out that *Bryaxis nasuta* Reitter, 1885 (= *Bryaxis nasina* Reitter, 1893) was identical to *Achilia valdiviensis* (Blanchard, 1851).

Then Jeannel (1962: 424-425) claimed that the types of *Bryaxis nasuta* Reitter, 1885 and *Achilia valdiviensis* (Blanchard, 1851), both collected in Valdivia, were present in the MNHN collections, and among the material examined, he mentions only three specimens: Central Chile: Valdivia prov.: Env. of Valdivia (39 ° 50 ‘lat. S) male and female (Cl. Gay), and another male (E. and E. Kindermann).

However in MNHN we could find only 3 males of this species: 1 male in the Raffray collection labeled “Chili / Museum Paris, 1917, coll. Raffray / Type / *chilensis* Reitter / *A. valdiviensis*, A. Raffray det. / *valdiviensis* Bl. (handwritten by Jeannel)”, and 2 males in the general Chile collection – one labeled: “Museum Paris, Chili, Gay 1849 / H 49 / Valdivia / Gen. *Achilia* Reitt. =, *Bryaxis* Raffr., = *Pselaphus* Blanchard / *valdiviensis*; Blanch. = *nasina* Reitter, = *nasuta* Reitt., A. Raffray det. 1904 / *valdiviensis* Bl. (handwritten by Jeannel)”, and

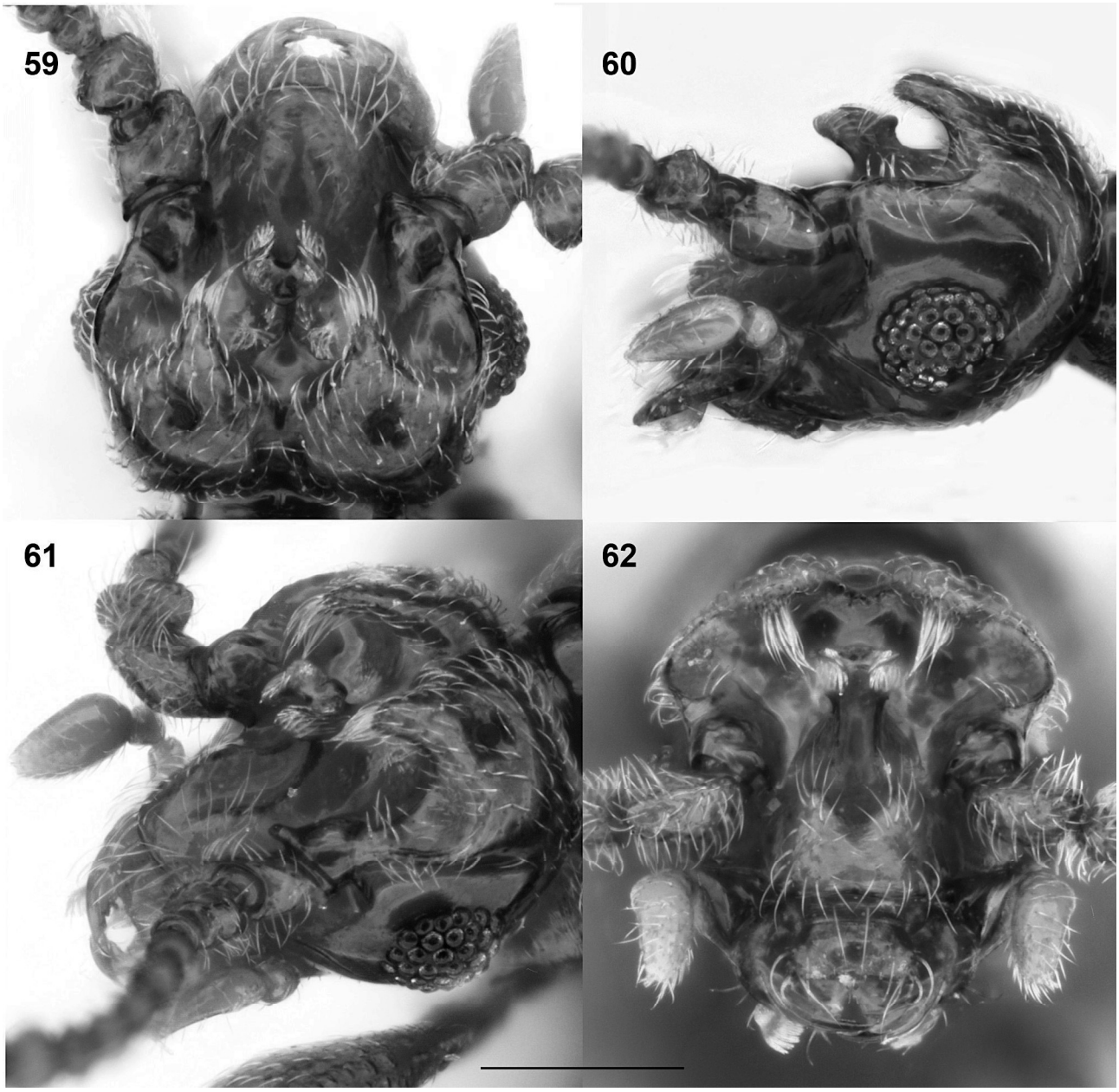


Figs 55-58. *Achilia delamarei*. Male head in (55) dorsal, (56) lateral, (57) semilateral, and (58) frontal views. Scale bar (200 μm).

the second labeled "Museum Paris, Chili, Gay 1849 / H 49/ Valdivia / *Achilia valdiviensis* Blch., A. Raffray det. 1904". We think that these two males collected by Gay and studied by Raffray are part of the typical series of *Achilia valdiviensis* (Blanchard, 1851), and therefore designate them here as lectotype and paralectotype of *Achilia valdiviensis* (Blanchard, 1851). It is very likely that the male in the Raffray collection, which is labeled as the type of *A. valdiviensis* despite the handwritten label *chilensis* by Reitter, is the holotype of *Achilia nasuta* (Reitter, 1885) (= *A. nasina* Reitter, 1893).

We have also compared the types and other supplementary material of *A. kuscheli* Jeannel, 1962 with the types and other supplementary material of *A. valdiviensis*. The only difference we could find between these two potential taxa is the morphology of the first two antennomeres (see Figs 18 and 19), but for all other characters, including the aedeagus, they are identical. Our opinion is that the different morphology of the first two antennomeres (scape and pedicel), although it has some geographical bearing, pertains to infraspecific variability and, we consequently decided that *Achilia kuscheli* Jeannel, 1962 must be considered a junior synonym of *Achilia valdiviensis* (Blanchard, 1851) (**syn**. **nov**.).

The males of this species are easily distinguished from their congeners by the peculiar morphology of the head (Figs 75-78) and antennae (Figs 18-19). The females (note here that we could examine only female specimens



Figs 59-62. *Achilia jeanneli* n. sp. Male head in (59) dorsal, (60) lateral, (61) semilateral, and (62) frontal views. Scale bar (200 μm).

from Chiloe) are characterized by the subtriangular head with a prolonged clypeus and especially by the misaligned antennal pedicel, which is subrectangular and distinctly longer than wide.

Achilia bicornis species group

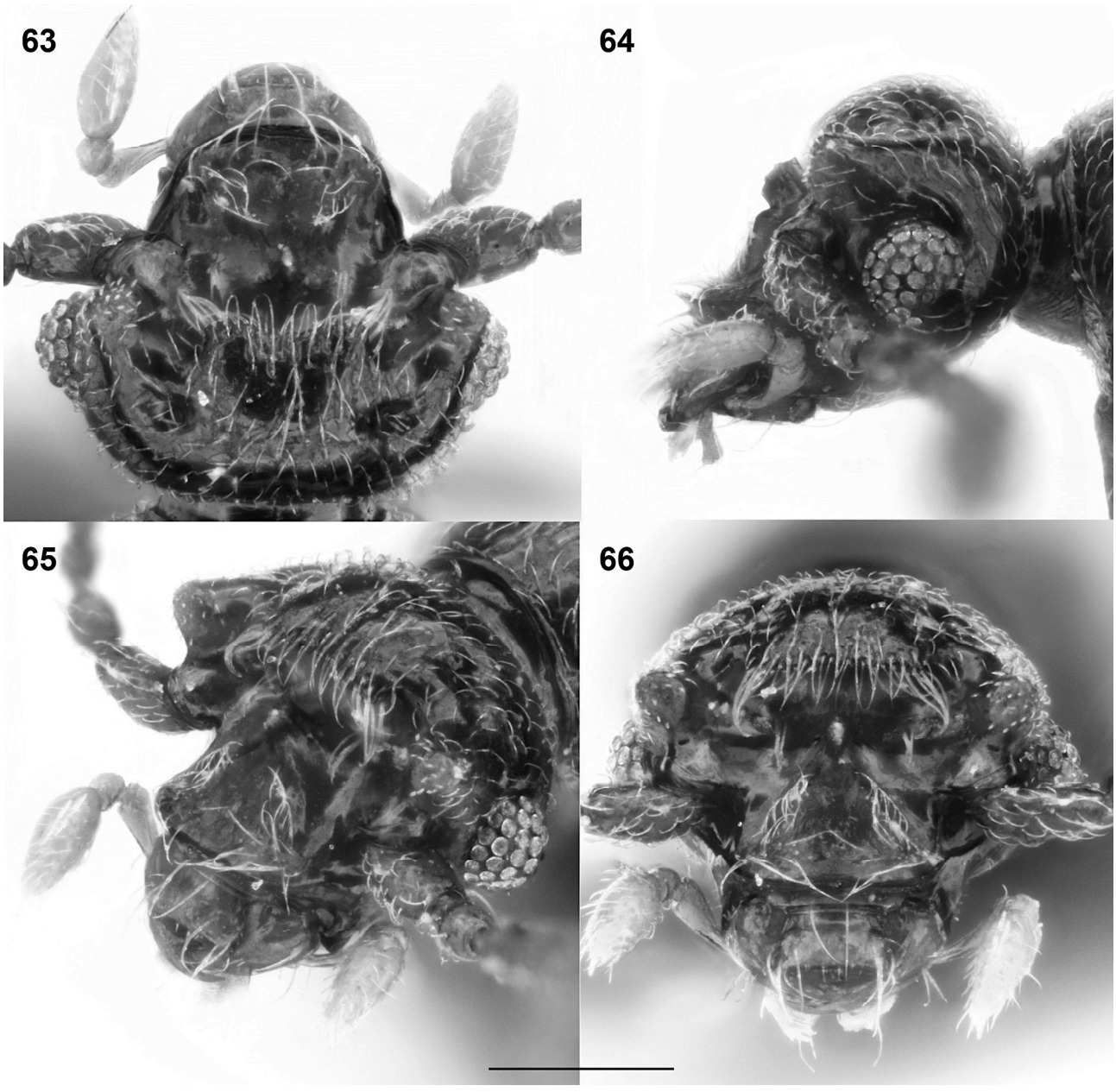
Jeannel (1962: 398, 419) characterized this group as follows: elytra with 3 basal foveae; basal striae of first abdominal tergite separated about by a quarter of the tergal width; male frons with two occipital pubescent lobes protruding and separated by a large median furrow with a small median vertexal apophysis; frons anteriorly largely depressed as a smooth transverse groove; dorsal struts of aedeagus simple.

This group includes *A. bicornis* Jeannel, 1962 and *A. chilotides* Newton, 2017. Howewer, our study of the type materials revealed that *A. chilotides* Newton, 2017 is a junior synonym of *A. excisa* (Schaufuss, 1880). Consequently the *A. bicornis* group now only holds *A. bicornis* Jeannel, 1962.

Achilia bicornis Jeannel, 1962

Figs 9-11, 20-21, 36, 50, 79-82, 84

Achilia bicornis Jeannel, 1962: 419, figs 179 (head), 180 (aedeagus).

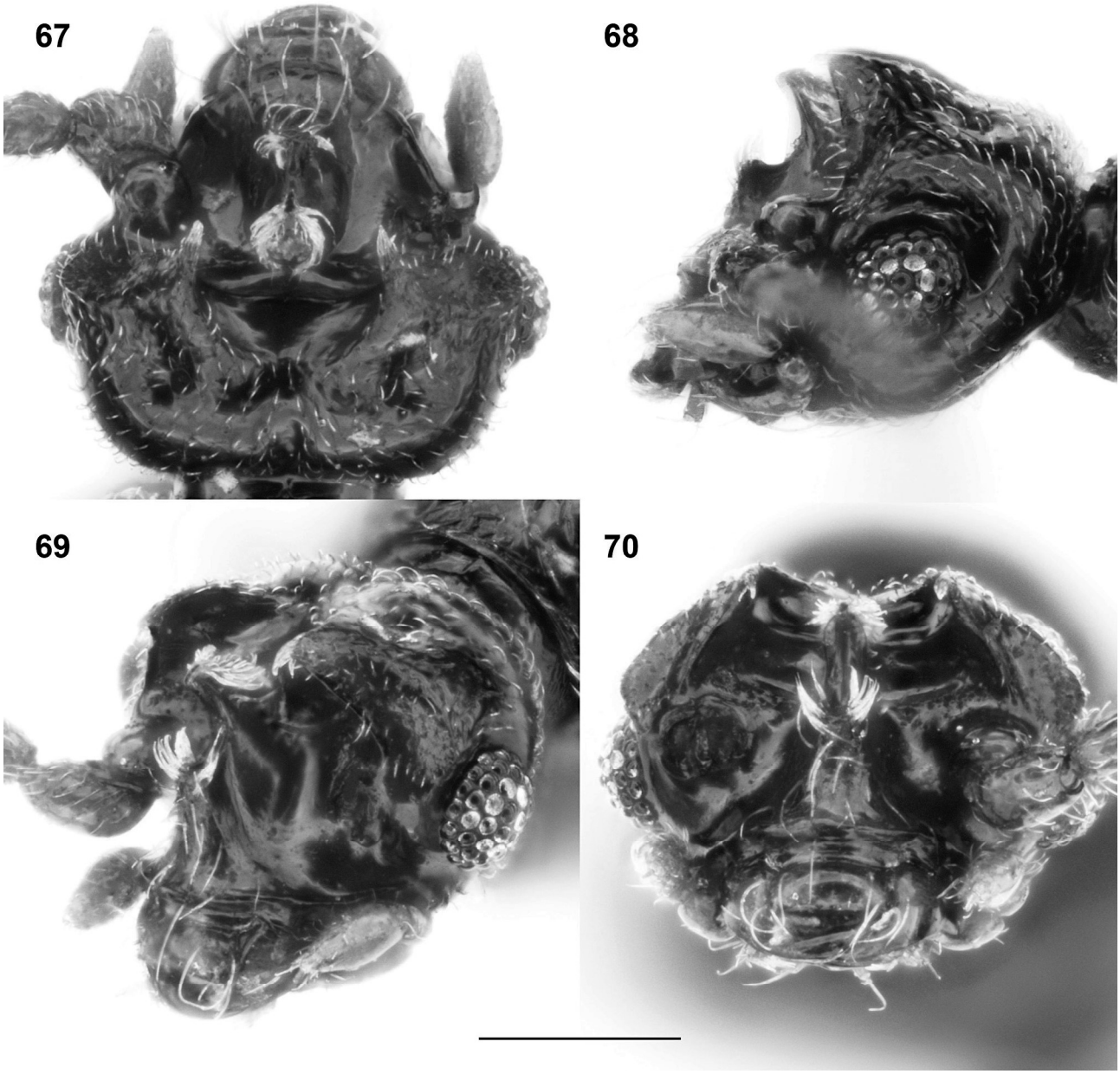


Figs 63-66. *Achilia franzi* n. sp. Male head in (63) dorsal, (64) lateral, (65) semilateral, and (66) frontal views. Scale bar (200 µm).

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

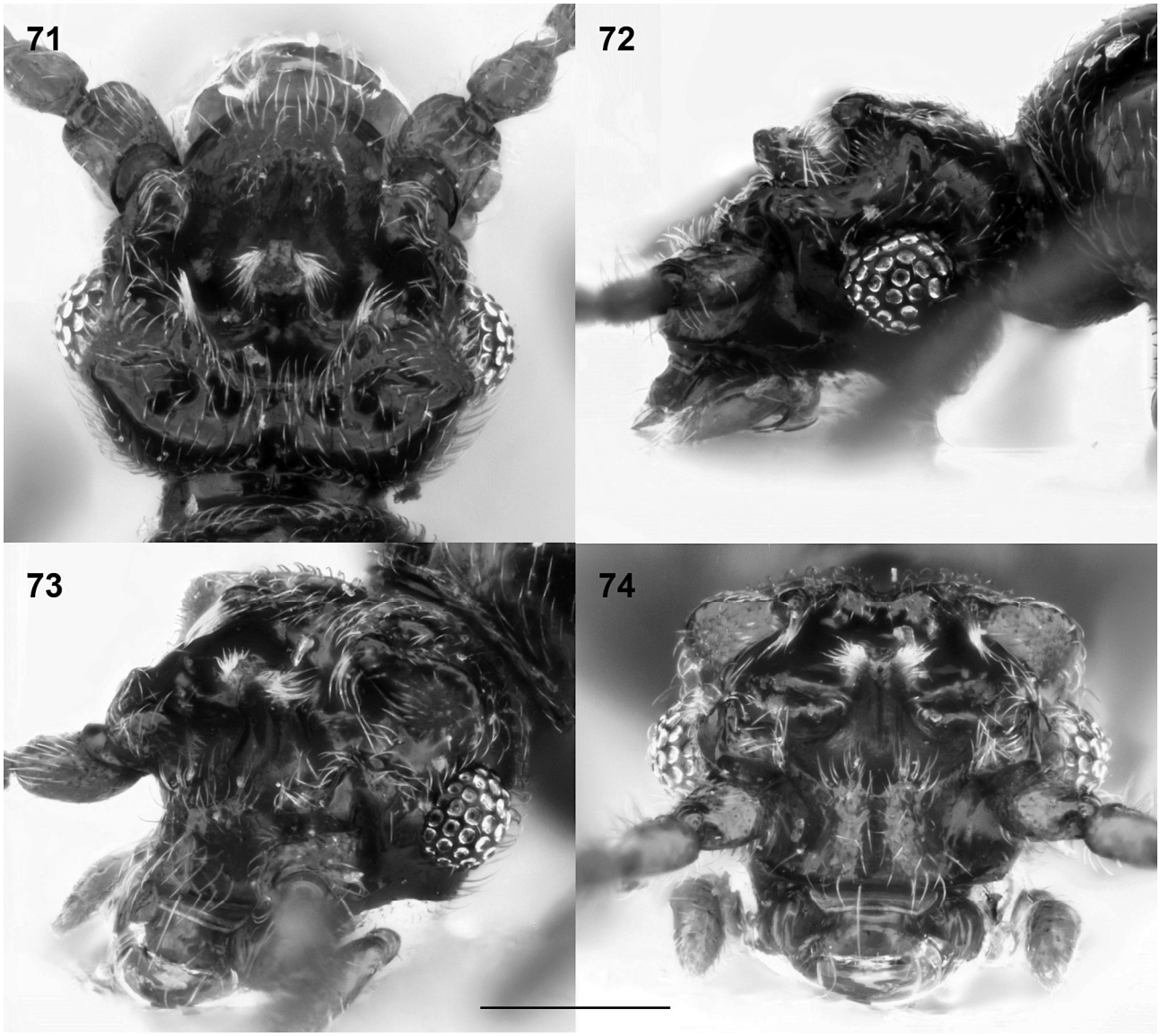
Type material (42 ex.): SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: MHNS; 1 ♂ (holotype); labels verbatim "Type / Chepu, 02.X.1958, G. Kuschel / *Achillia bicornis* / *bicornis* (handwritten by Jeannel) / CHILE, M.N.H.N., Typo, n. 1802". – MNHN; 4 ♂ and 5 ♀ (paratypes); labels verbatim "Paratype / Chepu, 02.X.1958, G. Kuschel / *A. bicornis* (handwritten by Jeannel)". – MNHN; 2 ♂ and 8 ♀ (paratypes); labels verbatim "Paratype / Chepu, 04.X.1958, G. Kuschel". – MNHN; 2 ♀ (paratypes); labels verbatim "Paratype / Chepu, 13.X.1958, G. Kuschel". – MNHN; 2 ♀ (paratypes); labels verbatim "Paratype / Chepu, 15.X.1958, G. Kuschel". – MNHN; 1 ♂ and 8 ♀ (paratypes); labels verbatim "Paratype / Chepu, 16.X.1958, G. Kuschel". – MNHN; 1 ♂ and 3 ♀ (paratypes); labels verbatim "Paratype / Chepu, 17.X.1958, G. Kuschel". – Región Aysén: Coyhaique prov.: NHMW; 1 ♂ (holotype of *A. simpsoni*); labels verbatim "Rio Simpson Natural Park, H. Franz / Holotype / *Achilia simpsoni* (handwritten by Franz)". – NHMW; 1 ♂ and 3 ♀ (paratypes of *A. simpsoni*); labels verbatim "Rio Simpson Natural Park, H. Franz / Paratype / *Achilia simpsoni* (handwritten by Franz)".

Additional material examined (1514 ex.): SOUTHERN AND CENTRAL CHILE: – Región Aysén: Aysén prov.: NHMW; 23 ♂ and 38 ♀; Rio Simpson National Park; H. Franz. – MHNG; 1 ♂; same data. – FMNH (FMHD #85-953, #85-70); 1 ♂; 15 km S



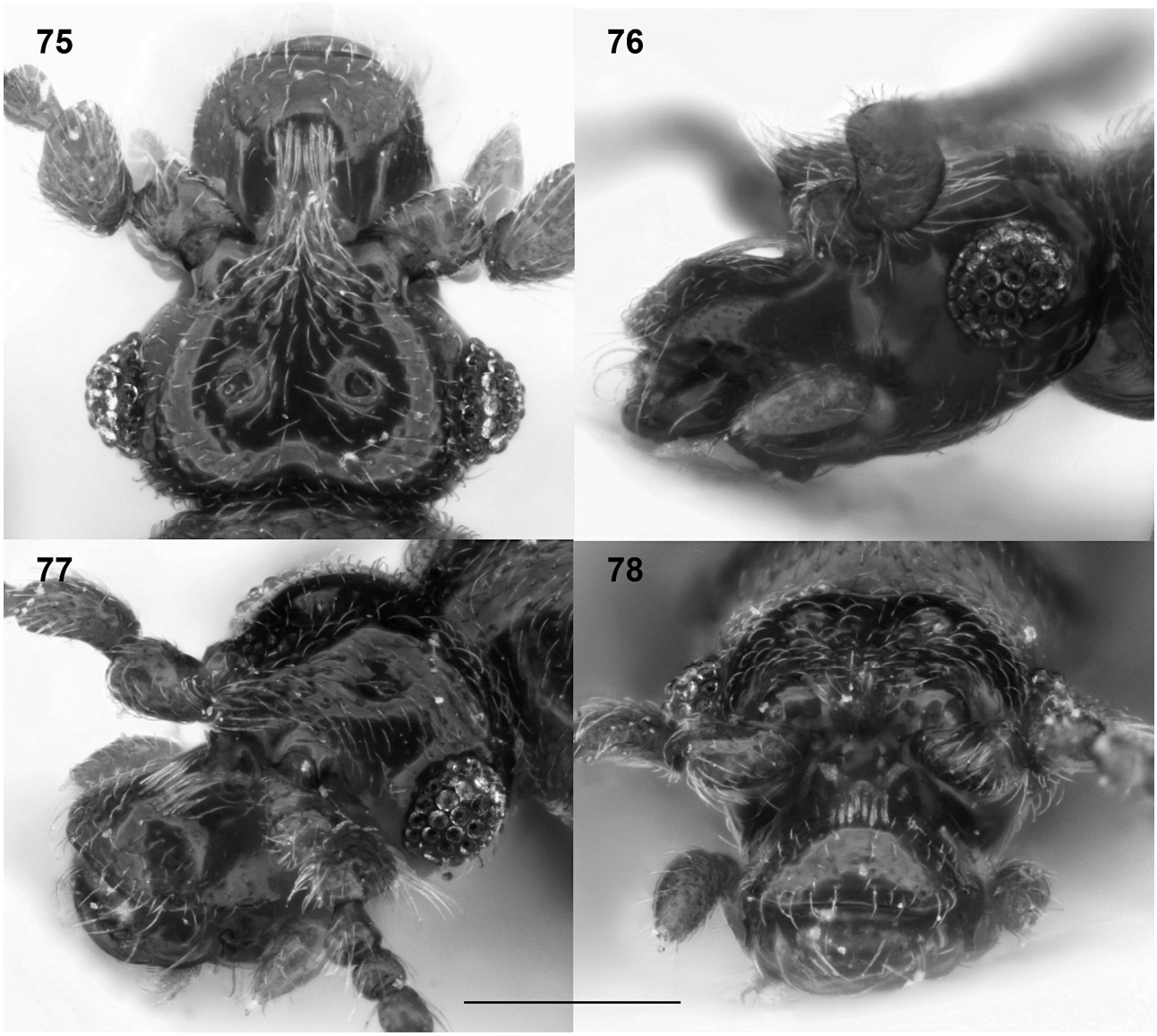
Figs 67-70. *Achilia elguetai* n. sp. Male head in (67) dorsal, (68) lateral, (69) semilateral, and (70) frontal views. Scale bar (200 μm).

Las Juntas, 30 km N Puyuhuapi; 30.XII.1984/29.I.1985; FIT *Nothofagus* forest; S. & J. Peck. – MHNG; 9 ♂ and 5 ♀; same data. – MHNG; 4 ♂ and 16 ♀; 30 km N Puyuhuapi; 100 m; 29.I.1985; site 107, sifted moss on logs; S. & J. Peck. – MHNG; 21 ♂ and 33 ♀; 34 km W Puerto Aysén, San Sebastian; 150 m; 24.I.1985; site 103, cliff base, mixed forest and bamboo litter; S. & J. Peck. – FMNH (FMHD #85-986, #85-103); 6 ♂ and 2 ♀; same data. – FMNH (FMHD #85-988, #85-105); 2 ♂; 33 km E Puerto Aysén, Rio Simpson National Park; 70 m; 26.I.1985; forest sifted leaf and stick litter; S. & J. Peck. – MHNG; 28 ♂ and 35 ♀; same data, but 26.I.1985; forest sifted moss on stumps. – MHNG; 5 ♀; Puerto Chacabuco; 18.VIII.1976; T. Cekalovic. – MHNG; 1 ♂ and 3 ♀; Cisnes Media; 06.II.1983; T. Cekalovic. – MHNG; 2 ♂; Cisnes to Las Juntas; 30. XII.1984; forest and pasture, car netting; S. & J. Peck. – MHNG; 1 ♂; 16 km NW Cisnes Medio, Río Grande; 200 m; 30.XII.1984-28.I.1985; mature beech forest, FIT; S. & J. Peck. – Coyhaique prov.: NHMW; 1 ♂; Umg. Coyhaique; H. Franz. – MHNG; 1 ♂; 10 km N of Coyhaique, National Reserve; 900 m; 23.I.1985; beech forest, mossy, log & leaf litter; S. & J. Peck. – Región Los Lagos: Palena prov.: FMNH (FMHD #85-65, #85-65); 2 ♂; 37 km SE Chaitén; 60 m; 28.XII.1984/30.I.1985; riverside 2nd forest, FIT; S. & J. Peck. – MHNG; 21 ♂; same data. – FMNH (FMHD #85-991, #85-108); 2 ♂ and 3 ♀; 4 km NW Chaitén; 10 m; 30.I.1985; mixed forest litter, sooty fungus, berlese, S. & J. Peck. – MHNG; 9 ♂ and 20 ♀; same data; site 108; S. & J. Peck. – FMNH (FMHD #97-34); 2 ♂; Austral Highway km 89.5 (12.3 km W Homopirén); 41°59.10'S 72° 34.12'W; 10 m; 24.I.1997; site 1004, low secondary valdivian rainforest, berlese,



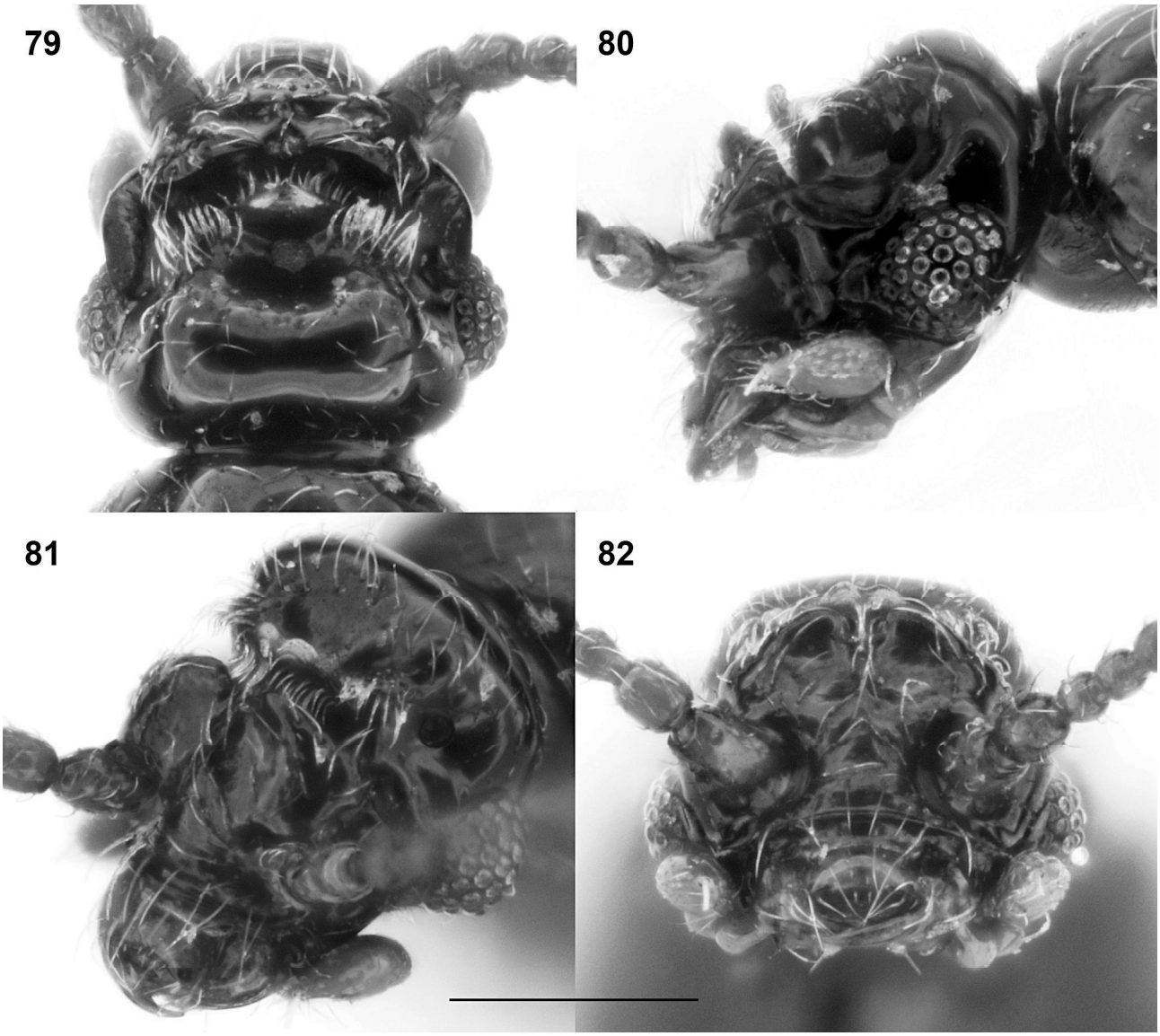
Figs 71-74. *Achilia denticornis*. Male head in (71) dorsal, (72) lateral, (73) semilateral, and (74) frontal views. Scale bar (200 µm).

leaf & log litter; A. Newton & M. Thayer. – Chiloé prov.: MHNS; 2 ♀ (mislabelled as paratypes of *A. bicornis* n. 1803-1804); Chepu; 02.X.1958; G. Kuschel. – MHNS; 3 ♂ and 7 ♀ (mislabelled as paratypes of *A. bicornis* n. 1805-1814); same data, but 04.X.1958. – MHNS; 2 ♂ and 1 ♀ (mislabelled as paratypes of *A. bicornis* n. 1816-1818); same data, but 16.X.1958. – MHNS; 4 ♀ (mislabelled as paratypes of *A. bicornis* n. 1819-1822); same data, but 11.X.1958. – MHNS; 1 ♂ (mislabelled as paratype of *A. bicornis* n. 1823); same data, but 16.X.1958. – MSNG; 1 ♀; Chepu; 19.II.1991; site TC-275; T. Cekalovic. – MSNG; 1 ♂ and 2 ♀; same data, but 09.II.1999; site TC-580. – MSNG; 1 ♂; same data, but 26.I.2000; site TC-625. – MSNG; 1 ♀; same data, but 20.I.2000; site TC-610. – NHMW; 2 ♂ and 1 ♀; Chiloé; H. Franz. – MSNG; 4 ♂ and 1 ♀; Isla Quinchao; Quetro; 20.I.1998; T. Cekalovic. – MSNG; 1 ♂; same data, but 12.II.1999; TC-582. – PHPC; 5 ♂ and 2 ♀; Chiloé Island, Cucao; WDS-T-209; 42° 35'S 74° 05'W; 02.III.2008; litter sifting; W. D. Shepard. – NHMW; 1 ♂ and 3 ♀; Chiloé, San Juan de Chadmo; H. Franz. – MSNG; 21 ♂; same locality, but 18.I.1998; site TC-555; T. Cekalovic. – MSNG; 1 ♂ and 1 ♀; Estero Llicaldad; 19.I.2000; site TC-608; T. Cekalovic. – MHNG; 20 ♂ and 49 ♀; Isla Chiloé, Mocopulli; 2.II.1983; T. Cekalovic. – MHNG; 1 ♂ and 1 ♀; Isla Chiloé, Piruquina; 19.II.1983; T. Cekalovic. – MHNG; 1 ♂; same data, but 26.II.1976. – MHNG; 1 ♀; Isla Chiloé, Vilupulli; 26.II.1976; T. Cekalovic. – MSNG; 2 ♂ and 1 ♀; 5 km SW Chonchi, 21.I.1998; site TC-560; T. Cekalovic. – MSNG; 2 ♂ and 1 ♀; same locality; 14.I.1999; T. Cekalovic. – FNHH (FMHD #97-25); 1 ♂; Miraflores, road to (0.6 km W Hwy 5); 42°46.73'S



Figs 75-78. *Achilia valdiviensis*. Male head in (75) dorsal, (76) lateral, (77) semilateral, and (78) frontal views. Scale bar (200 μm).

73°47.71'W; 130 m; 17.I.1997; site 994, secondary valdivian rainforest, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-22); 1 ♂ and 2 ♀; SE edge of Tepuhueico; 42° 48.11'S 73° 55.36'W; 50 m; 15.I.1997; site 992, valdivian rainforest, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-24); 7 ♂ and 10 ♀; Colonia Yungay road (3.6 km W Hwy 5); 42° 59'S 73° 41'W; 90 m; 17.I.1997; site 995, grazed secondary valdivian rainforest remnants, berlese, leaf & log litter; A. Newton & M. Thayer. – Llanquihue prov.: MHNS; 4 ♂ and 9 ♀ (mislabelled as paratypes of *A. bicornis* n. 1829-1838 and 2040-2042); Los Riscos; 11.IV.1954; G. Kuschel. – MNHN; 3 ♂ and 14 ♀; same data. – MNHN; 4 ♀; Frutillar; 20.IX.1957; G. Kuschel. – MNHN; 1 ♂; same data, but 25.IX.1957. – UNHC; 1 ♂; Lago Chapo, 13.5 km E Correntoso; 310 m; 16-27.XII.1982; site 656, valdivian rainforest, flight intercept (windows) trap; A. Newton & M. Thayer. – FMNH; 2 ♂; same data. – FMNH (FMHD #97-16); 12 ♂ and 7 ♀; 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; site 989, valdivian rainforest on steep slope, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-26); 5 ♂ and 6 ♀; Lago Chapo, 1.2 km N of NW end; 41° 25'S 72° 35'W; 265 m; 19.I.1997; site 996, small secondary *Nothofagus dombeyi* w/valdivian rainforest understory, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-27); 2 ♂; 5.4 km N Correntoso, 1 km SW Rio Blanco Bridge; 41° 24'S 72° 38'W; 325 m; 19.I.1997; site 997, secondary valdivian rainforest in damp ravine, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #97-37); 1 ♀; Vicente Perez Rosales National Park, SW slope



Figs 79-82. *A. bicornis*. Male head in (79) dorsal, (80) lateral, (81) semilateral, and (82) frontal views. Scale bar (200 μm).

Osorno Volcan, km 6 to La Burbuja; 41° 09.08'S 72° 30.15'W; 925 m; 27.I.1997; site 1006, low *Nothofagus dombeyi* on lava w/shrubby understory, berlese, litter under leaves, mosses & lichens; A. Newton & M. Thayer. – PCTS; 2 ♂; Lenca, 41° 58'S 72° 57'W; 18.XII.2013; layer litter. – Osorno prov.: NHMW; 2 ♂ and 2 ♀ (1 ♀ sub *A. denticornis*); Puyehue National Park, Osorno; H. Franz. – NHMW; 6 ♂ and 18 ♀ (2 ♂ and 9 ♀ sub *A. testacea*; 4 ♂ and 8 ♀ sub *A. monstrata* and 1 ♀ sub *A. denticornis*); Umg. Osorno; H. Franz. – MHNG; 1 ♂; same locality. – MHNG; 2 ♂ and 7 ♀; Puyehue; 05.II.1979; A. de Chambrier. – MHNG; 3 ♂ and 3 ♀; Pucatrihue, 65 km W Osorno; 40° 28'S 73° 43'W; 150 m; 04.XII.1984; site 21, valdivian rainforest, sifting of moss on dead tree trunks, branches and rocks and of vegetable detritus; D. Burckhardt. – PHPC; 16 ♂ and 44 ♀; Puyehue National Park, 26.2 km E Entre Lagos, near Termas Aguas Calientes; 460 m; 40° 44.130'S 72° 18.427'W; 09-12.III.2008; sifting litter; H. Wood & C. Griswold. – UNHC; 2 ♂; Puyehue National Park, Aguas Calientes; 440 m; 17-26.XII.1982; valdivian rainforest, at UV light; A. Newton & M. Thayer. – FMNH; 2 ♂; same data. – MHNG; 18 ♂ and 52 ♀; Puyehue National Park, Aguas Calientes; 400-500 m; 31.XII.1990/1.I.1991; site 25a, sifting of vegetational and alluvial debris, and moss; D. Agosti & D. Burckhardt. – MHNG; 9 ♂ and 3 ♀; Puyehue National Park, Aguas Calientes; 40° 40'S 72° 20'W; 450-600 m; 01-03.XII.1992; site 20b, sifting of moss on dead tree trunks, branches and rocks and vegetational debris; D. Burckhardt. – PCTS; 4 ♂; Aguas Calientes, 40° 74'S 72° 30'W; 13.XII.2013; car net. – PCTS; 22 ♂ and 12 ♀; Aguas Calientes, 40° 74'S 72° 27'W; 14. XII.2013; litter layer. – FMNH (FMHD #85-928, #85-43); 1 ♂ and 2 ♀; Puyehue National Park, Aguas Calientes; 500 m; 20.XII.1984; forest litter on trail, sifting; S. & J. Peck. – MHNG; 4 ♂ and 29 ♀; same data, but Pionero trail; sifted forest stick litter. – MHNG; 1 ♂ and 1 ♀; same data, but 20.XII.1984-08. II.1985; FIT derumbes forest trail, sifting. – UNHC; 2 ♂ and 2 ♀; Puyehue National Park, 4.1 km E Anticura; 430 m; 19-26.XII.1982; trap site 662, valdivian rainforest; A. Newton & M. Thayer. – FMNH; 3 ♂ and 1 ♀; same data. – FMNH; 7 ♂ and 32 ♀; same data, but berlese, leaf & log litter, forest floor; vouchers associated with larvae. – FMNH; 2 ♂ and 7 ♀; same data, but window trap 662. – FMNH (FMHD# 97-5); 1 ♂ and 6 ♀; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30.I.1997; site 985-3, valdivian rainforest w/large *Saxegothea,* flight intercept trap; A. Newton & M. Thayer. – FMNH (FMHD# 97-39); 27 ♂ and 50 ♀; same data, but site 985-3, berlese, leaf & log litter. – FMNH (FMHD# 97-41); 5 ♂ and 8 ♀; same data, but site 985-1. – FMNH (FMHD# 96-250); 12 ♂ and 3 ♀; same data, but 30. XII.1996/30.I.1997; site 985-1, valdivian rainforest w/ large *Saxegothea,* flight intercept trap. – FMNH (FMHD# 97-4); 1 ♂; same data, but 01-30.I.1997; site 985-2 valdivian rainforest w/large *Saxegothea,* flight intercept trap. – FMNH (FMHD# 97-4); 7 ♂ and 7 ♀; same data, but site 985-2, berlese, leaf & log litter. – FMNH (FMHD #85-925, #85-40); 1 ♂; Puyehue National Park, S of Anticura; 500 m; 19.XII.1984/06. II.1985; mixed forest along river, carrion trap; S. & J. Peck. – FMNH (FMHD #85-996, #85-113); 1 ♂ and 2 ♀; Puyehue National Park, Anticura Repucura trail; 500 m; 06.II.1985; forest litter; S. & J. Peck. – MHNG; 20 ♂ and 61 ♀; same data. – MHNG; 2 ♂; same data, but 500 m; 19.XII.1984; site 41, bracket fungi with soft fungi. – UNHC; 1 ♂; Puyehue National Park, Antillanca road; 470 m; 20-25.XII.1982; valdivian rainforest, berlese, leaf & log litter, forest floor; A. Newton & M. Thayer. – FMNH; 11 ♂ and 46 ♀; same data. – UNHC; 1 ♂; same data, but 470-720 m; 18-24. XII.1982; valdivian rainforest, screen sweeping at dusk. – FMNH; 1 ♂; same data. – FMNH (FMHD #85-923, #85-38); 1 ♂; same data, but 500-1000 m; 18-20. XII.1984; car netting; S. & J. Peck. – MHNG; 13 ♂; same data. – FMNH (FMHD #96-244); 1 ♂; Puyehue National Park, Antillanca road, 7.2 km above Aguas Calientes; 40° 45.55'S 72° 17.82'W; 660 m; 29. XII.1996/01.II.1997; site 982, valdivian rainforest w/ *Saxegothea* dominant, dense *Chusquea,* flight intercept trap; A. Newton & M. Thayer. – UNHC; 1 ♂; Hills S of Maicolpué; 160 m; 21.XII.1982; 2nd valdivian forest, berlese, leaf & log litter, forest floor; A. Newton & M. Thayer. – FMNH; 1 ♂ and 5 ♀; same data. – FMNH (FMHD# 96-247); 4 ♂ and 23 ♀; Hills S of Maicolpué; 40° 36.57'S 73° 44.91'W; 160 m; 30.XII.1996; site 983, disturbed valdivian rainforest, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #85-933, #85-48); 1 ♀; 3 km S Maicolpué, Bahia Mansa; 200 m; 03.II.1985; mixed forest litter; S. & J. Peck. – MHNG; 7 ♀; same data. – MHNG; 28 ♂ and 162 ♀; same data, but 21.XII.1984; mixed forest litter; S. & J. Peck. – FMNH; 1 ♂; Chincay, 10 km E of Bahía Mansa; 50 m; 21.XII.1982; 2nd valdivian forest, berlese, leaf & log litter, forest floor; A. Newton & M. Thayer. – MSNG; 4 ♂ and 4 ♀; Los Ñilques, 13.I.1990; site TC-260; T. Cekalovic. – MSNG; 1 ♀; same data, but 17.I.1998; site TC-553. – PCVB; 3 ♂ and 1 ♀; same data, but 13.I.1990; site TC-262. – FMNH (FMHD #96-248); 1 ♂; 15.1 km W Puaucho; 40° 34.97'S 73° 37.68'W; 50 m; 30.XII.1996; site 984, valdivian rainforest remnant in sm. ravine, w/large ferns, berlese, leaf & log litter; A. Newton & M. Thayer. – FMNH (FMHD #2002-90); 9 ♂ and 27 ♀; Puyehue National Park, Ruta 215; km 4.5 of Aduana station; 40° 40.23'S 72° 05.21'W; 580 m; 19.XII.2002; site 1071, valdivian rainforest, berlese, leaf & log litter; A. Newton, M. Thayer, D. J. Clarke & M. Chani. – FMNH (FMHD #2002-083); 2 ♀; Vicente Perez Rosales National Park, SW slope Volcàn Osorno, road to Ref. La Picada; 41° 01.05'S 72° 32.90'W; 430 m; 16.XII.2002; site 1068,

Fig. 83. Distribution map of *Achilia grandiceps* group. (◆ green diamonds) *A. grandiceps*. (■ red squares) *A. delamarei*. (▲ blue triangles) *A. denticornis*. (★ fuchsia stars) *A. jeanneli* n. sp. (◘ squares edged in fuchsia) *A. franzi* n. sp. (▼ red inverted triangles) *A. elguetai* n. sp.

Fig. 84. Distribution map of *Achilia bicornis* and *valdiviensis* group. (● red circles) *A. bicornis*. (■ green squares) *A. valdiviensis*.

Nothofagus dombeyi w/conifers, berlese, leaf & log litter; A. Newton, A. Solodovnikov & M. Chani. – PCVB; 2 ♂ and 6 ♀; Puente Pescadero, 17.I.1988; site TC-191; T. Cekalovic. – Región Los Ríos: Ranco prov.: MHNG; 1 ♂ and 1 ♀; 34 km WNW La Unión, station 36; 700 m; 17.XII.1984; litter mixed evergreen forest; S. & J. Peck. – PCTS; 1 ♂; road to Alerce Costero National Park, 40° 20'S 73° 43'W; 07.XII.2013; car net. – PCTS; 1 ♂; Alerce Costero National Park, 40° 17'S 73° 47'W; 09.XII.2013; layer litter. – Valdivia prov.: NHMW; 3 ♂ and 5 ♀ (all sub *A. caracolana* unless 1 ♀ sub *A. denticornis*); Cordillera de la Costa, Mehuín; H. Franz. – NHMW; 8 ♂ and 10 ♀; same data. – MHNG; 1 ♂ and 3 ♀; Parque Nacional Alerce Costero, Chaihuín; 500 m; 15.II.2018; sifting litter; G. Sabella & D. Mifsud. – MHNG; 2 ♀; same data, but 350 m; 16. II.2018; sifting litter. – MHNG; 3 ♂ and 2 ♀; same locality, but 0-100 m; 15.II.2018; forest litter; S. Kurbatov. – JEBC; 1 ♂; Valdivia, Oncol Park, Casa visitas; 473 m; 39° 42.303'S 73° 18.704'W; 07.I.2007; fogging s/ *Nothofagus pumilio*; J.E. Barriga-Tuñón. – PCPH; 4 ♀; Oncol Park, 12 km NW Valdivia, Sendero Bonifacio; WDS-T-201; 39° 42'S 73° 19'W; 22.II.2008; sifting litter; W. D. Shepard. – Región Araucanía: Cautín prov.: MHNG; 5 ♂ and 24 ♀; Huerquehue National Park; 800-900 m; 22-24.XII.1990; site 16a, sifting of vegetational debris and moss; D. Agosti & D. Burckhardt. – MHNG; 1 ♀; 15 km NE Villarrica, Flor del Lago; 500 m; 10.II.1985; log spraying; S. & J. Peck. – PCTS; 6 ♂; Palguin, 39° 43'S 71° 79'W; 05. XII.2013; layer litter. – Malleco prov.: MHNG; 1 ♂; Purén, Contulmo Natural Monument; 350 m; 11. XII.1984-13.II.1985; S. & J. Peck 85-16. – Región Bio-Bio: Concepción prov.: NHMW; 1 ♂; Periquillo; 29.X.1992. – MHNG; 2 ♂ and 13 ♀; Pinares; 18. III.1973; T. Cekalovic.

Description: Body 1.50-1.60 mm long, dark brown with elytra reddish, reddish-brown or sometimes brown, or sometimes entirely brown with darker head; antennae and legs reddish; palpi yellowish. Head wider than long. Pronotum wider than head and wider than long; disc moderately convex; median antebasal fovea slightly smaller than lateral ones; lateral margins with anterior portion distinctly convergent and sinuate anteriorly, posterior portion slightly convergent and not sinuate. Discal elytral stria extending to about elytral midlength. First abdominal tergite with slightly diverging basal striae extending to about one-third of paratergal length, separated at base by about one-third of tergal width.

Male: Head as in Figs 79-82, with occipital region and posterior portion of frons raised, forming two protuberances that are densely pubescent apically and separated by deep U-shaped median depression; frons with deep and wide transverse furrow crossing at point even with anterior margin of eyes by; lateral margins of furrow posteriorly forming medial apophysis projecting upwards and apically pubescent, anteriorly at middle slightly deflected with gibbosity that is longitudinally oblique, flattened with shiny frontal lobe. Eyes protruding, distinctly longer than convex temples. Antennae (Figs 20-21) quite variable in shape; scape longer than wide, less (Fig. 20) or more (Fig. 21) elongate; pedicel as long as wide (Fig. 20) or longer than wide (Fig. 21); antennomere III about as long as wide; antennomeres IV-V slightly wider than long (Fig. 20), or distinctly transverse (Fig. 21); antennomeres VI-VIII slightly wider than long; antennomeres IX-X wider than long, with denticulate margins and lateral margins protruding; antennomere XI elongate, with denticulate margins, and longer than VII-X combined. Metaventrite deeply excavated on about two-thirds of its surface by large ovoid depression. Mesotrochanters (Fig. 36) with ventral margin bearing long bristle at middle; mesotibiae (Fig. 50) with subapical spur on medial margin, distal half bulging and densely pubescent. First abdominal sternite with slight inverted V-shaped medial depression; following sternites slightly flattened at middle. Aedeagus (Figs 9-11) 0.37-0.38 mm long; with ovoidal dorsal plate, dorsal longitudinal struts divergent. Parameres very wide with very large and long seta on well-developed outer lobe, some spines near apical third of lateral margin and apex pointed and directed backwards; area of outer lobe forming dorsal process variable in shape and directed medially. Copulatory pieces with pair of large and subequal medial sclerites pointed apically.

Female: Similar to male except head not modified, but with two vertexal foveae near eyes (lacking in male), thick and deflected frontal lobe delimited posteriorly by deep transverse furrow crossing entire frons, and eyes smaller and less protruding. Metaventrite, abdominal sternites, and legs unmodified.

Collecting data: Collected from August to April in different types of forests (*Notophagus* spp. forest, evergreen forest, valdivian rainforest, mature beech forest, low secondary valdivian rainforest, grazed secondary valdivian rainforest remnants, disturbed valdivian rainforest, mixed forest) at elevations ranging from 10 m to 1000 m. Many specimens came from sifted samples of leaf and log litter, also with mosses and lichens on dead trunk, or vegetable detritus, or fungi. A good number of specimens, especially males, have also been collected by flight intercept traps, car netting, window traps, and at UV light.

Distribution: *Achilia bicornis* is known from southern and central Chile ranging from Aysén Province to Concepción Province (Fig. 84: red circle). We have also examined a female from: "Región Magallanes y de la Antártica Chilena: Magallanes prov.: MSNG; 1 ♀; Fuerte Bulnes, TC-264; 04.II.1990; T. Cekalovic", which could be attributed to this species. However, considering that this report would be based only on a female from a region quite distant from the area

currently delimited for *A. bicornis* this placement requires confirmation and we do not take this record into consideration for the distribution map.

Comments: We have examined the types series (holotype and paratypes) of *A. simpsoni* Franz 1996, housed in NHMW, and found that the males and females fit perfectly into our definition of *A. bicornis* Jeannel, 1962. Therefore, we here place *A. simpsoni* Franz, 1996 as a junior synonym of *A. bicornis* Jeannel, 1962 (**syn. nov.**).
In the original description Jeannel (1962: 421) mentions that this species was described from 50 specimens collected by Kuschel in Chepu on 2.X.1958 and 17.X.1958, and some specimens collected by Holdgate at the same locality on 20.X.1958. However, in the examined collection we did not find any specimens collected by Holdgate, while only 14 specimens of the type series were collected by Kuschel on the dates indicated by Jeannel (i. e. the holotype and 9 paratypes on 2.X.1958 and 4 paratypes on 17.X.1958). Twenty-three additional specimens, all housed in MNHN and collected by Kuschel in Chepu and labeled as paratypes, were collected on different dates (i.e. 10 paratypes on 04.X.1958; 2 paratypes on 13.X.1958; 2 paratypes on 15.X.1958; and 9 paratypes 16.X.1958), details most likely overlooked by Jeannel.
The males of this species are easily distinguished from congeners by the peculiar shape of the head (Figs 79-82) and of the aedeagus (Figs 9-11). For the females the thick frontal lobe of the head that is delimited posteriorly by a deep transverse furrow that crosses the anterior part of frons is diagnostic.

Achilia chilotides Newton, 2017

Achilia chilotides Newton, 2017: 10, new name for *Achilia chilota* Franz, 1996 a junior homonym of *Achilia monstrata chilota* Jeannel 1962.
Achilia chilota Franz, 1996: 117, fig. 67 (aedeagus).

Type material (3 ex.): SOUTHERN CHILE: Región Los Lagos: Chiloé prov.: NHMW; 1 ♂ (holotype); labels verbatim "Chiloé Island, Huillinco Lake, TC-384, 09.II.1994, T. Cekalovic / Holotype / *Achilia chilota* (handwritten by Franz)". – NHMW; 2 ♂ (paratypes); labels verbatim "Chiloé Island, Huillinco Lake, TC-384, 09.II.1994, T. Cekalovic / Paratype / *Achilia chilota* (handwritten by Franz)".

Comments: We have examined the types series of *A. chilotides* Newton, 2017, housed in NHMW. The holotype and paratypes all belong to *A. excisa* (Schaufuss, 1880), a species we recently revised (Kurbatov *et al.,* 2018). Therefore, we here place *A. chilotides* Newton, 2017 as a junior synonym of *Achilia excisa* (Schaufuss, 1880) (**syn. nov.**).

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