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A revision of the Chilean Brachyglutini – Part 3. Revision of *Achilia* Reitter, 1890: *A. frontalis* species group (Coleoptera: Staphylinidae: Pselaphinae)

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Abstract: The *Achilia frontalis* species group (*sensu* Jeannel, 1962, 1964) of the species-rich genus *Achilia* Reitter, 1890 is revised. Of the thirteen taxa placed in this group of species, five names are here synonymised: *A. validicornis* Jeannel, 1962 = *A. excisa* (Schaufuss, 1880) (**syn**. **nov**.), *A. pseudovalidicornis* Franz, 1996 = *A. pachycera* Jeannel, 1963 (**syn**. **nov**.), *A. acicularis* Jeannel, 1962 = *A. testacea* Jeannel, 1962 (**syn**. **nov**.), *A. foveifrons* Jeannel, 1962 = *A. frontalis* Jeannel, 1962 (**syn**. **nov**.), and *A. validicorniformis* Franz, 1996 = *A. larvata* (Reitter, 1885) (**syn**. **nov**.). Lectotypes are designated for *A. excisa* and *A. validicornis*. The remaining eight species are redescribed, their main diagnostic features are illustrated, their distributions are detailed, and data available on habitat/collecting are summarised. Two new species – *Achilia trauco* **sp. nov.** and *Achilia fiura* **sp. nov.** – are also described and added to the group, while *A. longispina* Franz, 1996, is removed from it.

Keywords: Chile - taxonomy - new species - new synonyms - distribution.

INTRODUCTION

This article is the third contribution in a series dedicated to a taxonomic revision of Brachyglutini of temperate region of southern South America (Kurbatov & Sabella, 2015; Sabella *et al*., 2017). We here focus on the *Achilia frontalis* species group (*sensu* Jeannel, 1962 and 1964). The members are critically reexamined, and each species is redescribed, its synonymic framework and distribution are detailed, collecting data are summarised, and the new species *Achilia trauco* n. sp. and *Achilia fiura* n. sp. are described. The opportunity to maintain these species groups of *Achilia*, 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 will also be provided only at the end of this series of contributions.

MATERIAL AND METHODS

This study is based on the examination of 2309 specimens.

The acronyms used in this study refer to the following collections (relevant curator/collection manager acknowledged in parenthesis):

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

FMNH Field Museum of Natural History, Chicago, U.S.A. (J. Boone)

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)

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

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

PHPC Private collection of Peter Hlavác, Prague, Czech Republic (P. Hlavác)

UNHC University of New Hampshire Arthropod Collection, Durham, NH, U.S.A. (D.S. Chandler)

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Under the sections "type material" or "additional material" the locality data are standardised, with indications of major administrative units (regions and provinces) and names of collectors. For the method of selection of the type materials see Sabella *et al*. (2017).
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 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 that the abdominal sternites are termed ventrites here, and that the sclerotised features of the dorsal plate of the aedeagus termed "dorsal strips" in Sabella *et al*. (2017) are termed "longitudinal struts" here.

TAXONOMY

Achilia frontalis species group

Jeannel (1962: 397, 408-409) distinguished the *A. validicornis* and *A. frontalis* groups by the number of elytral basal foveae (2 in the *A. validicornis* group and 3 in the *A. frontalis* group), and the shape of the copulatory pieces of the aedeagus (ramified in the *A. validicornis* group and not ramified in the *A. frontalis* group).
One year later he described *Achilia pachycera* as a new member of the *A. frontalis* group (Jeannel 1963: 363). However, shortly thereafter Jeannel (1964: 10) pointed out that *A. pachycera* was very similar to *A. validicornis,* and that the latter species belonged indeed to the *A. frontalis* group, implicitly sinking his *A. validicornis* group into the *A. frontalis* group. Consequently the species described later by Franz (1996: 116-117) in the *A. validicornis* group – i.e. *A. pseudovalidicornis*, *A. longispina* and *A. validicorniformis* – technically also belong to the *A. frontalis* group.
According to Jeannel (1962 and 1964) the species of the *A. frontalis* group are characterised by: 2 or 3 elytral basal foveae; basal striae of abdominal tergite I separate at most by 1/3 of tergal width; frons of male with a high and narrow median protuberance flanked by two more or less deep pits with the outer margin often toothed; antennomeres unmodified; copulatory pieces of the aedeagus thin and ramified, or not.
As defined the group currently includes: *A. acicularis* Jeannel, 1962, *A. auriculata* Jeannel, 1962, *A. caracolana* Jeannel, 1962, *A. excisa* (Schaufuss, 1880), *A. foveifrons* Jeannel, 1962, *A. frontalis* Jeannel, 1962, *A. longispina* Franz, 1996, *A. ovallensis* Jeannel, 1962, *A. pachycera* Jeannel, 1963, *A. pseudovalidicornis* Franz, 1996, *A. testacea* Jeannel, 1962, *A. validicornis* (Reitter, 1885), and *A. validicorniformis* Franz, 1996.
However, in addition all species, except *A. longispina*, share the following features: pubescence decumbent with long setae, uniform on entire body; head wider than long; surface of head smooth, shiny, with some punctures; frontal lobe with rounded apex; vertexal sulcus impressed; vertexal foveae shallow and broad (not visible in males of *A. excisa*, *A. pachycera*, *A. fiura* n. sp., *A. caracolana*, *A. frontalis*); eyes protruding; temples convex; pronotum wider than long; anterior portion of lateral margins of pronotum convergent, posterior portion subparallel and sinuate; pronotal disc slightly convex, 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; presence of four basal foveae (two lateral foveae very close); sutural stria entire; discal stria extending to about elytral midlength; legs rather long; abdomen smooth, with some minute punctures; tergite I with short and sparse setal brush between basal striae.
In order to keep the text more concise, these features are not repeated in the descriptions below.

Achilia excisa (Schaufuss, 1880)

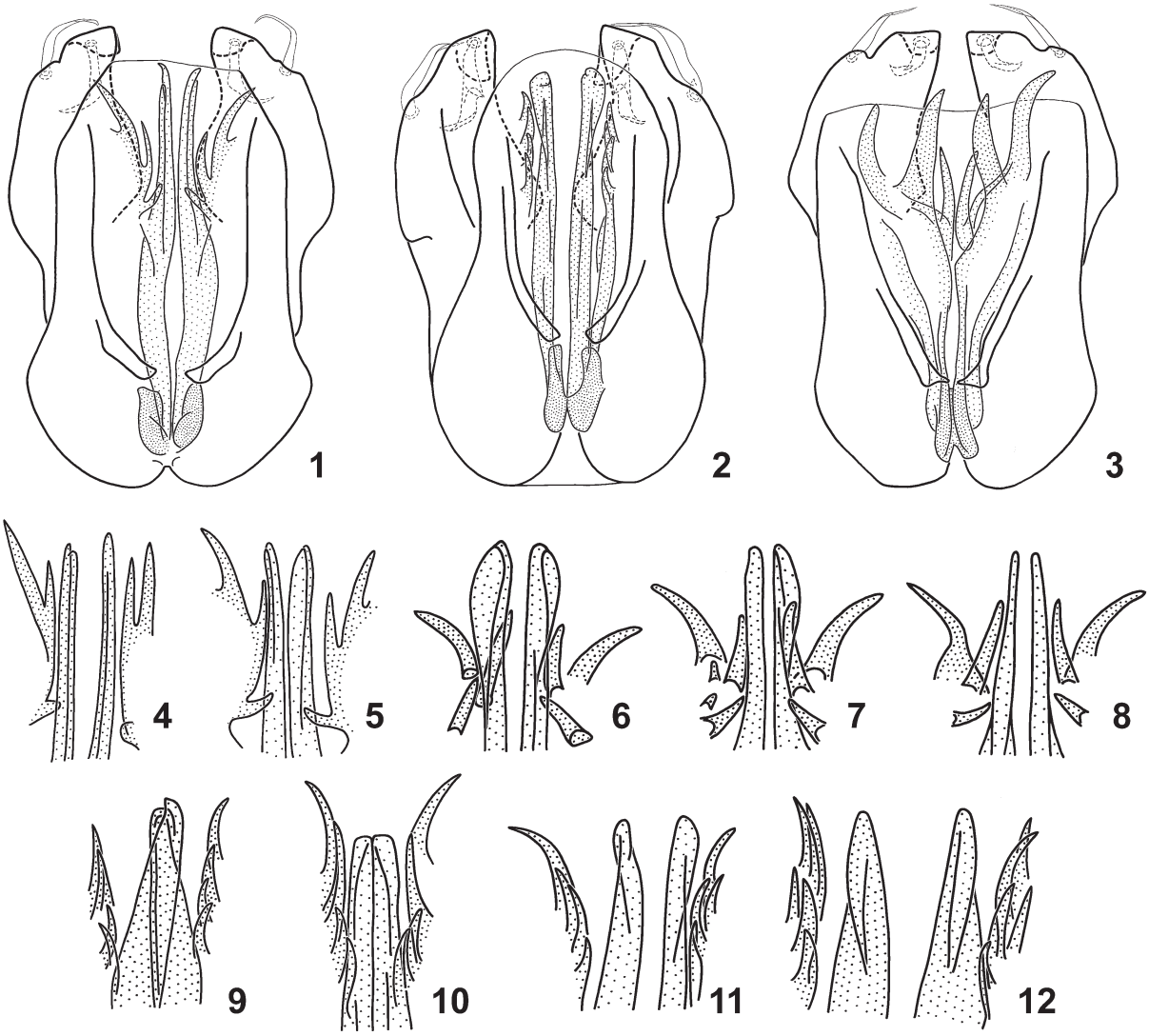
Figs 1, 4-5, 13, 16, 20, 53, 55, 57, 83

Bryaxis excisa L. W. Schaufuss, 1880: 494;
Achilia excisa Jeannel, 1962: 407, 408 fig. 157 (head).
Bryaxis validicornis Reitter, 1885: 325, 328 pl. 2 fig. 9 (head) **syn**. **nov**.
Achilia validicornis Jeannel, 1962: 407 figs 155 (habitus), 156 (aedeagus). – Jeannel, 1964: 10.

Type material (2 ex.): MNHN (ex coll. Raffray); 1 ♂ (lectotype of *A. excisa,* by present designation); Cuba (labelling mistake). – MNHN; 1 ♂ (lectotype of *A. validicornis*, by present designation); Chili.

Additional material (1432 ex.): See Appendix 1.

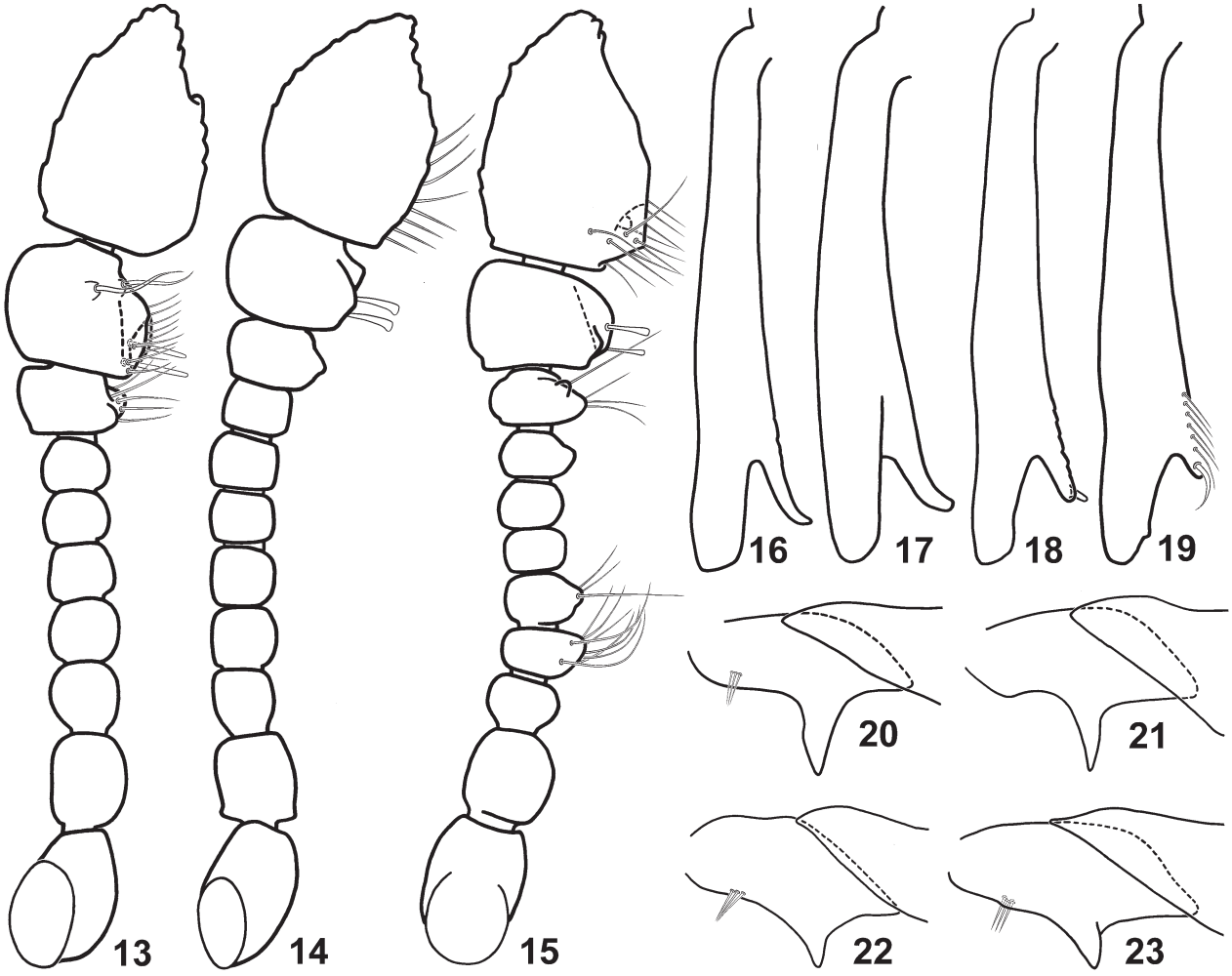
Description: Body 1.35-1.50 mm long, entirely reddish with darker head and palpi yellowish, or with black head, pronotum and abdomen reddish brown, and elytra, antennae, and legs reddish. Head with eyes longer than temples. Pronotum slightly wider than head, with maximal width on anterior half; median antebasal fovea large as lateral ones. First abdominal tergite with basal striae slightly diverging, extending to less than one-third of paratergal length, and separated at base by about one-third of tergal width.
Male: Head as in Figs 53 and 55, flanked on entire length by two deep lateral pits with outer edge toothed at level of eyes (Fig. 57); narrow frontal protuberance slightly convex at base and flattened anteriorly to vertexal sulcus. Antennae (Fig. 13) with scape and pedicel longer than wide; antennomere III as wide as long; antennomeres IV-VIII slightly transverse; antennomeres IX and X strongly transverse with protruding mesal margins bearing long



Figs 1-12. Aedeagi (1-3) and the variability of the internal sac (4-12) of *Achilia*. (1) *A. excisa*, specimen from Contulmo Natural Monument, prov. Malleco. (2) *A. testacea* from Chepu, prov. Chiloé [paratype]. (3) *A. fiura* n. sp., paratype from 17 km W Angol, prov. Malleco. (4) *A. excisa*, specimen from Chepu, prov. Chiloé. (5) *A. excisa*, specimen from Aguas Calientes to Puyehue National Park, prov. Osorno. (6) *A. pachycera*, specimen from Cordillera Nahuelbuta, prov. Malleco [holotype of *Achilia pseudovalidicornis* Franz]. (7) *A. pachycera*, specimen from Nahuelbuta, prov. Malleco. (8) *A. pachycera*, specimen from Nahuelbuta, prov. Malleco. (9) *A. testacea*, specimen from Recinto, prov. Ñuble. (10) *A. testacea*, specimen from Bahia Mansa, prov. Osorno. (11) *A. testacea*, specimen from Recinto, prov. Ñuble. (12) *A. testacea*, specimen from Boca del Bio-Bio, prov. Concepción [holotype of *A. acicularis*].

bristles; antennomere X very large, wider and longer than IX; antennomere XI elongate, as long as VIII-X combined. Metasternum slightly raised in middle, this area with wide median sulcus. Legs with ventral margin of mesotrochanters (Fig. 20) forming long and stout spine; profemora and mesofemora slightly thickened; mesotibiae (Fig. 16) bearing long subbasal spur slightly recurved externally; metatibiae slightly sinuate on distal half. Abdominal tergites unmodified; first abdominal ventrites with faint median impression, all other ventrites flattened at middle; ventrite I with distinct median carina extending from posterior margin to posterior edge of median impression. Aedeagus (Figs 1, 4-5) 0.26-0.30 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites recurved and strongly sclerotised at base, and apically forked and pointed, associated on each side with three pointed sclerites. Parameres very wide with wide and long seta on poorly developed outer lobe; tips strongly recurved posteriorly and bearing wide and long subapical seta.

Female: Similar to male except: head lacking lateral pits; antennomeres IX and especially X shorter and less thickened than for male; antennomere XI as long as



Figs 13-23. Male antennae (13-15), mesotibiae (16-19) and mesotrochanters (20-23) of *Achilia*. (13, 16, 20) *A. excisa*. (14, 19, 22) *A. testacea*. (15, 18, 23) *A. fiura*. (17, 21) *A. pachycera*.

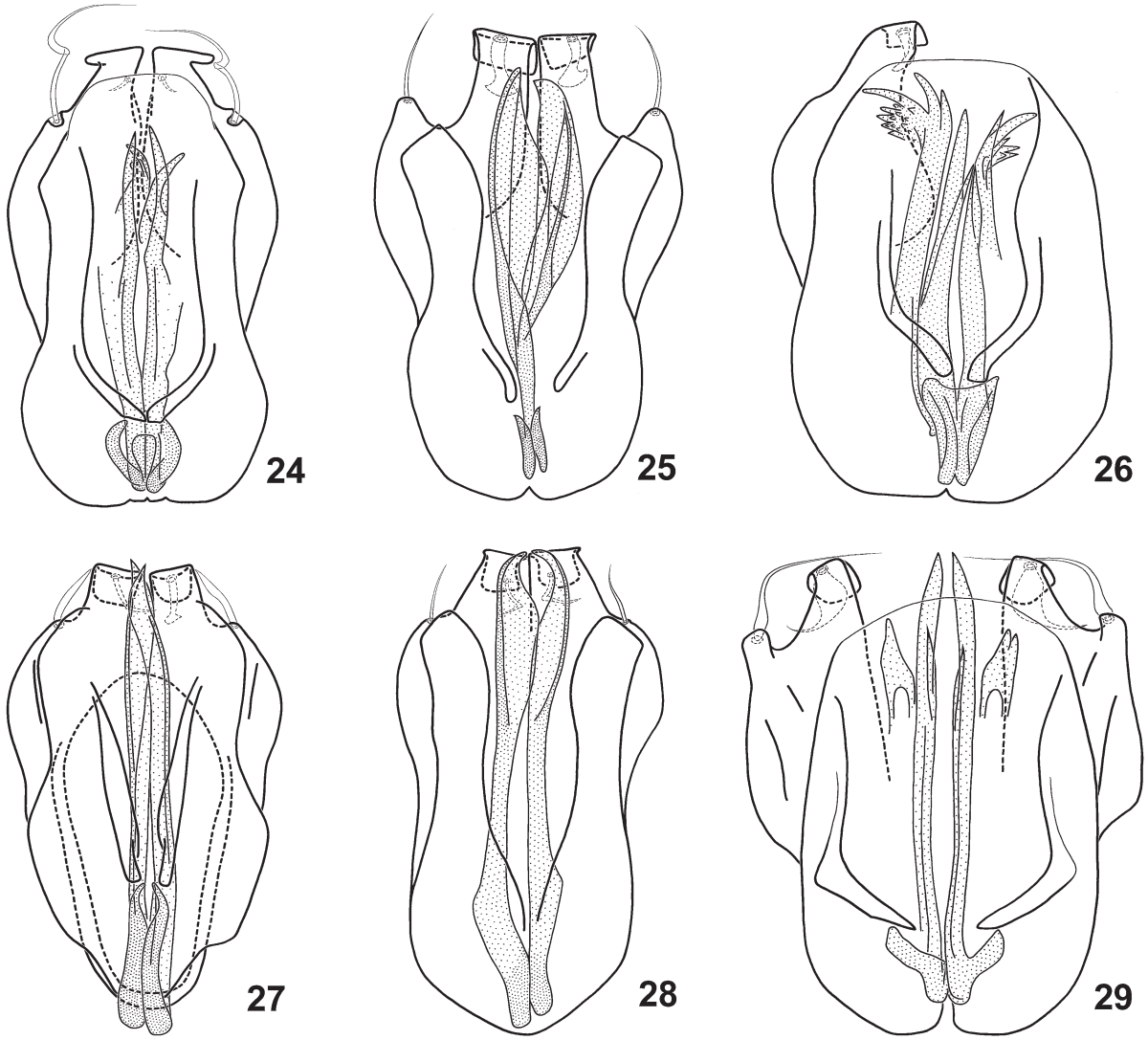
VII-X combined; metasternum, abdominal ventrites, and legs unmodified.

Collecting data: Collected from October to February, mainly in Valdivian rainforests, but also in *Saxegothaea* forests, where it was found also in remnants and in boundary forests at elevations ranging from sea level to 1000 m. Most specimens came from sifted samples of leaf and log litter, moss, dead trunks, vegetable debris and sometimes mushrooms, and from flight intercept traps. Rarely collected by windows traps and car nets.

Distribution: *Achilia excisa* is relatively common (Fig. 83: red circles) in the central region of Chile from Chiloé Province to Malleco Province. In the MNHN we have examined 3 females from Zaparral 20.IX.1957, G. Kuschel (Región Valparaíso, Petorca Province) belonging to the *A. frontalis* group, which, lacking the males, we cannot attribute with certainty to any species.

Comments: Schaufuss (1880: 494) described *Bryaxis excisa* based on three specimens, two labelled as being from Cuba, whose provenance was guaranteed by Zahlmeister Riehl, and one from Chile, with whose provenance Schaufuss had doubts. Reitter (1885: 325, 328) described *Bryaxis validicornis* on the basis of two males collected in Valdivia, one by Lady Kindermann and the other by Riehl, but he did not mention *Bryaxis excisa.* Jeannel (1962: 407-408) redescribed these two species under the generic name *Achillia* (misspelling), and distinguished them from others by the form of the lateral pits of the head: reaching beyond the posterior edge of the eyes and with the lateral margin not toothed in *A. excisa*, and not reaching the posterior edge of the eyes and with the lateral margin toothed in *A. validicornis*.

Concerning *Achilia excisa* Jeannel (1962: 408) considered it unlikely that it was from Cuba, and asserted that it was certainly collected in Chile, despite mentioning the type, preserved in MNHN, was labelled as being from Cuba.

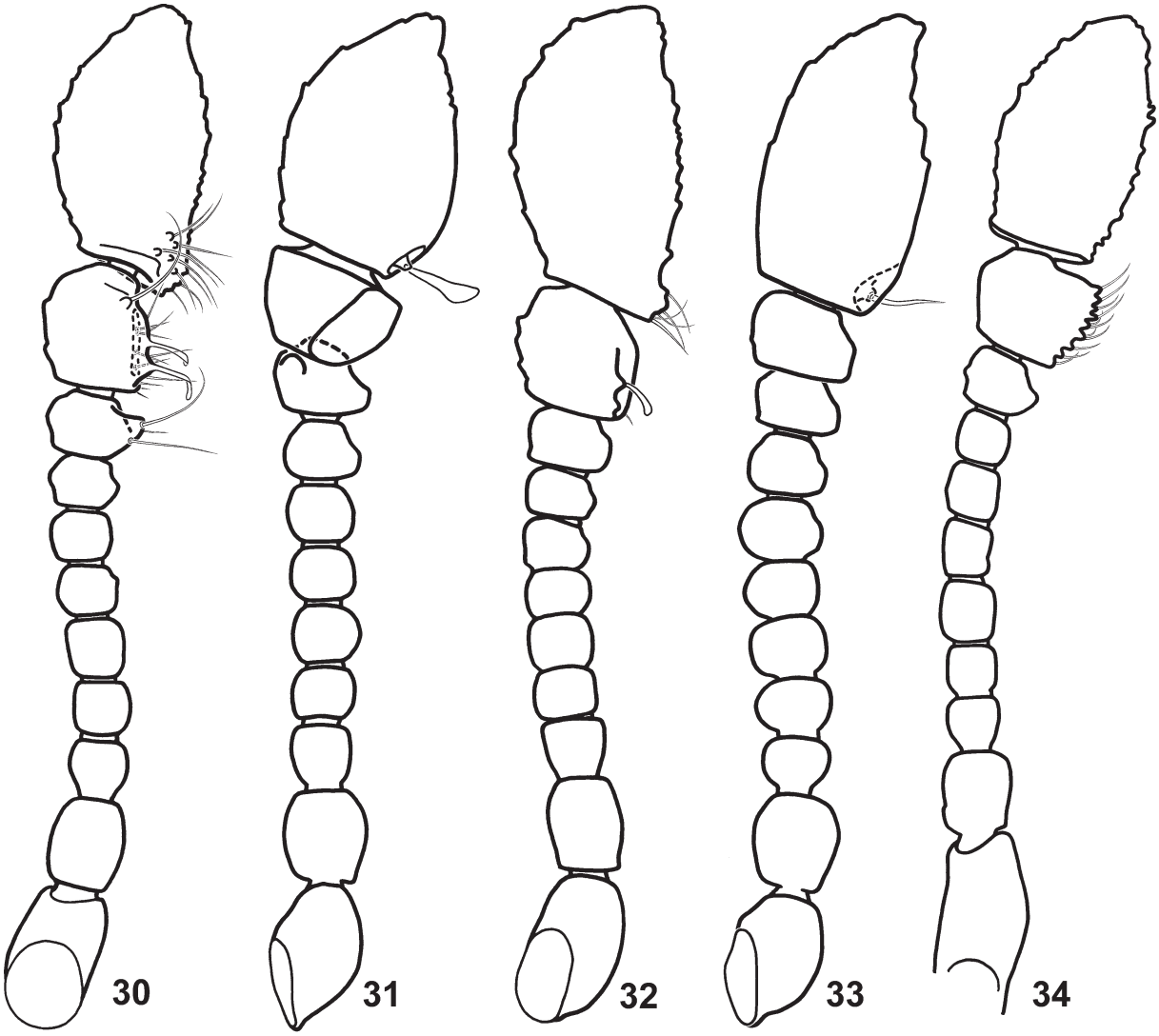


Figs 24-29. Aedeagi of *Achilia*. (24) *A.caracolana*, specimen from Hualpèn, prov. Concepción. (25) *A. auriculata*, specimen from Peniquillo, prov. Concepción. (26) *A. ovallensis*, specimen from Ovalle, prov. Limarí [paratype]. (27) *A. frontalis*, specimen from Aguas Calientes to Puyehue National Park, prov. Osorno. (28) *A. trauco*, specimen from 34 km WNW La Union, prov. Ranco [paratype]. (29) *A. longispina*, specimen from Mina de la Disputada, prov. Valparaíso.

We examined all the material of the MNHN collection and found in Raffray's collection one specimen of *A. excisa* labelled as "Cuba/Type [red label]/*A. excisa* Raffray det.", and one specimen of *A. validicornis* labelled as "Chili/Type [red label]/ *A. validicornis* Raffray det.". We consider these two male as the lectotypes of *A. excisa* and *A. validicornis*, respectively, and have labelled them accordingly.

The aedeagi of the two above-mentioned specimens are partially damaged, nevertheless they appear similar in respect to both the shape of the parameres and the structure of copulatory pieces. Our study of the very abundant additional material shows also that the differences highlighted by Jeannel in the features of the head between *A. excisa* and *A. validicornis* were overestimated and pertain to intraspecific variation, and particularly that the lateral pits of the male of the lectotype of *A. excisa* are toothed at level of eyes; consequently we here place *A. validicornis* (Reitter, 1885) as the junior synonym of *A. excisa* (Schaufuss, 1880) (**syn**. **nov**.).

Achilia excisa is a very common species in Central Chile, and the genus is so far unknown outside of central and southern Chile and southern Argentina. Thus we consider that the occurrence of this species in Cuba can be ruled out with a high level of confidence, and that this locality record is most likely due to a labelling mistake.



Figs 30-34. Male antennae of *Achilia*. (30) *A. caracolana*. (31) *A. auriculata*. (32) *A. ovallensis*. (33) *A. frontalis*. (34) *A. longispina*.

Achilia pachycera Jeannel, 1963

Figs 6-8, 17, 21, 83

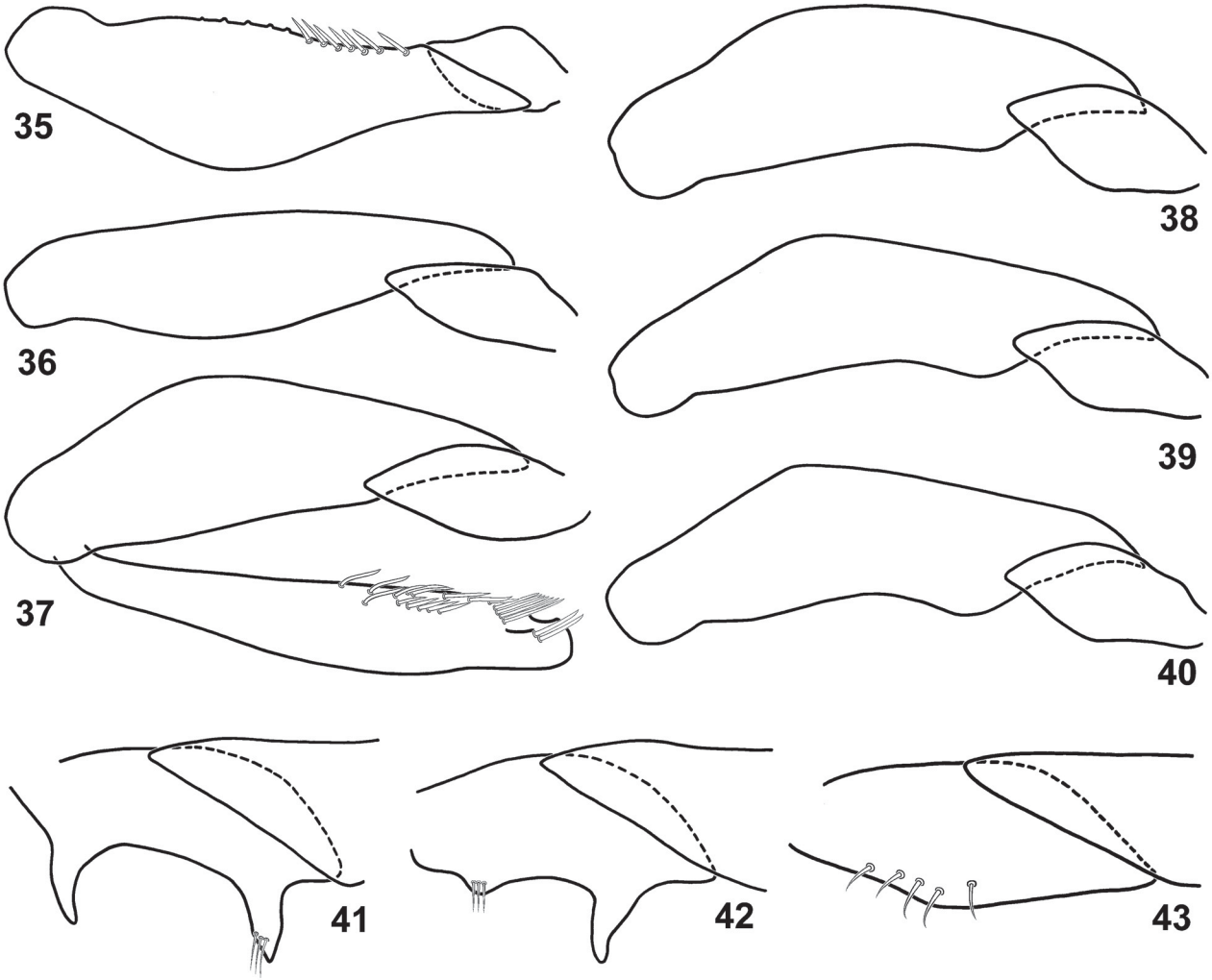
Achilia pachycera Jeannel, 1963: 353, 363 figs 10 (head and antennae), 11 (aedeagus). – Jeannel, 1964: 10.
Achilia pseudovalidicornis Franz, 1996: 116 fig. 64 (aedeagus) **syn**. **nov**.

Type material (5 ex.): CENTRAL CHILE: Región Araucanía: Malleco prov.: MNHN; 1 ♂ (holotype of *A. pachycera*); Nahuelbuta; 1961; F. Castri. – MNHN; 1 ♂ and 2 ♀ (paratypes of *A. pachycera*); same data; F. Castri. – NHMW (coll. Franz); 1 ♂ (holotype of *A. pseudovalidicornis*); National Park of Nahuelbuta; Cordillera Nahuelbuta; 04.XI.1986; H. Franz.

Additional material (150 ex.): See Appendix 1.

Description: Body 1.40-1.50 mm long, usually entirely reddish with black head and palpi yellowish, sometimes with abdomen and pronotum reddish brown. Head with eyes longer than temples. Pronotum wider than head, with maximal width on anterior half; median antebasal fovea as large as lateral ones. First abdominal tergite with basal striae slightly diverging, extending to about one-third of paratergal length, and separated at base by more than one-third of tergal width.

Male: Head similar to *A. excisa*, flanked on entire length by two very deep pits with outer edge toothed at level of eyes; narrow frontal protuberance slightly convex at base, and distinctly flattened and enlarged anteriorly up to vertexal sulcus. Antennae similar to *A. excisa* (see Fig. 13). Metasternum with large median impression; posterior margin densely pubescent. Legs with ventral margin of mesotrochanters (Fig. 21) forming long and thin spine; profemora and mesofemora slightly thickened; mesotibiae (Fig. 17) bearing subbasal spur slightly recurved externally and apically rounded; metatibiae slightly sinuate on distal half. Abdominal



Figs 35-43. Male profemur (35), metafemur (36), the variability of metafemur (38-40), metaleg (37) and mesotrochanter (41-43) of *Achilia*. (35, 41) *A. caracolana*. (36) *A. trauco*. (37) *A. frontalis*, specimen from Chillàn. (38) *A. frontalis*, specimen from Cordillera de Nahuelbuta. (39) *A. frontalis*, specimen from Frutillar. (40) *A. frontalis*, specimen from Aguas Calientes to Puyehue National Park. (42) *A. ovallensis* [paratype]. (43) *A. longispina*.

tergites unmodified; first abdominal ventrites with deep median impression with raised edges; all other ventrites distinctly flattened at middle; ventrite I with short median carina extending from posterior margin to posterior edge of median impression. Aedeagus 0.26-0.30 mm long; similar to *A. excisa* (see Fig. 1), except copulatory pieces (Figs 6-8) consisting of pair of long medial sclerites recurved and strongly sclerotised at base, apically enlarged or pointed, and associated on each side with three or sometimes more short pointed sclerites. Parameres very wide with long seta on poorly developed outer lobe; tips strongly recurved posteriorly and bearing wide and long subapical seta.

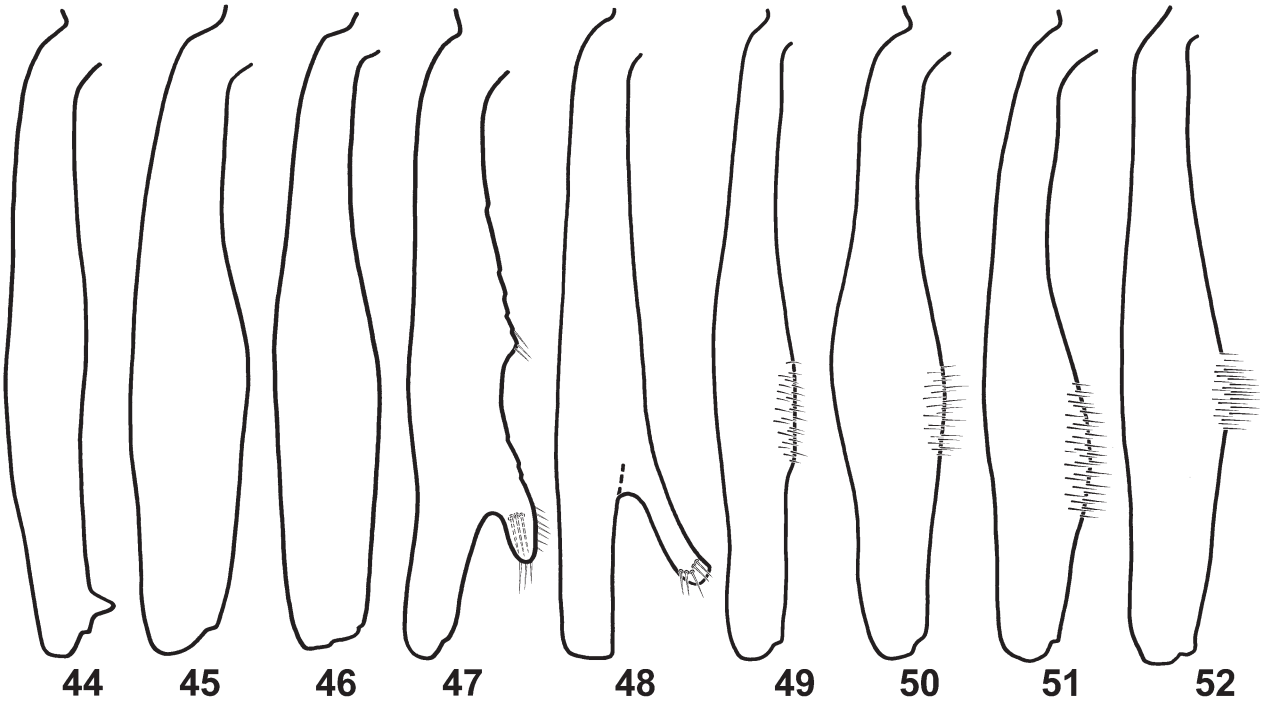
Female: Similar to male except: head lacking lateral pits; antennomeres IX and especially X shorter and less enlarged than male; metasternum, abdominal ventrites, and legs unmodified.

Collecting data: Collected from November to February in *Nothofagus* and *Araucaria* forests, where it was found from 1100 m to 1300 m. Most specimens came from sifted samples of leaf and log litter, moss, dead trunks, vegetable debris; two specimens were collected by flight intercept traps.

Distribution: *Achilia pachycera* is known only from the Nahuelbuta District (Malleco Province, Araucanía Region) (Fig. 83: blue triangles).

Comments: Jeannel (1963: 353) first mentioned *A. pachycera* as a member of the *A. spinifer* group, however some pages later (1963: 363-364) he correctly places it as a member of his *A. frontalis* group.

According to Jeannel (1964: 10), *A. pachycera* is very similar to *A. validicornis* (now a junior synonym of *A. excisa*), from which it differs by the shape of the male



Figs 44-52. Male protibia (44-46) and mesotibia (47-52) of *Achilia*. (44, 47) *A. caracolana*. (45, 50) *A. frontalis*. (46, 51) *A. trauco*. (48) *A. ovallensis*. (49) *A. auriculata*. (52) *A. longispina*.

frontal protuberance (anteriorly widened in *A. pachycera*, and constricted in *A. validicornis*).

From the abundant material we studied, we could not separate the females of the two species, while the males can be distinguished by the following characters: frontal protuberance of head anteriorly more enlarged in *A. pachycera*, lateral pits of head of *A. pachycera* generally deeper and with larger tooth on their outer margin than in *A. excisa*, features of mesotrochanters (cf. Figs 20, 21) and mesotibiae (cf. Figs 16, 17) slightly different, as well as metasternum (with medial sulcus in *A. excisa*, and bearing a large impression in *A. pachycera*) and abdominal ventrites (slightly flattened at middle for *A. excisa*, clearly flattened for *A. pachycera*). *Achilia pachycera* also differs from *A. excisa* by the morphology of the copulatory pieces of the aedeagus, which exhibit constant and stable differences, especially with respect to the location of the three pointed pairs of internal sclerites, which are either fused (Figs 1, 4-5) or disconnected (Figs 6, 8). Within the light of these slight but nevertheless constant differences, we consider it appropriate to maintain *A. pachycera* as a valid species.

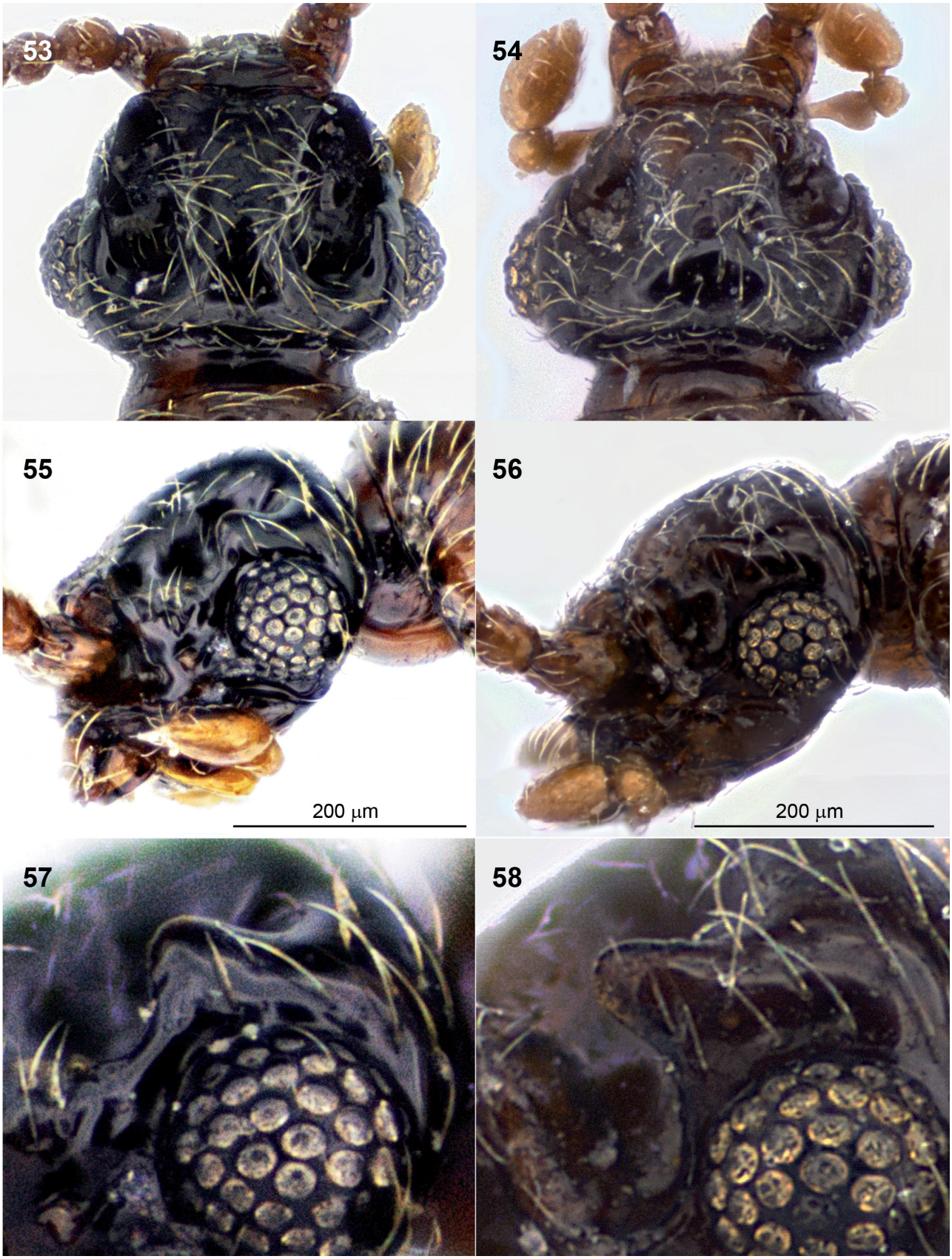
Examination of the holotype and only known specimen of *A. pseudovalidicornis* revealed that both external and aedeagal characters fit perfectly our concept of *A. pachycera* Jeannel, 1963. Therefore we conclude that *A. pseudovalidicornis* Franz, 1996 must be considered to be a junior synonym of *A. pachycera* Jeannel, 1963 (**syn. nov.**).

***Achilia fiura* n. sp.**

Figs 3, 15, 18, 23, 54, 56, 58, 83

Type material (13 ex.): CENTRAL CHILE: Región Araucanía: Malleco prov.: MHNG; 1 ♂ (holotype); 45 km W Angol; 1400 m; 09.XII.1984/16.II.1985; S. & J. Peck; *Nothofagus* forest litter, car trap. – MHNG; 5 ♂ (paratypes); same data; S. & J. Peck; *Nothofagus* forest litter, car trap. – MNHS; 1 ♂ (paratype); same data; S & J. Peck; Nothofagus forest litter; car trap. – MHNG; 2 ♂ (paratypes); Nahuelbuta National Park, 40 km W Angol; 1200-1500 m; 19.XII.1984/17.II.1985; S. & J. Peck; *Nothofagus-Araucaria*; for FIT. – MHNG; 3 ♂ (paratypes); 17 km W Angol; 800 m; 08.XII.1984/16. II.1985; S. & J. Peck; FIT mixed *Nothofagus.* – FMNH (FMHD #2002-95); 1 ♂ (paratype); Nahuelbuta National Park, 2.3 km W Los Portones entrance; 37° 49.41'S 72° 58.95'W; 1150 m; 25.XII.2002; Solodovnikov 1057; *Nothofagus dombeyi* + *antarctica*, mostly open understory, berlese, leaf & log litter, forest floor.

Description: Body 1.45-1.50 mm long, usually entirely reddish with darker head and abdomen, and palpi yellowish. Head with eyes longer than temples. Pronotum wider than head, with maximal width on anterior half; median antebasal fovea as large as lateral ones. First abdominal tergite with basal striae slightly diverging, extending to less than one-third of paratergal length, and separated at base by more than one-third of tergal width.



Figs 53-58. (53, 55, 57) *Achilia excisa*. (54, 56, 58) *A. fiura*. Male head in (53-54) dorsal and (55-56) lateral views. (57-58) male supraocular area in lateral view. Scale bar left for (53, 55) and right for (54, 56).

Male: Head as in Figs 54 and 56, flanked on entire length by two very deep pits with outer edge toothed at level of eyes (Fig. 58). Narrow frontal protuberance slightly convex at base and anteriorly flattened to vertexal sulcus. Antennae (Fig. 15) with scape and pedicel longer than wide; antennomere III wider than long; antennomere IV transverse, with protruding mesal margin pointed in middle and bearing a tuft of long setae; antennomere V transverse, with protruding mesal margin pointed in middle and bearing a long seta; antennomeres VI-VII distinctly wider than long; antennomere VIII transverse, with protruding mesal margin; antennomeres IX and X strongly transverse, with protruding mesal margin bearing long setae; antennomere X wider and longer than IX; antennomere XI elongate and longer than VIII-X combined, its medial margin enlarged at base and bearing a tuft of long setae. Metasternum with large median impression. Legs with ventral margin of mesotrochanters (Fig. 23) forming short median spine; profemora and mesofemora slightly thickened; mesotibiae (Fig. 18) forming subbasal spur slightly recurved externally and with short stout apical seta; metatibiae slightly sinuate on distal half. Abdominal tergites unmodified; first abdominal ventrites with faint median impression, all other ventrites flattened at middle; ventrite I with short median carina extending from posterior margin the posterior edge of median impression. Aedeagus (Fig. 3) 0.28-0.30 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites recurved and strongly sclerotised at base, and apically pointed, associated on each side with sclerite ending with two large spines. Parameres very wide with long seta on well-developed outer lobe; tips strongly recurved posteriorly and bearing wide subapical seta.
Female: Unknown.

Collecting data: Collected from December to February in *Nothofagus* and *Araucaria* forests, where it was found from 1150 m to 1500 m. Most specimens were taken by flight intercept traps and by car netting; one specimen was collected in sifted samples of leaf and log litter.

Distribution: *Achilia fiura* is known only from Malleco Province (Región Araucanía) (Fig. 83: green diamonds).

Comments: *Achilia fiura* is very similar to *A. excisa* and *A. pachycera*, from which it is easily distinguished by the male features of the antennae (compare Figs 13 and 15), mesotrochanters (compare Figs 20, 21 and 23), mesotibiae (compare Figs 16, 17 and 18), and the copulatory pieces of the aedeagus (compare Figs 1 and 4-5; 6-8, and 3).

Achilia testacea Jeannel, 1962

Figs 2, 9-12, 14, 19, 22, 59-64, 84

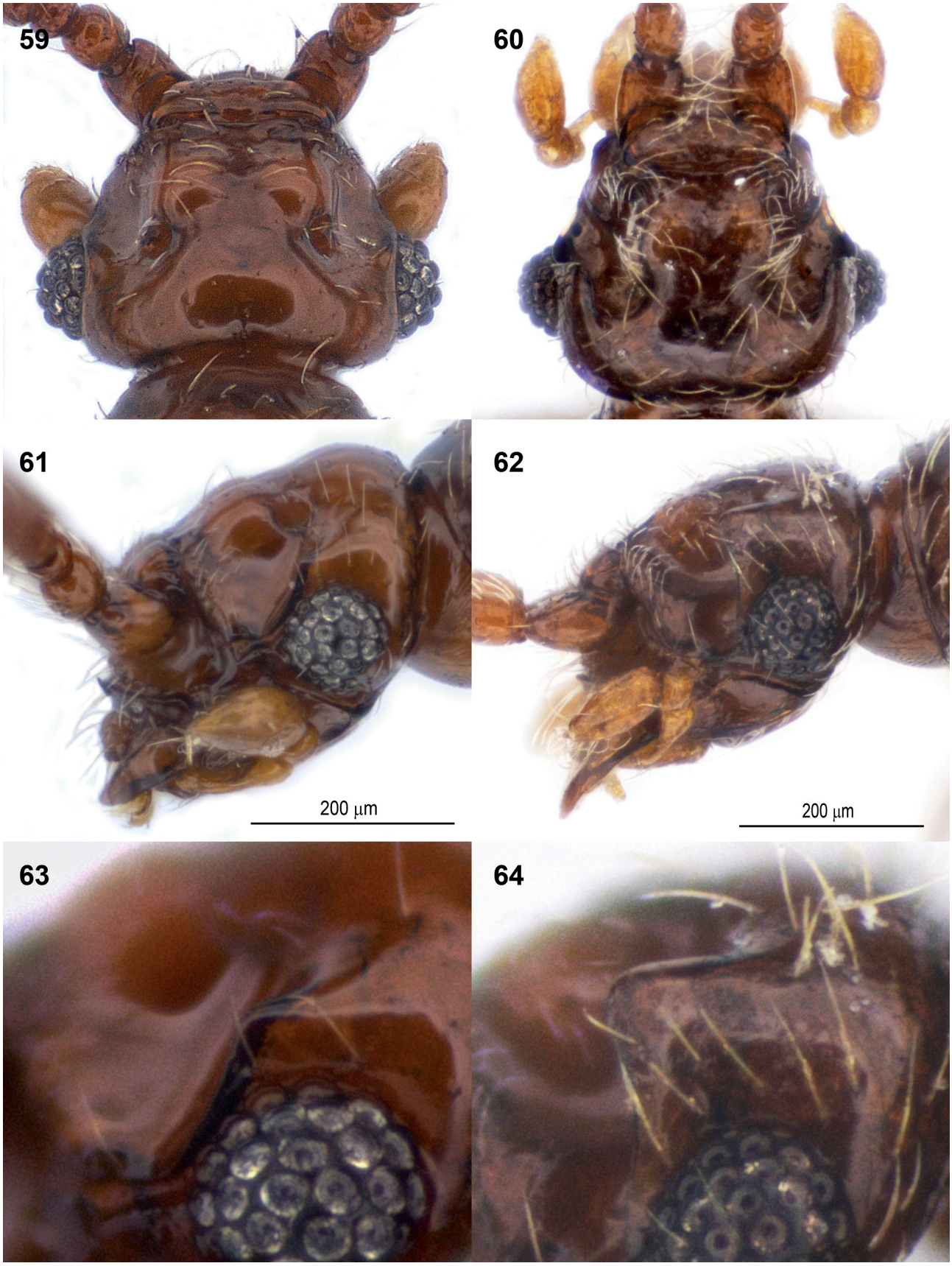
Achillia testacea Jeannel, 1962: 409, 411 figs 158 (habitus), 159 (aedeagus).

Achillia acicularis Jeannel 1962: 409, 412 fig. 160 (aedeagus) **(syn. nov.)**

Type material (4 ex.): CENTRAL CHILE: Región Los Lagos: Chiloé prov.: MHNS; 1 ♂ (holotypes of *Achilia testacea* n° 1690); Chiloé Island, Chepu; 02.X.1958; G. Kuschel. – MNHN; 1 ♂ and 1 ♀ (paratypes of *Achilia testacea*); Chiloé Island, Chepu; 42° 03'S; 15.X.1958; G. Kuschel. – Región Bío Bío: Concepción prov.: MNHN; 1 ♂ (holotype of *Achilia acicularis*); Bocas of Bío Bío; 36° 50'S; 24.V.1957; G. Kuschel.

Additional material (103 ex.): See Appendix 1.

Description: Body 1.45-1.55 mm long, entirely reddish with palpi yellowish. Head with eyes longer than temples. Pronotum wider than head, with maximal width on anterior half; median antebasal fovea as large as lateral ones. First abdominal tergite with basal striae diverging, extending to about half of paratergal length, and separated at base by more than one-third of tergal width.
Male: Head as in Figs 59-62, at eye level with simple flattening of the lateral region surmounted by small tooth (Fig. 63), or flanked by lateral pits with outer margin toothed at eye level (Fig. 64). Large frontal protuberance slightly convex at base and anteriorly barely flattened to vertexal sulcus. Antennae (Fig. 14) with scape and pedicel longer than wide; antennomere III slightly longer than wide; antennomeres IV and V as long than wide; antennomeres VI-VIII distinctly wider than long; antennomere IX transverse, with protruding mesal margin pointed at middle; antennomere X wider and longer than IX, with protruding mesal margin bearing two long and large setae; antennomere XI elongate and longer than VIII-X combined, its mesal margin bearing long setae. Metasternum with large median impression. Legs with ventral margin of mesotrochanters (Fig. 22) forming short spine; profemora and mesofemora slightly thickened; mesotibiae (Fig. 19) bearing short and densely pubescent subbasal spur; metatibiae slightly sinuate on distal half. Abdominal tergites unmodified; first abdominal ventrite raised at middle, other ventrites weakly flattened at middle; surface of ventrite I with marked long median carina extending from posterior margin to about its midlength. Aedeagus (Fig. 2) 0.25-0.28 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites recurved and strongly sclerotised at base, and apically rounded, associated on each side with four or five pointed sclerite. Parameres very wide with wide and long seta on poorly developed outer lobe; tips broadly recurved posteriorly and bearing wide and long subapical seta.
Female: Similar to male except: head not modified; antennomeres IX and especially X shorter and less protruding than for male; metasternum, abdominal ventrites, and legs unmodified, except ventral margin of mesotrochanters bearing very short spine.



Figs 59-64. *Achilia testacea*. Male head in (59-60) dorsal and (61-62) lateral views. (63-64) male supraocular area in lateral view. Scale bars left for (59, 61) and right for (60, 62).

Collecting data: Collected from September to May in Valdivian rainforests, also in remnants and disturbed forests, where it was found from sea level to 450 m. All specimens were collected from sifted samples of leaf and log litter and/or debris.

Distribution: *Achilia testacea* is known from Central Chile, ranging from Chiloé Province to Ñuble Province (Fig. 84: orange discs).

Comments: The males of *A. testacea* exhibit great variability in the morphology of the head: some males, including the holotype and the paratype, have at the eye level a simple flattening of the lateral region surmounted by a small tooth, while others have true lateral pits with the outer margin toothed. All of these males share the morphology of the antennae, metasternum, abdominal ventrites, and legs; and their aedeagi have identical dorsal plates and parameres, with the copulatory pieces characterised by little variation (cf. Figs 2, 9-11).
According to Jeannel (1962: 409), *A. acicularis* differs from *A. testacea* only by the features of the head of male (with lateral pits in *A. acicularis,* without lateral pits in *A. testacea*). Comparison of the holotype of *A. acicularis* and a paratype of *A. testacea* showed that their aedeagal conformation is very similar (cf. Figs 2 and 12). It is the same for the morphology of their antennae and legs, and the difference in the morphology of their head, according to us, may be attributed to intraspecific variation of this taxon. Therefore we conclude that *A. acicularis* Jeannel, 1962 must be placed as a junior synonym of *A. testacea* Jeannel, 1962 (**syn**. **nov**.).

Achilia caracolana Jeannel, 1962

Figs 24, 30, 35, 41, 44, 47, 65, 67, 69, 84

Achilia caracolana Jeannel, 1962: 409 fig. 163 (aedeagus).

Type material (7 ex.): CENTRAL CHILE: Región Bío Bío: Concepción prov.: MHNS; 1 ♂ (holotype of *Achilia caracolana* n° 1685); Cerro Caracol; 24.V.1957; G. Kuschel. – MNHN; 2 ♂ and 4 ♀ (paratypes); Cerro Caracol; 36° 50'S; 23.V.1957; G. Kuschel.

Additional material (318 ex.): See Appendix 1.

Description: Body 1.5-1.8 mm long, entirely reddish or reddish brown, with palpi yellowish. Head with eyes longer than temples. Pronotum slightly wider than head, with maximal width on anterior half; median antebasal fovea smaller than lateral ones. First abdominal tergite with basal striae parallel, extending to about quarter of paratergal length, and separated at base by more than one-third of tergal width.
Male: Head as in Figs 65 and 67, with deep lateral pits surmounted on each side of eyes by small tooth apically truncated (Fig. 69); large frontal protuberance convex with distinct V-shaped median impression reaching anteriorly to vertexal sulcus. Antennae (Fig. 30) with scape and pedicel longer than wide; antennomere III as long as wide; antennomere IV slightly wider than long; antennomere V slightly longer than wide; antennomeres VI-VIII distinctly wider than long; antennomere IX transverse with protruding mesal margin pointed at middle and bearing two long setae; antennomere X barely longer than wide, wider and longer than IX, with mesal margin apically hollowed, basally projecting and bearing two long and large setae as well as a tuft of shorter setae; antennomere XI elongate, longer than VIII-X combined, its medial margin bearing long subbasal setae. Metasternum with deep and broad ovoidal median impression, posterior edges of the latter densely pubescent. Legs with ventral margin of mesotrochanters (Fig. 41) bearing two short spines; profemora (Fig. 35) strongly thickened, with ventral margin finely denticulate and bearing short modified setae on basal third; mesofemora slightly thickened; protibiae (Fig. 44) slightly thickened with mesal margin bearing small subapical spine; mesotibiae (Fig. 47) thickened with mesal margin bulging at middle and bearing apically pubescent subbasal spur; metatibiae slightly sinuate on distal half. Abdominal tergites unmodified; first abdominal ventrites with large median impression, all other ventrites flattened at middle; ventrite I with short median carina extending from posterior margin to posterior edge of median impression. Aedeagus (Fig. 24) 0.30-0.325 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites recurved and strongly sclerotised at base, and apically bifid. Parameres wide with very long seta on poorly developed outer lobe; tips strongly recurved posteriorly and bearing thin and short subapical seta.
Female: Similar to male except: head, metasternum, abdominal ventrites, and legs unmodified; antennomeres IX and specially X shorter and less thickened than male.

Collecting data: Collected from September to May in *Nothofagus*, *Cupressus* and *Eucalyptus* forests; also in remnants, where it was found from sea level to about 1200 m. Most specimens were collected from sifted samples of leaf and log litter.

Distribution: *Achilia caracolana* is known from Central Chile, ranging from Chiloé Province to Talca Province (Fig. 84: green diamonds).

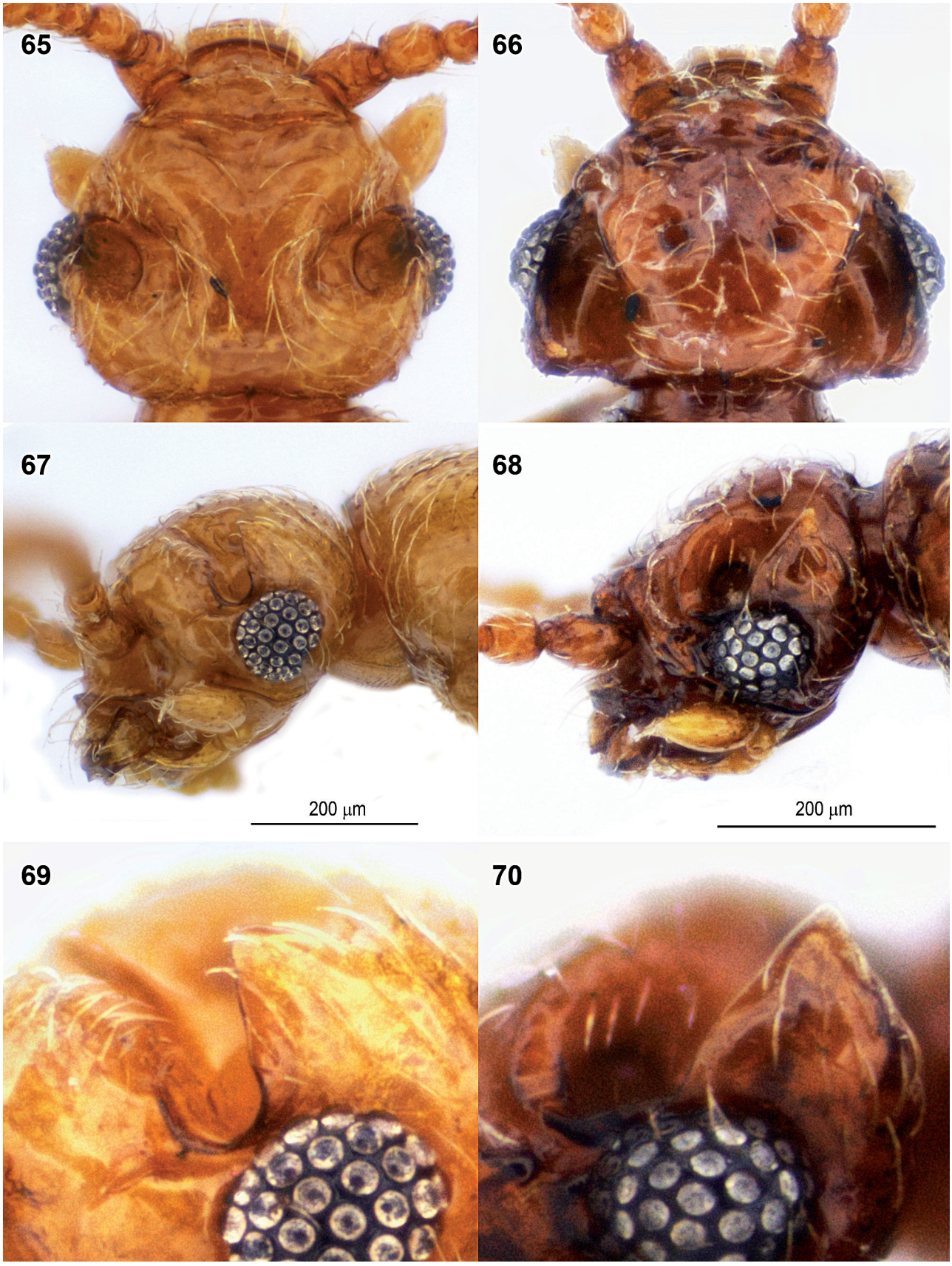
Achilia auriculata Jeannel, 1962

Figs 25, 31, 49, 66, 68, 70, 83

Achilia auriculata Jeannel, 1962: 409, 410 fig. 164 (aedeagus).

Type material (2 ex.): CENTRAL CHILE: Región Bío Bío: Ñuble prov.: MNHN; 2 ♂ (holotype and paratype); Chillàn; 36° 54'S; P. Germain.

Additional material (4 ex.): See Appendix 1.



Figs 65-70. (65, 67, 69) *Achilia caracolana*. (66, 68, 70) *A. auriculata*. Male head in (65-66) dorsal and (67-68) lateral views. (69-70) male supraocular area in lateral view. Scale bar left for (65, 67) and right for (66, 68).

Description: Body 1.25-1.35 mm long, entirely reddish brown with darker abdomen and palpi yellowish. Head with eyes as long as temples. Pronotum narrower than head, with maximal width at midlength; median antebasal fovea smaller than lateral ones. First abdominal tergite with basal striae parallel, extending to about one-third of paratergal length, and separated at base by about one-third of tergal width.
Male: Head as in Figs 66 and 68, wider than pronotum, on each side with large lateral pit open behind and outer margin forming big tooth above eyes (Fig. 70); large frontal protuberance barely convex. Antennae (Fig. 31) with scape and pedicel longer than wide; antennomere III as long as wide; antennomeres IV-VIII wider than long; antennomere VIII with mesal margin protruding; antennomere IX transverse with mesal margin protruding; antennomere X strongly transverse, wider and longer than IX, wider than XI, with mesal side truncate and bearing broad flat area; antennomere XI elongate and longer than VIII-X combined, bearing long and large subbasal seta inserted in deep depression. Metasternum with median impression. Legs with profemora and mesofemora slightly thickened; mesotibiae (Fig. 49) with very small subapical tooth, in middle slightly bulging and bearing tuft of short setae; metatibiae slightly sinuate on distal half. Abdominal tergites unmodified; first abdominal ventrite raised at middle, remaining ventrites slightly flattened at middle; ventrite I with short median carina extending from posterior margin to about quarter of its length. Aedeagus (Fig. 25) 0.24-0.25 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites recurved and strongly sclerotised at base, and apically slightly narrowed and pointed. Parameres wide with very long seta on poorly developed outer lobe; tips strongly recurved posteriorly and bearing short and thin subapical seta.
Female: Similar to male except: head unmodified, narrower than pronotum; antennomeres IX and especially X shorter and less thickened than male; metasternum, abdominal ventrites, and legs unmodified.

Collecting data: This species was collected from September to January at moderate elevations. The only ecological data available refers to a sample processed by a Berlese funnel, that consisted of leaf & log litter taken from the forest floor of a subtropical xerophytic forest.

Distribution: *Achilia auriculata* is known only from Bío Bío Region (Ñuble and Concepción Provinces) in Central Chili (Fig. 83: pink squares).

Achilia ovallensis Jeannel 1962

Figs 26, 32, 42, 48, 83

Achilia ovallensis Jeannel, 1962: 409, 413 fig. 162 (aedeagus).

Type material (4 ex.): CENTRAL-NORTHERN CHILE: Región Coquimbo: Limarí prov.: MHNS; 1 ♀ (holotype of *Achilia ovallensis* n° 1695); Ovalle; P. Germain. – MNHN; 1 ♂ and 2 ♀ (paratypes); Ovalle; 30° 36'S; P. Germain.

Additional material (3 ex.): See Appendix 1.

Description: Body 1.5-1.55 mm long, entirely reddish with palpi yellowish. Head with eyes shorter than temples. Pronotum slightly wider than head, with maximal width at midlength; median antebasal fovea as large as lateral ones. First abdominal tergite with basal striae slightly divergent, extending to about one-quarter of paratergal length, and separated at base by about one-third of tergal width.
Male: Head similar to *A. testacea*, with simple flattening of lateral regions surmounted by small tooth at level of eyes; frontal protuberance basally convex and anteriorly flattened to vertexal sulcus. Antennae (Fig. 32) with scape and pedicel longer than wide; antennomere III as long as wide; antennomeres IV-VIII wider than long; mesal margin of antennomeres VII and VIII protruding; antennomere IX transverse with mesal margin protruding; antennomere X as long as wide, wider and longer than IX, with ridge bearing large and short seta; antennomere XI elongate, longer than VII-X combined, mesally bearing few long subbasal setae. Metasternum with deep ovoidal median impression, posterior edge of the impression pubescent. Legs with ventral margin of mesotrochanters (Fig. 42) forming stout spine; profemora and mesofemora slightly thickened; medial edge of mesotibiae (Fig. 47) on basal third forming conspicuous blunt projection bearing subapical tufts of short setae, at middle slightly bulging and bearing tuft of short setae; metatibiae slightly sinuate on distal half. Abdominal tergites unmodified; first abdominal ventrite impressed at middle, remaining ventrites flattened at middle; ventrite I with median carina extending from posterior margin to posterior edge of median impression. Aedeagus (Fig. 26) 0.325 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites recurved and strongly sclerotised at base, and apically bifid with each side associated with sclerite forming three large tips and numerous additional spinules. Parameres wide with long seta on poorly developed outer lobe; tips strongly recurved posteriorly and bearing wide subapical seta.
Female: Similar to male except: head, metasternum, abdominal ventrites, and legs unmodified; antennomeres IX and especially X shorter and less enlarged than male.

Collecting data: The only specimens known were collected in the "espinal", a pseudo-savanna with dominance of *Acacia*.

Distribution: *Achilia ovallensis* is known only from the Coquimbo Region (Limarí Province) of north-central Chile (Fig. 83: yellow stars).

Achilia frontalis Jeannel, 1962

Figs 27, 33, 37, 38-40, 45, 50, 71-76, 84

Achilia frontalis Jeannel, 1962: 409, 413 fig. 161 (aedeagus).
Achilia foveifrons Jeannel, 1962: 409, 414 fig. 165 (aedeagus) **syn. nov**.

Type material (8 ex.): CENTRAL CHILE: Región Los Lagos: Llanquihue prov.: MHNS; 1 ♂ (holotype of *Achilia foveifrons* n° 1777); Frutillar; 20.IX.1954; G. Kuschel. – MNHN; 1 ♂ and 1 ♀ (paratypes of *Achilia foveifrons*); Frutillar; 41° 08'S; 20.IX.1954; G. Kuschel. – Región Bío Bío: Ñuble prov.: MHNS; 1 ♂ (holotype of *Achilia frontalis* n° 1703); Chillàn; P. Germain. – MNHN; 1 ♂ and 3 ♀ (paratypes of *Achilia frontalis*); Chillàn; 36° 54'S; P. Germain.

Additional material (150 ex.): See Appendix 1.

Description: Body 1.35-1.55 mm long, generally bicolored with head, pronotum and abdomen blackish, elytra, antennae, and legs reddish, and palpi yellowish, or entirely reddish with darker abdomen, sometimes also entirely reddish with darker head. Head with eyes slightly longer than temples. Pronotum slightly wider than head, with maximal width on anterior half; median antebasal fovea as large as lateral ones. First abdominal tergite with basal striae slightly diverging, extending to about one-third of paratergal length, and separated at base by about one-third of tergal width.
Male: Head as in Figs 71-74; on each side with deep lateral pit with outer edge forming small tooth at level of eyes (Fig. 75), the latter occasionally absent (Fig. 76); frontal protuberance very swollen at base and anteriorly flattened to vertexal sulcus. Antennae (Fig. 33) with scape and pedicel longer than wide; antennomeres III-VIII slightly transverse; antennomeres VII-VIII with mesal margin protruding; antennomeres IX-X strongly transverse, with mesal margin protruding; antennomere X wider than IX; antennomere XI elongate, longer than VII-X combined, bearing long and thin subbasal seta inserted in deep depression. Metasternum with ovoidal median impression, posterior edge of the impression pubescent. Legs with trochanters simple; all femora (Figs 38-40) strongly thickened and sinuate, particularly metafemora; protibiae (Fig. 45) distinctly thickened on distal half, bearing small subapical tooth; mesotibiae (Fig. 50) at middle slightly bulging and bearing tuft of short setae; medial edge of metatibiae (Fig. 37) densely pubescent on apical half and distinctly narrowed subapically. Abdominal tergites unmodified; first abdominal ventrite impressed at middle, remaining ventrites flattened at middle; ventrite I with median carina extending from posterior margin to posterior edge of median impression. Aedeagus (Fig. 27) 0.325-0.335 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial recurved sclerites strongly sclerotised basally and apically pointed. Parameres wide with long seta on poorly developed outer lobe; tips recurved posteriorly and bearing wide subapical seta.
Female: Similar to male except: head with occipital protuberance less developed and lacking lateral pits; antennomere XI shorter than VII-X combined; disc of pronotum less convex; metasternum, abdomen, and legs unmodified.

Collecting data: Collected from November to March, mainly in mixed forests at elevations ranging from 100 m to 700 m. Most specimens came from sifted samples of leaf and log litter, but some were also collected by flight intercept and carrion traps.

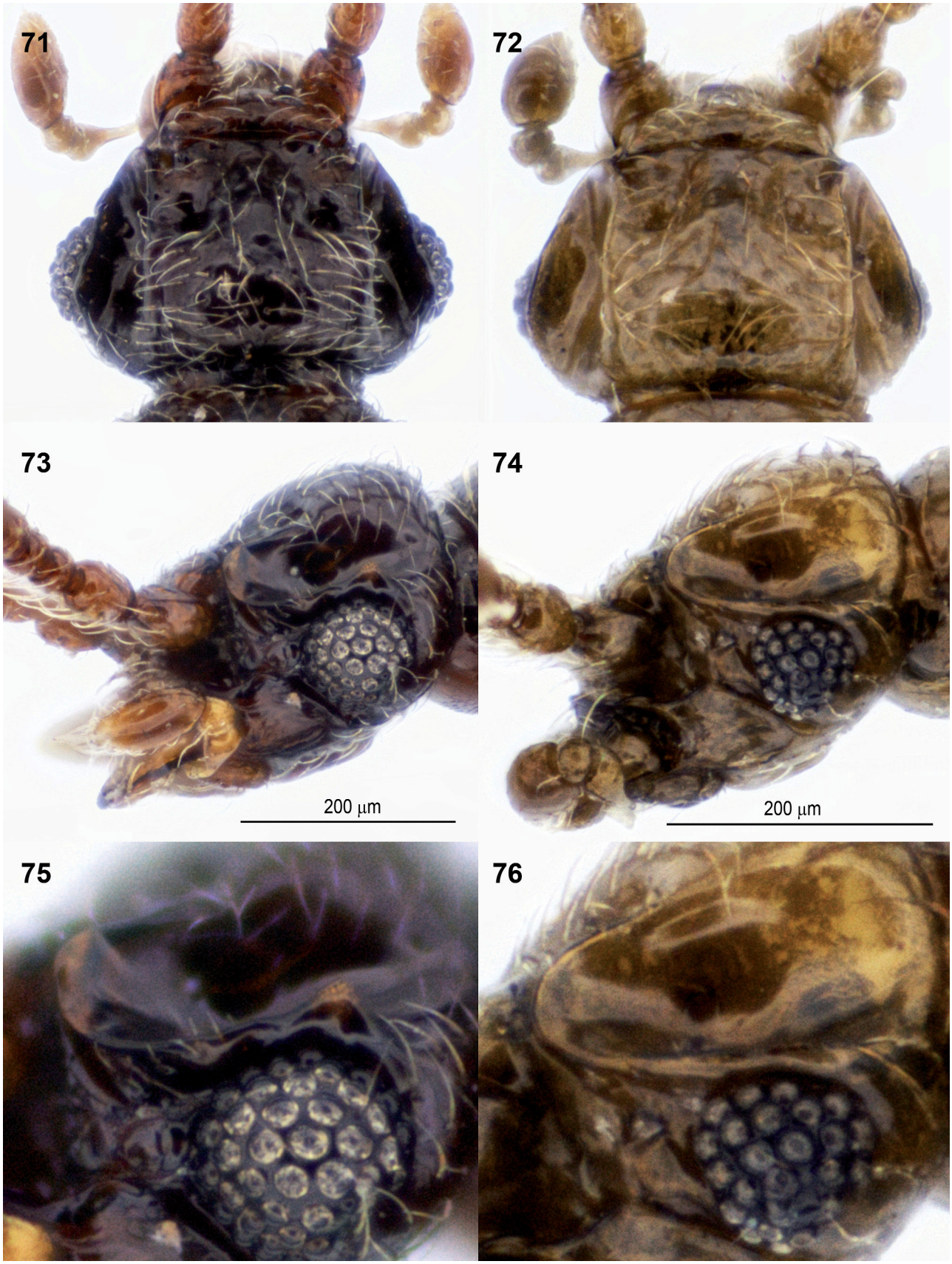
Distribution: *Achilia frontalis* is distributed in Central Chile from Chiloé to Ñuble Provinces (Fig. 84: blue triangles).

Comments: According to Jeannel (1962) the males of *A. foveifrons* differ from those of *A. frontalis* by their short and wide head for the anterior region (while being subtriangular in *A. frontalis*), the anterior part of the occipital protuberance occupying almost the entire width of the frons (while with a comparatively narrower vertex for *A. frontalis*), and the aedeagus with divergent dorsal longitudinal struts and thickened and sinuate copulatory pieces (while for *A. frontalis* the dorsal longitudinal struts are attached to each other, and the copulatory pieces are thin and not sinuate). However the aedeagal conformation of their types appear to be very similar, and after examination of extensive material it appears that these differences (when really present) have been strongly exaggerated by Jeannel and fall, in our opinion, within the intraspecific variation of this taxon. Therefore we conclude that *A. foveifrons* Jeannel, 1962 must be considered to be the junior synonym of *A. frontalis* Jeannel, 1962 (**syn. nov.**).

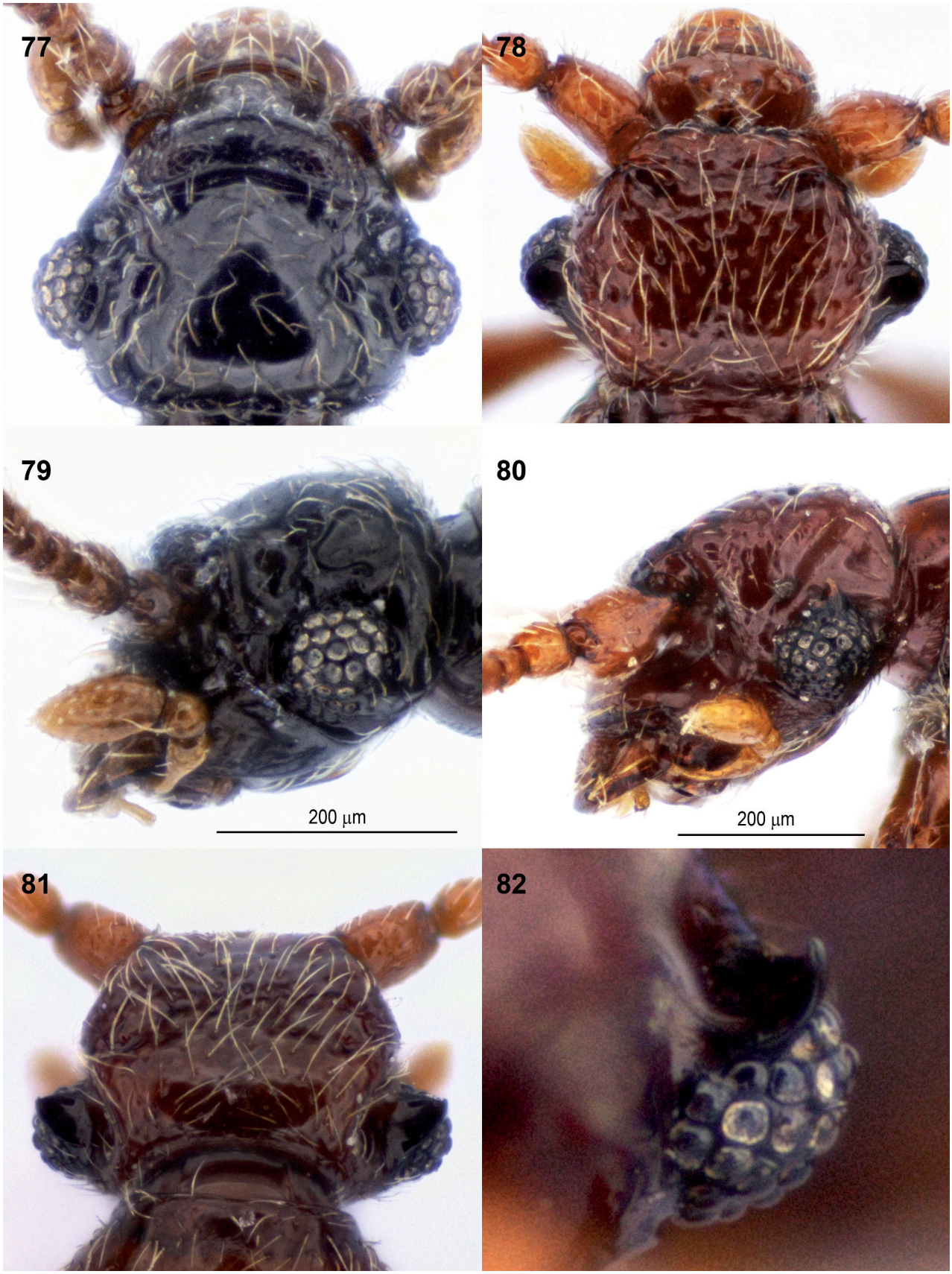
Achilia trauco n. sp.

Figs 28, 36, 46, 51, 77, 79, 84

Type material (75 ex.): CENTRAL CHILE: Región Los Ríos: Ranco prov.: MHNG; 1 ♂ (holotype); 34 km WNW La Union, station 36; 700 m; 17.XII.1984; S. & J. Peck; litter mixed evergreen forest. – Región Los Lagos: Osorno prov.: FMNH (FMHD #96-249); 1 ♂ and 1 ♀ (paratypes); 15.1 km W Puaucho; 40° 34.97'S 73° 37.68'W; 50 m; 30.XII.1996; A. Newton & M. Thayer 984; valdivian rainforest remnant in sm. ravine, w/large ferns, berlese, leaf & log litter. – Región Los Ríos: Ranco prov.: MHNG; 16 ♂ and 12 ♀ (paratypes); 34 km WNW La Union, station 36; 700 m; 17.XII.1984; S. & J. Peck; litter mixed evergreen forest. - MNHS; 1 ♂ and 1 ♀ (paratypes); same data; S. & J. Peck; litter mixed evergreen forest. – FMNH (FMHD #85-921, #85-36); 1 ♂ and 4 ♀ (paratypes); same data; S. & J. Peck. – MHNG; 12 ♂ and 1 ♀ (paratypes); 35 km WNW La Union; 700 m; 07.II.1985; S. & J.



Figs 71-76. *Achilia frontalis*. (71, 73, 75) specimen from Chillàn. (72, 74, 76) specimen from Frutillar. Male heads in dorsal (71-72) and lateral (73-74) views. (75-76) male supraocular area in lateral view. Scale bar left for (71, 73) and right for (72, 74).



Figs 77-82. (77, 79) *Achilia trauco*. (78, 80-82) *A. longispina*. Male head in (77-78) dorsal, (79-80) lateral and (81) dorso-posterior views. (82) male eye in frontal view. Scale bar left for (77, 79) and right for (78, 80-81).

Fig. 83. Distribution map. (● red circles) *Achilia excisa*. (▲ blue triangles) *A. pachycera*. (◆ green diamonds) *A. fiura*. (■ pink squares) *A. auriculata*. (✶ yellow stars) *A. ovallensis*.

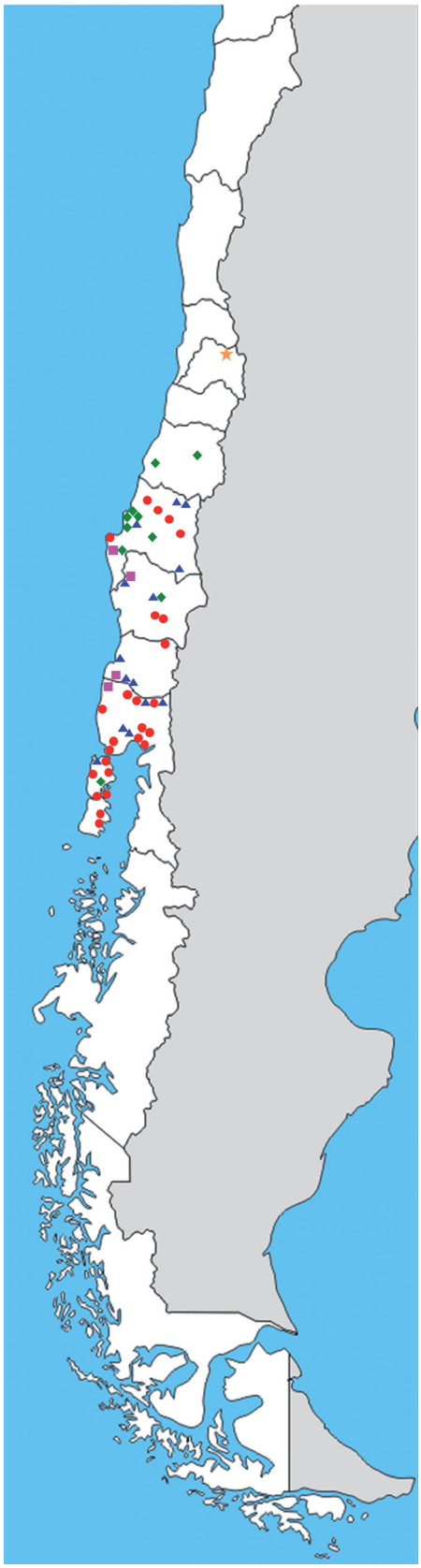


Fig. 84. Distribution map. (● red circles) *Achilia testacea*. (▲ blue triangles) *A. frontalis*. (◆ green diamonds) *A. caracolana*. (■ pink squares) *A. trauco*. (✶ yellow stars) *A. longispina*.

Peck; litter mixed forest. – FMNH (FMHD #85-997, #85-36); 1 ♂ and 1 ♀ (paratypes); same data; S. & J. Peck; litter mixed forest. – Región Araucanía: Malleco prov.: FMNH (FMHD #85-1001, #85-118); 1 ♂ and 9 ♀ (paratypes); Purén, Contulmo Natural Monument; 350 m; 13.II.1985; S. & J. Peck; mixed forest litter, berlese. – MHNG; 1 ♂ and 7 ♀ (paratypes); same data; S. & J. Peck. – Región Bío Bío: Arauco prov.: FMNH; 1 ♂ and 5 ♀ (paratypes); 16 km N Tres Pinos; 170 m; 12.XII.1982; A. Newton & M. Thayer; *Cupressus*, *Eucalyptus* etc. forest, berlese, leaf & log litter, forest floor.

Description: Body 1.15-1.4 mm long, generally bicolored with head, pronotum and abdomen blackish; elytra, antennae, and legs reddish, and palpi yellowish. Head with eyes longer than temples. Pronotum wider than head, with maximal width on anterior half and median antebasal fovea as large as lateral ones. First abdominal tergite with basal striae slightly diverging, extending to about one-third of paratergal length, and separated at base by about one-third of tergal width.
Head as in Figs 77 and 79; flanked by two deep lateral pits anteriorly at eyes, the upper margin of eyes surmounted by large carina; frontal protuberance very swollen. Antennae as in *A. frontalis*. Metasternum with deep ovoidal median depression; posterior edge of the depression pubescent. Legs with trochanters simple; all femora (Fig. 36) thickened and sinuate, particularly metafemora; protibiae (Fig. 46) slightly thickened on distal half; mesotibiae (Fig. 51) at middle slightly bulging and bearing tuft of short setae; medial edge of metatibiae densely pubescent on apical half and distinctly narrowed subapically. Abdominal tergites unmodified; first abdominal ventrite impressed at middle, remaining ventrites flattened at middle; ventrite I with median carina extending from posterior margin to posterior edge of median impression. Aedeagus (Fig. 28) 0.23-0.27 mm long; similar to that of *A. frontalis*, differing only by copulatory pieces being sinuate and subapically narrowed. Parameres wide with long seta on poorly developed outer lobe; tips recurved posteriorly and bearing thin and long subapical seta.
Female: Similar to male except: head with occipital protuberance less developed and lacking lateral pits; eyes less developed; disc of pronotum less convex; metasternum, abdomen, and legs unmodified.

Collecting data: Collected from December to February, mainly in mixed evergreen forests at elevations ranging from 50 m to 700 m. The specimens came from sifted samples of leaf and log litter.

Distribution: *Achilia trauco* n. sp. is distributed in Central Chile from Osorno to Arauco Provinces (Fig. 84: pink squares).

Comments: *Achilia trauco* n. sp. is very similar to *A. frontalis*, from which it differs mainly by the male features of head (see Figs 71-76, 77, 79), of the metafemora (see Figs 37-40, 36), the protibiae (see Figs 45 and 46), the mesotibiae (see Figs 50, 51), and the aedeagi (see Figs 27, 28). The females of *A. frontalis* and *A. trauco* n. sp. are very similar, except that those of *A. trauco* n. sp. have a slightly longer head, with a frontal protuberance more convex than those of *A. frontalis*.

Achilia longispina Franz, 1996

Figs 29, 34, 43, 52, 78, 80-82, 84

Achilia longispina Franz, 1996: 116 fig. 65 (aedeagus).

Type material (1 ex.): CENTRAL CHILE: Región Valparaíso: Valparaíso prov.: NHMW (coll. Franz); 1 ♂ (holotype); Mina de la Disputada (now Mina los Bronces), Anden bei Santiago de Chile; 3000-3400 m; 19.XI.1968; H. Franz.

Additional material (12 ex.): See Appendix 1.

Description: Body 1.6-1.7 mm long, entirely reddish or reddish brown, with palpi yellowish. Pubescence decumbent with long setae uniform on entire body. Head wider than long; lacking vertexal sulcus; eyes protruding and slightly pointed, longer than convex temples. Pronotum slightly wider than long, narrower than head, with maximal width at midlength; lateral outlines on anterior portion convergent, on posterior portion subparallel and sinuate; disc slightly convex, smooth and shiny with some punctures; basal margin bordered with row of contiguous shallow impressions; median antebasal fovea smaller than lateral ones. Elytra together wider than long with slightly protruding humeri; disc smooth, shiny, with two big basal foveae; sutural stria entire; discal stria extending to about elytral midlength. Legs elongate. Abdomen smooth, with some minute punctures; tergite I with basal striae slightly divergent, extending to about one-quarter of paratergal length, separated at base by more than one-third of tergal width, with some short and sparse setal brushes between striae.
Male: Head as in Figs 78 & 80-81, with deep lateral pits on each side of eyes, the latter with small median spine on upper margin (Fig. 82); frontal protuberance very large, raised, and flattened, densely covered with large punctures; clypeal area deeply hollowed laterally. Antennae (Fig. 34) with scape and pedicel distinctly longer than wide; antennomeres III-IV as long as wide; antennomeres V-VI longer than wide; antennomere VII as long as wide; antennomere VIII slightly wider than long; antennomere IX wider that long, with protruding mesal margin pointed in middle; antennomere X wider than long, wider and longer than IX, with protruding mesal margin indented and bearing numerous setae; antennomere XI longer than wide, narrower than X and longer than VIII-X combined, its surface bearing small tubercles. Metasternum with deep and broad

ovoidal median impression, posterior edge of impression pubescent. Legs with ventral margin of mesotrochanters (Fig. 43) bearing short seta; profemora and mesofemora slightly thickened, finely punctured; protibiae slightly thickened; mesotibiae (Fig. 52) in middle slightly bulging and bearing tuft of short setae; metatibiae slightly thickened and sinuate on basal third. Abdominal tergites and ventrites unmodified. Aedeagus (Fig. 29) 0.26-0.27 mm long; dorsal plate ovoid with dorsal longitudinal struts divergent; copulatory pieces consisting of pair of long medial sclerites basally recurved and sclerotised and apically pointed, associated on each side with small subapical sclerite. Parameres very wide with very long seta on well-developed outer lobe; tips strongly recurved posteriorly and bearing wide and long subapical seta.
Female: Similar to male except: head, metasternum, and legs unmodified; antennomeres X-XI shorter and thinner than male.

Distribution: *Achilia longispina* is known only from its type locality: Mina de la Disputada (now Mina los Bronces) in Central Chile, Valparaíso Province (Fig. 84: yellow stars).

Comments: The external morphology and aedeagal features of *A. longispina* resemble more closely *A. cribratifrons* Jeannel, 1962 and *A. angulifrons* Jeannel, 1963 than *A. frontalis*, as stated by Franz (1996: 116). Therefore we here exclude *A. longispina* from the *A. frontalis* group, but at this stage of the revision of the genus we prefer not to assign it to another group.

Achilia validicorniformis Franz, 1996

Achilia validicornisformis Franz, 1996: 117 fig. 66 (aedeagus).

Type material (17 ex.): CENTRAL CHILE: Región Los Lagos: Chiloé prov.: NHMW (coll. Franz); 1 ♂ (holotype); Chiloé Island, Chepu; 20.II.1990; T. Cekalovic. – NHMW (coll. Franz); 5 ♂ (4 without label of locality) and 11 ♀ (10 without label of locality) (paratypes); same data; T. Cekalovic.

Comments: We have examined the types of this species and found that all the specimens (holotype and paratypes) belong without doubt to *Achilia larvata* (Reitter, 1885), one of the species we recently revised (Sabella *et al*., 2017). Therefore we here place *Achilia validicorniformis* Franz, 1996 as a junior synonym of *A. larvata* (Reitter, 1885) (**syn. nov.**).

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Appendix 1

Non-type material examined for the species mentioned in the Taxonomy section.

Achilia excisa (Schaufuss, 1880)

Additional material (1432 ex.): MNHN; 1 ♂; Chili. – CENTRAL CHILE: Región Los Lagos: Chiloé prov.: MHNG; 2 ♂; Chiloé, S-Chile; H. Franz. – MHNG; 27 ♂ and 105 ♀; Chiloé Island, Huillinco Lake; 31.I.1983; T. Cekalovic. – DBUC; 2 ♂ and 2 ♀; same data; T. Cekalovic. – MSNG; 4 ♂ and 6 ♀; same locality; TC-279; 22.II.1991; T. Cekalovic; ex *Chusquea* sp. – MSNG; 4 ♂ and 6 ♀; Chiloé Island, Huillinco Lake; TC-279; 22.II.1991; T. Cekalovic; ex *Chusquea* sp. – FMNH; 1 ♂; Chiloé Island, 1 km W Huillinco; TC-564; 24.I.1988; T. Cekalovic; berlese. – MSNG; 23 ♂ and 28 ♀;

same data; T. Cekalovic. – MHNG; 20 ♂ and 38 ♀; Chiloé Island, Piruquina; 26.II.1983; T. Cekalovic. – DBUC; 1 ♂ and 1 ♀; same data; T. Cekalovic. – MHNG; 1 ♂; Chiloé Island, 8 km Ancud, station 110; 01.II.1985; S. & J. Peck; forest remnants litter. – MHNG; 1 ♂; Chiloé Island, Río Pudeto; 28.II.1972; T. Cekalovic. – MHNG; 2 ♂; Chiloé Island, Castro; 17.II.1983; T. Cekalovic. – MHNG 1 ♂ and 1 ♀; Chiloé Island, Mocopulli; 02.II.1983; T. Cekalovic. – MHNS; 1 ♀ (paratype n° 1630 of *A. tumidifrons*); Chepu; 15.X.1958; G. Kuschel. – MHNS; 1 ♀ (as *A. tumidifrons*); Chepu; 17.X.1958; G. Kuschel. – MSNG; 2 ♂; Chiloé Island, Chepu; TC-580; 09.II.1999; T. Cekalovic. – MSNG; 3 ♂; same locality; TC-610; 20.I.2010; T. Cekalovic. – MSNG; 1 ♂; same locality; TC-625; 26.I.2010; T. Cekalovic. – MNHN; 1 ♂ and 10 ♀; Chiloé Island, Chepu; 42° 03'S; 02.X.1958; G. Kuschel. – MNHN; 1 ♂ and 2 ♀; same locality; 03.X.1958; G. Kuschel. – MNHN; 2 ♂ and 3 ♀; same locality; 04.X.1958; G. Kuschel. – MNHN; 1 ♂; same locality; 07.X.1958; G. Kuschel. – MNHN; 3 ♀; same locality; 15.X.1958; G. Kuschel. – MNHN; 1 ♂ and 1 ♀; same locality; 16.X.1958; G. Kuschel. – MNHN; 6 ♂ and 17 ♀; same locality; 17.X.1958; G. Kuschel. – MNHN; 1 ♂; Cerros de San Pedro; 42° 20'S; 08.XI.1958; G. Kuschel. – MHNG; 1 ♀; Quinchao Island, Curaco de Veles; 30.I.1983; T. Cekalovic. – MSNG; 1 ♂; Chiloé Island, Estero Tablin; TC-609; 19.I.2000; T. Cekalovic. – MSNG; 2 ♂; Chiloé Island, San Juan de Chadmo; TC-555; 18.I.1998; T. Cekalovic. – MSNG; 2 ♂; Chiloé Island, Puente La Caldera; TC-466; 15.II.1996, T. Cekalovic. – FMNH (FMHD# 97-21); 1 ♂ and 1 ♀; Puente La Caldera, 9.8 km E of Cucao; 42° 39.96'S 74° 00.70'W; 10 m; 14.I.1997; A. Newton & M. Thayer 991; valdivian rainforest, berlese, leaf & log litter. – MSNG; 1 ♂; Chiloé Island, 1 km N of Puente Notuco; TC-528; 20.II.1997; T. Cekalovic. – MSNG; 9 ♂ and 20 ♀; Chiloé Island, Puente Milildeo; TC-471; 15.II.1995; T. Cekalovic. – DBUC; 2 ♂ and 4 ♀; same data; T. Cekalovic. – MSNG; 6 ♂ and 10 ♀; Chiloé Island, 5 km SW Chonchi; TC-560; 21.I.1998; T. Cekalovic. – MSNG; 6 ♂ and 5 ♀; Quinchao Island, Quetro; TC-559; 20.I.1998; T. Cekalovic. – MSNG; 5 ♂ and 8 ♀; same locality; TC-582; 12.II.1999; T. Cekalovic. – MSNG; 3 ♂ and 5 ♀; Quinchao Island, Laguna Pulul; TC-615; 22.I.2000; T. Cekalovic. – FMNH (FMHD #97-22); 3 ♂ and 7 ♀; SE edge of Lago Tepuhueico; 42°48.11'S 73°55.36'S; 50 m; 15.I.1997; valdivian rainforest; A. Newton & M. Thayer 992; berlese, leaf & log litter. – Llanquihue prov.: MHNG; 1 ♂; Petrohué; 30.I.1979; A. De Chambrier. – UNHC; 2 ♂; Saltos Petrohué, 6.4 km SW Petrohué; 140 m; 28.XII.1982; A. Newton & M. Thayer; valdivian rainforest, forest floor. – FMNH (FMHD #97-8); 6 ♂; Vicente Perez Rosales National Park, 9.2 km NE Ensenada, on road to Petrohué; 41° 10.20'S 72° 27.10'W; 125 m; 02-28.I.1997; A. Newton & M. Thayer 987; valdivian rainforest w/ *Nothofagus* ssp., flight intercept trap. – FMNH (FMHD #97-10); 3 ♀; same locality; 02.I.1997; A. Newton & M. Thayer 987; valdivian rainforest w/ *Nothofagus* ssp., berlese, leaf & log litter. – FMNH (FMHD #97-11); 1 ♂; Vicente Perez Rosales National Park, SW slope Volcan Osorno, km 10.1 to La Burbuja; 41° 08.30'S 72° 32.15'W; 925 m; 03-27.I.1997; A. Newton & M. Thayer 988; *Nothofagus dombeyi* & *Podocarpus nubigena* w/valdivian rainforest understory, flight intercept trap. – FMNH (FMHD #97-16); 34 ♂ and 23 ♀; Lago Chapo, near SE end, km 9.9 on road from Rollizo; 41° 30.63'S 72° 23.98'W; 385 m; 04.I.1997; A. Newton & M. Thayer 989; valdivian rainforest on steep slope, berlese, leaf & log litter. – FMNH (FMHD #97-14); 4 ♂; same locality; 04-26.I.1997; A. Newton & M. Thayer 989; valdivian rainforest on steep slope, intercept traps. – MNHN; 3 ♂ and 7 ♀; Frutillar; 41° 08'S; 20.IX.1957; G. Kuschel. – MNHN; 5 ♂ and 5 ♀; Los Riscos; 41° 13'S; 11.IV.1954; G. Kuschel. – Osorno prov.: FMNH; 20 ♂ and 10 ♀; Puyehue National Park, Antillanca road; 470 m; 20-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, Berlese, leaf & log litter, forest floor. – FMNH; 6 ♀; same data; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log litter, forest floor, voucher associated with larvae. – UNHC; 4 ♂; same data; A. Newton & M. Thayer – MHNG; 2 ♂; Puyehue National Park, Antillanca road; 500-1000 m; 18-20.XII.1984; S. & J. Peck; car netting. – FMNH (FMHD #85-996, #85-113) 1 ♂; Puyehue National Park, Anticura Repucura trail; 500 m; 06.II.1985; S. & J. Peck; forest litter. – MNHG; 15 ♂ and 15 ♀; same data; S. & J. Peck. – FMNH; 30 ♂ and 52 ♀; Puyehue National Park, 4.1 km E Anticura, trap site 662; 430 m; 19-26.XII.1982; A. Newton & M. Thayer; valdivian rainforest, vouchers associated with larvae, berlese, leaf & log litter, forest floor. – UNHC; 12 ♂ and 1 ♀; same data; A. Newton & M. Thayer. – FMNH; 4 ♂; same data; A. Newton & M. Thayer; valdivian rainforest, window trap 662. – FMNH (FMHD# 96-250); 17 ♂ and 2 ♀; Puyehue National Park, 4 km E Anticura; 40° 39.73'S 72° 08.10'W; 460 m; 30.XII.1996/30.I.1997; A. Newton & M. Thayer 985-1; valdivian rainforest w/large, *Saxegothaea,* flight intercept trap. – FMNH (FMHD #97-41); 12 ♂ and 14 ♀; same locality; 30.I.1997; A. Newton & M. Thayer 985-1; valdivian rainforest w/large, *Saxegothaea*, berlese, leaf and log litter. – FMNH (FMHD #97-40); 23 ♂ and 17 ♀; same data; A. Newton & M. Thayer 985-2; valdivian rainforest w/large, *Saxegothaea*, berlese, leaf and log litter. – FMNH (FMHD# 97-39); 24 ♂ and 39 ♀; same data; A. Newton & M. Thayer 985-3; valdivian rainforest w/large, *Saxegothaea* berlese, leaf & log litter. – FMNH (FMHD #97-4); 10 ♂ and 2 ♀; same locality; 01-30.I.1997; A. Newton & M. Thayer 985-2; valdivian rainforest w/large, *Saxegothaea,* flight intercept trap. – FMNH (FMHD# 97-5); 21 ♂; same locality; 01-30.I.1997; A. Newton & M. Thayer 985-3; valdivian rainforest w/large, *Saxegothaea,* flight intercept trap. – FMNH (FMHD #2002-90); 11 ♂ and 20 ♀; Puyehue National Park, Ruta 215; km 4.5 of Aduana station; 40° 40.23'S 72° 05.21'W; 580 m; 19.XII.2002; A. Newton, M. Thayer, D. J. Clarke & M. Chani 1071; valdivian rainforest, berlese, leaf & log litter. – FMNH (FMHD #85-933, #85-48); 1 ♂; 3 km S Maicolpué, Bahia Mansa; 200 m; 03. II.1985; S. & J. Peck. – MHNG; 8 ♂ and 3 ♀; same data; S. & J. Peck. – MHNG; 2 ♀; same locality; 21.XII.1984; S. & J. Peck. – FMNH (FMHD #96-247); 3 ♂ and 2 ♀; Hills S of Maicolpué; 40° 36.57'S 73° 44.91'W; 160 m; 30.XII.1996; A. Newton & M. Thayer 983; disturbed valdivian rainforest, berlese, leaf & log litter. – MHNG; 1 ♂; Pucatrihue, 65 km W Osorno, station 21; 40° 28'S 73° 43'W; 150 m; 04.XII.1984; D. Burckhardt; valdivian rainforest sifting of moss on dead tree trunks, branches and rocks an of vegetable detritus. – MHNG; 12 ♂ and 18 ♀; Puyehue National Park, Aguas Calientes; 500 m; 20.XII.1984; S. & J. Peck; forest litter on trail, sifting. – MHNG; 2 ♂; same locality; 20.XII.1984/08.II.1985; S. & J. Peck; FIT, derumbes forest trail. – MHNG; 32 ♂ and 48 ♀; Puyehue National Park, Aguas Calientes, station 25a; 400-500 m; 31.XII.1990/01.I.1991; M. Agosti & D. Burckhardt. – PHPC; 3 ♂ and 3 ♀; Puyehue National Park, near Termes Aguas Calientes, 26.2 km E Entre Lagos; 40° 44.130'S 72° 18.427'W; 460 m; 09-12.III.2008; H. Wood & C. Griswold. – FMNH (FMHD #96-244); 1 ♂; Puyehue National Park,

Antillanca road, 7.2 km above Aguas Calientes, 40° 45.55'S 72° 17.82'W; 660 m; 29.XII.1996/01.II.1997; A. Newton & M. Thayer 982; valdivian rainforest w/ *Saxegothaea* dominant, dense *Chusquea,* flight intercept trap. – MSNG; 2 ♂; Los Ñilques; TC-260; 13.I.1990; T. Cekalovic. – FMNH (FMHD #96-248); 1 ♂; 15.1 km W Puaucho; 40° 34.97'S 73° 37.68'W; 50 m; 30.XII.1996; A. Newton & M. Thayer 984; valdivian rainforest remnant in sm. ravine, w/large ferns, berlese, leaf & log litter. – UNHC; 1 ♂; 7.7 km NE Termas de Puyehue, site 664; 200 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log litter, forest floor. – Región Los Ríos: Ranco prov: MSNG; 1 ♂; 8 km S of Pichirropulli; TC-261; 13.I.1990; T. Cekalovic. – FMNH (FMHD #85-921, #85-36); 1 ♀; 34 km WNW La Union, station 36; 700 m; 17. XII.1984; S. & J. Peck; litter mixed evergreen forest. – MHNG; 81 ♂ and 102 ♀; same data; S. & J. Peck. – FMNH (FMHD #85-997, 85-114); 2 ♂; 35 km WNW La Union; 700 m; 07. II.1985; S. & J. Peck; litter mixed forest. – MHNG; 2 ♂; same data; S. & J. Peck. – MHNG; 3 ♂; same locality; 17.XII.1984; S. & J. Peck; mixed evergreen forest. – MHNG; 8 ♂; 35 km WNW La Union; 700 m; 17.XII.1984/07.II.1985; S. & J. Peck; FIT, mixed evergreen forest. – FMNH; 3 ♂ and 1 ♀; 4.1 km W Anticura, site 663; 270 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flight intercept (windows) trap. – UNHC; 3 ♂ and 1 ♀; same data; A. Newton & M. Thayer. – FMNH; 3 ♂ and 4 ♀; same locality; A. Newton & M. Thayer; valdivian rainforest, voucher associated with larvae. – Valdivia prov.: MHNG; 2 ♀; Cordillera Valdivia (bajo tierra); 120 m; 04-09.III.1955; L. E. Peña. – PHPC; 1 ♂; Oncol Park, 12 km NW Valdivia, Sendero Bonifacio, WDS-T-201; 39° 42'S 73° 19'W; 22.II.2008; W. D. Shepard; sifting litter. – FMNH (FMHD #97-18); 2 ♂; Rincón de La Piedra, turnoff, 14.8 km SE Valdivia; 39° 55' 32''S 73° 06' 27''W; 50 m; 11.I–01. II.1997; A. Newton & M. Thayer 990; disturbed valdivian rainforest, with *Nothofagus dombeyi* and *Podocarpus saligna*, flight intercept (windows) trap. – FMNH (FMHD #97-20); 27 ♂ and 43 ♀; same locality; 11.I.1997; A. Newton & M. Thayer 958; disturbed valdivian rainforest, with *Nothofagus dombeyi* and *Podocarpus saligna*, berlese, leaf & log litter. – Región Araucanía: Cautín prov.: MHNG; 1 ♂; Caburgua Lake; 01. XII.1978; T. Cekalovic. – MHNG; 2 ♂; Huerquehue National Park, station 16a; 800-900 m; 22-24.XII.1980; M. Agosti & D. Burckhardt; forest litter. – MHNG; 2 ♂ and 1 ♀; Huerquehue National Park, station 17a; 800 m; 22-25.XII.1980; M. Agosti & D. Burckhardt; forest litter. – Malleco prov.: FMNH (FMHD #85-1001, #85-118); 3 ♂; Purén, Natural Monument Contulmo; 350 m; 13.II.1985; S. & J. Peck; mixed forest litter, berlese. – FMNH (FMHD# 2002-64); 3 ♂ and 5 ♀; Natural Monument Contulmo, Sendero Lemu Mau; 38° 00.74'S 73° 11.13''W; 410 m; 08.XII.2002; D. J. Clarke & A. Solodovnikov 1059; *Nothofagus obliqua-Eucryphia cordifolia* w/fern & bamboo understory, sifted litter, hand-collected. – MHNG; 18 ♂ and 37 ♀; same data; S. & J. Peck. – UNHC; 4 ♂; 10 km W Purén, Natural Monument Contulmo; 240 m; 12.XII.1982; A. Newton & M. Thayer; mixed hdwd. forest with *Chusquea*, berlese, leaf & log litter, forest floor. – FMNH (FMHD #96-216); 1 ♂; Nahuelbuta National Park, Comallín, 8.2 km NW Los Portones entrance; area; 37° 48.21'S 73° 00.89'W; 1260 m; 21. XII.1996/07.II.1997; A. Newton & M. Thayer 974; *Nothofagus* ssp.-*Araucaria araucana* forest, flight intercept trap. – MNHN; 5 ♂ and 6 ♀; Mocha Island; 38° 20'S; 300 m; 12.X.1959; G. Kuschel. – MNHN; 1 ♀; same locality; 13.X.1959; G. Kuschel.

Achilia pachycera Jeannel, 1963

Additional material (150 ex.): CENTRAL CHILE: Región Araucanía: Malleco prov.: MNHN; 1 ♂; Nahuelbuta, N1W – MNHN; 1 ♂ and 1 ♀; Nahuelbuta, N3W – MNHN; 1 ♂ and 1 ♀; Nahuelbuta, N5W – MHNG; 1 ♂ and 1 ♀; Nahuelbuta National Park, station 30b; 37° 50'S 73° 00'W; 1100 m; 23.XII.1992; D. Burckhardt; sifting of moss on stone, dead wood and of vegetational debris in *Araucaria-Nothofagus dombeyi* forest along creak with river. – MHNG; 1 ♂; Nahuelbuta National Park, Piedra del Aquila, station 31b; 37° 48'S 73° 02'W; 1300 m; 24.XII.1992; D. Burckhardt; sifting of moss on rock and tree trunks and vegetational debris. – FMNH (FMHD #96-222); 2 ♂; Nahuelbuta National Park, 4.5 km W Los Portones entrance; 37° 49.25'S 72° 59.82'W; 1300 m; 21.XII.1996/07. II.1997; A. Newton & M. Thayer 975; *Nothofagus* ssp. emergent *Araucaria araucana, Chusquea* understory, flight intercept trap. – FMNH (FMHD #96-224); 59 ♂ and 81 ♀; same locality; 21.XII.1996; A. Newton & M. Thayer 975; *Nothofagus* ssp. emergent *Araucaria araucana, Chusquea* understory, berlese, leaf & log litter.

Achilia testacea Jeannel, 1962

Additional material (103 ex.): MNHN; 12 ♂ and 1 ♀; Chile. – CENTRAL CHILE: Región Los Lagos: Chiloé prov.: MHNG; 1 ♂; Chiloé, S-Chile; H. Franz. – MHNS; 1 ♀ (mislabeled as paratype of *Achilia testacea* n. 1691); Chiloé Island, Chepu; 15.X.1958; G. Kuschel. – MSNG; 2 ♂ and 3 ♀; same locality; TC-275; 19.II.1991; T. Cekalovic. – DBUC; 2 ♂ and 2 ♀; TC-275; same locality; 19.II.1991; T. Cekalovic. – MSNG; 1 ♀; same locality; TC-610; 20.I.2010; T. Cekalovic. – MHNG 1 ♂ and 1 ♀ ; Chiloé Island, Vilupulli; II.1993; T. Cekalovic. – MSNG; 1 ♂; same locality; TC-563; 23.I.1998; T. Cekalovic. – MHNG; 1 ♂; Chiloé Island, Huillinco Lake; 31.I.1983; T. Cekalovic. – MSNG; 4 ♀; same locality; TC-279; 22.II.1991; T. Cekalovic; ex *Chusquea* sp. – MSNG; 2 ♀; Chiloé Island, 1 km W Huillinco; TC-564; 24.I.1988; T. Cekalovic; berlese. – MHNG; 2 ♂ and 1 ♀; Chiloé Island, Río Pudeto; 28.II.1972; T. Cekalovic. – MHNG; 2 ♂; same locality; 10.II.1981; T. Cekalovic. – MSNG; 1 ♂ and 1 ♀; same locality; SyTC-226; 21.II.1989; S. & T. Cekalovic. – FMNH (FMHD #2002-068); 1 ♀; Quemchi, 11 km W of (11 km E Hwy 5); 42° 10.40'S 73° 35.73'W; 140 m; 10.XII.2002; A. Solodovnikov & A. Newton 1060; valdivian rainforest remnant w/thick bamboo understory; berlese, leaf & log litter. – FMNH (FMHD #97-24); 4 ♀; Colonia Yungay road to (3.6 km W Hwy) 5; 42° 59'S 73° 41'W; 90 m; 17.I.1997; A. Newton & M. Thayer 995; grazed secondary valdivian rainforest remnants, berlese, leaf & log litter. – FMNH (FMHD #2002-78); 1 ♀; Colonia Yungay road to, ca 4 km NW Ruta 5; 42° 59.12'S 73° 42.02'W; 110-115 m; 13.XII.2002; A. Solodovnikov & M. Thayer 1064; disturbed valdivian rainforest w/recent selective cutting, berlese, leaf & log litter. – FMNH (FMHD #97-25); 1 ♂; Miraflores, road to (0.6 km W Hwy 5); 42°46.73'S 73°47.71'S; 130 m; 17.I.1997; secondary valdivian rainforest; A. Newton & M. Thayer 994; berlese, leaf & log litter. – MSNG; 1 ♂; Chiloé Island, Cruce a Alcaldeo; TC-281; 22.II.1991; T. Cekalovic. – MSNG; 2 ♂ and 3 ♀; Chiloé Island, 5 km SW Chonchi; TC-560; 21.I.1998; T. Cekalovic. – MSNG; 2 ♀; same locality; TC-623; 25.I.2000; T. Cekalovic. – MSNG; 2 ♀; Chiloé Island, Puente La Caldera; TC-466; 15.II.1996, T. Cekalovic. – MSNG; 1 ♂; Chiloé Island, 1 km N of Puente Notuco; TC-528; 20.II.1997; T. Cekalovic. – MSNG; 2 ♂ and 3 ♀; Quinchao Island, Quetro; TC-559; 20.I.1998; T. Cekalovic. – DBUC; 1 ♂ and 2 ♀; same locality; 20.I.1998;

T. Cekalovic. – MSNG; 2 ♂ and 1 ♀; same locality; TC-582; 12.II.1999; T. Cekalovic. – MSNG; 1 ♂; Quinchao Island, Laguna Pulul; TC-615; 22.I.2000; T. Cekalovic. – Llanquihue prov.: MNHN; 1 ♂ and 1 ♀; Frutillar; 41° 08'S; 20.IX.1954; G. Kuschel. – MHNS; 1 ♀ (mislabeled as paratype of *Achilia testacea* n. 1693); same data. – MNHN; 1 ♀; Los Riscos; 41° 13'S; 11.IV.1954; G. Kuschel. – FMNH (FMHD #85-947, #85-63); 1 ♂; Lenca, 45 km SE Puerto Montt; 100 m; 25.XII.1984; S. & J. Peck; forest remnant, leaf stick litter, berlese. – FMNH (FMHD #97-29); 1 ♂; Puerto Montt, 50 km SW on Hwy 5, 0.7 km NE jct. to Maullín; 41° 43.20'S 73° 22.27'W; 60 m; 20.I.1997; A. Newton & M. Thayer 999; secondary valdivian rainforest remnants, berlese, leaf & log litter. – MSNG; 3 ♂ and 3 ♀; Cruce Abtao; SyTC-227; 21.II.1989; S. & T. Cekalovic. – DBUC; 1 ♂ and 1 ♀; same locality; 21.II.1989; S. & T. Cekalovic. – MHNG; 1 ♀; La Arena, 45 km SE Puerto Montt; 100 m; 25.XII.1984; S. & J. Peck. – Osorno prov.: MHNG; 1 ♂; environs of Osorno, S-Chile; H. Franz. – MHNG; 7 ♂ and 3 ♀; 3 km S Maicolpué, Bahìa Mansa; 21.XII.1984; S. & J. Peck; mixed forest litter. – (FMHD #85-933, #85-48); 1 ♂; same locality; 21.XII.1984; S. & J. Peck; litter, mixed forest litter. – FMNH (FMHD #85-994, #85-111); 1 ♀; same locality; 200 m; 03.II.1985; S. & J. Peck; mixed forest litter. – FMNH (FMHD# 96-247); 5 ♂ and 1 ♀; Hills S of Maicolpué; 40° 36.57'S 73° 44.91'W; 160 m; 30.XII.1996; A. Newton & M. Thayer 983; disturbed valdivian rainforest, berlese, leaf & log litter. – UNHC; 1 ♂; 7.7 km NE Termas de Puyehue, site 664; 200 m; 19-25.XII.1982; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log litter, forest floor. – Región Los Ríos: Valdivia prov.: MSNG; 1 ♀; Lago Calafquen, 2 km N of Coñaripe; TC-434; 26.I.1995; T. Cekalovic. – Región Araucanía: Cautín prov.: FMNH; 1 ♀; Bellavista, North shore Lago Villarica, site 655; 310 m; 15-30.XII.1982; A. Newton & M. Thayer; valdivian rainforest, flood debris forest stream. – FMNH; 1 ♂; Puente Pedregoso; 06.XII.1992; T. Cekalovic. – Región Bío Bío: Bío Bío prov.: MNHN; 1 ♀; Abanico; 37° 23'S; 17.V.1957; G. Kuschel. – Ñuble prov.: MHNS; 1 ♂ and 2 ♀ (mislabelled as paratypes of *Achilia frontalis* n° 1765, 1730 and 1741); – Chillàn; P. Germain. – MNHN; 4 ♀; Chillàn; P. Germain. – MHNG; 4 ♂; near Recinto, about 60 km E Chillàn, station 7a; 400-450 m; 12.XII.1990; M. Agosti & D. Burckhardt; forest litter. – MSNG; 1 ♀; Los Llohue; TC-299; 07.XII.1991; T. Cekalovic.

Achilia caracolana Jeannel, 1962

Additional material (318 ex.): CENTRAL CHILE: Región Los Lagos: Chiloé prov.: MHNG; 1 ♂; Chiloé Island, Piruquina; 26.II.1976; T. Cekalovic. – Región Araucanía: Cautín prov.: FMNH; 1 ♂ and 19 ♀; Ñielol National Park, near Temuco, site 652; about 250 m; 14-30.XII.1982; A. Newton & M. Thayer; native forest remnants with *Nothofagus*, vouchers associated with larvae, leaf & log litter, forest floor. – UNHC; 1 ♂; same data; A. Newton & M. Thayer. – Región Bío Bío: Arauco prov.: FMNH; 1 ♂; 16 km N Tres Pinos; 170 m; 12.XII.1982; A. Newton & M. Thayer; *Cupressus*, *Eucalyptus* etc. forest, berlese, leaf & log litter, forest floor. – Bío Bío prov.: MHNG; 1 ♂; Saltos del Laja, N of Los Angeles; H. Franz. – Concepción prov.: MHNS; 2 ♀ (mislabeled as paratypes of *Achilia caracolana* n° 1687-1688); Cerro Caracol; 24.V.1957; G. Kuschel. – MHNG; 1 ♀; same locality; 25.III.1977; T. Cekalovic. – FMNH; 11 ♀; same locality; TC-290; 14.IX.1991; T. Cekalovic – MSNG; 2 ♂ and 17 ♀; same locality; TC-297; 04.XII.1991, T. Cekalovic; *Chusquea* sp. – MSNG; 2 ♀; same locality; TC-298; 04.XII.1991, T. Cekalovic; ex *Peumus boldus* – FMNH; 1 ♂ and 14 ♀; same locality; TC-367; 17.XI.1993; T. Cekalovic. – DBUC; 3 ♂; same data; T. Cekalovic. – MSNG; 1 ♂ and 6 ♀; same locality; TC-484; 07.IX.1996; T. Cekalovic. – MSNG; 1 ♂ and 8 ♀; same locality; TC-506; 05.XII.1996, T. Cekalovic. – FMNH; 4 ♂ and 54 ♀; Cerro Caracol, Mirador Alemán; TC-368; 28.XI.1993; T. Cekalovic. – DBUC; 12 ♀; same data; T. Cekalovic. – MSNG; 1 ♂; same locality; TC-402; 28.III.1994; T. Cekalovic. – FMNH; 1 ♂; Nonguén; 25.IX.1976; T. Cekalovic. – FMNH; 1 ♂; Camino de Lirquen a Tomé; 10.VIII.1968; T. Cekalovic. – MHNG; 2 ♂ and 17 ♀; Concepción; 09.IV.1977; T. Cekalovic. – DBUC; 2 ♂ and 1 ♀; same data; T. Cekalovic. – MHNG; 4 ♂ and 19 ♀; Hualpén; 05.III.1977; T. Cekalovic. – DBUC; 1 ♂ and 1 ♀; same data; T. Cekalovic. – MHNG; 1 ♂; same locality; 09.III.1977; T. Cekalovic. – MHNG; 2 ♂ and 2 ♀; same locality; 01.I.1979; T. Cekalovic. – MHNG; 1 ♂; Pinares; 18.III.1973; T. Cekalovic. – MSNG; 11 ♂ and 13 ♀; Escuadron; TC-205; 03.IV.1988; T. Cekalovic; bajo *Chusquea* sp. – DBUC; 2 ♂ and 4 ♀; same data; T. Cekalovic. – MSNG; 1 ♂; same locality; TC-204; 02.IV.1988; T. Cekalovic; ex *Peumus boldus*. – MSNG; 3 ♂ and 3 ♀; same locality; TC-207; 16.IV.1988, T. Cekalovic. – MSNG; 1 ♂; Caleta Chome; TC-291; 21.IX.1991; T. Cekalovic. – MSNG; 1 ♂ and 2 ♀; same locality; TC-295; 30.XI.1991; T. Cekalovic; ex. *Peumus boldus*. – MSNG; 1 ♂; same locality; TC-511; 01.I.1997; T. Cekalovic. – MSNG; 1 ♂; Rocoto; 15.VI.1986; T. Cekalovic. – MSNG; 5 ♂ and 12 ♀; same locality; TC-294; 16.XI.1991; T. Cekalovic. – MSNG; 4 ♂ and 4 ♀; same locality; TC-26; 01.I.1971; T. Cekalovic. – MSNG; 19 ♀; Las Escaleras; TC-242; 24.IX.1989; T. Cekalovic. – MSNG; 2 ♂ and 3 ♀; same locality; TC-255; 05.XII.1989; T. Cekalovic. – MSNG; 1 ♂; same locality; TC-420; 04.I.1995; T. Cekalovic. – MSNG; 1 ♂; Collico; TC-188; 29.XII.1987; T. Cekalovic. – MSNG; 5 ♂ and 4 ♀; Lagunillas; TC-206; 10.IV.1988; T. Cekalovic. – MSNG; 1 ♂; Peniquillo; TC-516; 30.I.1997; T. Cekalovic. – Región Maule: Cauquenes prov.: FMNH (FMHD #81-146); 1 ♂; W of Cauquenes, Cayurranquil; 500 m; 23.I.1981; L. E. Peña; *Nothofagus glauca* litter. – Talca prov.: FMNH (FMHD #96-208); 1 ♀; Area de Protección Vilches, Piedras Tacitas area; 35° 36.53'S 71° 04.10'W; 1185 m; 17.XII.1996; A. Newton & M. Thayer 101; *Nothofagus* ssp. with shrubs along stream, berlese, leaf & log litter.

Achilia auriculata Jeannel, 1962

Additional material (4 ex.): CENTRAL CHILE: Región Bío Bío: Concepción prov.: MSNG; 1 ♂; Peniquillo; TC-311; 15.IX.1992; T. Cekalovic. – MHNG; 1 ♂; same data. – UNHC; 1 ♂ (only aedeagus) and 1 ♀; 8.4 km W of La Florida; 170 m; 02.I.1983; A. Newton & M. Thayer; subtropical xerophytic forest, berlese, leaf & log litter, forest floor. – FMNH; 1 ♀; Florida; 03.X.1977; T. Cekalovic.

Achilia ovallensis Jeannel, 1962

Additional material (3 ex.): CENTRAL-NORTHERN CHILE: Región Coquimbo: Limarí prov: MHNS; 3 ♀ (mislabelled as paratypes of *Achilia ovallensis* n° 1697-98, 1700); Ovalle; P. Germain.

Achilia frontalis Jeannel, 1962

Additional material (150 ex.): CENTRAL CHILE: Región Los Lagos: Chiloé prov.: MSNG; 4 ♂; Rio Pudeto; SyTC-226; 21.II.1989, S. & T. Cekalovic. – Llanquihue prov.: MNHN; 3 ♀ (as *A. bicornis*); Frutillar; 20.IX.1954; G. Kuschel. – MSNG;

1 ♂ and 9 ♀; Frutillar; TC-283; 23.II.1991; T. Cekalovic. – MHNG; 1 ♂; Frutillar Bajo, Universidad Chile Forest Reserve; 100 m; 22.XII.1984/02.II.1985; S. & J. Peck; FIT ravine mixed forest. – Osorno prov.: MHNG; 7 ♂ and 1 ♀; Puyehue National Park, Aguas Calientes, station 25a; 400-500 m; 31.XII.1990/01.I.1991; M. Agosti & D. Burckhardt. – DBUC; 1 ♂; same data; M. Agosti & D. Burckhardt. – PHPC; 1 ♂ and 1 ♀; Puyehue National Park, near Termes Aguas Calientes, 26.2 km E Entre Lagos; 40° 44.130'S 72° 18.427'W; 460 m; 09-12. III.2008; H. Wood & C. Griswold. – FMNH (FMHD #85-928, #85-43); 1 ♂; Puyehue National Park, Aguas Calientes; 500 m; 20.XII.1984; S. & J. Peck; forest litter on trail, sifting. – UNHC; 1 ♂; Puyehue National Park, Antillanca road; 470 m; 20-25. XII.1982; A. Newton & M. Thayer; valdivian rainforest, berlese, leaf & log litter, forest floor. – FMNH; 2 ♂ and 1 ♀; same data; A. Newton & M. Thayer. – DBUC; 2 ♂; same data; A. Newton & M. Thayer. – MSNG; 1 ♂; Los Ñilques; TC-260; 13.I.1990; T. Cekalovic. – Región Los Ríos: Ranco prov.: FMNH (FMHD #57-124); 1 ♀; Río Gol-Gol; 09-13.XI.1957; L. Peña; forest. – MHNG; 6 ♂ and 4 ♀; 34 km WNW La Union, station 36; 700 m; 17.XII.1984 S. & J. Peck; litter mixed evergreen forest. – FMNH (FMHD #85-921, #85-36); 1 ♂; same data; S. & J. Peck; litter mixed evergreen forest. – Valdivia prov.: PHPC; 1 ♂; 12 km NW Valdivia; WDST-201; 39° 42'S 73° 19'W; 21-22.II.2008; William D. Shepard; sifting litter. – Región Araucanía: Cautín prov.: MHNG; 1 ♂ and 6 ♀; Ñielol National Park, Temuco, site 652; 300 m; 13.XII.1984; S. & J. Peck; mixed evergreen forest. – UNHC; 3 ♂; same locality; about 250 m; 14-30.XII.1982; S. & J. Peck; native forest remnants w/ *Nothofagus* berlese, leaf & log litter, forest floor. – FMNH; 5 ♂ and 9 ♀; same data; S. & J. Peck. – DBUC; 3 ♀; same data; S. & J. Peck. – Malleco prov.: FMNH; 8 ♂ and 10 ♀; Contulmo National Park, 10 km W Purén; 240 m; 12.XII.1982; A. Newton & M. Thayer; mixed hdwd. forest with *Chusquea*, berlese, leaf & log litter, forest floor. – DBUC; 3 ♂ and 6 ♀; same data; A. Newton & M. Thayer. – UNHC; 3 ♂; same data; A. Newton & M. Thayer. – FMNH (FMHD #85-1001, #85-118); 3 ♂ and 5 ♀; Purén, Contulmo Natural Monument; 350 m; 13.II.1985; S. & J. Peck; mixed forest litter, berlese. – DBUC; 1 ♂; same data; S. & J. Peck; mixed forest litter, berlese. – FMNH (FMHD #85-904, #85-18); 1 ♀; same locality; 11.II.1984/13.II./1985; S. & J. Peck; mixed evergreen forest, carrion trap. – MHNG; 23 ♂ and 36 ♀; same locality; 350 m; 13.II.1985; S. & J. Peck; mixed forest litter, berlese. – DBUC; 1 ♂ and 1 ♀; same data; S. & J. Peck. – FMNH (FMHD# 2002-64); 2 ♂ and 7 ♀; Contulmo Natural Monument, Sendero Lemu Mau; 38° 00.74'S 73° 11.13''W; 410 m; 08.XII.2002; A. Newton & A. Solodovnikov 1059; *Nothofagus obliqua-Eucryphia cordifolia* w/fern & bamboo understory, sifted litter, hand-collected. – Región Bío Bío: Arauco prov.: MHNG; 1 ♂; Cordillera of Nahuelbuta; 18.III.1966; T. Cekalovic. – Bío Bío prov.: MNHN; 3 ♂ and 1 ♀; Pemehue; 38° 00'S; 1896; P. Germain. – MNHN; 1 ♀; Pemehue; P. Germain. – Concepción prov.: MHNG; 1 ♂ and 3 ♀; Pinares; 17.II.1979; T. Cekalovic. – MSNG; 1 ♂ and 6 ♀; Estero Nonguén; TC-544; 20.I.1997; T. Cekalovic. – Ñuble prov.: MHNG; 2 ♂ and 7 ♀; near Recinto, about 60 km E Chillàn, station 7a; 400-450 m; 12.XII.1990; M. Agosti & D. Burckhardt; forest litter. – MHNS; 3 ♀ (mislabelled as paratypes of *Achilia testacea* n. 1705, 1749 and 1758); Chillàn; P. Germain. – Región Valparaíso: Valparaíso prov.: MNHN; 1 ♀; Quillota.

Achilia longispina Franz, 1996

Additional material (12 ex.): CENTRAL CHILE: Región Valparaíso: Valparaíso prov.: NHMW (coll. Franz); 2 ♂ and 9 ♀; Mina de la Disputada (now Mina los Bronces), Anden bei Santiago de Chile; 3000-3400 m; 19.XI.1968; H. Franz. – MHNG; 1 ♂; same data; H. Franz.