

## RECORDS AND DESCRIPTIONS OF CHILEAN CRANE-FLIES, TIPULIDAE (DIPTERA) Part. I.

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El autor describe tres especies nuevas de la isla de Chiloé: *Limonia (Zelandoglochina) ofella*, *Austrolimnophila (Austroliminophila) tergifera* y *Aphrophila antennata*, allega nuevas características de algunas ya descritas, y extiende el área de dispersión geográfica de otras de las especies mencionadas en el presente trabajo.

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In the past quarter of a century there has been a vast increase in our knowledge of the Diptera of Chile. The impetus that began this increase was the so-called Edwards-Shannon Expedition in late 1926, followed by intensive work and collecting by several entomologists in Chile. As regards the Tipulidae these include primarily the collections made by Father Guillermo Kuschel on the Juan Fernández Islands in 1951-1952 (Alexander) (1) and the rich materials secured by Luis E. Peña in many parts of the Republic. Further important collections were made by Professor Dillman S. Bullock and his students, Dr. Edwyn P. Reed, Fathers Felix Jaffuel and Anastasio Pirion, and by the late Kurt Wolfgang Wolffhügel. Still more recently the extensive collections made in Chile by Dr. Edward S. Ross and Dr. Abe Ezra Michelbacher, with their wives, belonging to the California Academy of Sciences, have been made available to me for study and will be discussed in later papers. Altogether some 10,000 specimens of these flies have been made available for study and have completely revolutionized our knowledge of the Tipulid fauna of Chile. The work of continuing the study has been greatly facilitated by the appearance of the outstanding Catalogue of the Diptera of Chile, by Professor Carlos Stuardo Ortiz (2).

In order to make available some of the more important records adding to our knowledge of seasonal and geographical distribution I have planned a series of papers to be issued under the present title. In these

(1) ALEXANDER, CHARLES P. *Los insectos de las islas Juan Fernández. 5. Tipulidae (Diptera)*. Rev. Chilena de Ent. 2: 35-80, 47 figs.; 1952.

(2) STUARDO ORTIZ, CARLOS. *Catálogo de los Dípteros de Chile*, pp. 1-253; 1946.

will be considered many of the still poorly known species, together with various novelties that may be discovered. In the present report I am stressing primarily materials taken by Peña in Malleco (Curacautín, altitude 400 meters, December 1950; Termas Río Blanco, altitude 1.050 meters, March 1951) and more recently in the Island of Chiloé, one of the most interesting and least known localities in the Republic.

From my notes it appears that the earliest Tipulidae taken on Chiloé were secured in 1920 by Professor J. Chester Bradley, now President of the International Commision or Zoological Nomenclature. Bradley secured materials at Ancud on April 3rd and at Butalcura, 30 miles distant, on April 5th. His collections were made in early winter and included at least one species not taken since. The Edwards-Shannon Expedition visited Chiloé between December 17 and 23, 1926 (Ancud, December 17-19; Puntra, December 19; Castro, December 20-22; Mechueque Island, December 23 (3). The largest collections so far made on the island are those by Peña between January 6 and February 14, 1952 (Aucar, January 6-15; Ancud, January 20-23; Río Coluco, January 30; Toi-Goi, February 1-3; Aulen, February 4-8; between Aulen and Duhatao, February 8; Chepu, February 8-14).

In order to facilitate reference in the present series of reports I am numbering the various species and am supplying the year of original description. By the latter date the full reference may be found in the Stuardo Catalogue or in later volumes of the Zoological Record.

#### TIPULINAE

1. **Longurio (Longurio) nociva** Alexander (in press). Chiloé: Aulen, February 8, 1952; Toi-Goi, February 1-3, 1952 (Peña).
2. **Holorusia (Holorusia) decorata araucana** Alexander, 1929. Curacautín, December 14, 1950 (Peña).
3. **Holorusia (Holorusia) delpontei** Alexander, 1929. Río Blanco, March 5-27, 1951 (Peña).
4. **Holorusia (Ischnotoma) guzmani** Alexander, 1951. Chiloé: Aucar, January 6-15, 1952 (Peña).
5. **Tipula (Eumicrotipula) bigotiana** Alexander, 1920. Chiloé: Chepu, February 10-14, 1952 (Peña).

(3) EDWARDS, F. W. *Insect collecting in the southern Andes*. Nat. Hist. Mag., Brit. Mus. (Nat. Hist.) 1: 111-125, figs.; 1927.

EDWARDS, F. W. *An account of a collecting trip to Patagonia and Southern Chile*. IV. Internat. Congress Ent. 2: 416-417; 1929.

EDWARDS, F. W. *Diptera of Patagonia and South Chile*, Part I, Introduction, vii-xiv, map.; 1929.

EDWARDS, F. W., and R. C. SHANNON. *Expedición entomológica Argentino-Británica al Noroeste de la Patagonia*. Rev. Inst. Bacteriológico, 4, n.º 7: 643-661; 1927.

6. **Tipula (Eumicrotipula) crepera** Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña).
7. **Tipula (Eumicrotipula) crossospila** Alexander, 1929. Chiloé: Aucar, January 6-15, 1952 (Peña).
8. **Tipula (Eumicrotipula) duseni** Alexander, 1920. Río Blanco, March 5-27, 1951 (Peña). Chiloé: Aulen, February 4, 1952 (Peña).
9. **Tipula (Eumicrotipula) glaphyroptera** Philippi, 1865. Chiloé: Aucar, January 6-15, 1952; Chepu, February 10-14, 1952 (Peña).
10. **Tipula (Eumicrotipula) jaennickeana** Alexander, 1929. Chiloé: Aucar, January 6-15, 1952 (Peña).
11. **Tipula (Eumicrotipula) latifolia** Alexander, 1944. Río Blanco, March 5-27, 1951 (Peña).
12. **Tipula (Eumicrotipula) microspilota** Alexander, 1928. Chiloé: Aucar, January 6-15, 1952 (Peña).
13. **Tipula (Eumicrotipula) petalura** Alexander (in press). Chiloé: Chepu, February 10-14, 1952 (Peña).
14. **Tipula (Eumicrotipula) pirioni** Alexander, 1928. Curacautín, December 6-20, 1950 (Peña).
15. **Tipula (Eumicrotipula) satrapa** Alexander, 1951. Chiloé: Río Coluco, January 30, 1952 (Peña).

#### CYLINDROTOMINAE

16. **Stibadocerina chilensis** Alexander, 1929. Chiloé: Aulen, February 8, 1952; Río Coluco, January 30, 1952 (Peña).

#### LIMONIINAE

##### Limoniiini

17. **Limonia (Limonia) chilensis** Alexander, 1913. Curacautín, December 8, 1950 (Peña).
18. **Limonia (Limonia) seposita** Alexander, 1929. Curacautín, December 10, 1950; Río Blanco, March 5-27, 1951 (Peña).
19. **Limonia (Dicranomyia) cautinensis** Alexander, 1941. Río Blanco, March 5-27, 1951 (Peña).
20. **Limonia (Dicranomyia) praevia** Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña).
21. **Limonia (Dicranomyia) subflavida** Alexander, 1929. Curacautín, December 8, 1950 (Peña).
22. **Limonia (Dicranomyia) trituberculata** Alexander, 1929. Curacautín, December 10, 1950 (Peña). Chiloé: Aucar, January 6-15, 1952 (Peña).

23. **Limonia (Zelandoglochina) angelica** Alexander, 1929. Angol, September 28, 1931 (Bullock); Curacautín, December 8, 1950 (Peña). Chiloé: Aucar, January 6-15, 1952; Río Coluco, January 30, 1952; Toi-Goi, February 1-3, 1952 (Peña).

Male hypopygium (Lámina I, fig. 4) with the tergite,  $9t$ , transverse, narrowed outwardly, the posterior border very gently emarginate, the lobes correspondingly low, each with about ten long setae. Dorsal dististyle,  $d$ , unusually long and slender, strongly curved to sinuous, the tip acute. Ventral dististyle,  $d$ , relatively small, its total area about equal to that of the basistyle; rostral prolongation large and powerful, spines two, placed close together on the outer margin before apex, arising from small basal tubercles; inner spine straight, the outer one slightly curved on its outer fourth. Gonapophysis,  $g$ , with the mesal-apical lobe a very slender gently curved spine.

24. **Limonia (Zelandoglochina) flabellifera** Alexander, 1929. Chiloé: Aucar, January 6-15, 1952 (Peña).

25. **Limonia (Zelandoglochina) miniata** Alexander, 1929. Río Blanco, March 5-27, 1951 (Peña). Chiloé: Chepu, February 8, 1952 (Peña).

26. **Limonia (Zelandoglochina) multiarmata** Alexander, 1929. Curacautín, December 6-24, 1950 (Peña).

27. **Limonia (Zelandoglochina) nodulifera** Alexander, 1929. Curacautín, December 6-24, 1950 (Peña). Chiloé: Aulen-Duhatao, February 6-8, 1952 (Peña).

28. **Limonia (Zelandoglochina) ofeila**, sp. n. (Lámina I, figs. 1, 5).

General coloration of thoracic notum reddish yellow, the praescutum with a black central stripe; pleura obscure yellow, with a dark brown longitudinal stripe; legs obscure yellow, tarsi darker; rostrum short, only about one-fourth as long as body; male hypopygium with the posterior border of the ninth tergite nearly truncate; dorsal dististyle a moderately curved black rod; ventral dististyle with its rostral prolongation beyond the spines unusually slender, spines long and straight, arising from small basal tubercles; gonapophysis with mesal-apical lobe blackened, narrowed to the nearly acute tip.

Male.—Length, excluding rostrum, about 6 mm.; wing 6,5 mm.; rostrum about 1,5 mm.

Rostrum relatively short, dark brown. Antennae black; flagellum nodulose, the basal segments broadly oval with abrupt apical necks, outer segments passing into oval, the necks even longer but more slender. Head dark gray; anterior vertex narrower than the diameter of the scape.

Pronotum dark brown. Mesonotal praescutum reddish yellow, with a broad conspicuous central stripe, the lateral stripes obsolete; scutum yellow medially, the lobes extensively infuscated; scutellum yellow;

postnotum light brown. Pleura and pleurotergite obscure yellow with a conspicuous dark brown longitudinal stripe extending from the cervical region to the abdomen, passing beneath the root of the halteres. Halteres with stem yellow, knob infuscated. Legs with the coxae and trochanters yellow; femora and tibiae obscure yellow; tarsi passing into brown. Wings (Lámina I, fig. 1) tinged with gray, the prearcular field restrictedly pale yellow; stigma oval, pale brown; a faint brown seam along vein  $Cu$  in cell  $M$ , with narrower seams over the cord and outer end of cell  $1st\ M_2$ ; veins brown, yellow in the prearcular field. No macrotrichia in wing cells. Venation:  $Sc_1$  ending shortly beyond origin of  $Rs$ , the longer  $Sc_2$  near its tip; free tip of  $Sc_2$  and  $R_2$  pale, in transverse alignment;  $m-cu$  at or shortly beyond the fork of  $M$ .

Abdomen dark brown, the disks of the tergites vaguely paler; hypopygium more yellowed. Male hypopygium (Lámina I, fig. 5) with the tergite,  $9t$ , transverse, the posterior border nearly truncate or very vaguely emarginate. Basistyle,  $b$ , with the ventromesal lobe oval, strongly narrowed at base. Dorsal dististyle,  $d$ , a moderately curved black rod, narrowed to the acute tip. Ventral dististyle,  $d$ , relatively small, its total area less than twice that of the basistyle; rostral prolongation beyond the spines very slender; spines long and straight, placed at near midlength of the prolongation, the outermost a little shorter, both arising from small inconspicuous tubercles. Gonapophysis,  $g$ , with the mesal-apical lobe blackened, narrowed to the nearly acute tip.

Holotype, ♂, CHILOÉ: Aulen — Duhatao, February 6 — 8, 1952 (Peña).

Generally similar in appearance to *Limonia (Zelandoglochina) tenipalpis* Alexander, differing especially in the short rostrum and in the structure of the male hypopygium, particularly the ventral dististyle and gonapophysis.

29. ***Limonia (Zelandoglochina) omissistyla*** Alexander, 1929. Curacautín, December 6-21, 1950 (Peña). Chiloé: Aucar, January 6-15, 1952 (Peña).

30. ***Limonia (Zelandoglochina) parvispinosa*** Alexander, 1928. Valparaíso, September 20, 1932 (Reed). Chiloé: Aucar, January 6-15, 1952 (Peña).

Male hypopygium (Lámina I, fig. 6) with the tergite,  $9t$ , transverse, the posterior border virtually truncate to very feebly emarginate, the border thickened. Basistyle,  $b$ , relatively small. Dorsal dististyle,  $d$ , a moderately curved rod, its apex suddenly narrowed into an acute spine. Ventral dististyle,  $d$ , large and fleshy, its area about one-half greater than that of the basistyle; rostral prolongation long and very slender, the two spines placed on outer margin at near midlength, very close together

at origin. Gonapophysis, *g*, with the mesal-apical lobe darkened, relatively broad, its extreme tip apiculate.

31. **Limonia (Zelandoglochina) pervincta percelestis** Alexander (in press). Curacautín, December 19, 1950 (Peña).

32. **Limonia (Zelandoglochina) setulipennis** Alexander, 1928.

The types were from Concepción, collected in October 1927 by Jaffuel and Pirion. The male hypopygium has not been figured.

Male hypopygium (Lámina I, fig. 7) with the tergite, *9t*, unusually large, nearly as long as the breadth at midlength, narrowed posteriorly, terminating in two flattened lobes that are separated by a very narrow notch; setae long but relatively sparse, almost restricted to the bases of the lobes. Basistyle, *b*, with the ventromesal lobe of moderate size. Dorsal dististyle, *d*, a strongly curved sickle, narrowed to the long acute point, the outer surface with sparse microscopic appressed spinules. Ventral dististyle, *d*; unusually small, its total area much less than that of the basistyle; rostral prolongation long, with a single spine placed almost at tip, the spine evidently formed by the fusion of two elements. Gonapophysis, *g*, blackened, the ventro-mesal lobe a long-triangular blade. Aedeagus, *a*, unusually long and narrow.

33. **Limonia (Zelandoglochina) tenuipalpis** Alexander, 1928.

The types were from Marga-Marga and Concepción, collected in September and October 1927 by Jaffuel and Pirion. Also from Valparaíso, September 20, 1932, taken by E. P. Reed.

Male hypopygium (Lámina I, fig. 8) with the tergite, *9t*, transverse, the posterior border very shallowly emarginate, the lobes correspondingly low and inconspicuous. Dorsal dististyle, *d*, a gently curved blade that narrows to the acute tip. Ventral dististyle, *d*, fleshy, its total area roughly equal to that of the basistyle; rostral prolongation narrow, with two very long and slender spines that are fully as long as the prolongation itself; spines placed on face of prolongation, widely separated, the outermost a little shorter and slightly curved. Gonapophysis, *g*, pale, the mesal-apical lobe a flattened blade, the small abrupt tip more blackened.

34. **Limonia (Zelandoglochina) torticornis** Alexander, 1928.

The types were from Marga-Marga and Concepción, taken between August 15 and October 10, 1927, by Jaffuel and Pirion. Later secured at Valparaíso, September 20, 1932, by E. P. Reed. The very distinctive male hypopygium had not been figured.

Male hypopygium (Lámina I, fig. 9) with the tergite, *9t*, transverse, only slightly more narrowed outwardly, the posterior border very gently emarginate, the lobes correspondingly low, the setae placed far laterad. Basistyle, *b*, elongate, the ventromesal lobe of unusual shape, as shown, terminating in a long fingerlike lobe. No dorsal dististyle. Ventral dististyle, *d*, with the body very small, the unusually long rostral prolongation

arising abruptly. Gonapophysis, *g*, mitten-shaped, the thumb portion short, the palm nearly truncate across the apex. Aedeagus, *a*, at apex with two strongly divergent lobes.

35. **Tonnoiromyia patagonica** Alexander, 1929.

Lago Llanquihue, February 14, 1943 (Melland). *Chiloé*: Aucar, January 6-15, 1952; Aulen, February 8, 1952; Chepu, February 10-14, 1952; Río Coluco, January 30, 1952; Toi-Goi, February 1-3, 1952 (Peña).

36. **Helius (Helius) araucariae** Alexander, 1945. *Chiloé*: Aucar, January 6-15, 1952 (Peña).

### Pediciini

37. **Pedicia (Tricyphona) peñai** Alexander (in press). Río Blanco, March 5-27, 1951 (Peña).

### Hexatomini

38. **Edwardsomyia chiloensis** Alexander, 1929. *Chiloé*: Aucar, January 6-15, 1952 (Peña).

39. **Austrolimnophila (Limnophilella) patagonica** (Alexander, 1928). Río Blanco, March 5-27, 1951 (Peña). *Chiloé*: Chepu, February 10, 1952 (Peña).

40. **Austrolimnophila (Austrolimnophila) chiloéana** Alexander (in press). *Chiloé*: Aucar, January 6-15, 1952; Río Coluco, January 30, 1952 (Peña).

41. **Austrolimnophila (Austrolimnophila) hazelae** Alexander, 1929. Río Blanco, March 5-27, 1951 (Peña). *Chiloé*: Chepu, February 8-10, 1952 (Peña).

42. **Austrolimnophila (Austrolimnophila) joana** Alexander, 1929. *Chiloé*: Aulen-Duhatao, February 6-8, 1952; Toi-Goi, February 3, 1952 (Peña).

43. **Austrolimnophila (Austrolimnophila) macropyga** Alexander, (in press). *Chiloé*: Chepu, February 10-14, 1952 (Peña).

44. **Austrolimnophila (Austrolimnophila) merklei** Alexander, 1928. Cerros de Nahuelbuta, altitude 180 meters, April 25, 1952; Traiguén, May 7, 1950 (Bullock).

45. **Austrolimnophila (Austrolimnophila) microsticta** Alexander, 1929. Cerros de Nahuelbuta, November 1, 1938 (Bullock); Río Blanco, March 27, 1951 (Peña); Cayutúe, Lago Todos los Santos, January 15, 1933 (Reed), November 13, 1933 (Wolffhügel). *Chiloé*: Chepu, February 10-14, 1952; Toi-Goi, February 1-3, 1952 (Peña).

46. **Austrolimnophila (Austrolimnophila) tergifera**, sp. n. (Lámina I, figs. 2, 10).

Size small (wing, 7,5 mm. or less); general coloration of thorax reddish yellow, the praescutum patterned with brown; wings hyaline, unpatterned except for the pale brown stigma; male hypopygium with the median area of tergite produced into a sclerotized structure that bears slender divergent arms near apex; outer dististyle at near two-thirds its length produced into a stout lobe, the apex abruptly narrowed; gonapophysis appearing as a flattened blade, the outer margin with four retrorse teeth or spines.

Male.—Length about 5,5 — 6 mm.; wing 6,5 — 7,5 mm.; antenna about 1,4 — 1,5 mm.

Female.—Length about 6,5 — 7 mm.; wing 7,3 — 7,5 mm.

Rostrum and palpi black. Antennae with the scape yellow, the remainder black; flagellar segments subcylindrical, the terminal one shortest; longest verticils nearly equal to the segments. Front yellowed; vertex brown, the orbits light gray.

Pronotum brown, narrowly paler behind, including the pretergites. Mesonotum reddish yellow, the praescutum with three brown stripes, the median one broad and conspicuous, the lateral pair subobsolete; posterior sclerites of notum and the pleura clearer yellow. Halteres elongate, stem pale, knob infuscated. Legs with the coxae and trochanters pale yellow; remainder of legs pale brown, the tarsi slightly darker. Wings (Lámina I, fig. 2) hyaline, variegated only by the very pale brown to scarcely indicated stigma; veins and macrotrichia brownish black. Venation:  $Sc_1$  ending beyond fork of  $R_{2+3+4}$ ,  $Sc_2$  near its tip;  $R_{1+2}$  bent strongly into costa at tip;  $R_{2+3+4}$  nearly twice the basal section of  $R_5$ ; cell  $M_1$  deep;  $m-cu$  about its own length beyond fork of  $M$ ; atrophied vein  $Cu_2$  becoming obsolete some distance before  $m-cu$ ; no trace of accessory veins behind the Anal veins.

Abdominal tergites dark brown; sternites more bicolored, pale brown, their posterior borders broadly obscure yellow; hypopygium, especially the styli, more yellowed. Male hypopygium (Lámina I, fig. 10) entirely distinctive. Ninth tergite,  $9t$ , transverse, the posterior border truncate, with the outer lateral angles produced into glabrous lobes; median area produced caudad into a powerful structure that diverges into slender arms on either side of apex, the latter extended into two smaller points, with carinae extending backward from them. Apex of basistyle,  $b$ , on mesal face with a lobe that bears dense long silken setae. Outer dististyle,  $d$ , stout, at near two-thirds the length produced into a stout lobule, the apical part abruptly narrowed into a gently curved rod. Inner dististyle,  $d$ , smaller and more slender. Gonapophysis,  $g$ , appearing as a flattened yellow blade, its outer margin with four retrorse teeth or spines.

Holotype, ♂, CHILOÉ: Chepu, February 4, 1952 (Peña). Allotopotype, ♀, pinned with type. Paratopotypes, 1 ♂, 1 ♀, February 10-14, 1952; paratype, 1 ♂, Río Coluco, January 30, 1952 (Peña).

The most similar regional small members of the genus with unpatterned wings include *Austrolimnophila* (*Austrolimnophila*) *chiloéana* Alexander and *A.* (*A.*) *joana* Alexander, both of which are readily told by the entirely different male hypopygia.

47. ***Austrolimnophila* (*Austrolimnophila*) *tremula*** Alexander, 1929. Río Blanco, March 5-27, 1951 (Peña); Riñihue, Valdivia, February 8, 1948 (Peña); Cayutué, January 15, 1933 (Reed). Chiloé: Aucar, January 6-15, 1952; Chepu, February 8-14, 1952; Río Coluco, January 30, 1952 (Peña).
48. ***Austrolimnophila* (*Austrolimnophila*) *xanthoptera cayutuensis*** Alexander, 1944. Chiloé: Chepu, February 10-14, 1952 (Peña).
49. ***Polymera albiditarsis*** Alexander (in press). Chiloé: Ancud, January 23, 1952 (Peña).
50. ***Mesolimnophila lutea*** (Philippi, 1865). Curacautín, December 19-21, 1950 (Peña).
51. ***Limnophila araucania macracantha*** Alexander, 1951. Curacautín, December 8-14, 1950 (Peña).
52. ***Limnophila bullockiana*** Alexander, 1939. Río Blanco, March 5-27, 1951 (Peña).
53. ***Limnophila feriata*** Alexander, 1929. Chiloé: Aulen, February 8, 1952; Chepu, February 1-3, 1952 (Peña).
54. ***Limnophila inculta*** Alexander, 1929. Chiloé: Chepu, February 10-14, 1952 (Peña).
55. ***Limnophila lyra*** Alexander, 1951. Curacautín, December 14, 1950 (Peña).
56. ***Limnophila nemorivaga*** Alexander, 1929. Chiloé: Aulen, February 8, 1952; Chepu, February 8-9, 1952 (Peña).
57. ***Limnophila sparsissima*** Alexander, 1929. Chiloé: Aucar, January 15, 1952 (Peña).
58. ***Limnophila tuber*** Alexander (in press). Chiloé: Chepu, February 10, 1952 (Peña).
59. ***Shannonomyia aenigmatica*** Alexander, 1929. Cerros de Nahuelbuta, November 1, 1938 (Bullock); Río Blanco, March 5-27, 1951 (Peña); Tres Pinos, near Temuco, January 28, 1943 (Melland). Chiloé: Aucar, January 6-15, 1952; Chepu, February 10-14, 1952 (Peña).
60. ***Gynoplistia* (*Paralimnophila*) *pallitarsis*** Alexander, 1929. Curacautín, December 8, 1950 (Peña). Chiloé: Ancud, January 30, 1952; Chepu, February 10-14, 1952 (Peña).
61. ***Gynoplistia* (*Gynoplistia*) *biarmata*** Alexander, 1931. Chiloé: Chepu, February 10-14, 1952 (Peña).

Differs from the type in the still more accentuated spinous condition of the parts of the phallosome. Interbases or lateral apophyses long-trispinous, the slightly unequal shorter basal branches approximately

one-half as long as the terminal spine. Inner apophyses appearing as strongly decussate spines lying across the very small aedeagus.

62. *Gynoplistia* (*Gynoplistia*) *bicolor* (Philippi, 1865). *Chiloé*: Chepu, February 10, 1952 (Peña).

63. *Gynoplistia* (*Gynoplistia*) *hylonympha* Alexander, 1929. Curacautín, December 8, 1950 (Peña).

64. *Gynoplistia* (*Gynoplistia*) *variata flavidula* Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña).

65. *Gynoplistia* (*Gynoplistia*) *variicalcarata* Alexander, 1929. *Chiloé*: Ancud, January 23, 1952 (Peña).

66. *Atarba* (*Ischnothrix*) *ignithorax* Alexander, 1929. Curacautín, December 8, 1950 (Peña).

67. *Atarba* (*Ischnothrix*) *tenuissima* Alexander, 1929. Volcán Llaima, near Temuco, January 28, 1943 (E. Melland).

### Eriopterini

68. *Gnophomyia* (*Gnophomyia*) *chilota* Alexander, 1929. *Chiloé*: Aucar, January 6-15, 1952 (Peña).

69. *Aphrophila antennata*, sp. n. (Lámina I, figs. 3, 11).

General coloration of mesonotal praescutum obscure yellow with four brown stripes, the intermediate pair very narrow, separated by a weakly elevated line; antenna (male) unusually long for a member of the genus; femora yellow, the tips narrowly and abruptly brownish black; wings subhyaline, the short-oval stigma dark brown;  $Rs$  about one-third longer than  $R_{2+3+4}$ ; male hypopygium with the dististyle elongate, more expanded beyond midlength, thence suddenly narrowed into a long slender spine; outer margin of dilated portion elevated into a crest of flange.

Male.—Length about 6,5 mm.; wing 7,2 mm.; antenna about 2,9 mm.

Palpi and the very reduced rostrum black. Antenna (Lámina I, fig. 11) unusually long for a member of the genus, as shown by the measurements; scape and pedicel light brown, flagellum black; flagellar segments long-cylindrical, the intermediate ones about four times as long as thick, exceeding the verticils; segments with an abundant dense pale pubescence, much shorter than the verticils. Head brown.

Pronotal scutellum and pretergites yellow. Mesonotal praescutum obscure yellow with four brown stripes, the intermediate pair very narrowly separated by a weakly elevated line; lateral stripes remote from the central pair; scutum yellow, each lobe extensively darkened; scutellum brown, postnotum still darker. Pleura brown, darker dorsally, the dorsal sternopleurite paler. Halteres yellow. Legs with the coxae weakly infuscated; trochanters obscure yellow; femora yellow, the tips narrowly and

abruptly brownish black; tibiae and basitarsi obscure yellow, the tips darkened, tarsi passing into dark brown. Wings (Lámina I, fig. 3) subhyaline, the base more yellowed; stigma short-oval, dark brown; veins brown, the prearcular ones and outer end of  $Sc$  paler. Venation:  $R_s$  about one-third longer than  $R_{2+3+4}$ ;  $R_{2+3}$  much shorter than  $R_2$  to nearly lacking; basal section of  $R_5$  long, weakly angulated or strongly arcuated at origin;  $m\text{-}cu$  about one-half its length beyond fork of  $M$ . The left wing of type has cell  $M_2$  open by the atrophy of  $m$ .

Abdomen brownish black throughout. Male hypopygium (Lámina I, fig. 11) with the dististyle,  $d$ , elongate, more expanded beyond midlength, thence suddenly narrowed into a long slender spine; outer margin of the dilated portion elevated into a crest or flange, without numerous individual spinous points, as in *coronata* but provided with long yellow setae; lower margin of dilated part with long black setae.

Holotype, ♂, CHILOÉ: Aucar, January 6-15, 1952 (Peña).

The most similar species is *Aphrophila coronata* Alexander, which is somewhat similar in coloration of the body and legs, differing especially in the short antennae and in the structure of the male hypopygium, particularly the dististyle. There also seems to be important differences in the structure of the ninth tergite but this structure is not well preserved in the unique type of the present fly.

70. ***Aphrophila coronata* Alexander, 1944.** Curacautín, December 5-21, 1950 (Peña).

71. ***Aphrophila viridinervis* Alexander, 1934.**

*Aphrophila viridinervis* Alexander; Rev. Chilena Hist. Nat., 38: 177-179, fig. ven.; 1934.

*Aphrophila viridinervis* Alexander; Rev. Chilena Hist. Nat., 43: 176; 1939.

*Aphrophila viridinervis* Alexander; Bol. Dept. San. Veg., 3: 134; 1944.

The type was from Cunco, Chile, taken in January 1930, collector unknown. Later (1944 reference) it was recorded from Aysén, taken in February 1934 by Pirion. Cayutúe, January 18, 1939 (Wolffhügel). CHILOÉ: Aucar, January 6-15, 1952 (Peña).

While the female sex has the wing veins conspicuously light green, as discussed in the earlier papers, the male sex, which seems to be correctly associated, shows no indication of this color. Here the veins are brown to dark brown, with no green tints. Venation:  $R_2$  varying from about its own length to twice  $R_{2+3}$ . Male hypopygium with the dististyle (Lámina I, fig. 12,  $d$ ) terminating in three unequal spines or lobes, the outermost spine small, the lower one much larger, the innermost obtuse and lobelike; more than the outer half of the dorsal crest of style thickened, entirely smooth and virtually glabrous; posterior part of crest with strongly retrorse yellow setae.

72. **Amphineurus (Rhamphoneurus) extraordinarius** Alexander, 1938. Río Blanco, March 20, 1951 (Peña). *Chiloé*: Aucar, January 6, 1952; Aulen, February 8, 1952; Chepu, February 10, 1952; Toi-Goi, February 1-3, 1952 (Peña).

73. **Amphineurus (Rhamphoneurus) glabristylatus** Alexander, 1929. Río Blanco, March 27, 1951 (Peña).

74. **Amphineurus (Rhamphoneurus) insanus** Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña). *Chiloé*: Aulen, February 8, 1952; Chepu, February 10-14, 1952 (Peña).

75. **Amphineurus (Rhamphoneurus) nothofagetorum** Alexander, 1929. *Chiloé*: Aulen, February 4, 1952 (Peña).

76. **Amphineurus (Rhamphoneurus) sanus** Alexander, 1929. *Chiloé*: Aulen, February 8, 1952 (Peña).

77. **Cryptolabis (Cryptolabis) chilota** Alexander, 1929. Curacautín, December 6-26, 1950 (Peña).

78. **Cryptolabis (Cryptolabis) cortési** Alexander, 1951. *Chiloé*: Aucar, January 6-15, 1952 (Peña).

79. **Cryptolabis (Cryptolabis) spatulata** Alexander, 1929. Río Blanco, March 20, 1951 (Peña).

80. **Erioptera (Eriopterella) jaffueli** Alexander, 1929. *Chiloé*: Aulen, February 8, 1952 (Peña).

81. **Erioptera (Symplecta) macroptera** (Philippi, 1865). Curacautín, December 8, 1950 (Peña). *Chiloé*: Aulen, February 4-8, 1952; Chepu, February 10-14, 1952 (Peña).

82. **Molophilus (Molophilus) apicidens** Alexander, 1951. Curacautín, December 19, 1950 (Peña). *Chiloé*: Aucar, January 15, 1952 (Peña).

83. **Molophilus (Molophilus) araucanus** Alexander, 1929. Curacautín, December 8-14, 1950 (Peña).

84. **Molophilus (Molophilus) calceatus** Alexander, 1929. Curacautín, December 8-18, 1950 (Peña); Cayutúe, November 13, 1933 (Wolffhügel). *Chiloé*: Aucar, January 6-15, 1952 (Peña).

85. **Molophilus (Molophilus) cervus** Alexander, 1929. *Chiloé*: Aucar, January 6-15, 1952; Chepu, February 1-3, 1952 (Peña).

86. **Molophilus (Molophilus) colossus** Alexander, 1929. Curacautín, December 18, 1950 (Peña); Cayutúe, February 16, 1938 (Wolffhügel).

87. **Molophilus (Molophilus) diceros** Alexander, 1944. Río Blanco, March 5-27, 1951 (Peña).

88. **Molophilus (Molophilus) dilatus** Alexander, 1951. Curacautín, December 14, 1950; Río Blanco, March 5-27, 1951 (Peña).

89. **Molophilus (Molophilus) echo** Alexander, 1952. Curacautín, December 10, 1950; Río Blanco, March 5-27, 1951 (Peña). *Chiloé*: Aulen, February 8, 1952; Toi-Goi, February 3, 1952 (Peña).

90. **Molophilus (Molophilus) erectus** Alexander (in press). *Chiloé*: Aulen, February 8, 1952 (Peña).
91. **Molophilus (Molophilus) eumonostylus** Alexander, 1951. *Chiloé*: Aucar, January 6-15, 1952 (Peña).
92. **Molophilus (Molophilus) exemptus** Alexander (in press). *Chiloé*: Aucar, January 6-15, 1952 (Peña).
93. **Molophilus (Molophilus) fagetorum** Alexander, 1929. *Chiloé*: Chepu, February 10-14, 1952 (Peña).
94. **Molophilus (Molophilus) flavidus** Alexander, 1914. Río Blanco, March 27, 1951 (Peña). *Chiloé*: Chepu, February 1-3, 1952 (Peña).
95. **Molophilus (Molophilus) fortidens** Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña).
96. **Molophilus (Molophilus) furcus** Alexander, 1951. Curacautín, December 6-24, 1950; Río Blanco, March 5-27, 1951 (Peña).
97. **Molophilus (Molophilus) hyperarmatus** Alexander, 1939. Río Blanco, March 5-27, 1951 (Peña).
98. **Molophilus (Molophilus) inarmatus** Alexander, 1939. Río Blanco, March 5-27, 1951 (Peña).
99. **Molophilus (Molophilus) isolatus** Alexander, 1952. Río Blanco, March 5-27, 1951 (Peña).
100. **Molophilus (Molophilus) leonurus** Alexander, 1951. Curacautín, December 6-24, 1950 (Peña).
101. **Molophilus (Molophilus) lethaeus** Alexander, 1951. *Chiloé*: Aucar, January 6-15, 1952; Aulen, February 8, 1952; Chepu, February 8-14, 1952 (Peña).
102. **Molophilus (Molophilus) metuendus** Alexander, 1951. Curacautín, December 18, 1950 (Peña).
103. **Molophilus (Molophilus) monoctenus** Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña).
104. **Molophilus (Molophilus) monostyloides** Alexander, 1951. Curacautín, December 18, 1950 (Peña). *Chiloé*: Aucar, January 10, 1952 (Peña).
105. **Molophilus (Molophilus) monostylus** Alexander, 1928. Curacautín, December 8-18, 1950 (Peña).
106. **Molophilus (Molophilus) peñai** Alexander, 1951. Río Blanco, March 20, 1951 (Peña).
107. **Molophilus (Molophilus) perfidus** Alexander, 1929. Curacautín, December 8, 1950 (Peña); Río Blanco, March 5-27, 1951 (Peña); Cayutúe, November 13, 1933 (Wolffhügel). *Chiloé*: Aucar, January 6-15, 1952 (Peña).
108. **Molophilus (Molophilus) pirioni** Alexander, 1929. *Chiloé*: Aucar, January 10-15, 1952; Río Coluco, January 30, 1952 (Peña).

109. **Molophilus (Molophilus) pretiosus** Alexander, 1929. *Chiloé*: Aucar, January 6-15, 1952 (Peña); Chepu, February 4-14, 1952 (Peña).
110. **Molophilus (Molophilus) rubidithorax excavatus** Alexander, 1951. Río Blanco, March 5-27, 1951 (Peña).
111. **Molophilus (Molophilus) setosistylus** Alexander, 1952. Río Blanco, March 5-27, 1951 (Peña).
112. **Molophilus (Molophilus) sparsispinus** Alexander, 1952. Curaçautín, December 6-25, 1950 (Peña). *Chiloé*: Aucar, January 15, 1952 (Peña).
113. **Molophilus (Molophilus) subappressus** Alexander, 1939. Río Blanco, March 5-27, 1951 (Peña).
114. **Molophilus (Molophilus) ternarius** Alexander, 1929. Río Blanco, March 5-27, 1951 (Peña).
115. **Molophilus (Molophilus) titan** Alexander, 1928. Río Blanco, March 27, 1951 (Peña).

#### Explanation of Figures

1. *Limonia (Zelandoglochina) ofella*, sp. n.; venation.
2. *Austrolimnophila (Austrolimnophila) tergifera*, sp. n.; venation.
3. *Aphrophila antennata*, sp. n.; venation.
4. *Limonia (Zelandoglochina) angelica*, Alexander; male hypopygium.
5. *Limonia (Zelandoglochina) ofella*, sp. n.; male hypopygium.
6. *Limonia (Zelandoglochina) parvispinosa* Alexander; male hypopygium.
7. *Limonia (Zelandoglochina) setulipennis* Alexander; male hypopygium.
8. *Limonia (Zelandoglochina) tenuipalpis* Alexander; male hypopygium.
9. *Limonia (Zelandoglochina) torticornis* Alexander; male hypopygium.
10. *Austrolimnophila (Austrolimnophila) tergifera*, sp. n.; male hypopygium.
11. *Aphrophila antennata*, sp. n.; male hypopygium; antenna.
12. *Aphrophila viridinervis* Alexander; male hypopygium, dististyle.

(Explanation of symbols: *b*, basistyle; *d*, dististyles; *g*, gonapophysis; *t*, tergite).

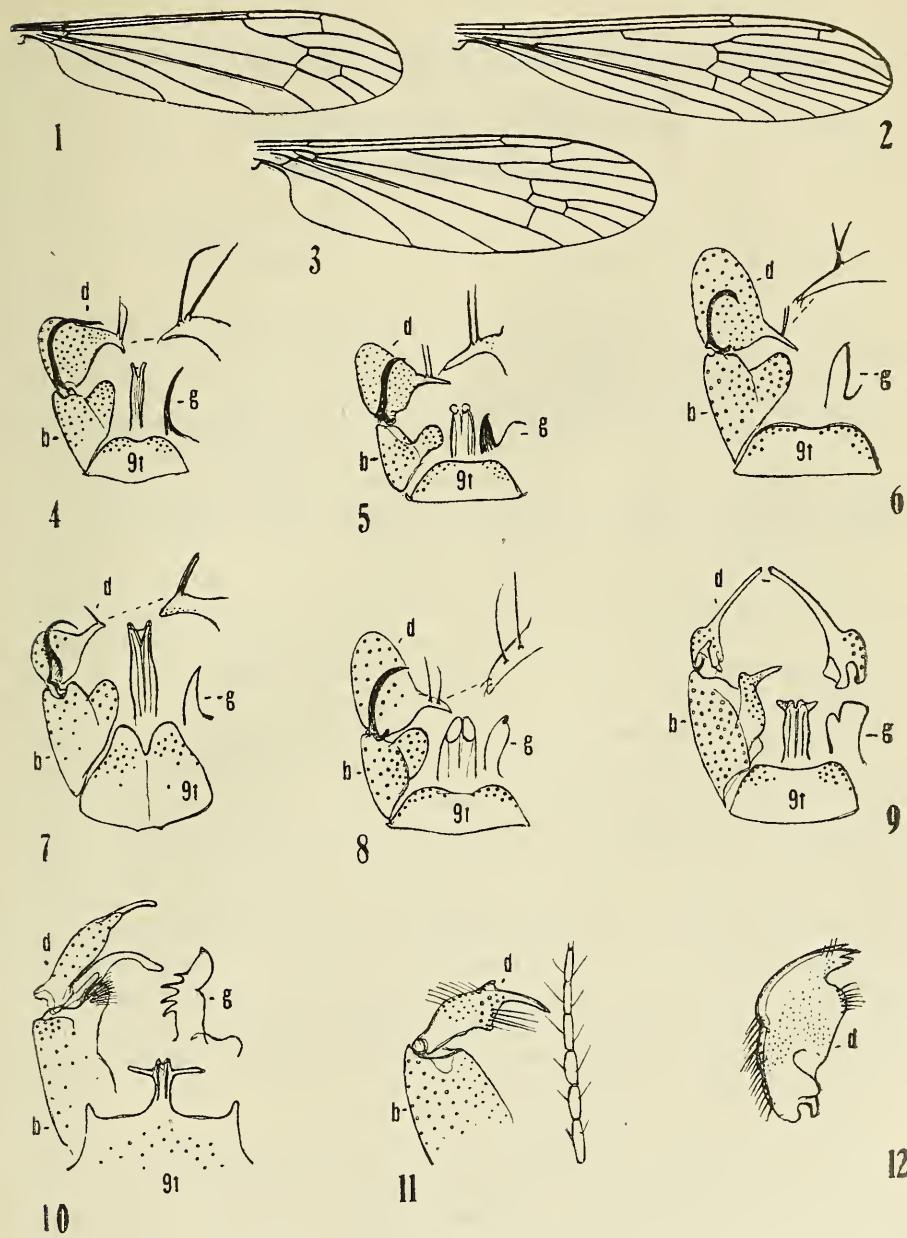


Lámina I