TACHINID FLIES (DIPTERA: TACHINIDAE) FROM TARAPACÁ AND ANTOFAGASTA PROVINCES, CHILE III. ADDENDUM

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ABSTRACT

A consolidated key to 47 genera and a comprehensive list of 70 species of parasitic Tachinidae (Diptera) from the desert provinces of Tarapacá and Antofagasta in northern Chile are provided in this paper. *Hypsomyia hispida* Cortés is described as a new genus and species of Eryciini, and *Spanipalpus hiemalis* Cortés as a new species of Cuphocerini. New data on several other species are also included.

RESUMEN

Este trabajo ofrece una clave consolidada para 47 géneros y una lista comprehensiva de 70 especies de taquínidos parasitos (Diptera) de las provincias desérticas de Tarapacá y Antofagasta en el extremo norte de Chile. *Hypsomyia hispida* Cortés se describe como nuevo género y especie de Eryciini, y *Spanipalpus hiemalis* Cortés como nueva especie de Cuphocerini. Se incluye también nuevos antecedentes de especies ya conocidas.

This is the third addendum to the study of the Tachinidae of Tarapacá and Antofagasta, two of the desert provinces in northern Chile extending south from the border with Peru.

The original monograph was published in 1971 (Cortés and Campos), while two previous addenda (Cortés and Campos 1974, Cortés and Hichins 1979) augmented the reported species from this dry desert to 42 genera and 64 species, all of them coming from small agricultural valleys and ravines. The agriculture of this region is represented by corn, alfalfa, beans, and potatoes, as well as numerous other horticultural crops. Citrus, olives, pears, peaches, apples, and grapes are the main perennial crops (Cortés and Campos 1970). The provinces of Tarapacá and Antofagasta together occupy an area of 183,378 square kilometers. This territory is a desert plateau where no rain has been reported for 70 years. In spite of this fact, ground water

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and late afternoon dew permits pastures and agricultural crops to subsist. The sandy soils are rich in minerals and devoid of organic matter. The day and night temperatures may differ as much as 30° C but the average annual temperature is 16.7° C with little seasonal change. A more detailed description of this superarid desert and its environment may be found in Cortés and Campos (1971). The distribution of the Tachinidae in Chile is strongly correlated with the altitude and vegetation of the collecting site. Most of the typical forms occur at elevations exceeding 1500 m and a few occur even at 2000-4000 m above sea level. In two contiguous valleys of Azapa and Lluta, Tarapacá Province, the number of genera and species collected was greater at the latter location. This could only be explained by the persistence of natural vegetation in Lluta as contrasted to the agricultural exploitation occurring in Azapa.

The tachinid fauna of Tarapacá and Antofagasta has its faunal affinities with the western Andean region of Peru, Ecuador, and Bolivia, not with southern Chile and Argentina (Cortés and Campos 1970).

This paper presents descriptions of a new genus and species in the Eryciini and a new species in the Cuphocerini. Also included is a key to 47 genera and a checklist of 70 species. Further data on previously known species, such as *Echinomasicera hystrix* Townsend, *Eucelatoria australis* Townsend, *Pyrrhotachina proboscidea* Townsend, et al., are provided in the checklist.

All the examples mentioned in this paper are deposited either in the Collection of the Facultad de Agronomía, Santiago (CFA), or that of the Department of Agriculture, Universidad de Tarapacá, Arica (CICA).

Key to Recorded Genera

1. Wing venation incomplete; 4th longitudinal vein evanescent; transverse apical vein and apical cell lacking or absent ..... *Camposodes* Cortés

1′. Wing venation complete; all veins and cells present and well formed; apical cell well developed, petiolated or not 2

2(1′). Apical cell closed before reaching wing margin and distinctly petiolated 3

2′. Apical cell well opened on wing margin, narrowly open on same margin, or else exactly closed, but in any case without a distinct petiole 6

3(2). Borders of prosternum pilose; arista micro-plumose (Proseninae-Dexiinae) ..... *Myiodexia* Cortés & Campos

3′. Borders of prosternum bare; arista bare or at most micro-pubescent 4

4(3′). Parafacials with strong row of proclinate bristles; 1st longitudinal vein setulose in all its length (Voriini) ..... *Ateloglutus* Aldrich

4′. Parafacial bare or at most with fine hair or tomentum, never with bristles; 1st longitudinal vein bare 5

5(4′). Mesonotum and abdominal tergites destituted of macrosetae; anterior femora with ctenidia of short spines on distal part of postero-ventral border; antennae elongated; apical scutellars absent ..... *Gymnosoma* Meigen

5′. Mesonotum and abdominal tergites with well developed strong bristles; femora without row of short spines in any border; antennae short; apical scutellars strong and well decusate ..... *Leucostoma* Meigen

6(2′). Ocellar bristles reclinate (Goniini) 7

6′. Ocellar bristles proclinate, divaricate, piliform, undifferentiated or absent 11

7(6). Head in profile dolichocephalic, i.e., at epistoma wider than at antennal level; proboscis longer than head height ..... *Dolichocnephalia* Townsend

7′. Head in profile normal, i.e., at epistoma not wider, narrower or at most of equal width than at antennal level; proboscis not longer than head height 8

8(7′). Facial ridges with strong bristles in basal half or more; one pair of median marginals on 1st abdominal tergite (2nd of Crosskey 1973, and in the works of Mesnil) ..... *Chaetocraniopsis* Townsend

8′. Facial ridges bare, without bristles above vibrissae 9

9(8′). Clypeus deeply excavated; frons very wide and prominent in both sexes; 3rd antennal joint twice or more length of second ..... *Gonia* Meigen

9′. Clypeus normal or moderately excavated; frons 0.50 or less of head width; 3rd antennal joint at most twice length of second 10

10(9′). Apical scutellars absent or piliform ..... *Araucosimus* Aldrich

10′. Apical scutellars strong, spine-like and sub-erect ..... *Chaetocnephalia* Townsend

11(6′). Proboscis twice geniculate and longer than body length (Siphonini) ..... *Siphona* Meigen

11′. Proboscis never more than once geniculate and not longer than body length 12

12(11′). Last section of 5th longitudinal vein half or more length of preceding section 13

12′. Last section of 5th longitudinal vein much shorter or less than half length of preceding section 15

13(12). Facial ridges with bristles almost up to base of 3rd antennal joint; intermediate abdominal tergites without discal bristles; 3rd longitudinal vein with a few setulae on basal node (Exoristini) ..... *Plagiprospherysa* Townsend

13′. Facial ridges bare, except at base; parafacials with strong proclinate bristles in upper half at least; 3rd longitudinal vein setulose (Voriini) 14

14(13′). Eyes bare; 1st longitudinal vein setulose in its entire length; intermediate abdominal tergites without discal bristles; lower half of parafacials bare; wings transparent, without maculae ..... *Voria* Robineau-Desvoidy

14′. Eyes pilose; 1st longitudinal vein with only a few setulae at base; intermediate abdominal tergites with discal bristles; strong proclinate bristles in the whole length of parafacials; blackish maculae on transverse veins and on

cubitulus of wings ..... *Alpinoplagia* Townsend
15(12′). Eyes distinctly and often thickly pilose 16
15′. Eyes bare or practically bare 26
16(15). Posterior tibiae ciliated on postero-dorsal border 17
16′. Posterior tibiae without row of short ciliae in any border 20
17(16). Ocellars piliform, hardly differentiated or absent 18
17′. Ocellars strong and proclinate 19
18(17). Ocellars absent; intermediate aristal joint short; cheeks narrow or inconspicuous (Eumasicerini) ..... *Phaenopsis* Townsend
18′. Ocellars piliform, though differentiated; intermediate aristal joint elongate, i.e., much longer than wide; cheeks rounded, 0.40 of eye height (Eryciini) ..... *Hypsomyia* Cortes, new genus
19(17′). Male with proclinate fronto-orbitals; eyes thinly pilose; abdominal tergites with strong erect spines; parafacials bare below ..... *Echinomasicera* Townsend
19′. Male without proclinate fronto-orbitals; eyes thickly pilose; abdominal tergites only with median marginals; parafacials tomentosum below ..... *Winthemia* Robineau-Desvoidy
20(16′). Dorsocentrals and acrostichals absent or undifferentiated and piliform; parafacials thickly pilose; abdominal tergites with dense sub-erect spines; 2nd tergites (3rd of Crosskey 1973, and in the works of Mesnil) with marginal and sub-marginal rows of strong bristles; 5 or 6 laterals on scutellum ..... *Androsoma* Cortés & Campos
20′. Dorsocentrals and acrostichals always present and developed 21
21(20′). Head in profile dolichocephalic, i.e., at epistoma wider than at antennal level; palpi short and filiform ..... *Dolichostoma* Townsend
21′. Head in profile shorter at epistoma, or at most of equal length as at antennal level; palpi normal or else papiliform 22
22(21′). Facial ridges with well developed bristles at least on basal half 23
22′. Facial ridges bare, without setae, except at vibrissal angle 25
23(22). Apical scutellars absent; borders of prosternum bare, without hair ..... *Incamyia* Townsend
23′. Apical scutellars present and decusate 24
24(23′). Intermediate abdominal tergites without discal bristles ..... *Euphorocera* Townsend
24′. Intermediate abdominal tergites with discal bristles ..... *Ollacheryphe* Townsend
25(22′). Palpi normal; both basal joints of arista elongate; infrasquamal setulae present; parafacials not wider than 3rd antennal joint ..... *Trichophoropsis* Townsend
25′. Palpi short or papiliform; only the intermediate joint of arista elongate; infrasquamal setulae absent; parafacials much wider than 3rd antennal joint ..... *Bonnetia* Robineau-Desvoidy
26(15′). Ocellars present, proclinate or divaricate 27
26′. Ocellars entirely absent 43
27(26). Ocellars exactly divaricate, neither proclinate nor reclinate; 1st longitudinal vein setulose in more than basal half (Germariini) ..... *Chaetodemoticus* Brauer & Bergenstamm
27′. Ocellars definitely proclinate 28

28(27′). Posterior tibiae ciliate on postero-dorsal margin 29
28′. Posterior tibiae without ciliae or row of short uniform setulae in any border 32
29(28). Arista plumose (Dexiinae) ..... *Sarcoprosena* Townsend
29′. Arista bare or micro-pubescent 30
30(29′). Facial ridges bare except at base ..... *Sturmia* Robineau-Desvoidy
30′. Facial ridges strongly setose at least in basal half 31
31(30′). Parafacials bare in all its length; intermediate aristal joint short ..... *Lespesia* Robineau-Desvoidy
31′. Parafacials hairy in its entire length; intermediate aristal joint elongate ..... *Protogoniops* Townsend
32(28′). Parafacials bare, without tomentum or bristles in entire length 33
32′ Parafacials with hairs or bristles at least on upper half, or else with well developed facio-orbitals inferiorly 37
33(32). Prosternum bare, with no hair in borders; facial ridges bare; intermediate aristal joint elongate; haustellum longer than head height; intermediate abdominal tergites without discal bristles ..... *Siphoactia* Townsend
33′. Prosternum pilose in borders 34
34(33′). Prosternum with only one long setula on each border; apical scutellars absent; two pairs of discal bristles on 2nd abdominal tergite (3rd of Crosskey 1973, and in the works of Mesnil) ..... *Urodexodes* Townsend
34′. Prosternum with hairs in borders 35
35(34′). Intermediate aristal joint very elongated; facial ridges bare; both sexes with proclinate fronto-orbital bristles; intermediate abdominal tergites without discal bristles; 3rd antennal joint in both sexes extraordinarily dilated apically as to be nearly triangular (Siphonini in the works of Mesnil) ..... *Elfia* Robineau-Desvoidy
35′. Intermediate aristal joint short, not longer than wide; facial ridges setose on basal half 36
36(35′). Intermediate abdominal tergites with discal bristles; apical scutellars absent; male tip of abdomen acuminate (Blondeliini) ..... *Hemilydella* Townsend (cif. *Eucelatoria* Townsend)
36′. Intermediate abdominal tergites without discal bristles; apical scutellars present and decusate; male abdomen rounded apically (Sturmiini) ..... *Caltagironea* Cortés & Campos
37(32′). Parafacials with row of strong bristles running diagonally down its entire length; frontal bristles not surpassing level of antennae; 4th abdominal tergite elongate, longer than preceding ones (Proseninae) ..... *Prosopochaeta* Macquart
37′. Parafacials with only isolated well developed facio-orbitals inferiorly (Tachininae) 38
38(37′). Palpi present though very short; nasute epistoma of almost abnormal development, projecting horizontally over clypeal level; frons very wide in both sexes ..... *Ruiziella* Cortés
38′. Palpi absent or minute; epistoma normally warped and projecting gently between vibrissae 39

39(38′). Intermediate abdominal tergites with discal bristles 40
39′. Intermediate abdominal tergites without discal bristles 42
40(39). Proboscis very elongate, haustellum twice head length ..... *Pyrrhotachina* Townsend
40′. Proboscis at most of equal length as head height 41
41(40′). Third longitudinal vein setulose up to anterior cross vein ..... *Spanipalpus* Townsend
41′. Third longitudinal vein setulose only at basal node ..... *Epalpodes* Townsend
42(39′). Third antennal joint in both sexes of same length as 2nd, in females shorter; species normally with ocellar bristles ..... *Vibrissomyia* Townsend
42′. Third antennal joint in females slightly longer than 2nd; species sometimes without ocellar bristles ..... *Agicuphocera* Townsend
43(26′). Parafacials inferiorly with well developed facio-orbital bristles; palpi sub-normal, short, or else elongate and filiform ..... *Peleteria* Robineau-Desvoidy
43′. Parafacials bare, at most tomentose, without facio-orbital bristles; palpi normal or absent 44
44(43′). Palpi absent; abdominal tergites covered with thick sagitate spines ..... *Saundersiops* Townsend
44′. Palpi present, normal; tergites of abdomen with usual bristles 45
45(44′). Prosternum bare in borders; facial ridges without setulae, except at vibrissal angle (Tachininae) ..... *Archytas* Jaennicke
45′. Prosternum pilose in borders; facial ridges with setulae in basal half or more (Exoristinae) 46
46(45′). Abdomen elongate, conic or acuminate at tip, with discal bristles on intermediate tergites (Blondeliini, cif. couplet 36) ..... *Eucelatoria* Townsend
46′. Abdomen short and broad with truncate apex; intermediate tergites without discal bristles (Belvosiini) ..... *Triachora* Townsend

Hypsomyia Cortés, New Genus
(Eryciini, Monotypic)

Frons 0.40 of head width. Frontal profile sloping, little longer than facial. Ocellars piliform, weakly proclinate. Post-ocellars hair-like. One pair of parallel inner verticals lightly reclinate. No outer verticals. Eyes thickly pilose. Frontal row of 6-7 convergent bristles, the 2 lower ones surpassing antennal level. No reclinate or proclinate fronto-orbitals in upper frontalia, which is covered by thick long black hair. Profrons little narrower than eye width. Facial ridges strongly arcuate and grossly setose up to middle of 3rd antennal joint. Parafacials about half width of eye and covered with regular longitudinal row-arranged cilia which reach down to cheeks. Clypeus well excavated; epistoma wide, gently warped above facial ridges, level and clearly projecting between vibrissae. Vibrissae hard to differentiate among thick facial and peristomal bristles. Cheeks approximately round, 0.40 of eye's height, without genal bristles, yet heavily covered with uniform black setae. Peristomal bristles thickly set, black, long, and uniform. Head in

profile at epistoma about same length as at antennal level. Proboscis normal, palpi normal, yellowish brown, labella developed.

Antennae black, filling clypeus; 2nd joint half length of 3rd, latter thick and dilated apically. Arista thickened nearly up to tip; intermediate joint elongate, many times longer than wide.

Thorax blackish, sub-shining, hardly with longitudinal stripes of pollen, except between acrostichals, and these only in pronotum. Humeri weakly pollinose. All pleura blackish, without pollen. Scutellum reddish, lightly pollinose. Post-scutellum developed. *Chaetotaxia*: humerals 3, straight; post-humerals 2; pre-sutural 1; notopleurals 2; acrostichals 2-?1; dorsocentrals 3-?1 (both post-sutural acrostichals and dorsocentrals hard to differentiate and partly damaged by the pin); pre-alar 1; supra-alars 2; intra-alars 3; post-alars 2; sternopleurals 1-1, of equal length; pteropleural 1, shorter than both sternopleurals. Hypopleuron thickly pilose. Apical scutellars sub-erect and parallel; 3 lateral scutellars. Prosternum pilose in borders; propleuron bare; infra-squamal setulae absent.

Abdomen black, with last 3 segments basally covered by thick cinereous pollen on the 2nd tergite (3rd of Crosskey 1973, and in the works of Mesnil), which divides medially as to form 2 lateral defined pollinose spots which do not reach posterior margin of segment, nor the venter. Third and fourth tergites (4 and 5 of Crosskey 1973, and in the works of Mesnil) with dense heavy pollen which is more golden yellow than former and spread in bands that completely cover dorsum except on narrow posterior margins which are shining black. Tip of abdomen with truncate Belvosiini slit. Sternites black, concealed. Second and third tergites each with 1 pair of median marginals and another of lateral marginals. Fourth well-covered with erect bristles and complete pre-apical row of setae. No discal bristles on abdomen.

Legs black, normal; tibiae yellowish red. Posterior tibia with row of regular, separated setulae on postero-ventral border, of which 1 about middle is the longest. Empodia and pulvilli elongate (male). Wings clear; veins yellowish. Costal spine absent. Apical cell opened on wing margin well above tip of wing. Three setulae at basal node of 3rd longitudinal vein, which duplicate on back side of wing. Squamae white with yellowish rims.

Type of the genus is the following species, *H. hispida* Cortés, n. sp.

Hypsomyia hispida Cortés, New Species
(Eryciini, Fig. 1)

Male: 6.5 mm, black, with dense, bright, silvery pollen on face. Frontal stripe dark brown. Clypeus and epistoma reddish brown. Tergites of abdomen distinctly pollinose as described above. Venter sub-shining black. Middle tibiae and scutellum dark reddish.

Type Material: *Holotype* ♂ (figured), Parque Nacional de Lauca, Las Cuevas (Arica), Chile, about 4,800 m altitude, 22-II-1978, L. Faúndez coll., on vegetation (CFA).

Type Locality: Chile, Prov. Tarapacá, Las Cuevas (Arica), Parque Nacional de Lauca, ca. 4800 m altitude.

Female: Unknown.

Host: Unknown.

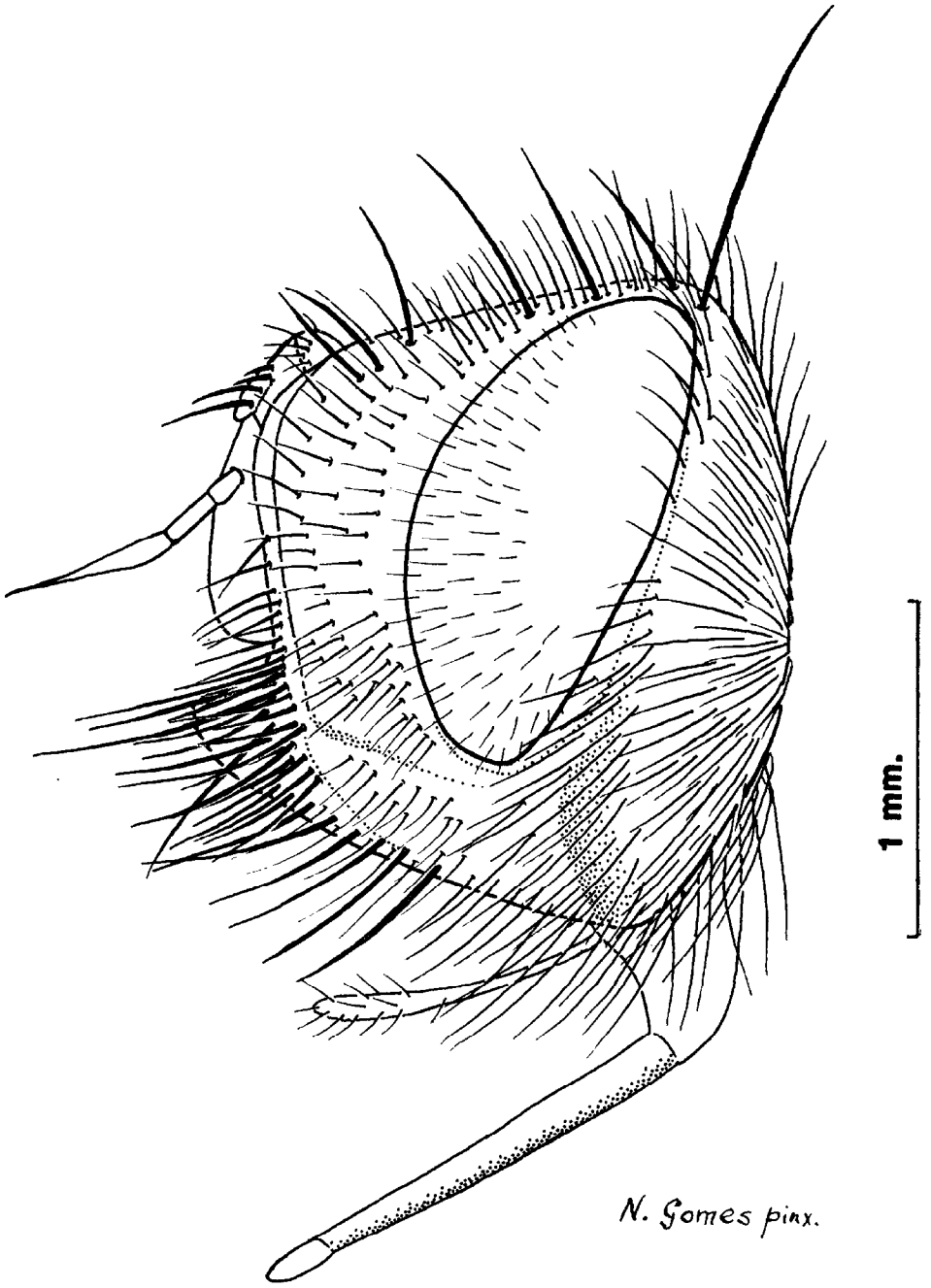

Fig. 1. *Hypsomyia hispida*, n. gen. and n. sp. male. Head profile.

Spanipalpus hiemalis Cortés, NEW SPECIES
(Cuphocerini)

This new species is extra-limital in *Spanipalpus* Townsend because of the presence of well developed discal bristles on intermediate tergites of abdomen which normally do not show in *Spanipalpus*. Yet the examples run

undoubtedly to *Spanipalpus* in Townsend's (1939) key to the Cuphocerini. J. H. Guimaraes (1963) described very accurately the genus' main characters, although he later (1971) made *Spanipalpus* (with ocellars) a junior synonym of *Deopalpus* Townsend (without ocellars).

FEMALE: General coloration brassy grey metallic with greenish reflections. Frons yellowish. Face white yellowish with nacreous pollen. Clypeus and epistoma concolorous. Two proclinate, two reclinate, and two strong divergent fronto-orbitals on parafrontalia. Ocellars present and proclinate. Two pairs of verticals of about equal length, inner ones decusate, outer ones divergent. Row of proclinate bristles extending from base of antennae down to cheeks with no differentiated facio-orbital bristles in lower section of parafacials. Cheeks with genal bristles. Vibrissae present and well decusate. Facial ridges bare.

Antennae black, with basal joints reddish yellow. Second joint little shorter than 3rd, which is brownish black. Arista with both basal joints elongate. Proboscis normal, without palpi.

Notum, pleurae and tergites brassy metallic grey, with faint irregular cinereous pollen, which on notum tends to form longitudinal stripes reaching base of scutellum. On tergites this pollen appears more dense or concentrated on sides of segments while along the middle or center runs as a longitudinal narrow stripe reaching tip of abdomen. Sides of abdomen reddish.

Scutellum as notum, with well decusate apicals and 3 lateral bristles. One pair of decumbent discals close to apicals. Abdomen with usual bristles plus 1 pair of well developed discals on intermediate tergites.

Legs normal, tibiae yellowish. Wings clear, costal spine not developed. Third longitudinal vein setulose almost up to anterior cross vein. Weak dark spots on anterior cross vein and at cubitulus of apical cell.

TYPE MATERIAL: *Holotype* ♀, Zapahuira, Arica, 19-VIII-1976, N. Hichins coll., on vegetation (CFA). *Paratype*: ♀, Socoroma, Arica, 19-VII-1977, N. Hichins coll., on *Origanum* flowers (CFA). The size variation of the 2 examples was 6.5-7.0 mm.

TYPE LOCALITY: Chile, Prov. Tarapacá, Zapahuira (Arica), about 2,500 meters altitude.

MALE: Unknown.

HOST: Unknown.

COMPENDIUM OF SPECIES REPORTED FROM TARAPACÁ AND AND ANTOFAGASTA PROVINCES

The species was first attributed to these provinces by Cortés and Campos (1971) unless another citation is given.

1. *Agicuphocera nigra* Townsend 1915, Cuphocerini (Cortés & Campos 1974)
2. *Alpinoplagia boliviana* Townsend 1931, Voriini
3. *Androsoma perhirsutum* Cortés & Campos 1971, Juriniini
4. *Araucosimus superbus* Cortés 1945, Goniini
5. *Archytas incasanus* Townsend 1912, Dejeaniini
   This Peruvian species was treated as *A. divisus* (Walker) 1852 from Brazil, in Guimaraes' 1971 Catalogue.
6. *Archytas marmoratus* (Townsend) 1915, Dejeaniini
7. *Archytas peruanus* Curran 1928, Dejeaniini

8. *Archytas pilifrons* (Schiner) 1868, Dejeaniini
9. *Archytas platonicus* Cortés & Campos 1971, Dejeaniini
10. *Ateloglutus velardei* Cortés & Valencia 1972, Voriini (present paper). 5 examples of both sexes, 2 from Lupica (Arica), 20-I-1982, B. H. V. colls. (CICA), and 3 from Belén Alto, Queñuales (Arica), 29-I-1982, same collectors (CICA)
11. *Bonnetia comta* (Fallén) 1810, Linnaemyini
12. *Caltagironea scillina* Cortés & Campos 1974, Sturmiini (Cortés & Campos 1974)
13. *Caltagironea vera* Cortés & Campos 1974, Sturmiini (Cortés & Campos 1974)
14. *Camposodes evanescens* Cortés 1967, Actiini
15. *Chaetocnephalia andina* Cortés & Campos 1971, Goniini
16. *Chaetocnephalia innupta* Cortés 1945, Goniini
17. *Chaetocraniopsis chilensis* Townsend 1915, Goniini
18. *Chaetodemoticus chilensis* (Schiner) 1868, Germariini
19. *Dolichocnephalia puna* Townsend 1915, Goniini
20. *Dolichostoma arequipae* (Townsend) 1912, Cuphocerini
21. *Echinomasicera hystrix* Townsend 1915, Harrisiini (present paper).
    1 ♀, 12 mm, Socoroma (Arica), 23-VI-1977, G. Díaz (CFA). As the female of this Peruvian species does not seem to have been described, these few characters will complete the description. Two pairs of verticals, inner ones longer and parallel, outer ones shorter, reclinate and decusate. Two proclinate fronto-orbitals in frontalia. Eyes very sparsely thinly pilose. Intermediate joint of arista about twice as long as wide. Cheeks rounded, with genal setae, about 0.25-0.30 of eye height. Wings and squamae infuscated, latter very dark. Third longitudinal vein with 2-3 setulae at basal node. Costal spine undeveloped. Posterior tibiae with row of heavy setae on outer border. Rest of characters as in male.
22. *Elfia frontalis* (Aldrich) 1934, Actiini (as *Lispidea* Coq.)
23. *Epalpodes malloi* Cortés & Campos 1971, Juriniini
24. *Eucelatoria australis* Townsend 1911, Blondeliini

    C. W. Sabrosky (1981) dealt with this New World genus, yet made no special mention of the widely distributed *E. australis* from Peru except under his new *E. digitata* Sabrosky. Having such a large collection of examples from the Neotropics, it would have been worthwhile to define what Thompson (1968) and Cortés (1971) considered to be *E. australis*. Sabrosky considered that both sexes in *Eucelatoria* varied widely from having no ocellar bristles to having well developed ones, with several intergrading possibilities, so this character was not considered reliable. Eight examples from Azapa (Arica) were named *E. digitata* in his paper.

    H. Vargas (unpublished), however, has positively proved that there are 2 host differentiated and genetically different species in Azapa, 1 with and the other without ocellar bristles, that do not inter-breed, that strictly parasitize very different larval hosts, and that cannot be easily differentiated. Such being the case, *E. australis* in the present paper is considered as having no ocellars (check key), and the author prefers to keep Townsend's orginal name until both *australis* Townsend and *digitata* Sabrosky are properly separated biologically

and morphologically.

25. *Euphorocera peruviana* Townsend 1912, Exoristini
26. *Gonia lineata* Macquart 1851, Goniini
27. *Gonia pallens* Wiedemann 1830, Goniini
28. *Gonia* sp. 3, Cortés & Campos 1971, Goniini
29. *Gonia* sp. 4, Cortés & Campos 1971, Goniini
30. *Gonia* sp. 5, Cortés & Campos 1971, Goniini
31. *Gymnosoma neotropicale* Cortés & Campos 1971, Phasiini
32. *Hemilydella fasciata* Townsend 1927, Blondeliini
33. *Hypsomyia hispida* Cortés NEW SPECIES, Eryciini (present paper)
34. *Incamyia chilensis* Aldrich 1928, Blondeliini
35. *Incamyia cinerea* Cortés & Campos 1971, Blondeliini
36. *Incamyia cuzcensis* Townsend 1912, Blondeliini
37. *Incamyia perezi* Cortés & Campos 1971, Blondeliini
38. *Incamyia sandovali* Cortés & Campos 1971, Blondeliini
39. *Incamyia striata* Aldrich 1928, Blondeliini
40. *Lespesia leliae* Cortés & Campos 1971, Eryciini
41. *Lespesia nimia* Cortés & Campos 1971, Eryciini
42. *Lespesia robusta* (Aldrich) 1934, Eryciini (Cortés 1980)
43. *Leucostoma aterrimum* (Villers) 1789, Phasiinae
44. *Leucostoma simplex* (Fallén) 1820, Phasiinae
45. *Myiodexia deserticola* Cortés & Campos 1971, Proseninae-Dexiinae
46. *Ollacheryphe facialis* Townsend 1927, Germariini (Cortés & Hichins 1979)
47. *Peleteria pygmaea* (Macquart) 1850, Tachinini
48. *Peleteria robusta* (Wiedemann) 1830, Tachinini
49. *Phaenopsis arabella* Townsend 1912, Eumasicerini
    This Peruvian species was made a synonym of *Pseudochaeta argentifrons* Coquillett 1895 by Dr. W. R. Thompson (1964)
50. *Plagiprospherysa parvipalpis* (Wulp) 1890, Exoristini
51. *Prosopochaeta caliginosa* Cortés & Campos, Proseninae-Dexiinae
52. *Protogoniops ocellaris* Townsend 1912, Goniini (Cortés & Campos 1974)
53. *Pyrrhotachina proboscidea* Townsend 1931, Cuphocerini (present paper)
    1 ♂, 10.5 mm, in rather poor condition, Talabre, Antofagasta, 8-24-II-1969, L. E. Peña (CFA), which was presented to the author by Dr. J. H. Guimaraes, Museu de Zoología, Sao Paulo, Brazil. It runs quite easily into *Pyrrhotachina* in Townsend's (1939) key to the Cuphocerini, except for the palpi which are not discernible in this example, and 3rd antennal joint (♂) which is twice or more the length of 2nd. The holotype of Dr. Townsend (1931) is a female from Mendoza, República Argentina, and the present male is in poor condition, yet the species shows unique characteristics, such as length of haustellum which is about double the head height, 1 facio-orbital bristle in lower part of each parafacial, both basal joints of arista elongate, 3rd longitudinal vein with long setulae at basal node, costal spine absent, etc., which seems sufficient to confirm the identification.
54. *Ruiziella luctuosa* Cortés 1951, Juriniini
55. *Sarcoprosena luteola* Cortés & Campos 1971, Proseninae-Dexiinae (Cortés & Campos 1974)
56. *Saundersiops cruciatus* Townsend 1914, Juriniini (Cortés & Hichins

57. *Siphoactia peregrina* Cortés & Campos 1971, Siphonini
58. *Siphona geniculata* (DeGeer) 1776, Siphonini
59. *Spanipalpus hiemalis* Cortés, NEW SPECIES, Cuphocerini (present paper)
60. *Sturmia festiva* Cortés 1944, Sturmiini (Cortés & Hichins 1979)
61. *Sturmia insignis* (Wulp) 1882, Sturmiini (Cortés & Campos 1974)
62. *Triachora barbosai* Cortés & Campos 1971, Belvosiini
63. *Trichophoropsis nitens* Townsend 1914, Cuphocerini
64. *Trichophoropsis sabroskyi* Cortés & Campos 1971, Cuphocerini
65. *Urodexodes elongatus* Cortés & Campos 1971, Blondeliini
66. *Vibrissomyia lineolata* (Bigot) 1888, Cuphocerini
67. *Vibrissomyia notata* Cortés 1967, Cuphocerini
68. *Vibrissomyia pullata* Cortés 1951, Cuphocerini
69. *Voria ruralis* (Fallén) 1810, Voriini
70. *Winthemia reliqua* Cortés & Campos 1971, Winthemiini

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LARVA AND PUPA OF *OXYETHIRA LEONENSIS* (TRICHOPTERA: HYDROPTILIDAE)

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ABSTRACT

The first positively associated larva and pupa of *Oxyethira leonensis* Kelley are described. Also given are characteristics to distinguish the final instar larva of *O. leonensis* from that of the previously described North American species, *O. dualis* Morton. *Oxyethira dualis* has middle and hind legs nearly 3 times as long as the fore leg and a mean length greater than 3.10 mm; *O. leonensis* has middle and hind legs nearly 4 times as long as the fore leg and a mean length of 2-3 mm. *Oxyethira leonensis* is a piercer-herbivore known to occur in Florida, South Carolina, and Alabama.

RESUMEN

La primera larva y crisálida positivamente asociadas del *Oxyethira leonensis* Kelley están descritas. También dado son los carácteres para distinguir la larva del *O. leonensis* de *O. dualis* Morton, la especie Norteamericana descrita previamente. *Oxyethira dualis* tiene las patas centrales y traseras casi 3 veces tan largas como la pata delantera y una longitud promedio mayor de 3.10 mm; *O. leonensis* tiene las patas centrales y traseras casi 4 veces tan largas como la pata delantera y la longitud promedio de 2-3 mm. *Oxyethira leonensis* es un herbívoro-perforado que se encuentra en Florida, Carolina del Sur, y Alabama.

The study of Hydroptilidae has historically been hampered by their small size and lack of adequate characteristics necessary for their separation. Although Hydroptilidae contains approximately 50 genera and over 600 species, most larvae remain unassociated with identifiable adults. The genus *Oxyethira* (Eaton) is certainly no exception. Recent work by Kelley (1981, 1982) on *Oxyethira* adults, however, facilitates larval association. Previous work on immature North American *Oxyethira* species is scant. Sibley (1926) provided a description of *O. dualis* with figures of the larval head and thorax. Ross (1944) illustrated *O. dualis* legs. The purpose of this paper is to provide a description of the immature stages of *O. leonensis*.

Identification and association of larva, pupa and adult were accomplished by using the "metamorphotype method" (Milne 1938), where the genitalia of