NOTE: TRANSPOSITION OF FIGURES

In the two Parts of the papers here included, entitled "New or little-known Tipulidae from Chile and Peru (Diptera:Tipulidae), the figures inadvertently have been transposed. The 23 figures of Part II are included in Part III, while the 31 figures of Part III are in Part II. In any use of these two papers, both Parts must be used together to avoid total confusion.

Charles P. Alexander

NEW OR LITTLE-KNOWN TIPULIDAE FROM CHILE AND PERU (DIPTERA: TIPULIDAE)

CHARLES P. ALEXANDER
Amherst, Massachusetts

Part II

The crane flies discussed at this time were collected in Chile and Peru by señor Luis E. Peña, to whom much of our knowledge of these flies is due, particularly those of the very productive regions of southern Chile. A very few of the included species are from other sources, including Peru ,taken by señor José Schunke, and from Argentina, on the Chilian border, by Mr. S. Schachovskoy. The types of the novelties are preserved in the extensive Alexander Collection of World Tipulidae.

TIPULINAE

TIPULA (EUMICROTIPULA) BIACERVA sp. n. Figs. 1, 2

Mesonotal praescutum brownish yellow, conspicuously patterned with brown; antennal flagellum bicolored; wings pale yellow, patterned with brown, including four darker brown subcostal areas; male hypopygium with tergite very large, pale yellow, posterior border with two triangular lobes; mesal lobe of basistyle a flattened yellow blade, the folded base with numerous triangular points; gonapophysis elongate-clavate; eighth sternite small ,with a single very conspicuous depressed-flattened blade.

Male: Length about 15 - 16 mm; wing 14.5 - 16 mm; antenna about 5.5 - 6 mm.

Frontal prolongation of head light brown, relatively long, subequal to remainder of head, nasus short; palpi light brown,

outer end of terminal segment darker. Antennae with proximal three segments yellow, succeeding flagellar segments bicolored, basal enlargement black, remainder brownish yellow, outer segments more uniformly darkened. Head brownish gray, clearer gray anteriorly and on orbits; a capillary dark brown median vitta extending from summit of vertical tubercle to occiput.

Pronotum brownish yellow, scutum with three brown clouds, the central one darker. Mesonotal praescutum brownish yellow, patterned with brown, including a broad central stripe that is divided medially, with a further median darker brown vitta on anterior half, humeral region pale brown; posterior sclerites yellowed, sparsely pruinose, scutal lobes very vaguely patterned with brown; scutellum and mediotergite with a broad dark brown central line. Pleura yellowed mesepisternum slightly more pruinose, dorsopleural membrane light yellow. Halteres with stem brownish yellow, knob darker brown. Legs with fore coxae brownish gray, posterior pair more yellowed; trochanters yellow; femora yellow, with a nearly terminal brown ring, extreme tip pale; remainder of legs yellow, outer tarsal segments darkened. Wings pale yellow, patterned with brown, including four darker brown subcostal areas, the last being the stigma; paler brown clouds chiefly on outer half of wing, the ground before origin of *Rs* almost uniformly yellowed; beyond cord with a virtually entire pale yellow crossband extending from costa to the margin of cell M^3, incluling virtually all of *1st* M^2; veins brown, paler in the costal interspaces, outer end of R^{1+2} yellowed. Venation: Cell *1st* M^2 small, pentagonal, second section of M^{1+2} longest; petiole of cell M^1 about one-half longer than *m*.

Abdomen yellow, tergites with three dark brown longitudinal stripes, outer segments dark brown, the ninth tergite conspicuosly pale yellow. Male hypopygium (figs. 1, 2) with the tergite, *t*, very large, convex, posterior border with two triangular lobes that are separated by a microscopic U-shaped emargination. Outer dististyle, *d*, long and slender, about one-half the inner style, provided with long scattered setae; inner style with beak slender, lower beak a darkened triangular point; posterior crest with a row of yellow setae, more basally with and inner row of much longer darkened bristles. Basistyle, *b*, with mesal lobe a long flattener yellow blade, folded longitudinally, the

lower margin with numerous triangular points; ventral lobe shorter, clavate, with very long setae, the longest subequal in length to the lobes. Gonapophysis, *g*, an elongate clavate structure, its oval head with an oblique fold. Eighth sternite, *8s*, unusually small, with a single very conspicuous depressed-flattened blade that is longer than the sternite ,surface with numerous yellow setae from darkened punctures, basal half with a pale central line.

Holotype, male, Lago Nonthue, Neuquen, Argentina, January 13, 1952 (S. Schachovskoy). Paratopotype, male.

Other regional species of *Eumicrotipula* that have a single conspicuous spatula on the eighth sternite of the male hypopygium include *Tipula (Eumicrotipula) jaennickeana* Alexander, *T. (E.) latifolia* Alexander, *T. (E.) ligulata* Alexander, *T. (E.) spatulifera* Alexander, and a few others, all being distinct from the present fly in hypopygial structure, particularly in the tergite, mesal lobe of basistyle, gonapophysis, and the lobe of the eighth sternite.

TIPULA (EUMICROTIPULA) lethe sp. n.

Fig. 3

Size large (wing of male about 19 mm); mesonotal praescutum obscure yellow, conspicuously patterned with brownish black, pleura dull brown; femora brownish yellow, tips dark brown; wings pale brown with and indistinct pattern of darker brown and cream colored areas; male hypopygium with posterior border of tergite emarginate; basistyle produced into a short stout lobe; inner dististyle with outer end very large; phallosome with two widely separated obtuse blades on either side, the posterior angles extended into a more blackened foot-shaped structure; eighth sternite with lateral lobes conspicuous, darkened, median ligula depressed-flattened, with abundant pale setae.

Male: Length about 17 mm; wing 19 mm; antenna about 5 mm.

Frontal prolongation of head relatively long, only a little less than the remainder, dark brown, paler basally, nasus elon-

gate; palpi black. Antennae relatively long, scape and first flagellar segment brown, pedicel light yellow; proximal flagellar segments beyond the first weakly bicolored, light brown, basal enlargement black, auter segments more uniformly dark brown. Head gray, anterior vertex slightly darkened almost to summit of the conspicuous tubercle.

Pronotal scutum brown, vaguely patterned, scutellum very thin, brownish yellow. Mesonotal praescutum conspicuously patterned, ground obscure yellow, with four brownish black stripes that are encircled by the ground, humeral and lateral borders brown; scutum gray, each lobe with two blackened areas, the anterior one small; scutellum brownish gray with long white setae, patrascutella brown; mediotergite gray with a central capillary blackened line; pleurotergite brown, the dorsal katapleurotergite pruinose. Pleura dull brown. Halteres with stem yellowed, knob dark brown, apex paler. Legs with coxae brownish gray; trochanters obscure yellow; femora brownish yellow, tips dark brown, preceded by a vaguely differentiated more yollowed ring; tibiae and proximal tarsal segments brownish yellow, outer tarsal segments darker brown; claws simple, relatively small, Wings pale brown, with an indistincts pattern of darker brown and cream-colored areas; major brown marks include three in cell *Sc,* the last small, second larger, involving the base of *Rs;* the principal pale areas are bofere and beyond the stigma, across cell *1st M*^{2}, near outer end of cell *M,* and in the cubital and anal cells; veins brown. Macrotrichia on most veins beyond cord excepting outer half of R^{1+2} and the elements comprising cell *1st M*^{2}; no trichia on *Rs* or *1st A;* trichia present on distal ends of *M and Cu*, outer two-thirds of *2nd A,* and a few on *m-cu.* Venation: *Rs* more than twice *m-cu.*

Abdominal tergites brownish yellow, with a narrow nearly continuous central stripe and broader more blackened lateral spots that form a broken line; sternites brownish yellow; outer segments more uniformly brownish yellow. Male hypopygium (fig. 3) with posterior border of tergite, *t,* emarginate, apices of the lateral lobes obtuse; base of emargination with two small lobules. Basistyle produced into a short stout lobe, its apex with short stiff spines. Outer dististyle, *d,* very narrowly spatulate, outer half with long conspicuous setae; inner style unusually

PLATE I

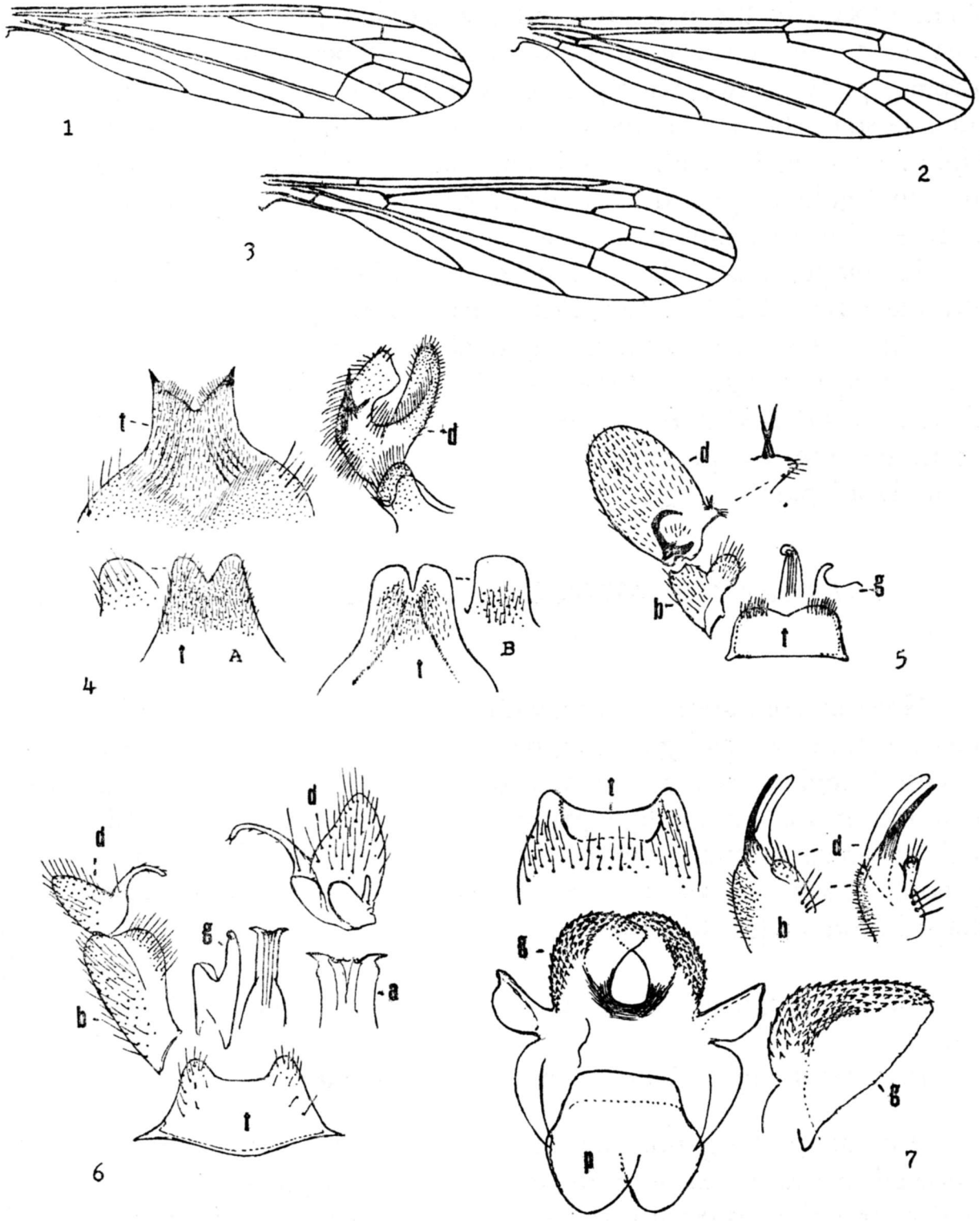


Fig. 1. *Limonia (Dicranomyia) cerbereana* Alexander; venation.— Fig. 2. *Limonia (Zelandoglochina)* nubleana sp. n.; venation.— Fig. 3. *Tonnoiromyia spinulosa* sp. n.; venation.— Fig. 4. *Ischnotoma peracuta* sp. n.; male hypopygium.— Fig. 5. *Limonia (Dicranomyia) chlorotica* (Philippi); male hypopygium.— Fig. 6. *Limonia (Zelandoglochina) nubleana* sp. n; male hypopygium.— Fig. 7. *Tonnoiromyia spinulosa* sp. n.; male hypopygium. (Explanation of figures, *a,* aedeagus; *b,* basistyle; *d,* dististyle; *g,* gonapophysis; *p,* phallosome; *t,* tergite.

stout, especially the base, the outer expanded part subequal in area, as shown; beak slightly pointed, lower beak obtuse. Phallosome, *p,* with two widely separated obtuse blades on either side, posteriorly with a more blackened foot-shaped extension. Eighth sternite, *8s,* with conspicuous darkened lateral lobes, the median ligula longer, depressed-flattened, apex broadly obtuse, surface with abundant pale setae.

Holotype, male, Las Trancas, Cordillera Chillan, Chile, altitude 1.100 - 1.200 meters, December 2, 1964 (L. E. Peña).

Other generally similar regional species include *Tipula (Eumicrotipula) ligulata* Alexander, *T. (E.) petalura* Alexander, *T. (E.) petaluroides* Alexander, and a few others, all readily separated from the present fly by hypopygial structure, including virtually all parts.

TIPULA (MICROTIPULA) SCHUNKEI sp. n.

(Fig. 4)

General coloration of praescutum orange, darker laterally, pleura yellow; wings light gray, patterned with brown, especially in costal region, cell *Sc* yellow; basal section of R^{4+5} long, obliterating *r-m;* male hypopygium with tergal border broad, with conspicuous black vestiture ,that near midline shorter and spinoid; dististyles short and compact, inner style outwardly shaped more or less like the head of a duck.

Male: Length about 13 mm; wing 13 mm; antenna about 7 mm.

Female: Lenght about 13 mm; wing 14 mm.

Frontal prolongation of head light brown above, more yellowed beneath; palpi with proximal two segments brown, remainder paler, especially the elongate terminal one. Antennae of male elongate, about one-half the wing; proximal four segments yellow, remainder slightly brownish yellow, the small basal enlargements darker. Head light brown, front and the very narrow orbits light gray.

Pronotum yellow. Mesonotal praescutum with disk orange brown, sides darker brown; scutum very light brown, scutellum

and postnotum yellow. Pleura yellow. Halteres with stem yellow, the small knob brown. Legs with coxae and trochanters light yellow; remainder of legs slightly darker yellow, outer segments pale brown. Wings with ground light gray, costal region patterned with brown ,including the prearcular field, cell *C,* stigma, and outer ends of radial cells, cell *Sc* yellow; a restricted brown pattern on cord, including base of *Rs* and anterior cord, narrower on *m-cu, m* and the fork of M^{1+2}; veins pale brown, darker in the patterned areas. Venation: Basal section of R^{4+5} very long, in punctiform contact with M^{1+2}, obliterating *m;* cell M^1 subequal to its petiole.

Abdominal tergites yellow, narrowly darkener laterally, sternites light yellow; subterminal segments dark brown to form a narrow ring that includes segments seven, posterior half of sternite eight, and base of eighth tergite; remainder of hypopygium light yellow excepting the darkened dististyles. Male hypopygium (fig. 4) with the tergite, *t,* long-produced behind, posterior border broad, the margin very shallowly emarginate, with conspicuous black vestiture, that near the midline short and spinoid. Proctiger large, entirely horn-yellow, the lower lobe with conspicuous yellow setae. Dististyles, *d,* short and compact, outer style enlarged at distal end, terminating in two blackened points; inner style produced outwardly, shaped somewhat like the head of a duck, the beak yellowed. Appendage of ninth sternite, *9s,* pale yellow, bilobed, the median emargination slightly broader than the diameter of lobe at base. Eighth sternite unarmed.

Holotype, male, Chanchamayo, Junin, Peru, altitude 1.200 meters, February 17, 1949 (J. M. Schunke). Allotopotype, female, pinned with type.

The species is named for señor José M. Schunke to whom I am indebted for many Tipulidae from Peru. There are several other regional species that have the venation somewhat as in this fly, that is, with the basal section of R^{4+5} long, obliterating *r-m* or virtually so, and with the wing pattern somewhat the same. Such allied species include *Tipula (Microtipula) intemperata* Alexander, *T. (M.) lichyana* Alexander, *T. (M.) opipara* Alexander, *T. (M.) proctotricha* Alexander, *T. (M.) trichoprocta* Alexander, and some others. The two last-named species are clos-

est, differing especially in hypopygial details, including the tergite and dististyles.

TIPULA (MICROTIPULA) TERGOARMATA sp. n.

Figs. 5, 6

General coloration of thorax almost uniformly yellow; wings very weakly darkened, stigma and costal border slightly darker brown; male hypopygium with ventral surface of ninth tergite conspicuously modified into lateral arms; median elevation with the shallow cephalic fork glabrous; appendage of ninth sternite with each arm very shallowly furcate, the projections short and nearly equal in size.

Male: Lenght about 12 mm; wing 12 mm; antenna about 5.5 mm.

Frontal prolongation of head obscure yellow; palpi light brown. Antennae of male nearly one-half as long as wing; scape and pedicel light yellow, flagellum brown. Head yellowed, clearer on front and anterior vertex.

Thorax virtually uniform yellow throughout, pleura slightly paler. Halteres with stem obscure yellow, knob dark brown. Legs with coxae and trochanters yellow; remainder of legs yellowish brown; claw of male with a weak tooth at mid-length. Wings very weakly darkened, stigma and costal border slightly more infuscated; veins light brown. Macrotrichia on vein R^3 and most of R^{4+5}, more sparse on M^1. Venation: Petiole of cell M^1 nearly twice *m*.

Abdominal tergites light brown, sternites and hypopygium more yellowed; segment seven and more than the proximal half of eight darker brown to form a ring. Male hypopygium (fig. 5) with the tergite, *t*, broad, outer lateral angles slightly produced; median ventral elevation narrow, the outer end a small simple head provided with abundant black setae that extend cephalad along the stem, the anterior end of latter shallowly forked, without setae, as in related species; on either side of median area with a complex ornate modification that includes a slender arm directed laterad, more expanded at base and here

provided with more abundant yellow setae, posterior end of the structure farther extended into a broader pale setulose blade. Outer dististyle, *d,* with outer blade relatively short and broad; inner style with beak very slender, lower beak about one-half as long. Appendage of ninth sternite, *9s,* with each arm very shallowly furcate, the arms short nearly equal in size.

Holotype, male, Quincemil, Cuzco, Peru, October 20 - 30, 1962 (L. E. Peña).

The most similar species include *Tipula (Microtipula) percomptaria* Alexander (fig. 6, left) and *T. (M.) topoensis* Alexander (fig. 6, right), both of Ecuador, differing from the present fly in details of hypopygial structure, especially the ninth tergite and the appendage of the ninth sternite. *T. (M.) decens* Alexander, of Peru, has the tergal modifications generally as in the present fly but differs in the dististyles and appendage of the ninth sternite.

LIMONIINAE

LIMONIINI

LIMONIA (RHIPIDIA) RHASMA sp. n.

Fig. 11

General coloration of mesonotal praescutum brownish yellow with three darker brown stripes; antennae black, with eight bipectinate flagellar segments; halteres brownish black; legs brownish black, femoral bases narrowly yellowed; wings almost uniformly brown with darker costal areas, the interspaces small and inconspicuous, *Sc* long, Sc^1 ending about opposite three-fourths *Rs;* male hypopygium with ventromesal lobe of basistyle a simple club; ventral dististyle with rostral prolongation small, the two spines approximated at bases; aedeagus unusually broad, genital tubes divergent outwardly.

Male: Lenght about 6.5 mm; wing 6 mm; antenna about 2 mm.

Rostrum and palpi darkened. Antennae black; first flagellar segment simple, abruptly long-pedicillate at end; segments two to nine bipectinate, longest branches about twice the segments, all of the latter with long apical pedicels; segment ten with a single branch; segment eleven simple, with a long pedicel; terminal segment longer than the penultimate, long-oval, the outer fourth narrowed. Head dark gray.

Pronotum brown. Mesonotal praescutum brownish yellow, with three darker brown stripes, central one darker at anterior end, pale and more constricted at near midlength; scutal lobes concolorous, median area obscure yellow; posterior sclerites of notum dark brownish gray. Pleura brown, more yellowed beneath. Halteres brownish black, base of stem narrowly obscure yellow. Legs with coxae and trochanters yellowed; remainder of legs brownish black, femoral bases narrowly yellowed; claws very small. Wings almost uniformly brown, costal third with four slightly darker areas that are separated by small paler markings, the darkenings extended posteriorly about to vein *M,* stigma darker; veins dark brown, with long conspicuous black trichia. Venation: *Sc* long, Sc^1 about opposite theree-fourths *Rs,* Sc^2 near its tip; free tip of Sc^2 *and* R^2 pale, in transverse alignment, R^{1+2} projecting beyond as a strong spur with about five trichia; *m-cu* at fork of *M.*

Abdominal tergites brown, sternites more bicolored, central part yellowed, base and apex brown, the latter more extensive, outer segments more uniformly darkened. Male hypopygium (fig. 11) with tergite, *t,* narrowly transverse, lateral ends narrow and twisted; posterior border shallowly concave, central part of anterior border more produced, the margin truncate. Basistyle, *b,* subequal in area to the ventral dististyle, the ventromesal lobe entirely simple, slightly narrowed at base. Dorsal dististyle, *d,* a long gently curved rod, the tip slender; ventral style with rostral prolongation small, the two spines placed close together on face at base, each spine shorter than the prolongation beyond it. Gonapophysis, *g,* with mesal-aplical lobe slender, blackened, tip acute. Aedeagus, *a,* unusually broad, especially at base, apex emarginate, the genital tubes divergent.

Holotype, male, Quincemil, Cuzco, Peru, August 18, 1962 (L. E. Peña).

The wing pattern of the present fly is generally similar to that of *Limonia (Rhipidia) variicosta* Alexander, of Panama. Other superficially similar species inclue *L. (R.) nubilosa* Alexander and *L. (R.) persuffusa* Alexander, both quite distincts in hypopygial structure. The simple clavate ventromesal lobe of the basistyle and the unmodified proctigeral structure of the present species separate it from virtually all other similar regional forms.

PEDICIINI

PEDICIA (TRICYPHONA) ARAUCANA sp. n.

Figs. 7, 12, 13

Allied to *platyptera;* general coloration of entire body black; antennae of male 8-segmented, the first flagellar element a compact oval mass comprised of about eight fused segments, with five free segments beyond; legs black; wings unusually broad, strongly darkened, widest opposite cell *1st A,* a supernumerary crossvein in cell *M;* male hypopygium with interbase a slender straight rod that is shorter than the dististyle, the latter terminating in two blades or lobes.

Male: Lenght about 4.5 mm; wing 6.5 x 2.3 mm; antenna about 0.65 mm.

Rostrum and palpi black. Antenna (fig. 12) black, the flagellum slightly paler; scape and pedicel large; basal segment of flagellum a compact oval fusion of about seven segments, with an incompletely fused small normal segment at the apex, beyond the fusion with five cylindrical segments, all with very long verticils, some nearly twice the length of the segments. Head black.

Thorax almost uniformly dull black, the pronotum and praescutum more intensely so. Halteres with stem whitened, knob very slightly darker. Legs with coxae brownish black, apices paler, especially the fore pair; trochanters brown; remain-

der of legs black, bases of fore and hind femora restrictedly yellowed. Wings (fig. 7) strongly darkened, especially the stigmal region; veins brown. Wings unusually broad, widest opposite cell *1st A.* Venation: R^2 slightly oblique, placed far distad, about twice R^{1+2}; *r-m* on R^{4+5} shortly before the fork; cell M^1 present, small, shorter than its petiole; cell *1st* M^2 closed; *m-cu* at near one-third M^{3+4}; a supernumerary crossvein in cell *M* sortly before level of vein Sc^2; cell *2nd A* broad.

Abdomen short, brownish black throughout. Male hypopygium (fig. 13) with the basistyle, *b,* and dististyle, d, firmly united, with no evident suture; dististyle as illustrated, terminating in an outer narrow blade and an inner curved rod. Interbase, *i,* a slender straight rod, its apex with two or three small setae. Phallosome, *p,* compact, posterior end with a central darkened lobe, on either side subtended by small glabrous knob.

Holotype, male, Pucatrihue, Osorno Province, April 10 - 12, 1968 (L. E. Peña).

Regional species that are allied to the present fly include *Pedicia (Trycyphona) albicentra* Alexander, Argentina; *P. (T.) guttistigma* Alexander, Chile; *P. (T.) phaeostigma* Alexander, Argentina; and *P. (T.) platyptera* Alexander, Chile. All of these are distincts in the wing venation, especially the lack of a supernumerary crossvein in cell *M,* and in hypopygial structure and conformation of the antennae.

The type locality, Pucatrihue, in coastal Osorno Province, has produced many crane flies of unusual interest. The ecological conditions found there have been discused by Peña in an outstanding paper that concerns chiefly the re-discovery of the primitive Mecopteran, *Notiothauma reedi* M'Lachlan (L. E. Peña). Natural history notes on *Notiothauma.* Discovery [Peabody Museum, Yale University] 4, Nº 1: 43 - 44, photograph; Fall 1968).

HEXATOMINI

GYNOPLISTIA (DIRHIPIS) LUTEOLA sp. n.

General coloration of mesonotum gray, including the praescutal stripes; antennae of male 22-segmented, with twelve long-

branched segments; wings clear light yellow, entirely unpatterned except for the very pale brown stigma and restricted darker brown seams at extreme wing base and before arculus, veins clear yellow.

Male: Lenght about 32 mm; wing 24 mm; antenna about 10 mm; abdomen alone about 26 mm.

Rostrum light brown, sparsely pruinose above; palpi brown. Antennae with scape and pedicel yellow ;flagellum with segments uniformly light brown on lower face, branches narrowly blackened at bases, the remainder brownish yellow; antenna 22-segmented, the formula 2+2+10+8; flagellar segments one to twelve with branches long-flagelliform, their vestiture long and conspicuous, thirteenth segment with a small tubercle close to tip. Head brown, sparsely pruinose.

Mesonotum almost solidly gray, including the confluent praescutal stripes, lateral borders brown. Pleura light brown, heavily silvery gray pruinose ,darker gray ventrally, especially on the lower sternopleurite. Halteres brown. Legs with coxae brownish yellow, heavily light gray pruinose; trochanters obscure yellow; femora brownish yellow, clearer yellow basally, outer end slightly darker; remainder of legs brownish yellow; claws small. Wings clear light yellow, stigma solidly very pale brown; conspicuous darker brown seams at extreme wing base and in prearcular cells, no other darkenings on the otherwise clear yellow veins. Veins behind *R* glabrous excepting a scattered series of trichia on distal half of outer section of vein R^5. Venation: *m-cu* at near two-thirds M^{3+4}.

Abdomen very long, as shown by the measurements; tergites reddish brown, vaguely more darkened sublaterally, extreme lateral borders pale; sternites beyond the basal segments almost uniformly dark brown to brownish black. Male hypopygium generally as in other members of the subgenus.

Holotype, male, Pucatrihue, Osorno Province, February 3 - 21, 1967 (L, E. Peña).

The clear yellow wings ,including the veins, separate the present fly from the other known species of the subgenus, all of which have the wings variously patterned with darker. Names

presently applied are *Gynoplistia (Dirhipis) fusca Jaennicke, G. (D.) riedeliana* Enderlein, the subgenotype, and *G. (D.) striatipennis* Alexander, all being generally similar to one another and their exact relationships still poorly understood. Jaennicke described his species as having fully-winged females whereas *striatipennis* has the wings of this sex greatly reduced in size. In the coloration of the wings and the number of antennal segments the present fly agrees well with the description of *Gynoplistia flavipennis* (Philippi) which still remains unknown to me. In size this fly is too small to pertain to the present species, the female sex being 20 mm in lenght, the wing expanse about 35 mm. In *luteola* the size is much greater (lenght 32 mm, wing expanse over 50 mm).

GYNOPLISTIA (GYNOPLISTIA) BASITARSALBA sp. n.
Figs. 8, 14

Size relatively large (wing of male about 20 mm); general coloration of body black, extensively gray pruinose; antennae of male 22-segmented, with 16 branched segments; legs black, fore and hind basitarsi extensively whitened on proximal half or more; wings brownish yellow, apex narrowly darker brown, disk with conspicuous brown spots at origin of *Rs*, stigma and over anterior cord; inner end of cell *1st* M^2 strongly arcuated; male hypopygium with mesal face of basistyle with abundant long black setae; outer dististyle a stout blackened rod, its apex truncate; inner style longer, base large, triangular; phallosome including two powerful divergent horns.

Male: Lenght about 19 - 21 mm; wing 13 - 14 mm; antenna about 4.8 - 5 mm.

Rostrum light gray, with long black setae; palpi black. Antennae black, 22-segmented, the formula 2+2+14+4; flagellar segments one to fifteen with long branches, those at midlength of organ longest, about seven or eight times the segment; branch of flagellar segment 15 short, subequal to or shorter than the segment. Head with disk above blackened,

PLATE II

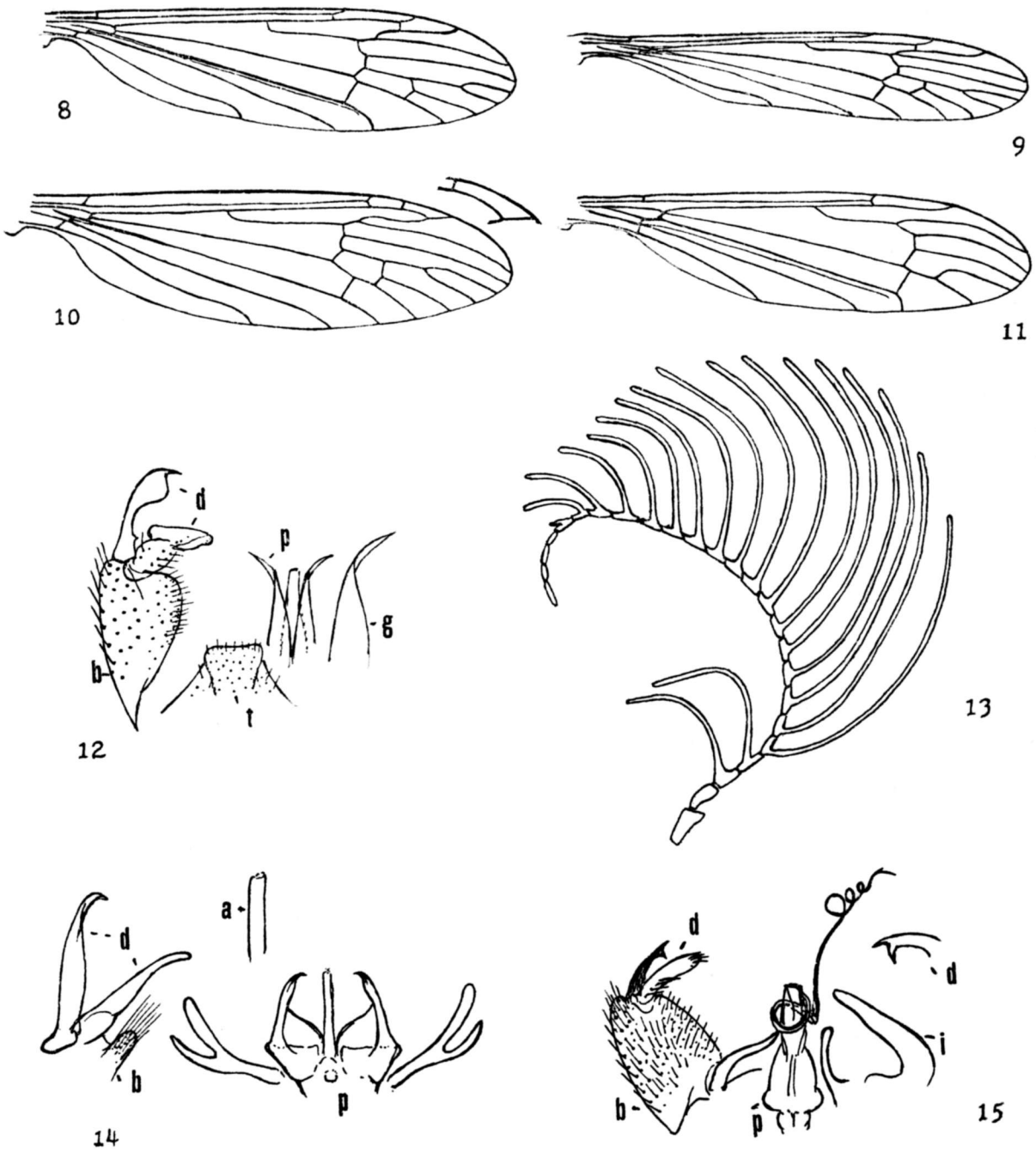


Fig. 8. *Paralimnophila diffusior* Alexander; venation.— Fig. 9. *Paralimnophila tortilis* Alexander; venation.— Fig. 10. *Gynoplistia (Dirhipis) salgadoi* sp. n.; venation.— Fig. 11. *Elephantomyia (Elephantomyia) niphopoda* sp. n.; venation. Fig. 12. *Paralimnophila tortilis* Alexander; male hypopygium.— Fig. 13. *Gynoplistia (Dirhipis) salgadoi* sp. n.; antenna, male.— Fig. 14. *Gynoplistia (Dirhipis) salgadoi* sp. n.; male hypopygium.— Fig. 15. *Elephantomyia (Elephantomyia) niphopoda* sp. n.; male hypopygium. (Explanation of figures, *a,* aedeagus; *b,* basistyle; *d,* dististyle; *g,* gonapophysis; *i,* interbase; *p,* phallosome; *t,* tergite).

heavily gray pruinose in front and more conspicuously on posterior vertex.

Pronotum black on central part, sides light gray pruinose. Mesonotal praescutum with ground black, disk with four plumbeous gray stripes, the intermediate pair narrow, separated by a broad ground area, lateral interspaces with very small yellow setae; scutal lobes plumbeous, being a direct extension of the lateral praescutal stripes, lateral ends of transverse suture very shallow, median section U-shaped, conspicuous; posterior sclerites of notum black, pruinose. Pleura light gray pruinose, dorsopleural membrane black. Halteres with stem dark brown, knob brownish black. Legs with coxae and trochanters conspicuously light gray; femora obscure yellow, outer two-thirds of fore and middle pairs broadly blackened, more narrowly on posterior femora; remainder of legs black, fore basitarsi with about the proximal half white, posterior basitarsi and proximal two-thrids of second segment whitened, middle tarsi entirely black; in a paratype only the fore basitarsi are clearly whitened, the posterior pair more obscured, outer four tarsal segments uniformly black. Wings (fig. 8) strongly brownish yellow, apex narrowly darker brown; a restricted but conspicuous brownish black pattern, including spots at origin of *Rs,* stigma and the anterior cord, much narrower on posterior cord and outer end of cell *1st* M^2; veins black. Longitudinal veins unusually glabrous, R^5 with a series of trichia on outer half. Venation: R^{2+3+4} subequal to or about one-half longer than basal section of R^5; cell M^1 from about one-third to one-half its petiole; inner end of the elongate cell *1st* M^2 conspicuously arcuated.

Abdomen elongate, black, first tergite gray pruinose; segments two to four, with base of five, polished black, outer segments more pruinose to appear plumbeous; hypopygium black. Male hypopygium (fig. 14) with posterior border of tergite produced into two low lobes that are separated by a shallow emargination. Basistyle, *b,* with a strong outer lobe, mesal face of style with abundant very long black setae. Outer dististyle, *d,* stout, black, slightly widened outwardly, apex truncate, inner apical angle slightly produced; inner style longer, base large, triangular, outer half a slender stem, at end dilated into a triangular head with a stout beak. Phallosome, *p,* including

powerful divergent inner apophyses that are much longer than the aedeagus together with a pair of shorter bladelike lateral elements.

Holotype, male, Pucatrihue, Osorno Province, forested coastal region, February 3 - 21, 1967 (L. E. Peña). Paratopotypes, 2 males, February 3 - 24, 1967.

Gynoplistia (Gynoplistia) basitarsalba is readily told from other regional species having whitened tarsi by the large size, number of antennal segments and branches, and especially the hypopygial structure, including the outer dististyle. Such species with variegated tarsi include *G. (G.) leucopeza* Alexander and *G. (G.) varipes* Alexander. The large cell *1st* M^2 of the wings with the inner end conspicuously arcuated likewise is a feature of *G. (G.) hylonympha* Alexander, in hall other respects an entirely different fly.

GYNOPLISTIA (GYNOPLISTIA) BIARMATA Alexander, forma *NIMBISIGNA* new

Female: Length about 30 mm; wing 22.5 mm; antenna about 5.5 mm.

Frontal prolongation of head light brown, pruinose above; palpi black. Antennae black throughout, 20-segmented, formula 2+2+8+8; terminal segment elongate, about one-fourth longer than the penultimate. Head reddish brown, heavily light gray pruinose.

Pronotum brown, heavily pruinose. Mesonotal praescutum light gray with four polished brownish black stripes, the anterior pair confluent anteriorly; pseudosutural foveae large, conspicuous; posterior sclerites of notum black, heavily light gray pruinose. Pleura brownish black, delicately silvery pruinose. Halteres with stem yellow, knob weakly darkened. Legs with coxae light grayish silvery; trochanters brown; femora light yellow basally, apex and a broad band before midlength black, the two areas separated by a more reddened band; tibiae yellow, apex vaguely darker; tarsi light yellowish brown, outer two segments darker brown. Wings yellow, with a conspicuous brown pattern that is heavier and more conspicuous than in forma *sparsisigna,* includ-

ing a broken band at origin of *Rs,* interrupted in cell *M;* a large irregular seam over cord and bases of outer radial cells; large brown spots at ends of veins R^3 and R^4; isolated smaller dark areas at near two-thirds *Rs,* in cell *R* at one-fifth the length, end of vein *1st* A and at midlength of cell *2nd A.*

Abdominal tergites brown, very vaguely patterned with paler, lateral borders narrowly buffy, bordered internally by darker brown; aternites with three reddish brown stripes, with a longitudinal yellow line on either side of the central darkened stripe.

Holotype, female, Pucatrihue, Osorno Province, forested coastal region, February 3 - 21, 1967 (L. E. Peña).

GYNOPLISTIA (GYNOPLISTIA) BIARMATA Alexander, forma *SPARSISIGNA* new.

Female: Length about 27 mm; wing 21 mm; antenna about 5 mm.

Frontal prolongation of head light brown; palpi black. Antennae with scape light brown, remainder black, incisures of the more proximal flagellar segments restrictedly pale; 20-segmented ,formula 2+2+8+8; longest branch about four times the segment, terminal segment short, subequal to the penultimate.

Pronotum reddish brown. Mesothorax discolored, chiefly reddish brown, gray pruinose, the normal distribution of pruinosity not clearly discernible in the unique type; pseudosutural foveae reddened, inconspicuous; interpostnotal suture and dorsal border of anapleurotergite darker brown. Halteres with stem yellow, knob weakly infuscated. Legs with coxae reddish brown, sparsely pruinose; trochanters obscure yellow; femora yellow basally, outwardly slightly darker, with indications of a clearer ring at near midlength; tibiae and proximal three tarsal segments obscure yellow, tips narrowly darker, remainder of tarsi brownish black. Wings yellow, restrictedly patterned with light brown, including areas at origin of *Rs,* near outer end of cell *R,* at an near cell *1st* M^2, tipo of R^3, fork of M^{1+2}, tip of *1st A* at and near end of vein *2nd A;* stigma uniformly light brown;

veins light brown, darker in the patterned parts. Venation: *Rs* long, rectangular at origin; *m-cu* at near two-thirds M^{3+4}.

Abdominal tergites brown, sparsely pruinose, lateral margins narrowly paler; sternites darker grayish brown, posterior borders of intermediate segments narrowly pale.

Holotype, female, Pucatrihue, Osorno Province, forested coastal region, February 3 - 21, 1967 (L. E. Peña).

The present fly is distinguished from typical *Gynoplistia (Gynoplistia)* biarmata Alexander, by the patterned wings, as described. The somewhat similar form described earlier in this paper as *biarmata nimbisigna* differs chiefly in the nature of the wing pattern as described.

GYNOPLISTIA (GYNOPLISTIA) CONCHYLIATA sp. n.

Figs. 9, 15

Disk of praescutum with three confluent polished black stripes, scutal lobes similarly polished, remainder of thorax gray and polished black; abdomen black, basal segments with strong purple reflections; antennae of male 20-segmented, with 14 branched segments; halteres black; legs black, fore femora with bases narrowly brightened, posterior tibia with a broad obscure yellow ring at near midlength; wings strongly darkened, with darker brown spots at origin of *Rs,* anterior cord and stigma; veins beyond cord unusually glabrous; male hypopygium with eighth sternite bearing two strong cylindrical lobes; dististyles slender, subequal in length, outer style bidentate at apex, inner style terminating in a small obtuse blade; phallosome with gonapophyses unusually small, appearing as brown blades.

Male: Length about 13.5 - 14 mm; wing 11 - 12 mm; antenna about 3 - 3.1 mm.

Rostrum black, gray pruinose; palpi and mouthparts black. Antennae of male 20-segmented, the formula 2+2+12+4, black throughout; longest branches more than one-third the entire antenna; last branch very small, subequal in length to the segment. Head polished black.

Prothorax dull black, heavily pruinose, with long white

setae on sides of scutum, the latter with a deep transverse furrow at near midlength, scutellum longitudinally impressed medially. Mesonotal praescutum with disk almost covered by three confluent polished black stripes, humeral and lateral areas gray pruinose, provided with silvery white setae, pseudosutural foveae oval, conspicuous; scutal lobes polished black, central area gray with a capillary black median line; scutellum and postnotum black. Pleura black, conspicuously gray pruinose on anepisternum and pteropleurite, ventral sternopleurite more polished black. Halteres black. Legs with coxae black, gray pruinose; trochanters brownish black; remainder of legs black, fore femora narrowly brightened basally; posterior tibia with a broad obscure yellow ring at near midlength, subequal in extent to the darkened base, slightly more extensive than the apex. Wings (fig. 9) strongly darkened, with still darker brown spots at origin of *Rs,* anterior cord and stigma; veins brown. Veins posterior to *R* glabrous with the exception of a few scattered trichia on distal section of R^5. Venation: R^{2+3+4} shorter than basal section of R^5; cell M^1 about twice its petiole; *m-cu* at or shortly before midlength of M^{3+4}.

Abdomen black, proximal segments with strong purple reflexions, outer segments, including hypopygium, more obscured by a faint pruinosity. Male hypopygium (fig. 15) with posterior border of tergite, *t,* bearing two small lobes, lateral margins with long black setae .Eighth sternite, *8s,* with posterior border bearing two widely separated cylindrical lobes, their tips with long setae. Dististyles, *d,* subequal in length outer style gradually narrowed outwardly, apex bidentate; inner sytle with basal three-fifths broad ,outer portion slender, apex an obtuse decurved blade. Phallosome, *p,* with gonapophyses unusually small, appearing as brown blades, inner plates of phallosome larger, blackened.

Holotype, male, 30 km northeast of Villarrica, Cautín, Chile, January 1 - 30, 1965 (L. E. Peña). Paratopotype, male.

The most similar species is *Gynoplistia (Gynoplistia) tristillata* Alexander, still known to me only by the type female. This is a smaller fly without purple coloration on the abdomen, the

halteres yellow with weakly darkened knobs, and with the legs brownish yellow to light brown, tre female sex with the antennae 17-segmented, with eight branched segments. In the present fly the black legs with a conspicuous yellow ring at near midlength of the posterior tibia provides strong characters.

GYNOPLISTIA (GYNOPLISTIA) COSTOSPILOTA sp. n.
Figs. 10, 16.

Size large (wing of male nearly 20 mm); abdomen very long; general coloration of body yellowed, patterned with brown; antennae of male 16-segmented, with 11 branched segments; femora light brown, outer end more yellowed and enclosing a narrow pale brown ring; wings brownish yellow, anterior third with an abundant brown pattern that includes about a dozen nearly circular spots in cell *C*, posterior wing cells sparsely patterned; abdomen obscure yellow, striped longitudinally with pale brown; male hypopygium with basistyle terminating in two stout lobes, the dististyles placed in the emargination; outer style terminating in an acute black spine.

Male: Length about 28 mm; wing 19 mm; antenna about 5 mm.

Rostrum light brown, silvery pruinose; palpi brownish black. Antennae of male presumably 19 segmented, terminal segments broken in type, formula 2+2+9+?; dark brown, proximal flagellar segments paler; longest flagellar branches about one-fourth the entire antenna; branches glabrous except for a few strong black setae at tip; three outer segments simple, their combined length about equal to the last branch. Head brown, with a heavy whitened pruinosity; setae of genae and sides of posterior vertex long, yellow.

Pronotum orange brown, heavily pruinose; scutum with a broad darker brown central stripes and a Ω shaped lateral area. Mesonotal praescutum yellowed, conspicuously patterned, including a narrow central dark brown vitta on anterior half and broad more chestnut areas in the humeral region; posterior half of praescutum more olive gray, partially obliterating the central

vitta; posterior sclerites of notum brownish yellow, very heavily whitened pruinose; mediotergite with a narrow darkened line. Pleura dark brown on dorsal half, pale brown ventrally, with a narrow whitened stripe on the dorsal sternopleurite and ventral pteropleurite; meral region with a small more blackened spot. Halteres with stem whitened, knob dark brown, the apex paler brown. Legs with coxae pale brown, heavily pruinose, posterior coxae darker apically; trochanters brownisr yellow; femora light brown, outer end more yellowed, enclosing a narrow brown subterminal ring that is subequal to the yellow apex; tibiae more yellowed, tarsi yellowed, darker at tip; tibial spur formula 1 - 2 - 2, spurs reddened basally, the long tips blackened. Wings (fig. 10) brownish yellow, anterior thrid with an abundant brown pattern, the remainder restrictedly marked, stigma yellow, the ends blackened; cell *C* with about a dozen nearly circular brown spots, cell *Sc* unmarked; radial field conspicuously patterned, including transverse interconnecting marks at origin and outer end of *Rs,* with smaller areas at and around the stigma in cells R^1, R^2 and R^3; outer ends of radial cells darkened along costa; scattered brown areas along veins M^{1+2}, including the fork of M^{1+2}; a single brown spot at near midlength of cell *Cu;* sparse brown spots in Anal cells; cell *M* unpatterned; veins light brown. Venation: *Rs* long, R^{2+3+4} short, about two-thirds the basal section of R^5; *m* and *r-m* short to lacking, as figured; *m-cu* at near two-thirds M^{3+4}; vein Cu^2 apparently lacking.

Abdomen very long; obscure yellow with narrow but conspicuous longitudinal brown stripes. Male hypopygium (fig. 16) with the tergite, *t,* extensive, posterior border subtruncate, with abundant yellow setae. Basistyle, *b,* terminating in two stout lobes, the dististyles in the emargination, mesal face near base with a smaller low protuberance. Outer dististyle, *d,* glabrous, narrowed on an acute black spine; inner style much stouter, outer end gently curved, tip obtuse. Phallosome, *p,* including stout apophyses, *g,* and the slender aedeagus, *a,* that is subtented by subtriangular blades.

Holotype, male, 30 km northeast of Villarrica, Cautín, Chile, December 16 - 31, 1964 (L. E. Peña).

The most similar species are *Gynoplistia (Gynoplistia) penana* Alexander, from El Coignal, Chile, and *G. (G.) scha-*

chovskoyana Alexander, from Neuquen, Argentina, especially the latter. Both species have the darkened spots in the costal cell, these lacking in *penana.* The present fly is smaller, with the darkened wing pattern distinctive, lacking in cell *M* and greatly reduced in the cubital cell. In *schachovskoyana* the male antennae are 19-segmented and it is presumed that the same condition exists in the present fly.

ERIOPTERINI

Aphrophila viridinervis Alexander.

Aphrophila veridinervis Alexander; Rev. Chilena Hist. Nat., 38: 178 - 179, fig. (venation); 1934.

Aphrophila veridinervis Alexander; Rev. Chilena de Ent., 3: 17, fig. 12 (male hypopygium); 1953.

As indicated in the 1953 reference given above the two sexes of this fly differ markedly in coloration of the body and wings, especially the latter. The female has the veins light green whereas the male shows no indication of this color and has the wings evidently patterned, including a continuous darkened seam over virtually the entire length of vein Cu. The principal series available to me is from Aucar, Chiloe Island, Chile, collected January 6 - 15, 1952 by Peña. Although the two sexes have not been captured in copula there seems to be no question but that a single species is represented.

Eriopterella pilosipes (Alexander).

¿Philippiana pilosipes Alexander; Diptera Patagonia and South Chile, 1: 177 - 178, plate 5, fig. 98 (venation); erroneusly given as fig. 99, duplicate; 1929.

Erioptera (Eriopterella) Alexander; same reference, 1: 196; 1929.

With the accession of the male sex the species tentatively placed in *Philippiana* now is recognized as belonging to *Eriopterella.* The materials are from Chile, Cautin, 30 km northeast of Villarrica, January 1 - 30, 1965, taken by Peña.

Eriopterella breviseta (Alexander) likewise was described in *Neophilippiana* Alexander, the replacement name for *Philip-*

piana Alexander, preoccupied (Papeis Avulsos de Zoologia, 21: 89 - 90; 1968).

Both *Eriopterella breviseta* and *E. pilosipes* are readily told from the genotype, *Eriopterella jaffueli* (Alexander) by their entirely unpatterned wings. The hypopygial structure is very similar in all known species.

CRYPTOLABIS (CRYPTOLABIS) PEÑAI sp. n.
Figs. 17, 18

General coloration of head and torax brownish black, pronotum and dorsopleural membrane yellowed; wings light brown, outer cells with abundant trichia, *Rs* in longitudinal alignment with vein R^5; male hypopygium with outer dististyle large and complex, on its face with a comb of seven or eight microscopic spines or teeth; phallosome including lateral darkened spatulate apophyses.

Male: Length about 3.8 mm; wing 4.5 mm; antenna about 0.8 mm.

Rostrum and palpi brown. Antennae dark brown. Head brownish black.

Pronotum and dorsopleural membrane yellowed, remainder of thorax chiefly polished brownish black, scutellum yellowed. Halteres with stem brown, the base paler, knob chiefly obscure yellow. Legs with coxae brown, trochanters obscure yellow; remainder of legs brown; vestiture of tibiae and tarsi long but subappressed and relatively inconspicuous. Wings (fig. 17) almost uniformly light brown, veins and punctures of trichia darker brown. Cells of wing with abundant trichia in centers except at outer ends, their position indicated in figure by stippling. Venation: *Rs* relatively long, in alignment with vein R^5; R^{2+3+4} arcuated, subequal to R^{2+3}; *r-m* at fork of *Rs*.

Abdominal tergites and hypopygium dark brown, sternites slightly paler. Male hypopygium (fig. 18) about as shown. Outer dististyle, *d*, large and complex in structure, on outer margin with a darkened knob, inner border with a smaller similar protuberance that bears a comb of seven or eight micros-

PLATE III

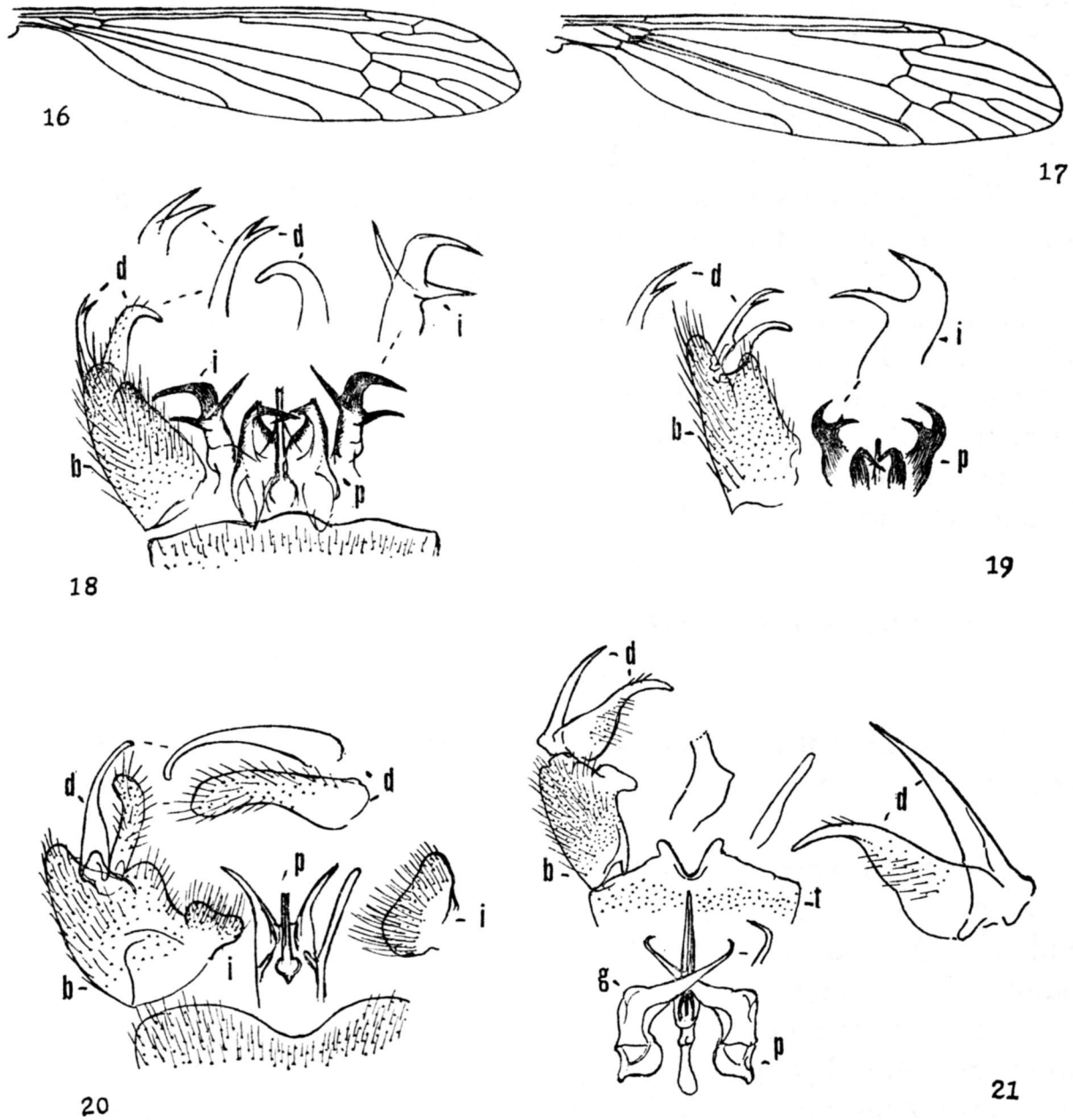


Fig. 16. *Gynoplistia (Gynoplistia) aequidentata* sp. n.; venation.— Fig. 17. *Gynoplistia (Ginoplistia) tergogibbosa* sp. n.; venation.— Fig. 18. *Gynoplistia (Gynoplistia) aequidentata* sp. n.; male hypopygium.— Fig. 19. *Gynoplistia (Gynoplistia) biarmata* Alexander; male hypopygium.— Fig. 20. *Gynoplistia (Gynoplistia) postica* Alexander; male hypopygium.— Fig. 21. *Gynoplistia (Gynoplistia) tergogibbosa* sp. n.; male hypopygium. (Explanation of figures, *a,* aedeagus; *b,* basistyle; *d,* dististyle; *g,* gonapophysis; *i,* interbase; *p,* phallosome; *t,* tergite).

copic teeth more basally; distal part of style narrowed, at apex with a separate paler flap bearing abundant setulae: inned style a much smaller clavate lobe, the apex with conspicuous setae. Phallosome, *p,* including lateral darkened spatulate apophyses, their tips expanded into oval blades; aedeagus elongate, relatively slender.

Holotype, male, 30 km northeast of Villarrica, Cautin, Chile, January 1 - 30, 1965 (L. E. Peña).

The species is dedicated to the collector, señor Luis E. Peña, outstanding student of the Tenebrionidae, particularly of the Chilean fauna. Other regional species that have the hypopygial phallosome with spatulate gonapophyses include *Cryptolabis (Criptolabis) atmophora* Alexander and *C. (C.) spatulata* Alexander, both quite distinct from the present fly in the conformation of the outer dististyle. These species have been figured in the author's treatment of the Tipulidae in the Diptera of Patagonia and South Chile, figures 227 and 230; 1929.

MOLOPHILUS (MOLOPHILUS) BREVILOBATUS Alexander
Fig. 19

Molophilus (Molophilus) brevilobatus Alexander; Rev. Chilena Hist. Nat., 42: 281 - 282; 1938.

The types were from Villa Portales, Pinares de Lonquimay, 1600 meters[a] collected January 22 - 23, 1938, by Dillman S. Bullock. One further male, Cordillera Las Raices, West Lonquimay, 1.500 meters, taken December 28, 1967, by Peña.

The further notes on the hypopygium are based on the latter specimen. Male hypopygium (fig. 19) generally as in *M. (M.) clavigerus* Alexander, differing in all details. Basistyle, *b,* with apex broadly obtuse, provided with numerous very long yellow setae that are curved on outer ends, the longest nearly equal in length to the inner dististyle; shortly before apex on mesal face with a long lobule that is tipped with shorter yellow setae; mesal face of style near base with dense abundant yellow setae of moderate length. Both dististyles, *d,* pointed at tips, outer style longer, slightly dilated beyond midlength, thence narrowed into a long slender spine, outer margin of expanded part with

a linear impression or channel; inner style dilated on basal third, thence suddenly narrowed, the blackened apex slightly enlarged, terminating in a short acute spine. Aedeagus, *a,* narrowed outwardly, apex very slender.

MOLOPHILUS (MOLOPHILUS) DIACANTHUS sp. n.
Fig. 20

Belongs to the *plagiatus* group; size large (wing and body of male about 6 mm); palpi and antennae black; mesonotum almost uniformly brownish black, dorsopleural region yellowed; apex of halter yellowed; legs mediun brown; male hypopygium with basal dististyle unequally bispinous from a very short base, outer spine shorter and more slender, with two or three microscopic appressed spinules before tip; aedeagus long and slender.

Male: Length about 6 mm; wing 6.2 mm; antenna about 1.65 mm.

Rostrum brownish black, palpi black. Antennae black; flagellar segments long-oval, progressively more slender outwardly, with very long black verticils, the opposite face of segment with more abundant short erect yellow setae. Head gray.

Pronotal scutum brown, more grayish medially; pretergites and dorsopleural membrane conspicuously light yellow. Mesonotum almost uniformly brownish black, humeral region of praescutum restrictedly more yellowed; mesonotal vestiture relatively short and inconspicuous. Pleura and postnotum more plumbeous black, setae of pteropleural region yellow, long and conspicuous. Halteres with stem pale brown, knob paling to obscure yellow, the apex narrowly clear yellow. Legs with coxae blackened; trochanters light brown; remainder of legs medium brown, outer tarsal segments more blackened. Wings with a weak brownish tinge, stigmal region more yellowed; veins light brown, with abundant long brownisr black trichia. Venation: R^2 shortly beyond level of *r-m;* petiole of cell M^3 slightly less than twice the gently sinuous *m-cu;* vein *2nd A* long, ending about opposite otne-third the petiole of cell M^3.

Abdomen black; tergites with long erect pale vestiture.

Male hypopygium (fig. 20) with beak of basistyle, *b,* unusually long and slender, gently decurved. Outer dististyle, *d,* with outer arm more slender and slightly longer than the inner arm; basal dististyle distinctive, including two long unequal spines from a very short base, both spines acutely pointed, the outer one shorter and more slender, before apex with two or three microscopic appressed spinules, inner spine broadest on proximal two-thirds. Aedeagus, *a,* long and slender, of equal thickness throughout, about one-half longer than the basal dististyle.

Holotype, male, Cordillera Las Raices, West Lonquimay, Chile, 1.500 meters. December 28, 1967 (L. E. Peña).

Other regional species that have the basal dististyle of the hypopygium bispinous and the base very short itnclude *Molophilus (Molophilus) ozotus* Alexander, *M. (M.) serrulatus* Alexander, *M. (M.) setosistylus* Alexander, *M. (M.) sparsispinus* Alexander, and several others that were described and figured by the writer in the Diptera of Patagonia and South Chile, Part I, figures 236 through 224; 1929. All of these differ from the present fly in their smaller size, different colorational patterns, and in details of hypopygial structure, particularly the basal dististyle.

MOLOPHILUS (MOLOPHILUS) DISTIREMUS sp. n.

Fig. 21

Belongs to the *plagiatus* group, allied to *pretiosus;* size relatively large (wing of male in cases to about 5.5 mm); general coloration of thorax orange yellow, darker in some specimens; male hypopygium with basal dististyle a long slender rod, the outer half more expanded into a blade, the margin with numerous subappressed teeth; phallosomic plate elongate-shieldshaped; aedeagus stout and straight, smooth.

Male: Length about 4 - 5 mm; wing 4.2 - 5.8 mm; antenna 1.5 - 1.6 mm.

Rostrum yellow; palpi brownish black. Antennae with scape and pedicel light brown, flagellum black; flagellar segments long-oval. Head yellowish brown, sparsely gray pruinose.

Pronotum yellow, pretergites clearer yellow. Mesothorax

almost uniformly orange or orange yellow, central region of praescutum slightly darker. Some specimens are darker brown, including the pleura, the dorsopleural region and lateral praescutal border clearer yellow. Halteres yellow. Legs with coxae and trochanters yellow; femora yellow, slightly darker outwardly; tibiae and basitarsi brownish yellow, outer tarsal segments brown. Wings yellow, prearcular and costal fields clear light yellow; veins darker yellow, trichia light brown. Venation: R^2 slightly beyond level or *r-m;* petiole of cell M^3 somewhat less than twice the oblique *m-cu;* vein *2nd A* shortly beyond base of M^3+^4.

Abdominal tergites light brown, sternites and hypopygium yellowed. Male hypopygium (fig. 21) with beak of basistyle, *b,* short, blackened. Outer dististyle simple, apex obtuse. Basal dististyle, *d,* distinctive, appearing as a long slender rod, the outer half more expanded into a blade, its margin with approximately 25 to 30 subappressed teeth, the more proximal ones slender and crowded; face of blade with microscopic punctures and numerous scabrous points. Phallosomic plate, *p,* elongate-shield-shaped, broadest on basal half, narrowed to the obtuse tip. Aedeagus, *a,* stout and straight, the enclosed penis slender, the outer half not scabrous.

Holotype, male, Los Cipreces, Talca, Chile ,1.050 meters, January 13 - 15, 1968 (L. E. Peña). Paratopotypes, males and females.

The most similar species is *Molophilus (Molophilus) pretiosus* Alexander, which has the phallosomic plate of the male hypopygium much the same but with the basal dististyle and aedeagus quite distinct.

MOLOPHILUS (MOLOPHILUS) NEOPANSUS sp. n.

Fig. 22

Belongs to the *plagiatus* group; general coloration of mesonotum brown, posterior sclerites patterned with yellow; wings moderately infuscated, petiole of cell M^3 about one-third longer than *m-cu;* male hypopygium with the basal dististyle a strong rod with a lateral spine at near two-fifths the length, the long axial rod bispinous at apex, surface with small appressed spines; phallosomic plate emarginate, setiferous.

Male: Length about 3.5 mm; wing 4 mm.

Head broken. Pronotal scutum brown, scutellum and pretergites yellow. Mesonotal praescutum light brown, broadly darker brown on sides, humeral region still brighter, posterior sclerites of notum brown, parascutella and pleurotergite more yellowed. Pleura brown, dorsopleural region obscure yellow. Halteres with stem brownish yellow, paler basally, knob brown. Legs with coxae and trochanters light yellow; remainder of legs broken. Wings moderately infuscated, especially in the stigmal region; veins light brown. Venation: R^2 slightly distad of level of *r-m;* basal section of R^5 oblique; petiole of cell M^3 about one-third longer than *m-cu.*

Abdomen dark brown, hypopygium slightly more brownish yellow; dististyles of hypopygium blackened. Male hypopygium (fig. 22) with beak of basistyle, *b,* slender. Outer dististyle, *d,* with arms very unequal; basal style distinctive, proximal two-fifths stouter, at this point bearing a slender lateral spine, outer three-fifths narrower, divided at apex into two long spines, surface of style with small appressed points. Phallosomic plate, *p,* conspicuously emarginate, setiferous.

Holotype, male, 30 km. northeast of Villarrica, Cautin, Chile, January 1 - 30, 1965 (L. E. Peña).

The most similar species is *Molophilus (Molophilus) pansus* Alexander, which has the basal dististyle of the hypopygium somewhat similar in general conformation ,with the longer arm bispinous at apex. In this species the major arm of the style is only slightly longer than the lateral spine and lacks the appressed spinules over the surface, as in the present fly.

MOLOPHILUS (MOLOPHILUS) SUBHONESTUS sp. n.
Fig. 23

Belongs to the *plagiatus* group, allied to honestus; general coloration of mesonotum dark brown, humeral region light yellow; pleura dark brown above, paler brown ventrally, dorsal sternopleurite vaguely yellowed; halteres with stem yellow, knob orange; male hypopygium with basal dististyle stout, with a lateral

PLATE IV

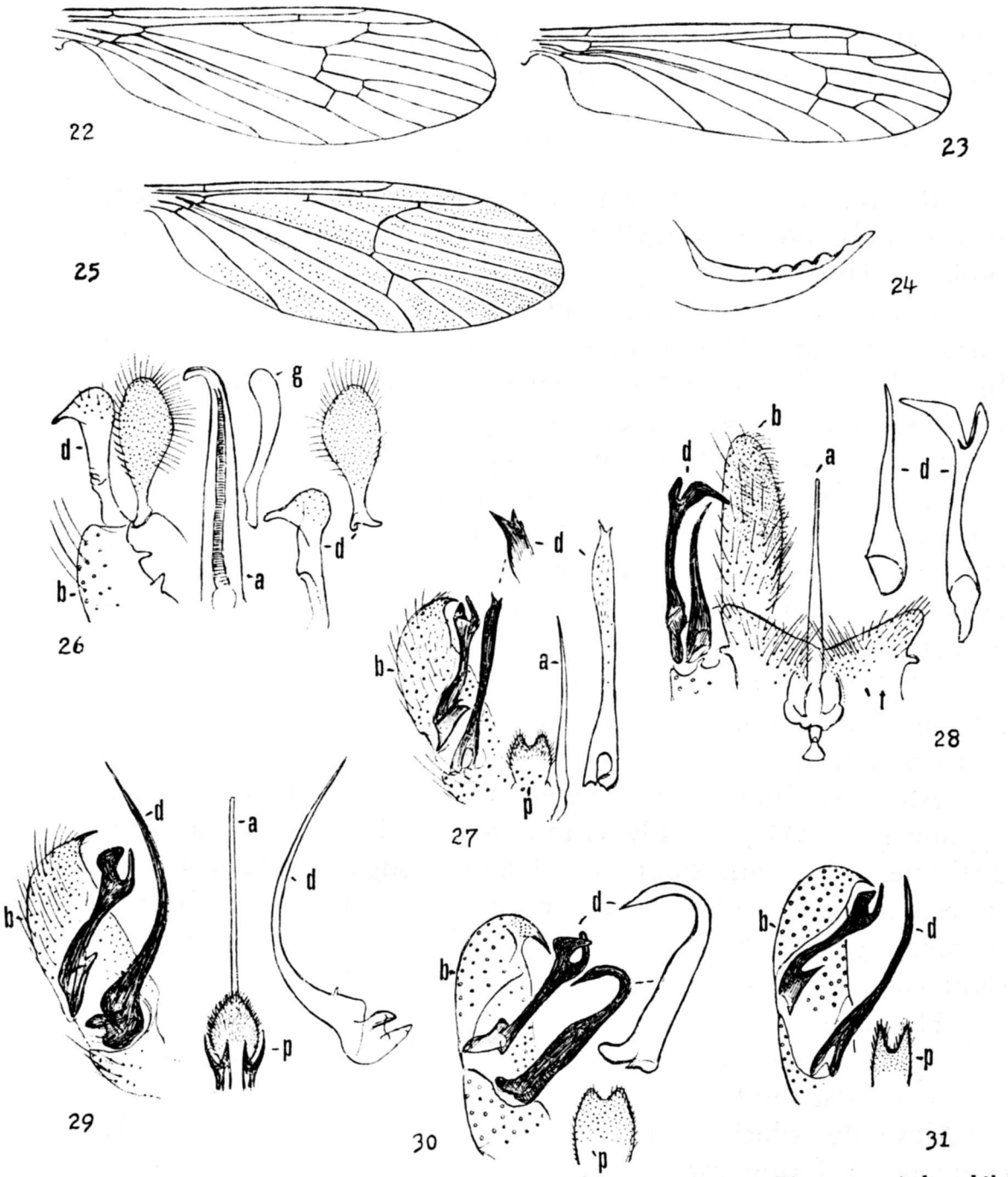


Fig. 22. *Neophilippiana breviseta* Alexander; venation.— Fig. 23. *Aphrophila amblydonta* sp. n.; venation.— Fig. 24. *Aphrophila amblydonta* sp. n.; ovipositor, cercus.— Fig. 25. *Cryptolabis (Cryptolabis) phallostena* Alexander; venation.— Fig. 26. *Cryptolabis (Cryptolabis) phallostena Alexander;* male hypopygium.— Fig. 27. *Molophilus (Molophilus) brevisectus* sp. n.; male hypopygium.— Fig. 28. *Molophilus (Molophilus) hecate* sp. n.; male hypopygium.— Fig. 29. *Molophilus (Molophilus) pergracillimus* sp. n.; male hypopygium.— Fig. 30. *Molophilus (Molophilus) pastoris* Alexander; male hypopygium.— Fig. 31. *Molophilus (Molophilus) stenorhabda* Alexander; male hypopygium. (Explanation of figures, *a,* aedeagus; *b,* basistyle; *d,* dististyle; *g,* gonapophysis; *p,* phallosomic structure; *t,* tergite.

spine at near midlength, the longer outer arm with a compact comb of four subappressed spines.

Male: Length about 4.5 mm; wing 5 mm.

Rostrum and palpi dark brown. Antennae with scape and pedicel light brown, flagellum brownish black (outer segments broken). Head brownish yellow.

Pronotum yellow, with conspicuous brown setigerous punctures on scutum. Mesonotal praescutum with humeral triangles light yellow, disk with three confluent dark brown stripes; scutal lobes grayish brown, central region and scutellum clearer gray; postnotum black, pruinose, cephalic end of interpostnotal suture broadly yellow. Pleura dark brown above, ventral sternopleurite and meron paler, dorsal sternopleurite vaguely yellowed. Halteres with stem light yellow, knob orange. Legs with coxae brownish yellow, trochanters darker yellow; remainder of legs broken. Wings yellow, veins darker yellow. Venation: Basal section of R^{4+5} short, in longitudinal alignment with *Rs,* basal section of R^5 about twice as long; petiole of cell M^3 about one and one-half *m-cu.*

Abdomen brown, hypopygium more yellowed. Male hypopygium (fig. 23) generally as in *honestus,* the stem of the basal dististyle, *d,* long and stout, lateral spine elongate, slender, placed at near midlength of style; outer arm longer and more slender, terminating in a straigtht spine, immediately before this with a short comb of four subappressed slightly smaller spines.

Holotype, male, Tafi del Valle, Tucuman, Argentina, altitude 2.200 meters, January 30, 1953 (P. Wygodzinsky).

The most similar species is *Molophilus (Molophilus) honestus* Alexander which similarly has the stem of the basal dististyle elongate, differing especially in the arrangement and relative proportions of the outer branches of this style.

NEW OR LITTLE-KNOWN TIPULIDAE FROM CHILE AND PERU

(DIPTERA: TIPULIDAE)

CHARLES P. ALEXANDER
Amherst, Massachusetts

Part III

SUMMARY.— The crane flies discussed at this time are from Chile where they were captured by señor Luis E. Peña, outstanding collector of insects in many orders. I am greatly indebted to him for the privilege of retaining the types of the various new species in the Alexander Collection of these flies.

TIPULINAE

ISCHNOTOMA PERACUTA sp. n. (Fig. 4)

Allied to *fagetorum;* size large (wing of male nearly 25 mm.); male hypopygium with tergal lobes terminating in short needlelike points, setae of the lobes extending to outer margins or virtually so.

Male: Length about 22 mm; wing 24.5 mm.; antenna about 4 mm.

Frontal prolongation of head black, nasus elongate, palpi black. Antennae black, apex of pedicel reddened; first flagellar segment subequal in length to scape. Head variegated with light gray and brownish black areas, the former including the narrow orbits and a transverse band behind the conspicuous vertical tubercle, occiput narrowly reddened.

Pronotum blackened, sublaterally gray pruinose. Mesonotal praescutum with four dark gray stripes that are conspicuously margined by black, posterior interspaces light gray, widened at suture, the latter with a darkened central area that is extended into a point behind at near midlength of the scutum; scutal lobes gray, with three blackened areas, the inner pair contiguous; scutellum gray; postnotum dark plumbeous gray, mediotergite tumid, katapleurotergite conspicuously light gray. Pleura blackened, gray pruinose; dorsopleural region bright orange yellow, infuscated anteriorly at the spiracle. Halteres with stem yellow, knob brownish black. Legs with coxae blackened, gray pruinose; remainder of legs black. Wings patterned generally as in *fagetorum,* the darkened areas more extensive, especially before cord in the cubital and anal cells; seams at veins *Cu* and *2nd A* broad, cell M^4 almost uniformly darkened; triangular darkened area in outer end of cell *1st A* conspicuous; veins brown. Venation: *Rs* straight and oblique, as in *fagetorum;* cell R^3 very narrow at midlength, cell M^4 long and narrow.

Basal tergite brownish gray, segments two to four orange, narrowly darkened medially, lateral margins clear light yellow; basal sternites more obscure orange, outer segments dark brown to appear plumbeous. Male hypopygium (Fig. 4) with tergite, *t,* distinctive, narrowed outwardly, terminating in a depressed-flattened blade, its apex with a broad low emargination, the triangular lateral lobes extended into short needlelike points, apical margins of lobes with dense setae; dorsal surface of tergal plate with a broad V-shaped darkening at base of the blade, the setae at and behind this area very abundant but small, outwardly on the blade becoming more sparse and progressively longer. Dististyles, *d,* as figured. The tergites of typical *fagetorum* (Fig. 4A) and its race *trunculata* (Fig. 4B) are shown for comparison with the present fly; in these the extreme outer margins of the tergal lobes are obtuse to subtruncate, glabrous.

Holotype, male, Hornohuinco, Llanquihue, Chile, December 1968.

L I M O N I I N I

LIMONIA (DICRANOMYIA) CERBEREANA Alexander (Fig. 1)

Limonia (Limonia) cerbereana Alexander; Diptera of Patagonia and South Chile, 1: 87, figs. 16 (venation), 177 (male hypopygium); 1929.

The unique type, a male, was from Correntoso, Lake Nahuel Huapi, Río Negro Territory, Argentina. In the intervening years only a few further specimens have been seen by the writer, these adding some further information on structure. The species originally was placed in the subgenus *Limonia,* based on the extreme length of vein *Sc* of the wings, but more recently with more emphasis being placed in hypopygial structure it appears more correctly assigned to the subgenus *Dicranomyia* Stephens.

All recently collected specimens have cell *1st M*^{2} of the wings closed (Fig. 1) and it now appears that the open condition of cell *M*^{2} as described in the holotype represents an abnormal condition. The unusually long veins *Sc* and *Rs* in this species should be emphasized. The hypopygium of the type male as figured showed two widely separated rostral spines on the ventral style and the mesal-apical lobe of the gonapophysis bent into a short hook. In the second male now available the lobe of the apophysis is much straighter and the rostral spines are three in number and only moderately separated. Both of these males have the same distinctive aedeagus and are considered as being conspecific.

Additional records. One female Contulmo, Palo Botado, Arauco February 2, 1953 (Peña). One male, one female, Northeast of Volcan Calbuco, 200 meters, January 21 - 22, 1969 (Peña).

LIMONIA (DICRANOMYIA) CHLOROTICA (Philippi) (Fig. 5)

Limnobia chlorotica Philippi; Verh. zool. bot. Ges. Wien, 15: 614; 1865.

Limonia (Dicranomyia) chlorotica Alexander; Diptera of Patagonia and South Chile, 1: 97; 1929.

Philippi's unique type, a female, was collected by Ferdinand Paulsen at an unspecified locality in Chile. The Edwards-Shannon collections of 1926 lacked this species but more recent materials taken by Peña included the unknown male which is here characterized as allotype.

Male: Length about 9 mm.; wing 11 mm.; antenna about 1.8 mm.

Characters about as in the female as described by Philippi, including the rusty yellow coloration of the thorax with a single well-defined brown praescutal stripe, the usual lateral darkenings being virtually obsolete, especially behind. The light green tints are very persistent, especially on the halteres and on the coxae, trochanters and femoral bases.

Male hypopygium (Fig. 5) with the posterior border of tergite, *t,* very shallowly emarginate, each low lobe with numerous pale setae. Basistyle, *b,* small, its area less than one-third the large fleshy ventral dististyle, *d,* the dorsal style a small sickle that narrows very gradually into a long point; ventral dististyle with rostral prolongation very small, the two black spines subequal to or longer than the entire prolongation ,placed close together, decussate near their bases.

Allotype, male, Los Cipreces, Talca, Chile, 1050 meters, January 13 - 15, 1968 (Peña). One female, Pucatrihue, Osorno, Chile, April 10 - 12, 1968 (Peña).

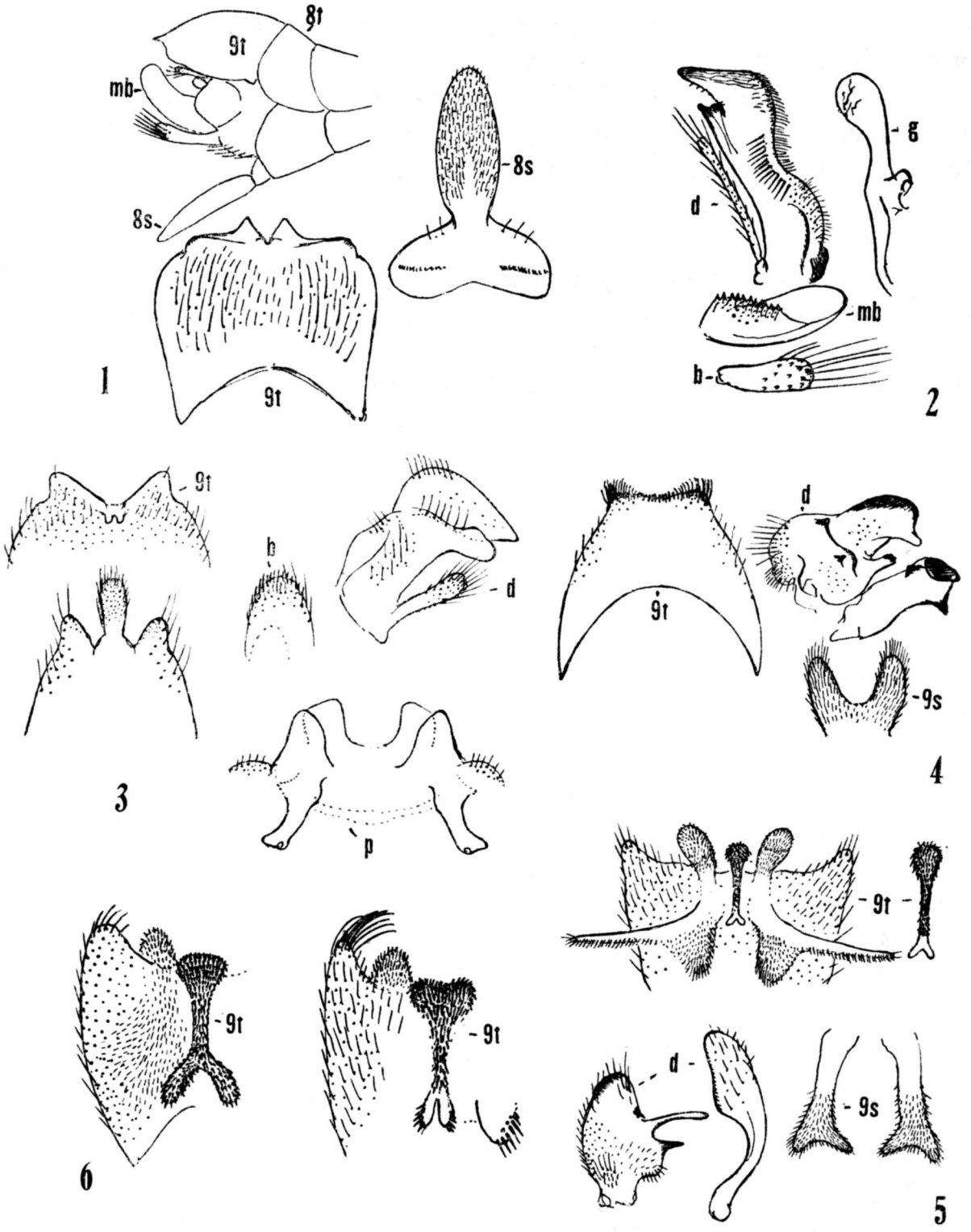
LIMONIA (ZELANDOGLOCHINA) MINIATA Alexander

Limonia (Zelandoglochina) miniata Alexander; Diptera of Patagonia and South Chile, 1: 84 - 85; 1929.

This species superficially resembles *Limonia (Geranomyia) valida* (Loew), this being shown by the persistent green coloration of certain body parts, especially the knobs of the halteres. The differences between these are indicated.

Limonia (Zelandoglochina) miniata - Labial palpi short and broad, extending about to apices of antennae; frontal prolongation of head short, maxillary palpi about opposite antennal segments four or five on slide mount. Wings with veins brown,

PLATE I



Figs. 1, 2. *Tipula (Eumicrotipula) biacerva* sp. n.; male hypopygium.— Fig. 3. *Tipula (Eumicrotipula) lethe* sp. n.; male hypopygium.— Fig. 4. *Tipula (Microtipula) schunkei* sp. n.; male hypopygium.— Fig. 5. *Tipula (Microtipula) tergoarmata* sp. n.; male hypopygium.— Fig. 6, left. *Tipula (Microtipula) percomptaria* Alexander; male hypopygium.— Fig. 6, right. *Tipula (Microtipula) topoensis* Alexander, male hypopygium. (Explanation of figures, *b,* basistyle; *d,* dististyle; *g,* gonapophysis; *mb,* mesal lobe of basistyle; *p,* phallosome; *s,* sternite; *t,* tergite).

lacking green coloration except in prearcular field, stigma pale brown. Male hypopygium with ventral dististyle small, not exceeding about one and one-half times the basistyle; rostral spine long, subequal in length to the rostrum beyond it. Apex of aedeagus broad, slightly expanded, genital openings separated and slightly divergent.

Limonia (Geranomyia) valida - Labial palpi long and slender; frontal prolongation of head longer, as in the subgenus, maxillary palpi inserted at near midlength of rostrum or about opposite the eighth to tenth antennal segments. Wings with veins yellow, with more persistent green tints, stigma not or scarcely differentiated from the ground. Male hypopygium with ventral dististyle large and fleshy about two and one-half to three times the basistyle; rostral spine short, apex oblique to form a sharp point. Apex of aedeagus narrower, genital openings approximated.

LIMONIA (ZELANDOGLOCHINA) NUBLEANA sp. n.
(Figs. 2, 6)

Mesonotal praescutum chestnut brown, yellowed laterally; pleura yellow with two narrow dark brown stripes; fore coxae small, dark brown, remaining coxae larger, yellow; femore obscure brownish yellow with a narrow nearly terminal brown ring; wings brownish yellow with a restricted darker brown pattern that includes a common area over tip of *Sc* and origin of *Rs*, vein *Sc* short; abdominal tergites cinnamon brown, lateral and posterior borders blackened; male hypopygium with ventral dististyle extended into a long slender rod, without spinoid setae, dorsal dististyle rudimentary, apex of aedeagus terminating in acute lateral points.

Male: Length, including rostrum, about 11 mm.; wing 9 mm.; rostrum about 2.5 mm.

Rostrum black, the very long labial palpi with the divided outer parts strongly coiled. Antennae brownish black; flagellar segments oval with abrupt apical necks; verticils very long, the maximum about one-half longer than the segment. Head dark brownish gray, anterior vertex narrow.

Pronotal scutum dark brown, more yellow pollinose behind, scutellum and pretergites yellowed. Mesonotal praescutum with disk virtually covered by confluent chestnut brown stripes, the median ground indicated only by a pale streak at the suture, humeral and lateral borders broadly yellowed; scutal lobes chestnut brown, central part yellowed, extended backward to include central areas of scutellum and mediotergite; pleurotergite chiefly yellowed, narrowly darkened above the halteres. Pleura yellow, with two narrow longitudinal dark brown stripes, dorsal one extending from cervical region to abdomen, including the root of the halteres, ventral stripe involving the unusually small fore coxae; ventral sternopleurite grayish yellow. Halteres with stem yellow, knob weakly infuscated. Legs with fore coxae darkened, as described, remaining coxae and trochanters light yellow; femora obscure brownish yellow with a narrow nearly terminal brown ring; tibiae and tarsi brownish yellow to yellowish brown, outer segments darker; claws with a conspicuous slender spine, the more basal spinules nearly obsolete. Wings (Fig. 2) brownish yellow, with a restricted darker brown pattern that includes the stigma and narrow confluent seams at tip of *Sc* and origin of *Rs,* with paler clouds over cord and outer end of cell *1st* M^2; veins brown. Venation: *Sc* short, ending opposite origin of *Rs, Sc*^{1} and *Sc*^{2} virtually equal; *Rs* weakly angulated at origin; *m-cu* shortly before fork of *M.*

Abdominal tergites cinnamon brown, patterned with black, including the lateral and posterior borders, the latter more extensive on the outer segments; hypopygium brownish yellow. Male hypopygium (Fig. 6) with posterior border of tergite, *t,* shallowly emarginate, the relatively small lobes obtuse. Basistyle, *b,* with ventromesal lobe very large, with unusually long setae. Ventral dististyle, *d,* distinctive; body oval, the rostral prolongation a long slender gently curved rod, without spinoid setae as common in the subgenus, but with a single exceptionally long normal setae hear base; what appears to represent the usual dorsal style appears as a microscopic yellow rod. Gonapophysis, *g,* with mesal-apical lobe elongate, gradually narrowed outwardly; aedeagus straight, outer apical angles extended into small points.

Holotype, male, Cobquecura, Ñuble, Chile, December 14, 1953 (Peña).

The present fly is quite distinct from other species of the subgenus in hypopygial characters, especially the dististyle and aedeagus. The virtual loss of the dorsal dististyle should be emphasized. Three other regional species, *Limonia (Zelandoglochina) fagetorum* Alexander; *L. (Z.) omissistyla* Alexander; *L. (Z.) torticornis* Alexander, have a comparable condition but the venation and other details of hypopygial structure are distinct.

TONNOIROMYIA SPINULOSA sp. n. (Figs. 3, 7)

General coloration of thorax fulvous yellow, pleura clearer yellow; legs brown, tarsi extensively snowy white; wings pale brown, stigma slightly darker, *r-m* far distad, only slightly before level of R^2; male hypopygium with phallosome entirely distinctive, including two very broad flattened plates that bear abundant small spinous points.

Male: Length about 6 mm.; wing 6 mm; antenna about 4 mm.

Rostrum and palpi brown. Antennae brown throughout; flagellar segments long-cylindrical, with very abundant erect pale setae, the normal verticils very sparse, slightly longer and stouter (terminal two segments broken). Head brown.

Pronotum dark brown. Mesonotum fulvous yellow, anterior end of praescutum dark brown, central region behind the suture clearer yellow. Pleura light yellow below, including the very large sternopleurite, more darkened dorsally. Halteres with stem brown, paler basally, the large knobs blackened. Legs with fore coxae weakly darkened, remaining coxae and all trochanters yellow; femora brown, extreme bases yellowed; tibiae and about the proximal fourth of basitarsi brown, remainder of tarsi excepting the brown terminal segment snowy white. Wings (Fig. 3) pale brown, stigma slightly darker brown; veins brown. Longitudinal veins beyond general level of origin of *Rs* with macrotrichia, including also most of vein *Cu* and outer ends of the Anals, *Sc* glabrous. Venation: Basal section of R^{4+5} long, exceeding three-fourths R^{2+3}; *r-m* only slightly before level of R^2.

Abdominal tergites brown, sternites paler, segments seven and eight dark brown to form a conspicuous ring; hypopygium yellow. Male hypopygium (Fig. 7) with centratl emargination of tergite, *t,* broader than in *patagonica,* the lateral lobes appearing narrower. Dististyles, *d,* longer, especially the blackened outer style. Phallosome, *p,* entirely distinctive, including very broad platelike apophyses that are contiguous or slightly decussate at the midline, their borders with abundant spinous points, as shown; phallosomic plate at anterior or cephalic end produced into two obtusely rounded lobes.

Holotype, male, Hornohuinco, Llanquihue, Chile, December 1968 (Peña).

The present fly is entirely different from the only other New World member of the genus, *Tonnoiromyia patagonica* Alexander, especially in the structure of the hypopygial phallosome, as described and figured. The hypopygium of *patagonica* was illustrated at the time of the original description (Diptera of Patagonia and South Chile, 1: 68 - 69, fig. 165; 1929).

HEXATOMINI

GYNOPLISTIA (DIRHIPIS) SALGADOI sp. n.
(Figs. 10, 13, 14)

Size medium (wing of male about 20 mm.); general coloration of thorax yellow and brownish gray; antennae of male 25-segmented, with 19 branches, the last very short, vestiture of branches very short and inconspicuous; wings yellowed, costal border in cases broadly darker; male hypopygium with aedeagus a straight simple rod, apex not bent or dilated.

Male: Legth about 24 - 28 mm.; wing about 20 mm.; antenna about 7 mm.

Rostrum dark brown, palpi black. Antennae of male (Fig. 13) with scape and pedicel yellow, proximal flagellar segments bicolored, yellow, the branches brown, the stems paler brown at their insertion, outer simple segments more uniformly brown; antennae 25-segmented, formula 2+2+17+4; branches long, the maximum exceeding one-third the entire organ, longest on flagellar segments seven to nine, thence gradually shorter out-

wardly, last branch a short spur that is less than the segment; outer four segments simple, the last about one-half longer than the penultimate; branches with very sparse long black verticils; normal vestiture delicate, very abundant, much shorter than the verticils, the longest subequal to or shorter than the diameter of the branch at point of insertion. Head grayish brown, orbits clearer gray, occipital region more yellowed.

Pronotum brown. Mesonotal praescutum yellowed on sides, disk with three brownish gray stripes, with a further capillary black median line that becomes obsolete before suture, interspaces with conspicuous brown setigerous punctures, setae yellow; posterior sclerites of notum brownish gray, scutum medially more yellowed. Pleura gray, dorsopleural membrane yellow. Halteres with stem light gray, knob dark brown. Legs with coxae brownish gray, trochanters brownish yellow; femora yellow, tips broadly brown; remainder of legs light yellow, tips of tibiae very narrowly more darkened; claws black, microscopically toothed beneath. Wings (Fig. 10) of type short and broad, anterior third strongly infuscated, remainder yellow; a restricted darker brown pattern that includes the stigma, a major cloud over cord, outer end of cell *1st* M^2 and fork of M^{1+2}; costal region above stigma ,and longitudinal lines in centers of cells *R, M, 1st* M^2 and R^4 very pale yellow; veins pale yellow, conspicuous against the ground, especially in the darkened costal parts of the holotype. Costa and vein *R* with abundant trichia, remaining veins glabrous except for a few scattered trichia on distal section of R^5. Venationt: Vein R^2 directed very strongly basad, exceeding in length vein R^3.

Abdomen elongate, especially in the paratype; brown, lateral and posterior borders of segments vaguely paler yellow. Male hypopygium (Fig. 14) with lobes at apex of basistyle, *b,* with very long setae. Both dististyles, *d,* subequal in length and diameter, the outer pointed at apex. Phallosome, *p,* as shown; aedeagus a slender straight rod, apex not dilated or bent in any manner, as in other species of *Dirhipis.*

Holotype, male, Pucatrihue, Osorno, Chile, July 17, 1968 (A. Salgado). Paratopotype, male.

The species is named for señor Alejandro Salgado, insect collector for Peña. The narrower wings and longer abdomen

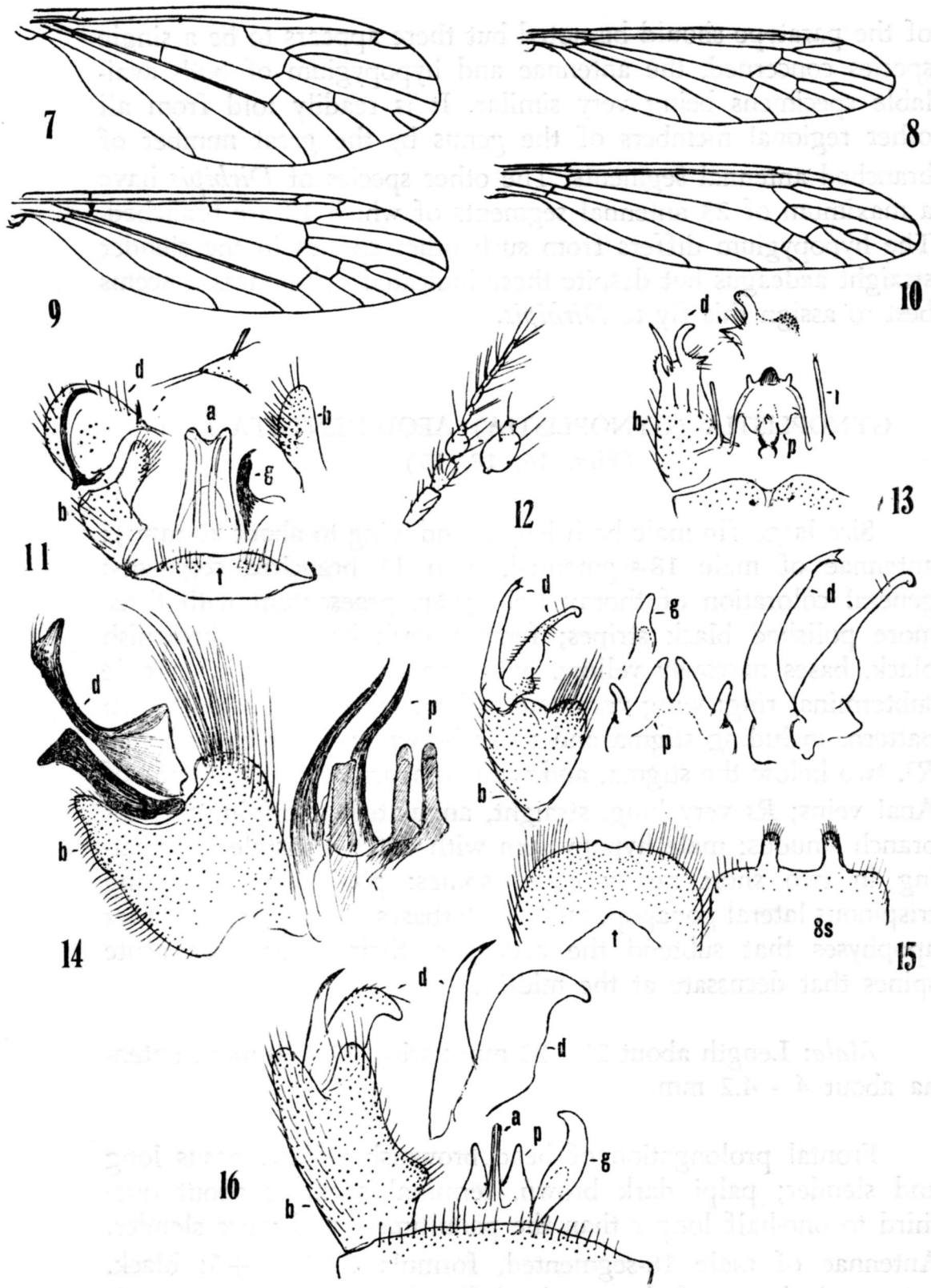


Fig. 7. *Pedicia (Tricyphona) araucana* sp. n.; venation.— Fig. 8. *Gynoplistia (Gynoplistia)* basitarsalba sp. m.; venation.— Fig. 9. *Gynoplistia (Gynoplistia) conchyliata* sp. n.; venation.— Fig. 10. *Gynoplistia (Ginoplistia) costospilota* sp. n.; venation.— Fig. 11. *Limonia (Rhipidia) rhasma* sp. n.; male hypopygium. Fig. 12. *Pedicia (Tricyphona) araucana* sp. n.; male antenna.— Fig. 13. *Pedicia (Tricyphona) araucana* sp. n.; male hypopygium.— Fig. 14. *Gynoplistia (Ginoplistia) basitarsalba* sp. n.; male hypopygium.— Fig. 15. *Gynoplistia (Gynoplistia) conchyliata* sp. n.; male hypopygium.— Fig. 16. *Gynoplistia (Gynoplistia) costospilota* sp. n.; male hypopygium. (Explanation of figures, *a,* aedeagus; *b,* basistyle; *d,* dististyle; *g,* gonapophysis; *i,* interbase; *p,* phallosome; *s,* sternite; *t,* tergite).

of the paratype should be noted but there appears to be a single species concerned, the antennae and hypopygium of both available specimens being very similar. It is readily told from all other regional members of the genus by the great number of branched antennal segments. The other species of *Dirhipis* have a maximum of 23 antennal segments of which 12 are branched. The hypopygium differs from such other species in the slender straight aedeagus but despite these indicated differences it seems best to assign this fly to *Dirhipis.*

GYNOPLISTIA (GYNOPLISTIA) AEQUIDENTATA sp. n.
(Figs. 16, 18, 19)

Size large (in male both length and wing to about 20 mm.); antennae of male 18-segmented, with 11 branched segments; general coloration of thorax light gray, praescutum with three more polished black stripes; femora dark brown to brownish black, bases narrowly yellow, with vague indications of a pale subterminal ring; wing very pale yellow, with a restricted brown pattern, including stigma and paler brown spots at end of vein R^3, two below the stigma, and with comparable areas at ends of Anal veins; *Rs* very long, straight, angulated at origin, anterior branch sinuous; male hypopygium with outer dististyle terminating in two short nearly equal spines; phallosome including trispinous lateral gonapophyses or interbases and a pair of smaller apophyses that subtend the aedeagus, their outer ends acute spines that decussate at the midline.

Male: Length about 20 - 22 mm.; wing 17 - 20 mm.; antenna about 4 - 4.2 mm.

Frontal prolongation of head brownish yellow, nasus long and slender; palpi dark brown, terminal segment about one-third to one-half longer than the penultimate and more slender. Antennae of male 18-segmented, formula 2+2+9+5; black, extreme incisures of the proximal flagellar segments more yellowed; longest branches slightly more than one-third the entire organ or subequal to or slightly exceeding the total length of

the five simple outer segments. Head yellowish brown, pruinose, central part of vertex dark brown.

Pronotum black, light gray pruinose. Mesonotum light gray, praescutum with three more polished black stripes, the central one divided by a capillary midline except at anterior end, pseudosutural foveae ovate, black; scutum light gray, each lobe with a single blackened area, confluent with the lateral praescutal stripe; posterior sclerites of notum gray, parascutella dark brown, posterior and lateral borders of mediotergite in certain lights appearing more blackened. Pleura black, heavily light gray or silvery pruinose to appear of this color, anterior dorsopleural membrane conspicuously orange at the anterior spiracle. Halteres with stem light yellow, knob weakly infuscated. Legs with coxae light gray pruinose, trochanters brownish yellow; femora with bases narrowly yellowed, remainder dark brown to brownish black, usually with vague indications of a paler subterminal ring, in some cases scarcely evident; tibiae brownish yellow, extreme bases and broader tips brown; proximal three tarsal segments brown, extreme tips darker, remaining segments brownish black; bases of claws microscopically serrulate; tibial spurs on outer fourth slightly roughened. Wings (Fig. 16) very pale yellow, prearcular and costal fields very slightly darker yellow; stigma long-oval, brown; a very restricted paler brown pattern, in the holotype including a spot at tip of vein R^3, others at ends of Anal veins, with isolated spots beneath the stigma in cells R^3, R^4 *and* R^5, and again in cell *1st A* above tip of vein *2nd A;* in most specimens these latter spots are lacking or reduced in numbers. Venation: *Rs* very long, straight, angulated at origin; anterior branch of *Rs* sinuous, especially the proximal third (vein R^{2+3}); *m-cu* at near midlength of M^{3+4}.

Abdominal tergites dark brown, slightly pruinose, lateral borders pale; sternites brownish gray, apices narrowly paler. Male hypopygium (Fig. 18) with basistyle, *b,* terminating in two unequal lobes, the dististyles, *d,* at their bases; outer style slender, nearly straight, terminating in two short nearly equal spines, inner style strongly curved on distal half, tip obtuse. Phallosome, *p,* complex (in figure shown larger than other structures for clarity), including a lateral pair of trispinous apophyses or possibly representing interbases, *i;* inner gonapo-

physes, *g,* subtending the small straight aedeagus, stout basally, bent inwardly at a right angle into a strong spine.

Holotype, male, Hornohuinco, Llanquihue, Chile, December 1968 (Peña). Paratopotype ,male. Paratypes, one male, Catamutun, Valdivia, Chile, March 18, 1955 (Peña); one male, Chepu, Chiloé Island, February 10, 1952 (Peña).

The most similar species is *Gynoplistia (Gynoplistia) biarmata* Alexander, with its color forms or races, *nimbisigna* Alexander and *sparsisigna* Alexander. The species evidently varies in nature of wing pattern but apparently a single species is involved, best separated from the present fly by hypopygial structure. Typical *biarmata* is shown for comparison (Fig. 19), attention being directed to the unequal outer spines of the dististyle and the bispinous lateral apophyses. Two further species, *elnorae* Alexander and *gilvipennis* Alexander, likewise appear to be allied to the present fly but at present are known only by females. The former in this sex is virtually wingless whereas the latter has the wings fully developed. Both of these in the female sex having the antennae 19-segmented, *gilvipennis* differing from both *biarmata* and *aequidentata* in the uniformly yellow legs, with no femoral darkening.

Two additional species described by Philippi (1865) still remain unrecognized by me, these being *flavipennis* (Philippi) and *pictipennis* (Philippi), each having been based on a unique female specimen. Each of these is described as having the antennae 22-segmented whereas these are 18 to 20-segmented in the present flies. From the number of antennal segments indicated for his species by Philippi it might be expected that they would belong to the subgenus *Dirhipis* Enderlein but their unusually small size would seem to preclude such an assignment.

GYNOPLISTIA (GYNOPLISTIA) POSTICA Alexander
(Fig. 20)

Gynoplistia (Gynoplistia) leucopeza postica Alexander; Diptera of Patagonia and South Chile, 1: 162, fig. 93 (venation); 1929.

The unique type female was taken at Castro, Chiloe Island, by Edwards. It was described as a subspecies of *leucopeza* Alexander but the discovery of the male sex indicates that it represents a valid species.

Male: Length about 6 mm.; wing 6.2 mm.

Head intensely polished black. Antennae brownish black; 15-segmented, formula 2+3+5+5; longest branches on flagellar segments four and five, the remaining branches progressively shorter.

Thoracic dorsum polished black; pleura with anepisternum polished black, propleura and mesepisternum paler, ventral pleurites, including the mesopleura, yellowed. Halteres with stem pale yellow, bridghtest at base, knob infuscated. Legs black, femoral bases paler; posterior legs with four outer tarsal segments whitened, fore and middle tarsi uniformly black. Wings almost uniformly infuscated, stigma only slightly indicated, no darkening at cord. Venation: R^{2+3+4} shorter than the long straight basal section of R^5; cell M^2 open by atrophy of basal section of M^3 on one wing of allotype, closed on the other, with *m-cu* placed far distad, about one-fourth its length before fork.

Abdominal tergites black, proximal sternites obscure yellow medially, darker on sides. Male hypopygium (Fig. 20) with interbasal process, *i,* of basistyle, *b,* a low darkened lobe provided with very long yellow setae, the caudal angle not extended into a blackened rod as in *leucopeza.* Outer dististyle, *d,* long, outer two-thirds very slender; inner style shorter, setiferous. Phallosome, *p,* with lateral apophyses long and slender, in *leucopeza* short and broad; inner apophyses or lateral horns shorter, outwardly divergent.

Allotype, male, Hornohuinco, Llanquihue, Chile, December 1968 (Peña).

In separating this species from *leucopeza* particular attention is directed to the leg pattern and to hypopygial characters, especially the outer dististyle, interbases and the phallosome.

GYNOPLISTIA (GYNOPLISTIA) TERGOGIBBOSA sp. n.
(Figs. 17, 21)

Allied to *variicalcarata;* general coloration of body gray, praescutum with three more blackened stripes, the broad central one polished; antennae black, 16-segmented, with 9 branched flagellar segments; legs dark brown to black, femoral bases yel-

lowed; wings yellow, with three conspicuous dark brown spots, including the stigma, veins unusually glabrous; male hypopygium with posterior border of tergite produced into two narrow lobes that are separated by a much larger emargination; both dististyles subequal in length, the inner expanded on more than basal half, with delicate yellow setae; phallosome including slender apophyses that are decussate at the midline, tips curved, pale.

Male: Length about 10 mm.; wing 9.5 mm.; antenna about 3.4 mm.

Rostrum and palpi blackened. Antennae black, scape more pruinose; 16 segmented, 9 of which are branched, formula 2+2+7+5; longest branch about one-fourth the entire organ, terminal segment about one-half longer than the penultimate. Head uniformly gray.

Thorax gray, praescutum with three blackened stripes, the broad central one more polished, narrowed posteriorly, lateral stripes narrow; center of each scutal lobe with a single blackened area; parascutella more darkened. Pleura light gray. Halteres with stem yellow, outer half of knob infuscated. Legs with coxae light gray; trochanters brown; femora blackish brown, bases more yellowed, narrowest on middle pair; tibiae dark brown, tarsi black; spurs of posterior tibiae much larger than the others, about as in *variicalcarata*. Wings (Fig. 17) yellowed, with three conspicuous dark brown spots, including the stigma, a confluent area over anterior cord, and a comparable area at origin of *Rs;* posterior veins beyond cord vaguely seamed with pale brown, broader and more evident in the medial field adjoining vein *Cu;* veins brown. Veins behind *R* unusually glabrous, including only a series on distal section of R^5, more numerous outwardly. Venation: *Rs* long, erect and spurred at origin; R^{2+3+4} subequal to basal section of R^5; cell M^1 a little longer than its petiole; *m-cu* shortly beyond midlength of M^{3+4}.

Abdomen dark gray. Male hypopygium (Fig. 21) generally as in *variicalcarata* but differing in all details. Ninth tergite, *t,* with posterior border produced into two narrow lobes that are separated by a much larger ovel emargination, surface of tergite darkened, with numerous pale punctures that apparently lack setae. Basistyle, *b,* with a glabrous lobe on mesal face beyond

midlength. Both dististyles, *d,* subequal in length, the outer more slender, narrowed to an acute point, inner style very broad at base, outer third narrowed, apex subacute, surface of disk with numerous yellow setae that are very inconspicuous against the ground. Phallosome, *p,* about as figured; aedeagus very slender, straight; gonapophyses broad basally, at near midlength bent mesad at a right angle, becoming decussate at the midline, thence narrowed into acute slightly curved pale tips. Internal phallosomic structures include strong straight yellow rods with acute tips and a larger unpaired compressed-flattened rod; the homologies of these latter structures cannot be determined from the present materials.

Holotype, male, Hornohuinco, Llanquihue, Chile, December 1968 (Peña).

The most similar species is *Gynoplistia (Gynoplistia) variicalcarata* Alexander which differs from the present fly in details of coloration and especially in the male hypopygium. The tergite of the latter has the lateral lobes much broader than the central emargination, with truncated apices; dististyles differing in relative lenghts and conformation, and the phallosome, including the apophyses, all are distinct.

PARALIMNOPHILA DIFFUSIOR Alexander
(Fig. 8)

Paralimnophila diffusior Alexander; Papeis Avulsos de Zoologia (Sao Paulo), 21, art. 8: 87 - 88; 1968.

Type, female, Contulmo, Palo Botado, Nahuelbuta, Arauco, Chile, February 1, 1953 (Peña). Wing (Fig. 8).

PARALIMNOPHILA TORTILIS Alexander
(Figs. 9, 12)

Paralimnophila tortilis Alexander; Papeis Avulsos de Zoologia (Sao Paulo), 21, art. 8: 88 - 89; 1968.

Type, male, Caramavida, Nahuelbuta, Arauco, Chile, 1.000 meters, February 5 - 10, 1953 (Peña). Wing (Fig. 9); male hypopygium (Fig. 12).

ELEPHANTOMYIA (ELEPHANTOMYIA) NIPHOPODA sp. n.
(Figs. 11, 15)

General coloration of praescutum dark brown medially, sides paler brown, pleura yellow, unpatterned; rostrum black, nearly one-half the wing; tarsi extensively snowy-white; wings weakly infuscated, stigma slightly darker; male hypopygium with apex of outer dististyle bidentate.

Male: Length, excluding rostrum, about 7 mm.; wing 7.8 mm.; rostrum about 5 mm.

Rostrum black, nearly two-thirds as long as wing; palpi black. Antennae with scape yellow, pedicel light brown, flagellum black; flagellar verticils much longer than the segments. Head dark brownish gray.

Cervical region and pronotum darkened medially, sides yellowed. Mesonotal praescutum dark brown on central part, laterally broadly paler brown (posterior portion of praescutum and the suture damaged in type); scutellum and mediotergite brown, obscure yellow behind, parascutella and pleurotergite clearer yellow. Pleura yellow, unpatterned. Halteres with stem yellow, knob brownish black. Legs with coxae and trochanters light yellow; femora and tibiae light brown, basitarsi chiefly brown with nearly the distal tenth to twelfth snowy white, remainder of tarsi excepting the last segment similarly whitined; tibiae without spurs. Wings (Fig. 11) weakly infuscated, cells *C* and *Sc,* with the stigma, very slightly more darkened; veins brown. Longitudinal veins beyond cord with conspicuous black trichia, these also on most of *Rs* and about the outer halves of veins *M* and *Cu*. Venation: Sc^1 ending a short distance before fork of *Rs, Sc*^{2} subequal to Sc^1; branches of *Rs* nearly parallel to one another for their entire lengths, cell R^3 at margin only about one-fourth as extensive as cell R^2; cell *1st* M^2 variable, in the type tending to be open, *m* being atrophied in one wing, basal section of M^3 weak to subatrophied in the other; *m-cu* about one-half longer than distal section of Cu^1; vein Cu^2 unusually distant from Cu^1, the latter cell broad.

Abdominal tergites light brown, sternites weakly bicolored, yellow, outer ends pale brown, subterminal segments slightly

PLATE III

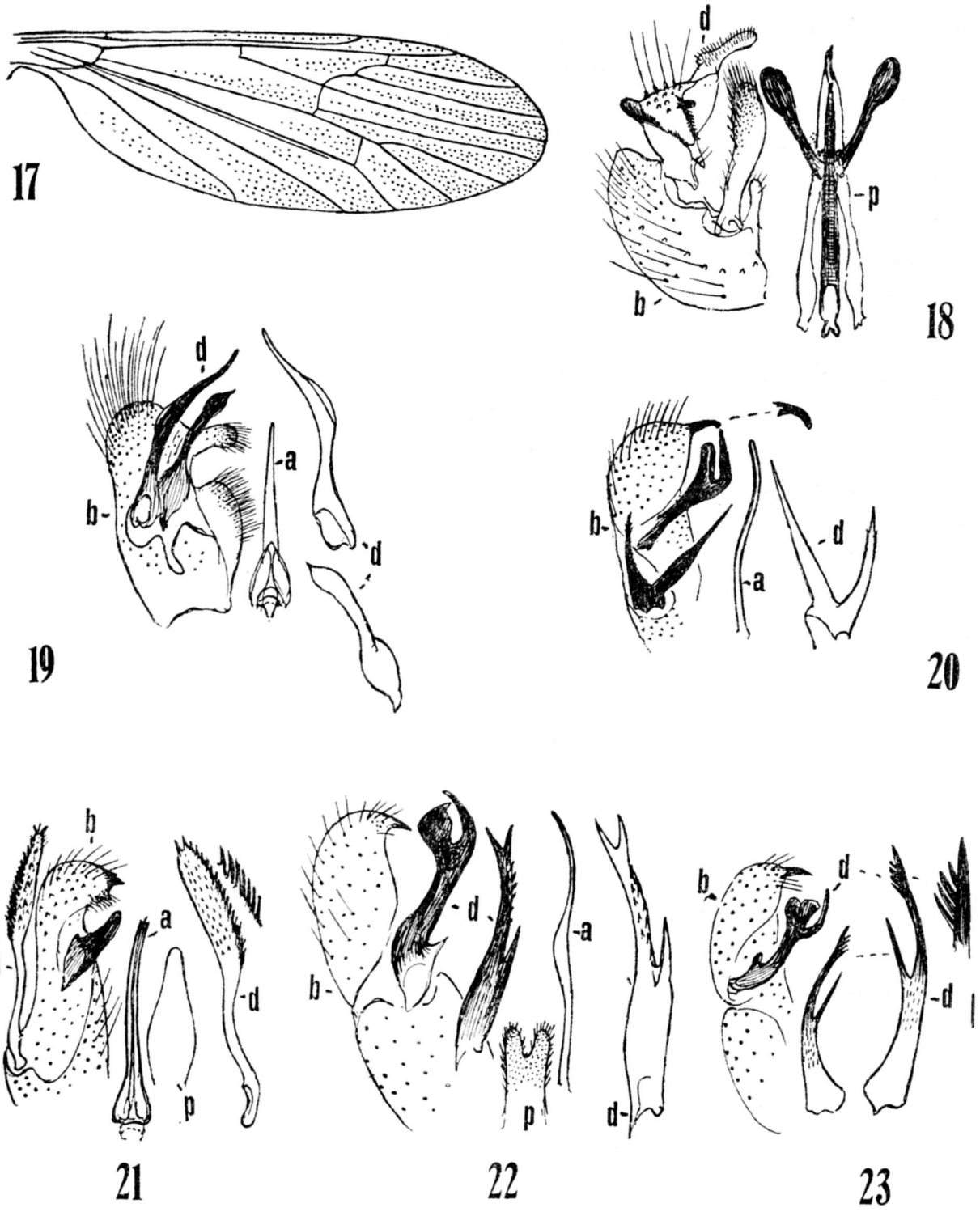


Fig. 17. *Cryptolabis (Cryptolabis) peñai* sp. n.; vennation.— Fig. 18. *Cryptolabis (Cryptolabis)* peñai sp. n.; male hypopygium.— Fig. 19. *Molophilus (Molophilus) brevilobatus* Alexander; male hypopygium.— Fig. 20. *Molophilus (Molophilus) diacanthus* sp. n.; male hypopygium.— Fig. 21. *Molophilus (Molopihlus) distiremus* sp. n.; male hypopygium.— Fig. 22. *Molophilus (Molophilus) neopansus* sp. n.; male hypopygium.— Fig. 23. *Molophilus (Molophilus) subhonestus* sp. n.; male hypopygium. (Explanation of figures, *a,* aedeagus; *b,* basistyle; *d,* dististyle; *p,* phallosome).

more darkened; hypopygium yellow. Male hypopygium (Fig. 15) with the dististyles, *d,* nearly terminal; outer style at apex bidentate, axial spine slightly smaller and more slender than the erect ventral point. Interbase, *i,* long and narrow. Phallosome, *p,* with the penefilum long and delicate, outer end spirally convoluted.

Holotype, male, Butamalal, Nahuelbuta, Arauco, Chile, 1.100 - 1.400 meters, Jantuary 23 - 31, 1954 (Peña).

Elephantomyia (Elephantomyia) niphopoda is quite distinct from the only other regional species, *E. (E.) clitellaria* Alexander, in the much smaller size and in the coloration of the thorax and legs. The conspicuous snowy white tarsi likewise are found in the still smaller *E. (E.) chionopoda* Alexander, of Peru, and *E. (E.) tarsalba* Alexander, of Surinam, both quite distinct from the present fly. As regards the venation it is probable that cell *1st* M^2 normally is closed and that the conditions described are abnormalities.

NEOPHILIPPIANA BREVISETA ALEXANDER
(Fig. 22)

Neophilippiana breviseta Alexander; Papeis Avulsos de Zoologia (Sao Paulo), 21, art. 8: 89 - 90; 1968.

Type, female, Pichinahuel, Nahuelbuta, Arauco, Chile, 1.600 meters, February 21 - 25, 1953 (Peña). Wing (Fig. 22).

APHROPHILA AMBLYDONTA sp. n.
(Figs. 23, 24)

General coloration of entire body yellow, praescutum with three very slightly more reddened stripes; halteres and legs yellow, outer tarsal segments brown; wings yellowed, veins brownish yellow, R^2 far before radial fork, R^2 and R^{3+4} subequal, vein *2nd A* conspicuously arched on proximal half, the cell very broad; ovipositor with dorsal surface of cerci with five low convex elevations.

Female: Length about 8 mm.; wing 8.2 mm.; antenna about 1.5 mm.

Rostrum very short, yellow; palpi with first segment yellow, remainder brown. Antennae with scape and pedicel yellow, flagellum brown; flagellar segments relatively short-oval, proximal segments with ends extensively truncated, outer segments more narrowly interconnected. Head obscure yellow.

Prothorax light yellow. Mesonotum fulvous yellow, praescutum with three very slightly darker reddened stripes, the broad central area divided by the median carina. Pleura fulvous yellow. Halteres light yellow. Legs with coxae and trochanters yellowed, remainder similar with outer tarsal segments brown. Wings (Fig. 23) yellowed with a small brown cloud at base of cell *2nd A;* veins brownish yellow. Longitudinal veins beyond general level of cord with small trichia, very reduced or lacking on R^{2+3+4} and bases of medial veins near cord; sparse weak trichia at ends of both Anal veins. Venation: Sc^1 ending shortly beyond fork of *Rs,* Sc^2 near its tip; *Rs* subequal to R^{2+3+4}; R^2 far before fork, subequal to vein R^{3+4}; vein *2nd A* conspicuously arched on proximal half, the cell very broad.

Abdomen obscure yellow, genital segment somewhat darker. Ovipositor with cerci (Fig. 24) unusually short and stout basally, the apical point slender, spikelike, dorsal margin crenulated, by five very low convex elevations, not toothlike as in most other species of the genus.

Holotype, female, Los Cipreces, Talca, Chile, 1.050 meters, January 13 - 15, 1968 (Peña).

The most similar species is *Aphrophila chilena* Alexander, which agrees well in general coloration and in venation, including the broad 2nd Anal cell. It differs evidently in the structure of the cerci, as described. In *chilena* the cerci have seven slightly recurved toothlike projections, the central ones largest. The Neotropical species of *Aphrophila* are most readily distinguished among themselves by male hypopygial characters and structure of the ovipositor, especially the cerci. Several of the latter have been illustrated in a paper by the writer (Bol. Dept. Sanidad Vegetal, 3: 138, figs. 8 - 11; 1944).

Cryptolabis (Cryptolabis) phallostena Alexander (Figs. 25, 26) *Cryptolabis (Cryptolabis) phallostena* Alexander; Papeis

Avulsos de Zoología (Sao Paulo), 21, art. 8: 94 - 95; 1968.

Type, male, Contulmo, Palo Botado, Nahuelbuta, Arauco, Chile, 1.000 meters, February 5 - 10, 1953 (Peña). Wing (Fig. 25); male hypopygium (Fig. 26).

MOLOPHILUS (MOLOPHILUS) BREVISECTUS sp. n. (Fig. 27)

Belongs to the *plagiatus group;* general coloration yellowish brown, pleura paler; halteres yellow; legs light brown; male hypopygium with the basal dististyle simple, a long slender rod subequal in length to the aedeagus, apex with two microscopic unequal teeth; phallosomic plate a setuliferous cushion, the lobes narrower than the emargination.

Male: Lenght about 3.5 mm.; wing 4 mm.

Rostrum light brown, palpi slightly darker. Antennae with scape and pedicel brownish yellow, flagellum darkened; flagellar segments oval, outer ones elongate, verticils very long. Head dark grayish brown.

Pronotal scutum brownish yellow, scutellum light yellow. Mesonotum almost uniformly light yellowish brown, praescutum with a slightly darker central stripe, scutellum and humeral region of praescutum clearer yellow. Pleura brownish yellow. Halteres light yellow. Legs with coxae and trochanters clear light yellow, the remainder yellowish brown to light brown. Wings weakly infuscated, prearcular and costal regions light yellow; veins brownish yellow. Venation: Petiole of cell M^3 (M^3+4) short, only slightly longer than *m-cu.*

Abdomen brown. Male hypopygium (Fig. 27) with beak of basistyle, *b,* straight. Outer dististyle unequally bifid, smooth outer arm subtriangular in outline; basal style, *d,* long and slender, longer than outer sytle, subequal to the aedeagus, apex very shallowly bidentate, the two microscopic teeth slightly unequal. Phallosomic plate, *p,* a setuliferous cushion, apex emarginate, lobes narrower than the notch. Aedeagus slender, much narrowed than the basal dististyle.

Holotype, male, Chaiten, Chiloe Island, Chile, February 5 - 8, 1954 (Peña).

The present fly differs from other similar regional species that have the basal dististyle of the hypopygium apically bidentate in the unusual lenght of the style and the very small size of the teeth. Species that should be compared include *Molophilus (Molophilus) apicidens* Alexander; *M. (M.) binarius* Alexander, *M. (M.) echo* Alexander, *M. (M.) pansus* Alexander, and some others.

MOLOPHILUS (MOLOPHILUS) HECATE sp. n.
(Fig. 28)

Belongs to the *colossus* group; general coloration of thorax light yellowish brown, praescutum with a central slightly darker brown stripe, pleura pale brown; legs light brown; wings yellowed, veins light brown, *m-cu* angularly bent and spurred; male hypopygium with tergal lobes short and stout, basal dististyle a nearly straight blackened spine that is markedly shorter than the outer style.

Male: Lenght about 6.5 mm.; wing 7.3 mm.; antenna about 1.3 mm.

Rostrum light brown, palpi slightly darker, especially the outer two segments. Antennae with basal segments yellowed, remainder brown; flagellar segments oval, shorter than their verticils. Head brownish yellow, with long black setae.

Pronotum brownish yellow. Mesonotum chiefly light yellowish brown, praescutum with a broad slightly darker brown central stripe, the laterals not evident, extreme lateral borders and pretergites light yellow; pseudosutural foveae light reddish, almost concolorous with the ground; scutellum more yellowed. Pleura pale brown, midventral area obscure yellow. Halteres chiefly yellowed. Legs with coxae and trochanters yellow, remainder of legs light brown. Wings vaguely yellowed; veins light brown, trichia darker brown, the pattern more concentrated over *r-m* and *m-cu* to form small darkened areas. Venation: R^2 some distance beyond level of *r-m;* petiole of cell M^3 (M^3+^4) unusually long, about twice *m-cu,* the latter angularly bent and spurred; vein *2nd A* ending nearly opposite three-fourths the length of M^3+^4.

Abdominal tergites light brown, sternites paler, hypopygium yellowish brown. Male hypopygium (Fig. 28) about as shown. Tergite, *t,* with lobes short and stout, strongly divergent. Lobe of basistyle, *b,* long with scattered stout bristles and abundant very delicate appressed setae on more than outer half. Dististyles, *d,* relatively long and slender, the more basal styles a nearly straight blackened spine that is markedly shorter than the outer style.

Holotype, male, Butamalal, Nahuelbuta, Arauco, Chile, 1.100 - 1.400 meters, January 23 - 31, 1954 (Peña).

The most similar species is *Molophilus (Molophilus) titan* Alexander, described from Marga-Marga, Chile. This is a still larger fly that differs from the present fly chiefly in hypopygial characters, especially the long narrow tergal lobes and much longer basal dististyle. Both species have vein *m-cu* angularly bent and with a strong spur extended basad into cell *M,* differing evidently from *M. (M.) colossus* Alexander in this feature and still more so in the hypopygial structure, particularly the dististyles.

MOLOPHILUS (MOLOPHILUS) PASTORIS Alexander
(Fig. 30)

Molophilus (Molophilus) pastoris Alexander; Ent. News, 71: 18 - 19; 1960.

Type, male, Aucar, Chiloe Island, Chile, January 6 - 15, 1952 (Peña). Male hypopygium (Fig. 30).

MOLOPHILUS (MOLOPHILUS) PERGRACILLIMUS sp. n.
(Fig. 29)

Belongs to the *plagiatus* group; general coloration of mesonotum brownish orange; legs obscure yellow; male hypopygium with basal dististyle very long and slender, extended into a long acute spine, the base dilated; phallosomic structure suboval, apex convex, surface with abundant setulae.

Male: Length about 4 mm.; wing 4.9 mm.; antenna about 1.1 mm.

Rostrum brown, palpi black. Antennae with scape light

yellow, remainder brown; proximal flagellar segments with exceedingly long verticils. Head obscure yellow, center of posterior vertex extensively grayish brown.

Pronotum, pretergites, and humeral region of praescutum clear light yellow. Mesonotum brownish orange, anterior end of praescutum slightly more infuscated, scutellum yellowed. Pleura medium brown. remaining coxae and all trochanters yellow; remainder of legs obscure yellow, outer tarsal segments only slightly darker; subbasal darkened ring of fore tibia relatively conspicuous. Wings obscure yellow, clearer in prearcular and costal fields; veins pale, trichia slightly darker brown. Venation: R^2 *slightly* distad of level of *r-m;* petiole of cell M^3 (M^{3+4}) only slightly longer than the very obligue *m-cu.*

Abdomen light brown. Male hypopygium (Fig. 29) with beack of basistyle, *b,* slender, nearly straight. Outer dististyle with arms very dissimilar, as shown; basal style, *b,* distinctive, very long and slender, about one-half longer than the outer style, base enlarged and modified as shown, outwardly narrowed very gradually into a slender spine. Aedeagus long and slender, nearly equal to the basal dististyle. Phallosomic structure, *p,* suboval, apex convex, surface with abundant conspicuous setulae.

Holotype, male, Calcahue, Chiloe Island, Chile, February 10 - 12, 1954 (Peña).

There are several species in the *plagiatus* group of the genus in the South Chilean fauna that have the basal dististyle of the hypopygium unbranched and with the phallosomic structure cushionlike. Among such species are *Molophilus (Molophilus) indurabilis* Alexander, *M. (M.) obliviosus* Alexander, *M. (M.) pastoris* Alexander, *M. (M.) stenorhabda* Alexander, all differing evidently in the lenght and structure of the basal style, as described.

MOLOPHILUS (MOLOPHILUS) STENORHABDA Alexander (Fig. 31)

Molophilus (Molophilus) stenorhabda Alexander; Ent. News, 71: 20; 1960.

Type, male, Rio Coluco ,Chiloe Island, Chile, January 30, 1952 (Peña). Male hypopygium (Fig. 31).