

RECORDS AND DESCRIPTIONS OF CHILEAN TIPULIDAE (ORDER DIPTERA).—PART III,

BY

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The preceding parts under this general title were published in the *Revista Chilena de Historia Natural*, vol. 38: 173 - 179, 1934, and vol. 39: 99 - 105, 1935. In the present report I wish to discuss some unusually interesting species taken by Professor Dillman S. Bullock and by one of the latter's students, Mr. Isaac Espinoza. I am greatly indebted to Prof. Bullock for the opportunity of describing these species, the types being preserved in my personal collection.

Macromastix (Macromastix) Espinozai, sp. n.

Mesonotum brownish yellow, the praescutum with four narrow dark brown stripes, the intermediate pair broadly separated; scape and pedicel yellow, flagellum brownish black; femora obscure yellow, the tips narrowly brownish black; wings the with ground - color yellow, the prearcular and costal regions more saturated yellow; abdominal tergites yellowish gray, with a broken series of brown median spots; valves of ovipositor short and fleshy.

Female. — Length, about 9mm.; wing, 12 mm.

Rostrum short, brown, paler on sides; nasus lacking; palpi black. Antennae (female) short, 12 - segmented; scape and pedicel yellow; flagellum brownish black; flagellar segments oval. Head dark brown medially, the front and orbits more yellow.

Mesonotal praescutum brownish yellow, with four narrow dark brown stripes, the intermediate pair broadly separated, approximated to virtually contiguous at posterior end; humeral margin of praescutum restrictedly darkened; praescutal setae very short and sparse, pale; scutum obscure brownish yellow, each lobe with two confluent dark brown stripes, their mesal ends polished, this condition possibly abnormal by rubbing; posterior sclerites of notum brownish yellow, pollinose. Pleura yellow, more or less pruinose and variegated with darker; pleurotergite more silvery pruinose. Halteres of moderate length, dark brown, the base of stem pale yellow. Legs with coxae weakly pruinose; trochanters brownish yellow; femora

obscure yellow, the tips narrowly brownish black, the amount subequal on all legs; tibiae yellow; the tips more narrowly and less distinctly darkened; basal two tarsal segments yellow, the outer tarsal segments dark brown. Wings with a weak yellow ground-color, the prearcular region and cells *C* and *Sc* more saturated; stigma pale brown, its proximal end light yellow; scarcely evident pale brown clouds above end of *Ss*, at arculus, and on anterior cord; centers of certain of the cells more whitish hyaline, especially evident in outer end of cell *M*; veins brown. Venation: *Rs* arcuated at origin, longer than R_{2+3} ; R_2 very short, R_{1+2} oblique, straight; cell 1st M_2 relatively long, parallel-sided; petiole of cell M_1 shorter than *m*.

Abdominal tergites yellowish gray with a median series of brown spots, more extensive on the second tergite, broadly broken by the posterior borders of the segments; sternites more uniformly brownish yellow; ovipositor with short fleshy valves.

Hab.: Chile.

Holotype, ♀, Temuco, October 27, 1936 (Isaac Espinoza), through Bullock.

The only nearly related regional form is *Macromastix* (*Macromastix*) *serotinella* Alexander, which is readily told by the presence of only three praescutal stripes, elongate halteres, brownish testaceous femora, and differently patterned wings.

***Limonia* (*Dicramomyia*) *bullockiana*, sp. n.**

General coloration of thorax brownish black, the scutellum and postnotum pale; antennae with the flagellar segments short-oval; halteres and legs dark; wings with a strong dusky tinge, without stigma; *m-cu* at fork of *M*; male hypopygium with the ninth tergite deeply notched, the lobes slender; ventral dististyle not produced caudad beyond level of rostral prolongation, the latter with two unequal spines; gonapophysis with mesal-apical lobe oval, bulbous.

Male. — Length, about 8 mm.; wing, 9 mm.

Rostrum and palpi reduced, dark brown. Antennae small dark brown; flagellar segments short-oval, the outer ones not conspicuously longer than the others; outer segments with short glabrous apical necks; terminal segment a little longer than the penultimate, oval. Head black; anterior vertex grayish, about equal in width to the diameter of scape.

Pronotum yellow, the sides dark brown. Mesonotal praescutum and scutum brownish black, the humeral region restrictedly obscure yellow; median region of scutum and the scutellum pale brownish yellow; mediotergite and pleurotergite

brownish yellow; remainder of pleura dark brown. Halteres dusky. Legs with the coxae and trochanters brown; remainder of legs brownish black. Wings with a strong dusky tinge; stigma not indicated; veins brown. Venation: Sc_1 ending about opposite origin of R_s , Sc_2 shortly before this origin; R_2 in transverse alignment with the free tip of Sc_2 ; R_{2+3} in longitudinal alignment with R_3 ; cell 1st M_2 closed; $m-cu$ at fork of M , shorter than the distal section of Cu_1 ; cell 2nd A wide.

Abdominal tergites brownish black; sternites obscure yellow, the caudal borders narrowly paler, glabrous; hypopygium black. Male hypopygium with the ninth tergite very deeply notched, the lobes slender, obtuse; outer and median skeleton of tergite unusually sclerotized and well-defined, the large subcentral lacunae well-delimited. Basistyle with ventromesal lobe relatively small, rapidly narrowed to an acute point, the ventral margin with long coarse setae. Dorsal dististyle a gently curved stout rod. Ventral dististyle relatively small, in area subequal to or slightly less than the basistyle; rostral prolongation in direct alignment with the outer margin of style which is thus not produced beyond the caudal level of the lobe; rostral spines two, a little separated at base; outer spine stouter, from a slightly larger basal tubercle than the inner; a rather conspicuous fleshy lobe on mesal face of dististyle. Gonapophysis with mesal-apical lobe oval, bulbous, the tip obtuse. Aedeagus relatively narrow.

Hab.: Chile.

Holotype, ♂, Toltén, February 9, 1937 (*Bullock*).

Limonia (*Dicranomyia*) *bullockiana* is named in honor of my friend, Professor Dilman S. Bullock. It is very different from the other known species of the subgenus, the male hypopygium being quite distinct. The venation suggests the subgenus *Idioglochina* Alexander but from the antennal structure it seems advisable to refer the fly to *Dicranomyia*.

***Gynoplistia* (*Paralimnophila*) *perreducta*, sp. n.**

General coloration gray, the praescutum with three darker gray stripes; antennal flagellum yellow, the outermost segments darkened; pleura ochreous, striped with dark brown; halteres yellow, the apex of knob darkened; femora obscure yellow with two darker brown rings; tibiae yellow, the base, apex and a ring at near one-fourth the length dark brown; wings (female) greatly reduced in length and, especially, in width, as shown by the measurements; whitish, patterned with brown especially in the outer radial field; abdomen brownish gray.

Female. — Length, about 16 mm.; wing, 5×0.6 mm.

Rostrum gray; palpi black. Antennae with the scape pruinose; pedicel brown; flagellum yellow, the outer three or four segments brown; flagellar segments long - oval. Head uniformly gray.

Thorax gray, the praescutum with three darker gray strips, the median one strongly narrowed on posterior fourth and nearly reaching the suture behind, on anterior half divided by a capillary darker median vitta; pseudosutural foveae very large and conspicuous, reddish brown; scutal lobes variegated by darker; scutellum and median area of postnotum more or less darkened. Pleura ochreous, with two very conspicuous, dark brown stripes, the more dorsal one complete, extending from the cervical region to the postnotum; ventral sternopleurite darker, pruinose. Halteres yellow, the apex of knob brown. Legs with the coxae brownish gray; trochanters dark brown; femora obscure brownish yellow, with two darker brown rings, one at near two - thirds the length, the second slightly wider, apical or virtually so; tibiae pale yellow, with three narrow dark rings, at base, at one - fourth the length and at apex; basal three tarsal segments yellow, their tips narrowly darkened; outer two segments black. Wings (female) greatly reduced, long and narrow, as shown by the measurements; ground - color whitish, with a heavy brown pattern, especially in the outer radial field, with other dark markings at near midlength of wing, at near two - thirds or opposite origin of *Rs*, and as a seam along vein *Cu*; veins pale, darker in the clouded areas. Venation greatly distorted.

Abdomen chiefly brownish gray, the tergites with more or less distinct sublateral stripes. Ovipositor with cerci black, the tips horn - yellow.

Hab.: Chile.

Holotype, ♀, Cerros de Nahuelbuta, altitude 700 meters, November 27, 1936 (*Bullock*).

Gynoplistia (*Paralimnophila*) *perreducta* is quite distinct from all other approximately similar species of the subgenus by the subapterous condition of the female but presumably not also of the still unknown male. Subapterism had been known in the other subgeneric groups of *Gynoplistia*, including *Gynoplistia* s. s., *Cerozodia* and *Ctedonia*, but this is the first member of *Paralimnophila* so far made known that has reduced wings.

Amphinerus (Amphineurus) extraordinarius, sp. n.

General coloration of mesonotum reddish brown, the postnotum and pleura dark brown; rostrum short; halteres pale, knob dark brown; legs yellow, the moral tips darkened; wings brownish gray, the stigmal region a little darker; macrotrichia of cells restricted to outer ends; R_{2+4+5} present as a very short element, less than the basal section of R_5 ; cell M_2 open; petiole of cell M_3 very short; $M-cu$ at fork of M ; male hypopygium with the tergite trilobed; outer dististyle bifid at apex; gonapophysis single, asymmetrical, terminating in a strong black spine.

Male. — Length, about 4 mm.; wing, 4.5 — 4.6 mm.

Female. — Length, about 5 mm.; wing, 5 mm.

Rostrum short, brown; palpi black. Antennae short; scape and pedicel yellow, flagellum black; flagellar segments oval to long - oval, with very long verticils that are unilaterally distributed. Front pale; remainder of head brownish black; vertex wide.

Pronotum brown; pretergites light yellow. Mesonotum reddish brown, the praescutum darker medially; postnotum dark brown. Pleura uniformly dark brown. Halteres with stem pale, knob dark brown. Legs with the coxae and trochanters yellow; femora yellow, the tips narrowly darkened; tibiae yellow; tarsi passing into brown. Wings brownish gray, the stigmal region a little darker but ill - delimited; veins basad of cord yellow, those beyond cord and in Anal field darker. Macrotrichia of cells restricted to outer ends of cells, more abundant in R_2 but in all other outer cells close to margin. Venation: R_{2+3+4} present as a very short element that is less than the basal section of R_5 ; R_2 slightly oblique; cell M_2 open; petiole of cell M_3 very short, about one - half $m - cu$ which is placed at the fork of M .

Abdomen brownish black; outer lobes of hypopygium pale brown. Male hypopygium with the tergite conspicuously trilobed, the lateral lobes stouter than the median one, slightly divergent; margins of lateral lobes smooth, median lobe rougened. Styli much as in the *ruficollis* subgroup of *Molophilus*; ventral lobe of basistyle long and fingerlike; both dististyles arising from the notch at base of ventral lobe, the outer style deeply bifid, the outer arm an acute spine, the inner arm more expanded, retrorsely scabrous; inner dististyle stout, strongly curved, the apex with microscopic appressed spines, before apex on mesal face with a blackened fingerlike lobe. Aedeagus with a subtending flange on either side. Gonapophysis single, asymmetrical, lying to one side of aedeagus, appearing as a

flattened blade that terminates in a long black spine, the margin at base of spine produced into a serrate blade.

Hab.: Chile.

Holotype, ♂, Villa Portales, Pinares de Lonquimai, altitude 1,600 meters, among the *Araucaria*, January 23, 1938 (Bullock). *Allotopotype*, ♀. *Paratopotypes*, 1 ♂, 1 ♀.

Amphineurus (*Amphineurus*) *extraordinarius* is entirely different from the other species of the genus so far described. In its short rostrum it agrees most nearly with *A.* (*A.*) *castroensis* Alexander, of southern Chile, which has cell 1st M_2 of the wings closed by the presence of the *m* crossvein. The present fly has a male hypopygium that is strangely like that of a species of *Molophilus* of the *gracilis* group, *ruficollis* subgroup, very characteristic of both the Australian and Chilean Subregions. It seems certain that *Ormosia*, with its close ally *Amphineurus* Skuse, is very closely related to *Molophilus*.

***Molophilus* (*Molophilus*) *brevilobatus*, sp. n.**

Belongs to the *gracilis* group, *ruficollis* subgroup; allied to *clavigerus*; thorax almost uniformly brownish yellow, the praescutal humeri light yellow; center of vertex dark gray; halteres yellow throughout; legs brown; wings yellow, especially on basal third, the veins conspicuous, yellow; R_2 lying opposite of before *r - m*; male hypopygium with the mesal face of basistyle bearing a conspicuous clavate lobe, the apex of style beyond this point short and obtuse, provided with abundant long setae.

Male. — Length, about 4.5 — 5 mm.; wing, 5 — 5.5 mm.

Female. — Length, about 5.5 mm.; wing, 5.5 — 6 mm.

Rostrum yellow, palpi brown. Antennae with the scape and pedicel yellow, flagellum dark brown; antennae short, flagellar segments oval with long verticils. Head dark gray, the posterior vertex and occiput paling to yellow.

Thorax almost uniformly brownish yellow, the praescutum with three poorly defined, more brownish stripes, the median one clearer; humeral and lateral portions of praescutum clearer yellow. Pleura yellow. Halteres yellow throughout. Legs with coxae and trochanters yellow; remainder of legs brown, the femoral bases more yellow, the outer tarsal segments darker. Wings yellow, especially on basal third, the outer portion a little more grayish yellow; veins pale, those in the brightened basal portions bright yellow. Venation: R_2 lying before to nearly opposite *r - m*; $R_2 +_3$ very short; petiole of cell M_3 about three times *m - cu* vein 2nd *A* long.

Abdomen, including hypopygium and ovipositor, yellow,

with pale vestiture. Male hypopygium with the mesal face of basistyle bearing a conspicuous clavate lobe, the apex of style beyond it short and obtuse, provided with abundant long yellow setae. Outer dististyle a curved flattened blade, the tip obtuse. Basal dististyle shorter, strongly curved, especially the blackened apical portion. Ovipositor of peculiar structure, the last tergite tumid, jutting over the bases of the cerci, provided with a brush of long yellow setae; cerci slender.

Hab.: Chile.

Holotype, ♂, Villa Portales, Pinares de Lonquimai, altitude 1600 meters, among the *Araucaria*, January 22, 1938 (*Bullock*)
Allotopotype, ♀. *Paratopotypes* ♂♂ ♀♀, January 22 - 23, 1938 (*Bullock*).

The closest ally is *Molophilus (Molophilus) clavigerus* Alexander (Southern Patagonia), which has a similar clavate lobe on the basistyle of the male hypopygium but which differs conspicuously in the other structures of the basistyle and basal dististyle.