

UNDESCRIBED SPECIES OF BRACHYPREMNA AND TANYPREMNA (TIPULIDAE, DIPTERA)

By

CHARLES P. ALEXANDER

Prof. of Entomology Massachusetts State College.

The two genera of Tipuline crane-flies, *Brachypremna* Osten Sacken and *Tanypremna* Osten Sacken, are eminently characteristic of the American Tropics and Subtropics. Approximately a score of species have been described, to which are added three species in the present paper. The types of the novelties are preserved in my extensive collection of the Tipulidae.

BRACHYPREMNA, Osten Sacken

Brachypremna Osten Sacken; Berlin. Entomol. Zeitschr., 30: 161, 1886.

The most recent revision of the American species of this genus is contained in a paper by the writer (Journ. N. Y. Ent. Soc., 20: 225-236, pl. 16; 1912). The Australian *Brachypremna tigriventris* Alexander is the only known species from the Old World.

***Brachypremna nigrofemorata*, sp. n.**

Allied to *uniformis*; frontal prolongation of head yellow above; mesonotal praescutum yellowish gray, with four poorly indicated brown stripes; femora, tibiae and basitarsi black, the remaining tarsal segments paler; wings with a strong brown tinge, more darkened at tip, the outer ends of cells R_3 and R_5 enclosing pale droplets; bases of cells M_1 to M_4 inclusive, pale; cell 2nd A very narrow; abdominal tergites dark brown, the basal rings narrowly yellow; sternites yellow, segments two to seven, inclusive with \perp — shaped black markings.

Female.—Length, about 13 m.; wing, 13.2 mm.

Frontal prolongation of head above, including nasus, light yellow; sides of prolongation darkened; palpi with basal segment dusky, the intermediate segments yellow; terminal segment black, with the extreme tip vaguely brightened.

Antennae with scape and pedicel yellow; flagellum brownish black. Head light brown, brighter on the orbits.

Mesonotal praescutum with the ground-color yellowish gray behind, with four poorly-indicated brown stripes on the cephalic half of the sclerite, the intermediate stripes separated by capillary paired darker vitae, on the posterior half divided by a narrow line of the ground-color; humeral region whitish, enclosing a darker brown area on the margin; scutum brown, the centers of the lobes vaguely paler; scutellum and parascutella darker brown, the former with indications of a very narrow, pale, median vitta; mediotergite dark brown, the posterior margin paling to obscure yellow, the anterior portion of the sclerite with two parallel gray vittae, widely separated. Pleura yellow, variegated by dark brown spots and broken stripes, including areas on the anepisternum, sternopleurite and dorsal meron. Halteres pale, the knobs darkened. Legs with the coxae yellow, the posterior pair with a circular brown mark on outer face at base; trochanters yellow; femora blank, only the extreme bases pale; tibiae and basitarsi blank; remaining tarsal segments passing through dark brown to brownish yellow. Wings with the pattern about as in *dispellens* and allies; stigma dark brown, with an oval yellow spot in center; apical portion of wing more suffused, enclosing pale droplets in outer ends of cells R_3 and R_5 , and brightenings in the bases of cells M_1 to M_4 , inclusive; general ground-color of wing uniformly infuscated, much darker than in *uniformis*; cell C more infuscated; cell Sc on outer half enclosing a linear dusky streak.

Venation: R_s and R_2+3 shorter than in *uniformis*; cell 2nd A reduced to a linear strip, narrower than in *uniformis*.

Abdominal tergites dark brown, the segments with narrow, obscure yellow rings at their extreme bases; lateral borders of basal segments variegated by grayish; sternites yellow, the basal ring of segment two with an oval dark spot, the posterior ring and segments three to seven, inclusive, with the posterior border narrowly blackened, sending a median line cephalad to the basal ring, to form a \perp —shaped figure; genital shield obscure yellow to brownish yellow.

Habitat.—Brazil (Rio de Janeiro).

Holotype, female, Campo Bello, altitude 700-800 meters, February 29, 1936 (*J. F. Zikán*).

The only closely related species is *Brachypremna uniformis* Alexander (Amazonian Brazil), which differs most conspicuously in the pale wings, with broader cell 2nd A , and in the

brown legs. I express my indebtedness to Mr. Zikán for his friendly interest in collecting this fly and the other species considered in the present report.

Brachypremna variitibia, sp. n.

Size very large (wing, female, 23 mm.); mesonotal praescutum with four dark brown stripes, the lateral ones with a small yellow spot at their anterior ends; femoral tips pale; tibiae yellowish white, each with a conspicuous, black, sub-basal ring, broadest on the fore legs where about two-thirds of the total length is darkened, narrowest on the posterior legs where the ring occupies a little more than a fourth of the length of the segment; wings almost uniformly suffused with light brown, the prearcular and costal regions more saturated; stigma pale, scarcely apparent against the ground; extreme tip of wing more heavily darkened, partially enclosing yellowish droplets in outer ends of cells R_3 and R_5 ; abdominal tergites dark brown, the basal rings not paler.

Female.—Length, about 19 mm.; wing, 23 mm.

Frontal prolongation of head brownish yellow above, the nasus a little darker, tufted with golden-yellow setae; palpi black, the tip of the second segment and all of the third obscure yellow; extreme tip of terminal segment vaguely paler. Antennae with the scape obscure yellow; pedicel clear pale yellow; flagellum dark brown. Head above chiefly dark brown, the orbits and a median vitta on posterior vertex a little paler.

Ground-color of mesonotal praescutum dark brownish gray, almost obliterated by four, dark brown stripes that are narrowly and insensibly bordered by still darker brown; intermediate stripes separated by a capillary vitta of the ground; an oval, pale yellow spot at anterior end of each lateral stripe, immediately behind the dark humeral area; suture polished brownish black, except on lateral portions; scutum almost uniformly dark brown, the lobes with a transverse, still darker line on anterior half; scutellum dark brown, vaguely divided by a capillary pale line; mediotergite dark brown, the posterior third paling to obscure yellow. Pleura obscure yellow, sparsely pruinose, with a single conspicuous, dark brown area on the dorsal sternopleurite, and more vague darkenings on the propleura, sternopleurite, and forming a complete circular margin to the meron. Halteres obscure yellow, the knobs darkened. Legs with the coxae pale, the

fore and hind pair slightly variegated by dark brown; trochanters pale yellow, femora obscure yellow, passing into brownish black before the conspicuous, yellowish white tips (1.6 mm.); tibiae yellowish white, each with a conspicuous black subbasal ring, broadest (11 mm.) on the fore legs, narrowest (4 mm.) on the posterior legs; tarsi yellowish white, only the last segment darkened. Wings almost uniformly suffused with light brown, the prearcular and costal regions more saturated brown; wing-tip, surrounding vein R_{4+5} , and the extreme tip of M_1 , darker brown, partially enclosing yellowish droplets in outer ends of cells R_3 and R_5 respectively; stigmal area pale, most narrowly and insensibly bordered by darker, the area scarcely differentiated against the ground; a poorly-defined dark seam in cell M adjoining veins Cu and $m-cu$; veins brown, R_{1+2} and tips of outer medial veins pale. Venation: Cell 2nd A wider than in *pictipes*.

Abdominal tergites dark brown, the basal two segments variegated laterally with grayish yellow; sternites pale yellow, with the usual broken series of black dashes down the midline, the caudal borders of the segments much paler, grayish.

Habitat.—Brazil (Rio de Janeiro).

Holotype, female, Campo Bello, altitude 1300 meters, November 23, 1935 (J. F. Zikán).

The nearest allies of the present fly are *Brachypremna basilica* Alexander (Eastern Peru) and *B. pictipes* Osten Sacken (Brazil), which are approximately as large and have a somewhat similar leg-pattern. *B. basilica* is readily told by the details of body-coloration, heavy wing-pattern, and much more extensive dark coloration on the tibiae. *B. pictipes* is still known only from the type male, taken at Cassapava, Brazil, by Sellow, and a second female specimen in the collection of the Hamburg Museum, taken at Santa Cruz, Rio Grande do Sul, Brazil, July 10, 1890, by F. Stieglmayr. This latter specimen is much smaller than the type of the present fly and the dark tibial ring of the fore leg is very narrow (3 mm., out of a total length of 12 mm.). No other legs are preserved and Osten Sacken does not indicate which were present in his type-specimen. It is possible that the degree of dark coloration is equal or nearly so on all the tibiae of *pictipes*. On the contrary, if there is a progressive reduction in the degree of dark coloring from the fore to the hind tibiae, as is the case in *basilica*, *candida* and the present fly, the amount of dark on the posterior legs of *pictipes* would be so reduced

as to be virtually lacking and an almost entirely pale hind tibia would be found. Osten Sacken indicates that his type of *pictipes* has the wings uniformly pale brown, unmarked except for the slightly darker stigma; the Santa Cruz specimen has the wing-tip narrowly but strongly darkened, with pale droplets in the outer ends of cells R_5 and M_1 , respectively.

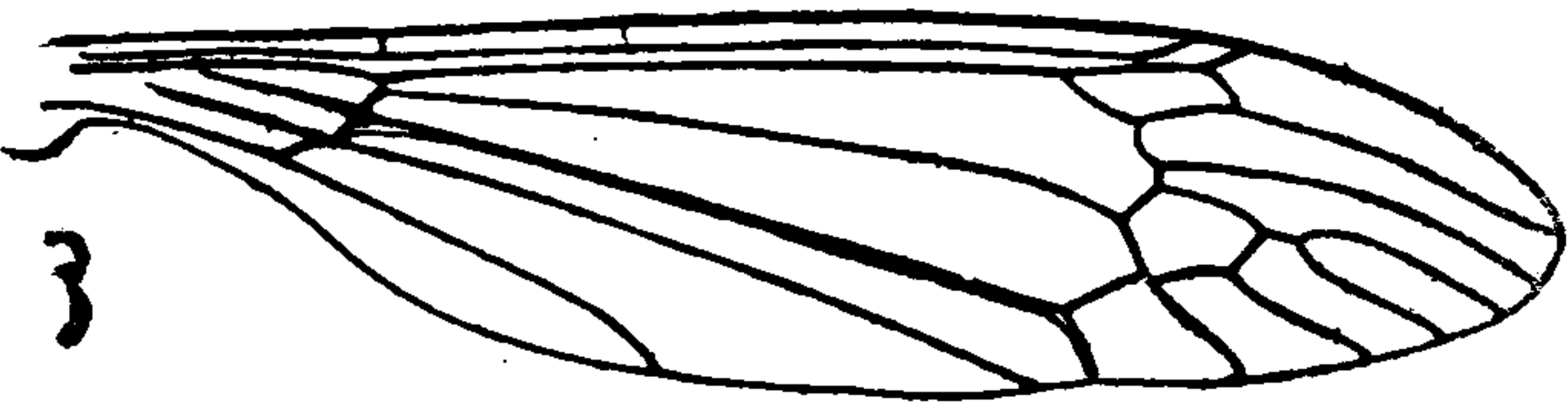
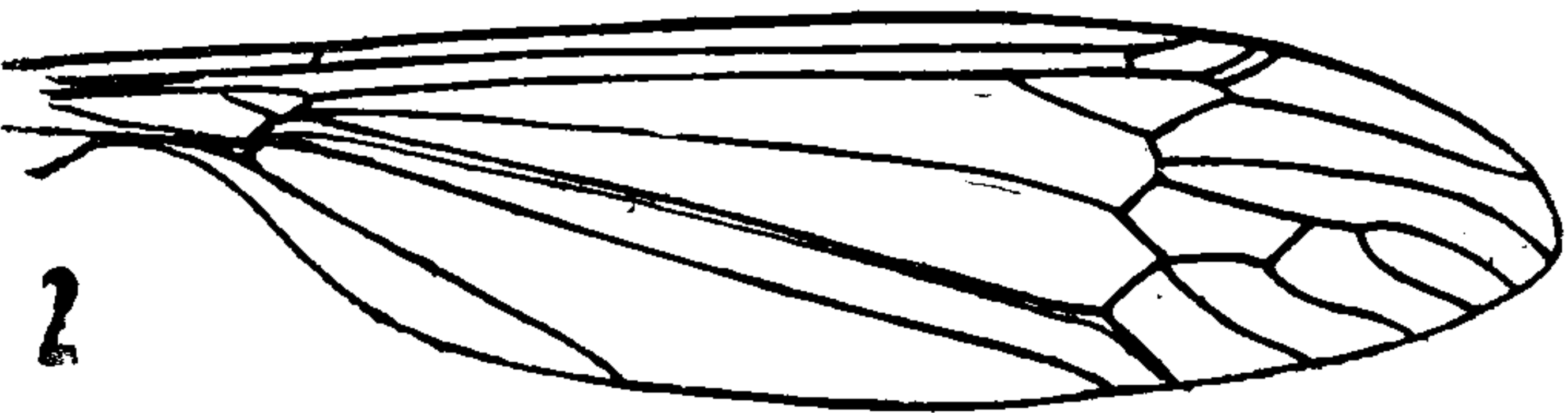
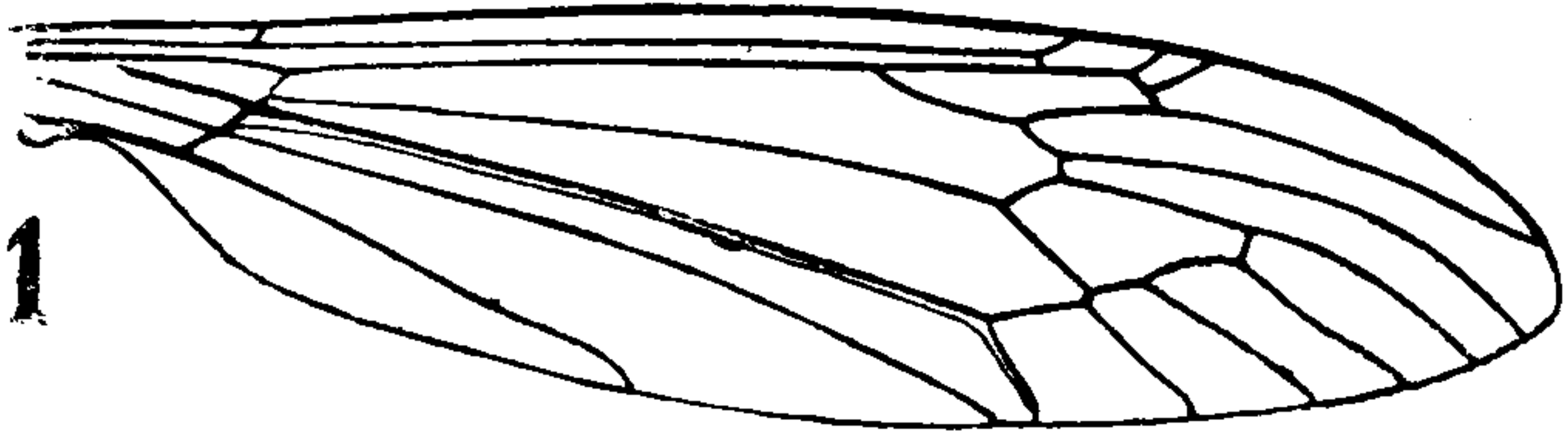
TANYPREMNA Osten Sacken

Tanypremna Osten Sacken; Biol. Centr. Amer., Diptera 1 : 19; 1886.

The species of *Tanypremna* are restricted to Tropical and the southern Subtropical portions of the New World. I now would divide the genus into four subgeneric groups that may be separated by the accompanying key. All of these groups appear to me to be unusually strong and may perhaps better be maintained as valid genera. The nature and probable homologies of the supernumerary vein in *Ceoneura* has been discussed in the original reference to the group. The element cannot be construed as being simply a cross-vein, since in that event there would be but three branches of Media present, a condition unknown in this group of flies and very rare in the entire subfamily Tipulinae.

KEY TO THE SUBGENERA OF TANYPREMNA

1. Vein R_{1+2} lacking (Fig. 3); antennae with basal two or three flagellar segments strongly produced on lower face to appear subpectinate. *Tanypremnodes* Alexander
- Vein R_{1+2} present (Figs. 1, 2, 4); flagellar segments cylindrical, simple. 2
2. A supernumerary vein between R_{4+5} and the anterior branch of M , forming a second discal cell above 1 *st* M_2 (Fig. 4). *Ceoneura* Alexander
- No supernumerary veins on wing. 3
3. Cell 1 *st* M_2 large, widened outwardly; cell M_1 sessile (Fig. 1). *Aldrovandia* Enderlein
- Cell 1 *st* M_2 of moderate size, not strongly narrowed outwardly; cell M_1 petiolate (Fig. 2). *Tanypremna* Osten Sacken
- Aldrovandia* Enderlein; Zool. Jahrb., Syst., 32: 52; 1912 (type, *gesneri* Enderlein).



1. *Tanypremna* (*Aldrovandia*) *gesneri* (Enderlein); venation.
2. *Tanypremna* (*Tanypremna*) *porteriana*; sp. n.: venation.
3. *Tanypremna* (*Tanypremnodes*) *leucoplaca* Alexander; venation.
4. *Tanypremna* (*Ceoneura*) *idioneura* Alexander; venation.

Geoneura Alexander; Ent. News, 35: 289; 1924 (type, *idioneura* Alexander).

Tanypremna Osten Sacken; Biol. Centr. Amer., Diptera, 1: 19; 1886 (type, *opilio* Osten Sacken).

Tanypremnodes Alexander; Ent. New, 35 : 290; 1924 (type, *leucoplaca* Alexander).

The most recent revision of the species of *Tanypremna* is by the present writer (Journ. N. Y. Ent. Soc., 22: 205-218, pl. 5; 1914).

***Tanypremna* (*Tanypremna*) *porteriana*, sp. n.**

Size large (ring, about 20 mm.); body relatively stout; mesonotal praescutum with four reddish brown stripes, the intermediate pair divided by double capillary dusky lines; mediotergite with paired dusky areas on cephalic half; femora yellowish brown; tibiae pale yellow, the tips narrowly dark brown, preceded by a diffuse, clearer yellow ring; basal tarsal segments dark at both ends, pale in their central portions; wings brownish yellow, the costal portion clearer yellow; weak dark seams on anterior cord and along vein *Cu*; abdominal tergites reddish brown, the sternites clearer yellow.

Male.—Length, about 30 mm.; wing, 19 mm.

Female.—Length, about 43 mm.; wing, 21 mm.; abdomen alone, about 37 mm.

Frontal prolongation of head short, whitish above, darker on sides; palpi light brown. Antennae very short in both sexes; scape and pedicel yellow, flagellum brown; flagellar segments cylindrical, with verticils that are subequal in length to the segments. Front and anterior vertex whitish, the posterior vertex brown; anterior vertex relatively wide, fully three times the diameter of the scape.

Pronotum testaceous-brown. Mesonotal praescutum yellowish brown, the humeral region extensively testaceous-yellow; four reddish brown stripes on praescutum, the intermediate pair separated by double capillary dusky lines; interspaces with delicate impressed lines; scutum yellowish brown; scutellum yellow, weakly darkened medially; parascutella pale; mediotergite yellowish, on cephalic half with paired dusky areas, the posterior half more whitish pruinose, with a capillary dark median vitta. Pleura with the anepisternum and sternopleurite yellowish white, the pteropleurite and meron more silvery-white; dorso-pleural membrane weakly infumed; pleurotergite darkened. Halteres pale, the knobs weakly darkened. Legs relatively stout for a member of the genus;

coxae yellow to brownish yellow, sparsely pruinose; femora yellowish brown to pale brown; tibiae yellow, the tips narrowly dark brown, preceded by a broad, diffuse, paler yellow ring; basitarsus pale yellow, the tips narrowly brownish black; second and third tarsal segments pale yellow, narrowly brownish black at both ends; remaining tarsal segments brownish black. Wings (Fig. 2) with a strong brownish yellow tinge, the costal border and prearcular region more strongly yellow; cell *M* adjoining vein *Cu* and the anterior cord slightly seamed with brown; stigma very small and poorly indicated not surpassing vein R_{1+2} ; centers of basal cells with indications of pale longitudinal streaks; veins pale brown. Venation: Free tip of Sc_2 and R_{1+2} parallel and lying very close together; petiole of cell M_1 subequal to *m*; cell 2nd *A* of moderate width.

Abdomen very long, especially in female; reddish brown, the sternites more yellow; lateral borders of tergites with a narrow, interrupted, black, longitudinal stripe.

Habitat.—Brazil (Rio de Janeiro).

Holotype, male, Campo Bello, altitude 700-800 metros, January 29, 1935 (*J. F. Zikán*). Allotopotype, female, March 23, 1935.

I take unusual pleasure in dedicating this striking crane-fly to Dr. Carlos E. Porter, in recognition of his invaluable services in founding and continuing over a period of forty years the «Revista Chilena de Historia Natural». *Tanypremna* (*Tanypremna*) *porteriana* is a very generalized species, quite distinct from all other members of the genus so far made known. It shows distinct affinities with *Aldrovandia* and serves as the chief basis for relegating the latter group to subgeneric ranking under *Tanypremna*. The unusually stout legs that are variegated with pale yellow, instead of snowy-white, as in the case in the remaining species of the subgenus separate the fly as being very distinct.

