

**DESCRIPTION OF *LAUROMACROMIA FLAVIAE* SPEC. NOV.,  
WITH NOTES ON THE HOLOTYPE OF *L. LUISMOOJENI* (SANTOS)  
(ANISOPTERA: CORDULIIDAE)**

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*L. flavia* sp. n. (♂ holotype: Jaboticatubas, Minas Gerais, Brasil, 14-I-1975; deposited in Author's coll.), is described, illustrated, and compared with the other 2 congeners, all represented by ♂♂. Some amendments are made on the original description of *L. luismoojeni*, based on the examination of the holotype.

**INTRODUCTION**

The genus *Lauromacromia* was created by GEIJSKES (1970) for *Gomphomacromia dubitalis*, described by FRASER (1939) from French Guyana. More recently, MAY (1991) transferred to this genus *Neocordulia luismoojeni* which had been tentatively placed in *Neocordulia* by SANTOS (1967). It is worth mentioning that the two species that compose the genus *Lauromacromia* are known by very few specimens, *L. dubitalis* by the male holotype and two male specimens reported by MACHET (1991) and *L. luismoojeni* by the male holotype only. The females of both species remain unknown. This situation confirms the fact that, with very few exceptions (MACHADO & COSTA, 1995), the neotropical Corduliidae and specially the lauromacromias are rare and poorly represented in collections. A third species is now described under the name of *L. flaviae* represented by a single male, collected in the region of Serra do Cipó, Minas Gerais, Brazil. I also use this opportunity to make a few amendments on SANTOS' (1967) description of *L. luismoojeni*.

*LAUROMACROMIA FLAVIAE* SP. NOV.

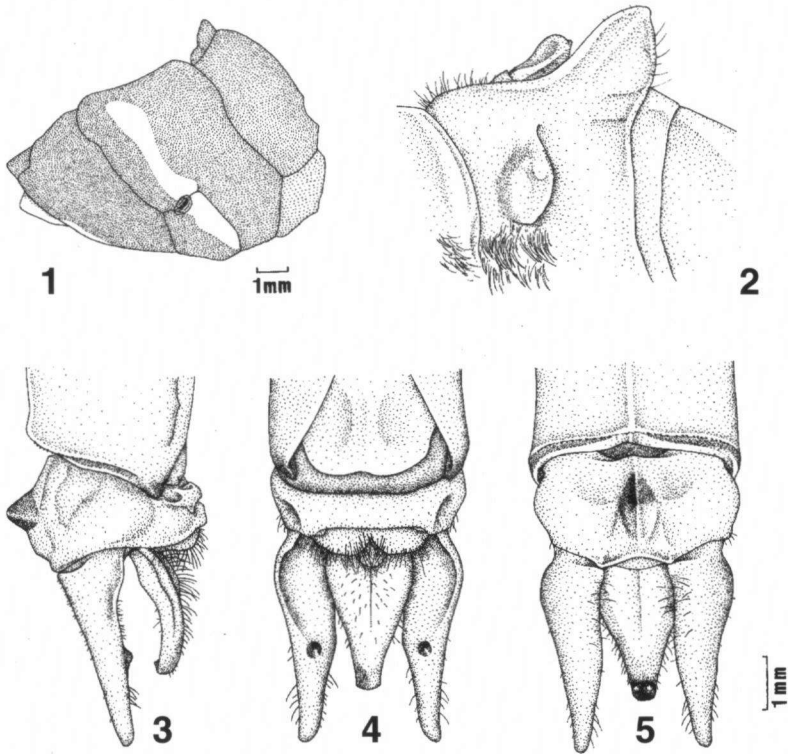
Figures 1-5

**Material.** — **Holotype** ♂: BRAZIL, Minas Gerais, Jaboticatubas, 14-I-1975, flying over the Cipó River in front of the Cipó Veraneio Hotel at 11 am, A.B.M. Machado leg.; deposited in Author's collection.

**Etymology.** — The new species is dedicated to my daughter, Flávia, who always loved Serra do Cipó, where it has been collected.

**MALE (Holotype).** — **Head.** — Labium, labrum and anterior part of frons orange. Anteclypeus, postclypeus, lateral and upper part of frons olive brown. Vertex and occiput brown. Frons with a deep furrow the median ocellus lying deeply sunk in the posterior part of it. Anterior part of frons flat. Rear of the head black.

**Thorax.** — Prothorax yellowish. Pterothorax (Fig. 1) brown with metallic green and copper reflections, predominantly copper on the metepimerum. An oblique yellow stripe (width at mid height 0.6 mm) with a shallow anterior concavity at its upper half,



Figs 1-5. *Lauromacromia flaviae* sp. n., holotype ♂: pterothorax, lateral view; — (2) genitalia of 2nd abdominal segment, lateral view; — (3) 10th abdominal segment and anal appendages, lateral view; — (4) same, ventral view; — (5) same, dorsal view.

situated at the anterior part of the metepisternum. A smaller yellow oblique stripe starting at the hind part of the metepimeron directed forward and medially at the ventral part of this sclerite. Legs brown. Tibial keels yellow occupying the following percentages of the tibial length: fore tibiae 54,4%; mid tibiae 58.5%; hind tibiae 85.1%. Wings hyaline with a very small yellowish tinge at the extreme base of the costal and subcostal spaces. Pterostigma and venation including the costal vein brown. Membranula light brown, ending above the apex of the anal triangle.

Venation. — Antenodals in forewing (FW) 9; in hindwings (HW) 6. Postnodals in FW 4-5; in HW 6. Triangles and supratrangles in FW and HW free. Anal triangle with 2 cells. Anal loop with 6-7 cells. Cubito-anal crossveins in FW 1; in HW 2. One cell row in the discoidal field of FW until 4 rows before the margin. Discoidal field in the right HW with one row of cells for a distance of 4 cells, increasing to 9 rows at the margin; in the left HW with one row of cells for a distance of two cells, followed by two rows for a distance two cells, increasing to 8 rows at the margin. Rspl and Mspl poorly defined. Arc in FW and HW at the distal third of the distance between 1st and 2nd antenodal. Base of triangle distal from the arculus.

**A b d o m e n.** — In dorsal view large at segments 1-2 (2.1 mm), attaining minimum width at 5 (1.3 mm), enlarging again at 7-10, to attain 2.8 mm at 8. Segments 1-2, anterior half of 3 and 10 brown; posterior half of 3 to 9 dark brown. Pale markings as follows: an annulate marking at the hind border of 1. A spot around the genital fossa and at the base of the genital lobe. A coarsely quadrate spot adjacent to the anterior part of the transverse carina at segments 3-7 at least in part touching each other dorsally. Segment 6 with an additional round spot just in front of the transverse carina. Segments 8-10 without pale spots. Posterior border of 10, black. A pale line at the ventral border of tergites 3-9, largest at 8. Sternites black at segments 3-7, brown at 8-9. Spine-like process on sternite 8 dark brown. An yellowish pubescence on the ventral lateral part of segments 7-8. Superior appendages brown. Inferior appendage ventrally brown, dorsally yellowish brown.

Structural characters. — Auricles present. Hamulus (Fig. 2) much less prominent than genital lobe with the two branches indistinct possibly represented by two small anterior and posterior cords separated by a shallow depression. A minute pin-head-like tubercle at the medial part of the hamule tip (Fig. 2) provided with a small tuft of hairs. Genital lobe (Fig. 2) triangular. Anterior third of sternite 8 with a process ending in a spine (0.49 mm high) directed posteriorly. Superior appendages: in dorsal view (Fig. 5) slightly diverging, widest at base tapering into a blunt tip, medial border almost straight, lateral border smoothly curved toward tip. Ventral surface (Fig. 4) bordered by a lateral carina occupying its basal half limiting externally a slightly depressed area. A tubercle visible in lateral view (Fig. 3) divides the appendage into a proximal (1.75 mm) and a distal (1.25 mm) part. Inferior appendage (Figs 3,5) triangular with a narrow tip provided with two minute tubercles. Dorsum of abdominal segment 10 with a well marked middorsal carina elevated in a robust (0.49 mm high) triangular crest (Figs 3, 5). Inferior appendage attaining the level of about 3/4 of the length of the superior

appendages.

**Measurements** (mm). — Total length 54.2. — Abdomen without appendages 38.2. — FW length 34.0. — FW base to nodus length 19.0. — HW length 34.4. — HW maximum width 10.6. — HW base to nodus length 15.3. — FW pterostigma 2.5. — Inferior appendage 2.3. — Superior appendages 3.0. — Length of the basal carinated part of superior appendage 1.5. — Length of abdominal segments 9 + 10, 3.3. — Eye sheam length 0.8.

FEMALE unknown.

#### NOTES ON THE HOLOTYPE OF *LAUROMACROMIA LUISMOOJENI* (SANTOS, 1967)

The only known specimen of *L. luismoojeni* is the male holotype deposited in the National Museum at Rio de Janeiro. This specimen was kindly lent me for study by Prof. Janira Martins Costa. Stored in an entomological envelope, it is well preserved and corresponds to the description made by SANTOS (1967). However, the abdomen length is 36.8 mm and not 32 mm as stated in the original description and the lateral thoracic stripe, which is on the metepisternum and not on the mesepimeron, reaches the upper part of the sclerite. The following measurements should be added to those in Santos' description: Eye sheam length 0.5; width of the metepisternal stripe at midheight 1.1; percentages of tibiae length occupied by the tibial keels. Fore tibiae 48.9%; mid tibiae 50.9%; hind tibiae 82.2%. FW length 33.1; FW base to nodus length 18.2; HW base to nodus length 13.6; superior appendage length 2.8; carinated part of superior appendage 1.2; distance from the tip of the ventral tubercle to the apex of the superior appendage 1.5; inferior appendage length 1.6. The main character lacking in Santos' description and relevant to the taxonomy of the genus *Lauromacromia* is the venation colour, which in *L. luismoojeni* is brown, with the costa yellow.

#### DISCUSSION

*L. flaviae* differs from the French Guyanian *L. dubitalis* mainly by the absence of the keel-like expansion on the lateral side of the superior anal appendages whose ends are not turned out abruptly as in *L. dubitalis*. On the other hand, *L. flaviae* is very close to *L. luismoojeni* whose holotype we had opportunity to compare side by side with that of *L. flavia*. The main characters separating the three species are shown in Table I.

The only known specimen of *L. flaviae* was collected while hovering at 11 am above a narrow side stream that leaves the Cipó River, runs for about 50 m above its rocky bed and enters the river again. Although called Serra do Cipó, the region is actually at the base of the Serra, at an altitude of 850 m. It contains remnants of gallery forest at one bank of the river, but it is situated in the middle of the cerrado (a sort of savanna). Thus, *L. flaviae* is most likely a cerrado species, as some species of *Navicordulia* (MACHADO & COSTA, 1995). It is probably very rare at least so at the site where it was found. During the 25 years since it was collected, I have visited the area innumerable times and never sighted it again.

Table I  
Main characters separating the known species of *Lauromacromia*

Character	<i>L. flaviae</i>	<i>L. luismoojeni</i>	<i>L. dubitalis</i>
Head	labium, labrum and anterior part of frons orange. Remaining parts olive brown.	uniformly yellow	uniformly reddish brown
Lateral thoracic stripe	narrower (width at midheight 0.6 m) with a shallow anterior concavity at its upper half	wider (width at midheight 1.1 mm). Straight	?
Metepimeral stripe	continuous	interrupted	continuous
Costal vein	brown	yellow	?
FW pterostigma (mm)	2.5	2.5	1.6
Abdominal segments 8-10	without pale spots	with pale spots	without pale spots
Middorsal crest on abdominal segment 10	triangular	rectangular	triangular
Superior anal appendages in relation to abdomen segment 10	about 1.5 times longer	about 1.5 times longer	equal
Apex of the superior anal appendages	straight, with blunt tips	straight, with acute tips	abruptly turned outwards with acute tips
Depression on the dorsum of abdominal segment 10 at each side of middorsal carina and crest	absent	absent	present and deep
Tubercle on the ventral surface of the superior anal appendages	present and visible in lateral view	present and visible in lateral view	absent or at least not visible in lateral view

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