

**DROSOPHILA GALLOI SP.N., THE FIRST OCCURRENCE
OF THE "VICTORIA" GROUP (SUBGENUS
SCAPTODROSOPHILA) IN THE NEOTROPICAL REGION
(DIPTERA, DROSOPHILIDAE)**

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(With 2 figures)

RESUMO

***Drosophila galloi* sp.n., Primeira Ocorrência do Grupo "Victoria" (Subgênero
Scaptodrosophila) na Região Neotropical (Diptera, Drosophilidae)**

Drosophila galloi sp.n. é a primeira ocorrência do grupo "victoria" na Região Neotropical (Rio Grande do Sul, Brasil). O fato amplia a distribuição geográfica do grupo, limitada até então às regiões Neártica, Paleártica e Australiana.

Palavras-chave: *Drosophila*, nova espécie; grupo "victoria"; *Drosophila galloi*, sp.n.

ABSTRACT

Drosophila galloi sp.n. is the first occurrence of the "victoria" group in the Neotropical (state of Rio Grande do Sul, Brazil) region. This finding enlarges the geographic distribution of the group, so far limited to the Palearctic, Nearctic and Australian regions.

Key words: *Drosophila*, new-species; "victoria" group; *Drosophila galloi*, sp.n.

INTRODUCTION

The subgenus *Scaptodrosophila* (= *Pholadoris*, Sturtevant, 1942) was established by Duda (1923) as a genus. It consists of two distinct groups named "victoria" (blackish flies) and "mirim" (yellowish flies). Members of the former group are widely scattered throughout Nearctic, Palearctic and Australian regions and the single species of the latter one (*Drosophila latifasciaeformis*) is endemic to the Neotropical (cf. Pat-

erson & Stone, 1952) and Afrotropical regions (cf. Tsacas *et al.*, 1981). Wheeler (1949) gives a complete description of the subgenus and characterizes both groups through the male genitalia. The new species here described belongs to the "victoria" group and was found southern in the Neotropical region (State of Rio Grande do Sul, Brazil). According to Val *et al.* (1981) the distribution of *D. victoria* "may extend into Mexico" but the authors do not refer to the specific area of occurrence.

***Drosophila galloi*, sp.n.**

Female and male — arista with two dorsal and three ventral branches in addition to the terminal fork. Antennae: first segment yellow;

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second brownish, anteriorly with prominent bristles and posteriorly with a row of short and strong bristles; third velvety dark-brown, with a rather dense and short light pile. Front velvety dark-brown; two simetric rows of slender bristles in a V shape arrangement, on the area between the antennae and the ocelar triangle, which is typical of the "victoria" group. Anterior orbital proclinate slightly larger than the posterior reclinate orbital, middle orbital reclinate minute. One prominent oral bristle. Face pale-yellow. Cheeks pollinate, also pale-yellow, the greatest width about 1/9 of the greatest diameter of the eyes. Eyes dark-red, with black pile. Carina prominent, non sulcate, yellowish-brown. Palpi pale-yellow, with three slender and long prominent bristles. Acrostical hairs in six regular rows. Anterior scutellars divergent. Two prescutellar bristles. Mesonotum shining dark-brown, pleurae of the same color. Halteres pale-yellow. Legs brownish-yellow. Apical bristles on the first and second tibiae, preapical on all three.

Abdomen shining. Male: tergites dark-brown without bands. Female tergites brown: first without bands; second and third posteriorly with a narrow band without pigment; fourth to sixth with a band reaching both the anterior and posterior borders in the median area, but not the lateral borders; seventh anteriorly with a triangular like area without pigment in each side. Sternites with thin and short hairs. The abdominal ventral surface, light-brown in males and milky-white in females, gives a clear-cut difference between sexes, even at naked eye.

Wings uniformly transparent with two prominent bristles at the apex of the first costal section. Indices values (5x, costal, 4v and sternopleural) and wing and body length are given in Table I.

Puparium dark-brown, without horns, with only six to nine recurved branches arranged in a simple whorl around the spiracle opening. Length 2.85 ± 0.10 mm (N=25).

Ventral receptacle short, simply a bent pocket-like throughout with a almost uniform diameter. Spermathecae minute, oval, (Figure 1). Ovipositor plate honey-yellow with twenty two short and two long teeth. Eggs with four to nine filaments, usually seven, seldom four or nine.

TABLE I
Means and standard deviations for wing and sternopleural indices and wing and body length (in millimeters) for 25 males and 25 females (Student *t* for difference between means; *: $P < 0,05$; **: $P < 0,01$).

| variable | | female | male | t(48) |
|----------|----------------|-----------------|-----------------|--------|
| indices | 5x | $1,80 \pm 0,12$ | $1,91 \pm 0,18$ | 2,58* |
| | costal | $2,02 \pm 0,10$ | $1,96 \pm 0,10$ | 2,00 |
| | 4v | $2,60 \pm 0,14$ | $2,67 \pm 0,12$ | 1,96 |
| | sterno pleural | $0,77 \pm 0,05$ | $0,73 \pm 0,07$ | 2,32* |
| length | wing | $2,06 \pm 0,09$ | $2,00 \pm 0,10$ | 2,56* |
| | body | $2,76 \pm 0,10$ | $2,51 \pm 0,11$ | 8,70** |

Testis ovoid, dark-brown. Vas deferens in the same color. Hipandrium with six to eight long bristles in each side, usually eight. Forceps with ten to twelve primary (usually twelve) and two secondary teeth (Figure 2).

Metaphase plate of brain chromosomes shows six metacentric and two acrocentric. The acrocentric are the sexual chromosomes and have a distal satellite in the long arm.

Type locality — Flies collected in Southern of the Neotropical region in 1960 (State of Rio Grande do Sul, near Porto Alegre) gave rise to a strain which is maintained in arrowroot-corn-wheat medium at the Departamento de Biologia — UNESP, at São José do Rio Preto, SP. The strain, formerly maintained at the Departamento de Biologia — USP at São Paulo, SP, was kindly given by Dr. Luiz Edmundo de Magalhães. The same strain is maintained at the Bowling Green State University (Ohio) in banana medium as the stock #11020-0051 named Dimorpha.

Holotype female (label #01 — *D. galloi*/RS) and 20 paratypes, 10 males and 10 females (label #02 series — *D. galloi*/RS), fixed in Barber, in the Collection of the Departamento de Biologia — UNESP, São José do Rio Preto, SP.

Nomenclatural note — The species was mentioned by Mourão, Gallo & Bicudo (1965) as *Drosophila dimorpha*, indicated as a "manuscript name", which is now invallidated. The new name, now proposed, is a homage to Dr. Aluísio José Gallo in account of his contribution to the knowledge of Systematics and Genetics of *Drosophila* Brazilian populations.

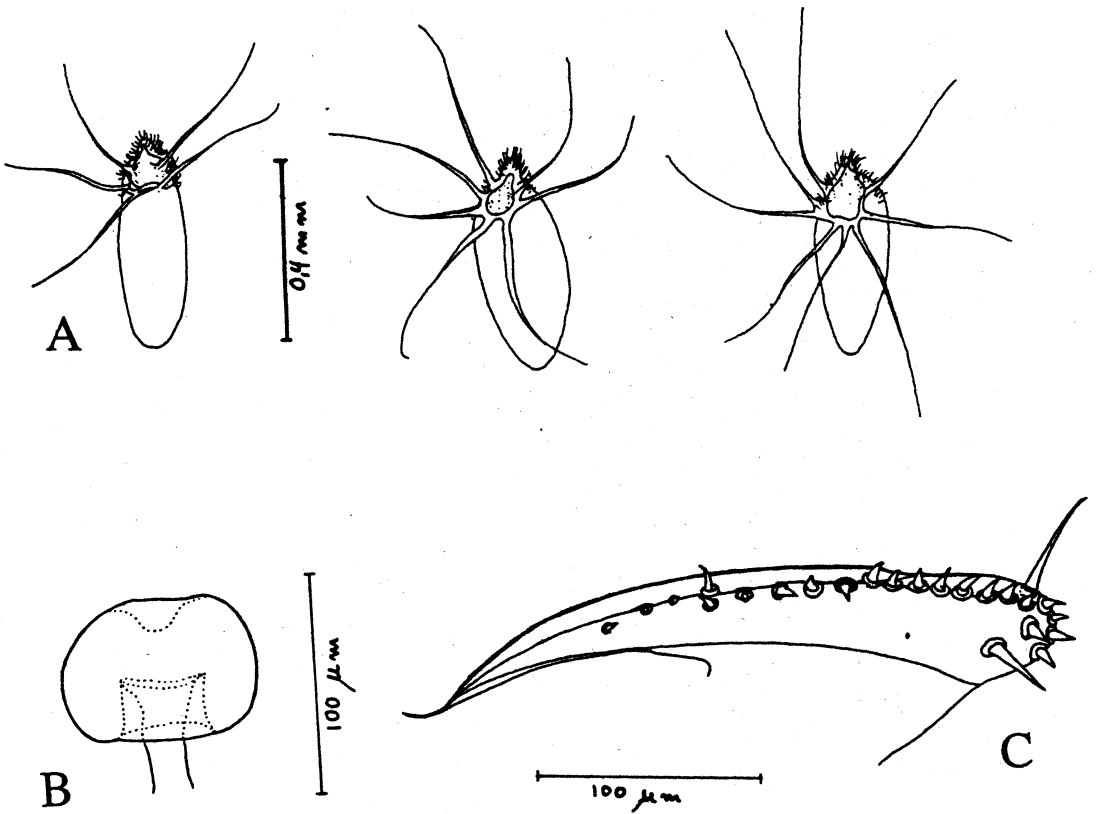


Fig. 1 — A: eggs with five, seven and eight filaments; B: spermatheca; C: ovipositor plate.

Taxonomic discussion — The species described represent the first occurrence of the "victoria" group in the Neotropical region (cf. Wheeler, 1981; 1986). As in the "mirim" group, the two prescutellar bristles are the main difference between the new species and those of the group, with four, mentioned in Pipkin (1961). With usually eight bristles in each side of the hypandrium, *D. galloi* is similar to *D. lebanonensis* (see Máca, 1988).

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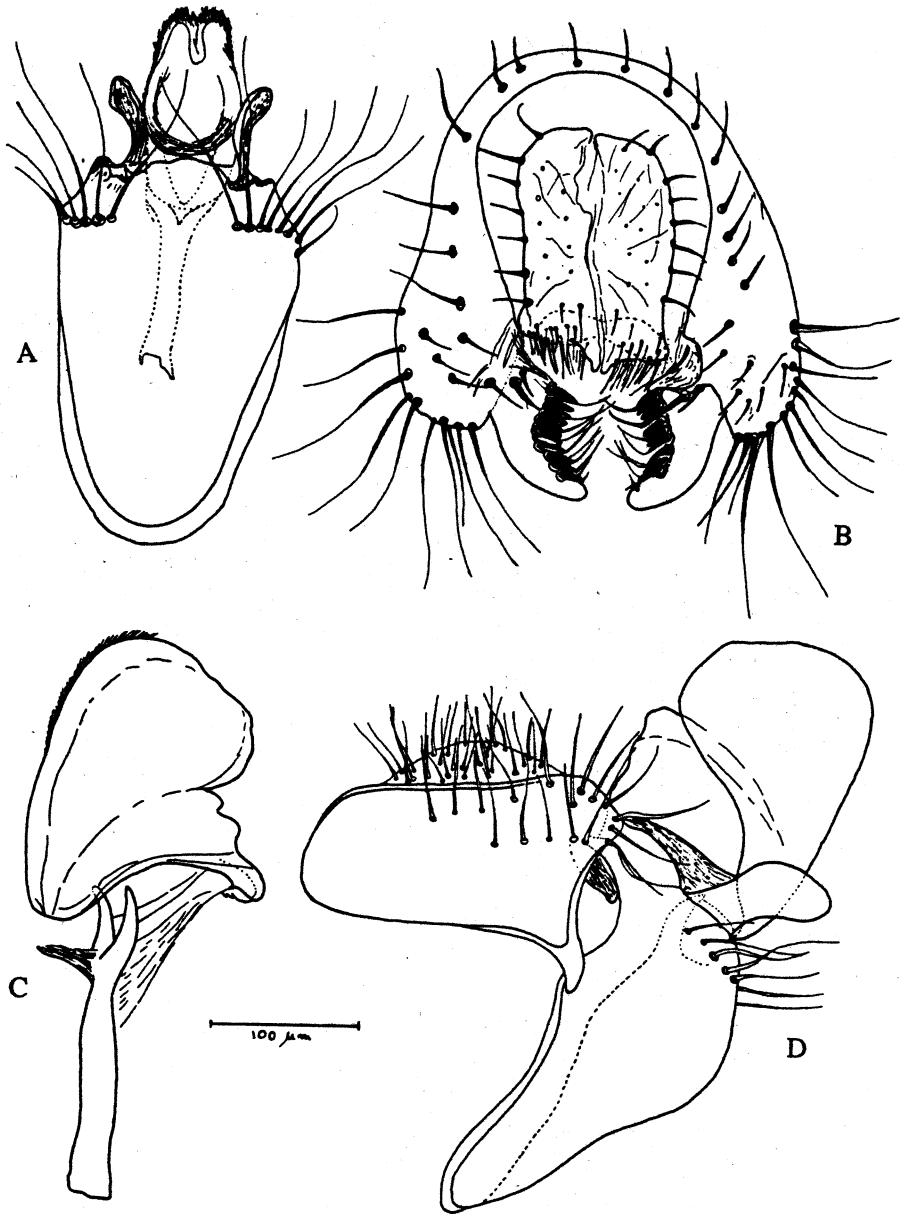


Fig. 2 — A: ventral aspect of hipandrium; B: anal plate and forceps; C: penis; D: lateral view of genital and anal plate.

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