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“DROSOPHILA GAUCHA”, A NEW SPECIES FROM BRASIL¹

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(With 4 text-figures)

In the present paper is described a new species of *Drosophila* found in Rio Grande do Sul, Brasil, in collecting trips made with the chiefly purpose of population genetic analysis of this genus.

Drosophila gaucha n. sp. is a vigorous active reproducing fly in the normal banana-agar, baker-yeast medium, and bears very good salivary chromosomes.

~~It shows affinities with the virilis and guarani groups of the sub-genus Drosophila, but only detailed studies that we are doing in this laboratory, will allow us to place correctly this interesting species in either of these groups, or in a new one.~~

Description — Arista with 7-8 branches in males and females, 8 being the usual number. Antennae light brown. First segment with 4 small bristles, second with 15-16 small bristles and 2 longer ones. Third segment pilose and darker than the other two.

Front brown, with two rows V-shaped, the apex forward. Space between the ocelli brown, their sides forming a triangle, light or dark brown according to the light incidence. Orbital line light brown, base of all orbitals and verticals bright yellow. Anterior orbital of the same size as the posterior one, middle orbital 1/4 posterior.

Face light brown, with yellow refraction. Cheeks light brown, bright, having in the internal border about 1/5 of the maximum diameter of the eyes.

Carina prominent, gradually broadening below, sulcate. Only one prominent oral bristle. Eyes dark red, with dark pilosity.

Thorax brown, pollinose, with diffuse darker streaks inside and outside the dorsocentral rows. In some individuals there are one pair of bristles forward the anterior dorsocentral bristles. Acrostichal hairs in 8 rows, regular.

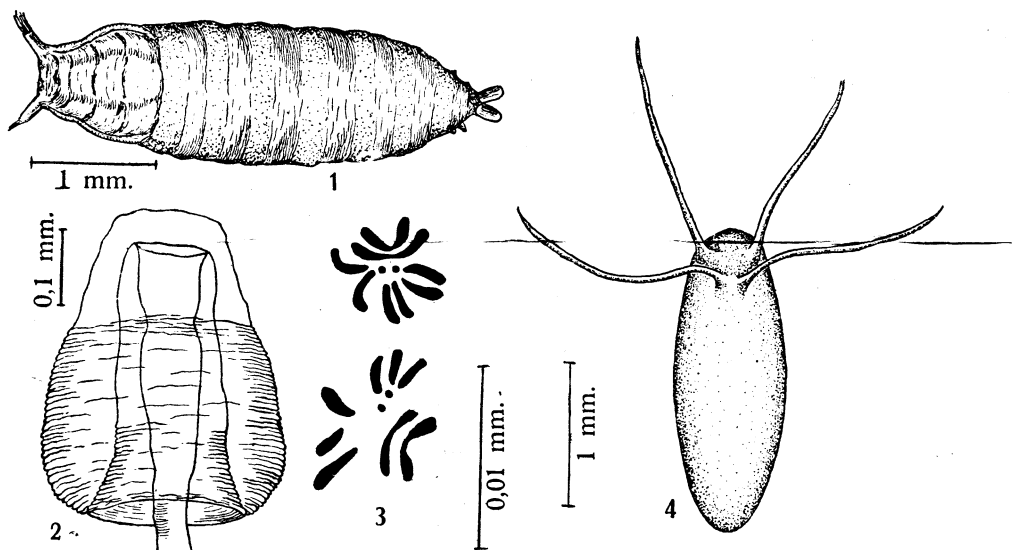
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No prescutellars. Anterior scutellars divergent. Pleurae light brown with yellow refraction and dark sutures. Anterior sternopleural 7/10 posterior, middle sternopleural 1/4 posterior. Legs yellow, apical bristles on first and second tibiae, preapical on all three.

Abdomen bright yellow with dark brown bands in the posterior margins interrupted in the middle, and covering about 1/3 of the tergite width. On the lateral margins the bands become light brown, reaching 1/2 of the tergite width.

Wings brownish, crossveins slightly clouded, posterior crossvein a little more clouded. Apex of the first costal section with two prominent bristles, third costal section with heavy bristles on its basal 1/3. Costal index 4.1 – 4.3; 4th vein index 1.3 – 1.6; 5x index 1.1 – 1.2.

Female length body 3.2 – 3.6 mm.; male 2.9 – 3.1 mm.; wings 2.8 – 3.1 mm.



Drosophila gaucha n. sp. — Fig. 1: Pupa; fig. 2: spermatheca; fig. 3: chromosomes; fig. 4: egg.

Two anterior Malpighian tubes free, posterior fused, apparently with continuous lumen.

Testes yellow with about 3 or 4 inner and 5 outer coils. Spermatic pump with two filaments twice as long as the pump itself. Seminal vesicle long, slender with 5 coils in its distal end. Ventral receptacle with about 30 coils. Spermatheca brown chitinized with a strongly marked waved base, showing sinuosities (fig. 2).

Eggs with four filaments, the posterior being a little long (fig. 4).

Puparia brown, horn index 0.1; anterior spiracle with about 18 – 20 branches (fig. 1).

Chromosomes: metaphase plates shows one pair of "V's", three pairs of rods and one pair of dot-like chromosomes. One of the pairs of rods is a little longer than the others: these are the sexual chromosomes. In males we can see the Y chromosome with the length of approximately $2/3$ of the X chromosome. Salivaries show 5 relatively long and one short chromosome strands. The X chromosome could be identified as one of the long branches. The chromosomes are very good for cytological studies (fig. 3).

Geographic distribution — Muitos Capões, June 1952 — 3 specimens collected in a total of 970 flies.

The holotype (δ), allotype and more eight paratypes (4 δ δ and 4 φ φ) are preserved in the Instituto de Ciências Naturais, Pôrto Alegre, R. G. do Sul. All are descendents from 2 fertilized females collected at Muitos Capões.

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