

6 XI 1968

Breuer, M.E. and Pavan, C. 1958 Genitalia masculina de "Drosophila" (Diptera): Grupo "annulimana". Rev. Brasil Biol; ~~47~~:469-488.

70

Summary

The annulimana species group of Drosophila includes seven species, some of them difficult to distinguish by external morphology alone. Taking into account only the external traits, it is possible to divide the group in three subgroups as follows:

with prescutellar bristles present, D. annulimana, D. araicas, and D. arana;

without prescutellar bristles, anterior scutellar bristles convergent, D. gibberosa and D. ararama;

without prescutellar bristles, anterior scutellar bristles divergent, D. arassari and D. arapuan.

Thus, it is very easy to classify the flies as to the subgroup. The difficulties arise when one wants to distinguish the species of flies belong to the same subgroup. Some of the species are so similar that distinction is very often impossible in pinned material. The easiest way to distinguish all the species of annulimana group is by their male genitalia. A detailed study of the genitalia was undertaken, and it has shown that there exists a correspondence between the external characters and the general male genitalia features. The shape of the penis with its apodeme is similar among the flies of the first subgroup, and it is similar also among the flies of the last subgroup. It is very different in D. gibberosa and D. ararama although there two species belong to the same subgroup. If we analyse the shape of the bridge (po in fig 4) we will see that it is formed by a single piece in D. annulimana (Figs. 15, 16), D. araicas (figs. 29, 33), and D. arana (figs. 45, 49): it is formed by two separate pieces in D. arassari (figs. 88, 90), and D. arapuan (figs. 105, 107) and by two fused pieces in D. gibberosa (figs. 61, 62), and D. ararama (figs. 73,-82). The bridge in this subgroup is of a type intermediate between the two others.

The main character for distinguishing the species is the shape of the penis and its apodeme, which is different in all species of the annulimana group.