Geographical variation of chromosomal structure in Drosophila gasici

Brncic, Danko

Koref-Santibañez, Susi

Drosophila gasiciBrncic 1957, is a neotropical species found in several parts of the Andes Mountain System. By means of the analysis of their external characteristics, chromosomes and hybridization test they have been included in the mesophragmatica group of species of the sub-genus Drosophila. The present paper describes the mitotic and polytene chromosomes of D. gasici from samples of natural populations collected at Bogotá (Colombia), Cochabamba (Bolivia), Arica (Chile) and San Luis (Argentina). The comparative study of all these populations has disclosed that the species has split in well defined geographic races. The Colombian and Chilean flies differ from those living in Bolivia and Argentina by three independent inversions in chromosome I (the sexual pair). The only polymorphic populations seem to be the Chilean ones which exhibit two inversions in the second chromosome, besides the Standard gene arrangement. All the other populations are homozygous for all their chromosomal seq