

The B chromosome of the grasshopper *Abracris flavolineata*: from populational analysis to cytogenomics

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Abstract/Resumo

B chromosomes occur in addition to normal chromosome complement (A complement) in about 15% of Eukaryotes. For Orthoptera they were noticed in about 190 species with prevalence in the superfamily Acridoidea (14.6%), which is considered a “hot spot” for B chromosome emergence. One of these Acridoidea species is *Abracris flavolineata* (Ommatolampidinae), a South American grasshopper that harbor one or two submetacentric B chromosomes. The main difference for this species in comparison to most other B chromosomes is that in *A. flavolineata* the B chromosome is not enriched of heterochromatin. In this way we have to explore this species as model to understand composition, evolution and possible transcriptional activity of B chromosomes. In this talk the evolutionary history of *A. flavolineata* B chromosome will be presented from geographical and temporal population analysis to cytogenetic point to view. These histories are based in obtaining of integrated data, like chromosomal analysis, molecular studies, high-throughput DNA sequencing and imunocytogenetics that revealed interesting picture concerning B chromosome evolution.

Keyword/Palavras-chave: Genome evolution; Imunocytogenetics; Repetitive DNAs; Supernumerary chromosomes