

A chromosomal analysis of seven Cameroonian Acrididae species (Orthoptera: Acridinae, Oedipodinae and Spathosterninae) based on published data

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ABSTRACT:

So far, the karyotypes of seven Acrididae species from Cameroon have been reported. These species included: *Acrida turrata*, *Chirista compta*, *Coryphosima stenoptera producta*, *Oxyacantops spissus* (Acridinae), *Paracinema luculenta*, *Morphacris fasciata* (Oedipodinae) and *Spathosternum pygmaeum* (Spathosterninae). Karyotype and meiosis relationships among these species were analysed from published data. The species had a common karyotype made up of 23 acrocentric chromosomes (males), the sex mechanism in all seven species was $XX_{\text{♀}}-XO_{\text{♂}}$ and meiosis was normal and chiasmata. The chromosomes in the species occurred in three size groups of long, medium and short. The number of chromosomes per size group however varied among the species (*A. turrata* = 4LL:5MM:2SS; *C. compta* = 4LL:4MM:3SS; *C. stenoptera producta* = 2LL:6MM:3SS; *O. spissus* = 5LL:3MM:3SS; *P. luculenta* = 6LL:2MM:3SS; *M. fasciata* = 6LL:2MM:3SS; and *S. pygmaeum* = 2LL:7MM:2SS). The X chromosome was long in the Oedipodinae, medium in the Acridinae and short in the Spathosterninae. Total length of chromosomal material was in the series *C. compta* > *O. spissus* > *P. luculenta* > *S. pygmaeum* > *A. turrata* > *M. fasciata* > *C.s. producta*.

Keywords:

Acrididae, Acridinae, Oedipodinae, Spathosterninae, karyotype, relationships.