



Meiotic behavior and karyotypic variation in *Acledra* (Pentatomidae, Heteroptera)

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ABSTRACT. *Acledra* comprises 15 taxonomically identified species, most of which are crop pests. This is the first cytogenetic study of species of this genus. *Acledra kinbergii* and *A. modesta* showed the modal number of the Pentatomidae ($2n = 14 = 12 + XY$), while *A. bonariensis* had a reduced complement ($2n = 12 = 10 + XY$), with a markedly larger autosomal pair. Meiotic behavior follows the general pattern of the family; the autosomes divide pre-reductionally, the sex chromosomes are achiasmatic and divide post-reductionally, and at metaphase II the autosomes show a ring-shaped configuration with the pseudobivalent at the center. However, the configuration at metaphase I varies; *A. modesta* shows the typical arrangement (ring of bivalents with the sex chro-

mosomes lying at its center). In *A. kinbergii*, the sex chromosomes are part of the ring or only the Y chromosome is at the center. In *A. bonariensis*, the ring arrangement is not well defined. There are also differences at the diffuse stage; chromatin strands of different width are observed in *A. bonariensis* and *A. modesta*, whereas bivalents do not entirely lose their identity in *A. kinbergii*. In *A. bonariensis*, the reduced complement may have originated from the fusion of the two larger non-homologous autosomes, which could characterize the ancestral karyotype of this genus. The presence of secondary constrictions in the larger pair of *A. modesta* and *A. bonariensis* may support this hypothesis. Since secondary constrictions are uncommon in the holokinetic chromosomes of heteropterans, their presence in these species may indicate that it is a plesiomorphic character of the genus.

Key words: Meiosis; Karyotypic variation; Holokinetic chromosomes; *Acledra*; Pentatomidae; Heteroptera