

Cytogenetic Studies of Bryocorinae Baerensprung, 1860 True Bugs (Heteroptera: Miridae)

Snejana M. Grozeva^{1*}, Nikolay P. Simov²

¹Institute of Zoology, BAS, 1, Tsar Osvoboditel Blvd., 1000 Sofia, Bulgaria; E-mail: sgrozeva@yahoo.com

²National Museum of Natural History, BAS, 1, Tsar Osvoboditel Blvd., 1000 Sofia; Bulgaria

E-mail: simov@nmnh.bas.bg; nikolaysimov@yahoo.com

Abstract: Original data on the chromosome number of 12 Bryocorinae species and the chromosome behaviour during spermatogenesis are also reported. The modal for the genus *Dicyphus* FIEBER, 1858 chromosome formula $2n=46+XY$ was found in *Dicyphus cerastii* WAGNER, 1951, *D. errans* (WOLFF, 1804), *D. stachidis wagneri* TAMANINI 1956, *D. tamaninii* WAGNER, 1951 and *D. albonasutus* WAGNER, 1951, while the rest *Dicyphus* FIEBER, 1858 species displayed $2n=44+XY$ *D. constrictus* (BOHEMAN, 1852) and *D. botrydis* RIEGER, 2002), $2n=44+X_1X_2Y$ *D. pallidus* (HERRICH-SCHAEFFER, 1836), $2n=40+XY$ *D. hesperus* KNIGHT, 1943 and $2n=46+2m+X_1X_2X_3Y$ in *D. digitalidis* JOSIFOV, 1958, respectively. The only Bryocorini BAERENSPRUNG, 1860 species studied in present paper, *Bryocoris pteridis* (FALLÉN, 1807) and the only heteropteran parthenogenetic species *Campyloneura virgula* (HERRICH-SCHAEFFER, 1835) displayed the modal for the whole Miridae HAHN, 1831 chromosome number $2n=32+XX$, respectively. The different patterns of staining applied provided original information on the amount, distribution and composition of the heterochromatin in the karyotype. All species examined showed one follicle per testis and 7 ovarioles per ovary.

Considering the karyological data of the Bryocorinae BAERENSPRUNG, 1860 two evolutionary trends are observed: a reduction of the autosomes number through fusion and an increase in the sex chromosomes number through fragmentations (multiple systems).

Key words: Bryocorinae, Miridae, Heteroptera, holokinetic chromosomes, follicle number