



## Pattern of silver nitrate-staining during meiosis and spermiogenesis in testicular lobes of *Antiteuchus tripterus* (Heteroptera: Pentatomidae)

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**ABSTRACT.** The pattern of silver nitrate (Ag)-staining differed among testicular lobes of *Antiteuchus tripterus*. In general, these differences are in regard to the number, size, shape, coloring intensity, and location of the stained bodies or masses, observed during meiosis and spermiogenesis. These characteristics were similar in lobes 1-3. Lobes 4-6, however, differed from each other and from lobes 1-3 as well. Because the Ag-staining method is specific for nucleolar organizing regions and nucleolar material, the observations in meiosis of lobes 1-3 suggested the presence of a single pair of nucleolar organizing region-bearing chromosomes in *A. tripterus*, as previously found in other Pentatomidae species. In general, the amount of Ag-stained material seen in meiosis of the testicular lobes 1-3 of *A. tripterus* is smaller than in the other lobes. The differences among

lobes observed during spermiogenesis included a striking variation in morphology of the Ag-stained material found in the head and tail of the spermatids. Given that the key role of the nucleolar material is to participate in protein synthesis, interlobular variations seem to be related to the different functions attributed to each lobe (reproduction to lobes 1-3 and basically nutrition to lobes 4-6). To our knowledge, this is the first time that the nucleolar material was studied in each testicular lobe during spermatogenesis. The present observations encourage further studies since, in addition to being of basic biological interest, several Pentatomidae species are agricultural pests and added knowledge of their biology, mainly in reproduction, may be important for the development of control strategies.

**Key words:** Heteroptera; Pentatomidae; *Antiteuchus*; Nucleolus; Testicular lobe differentiation