

Structural diversity of sap beetles of the subfamily Meligethinae (Coleoptera, Nitidulidae) inhabiting palm inflorescences

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[Кирейчук А.Г. Структурное разнообразие блестянок подсемейства Meligethinae (Coleoptera, Nitidulidae), обитающих в пальмовых соцветиях]

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Species of the sap beetles associated with palm inflorescences at the larval and adult stages are known in several genera of the subfamily Meligethinae (occurring mostly in Eurasia and Africa), constitute the entire tribe Mystropini (Nitidulinae) (endemic of the Neotropics) and the not very specialised subgenus *Apria* of the genus *Eपुरaea* (Eपुरaeinae) endemic to Africa. Meligethinae and Mystropini demonstrate a high level of structural variability in comparison with groups closely related to them. It is believed that this circumstance correlates with the diversity of the flower structure in different host plants, although some palm species are inhabited by groups of closely related species and groups of species without close common ancestry (Kirejtshuk, Couturier, 2009, 2010). Structural variability in species of Meligethinae associated with palms (slightly over 1 % of total members of the subfamily) is comparable with that in the rest recent representatives of the group. The meligethines associated with palms seem to belong to two separate phyletic lineages. The larger group of the first lineage includes the genera *Cryptarchopria*, *Kabakovia* and *Meligethinus* with known association with palms, as well as *Cyclogethes* and *Horakia* with unknown bionomics (but their association with palms is fairly probable). Another group comprises very few closely related Afro-Madagascan species, for which some generic names have been proposed (*Cornutopria*, *Lechanteuria*, *Lucanopria*, *Microporodes*, *Microporum*, *Palmopria*) and part of which are known to inhabit palm inflorescences. The relationships between the taxa of the larger meligethine group can be analyzed after a study of the character distribution. The basal and most archaic genus is *Meligethinus* widely distributed in the Mediterranean, Afro-Madagascan and Indo-Malayan Regions; it includes, in particular, *Meligethinus zimbabwensis* with the male genitalia very similar to those in the species of *Cyclogethes*. The genera *Cryptarchopria*, *Kabakovia*, *Meligethinus*, *Cyclogethes* and *Horakia* are represented only in the South-East India, Indochina, and adjacent territories and closest Zunda islands. An undescribed species discovered in the Republic of Côte d'Ivoire is very similar in appearance and in many structures including male genitalia to the Indo-Malayan species of *Kabakovia* but differs from the latter in the large 5-segmented antennal club, shape of prosternal process, hypopygidium with a pair of simple arcuate depressions at the base, and shorter elytra leaving the pygidium completely uncovered. The mosaic of characters observed among the palm inhabitants of the subfamily Meligethinae makes possible to admit a hypothesis on their comparatively recent diversification.