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Conference Abstract

Ground beetles (Coleoptera: Carabidae) diversity from harvested oilseed rape fields (*Brassica napus* L.) in Southern Bulgaria

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Abstract

This study aimed at clarifying the species composition and ecological structure of carabid communities, in oilseed rape fields after rape harvest. Field work was carried out in 2018. Pitfall traps (5 in each site) were set in 10 sampling sites in Thracean Lowland and Sarnena Sredna Gora Mts. Captured beetles belonged to 66 species and 24 genera, representing 9% of the species and 19% of the ground beetle genera occurring in Bulgaria. The most diverse was genus *Harpalus* Latreille, 1802 (15 species), followed by the genera *Amara* Zimmermann, 1832 (7 species), *Microlestes* Schmidt-Goebel, 1846 (6 species) and *Parophonus* Ganglbauer, 1891 (5 species). Five species were new for the region of the Thracean Lowland: *Amara (Bradytus) consularis* (Duftschmid, 1812), *Harpalus (Harpalus) caspius* (Steven, 1806), *H. (Pseudoophonus) calceatus* (Duftschmid, 1812), *Microlestes negrita negrita* (Wollaston, 1854), *Tachyura (Tachyura) parvula* (Dejean, 1831). Three species: *Amara (Zezea) fulvipes* (Audinet-Serville, 1821), *A. (Zezea) chaudoiri incognita* Fassati, 1946 and *Diachromus germanus* (Linnaeus, 1758) were new records for the region of the Sarnena Gora. Seven species were new for the whole Sredna Gora Mts.: *Acinopus (Acinopus) picipes* (Olivier, 1795), *A. (Oedematicus) megacephalus* (P. Rossi, 1794), *Carterus (Carterus) dama* (P. Rossi, 1792), *Harpalus (Harpalus) flavicornis flavicornis* Dejean, 1829, *H. (Pseudoophonus) griseus* (Panzer, 1796), *Licinus (Licinus)*

depressus (Paykull, 1790) and *Microlestes maurus maurus* (Sturm, 1827). Genera *Acinopus* Dejean, 1821, *Carterus* Dejean, 1830 and *Licinus* Latreille, 1802 were new geographic records for the Sredna Gora Mts. Twelve life form categories were established (7 zoophagous and 6 mixophytophagous). The analysis of the life forms showed a slight predominance of the mixophytophages (38 species; 58%) over the zoophages (28 species; 42%). There were no constant species occurring in all sampling sites (with 100% occurrence). Thirteen species appeared after the harvest (they were absent during the flowering and ripening of the rape), forty-four species disappeared (they were present during flowering and ripening), and twenty-nine species were present in all stages.

Keywords

carabids, agrocoenoses, new records, diversity

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