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



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Habitat

10 harvested oilseed rape fields

Thracean Lowland: near the villages of Malak Chardak,
Kostievo, Stryama, Momino Selo,
Dobrich and Stalevo
Sarnena Sredna Gora Mts.:
near the village of Zelenikovo



Model organisms

Ground beetles (Coleoptera: Carabidae)



Results

Captured beetles belonged to **66 species** and **24 genera**, representing 9% of the species and 19% of the genera in Bulgaria

New genera for the Sredna Gora Mts.:

Acinopus, Carterus and Licinus

New species for the Thracean Lowland:

Amara (Bradytus) consularis (Duftschmid, 1812) Harpalus (Harpalus) caspius (Steven, 1806) Harpalus (Pseudoophonus) calceatus (Duftschmid, 1812) Microlestes negrita negrita (Wollaston, 1854) Tachyura (Tachyura) parvula (Dejean, 1831)

New for the Sarnena Sredna Gora:

Amara (Zezea) fulvipes (Audinet-Serville, 1821) Amara (Zezea) chaudoiri incognita Fassati,1946 Diachromus germanus (Linnaeus, 1758)

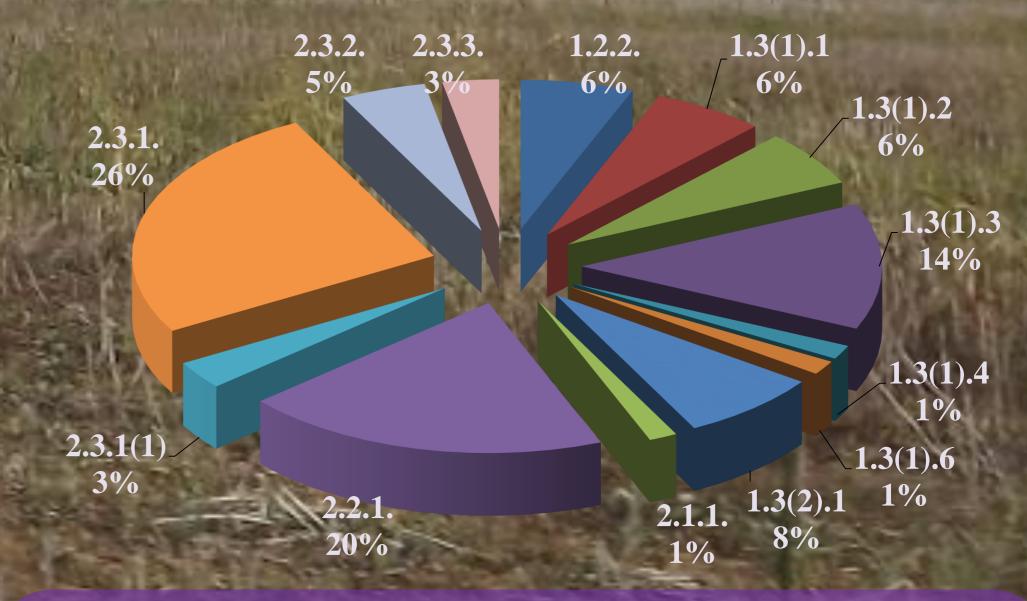
New for the whole Sredna Gora Mts.:

Acinopus (Acinopus) picipes (Olivier, 1795)
Acinopus (Oedematicus) megacephalus (P. Rossi, 1794)
Carterus (Carterus) dama (P. Rossi, 1792)
Harpalus (Harpalus) flavicornis flavicornis Dejean, 1829
Harpalus (Pseudoophonus) griseus (Panzer, 1796)
Licinus (Licinus) depressus (Paykull, 1790)
Microlestes maurus maurus (Sturm, 1827)

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.

Life forms

Thriteen life form categories were established (7 zoophagous and 6 mixophytophagous) with a slight predominance of the mixophytophages (38 species; 58%) over the zoophages (28 species; 42%)



Zoophagous:

Life form subclass: 1.2 – Epigeobios; 1.3 – Stratobios; 1.4 – Geobios.

Life form groups: 1.2.2 – large walking epigeobionts; 1.3(1) – series crevice-dwelling stratobionts; 1.3(1).1 – surface & litter-dwelling; 1.3(1).2 – litter-dwelling; 1.3(1).3 – litter & crevice-dwelling; 1.3(1).4 – endogeobionts; 1.3(1).6 – bothrobionts; 1.3(2) – series digging stratobionts; 1.3(2).1 – litter & soil-dwelling.

Mixophytophagous:

Life form subclass: 2.1 – Stratobios; 2.2 – Stratohortobios; 2.3 – Geohortobios.

Life form groups: 2.1.1 – crevice-dwelling stratobionts; 2.2.1 – stratohortobionts; 2.3.1 – harpaloid geohortobionts; 2.3.1(1) – crevice-dwelling harpaloid geohortobionts; 2.3.1 – harpaloid geohortobionts; 2.3.2 – zabroid geohortobionts; 2.3.3 – dytomeoid geohortobionts.

