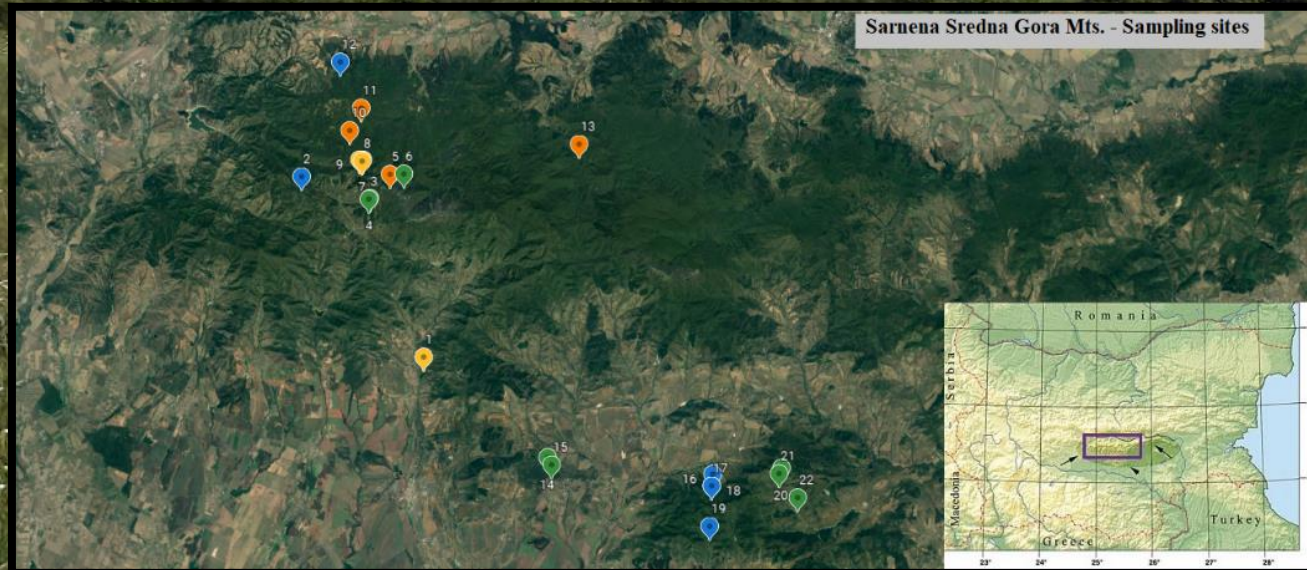


# Zoogeographical analysis of the lumbricid fauna and ecological characteristic of the lumbricid coenoses from the Sarnena Sredna Gora Mts.

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A field investigations were carried during 2018-2020 in the region of Sarnena Sredna Gora Mts. During the studying of the collected lumbricid fauna (381 specimens) along with the published data a total of 21 earthworm species were identified. They were distributed in 11 zoological categories and 4 ecological groups. The biological material was collected by pitfall traps buried at the level of the ground surface. There were 26 sampling sites with 152 pitfall traps placed in different habitats, exposition and altitude throughout the studied area.





Compared to the established earthworm fauna of Bulgaria our data shows a strongly increased presence of "peregrine" forms (62%), which is probably due to the geographical location of the region, the contact plain areas with active land use and grazing livestock. The percentage of species from the Trans-Aegean area is also relatively high, which shows the path of formation and the origin of lumbricid fauna in the specific region.

According to the ecological classification, two of the four groups dominate from the identified species: epigeic and endogeic, which show a total significance of 86% (18) of the species for the region.





Characteristic of the natural formation of forest soils, relatively weakly affected by human activities is the large amount of rotting matter, which is humified and mineralized by various groups of animals, among which the earthworms are of leading importance.

### List of earthworm species from Sarnena Sredna Gora Mts

- 1 *Allolobophora chlorotica* (Savigny, 1826)
- 2 *Allolobophora leoni* (Michaelsen, 1891)
- 3 *Aporrectodea caliginosa* (Savigny, 1826)
- 4 *Aporrectodea handlirschi* (Rosa, 1897)
- 5 *Aporrectodea jassyensis* (Michaelsen, 1891)
- 6 *Aporrectodea longa* (Ude, 1885)
- 7 *Aporrectodea rosea* (Savigny, 1826)
- 8 *Aporrectodea trapezoides* (Dugès, 1828)
- 9 *Bimastos eiseni* (Levinsen, 1884)
- 10 *Bimastos rubidus* (Savigny, 1826)
- 11 *Cernosvitovia rebeli* (Rosa, 1897)
- 12 *Dendrobaena alpina* (Rosa, 1884)
- 13 *Dendrobaena balcanica* (Černosvitov, 1937)
- 14 *Dendrobaena hortensis* (Michaelsen, 1890)
- 15 *Dendrobaena octaedra* (Savigny, 1826)
- 16 *Eisenia fetida* (Savigny, 1826)
- 17 *Eisenia lucens* (Waga, 1857)
- 18 *Eiseniella tetraedra* (Savigny, 1826)
- 19 *Lumbricus rubellus* Hoffmeister, 1843
- 20 *Lumbricus terrestris* Linnaeus, 1758
- 21 *Octalasion lacteum* (Örley, 1881)



**Acknowledgements.** This study was funded by the National Science Fund via the Project № KII-06-M21/2 (H-18-TTEO-010) “Study of the faunistic diversity and assessment of the condition and ecosystems services in different types of model ecosystems in the Sarnena Sredna Gora Mts.”. Part of the material was collected with the aid of the Project BiodivERsA-FACCE2014-47 “SusTaining AgriCultural ChAnge Through ecological engineering and Optimal use of natural resources (STACCATO)”