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Species Composition of Darkling Beetles in Samarkand Region

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ABSTRACT

In this study, 3 subfamilies, 30 genera and 46 species of darkling beetles were identified in biocenoses of Samarkand region. Pimeliinae has the highest diversity of species within subfamilies.

KEYWORDS: Darkling beetles, subfamily, fauna, species.

The morphological diversity of darkling beetles makes it extremely difficult to diagnose their fauna [1]. The preliminary catalog of the fauna of the world on Tenebrionidae was compiled based on the data of H. Gebien and consisted of 3 subfamilies and 53 tribes. The work of Lawrence and Newton is important in stabilizing the classification and nomenclature of the family of darkling beetles [2]. The system developed by P. Bouchard and others (2005) became the most optimal system of its time [3]. Until now, several changes have been made to the classification of the subfamilies of the Tenebrionidae family [4; 5]. However, in the majority of scientific studies, the taxonomic system of darkling beetles is given on the basis of the " Catalogue of Palaearctic Coleoptera " [6]. Therefore, the list of species identified in our research is given below based on the taxonomic order of this catalog.

During the research, 46 species belonging to 3 subfamilies and 30 genera of darkling beetles were identified from the biocenoses of the Samarkand region.

Subfamily: Pimeliinae Latreille, 1802

1. *Adesmia planidorsis* Reitter, 1916
2. *Cyphogenia gibba* Fischer von Waldheim, 1820
3. *Syphogenia limbata* Fischer von Waldheim, 1821
4. *Cyphogenia lucifuga* Adams, 1817
5. *Diaphanidus ferrugineus* (Fischer von Waldheim, 1821)
6. *Sphenaria menetriesi* Semenov, 1891
7. *Diesia sexdentata* Fischer von Waldheim, 1821
8. *Earophanta tomentosa* (Semenov, 1893)

9. *Lasiostola grandis* Kraats, 1883
10. *Lasiostola hirta* Medvedev, 1964
11. *Ocnera pilicollis* Faldermann, 1836
12. *Pisterotarsa gigantea* (Fischer von Waldheim, 1821)
13. *Podhomala nitida* (Baudi di Selve, 1876)
14. *Podhomala heydeni* Reitter, 1907
15. *Sternodes caspicus* (Pallas, 1781)
16. *Trigonoscelis apicalis* Reitter, 1907
17. *Trigonoscelis seriata* Menetries, 1849
18. *Trigonoscelis sublaevicollis* Reitter, 1893
19. *Trigonoscelis* sp.
20. *Stenosis sulcicollis* Menetries, 1849
21. *Alcinoeta helopioides* Menetries, 1849
22. *Microdera* sp
23. *Psammocryptus bogatchevi* Nabozhenko, Chigray & Bekchanov, 2022
24. *Tentyria gigas* (Faldermann, 1836)
25. *Tentyria* sp.
26. *Zophosis scabriuscula* Menetries, 1849
27. *Zophosis punctata* Brulle, 1832
28. *Zophosis rotundata* Menetrie, 1849
- Subfamily: Tenebrioninae Latreille, 1802**
29. *Blaps deplanata* Ménériés, 1832
30. *Blaps fausti* Seidlitz, 1893
31. *Blaps scutellata* Fischer de Waldheim G. 1844
32. *Blaps titanus* Ménériés, 1849
33. *Catomus niger* (Kraatz, 1882)
34. *Cheirodes brevicollis* Wollaston, 1864
35. *Gonocephalum setulosum* (Faldermann, 1837)
36. *Gonocephalum rusticum* (Olivier, 1811)
37. *Opatroides punctulatus* Brulle, 1832
38. *Scleropatrum breviusculus* (Reitter, 1889)
39. *Scleropatrum hirtulum* (Baudi, 1875)
40. *Scleropatrum seidlitzii* Reitter, 1898
41. *Colpotus sulcatus* (Menetries, 1838)
42. *Hedyphanes coerulescens* Fischer de Waldheim, 1822
43. *Tenebrio molitor* Linnaeus, 1758
44. *Tenebrio obscurus* Fabricius, 1792

45. *Tribolium destructor* Uyttenboogart, 193

Subfamily: Diaperinae Latreille, 1802

46. *Pentaphyllus chrysomeloides* (Rossi, 1792)

Identified darkling beetles belong to 3 subfamilies, and the Pimeliinae subfamily clearly dominates in terms of species diversity. Representatives of this subfamily consist of 28 species, which make up 61% of all species. 37% of all species belong to the Tenebrioninae subfamily (17 species). The subfamily Diaperinae has only one species and accounts for 2% of all species.

References

1. Aalbu R.L, Triplehorn CA, Campbell J.M, Brown K.W, Somerby R.E, Thomas D.B. Tenebrionidae Latreille 1802// American beetles.-2002. – Vol. 2. – P. 463–509.
2. Lawrence J. F. and Newton A. F. Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family-group names). In: Biology, Phylogeny, and Classification of Coleoptera. Eds. J. Pakaluk and S.A. Slipinski. Warszawa, 1995. – P. 779-913
3. Bouchard, P., Lawrence, J.F., Davies, A.E., Newton, A.F. Synoptic classification of the world Tenebrionidae (Insecta: Coleoptera) with a review of family-group names // Annales zoologici (Warszawa). 2005. – № 55 (4). – P. 499-530.
4. Matthews, E., Lawrence, J., Bouchard, P., Steiner, W. & Ślipiński, A. (2010). 11.14. Tenebrionidae Latreille, 1802. In W. Kükenthal, R. Leschen, R. Beutel & J. Lawrence (Ed.), *Volume 2 Morphology and Systematics (Elateroidea, Bostrichiformia, Cucujiformia partim)* (pp. 574-659). Berlin, New York: De Gruyter. <https://doi.org/10.1515/9783110911213.574>
5. Nabozhenko, M. V., & Sadeghi, S. Foranotum perforatum gen. et sp. nov.—a new troglobitic darkling beetle (Coleoptera: Tenebrionidae: Kuhitangiinae: Foranotini trib. nov.) from a cave in Southern Zagros, Iran // *Zootaxa*. 2017. – № 4338(1). – P. 163-172.
6. Löbl I. & Smetana A. (Eds) Catalogue of Palaearctic Coleoptera. Vol. 5: Tenebrionoidea. Apollo books, Stenstrup. – 2008. – 670 p.