



TYPE OF STRENGTH OF ORIBATID MITES AND THEIR DISTRIBUTION IN THE TERRITORY OF SOUTHERN UZBEKISTAN

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ABSTRACT

In the soil layers of cotton and wheat agrocenoses located in the territory of southern Uzbekistan up to 30 cm, the average number of refrigerated canals per 1 m² compared to the seasons and their species composition are given. Studies have shown that in the soil layers of agrocenoses in April-May, ie in the spring, in the summer and autumn seasons, the presence of armored mites in the soil layers of agrocenoses is more common.

The study of the species composition of armored mites revealed that a total of 31 species, 14 families of armored mites are found in the soil layers of cotton and wheat agrocenoses in southern Uzbekistan. It has been studied that in the 10-20 cm layers of the soils of agrocenoses the number of species of armored mites is higher than in other layers.

Introduction: The amount of oribatid mites in 1m² of soil layer is more than 1 mln. They range in size from 0.3 mm to 1 mm, sometimes up to 3 mm. But despite this, they are very active in increasing the amount of humus in the soil. In addition, oribatid mites, like other microorganisms, serve as an indicator in the detection of environmental degradation in anthropogenic areas. Therefore, their study is one of the most important tasks [1, 2, 3, 4].

Materials and methods: Research materials for 2019-2021 in Shurchi district of Surkhandarya region "Yuldosh hoji BIB", "Firdavs Temurbek", "Usarbobo", "Sevinch Mardonova", Termez district "Sharof Mohinur", "Zuhriddin namuna", "Gozobod namuna", Agrocenoses and natural ecosystems of "Durdona namuna", "Nurmuhammad namuna" farms and "Hasanov Ortiq" farms of Yakkabag district of Kashkadarya region, "Khudoikulova Nazira Bozorovna" farms of Shakhrisabz district were collected from soil layers.



The samples were taken from 0-10 cm, 10-20 cm, 20-30 cm of soils of agrocenoses and natural ecosystems. A total of 540 samples were taken from the layers in an amount of 1 dm³.

Soil samples were taken from designated points in the field, placed in bags, and labeled with paper. The label contains the date of sampling, site name, name of agrocenoses or natural ecosystems, soil layer and other information. Stationary methods were used to study the route and seasonal dynamics of the samples to study the species composition and ecology of the armored mites from the above areas.

Results: Of the 540 soil samples taken, 1 to 20 specimens were found to have armored mites, and some had no armored mites at all. An average of 10 samples of armored mites were collected from each soil sample. A total of 5,400 specimens of armored mites were isolated from all soil samples taken.

A study of armored mites in the soils of agrocenoses and natural ecosystems of southern Uzbekistan revealed a total of 31 types of armored mites. The identified 31 types of armored mites belong to 14 families and 21 generations. We, the agrocenoses of southern Uzbekistan and natural ecosystems, have identified the types of oribatid mites identified from the soil layers - Ye. M. Bulanova-Zakhvatkina's «Opredeletel obitayushix v pochve kleshey. Sarcoptiformes "[2, 5, 6]. According to them, there are 31 species of armored mites, 21 genera and 14 families identified in southern Uzbekistan.

Taxonomic analysis of armored mites

Family

Species

1. Cosmochthoniidae
Cosmochthonius lanatus
Michel, 1987
C. plumatus
Berlese, 1910
2. Brachychthoniidae
Synchthonius elegans
Forsslund, 1957
Brachychthonius berlesei
Wellmann, 1928
Liochthonius kirghisicus,
D. Kriv, 1971
L. hystericinus
Forsslund, 1942
3. Lohmanniidae
Michelia paradoxa
Haller, 1884
Lohmannida lanceolata
Grandjean 1950
L. lanceolata turemenica
Bel-Zachv 1960
Thamnacarus deserticola
Grandjean 1934.



	<i>T.moribei</i> Aoki, 1971		Sitnikova,1974
	<i>Asiacarius elongatus</i> D.krivolutsky, 1971	8. Liodidae	<i>Poroliodes farinosus</i> C.L.Koch,1840
	<i>Cryptacarus promecus</i> Grandjean 1950	9. Gymnodamaeidae	<i>Allodamaeu hispanicus</i> Grandjean,1928
4. Epilohmanniidae	<i>Epilohmannia cylindrica</i> Berlese, 1904		<i>Gybnodamae autriacus</i> Willmann,1940
	<i>E. skrjabini</i> Bashkirova,1958	10. Damaeidae	<i>Hypodameus tenuitibialis</i> B.-Z,1957
	<i>E. shtanchaevae</i> Bayartogtokh, 2000	11. Belbidae	<i>Belba meridionalis</i> B.-Z. 1962
	<i>E. cylindrical</i> Berlese, 1904	12. Belbodameidae	<i>Probelba spinosa</i> Sellnik,1920
5. Nothridae	<i>Nothrus borissicus</i> Sellnick, 1929	13. Microzetidae	<i>Nellacarus asiaticus</i> D.Krivolutskiy, 1975
	<i>N. peltifer</i> C.L.Koch,1839	14. Scheloribatidae	<i>Scheloribates rigidisetosus</i> Willmann, 1951
6. Camissidae	<i>Platynothru grandjeani</i> C.L.Koch,1839		
7. Hermanniellidae	<i>Hermannia granulate</i> Nicolet, 1855		
	<i>H. dubinini</i> Sitnikova,1974		
	<i>H.reticulata</i>		

In the soil and ecosystems of wheat and cotton agrocenoses and natural ecosystems of southern Uzbekistan, there are 31 species of mites belonging to 14 families and 21 genera. The diversity of the Lohmanniidae (7 species) and Epilohmanniidae (4 species) families in the



regions is explained by their distribution in the soil surface layers.

Conclusion: The species composition activity was observed as a result of comparison of the fauna of the oribatid mites identified by the study of agrocenoses and natural ecosystems of Southern Uzbekistan. Of the 31 species of oribatid mites, 14 to 22 are found in agrocenoses and 31 in natural ecosystems. A total of 22 species are common to the agrocenoses and natural ecosystems of the regions.

Armored mites Oribatidae large family
Cosmochthoniidae family (2

species), Brachychthoniidae family - (4 species), Lohmanniidae family - (7 species), Epilohmanniidae family - (4 species), Nothridae family - (2 species), Camissidae family - (1 species), Hermanniellidae family - (3 species), Liodidae family - (1 species), Gymnodamaeidae family - (2 species), Damaeidae family - (1 species), Belbidae family - (1 species) species), Belbodameidae family (1 species), Microzetidae family (1 species), Scheloribatidae family - (1 species). Studies have shown that the Lohmanniidae family (7 species) is rich in species.

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