



**NAKED PLUMAGE OF THE MOUNTAINS OF SOUTHERN UZBEKISTAN**

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**Annotation**

The article describes the composition of species and distribution of bare slime flying in the southern regions of Uzbekistan, in particular in the Surkhon-Sherabad Valley and the surrounding mountains.

**Keywords:** bare slime, Kuhitang, Boysuntog, Hisor, Bobotog, height regions, biotope.

The beautiful and colorful shells of coniferous dry-bellied mollusks, which attracted not only zoologists, but also collectors, now they have been studied anchorly. However, the prevalence of mollusks, which are called bare slime, due to the fact that the slime undergoes reductions and allocates a lot of slime, according to some mountain formations and river basins, has not been sufficiently studied in some regions. The Surkhon-Sherabad Valley and its surrounding mountains are also among such areas.

The theoretical and practical significance of the study of slugs is that, according to literature, most slugs, such as slugs of coniferous dry mollusks, are also an intermediate host of parasitic worm and a pest of agricultural crops as well as of ozukabop crops of livestock importance [4]. Since their prevalence in agroecosystems is associated with the natural environment, it is first necessary to know the characteristics of the distribution of mucous membranes in the natural environment. In the spread of mollusks, along with climate and nutrients, altitude regions and water types are of particular importance.

The purpose of the study is to investigate the biological diversity of slugs in the mountains of the Surkhon-Sherabad Valley and its environs.

**Material and methodology**

In 2020-2021, the research materials were collected from the existing gardens in the Surkhon-Sherabad Valley and from the grass along the ariklar, as well as from the mountains of Kohitang, Boysun, Bobotag and from the existing gardens in the surrounding villages, bushy and wooded forests, from the river passing through these regions and from the grass in total, more than 322 samples were taken from the area under study and served as a research material.

Collection and determination of mucus It was carried out according to I.M.Likharev and A.Y.Victor's methodology [2]. We used existing literature to analyze the systematic composition of identified mollusks (A.Pazilov, D. Azimov, 2003).

As a result of the study of the species composition of slugs in the mountains surrounding the Surkhon-Sherabad Valley and its environs, it was determined that slugs are spread in this region by 3 families, 8 species belonging to 3 generations (Table 1).



**Table 1** Taxonomic composition of slugs in the mountains surrounding the Surkhon-Sherabad Valley and its environs

Family	Generation number	Number of rounds	In percentage
Agriolimacidae	Deroberas	5	62,5
Parmacellidae	Candaharia	2	25
Limacidae	Turcolimax	1	12,5
Total:	3	3	100

The slugs in the Surkhon-Sherabad Valley and its surrounding mountains were distributed unevenly by Regions (Table 2).

**Table 2** The spread of slugs in the mountains of the Surkhon-Sheabad Valley and its environs

№	Species name	Distribution by Regions				
		Surhan-Sherabad Valley	Kuhitang mountain	Boysun mountain	Hisor mountain	Bobotog mountain
1	<i>Deroberas laeve</i>	+	+	+	+	+
2	<i>D. agreste</i>	+	+	+	+	+
3	<i>D. reticulatum</i>	+	+	+	+	+
4	<i>D. sturanyi</i>	+	-	-	-	-
5	<i>D. caucasicum</i>	+	+	+	-	-
6	<i>Candaharia rutellum</i>	-	-	+	-	-
7	<i>C. levanderi</i>	+	+	+	+	+
8	<i>Turcolimax turkestanus</i>	-	+	-	-	+
	Total	6	6	6	4	5

As can be seen from the table data, 5 types of slugs have a wide arealga and are common in all parts of the research area. 3 species of slime was recognized as a species having a narrow area, while only 1 species encountered in mountaineering.

5 species belonging to the family of Agriolimacidae *Deroberas* were recorded: *Deroberas laeve* the material is 45 pieces, the Surkhon-Sherabad Valley and Boysun are collected from more than 15 places in the fortification range in Bobotog, among the grass in all garden forests and under the stones in the mountains. These slugs are encountered in all height regions and live in different biotopes. It is widely distributed in all regions of the Commonwealth countries and has been "introdusent" due to human activity to many states in the Southern Hemisphere. According to the literature, it causes great damage to agricultural crops.

Type of *Deroberas agreste*. Material: 35 pieces were collected in the Surkhon-Sherabad Valley along the right and Left Bank of the river Surkhandarya, from the village of Jayrahona to the water of Southern Surkhon and from the grass in the lands close to its various gardens, from more than 5 places in the Babatag fortification system, among the grass near the Arik Heights.



This species is found in all height regions and lives in different biotopes, widely distributed throughout the Golarkt.

Type of *Deroceras reticulatum*. Material: 32 pieces were collected from more than 10 places in the area under study, among the grass near the water bodies and from the anthropogen biotopes. Representatives of this species live mainly in open biotopes, avoiding forests and bushes. More antropogen is common in biotopes. In the daytime, shocks lie hidden, under the stones, in the cracks of the Earth. It is widely distributed in the regions of the Commonwealth countries and is considered an "introdusent" brought to the countries of Central Asia [3], recorded by the first marotaba Abdulazizova in Babotog mountain [1].

*Deroceras sturanyi* type. Material: 15 pieces, Denov collected among the available gardens and grasses along the banks of the ditches around the long. These slugs live in biotopes not far from the garden fields, spread in Central and Eastern Europe and spread to Central Asian countries under the influence of anthropo-powers [3].

*Deroceras caucasicum* type. Material: 27 pieces, in the Surkhon-Sherabad Valley: the city of Termez and its surrounding gardens and the Arik neck, the Arik neck around the city of Sherabad, the mountain of Boysun, the north-west part of the city of Boysun. As a common species on the plains live mainly under different plant leaves, among herbaceous plants. Natural areali Caucasus. For the territory of Central Asia is the "introdusent" species [3].

2 species belonging to the family *Candaharia* family of *Parmacellidae* were recorded.

Type of *Candaharia rutellum*. Material: 24 pieces, Boysun Mountaineering: the Machaydara River Basin, atrophy of lower and upper Machay villages, the southern slopes of Boysun Mountaineering, the city of Boysun and the mountains that are close to it are collected. Plumage of this species is 1300-2800 m above sea level in the adir and tahnintakas. flying in height, he lives among the various grass on the banks of the river. Zarafshan, Hisar, Nurota mountain formations and distributed in the mountainous regions of Afghanistan [3]. The first marotaba from Boysun mountaineering was registered [1].

*Candaharia levanderi* type. Material: more than 55 pieces are collected from various biotopes in more than 30 places from the mountains of Surkhon-Sherabad Valley, Kohitang mountain, Boysun mountain, Bobotag and Hisar.

Morphological signs of body structure are variable and correspond to the data of literature [3] in the general case. equal in length. The epiphallus adjoins the side of the organ of reproduction. Reproductive organ structure. The seed is slowly attached to the twisted epiphallus several times. The length of the epiphallus is covered with small incisors, the inner part of the organ of seed-bearing reproduction. The ovary is long, and its muscles are well developed. The testicle has an oval structure.

It is found mainly in plain and Foothill regions and lives among cultural plants, under various grasses in the arid Highlands [3].

Spread. It is common in Zarafshan, Turkistan, Nurota, Kohitang mountain, Boysun Mountain, Hisor and Bobotog. According to I.M. Likharev and A.Y. Victor [2] in northern Afghanistan, too, threeraydi. *Turcolimax turkestanus* (Simroth, 1898), belonging to the turcolimax family of the Limacidae family, was first recorded as a new species for the fauna of the research area from the areas of Bobotag and Khujakulus and Kohitang mountain known as Bogidara.



The Material was made of 13 pieces, collected between small stones. The plumage of this species is found in the regions from the taiga to the Alps, lives between the capillaries and large stones, along the banks of the taiga. According to literature [2] Olatagva is distributed in Korjantog.

In conclusion, it can be said that in the Surkhon-Sherabad Valley and its atrophy mountains, 3 families of bare slime, belonging to 3 generations, 8 species are distributed, of which one species is new to the fauna of the turcolimax turkestanus type research area.

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