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# SURKHAN-SHEROBOD VALLEY TYPE OF NAKED MILK

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## Annotatsiya

The article provides information on the taxonomic, zoogeographical and ecological composition of 6 species of bare mucus belonging to 2 families, 2 genera, identified as a result of research in the Surkhan-Sherabad valley.

**Key words:** gastropod molluscs, nudibranchs, ecology, altitude region, biotope, morphological characters, reproductive organ, taxonomic composition.

There are more than 90,000 species of abdominal molluscs in the modern fauna, and the beauty and variety of the outer shell in most representatives attracts not only zoologists but also collectors, and as a result, they are now much more perfectly studied. However, some representatives of the so-called naked slugs, whose shells have been reduced and released a lot of mucus from their bodies, have not yet been fully studied in this regard.

Currently, there are more than 150 species of slugs in the world fauna, including 24 species in Central Asia and 18 species in Uzbekistan, the biodiversity of which has not been fully studied not only in Uzbekistan but also in Central Asia.

Therefore, the study of slugs is of great theoretical and practical importance. The reason: first, they are a heterogeneous group, forming a complex of different animals of origin, and play an important role in the study of the evolution of groups that are systematically distant from each other.

Second, they are a convenient object of study in the study of the physiology of mollusks, compared to shellfish.

Third, the main part of the slugs are herbaceous polyphagous animals, which cause great damage by feeding on various cereals, vegetables and melons, which are important for human life.

From the data presented, it is clear that despite the fact that slugs play an important role in human life, their study is not at the required level. Therefore, the ecological and taxonomic study of slugs is one of the most pressing issues, and the topic is one of the most pressing issues in the qualifier of Uzbekistan.



The purpose of the study: to obtain new data on the malacofauna of the region on the basis of a comprehensive study of the biological diversity of slugs distributed in the Srkhan-Sherabad valley.

Research materials in the Surkhan-Sherabad valley in 2021-2022: the city of Termez and surrounding gardens and streams, Jairakhona village, around the Oktepa reservoirs, along the right and left banks of the Surkhandarya River, to and around the South Surkhan reservoir, after the village of Elbayon, Surkhandarya along the left bank of the river around the villages of Laylakxona, Ozod, Khursand, Beshtom; The area around the Uchkizil Reservoir, from the village of Karakamar along the Zang Canal and the Karasuv River to the town of Sherabad, along the Sherabad and Akkapchigoy Canal and surrounding villages, Denov, Uzun, was surrounded by existing orchards and ditches.

Collection and detection of slugs was carried out according to the method of I.M Likharev and A.Y Viktor [3].

According to the results of the study, the taxonomic composition of the naked mucus found in the study area was as follows:

Mollusca type

Gastropoda Hoover, 1795 class

Pulomonata Hover in Blainville, 1854 junior class

Stylommatophora Schmid, 1855 large series

Geophila Ferussak, 1812 turkumi

Agriolimacidae Wagner, 1975 family

The slimy worm is of medium size, the mantle occupying the anterior part of the body. There are transverse lines on the side and legs.

Distribution. Golarktika [3].

**Deroceras** Rafinesque, 1820 generation

The length of the body during movement is 60 cm. does not exceed Kili is unknowingly developed. The mantle makes up 1/3 of the whole body.

Distribution. Northern Hemisphere [3].

Deroceras laeve Muller, 1774

Material: 25 pieces, collected from more than 15 places in the Surkhan-Sherabad valley and the Boysun, Bobotag and Gissar ridges.

Body composition and reproductive organ symptoms literature [2] Corresponds to the data.

Ecology. Occurs in all altitude regions and lives in different biotopes [4].

Distribution. Northern Hemisphere, Golarctica [4].

# Deroceras agreste Linnaeus, 1758

Material: 15 pieces were collected in the Surkhan-Sherabad valley along the right and left banks of the Surkhandarya River, from the village of Jairakhana to the South Surkhan Reservoir and among the grasses near the various gardens and near the streams [1].

Body composition and reproductive organ symptoms literature [2] corresponds to the data.

Ecology. Occurs in all altitude regions and lives in different biotopes [3].

Distribution. Widespread throughout the Golarctic [3].

### **Deroceras reticulatum** Muller, 1774.

Material: 15 pieces, collected from more than 10 sites in the study area, among grasses near the waterfront and from anthropogenic biotopes.

Body structure. The body is quite thick, the back is convex, the back is shortened as a "wedge". The mantle covers 2/5 of the body. The color of adult animals is light coffee color. Much of the body is covered with dark brown, black-brown, spotty streaks. Body length 35-45 mm, 25 mm in shortened condition [1].

Reproductive organ structure literature [2].

Ecology. It lives mainly in open biotopes. Avoids forests and shrubs. Widespread in more anthropogenic biotopes. During the day, the twigs hide under the rocks, in the cracks of the ground.

Distribution. Widespread in the territories of the Commonwealth, it is considered an "introducer" for Central Asian states [3].

## Deroceras sturanyi Simroth, 1889.

Material: 35 pieces, collected from the existing gardens around Denau, Uzun and the grass along the canals.

The structure of the body and the reproductive organ literature [2] Corresponds to the data. However, our material differs in the following: the body is dark brown; the mantle is dark; The seed path is long.

Ecology. Inhabits biotopes not far from gardens and orchards [4].

Distribution. It is widespread in Central and Eastern Europe and spread to Central Asian countries under the influence of anthropogenic forces [4].

### Deroceras caucasicum Simroth, 1901

Material: 25 pieces, collected in Surkhan-Sherabad valley: in and around the city of Termez and along the canals, along the canals around the city of Sherabad.

Body and reproductive organ structure literature [2] Corresponds exactly to the data.

Ecology. Widespread in the plains. Mainly under the leaves of various plants, the grass lives among the plants [3].

Distribution. Its natural range is the "introductory" species for the Caucasus, Central Asia [3].

# Parmacellidae Gray, 1860 family

he back of the body is compressed on both sides. As the body contracts, a strong swelling develops in the mantle.

Distribution. North Africa, Portugal, Spain, Transcaucasia, Northern Iran, Kopetdag, Central Asia [4].

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### Candaharia levanderi Simroth, 1901

Material: More than 50 pieces, collected from different biotopes in more than 15 places of Surkhan-Sherabad valley.

The morphological features of body structure are variable, and in the general case the literature [5, 2] equal to the length. The epiphallus attaches to the side of the reproductive organ. Reproductive organ structure. The seminal vesicle slowly dilates and connects to the epiphallus, which is twisted several times. Epiphallus length Seed path The inside of the reproductive organ is lined with tiny suckers. The ovary is long and the muscles are well developed. The seed receiver has an oval structure.

Ecology. Occurs mainly in plains and foothills, among cultivated plants, it lives under various grasses along streams [3].

Distribution. It is widespread in Zarafshan, Turkestan, Nurata, Kohitang, Boysun, Gissar and Babatag mountain ranges. I.M. Likharev and A.Y.Viktor [2] Is also found in northern Afghanistan.

Thus, according to the results of the study, in the Surkhan-Sherabad valley, there are 2 species of naked slugs, 6 species belonging to 2 genera.

According to the literature, most gastropod mollusks, including bare muskrats, are also intermediate hosts of agricultural pests and parasitic worms. Since their distribution in agrocenoses is related to the natural environment, it is first necessary to know the distribution characteristics of gastropod mollusks in the natural environment. This, in turn, is of great importance in the fight against harmful slugs and preventing their spread in agrocenoses. Therefore, we will focus our further research on the ecology and economic importance of the above species.

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