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Kohitang Mountaindrygastropod Lmollusks' Ecological Grouping

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Abstract: *The ecological grouping and characteristics of terrestrial crustacean mollusks in connection to moisture on the eastern slopes of Mount Kohitang, which is regarded to be the southwestern section of the Pamir-Alay mountain chain, are described in this article.*

Keywords: *Kohitang Mountain, terrestrial mollusks, xerobiont, mesobiont, hygrobiont*

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The study of terrestrial mollusk ecological features is particularly important since it aids in the discovery of many of their biological properties. I.M. Likharev and E.S. Rammelmeyr [3], A.A Shileyko [8, 9], I.M. Likharev and A.Y Viktor [2], A. Pazilov and D.A.Azimov [4], and other scientists have studied the ecology of terrestrial mollusks in Uzbekistan.

Although the ecological features of terrestrial mollusks have been widely investigated, the use of particular ecological terminologies has been a point of contention up to this point. In the case of terrestrial mollusks, most malachologists believe that terminology like xerophilous, mesophilic, psychrophilic, and xeromesophilic are suitable. A. Shileyko [9] considers it expedient to use the above terms, knowing that hygrophilic is the primary feature for all members of the higher family of Helicoidea.

K.K Uvalieva [5] considers it conditional that the term xerophilous is applied to mollusks living in arid biotopes. It introduces xerophiles into mesophiles. According to him, although these mollusks live in a dry environment, the main life processes take place during the rainy season. A.Pazilov and D.A.Azimov [4] consider it expedient to use the terms xerobiont, mesobiont, psychrobiont, taking into account the moisture-loving properties of all terrestrial mollusks.

These terms were originally applied to terrestrial mollusks by E.V. Shikov [6] and A.A. Baydashnikov [1]. In view of the above considerations and our many years of research, we have grouped all terrestrial mollusks into one large ecological group, the hygrophiles, which are unique. This is based on the above-mentioned opinion of A. Shileyko [7]. The division of terrestrial mollusks into ecological groups in the next stage should begin with this very term.

The division of mollusks into next-stage ecological groups was based on the biotopic distribution of terrestrial mollusks relative to water bodies, which was used by E.V Shikov [6]. But the distribution of species according to our classification does not correspond to the classification of E.V Shikov.

This, of course, is due to large differences in the climate and diversity of landscapes of Uzbekistan and Russia. Accordingly, we propose to apply the following ecological classification for terrestrial mollusks.

1. Xerobionts - this ecological group includes mollusks that live in different biotopes, far from water bodies.
2. Mesobionts - include those that live in moderate humidity.
3. Xeromesobionts - this ecological group includes mollusks that live in different biotopes, both on the shores of water bodies and at a distance from them.
4. Hygrobionts - this ecological group includes all mollusks that live along water bodies. Of course, the above-mentioned ecological classification cannot put all terrestrial mollusks into one mold.

This is because mollusks belonging to the group of hygrobionts exhibit different levels of hygrophilic properties, or mollusks belonging to the group of xerobionts also exhibit different levels of xerophilic properties.

The same can be observed in xerogyrobionts. That is, some of them exhibit more xerobiont properties, while others exhibit more hygrobiont properties. Therefore, we believe that scientific research in this area should be continued. Abiotic (temperature, humidity, wind) as well as biotic (plant, animal, pmicroorganism) factors play an important role in the formation of terrestrial mollusks in different ecological groups and in different biotope groups. Mollusks are under the complex influence of these factors throughout their lives.

Although all terrestrial mollusks are hygrophilic to abiotic factors, they are photophobic or partially photophobic and eolophobic.

Land-dwelling mollusks found in different parts of the Kohitang Mountain were studied ecologically and analyzed as follows:

Ecological groups of terrestrial mollusks of Mount Kohitang.

№	Speciesname	Xerobiont	mesobiont	xeromesobiont	hygrobiont
1.	*Sphyradiumdolium*	-	-	+	-
2.	*Lauria cylindracea*	-	+	-	-
3.	*Acanthinula aculata*	-	-	-	+
4.	*Valloniacoctata*	-	-	+	-
5.	*Vallonia pulchella*	-	-	+	-
6.	*Cochlicopanitens*	-	-	-	+
7.	*Cochlicopalubrica*	-	-	+	-
8.	*Gibbulinopsissignata*	+	-	-	-
9.	*Pupillamuscorum*	-	+	-	-
10.	*P. triplicate*	-	+	-	-
11.	*Chondrina granum*	+	-	-	-
12.	*Ottarosenia varenzovi*	-	+	-	-
13.	*Pseudonapaeus sogdianus*	-	+	-	-
14.	*P maydanica*	-	+	-	-
15.	*Turanena martensiana*	-	+	-	-
16.	*Fruticicola perlucens*	-	+	-	-
17.	*Fruticicola fedtschenkoi*	-	+	-	-
18.	*Neofruticicola donum*	-	+	-	-

19.	*Kugitangia hatagica*	-	+	-	-
20.	*Leucozonellarufispira*	-	+	-	-
21	*L. angulata*	-	+	-	-
22	*L. hypophaea*	-	+	-	-
23	*Xeropicta candacharica*	-	+	-	-
24	*Deroceras reticulatum*	-	-	-	+
25	*Deroceras leave*	-	-	-	+
26	*Deroceras agreste*	-	-	-	+
27	*Deroceras caucasicum*	-	-	-	+
28	*Turcolimaxturkestanus*	-	-	-	+
29	*Candaharialevanderi*	-	-	-	+
30	*Candaharia rutellum*	-	-	-	+
31	*Candaharia aethiops*	-	-	-	+
32	*Macrochlamys turanica*	-	-	-	+
33	*Macrochlamyssogdiana*	-	-	-	+
34	*Macrochlamys schmidti*	-	-	-	+
35	*Zonitoidesnitidus*	-	-	-	+
	total	2	15	4	14

Xerobiont species - 2 (5.7%), mesobiont species - 15 (42.8%), xeromesobiont species - 4 (11.5%), hygrobiont species - 14 (40%) species.

From this it can be concluded that mollusks are animals that prefer moist and moderate humidity, and it is precisely moisture that lives in optimal conditions**.**

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