

Type Structure and Ecological Characteristics of Freshwater Mouths of Northern Afghanistan

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Abstract: The article provides information on the species composition and ecological grouping of freshwater gastropod molluscs found in northern Afghanistan.

Keywords: Freshwater gastropod molluscs, Mazar-i-Sharif, Baghlan, Badakhshan, Faryab, ecological groups, phytophil, telmatophil, phytoreophil, crenophil.

Freshwater amphibians are a complex group for research, and due to their distribution, large number of individuals, and their important role in ecosystems, the history of freshwater fauna, as well as theoretical issues such as hydrobiology, bioecological properties, monitoring and bioindication is attracting the attention of researchers in solving.

The first data on Central Asian freshwater mollusks were provided by E Martens, and a number of data on Central Asian aquatic mollusks are also reflected in the work of O.B. Rosen and YA Starobogatov.

Freshwater mollusks of the Amudarya basin were studied by VI Jadin.

The systematic study of Central Asian aquatic mollusks was initiated by Z.I. Izzatullaev, whose work describes in detail the taxonomic composition, biological properties, distribution, zoogeography and historical formation of mollusks, as well as their economic significance.

The fauna of freshwater mollusks in the Gissar Mountains and adjacent areas was studied by Z.I. Izzatullayev, who provided information on the distribution and ecology of aquatic mollusks found in the area.

The fauna, ecology and zoogeography of aquatic mollusks of the North-West Turkestan mountain range have been studied by A.T. Karimkulov.

However, the scientific literature and sources do not provide any information on the species composition and ecological characteristics of freshwater gastropod molluscs found in the plains and mountainous regions of Afghanistan. not carried out.

In view of the above, the aim of our study was to study the species composition and ecological characteristics of freshwater amphibians living in different water bodies of Mazar-i-Sharif, Baghlan, Badakhshan and Faryab provinces in the northern regions of Afghanistan.

The research materials were collected from the Shirin Tagab, Balkh, Kokcha, Kaysar and Panj river basins and streams, springs and springs in the mountains and plains of the northern regions, and a total of more than 290 specimens of mollusks were collected as research material. The research was carried out according to the method of VI Jadin. We used the available literature (Izzatullaev 1993, Starobogatov 1974, Izzatullaev 2002) to analyze the systematic composition of the identified mollusks.

The study identified 10 species of freshwater gastropod molluscs belonging to 4 families and 4 genera from various reservoirs in northern Afghanistan (Table -1).

Table -1: Taxonomic structure of freshwater gastropod molluscs in northern Afghanistan

Families	generation	type	%
Belgrandiellidae	<i>Martensamnicola</i>	<i>Martensamnicola brevicula</i>	10
Lymnaeidae	<i>Lymnaea</i>	<i>Lymnaea (L.) stagnalis</i>	60
		<i>Lymnaea (G.) thiessea</i>	
		<i>Lymnaea truncatula</i>	
		<i>Lymnaea (R) auricularia</i>	
		<i>Lymnaea oblonga</i>	

		<i>Lymnaea subdisjuncta</i>	
Physidae	<i>Costatella</i>	<i>Costatella acuta</i>	10
Planorbidae	<i>Planorbis</i>	<i>Planorbis planorbis</i>	20
		<i>Planorbis tangitarenis</i>	
Total	4	10	100

According to the results of the study, 6 species of Lymnaeidae family, 2 species of Planorbidae family, 1 species of Belgrandiellidae and Physidae family were found in the studied areas.

The following results were obtained when studying the distribution of the above-mentioned species by ecological groups on the basis of Z.I. Izzatullaev's classification (Table-2).

Table-2: Distribution of freshwater gastropod molluscs by ecological groups

№	Name of the species	Fitofil	Tel'matofil	Fitoreofil	Krenofil
1	<i>M. brevicula</i>	-	-	-	+
2	<i>L. stagnalis</i>	+	-	-	-
3	<i>L. thiessea</i>	-	+	-	-
4	<i>L. truncatula</i>	-	+	-	-
5	<i>L. auricula</i>	-	-	+	-
6	<i>L. oblonga</i>	-	-	+	-
7	<i>L. subdisjuncta</i>	-	-	-	+
8	<i>C. acuta</i>	+	-	-	-
9	<i>P. planorbis</i>	+	-	-	-
10	<i>P. tangitarenis</i>	+	-	-	-
	Total	4	2	2	2

According to the results of the study, the study area is dominated by phytophilous species in terms of the number of species of ecological groups of freshwater gastropod mollusks, which include 4 species, accounting for 40%. Crenophilic, telmatophilic and phytoreophilous ecological groups belong to 2 species, each of which accounts for 20%.

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