

SPECIFICITY OF THE STUDY OF ZOOBENTOS ORGANISMS OF THE SHERABAD RIVER

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Annotation:

In the article, the main benthic organisms found in the banks and in front of the banks of the Sherabad River: Ephemeroptera, Diptera, Chironomidae, larvae, dragonflies (Odonata), nematodes (Nematoda) beetles (Coleoptera), and molluscs. Among the macrophytes: common reed (*Phragmites communis*), sedge (*Thypha latifolia*), reed species (*Potamogeton crispus*, *P. rectinatus*, *P. perfoliatus*, *P. pusillus*).

Key words: river, hydrobiont, macrophyte, zoobenthos, ecosystem, anthropogen, productivity.

Introduction

It is known that Sheroboddarya is the last tributary of Amudarya that brings water to it. This river basin is located between the Surkhandarya and Kashkadarya basins, on the eastern slopes of the Boisuntag and its extension, the Kohitang mountains. Sheroboddarya is formed by the confluence of the Irgoyli and Kyzilsoy rivers. It is called Mochaydarya up to Mochay village, Sheroboddarya from Mochay village to Sherabad city, and Karasuvdarya from Sherabad city to the confluence. The total length of the river is 186 km. The catchment area of Sheroboddarya is not high, the average height is 1495 m, the highest point is 3913 m, and the lowest point is 605 m. On average, the period of full water in this river is at the end of February, that is, a day later than that of the Khojaipok river. Sheroboddarya is one of the most beautiful rivers in Central Asia. The average long-term water consumption of the Sheroboddarya in the mountains is 7.5 m³/sec. Since the river is scarce, most of the cultivated areas in its lower reaches are irrigated with water brought from Surkhandarya through canals. Another channel with a length of 100 km is brought to the Sherabad valley from the South Surkhan reservoir [2].

The study of water hydrobionts is very important, because they fully reflect the characteristics of the dynamics of water quality, therefore, due to the increasing anthropogenic impact on water ecosystems, the relevance of studying biodiversity is increasing. The main consequences of this effect are changes in the structure of communities, the circulation of substances, functional characteristics and the main directions of the development of ecosystems (Odum, 1986).

Zoobenthos - organisms that live in the mud at the bottom of water bodies and on it. Since zoobenthos organisms are considered one of the most important components of the river and lake ecosystems of all continental water bodies, hydrobiological research work is being conducted for the first time in Sherabad River, one of the rivers of great historical importance in the southern region of Uzbekistan.

Research methods

During the study of benthic organisms in the bottom of the water, the places where insects are most common were identified from different biotopes (10 km) of the beginning of the Sherabad River. Benthic organisms were collected by generally accepted methods, that is, with the help of a special mesh scraper, the bottom of the water at different points around the coast and 2 meters away from the shore was scraped from the mud to about 10 cm, and the worms, insect larvae, small molluscs were picked using tweezers and fixed in 10% formalin [1;6].

Purpose of the study. Today, one of the urgent issues is conducting research on zoobenthos organisms found in all water bodies in Uzbekistan in high-spectrum water streams. As a result of the research, it is planned to carry out the following works: to determine the general laws that occur in the water ecosystem under the influence of benthos organisms in the ecosystem of the Sherabad River and the state of it as a result of anthropogenic effects, to conduct biomonitoring, to make a comprehensive assessment as a fish food base on this basis, to analyze the biology and main characteristics of common species; consists of determining the number and biomass of species.

Research results. The fast-flowing Sherabad River has unique aquatic organisms on its banks. Bentofauna consists mainly of litho-rheophilic biocenosis organisms: Ephemeroptera, Diptera, Chironomidae, larvae, dragonflies (Odonata), nematodes, beetles (Coleoptera), and molluscs (Mollusca) was found in all samples[4].

In the coastal and coastal parts of the river, fish larvae and non-fishing fish can be found. From high algae: ordinary reed (*Phragmites communis*), sedge (*Thypha latifolia*), reed species (*Potamogeton crispus*, *P. rectinatus*, *P. perfoliatus*, *P. pusillus*), spiky urut (*Myriophyllum spicatum*), rogolistnik (*Ceratophyllum demersum*), (*Ceratophyllum demersum*), jerukha

(*Nasturtium fontanum*), water fern (*Azolla caroliniana*), water moss (*Fontinalis* sp.) and sedges (*Carex* sp.) were recorded[3;5].

Conclusion

Zoobenthos organisms are important as preliminary data for research on species diversity and water quality structure of the river, for monitoring and for predicting changes that may occur as a result of various natural and anthropogenic influences. This information can be used to develop a theory of biodiversity conservation and to decide how to ensure the stability of aquatic ecosystems in the region. The productivity of water bodies can be determined from the data on the abundance and biomass of zoobenthos organisms.

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