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Research Article

EFFECT OF SANGZOR RIVER WATER TEMPERATURE, CLARITY AND FLOW RATE ON BIVALVE MOLLUSCS

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ABSTRACT

The article provides information on the factor, clarity and flow rate of the Sangzor River, which influence the distribution of molluscs, in which the temperature, clarity and flow rate of the Sangzor River vary in different parts of the river.

KEYWORDS

Population, weight. abiotic, shell mollusk, density, River, charorat, indicator.

INTRODUCTION

The distribution and development of bivalve molluscs on the coast of Sangzordarya is influenced in a complex way by external environmental factors, especially abiotic factors in water. Abiotic, biotic and anthropogenic factors play an important role in the life of bivalve molluscs. Factors affecting the distribution and development of bivalve molluscs found in freshwater have been studied by scientists. [1, 6, 8.]

We found out that the coast of Sangzordaryoi consists of three parts, 7 types of bivalve mollusks are distributed in the upper part, 11 types in the middle part, and 2 types of bivalve molluscs in the lower part.

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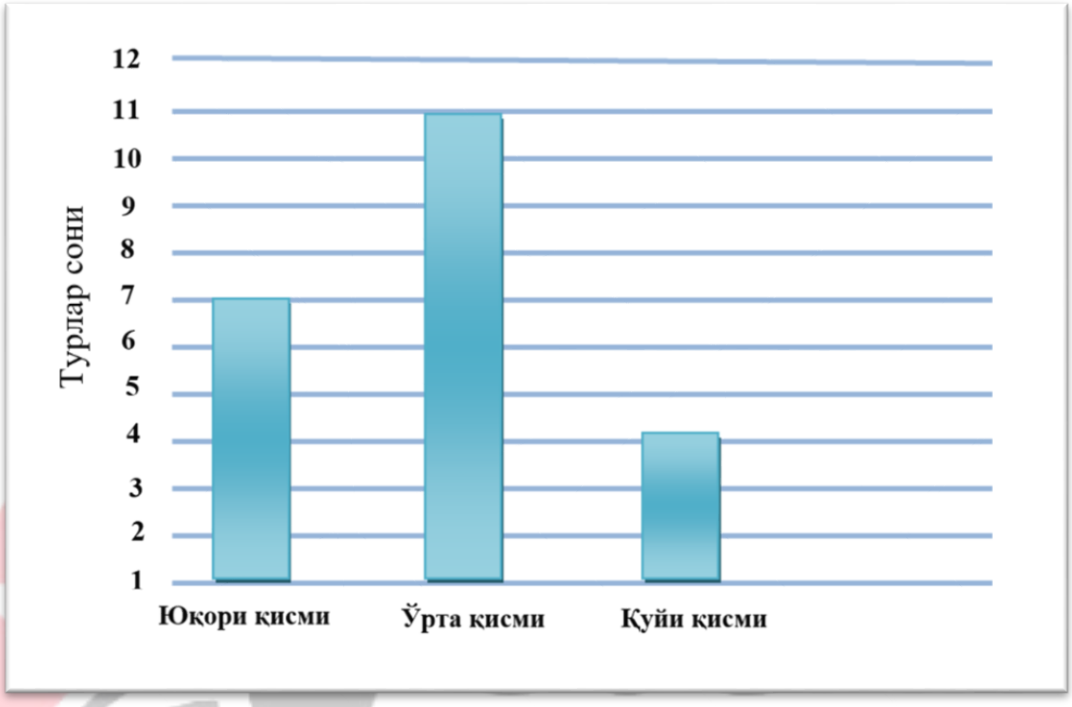
Picture 1



Picture 1. Distribution of bivalve molluscs in river sections

Differences in water temperature, clarity, and flow speed in different parts of the river are factors influencing the distribution of molluscs.

It was observed that the water temperature varies in different parts of the Sangzor river. For example, in spring and summer, the water temperature in the upper part of the river is on average 9-11 0C, in the middle part 18-22 0C, and in the lower part 18-24 0C. It was found that the middle part is a favorable area for the distribution of molluscs. The number of mollusk species in the upper and lower parts is small. Species distributed in the lower part are considered species with a wide range.

River water temperature plays an important role in the development and distribution of bivalves of the Euglisidae and Pisidiidae families. On the coast of the Sangzor River, rising water temperature in spring ensures better development, nutrition and reproduction of bivalve molluscs. It was found that the number of bivalve mollusc species is the highest in the middle part of the Sangzor river bank compared to the upper and lower parts.[4.] In summer, we measured the average water temperature in the middle part of the river to be 18-220C. Water temperature plays an important role in the development of molluscs on the banks of the Sangzor River. 1988 Antonova L.A. in water types of the Volga River coast, the reproduction stages of species belonging to the Unionidae family

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were specially studied depending on the temperature of the water, they observed that depending on the temperature, they pass the development stage from 0 to 4 on a 5-stage scale. As a result of our observations, it was learned that under the influence of the water temperature of the Sangzor River, the development of species of the Unionidae family is in stages from 0 to 4: in March, gametogenesis takes place in the 1st stage of gametogenesis; the first ten days of April, the growth of germ cells is 2 stages; 3 stages of spawning period at the beginning of May; in June, howling continues in 4 stages; At the end of June, bivalve molluscs develop to stage 0.

We observed that water temperature also affects the filtration activity of bivalve molluscs on the coast of the Sangzor River. It is known from the literature that a decrease in water temperature slows water filtration in molluscs, most of them completely stop filtering water when the temperature of water bodies reaches +2+50C. In species of the Unionidae family, the filtering ability of water at +40 C is greatly reduced. In the species of the Euglisidae family, it was found that the ability to filter water at +4.6+5.90C is very low. [5.] Bivalve molluscs are mainly active in the water filtration process in shallow coastal zones.

The average water temperature in the Sangzor River in autumn is 10-120 C. At this time, water filtration of bivalve molluscs is reduced. In the winter season, the average water temperature in the upper part of the river is +1-20 C, and in the lower part it is 4-50 C. Jizzakh, Zomin reservoirs located in the middle reaches of the Sangzor river bank, some small canals and collectors pour their water into the river. The water of these canals and collectors is 3-40C warmer in summer and 1-20C in winter compared to river water. These cause an increase in the temperature of the river water downstream.

Different water temperatures in different parts of Sangzor River coast during the seasons cause differences in feeding and filtration activity of bivalve molluscs. Relatively low water temperature and relatively high flow speed in the upper part of the Sangzor River had a limiting effect on the distribution of species of the Unionidae family Sinanodonta and Colletopterum genera. In the upper part of the river, when the water temperature rises to 10-120C, we observed a change in the breeding phase of species of the Euglisidae family distributed in this area. [8.]

In the summer, when the water temperature reaches 14-220C in the upper part, it was observed that Euglisa obliquata, E.turanica, E.turkestanica, distributed in the springs, go to the highest stage of water filtration. By autumn, the temperature of the water is 10-120C, which leads to a decrease in mollusk nutrition. In winter, the water temperature drops significantly. (+1+50S) we observed that Euglycids went into hibernation state.

In the middle part of the Sangzor River, a slight rise in temperature in spring (15-180C) leads to feeding and reproduction of bivalve molluscs. Unionidae family Sinanodonta, Colletopterum genus species, Corbiculidae family Corbicula and Corbiculina species are distributed in the middle part of the river. In summer, it was observed that the average water temperature reaches 18-220C. We observed that the air temperature in the middle part of the river reaches 12-140C by autumn. In winter, the water temperature drops significantly (1-20C). The number of species in the upper part of the river, compared to the middle part, can be explained by the increase in the amount of organic matter coming to the river from the environment in different ways, in addition to the increase in temperature and decrease in the flow rate.

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