



SOME ASPECTS OF STUDYING THE ECOLOGICAL CHARACTERISTICS OF PARASITE FAUNA IN YOUNG RUTILUSARALENSIS UNDER CONDITIONS OF THE AMU DARYA DELTA

Allamuratova Z.B.

Karakalpak Institute of Agriculture and Agrotechnology

Payzullaev J.

Karakalpak Institute of Agriculture and Agrotechnology

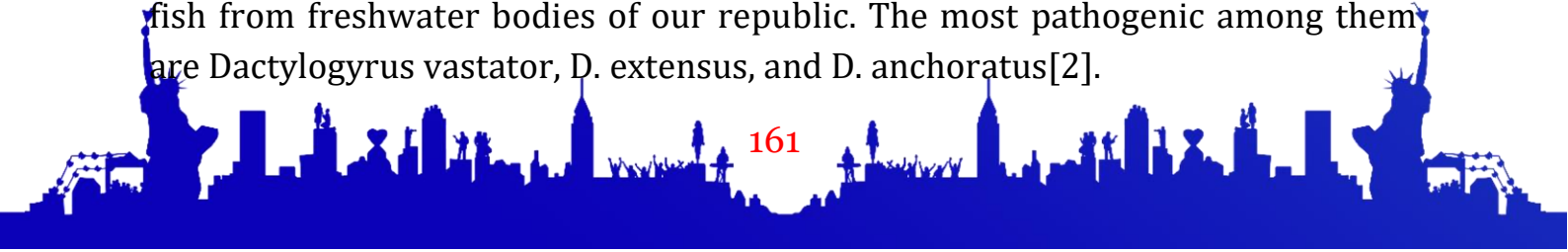
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Currently, the resolution of problems related to hydrochemical changes in aquatic ecosystems has led to an increase in chemical toxicity in fish, an increase in the prevalence of parasitic infestations, a decrease in the biological productivity of water bodies, and a decline in the ecological purity and sanitary condition of water bodies. Therefore, the main ways to solve the problem of restoring the health of the region's aquatic ecosystems are to monitor the ecological purity and safety of water bodies [3].

In Karakalpakstan, the fishing industry plays an important role in food supply, so the creation of reservoirs provides good opportunities for increasing fish catches. However, regulating river flows has a negative impact on the reproduction of some valuable fish species (carp, bream, grass carp, silver carp, pike perch, etc.). In this regard, the development of measures aimed at protecting and improving natural spawning is of great importance in the cultivation of young commercial fish species in specially created pond farms. The creation of pond and lake farms opens up great opportunities for increasing fish production. Therefore, in addition to measures aimed at protecting nature, improving the condition of pond and lake fish farms is also important.

The successful management of pond and lake fish farms is often limited by parasitological factors. A number of environmental factors cause stress and suppress the resistance of fish organisms. The negative results of human economic activity often disrupt the balance in the parasite-host system that has developed in nature over many centuries, leading to the emergence of many diseases. In addition, fish farming currently often encounter diseases complicated by toxicosis, as well as those caused by several pathogens.

Dactylogyrus refers to acute invasive diseases of fish caused by monogenetic trematodes of the genus Dactylogyrus, which affect the gill lamellae of fish. More than 150 species of monogeneans have been described in fish from freshwater bodies of our republic. The most pathogenic among them are Dactylogyrus vastator, D. extensus, and D. anchoratus[2].





Information is presented on the infection rates of pathogenic representatives of *Dactylogyrus nanus* of the class of monogenean flukes, and their number dynamics depending on the morphoanatomical and ecological characteristics of one-year-old fry of *Rutilus Aralensis*, representatives of the Cyprinidae family. At the Antika fish farm in the Turtkul district, *Rutilus Aralensis* caviar spawning actively continues from 28-30 March until the end of May at a temperature of 16.30-17.40 °C. According to our observations, small and larger fry of *Rutilus Aralensis* developing at the same stage were found in the coastal zone of the reservoir from 1 to 5 April, so we took as a basis the morpho-anatomical characteristics of the pre-fry and fry period of this fish.

Thus, in the ecological conditions of the Southern Aral Sea in the Turtkul water basin of the fish farm, the formation of infection of *Rutilus aralensis* fry in their first year of life with the pathogenic representative of the class of monogenetic flukes *Dactylogyrus nanus* is subject to the law formulated by V.A. Dogel [1]. Considering that older fish are carriers of the infection, it is necessary to prevent them from being kept together with young fish. Together with yearlings of herbivorous fish, it is possible to grow fish of other species that are not susceptible to this pathogen (carp, grass carp, crucian carp, peled). It is necessary to improve the sanitary condition of ponds by draining and disinfecting them.

List of references:

1. Dogel V.A. Parazitofauna i okrujayushaya sreda. Nekotorie voprosi ekologii parazitov rib // VSb. «Osnovnie problemi parazitologii ribi.- M.: 1958. – p. 9-34.
2. Mirabdullayev I.M., Mirzayev U.T. Xegay V.N. Opredelitel rib Uzbekistana. – Tashkent: «ChinorENK».- 2002.- p.101
3. Strelkov Yu.A. Konsepsiya oxrani zdorovya rib v sovremennoy akvakulture // Problemi oxrani zdorovya rib v akvakulture. Tez. na-uch.-prakt. konf. M.: Rosselkhozakademiya, 2000. - p. 16-18.

