

COMPLEX USAGE OF THE KIZILTASHSKIE ESTUARIES

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Nowadays the resources of many enterprise fish kinds in the Azov-Black sea pool are dramatically exhausted that makes the problem of rational usage of sea and coastal reservoirs resources specifically urgent. One of the most realistic ways of the fish-productin increase is the creation of commercial fishing complexes for valuable sea fish kinds breeding.

In 1955 the gray mullet commodity exchange enterprise was created on the basis of Kizil-tash coastal salt lakes (Bugaz, Kiziltash, and Tsokur) with overall area of 24,4 thousand of hectares. Both big mature mullet and its young growth were fished out there at fall. Since 1978 the enterprise specialization was changed. Kiziltash coastal salt lakes were used as feeding-reproduction in order to replenish the Caucasian gray mullet herd. For Azov-Black sea gray mul-lets such as common mullet *Mugil cephalus* L., golden mullet *Mugil auratus* Risso, and leaping gray mullet *Mugil saliens* Riss the fattening within the coastal salt lakes is a biological necessity. The intensive growth of the gray mullets, the increase in condition factor, and fat accumulation is only provided by the feeding of gray mullets with accretion film and detritus which are common-ly presented in coastal salt lakes. Kiziltash feeding-reproduction gray mullet enterprise (Kiziltash FRGME) is the only enterprise in southern Russia that operates in feeding-reproduction of Azov-Black sea gray mullet. The younger growth and mature fish that entered through the throat are fatten in the coastal salt lakes. The producers of gray mullet go to the sea for spawning through the open throat at summer and the grown youth of Azov and Black sea gray mullets returns into the sea for wintering.

The uttering herd was created on basis of the Far Eastern gray mullet (*Mugil soiuy Basi-lewsky*) acclimatization in southern seas in 1987–1989. At the same time the biotechnology was developed and the measures for breeding and release of that kind into the open seas were carried out. As a result, a self-reproductive population of *Mugil soiuy* was formed in the Azov and Black sea pool. In 1989 a great increase in the number of this kind was registered, which lead to its in-tegration not only into Azov and Black sea but also into the Mediterranean (Volovic, Kotenev, Mikodina,

1998). About 300-400 thousand of Azov and Black sea gray mullet and *Mugil soiuy* producers enter the Kiziltash coastal salt lakes. The *Mugil* youth and the mature fish migrate to arterial channel that starts in river Kuban and flows into the Kiziltash coastal salt lakes for win-tering while some of the *Mugil* stays in the estuary.

A bug number of the Black sea silverside *Atherina mochon pontica* Eichw., bullheads *Neogobius melanostomus* Pall., *N. kessleri* Guth., and shrimps *Leander adspersus* also live in Kiziltash estuaries apart from gray mullet.

In previous years reclamation works – low-value fish kinds fishing out (silverside, most of all) that create competition for gray mullet feeding was carried out in Kiziltash estuaries.

Since 2005 no reclamation fissing out was carried out within Kiziltash coastal salt lakes. That lead to the suffocation in fall-winter period as well as to over-population of fish and feeding base of the estuaries undermining followed by the decrease in young gray mullet mass on differ-ent stages of its growth that goes for wintering.

Earlier, in 70-80ies of the XX century 100 to 200 tons of silverside were fished out in Kiziltash coastal sea lakes annually. Due to the economic transformation in our country the production of low-value kind of fish had an accidental nature and was carried out mostly for agricultural needs, for feeding pigs, in particular. Anyhow from 19998 to 2003 up to 60 tons of silverside was fished out in Kiziltash estuaries.

The implementation of reclamation fishing allows us to use the caught low-value fish and other water bio-resources as a forage while organizing the commodity production of sturgeon fish kinds. Moreover we already have a positive experience of the sturgeon fish kinds production on this enterprise (Abaev, Dorofeeva, 1979; Nikitina, 2003; 2004; 2007; Patent RU 2299561 C 1).

The production of sturgeon fish kinds with the following formation of uterine herd is possible on this enterprise along with selling males.

In other word the reclamation fishing implementation promotes for the development of two important areas on the Kiziltash FRGME: natural replenishment of the gray mullet fish and sturgeon fish kinds production.

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