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BREEDING AND GROWING IN POND FISH FARMING

Pardayev Sh.
Shamsiyev N. A.
Toshova D.
To'ymurodova Sh. Sh.
Roziqova M.T.
Bukhara State University

Abstract
This article discusses such processes as breeding work carried out in pond fishing, the determination of productive breeds, the preparation of parent fish for the breeding season, certain environmental problems and the fishing industry. In pond fish farming, breeding work consists in how important it is and how urgent tasks are performed. New approaches implemented in this area are presented, as well as information on their environmental and economic importance.

Keywords: pond, fish farming, farm, breeding, breeding season, productive breeds, environmental problems, ichthyofauna, erosion, industry.

Introduction

Breeding in pond fish farming, efficient use of water resources, environmental problems and their integration into the fishing industry are among the most important topics of our time. Decree No. 2478 of the Ministry of Labor and Social Protection of the Republic of Uzbekistan dated 07/16/2013 "On approval of Labor Protection Rules for fish production workers" was adopted. An important task of breeding is to provide the population with a sufficient amount of high-quality breeding material, sufficient quantity and quality to obtain high-quality products from breeding fish. The pond fish farming in our country mainly uses the white amur fish-Ctenopharyngodon idella (valenciennes, 1844), the white silver carp-Hypophthalmichthys molitrix (valenciennes, 1844) and carp-Cyprinus carpio (Linnaeus, 1758). Due to the industrialization of fishing, attention to spawning Fish is increasing. In order to improve the breeding of carp and herbivorous fish in Uzbekistan and obtain high-quality fish, N.Y. Akhmedova, G.B. Barkhankova (2006) believes that the work consists in creating breeds suitable for climatic conditions.

The following types of breeding work are distinguished by quality: high-level breeding and seed farming, fish farming designed to create productive breeds and industrial. The main task of special breeding farms is the breeding of new breeds, taking into account the conditions of each territory. The main purpose of breeding work is to increase the productivity of existing breeds, and at the same time to provide fisheries with fisheries. It reproduces by crossing purebred fish between two groups of related breeds. To do this, breeds are selected for the disposal of caviar, each group of which is identical in origin, and their number is determined. This work is carried out by natural crossing. In pond fish farms, breeding work is carried out on the basis of the highest quality breeds available in them. In addition, the sex of the fish is also considered important. The sex of fish is determined by their appearance. Male fish have a longer build than females, and the abdomen is more tense and stocky. On the other hand, the genital opening has a triangular shape, and the tip

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is in an outstretched position. In the spring, Fish become mobile, the main reason for this is due to the mating process.

The basis of childbearing is parental organisms. Mother fish is divided into three types depending on the preparation for the mating season:

1. The sexual characteristics of a mature mother fish are obvious. His belly will be soft and saggy. The area around the genital opening is swollen, bright red. Such fish were considered the most important for breeding work.
2. In immature mother fish, the sexual characteristics are less noticeable. Such a mother fish was chosen for breeding work in the second place.
3. Male and female fish with indeterminate sexual characteristics are almost impossible to distinguish. During the mating season, such fish are not used, and grazing is released into ponds.

Choosing the right males along with the mother fish is also important in breeding. Males of breeding fish are divided into three groups, as are females of breeding fish.

1. Fish that give sperm well. There are sex-specific signs of mating.
2. Fish that produce few seed cells are not fully ripe. Such breeding fish are kept in a nature reserve or released into pasture ponds.
3. This species is also similar to female fish and is considered a fish with poorly visible sexual characteristics.

From this it can be seen that the correct selection of male and female organisms is important in breeding work.

In pond fish farming, it is considered important to improve breeding work. This alternative requires intensive renewal and interdependence in the short term. Breeding work in pond fish farming is studied, problems, solutions in themselves and how their transfer to the industrial level affects are analyzed. 80-90 percent of the territory of the Bukhara region is saline lands of varying degrees of salinity. In order to improve the land reclamation condition, land plots are watered 3-4 times over the winter, sewage is discharged into ditches (8-10 thousand/m^3). Highly mineralized waters, as well as a 20-25-fold increased content of nutrients compared to the norm, have caused the development of higher aquatic plants and microscopic algae in natural reservoirs. The soils are eroded, and the water becomes cloudy and enters a natural reservoir through a drainage collector. Plankton does not develop well in turbid water, deposits form mud and negatively affect the development of zoobenthos. As a result, fish feed decreases, which reduces the growth rate of fish, which negatively affects even the number of species in the ichthyofauna. Sometimes the accumulation of erosion products leads to the enrichment of the littoral zone with nutrients. Specially adapted Samarkand muddy rays – Capoeta steindachneri (Kessler, 1872) and other fish can live in muddy waters. Of these, catfish (Silurus glanis) Fish have much smaller eyes, adapted to supply fresh water to the gill, preventing blurring, producing a mucous substance through the skin that prevents blurring. The increase in water salinity and soil erosion has a negative impact on fishing. Wastewater generated as a result of the development of industry and agriculture causes pollution of reservoirs. In organically polluted reservoirs, due to the consumption of an excess amount of oxygen dissolved in water, a state of Zamora (zamora) occurs, in smaller reservoirs, fish death from suffocation is observed. The effect of the water in the lake, where the Runoff stops, on the body of the fish depends on both the composition of the water and the habitat of the fish. The waters of the Bukhara oasis are subjected to eutrophication, as a result of organic pollution,

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the content of oxygen dissolved in water decreases to 3 mg/l (Zikri, Khadicha, Lake Karakir). In summer, the water supply decreases, and at high water the plants dry out in shallow water. With an increase in the water level, the activity of microorganisms increases, the process of rotting is activated, and as a result of an increase in the content of BOD (5) in water, the amount of dissolved oxygen in water decreases. Consequently, violation of the aquatic environment worsens its biomeliorative state. The level of pollution is increasing due to the ingress of urban waste into reservoirs (sea, lake). But still, in the 1980 s and 1990 s, up to 500-600 tons of fish products were caught annually in the sea from the lake. For this reason, the water from the reservoir can also be fully used in dry years. As a result, its ichthyofauna suffered heavy losses. Favorable conditions for migration of passing fish into the reservoir are violated. Ctenopharyngodon idella, Hypophthalmichthys molitrix and Aristichthys nobilis in Bandacola approach obstacles (up to platinum) to spawn, but cannot pass through the obstacle. Ctenopharyngodon idella, Hypophthalmichthys molitrix and Aristichthys nobilis lay eggs in running water and reach the exit of the larvae at a distance of 50-70 km. This process does not occur in lake reservoirs. In Uzbekistan, fish spawning begins in March, when the water temperature reaches 14-16°C. Basically, fish lay eggs in littoral, lake shallow waters of reservoirs. In spring, the water level drops, forming small puddles, and these puddles come into contact with large water. In coastal areas, the water warms up well, and, accordingly, Cyprinus carpio, Abramis Brama orientalis, Rutilus aralensis, and other fish species go out into shallow water and lay eggs. Fish larvae develop in small ponds. In summer, due to a decrease in the amount of water, puddles are separated from large water. As a result, chinooks die. On the other hand, small fish will be nutritious food for fish-eating birds. But these small fish can be saved. There are many such ponds in Karakir, on the lakes Ayakagitma, Zikri Khadicha, Kumsultan. Small fish rescue activities are regularly carried out by employees of the hunting farm and the fishing union. Since the 2000 s, lakes have received close attention from industry experts in order to increase the productivity of natural reservoirs for fishing and fish enrichment. The transition from fishing to fish farming or the organization of intensive pond fishing is becoming a periodic requirement. These works can have a high effect, saving caviar and young fish. But fishing in natural reservoirs with fish larvae did not pay off. Because they have become food for insect larvae, frogs and other aquatic animals. For this reason, fishing in reservoirs with fishing rods weighing 50-60 g was not satisfying. On the scale of the republic, one million to one million individuals of such species as Ctenopharyngodon idella, Hypophthalmichthys molitrix, Cyprinus carpio are caught annually in natural reservoirs. But a larger number died at the chinook stage, and a smaller number died at the fingerling stage. This is the natural survival of the law of flexibility.

It is necessary to have knowledge about commercial Fish that do not have hunting significance, extracted from each reservoir, and be able to distinguish them from each other. Fish of hunting importance are mainly characterized by qualitative characteristics, the presence of large predators (Cyprinus carpio, Carassius gibelio, Silurus glanis, Ctenopharyngodon Idella, Rutilus aralensis). But the quality of the fish product differs from the chemical composition of the water by the stock of feed, its quality. Of the measures aimed at increasing fish productivity in natural reservoirs, the most important are the improvement of the scientific foundations of fishing and its management, i.e. the establishment of catch standards and the establishment of strict control over fisheries management during the salmon spawning period, fishing is stopped and is under strict control. But

if the fish productivity of a natural reservoir falls to 1.0 kg/ha, then, of course, fishing should be banned for a certain period (3-5 years) until the breeding parent restores the flock of fish. The average productivity of fish was about 2.5-4 kg per hectare. In increasing fish productivity, it is important to control the water regime of natural reservoirs, prevent anthropogenic pollution, and fishing with a fishing rod.

Breeding in pond fish farming by artificially raising larvae in incubation workshops, growing them to a weight of 50-60 g and fishing in reservoirs with the help of fishing rods has become the basis of intensive fish farming.

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