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MUSSEL-BREEDING PROGRAM UNDER WAY IN MISSISSIPPI RIVER BASIN

Fresh-water mussels are being bred artificially by the Fish and Wildlife Service in rivers and streams of the Mississippi River basin, Dr. O. Lloyd Meehean, chief of the Service's Branch of Game-fish and Hatcheries, announced today.

The propagation program began last month. It is operating in Oklahoma, Mississippi, Arkansas, Tennessee, Illinois, Indiana, and Missouri. Investigation for suitable spawning areas was started in the fall of 1947.

In addition to the breeding work, the Service is seeking abundant sources of adult mussels to provide the glochidia (microscopic-sized infant mussels) with which to infect host fish in their experiments.

Fresh-water mussels are an important source of shells for the button industry. The production of mussel shells for button manufacturing once supported a large industry in the Mississippi River valley.

During the past decade, however, sewage and erosion polluted many of the rivers in which mussels dwelt. The mussels decreased sufficiently to make necessary artificial propagation by Federal authorities.

The work was begun, but in 1940 was discontinued because of the lack of funds.

In resuming the work this year, the Fish and Wildlife Service is using improved methods of propagation, Dr. Meehean said. Smaller numbers of infant mussels and host fish are being used. He described the breeding process as follows:

Fish are taken from river waters which are considered clean enough to provide a habitat suitable for the growth of fresh-water mussels. The fish are placed in small tanks containing a chemical solution making them antiseptically clean.

Glochidia (infant mussels) are then removed from the pouches of adult female mussels, and are put into the small tanks with the fish. The infant mussels attach themselves to the gills and fins of the fish and live as parasites.

After they have been infected with the infant mussels, the host fish are returned to their native waters. In a week or two, the infant mussels fall off the fish, and settle at the bottom of the river.

Depending on the water and food conditions, the mussel matures on the river bottom in three to five years.

Because of the lengthy period required for growth, Dr. Meehean said that the Fish and Wildlife Service will not be able to survey the success of their mussel-breeding work until at least 1951. At that time the Service will determine whether to abandon or expand its activities.

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