

# Growing Catfish in Brackish-Water Ponds

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A NEW TYPE of farming is growing in Louisiana—catfish farming. Growing catfish in ponds has caught on for several reasons: many catfish farmers are already clearing \$200 and more per acre per year, ready markets exist for pond-fed catfish, and there are no federal restrictions on the number of catfish raised.

With an increasing interest in catfish culture, some fish farmers are looking to coastal regions of Louisiana for land to build ponds. Much of this land is marsh and contains brackish water (fresh water and salt water mixed). Nevertheless, it is less expensive than improved farm land, and being far south it affords a longer growing season. If fresh-water catfish can be grown in brackish-water ponds, then a whole new industry awaits Louisiana.

Heretofore, fish culturists believed that fresh-water catfish would not grow in salinities of over 1.5 parts per thousand (ppt), but no conclusive research had been conducted. The LSU Agricultural Experiment Station, in cooperation with the Louisiana Wild Life and Fisheries Commission, conducted an experiment in 18 ponds over the past two years to determine if fresh-water catfish could be cultured in brackish ponds. A laboratory study was also conducted to determine the salinity tolerance of fresh-water catfish.

## Pond Studies

Fingerlings of blue, channel, and white catfish were stocked in brackish ponds at Rockefeller Wildlife Refuge to determine growth, survival, and food conversion.

In the spring of 1967, nine ponds were stocked with catfish. Each species was stocked separately in three ponds at a rate of 2,000 per acre. All fish

stocked were originally obtained from fresh water. Fish in each pond were fed approximately 3 per cent of their body weight daily, and were seined every two weeks to check growth and to adjust feeding rates. In the winter, all ponds were drained and the fish were counted and weighed.

In 1968, the same experiment was conducted, but with the stocking rate increased to 2,500 per acre. Salinity in ponds during the two-year experiment ran from a low of 1.8 ppt to a high of 11.2 ppt. Normally the salinity ranged from 3 to 7 ppt. By comparison, salinity of ocean water is usually 30 to 32 ppt.

Channel catfish grew best both years; white catfish outgrew blue catfish. Top production was obtained in a pond containing channel catfish. This pond produced almost one ton of fish per acre. Survival was 93.2 per cent and food conversion was 2.1. Data for the 1968 experiment are presented in Table 1.

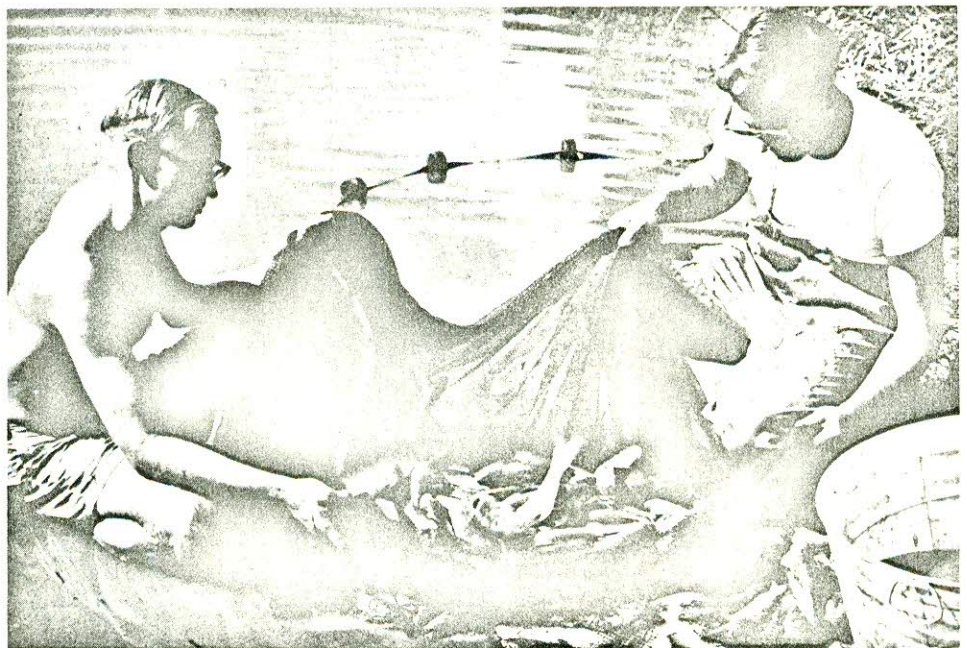
Results in 1967 and 1968 agreed very closely. A difference, however, was found in the average size of fish harvested, which reflected the two stocking rates. Fish stocked at a rate of 2,000 per acre grew slightly larger than those stocked at a rate of 2,500 per acre.

## Taste Test Conducted

Some of the fish were eaten after termination of the study, since it was feared that they might possess a marshy taste. The taste was rated excellent, with no objectional flavor or odor noted.

Several problems arose during the study, but none would prohibit catfish culture in the marsh. During both years, predation by a family of otters was considerable. Otters are known to range over a vast territory, and evidently the ponds offered an easy source of food. Alligators also entered the

(Continued on Page 16)



Catfish were sampled every two weeks to check growth and to adjust feeding rates.

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