

STATE Texas

PROJECT NO. F7R3 - Job F-1

PERIOD June 1, 1955 - May 31, 1956

Segment Completion Report

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W50
TITLE

Experimental Introduction of Fish Species,

OBJECTIVES

To experimentally introduce non-native fish species to provide either new sport species to improve the quality of the sport fishing or to add predacious species to aid in the control of rough fishes and forage fishes.

CONSIDERATIONS

Some of the lakes of North Central Texas are so saline that native game species do not thrive in their waters. Additional dams and impoundments of saline nature are contemplated. If salt water fishes with a high tolerance to low salinity can be established in these lakes, it may prove possible to create excellent fishing waters that would otherwise provide only mediocre sport.

When exotic species are introduced, preference should be given to forms that are both game and predacious, thereby aiding in the control of rough fishes.

Some non-saline lakes of the Texas Panhandle are extremely fertile, but have fish faunas rather limited as to species. It may be possible to place additional game species in these lakes. The rough fish populations of these lakes are excessive and introduced predacious forms may aid in the control of such undesirable species.

Work and results pertaining to this job cannot be judged by numbers of introductions or fishes introduced. Much research on distribution and natural history of the species under consideration has been necessary.

Work on this job has been greatly hampered by lack of sufficient travel funds.

ACKNOWLEDGMENTS

For assistance with our work in collecting species of marine fishes, we are greatly indebted to personnel of the Marine Division of the Game and Fish Commission, and especially to biologists Ernest G. Simmons and Robert J. Kemp, Jr. For aid in transporting specimens collected we wish to thank hatchery superintendents Houston Maples, Harmon Henderson, and H. W. Williams.

BACKGROUND

Two minor introductions of exotic fishes were carried out in the year before this job was approved. In 1954, twenty-eight white bass were released in Buffalo Lake and 58 redbass were placed in Lake Kemp.

ACTIVITIES

WHITE BASS. In July, 1955, 78 white bass were caught in Lake Diversi on and released in Buffalo Lake. Additional releases were planned for later in the year, but in August, fishermen at Buffalo Lake began to take small white bass in fair numbers. These were apparently the results of the twenty-eight fishes released the previous year. Because white bass seemed established in the lake, no additional introductions were necessary.

REDFISH. In June, twelve large redfish were placed in Lake Kemp. These individuals weighed from one to three pounds each.

In August, two redfish of about one-half pound each were released, incidental to stocking with speckled weakfish.

In October, two more yearling redfish were released.

In March, 1956, 1,603 redfish fingerlings were taken in the Gulf and brought to Lake Kemp and Salt Creek, a saline watershed stream. Approximately 150 died in transit, and an additional 150 are thought to have died shortly after release. Probably 1,300 fingerlings in good condition survived.

SPECKLED WEAKFISH. The first weakfish (speckled trout) planting took place in August, 1955, when 25 specimens from seven to twelve inches in length were released. Some of these fish were not in good condition.

In October, 9 yearling weakfish and 9 fingerlings were stocked, all in Lake Kemp.

In March, 1956, 89 fingerling trout, condition uncertain, were placed in Lake Kemp.

DISCUSSION

The stocking of white bass in Buffalo Lake was welcomed by fishermen of the area. The fact that young fish were taken the first year after the one small planting was most encouraging. After a second year, however, the success of the stocking is less hopeful. Gill netting over the past year has taken only 16 white bass. Several of these were of large size and must have been individuals stocked last year. In our opinion, conditions in the lake are ideal for the species, but reproduction has not been up to expectations. It is still too soon for positive statement, and the next year or so may disclose white bass in large numbers in Buffalo Lake. Certainly those fish taken by us showed rapid growth and were in excellent condition.

The introductions of redfish and speckled weakfish in Lake Kemp have been widely hailed by area fishermen, and this job has created more interest and good will than any other job undertaken to date. We have seen not one redfish or weakfish from Lake Kemp, but there are numerous reports of specimens taken by fishermen. All checked by us were false. A probably authentic record is of two fish taken near the site of release and checked by a game warden. These fish had attained a length of 20 inches, which indicates a minimum growth of 12 inches in 18 months.

PUBLICATIONS

Saltwater Fish in Freshwater Lakes, Texas Game and Fish Magazine, April, 1956.

SUMMARY

Work done under this job includes the introduction of white bass to Buffalo Lake, in the Texas Panhandle, where the species has now become well established, and the stocking of 16 large (but not breeding-age) redfish and approximately 1,300 fingerlings in Lake Kemp, along with 34 large (but not breeding-age) speckled weakfish and 98 fingerlings.

