

# FISHERIES SPECIAL INTEREST MEETINGS

## PANEL DISCUSSION ON WHITE BASS

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Continued interest in the white bass (*Morone chrysops*) has been shown in that it was chosen as a panel topic for two consecutive meetings. To prevent repeating the general information covered last year, an attempt was made to discuss a few of the more specific subjects related to this important fish.

### ADVISABILITY OF NEW INTRODUCTIONS

White bass have been present in many of the important rivers and drainages of the South, but until recent impoundment of such streams by TVA, Corps of Engineers and others, these populations have been small and for the most part unnoticed. When large reservoirs are built, the native stock of white bass explodes. In such lakes little, if anything, can be done to manage the species. However, the question arises, should white bass be introduced into lakes and drainages where they are absent?

The following credits may be given this fish:

1. Have a high reproductive rate.
2. Small number needed to stock new waters.
3. Are readily available for stocking, at least some time during the year.
4. Are easily transported.
5. Feed heavily on gizzard shad in open water.
6. Are able to compete with rough fish.
7. Have a rapid growth rate.
8. Are available to anglers in schools and during spawning runs.
9. Are easily caught even by inexperienced anglers.
10. Have a good flavor.

On the other side we find the following debits:

1. Are possible competitors for food with other, more popular, gamefish, especially where shad are not available.
2. Have a population fluctuation which causes unstable fishing.
3. Are early spawners. Young change from plankton and crustaceans to a fish diet by the time other game fish begin to spawn.
4. Have a short life cycle.
5. Have a relatively small size which results in few trophy fish.
6. Are not attractive to out of area anglers who must travel and spend considerable money to fish.
7. Are difficult to raise in hatcheries.
8. Have a tendency to stunt (believed, but not proven).

Before white bass are introduced it would be advisable to make a thorough study of the impoundment in question. This should include population studies by rotenone (including open water samples), growth studies and possibly food and

creel census studies. These studies should be continued after introduction to determine any changes made.

## RESULTS OF NEW INTRODUCTIONS

Tennessee has supplied white bass to seven other states for introductions. In 1950 when the question of stocking white bass in Dale Hollow (Tennessee) was first considered, most dock concessionaries felt the species might compete with other game fish and would not attract tourists. Sixty-five percent of their trade was from out of state anglers trying to catch smallmouth bass and walleye for which Dale Hollow was famous. Dale Hollow (28,000 Ac.) was stocked with 200 adults in January, 1951. In early spring of 1953 two-year-old fish had a mean length of 13 inches for males and 14 inches for females. The following year these fish (then three year olds) averaged 15 and 16 inches respectively, while the new second-year fish averaged 12 and 13 inches for males and females. A good white bass fishery has developed each spring and fall since October, 1952, at the head of the lake.

Until 1932 the only white bass know in Texas were in Caddo Lake (35,000 Ac.) on the Texas-Louisiana state line. That year the game department transplanted 13 brood bass to Lake Dallas (8,400 Ac.). A year later a few white bass were caught but by 1935, just three years after transplanting, they were caught by the thousands. Commercial fishermen easily netted as many as 400 pounds a day. This prompted the Texas Legislature to apply the same regulations to this species as applied to other bass. In 1938, following the successful Dallas planting, 100 were placed in Lake Kemp (22,000 Ac.), 140 in Lake Buchanan (23,000 Ac.), 126 in Medina Lake (5,600 Ac.), 50 in Eagle Mountain Lake (9,600 Ac.), 108 in Lake Waco (3,000 Ac.) and 125 in Lake Wichita (2,500 Ac.). All of these introductions were successful. White bass were not stocked in Lake Texoma (95,000 Ac.), but were native in the Red River (Mississippi Drainage). Lake Crook (1,200 Ac.) was stocked in 1953 with 2,000 fingerlings in August and 79 brood fish in December. These fingerlings have shown good growth, but there has been no indication of a spawn the first spring.

In Alabama all 10 major impoundments on the Tennessee, Coosa and Tallapoosa Rivers contain white bass which are highly prized by most fishermen. They are also found in the Warrior, Tombigbee, Alabama, Mobile, Tensaw and Chattahoochee Rivers. However, they appear to be of little importance to the angler except in the large impoundments and their tailwaters. White bass are native in the Tennessee River, but were unimportant as a game fish until the construction of the TVA impoundments (1924 - 1939). They were introduced into the Alabama Power Company Lakes (16,000 Ac.) on the Coosa around 1940 and have done well. In May and July of 1949, 65 adult and 521 fingerling bass were stocked in Lake Martin (40,000 Ac.). A deep water fish population sample taken in this lake in 1951 showed 10.2 percent by weight of the fish recovered were white bass. However, a shallow cove sample made the same day revealed only one small white bass. During July of 1951, 450 fingerlings were introduced into Bartlett's Ferry Reservoir (5,000 Ac.) on the Chattahoochee River. Sportsmen have reported catching these fish since the summer of 1953.

All of these introductions cited have been in large lakes, with little or no records of success in small lakes (100 acres or less). Oklahoma introduced white

bass in many lakes and found that there was little or no spawning the first year, followed by a good spawn the second and successive years. They also believe their introductions have been unsuccessful in small turbid lakes. In 1952, Cox Lake (10 Ac.) near Marshall, Texas, was rotenoned and restocked with golden shiners and 200 white bass fingerlings. Half were unmarked and the other 100 were tagged with monel metal jaw tags. Approximately 15 months later, the lake was treated again and no white bass were found. Only golden shiners, warmouth and bullheads were recovered.

Herrington Lake (Kentucky) was not stocked by the state, but was reportedly stocked several times by interested sportsmen before the fish became established. With this in mind, it appears that if the state game and fish departments want credit for white bass introductions, they should stock them early before the fishermen take the matter into their own hands.

#### METHOD OF OBTAINING FOR STOCKING AND TAGGING

White bass traveling in schools are easily taken in gill nets, but this method of capture would not be recommended for taking brood fish. Seining below dams in summer months for young of the year is perhaps the simplest and best method of capture. Oklahoma has done most of their stocking with adults taken by rod and reel.

It was noted in the Kansas summary of the Sport Fishing Institute's January, 1954, Bulletin (Highlights of 1953) that white bass from the commission's hatchery were planted in Fall River Reservoir. Correspondence with Biologist Roy Schoonover relates that four white bass were placed in a hatchery pond in the spring of 1952. When the pond was drained that fall, these same fish were found, but no young were noted. They were again stocked the following year and when the ponds were drained in 1953 small numbers of white bass were found in as many as 15 ponds. The number varied from less than a dozen to as many as 500 or 600 fingerlings. In all about 2,000 white bass ranging from 5 to 9 inches were recovered. The ponds were gravity fed and the distributor of each pond had a one-eighth inch screen. Similar situations have been reported from Oklahoma and Missouri. As a result of these experiments, future work and observations may reveal many more new facts about this interesting species.