

BOAT FISHERMEN'S CATCH AT CRAB ORCHARD LAKE,
LAKE MURPHYSBORO AND HORSESHOE LAKE,
DURING 1955

WILLIAM M. LEWIS, BOB BRANTLEY AND RONALD NEWTON
Department of Conservation and Southern Illinois University, Carbondale

To obtain some dependable measure of fishing success in southern Illinois, creel censuses were carried out on three southern Illinois lakes. The study was a cooperative one between the Illinois Department of Conservation and the Cooperative Fisheries Research Laboratory and the Department of Zoology of Southern Illinois University. The U. S. Fish and Wildlife Service granted permission to conduct the Crab Orchard Lake census. The census at Crab Orchard Lake, a 6,600-acre reservoir, was started March 12 and ended October 1. It was made on 28 days evenly distributed throughout this period. On the basis of an estimate obtained by aerial count of fishing boats in connection with a creel census in 1954 (Newton and Lewis, 1956), the present census represented a check of 41% of each day's boat fishing.

A total of 954 man-hours of fishing with minnows was recorded. The resulting catch represents a rate of 0.38 crappie, *Pomoxis* spp., per man-hour which is considerably below the rate of 0.52 per man-hour recorded for the 1954 season (Newton and Lewis, 1956). This catch-rate is also low in comparison to catch-rates reported in Carlander (1950).

Plug fishing showed some improvement over the 1954 season. The 1955 catch in 999 man-hours of fishing resulted in a catch of 0.09 largemouth bass, *Micropterus salmoides*, per man-hour. The 1954 rate was 0.5. But even though there was some improvement in 1955, the rate was still very poor in comparison to Carlander's listing.

A total of 106 man-hours of worm-fishing was recorded. There were 14 small bluegill, *Lepomis macrochirus*; 14 carp, *Cyprinus carpio*; 2 freshwater sheepshead, *Aplodinotus grunniens*; and one yellow bullhead, *Ameriurus natalis*. This amount of fishing hardly constitutes enough of a sample to justify any conclusions as to rate of catch. The limited amount of worm-fishing is, however, indicative of the poor reputation the lake has acquired in the production of fishing for bluegill and bullheads.

Only one fly fisherman was encountered. He had no success in three hours of fishing. Spinning and casting equipment have become so similar as to often make classifying impossible, hence the two are both classed as plug fishing.

Inasmuch as a census was carried on at Crab Orchard Lake during 1954, a comparison of fishing intensi-

ty in the years 1954 and 1955 is possible. Since the 1955 census was limited to Saturdays, for purposes of comparing fishing pressure, only the Saturday censuses of 1954 were considered. The 1954 data included 29 Saturdays of creel census whereas the 1955 data included 27 Saturdays. The average man-hours of fishing per day by different methods was as follows for 1954: fishing with minnows, 163, and with plugs, 72. The similar values for 1955 were: fishing with minnows, 35, and with plugs, 37. It is evident that the fishing pressure at Crab Orchard had greatly decreased.

Lake Murphysboro is a 173-acre, artificial impoundment located in Jackson County, Illinois. It filled in 1950. It has a maximum depth of 35 feet and is quite accessible for fishing. When partly full it was poisoned with rotenone to eliminate the wild fish population. It was then stocked with adult largemouth bass and with bluegill, redbear sunfish, *Lepomis microlophus*, and channel catfish, *Ictalurus punctatus*. The present fish population includes: the above species; white crappie, *Pomoxis annularis*; green sunfish, *Lepomis cynellus*; warmouth, *Chaenobryttus coronarius*; European carp; and a few miscellaneous forms.

The Lake Murphysboro census was taken at the lake's only boat dock every Wednesday through Sunday from 7 a.m. to 7 p.m. from June 15 until July 1, and every Wednesday, Thursday, and Sunday from July 1 until September 15, 1955.

At Lake Murphysboro fishing with worms and cockroaches was the most popular type of fishing and produced a per-man-hour rate of catch of 1.29 bluegills and 0.26 redbear sunfish

plus a combined catch of largemouth bass, crappie, and channel catfish amounting to 0.05 fish. Worm fishing at Lake Murphysboro was by far the best fishing recorded.

A total of 237 man-hours of plug fishing at Lake Murphysboro produced 0.07 bass per man-hour.

Only 198 man-hours of fishing with minnows were recorded at Lake Murphysboro. This fishing produced a catch of 0.13 bass and 0.10 crappie per man-hour. For crappie this was fairly good but for bass it was poor.

Sixty-seven man-hours of fly fishing at Murphysboro Lake resulted in a catch of bluegill, redbear, and largemouth bass of 0.15, 0.02, and 0.25 fishes per man-hour.

The principal fishing at Horseshoe Lake was minnow fishing. Minnow fishing produced 0.36 crappie per man-hour and practically no bass or other fishes, a poor rate. There was very little plug fishing at Horseshoe Lake and the catch in the 78 man-hours recorded was poor. One hundred and forty-one man-hours of fishing with worms and cockroaches at Horseshoe produced 0.94 bluegill per man-hour and 0.08 crappie per man-hour. This was a good rate for bluegill, but poor for crappie.

Of the three lakes and the various types of fishing, probably the only satisfactory result was the sunfish catch of Murphysboro Lake and these fishes were fairly small.

LITERATURE CITED

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