

## BOAT FISHERMEN'S CATCH AT CRAB ORCHARD LAKE DURING 1954

RONALD NEWTON AND WILLIAM M. LEWIS

Department of Conservation and Southern Illinois University, Carbondale

### INTRODUCTION

Crab Orchard Lake is an artificial impoundment located in Williamson County, Illinois. It covers an area of 6,600 acres, and the average depth is approximately 11 feet. The lake is 9.5 miles long and from 0.5 to 1.5 miles in width (Stall *et al.*, 1954). In general the lake is quite accessible. The game fishes of the lake include: white crappie, *Pomoxis annularis*; largemouth bass, *Micropterus salmoides*; and bluegill, *Lepomis macrochirus*. The rough fishes include: European carp, *Cyprinus carpio*; gizzard shad, *Dorosoma cepedianum*; and yellow bullhead, *Ameiurus natalis* (Whitacre, 1952).

This study was aided by grants from the general research fund of Southern Illinois University and the Division of Fisheries, Illinois Department of Conservation. Mr. Sam Parr, Superintendent of Division of Fisheries, cooperated on behalf of the Department of Conservation.

### METHODS

A creel census was taken at Play Port dock, the principal boat landing on Crab Orchard Lake. The census was made every Saturday from 7 a.m. to 7 p.m. from March 27 through October 16 and every Wednesday from 1:30 p.m. to 8:30 p.m. from April 28 through July 14.

The data recorded included the size, number, and species of fishes, the number of hours fished by each fisherman, the method used, and the time of day fished. The creel census did not include bank fishermen. For purposes of evaluating fishing success, the catch figures at Crab Orchard were compared with catch figures given in Carlander (1950). An aerial count was made of fishing boats on the lake at 3:00 p.m. each Saturday from May 15 through July 17. The number of fishing boats counted was compared with the number of boats checked out from Play Port dock to reveal the percentage of boats censused.

### RESULTS

Nine aerial counts of boats on the lake, as compared with the number docking at Play Port Dock, indicated that an average of 41 per cent of the boat fishing was covered by the census. The values ranged from 30 to 63 per cent.

Fishing with minnows in Crab Orchard Lake during the spring, March 22 through June 1, was fairly good (Table 1). The fishermen using minnows were primarily interested in crappie, although a few other species were taken. The catch of crappie consisted primarily of two sizes, one centering around six

Fishermen's Catch at Crab Orchard Lake

TABLE 1.—The Catch by Boat Fishermen Using Minnows at Crab Orchard Lake, 1954.

Date	Man-hours	Catch per hour <sup>1</sup>				
		Crappie	Bass	Yellow bass	Bullhead	Bluegill
March 27.....	115	0.643	0.009	0.000	0.009	0.000
April 3, 10.....	298	0.174	0.003	0.000	0.000	0.000
April 17, 24, 28.....	1,052	0.575	0.002	0.017	0.000	0.007
May 1, 5, 8, 12.....	1,072	0.642	0.004	0.011	0.002	0.000
May 15, 19, 22, 26, 29.....	1,180	0.457	0.003	0.006	0.001	0.001
June 12.....	144	0.402	0.000	0.000	0.000	0.000
June 19, 23, 26, 30.....	306	0.212	0.010	0.026	0.000	0.000
July 3, 7, 10, 14.....	119	0.207	0.008	0.000	0.017	0.000
July 17, 24, 31.....	90	0.044	0.011	0.000	0.000	0.000
August 7, 14.....	179	0.821	0.000	0.000	0.006	0.000
August 21, 28.....	118	0.068	0.000	0.000	0.000	0.000
September 4, 11.....	131	0.992	0.000	0.000	0.000	0.000
September 18, 25.....	138	0.398	0.000	0.000	0.000	0.007
October 2, 9, 16.....	168	1.196	0.012	0.060	0.006	0.000
Total and means.....	5,110	0.518	0.004	0.011	0.002	0.002

<sup>1</sup> Miscellaneous catches included: three longear sunfish, *Lepomis megalotis*; three carp; and one *Chaenobryttus coronarius*.

TABLE 2.—The Catch by Boat Fishermen Using Plugs at Crab Orchard Lake, 1954.

Dates	Man-hours	Catch per hour <sup>1</sup>	
		Bass	Crappie
March 27.....	4	1.000	1.250
April 3, 10.....	85	0.000	0.108
April 17, 24, 28.....	135	0.007	0.089
May 1, 5, 8, 12.....	79	0.139	0.000
May 15, 19, 22, 26, 29.....	236	0.072	0.106
June 12.....	56	0.125	0.018
June 19, 23, 26, 30.....	384	0.114	0.010
July 3, 7, 10, 14.....	527	0.036	0.002
July 17, 24, 31.....	428	0.028	0.005
August 7, 14.....	178	0.039	0.011
August 21, 28.....	120	0.008	0.000
September 4, 11.....	84	0.012	0.000
September 18, 25.....	38	0.079	0.000
October 2, 9, 16.....	10	0.000	0.000
Total and means.....	2,364	0.054	0.026

<sup>1</sup> Miscellaneous catches included: three yellow bass, *Morone interrupta*, and one drum, *Aplodinotus grunniens*.

inches and another around nine inches. Considering the total catch, each size group was represented by approximately equal numbers. During the spring the majority were in the six-inch group, while in the fall the larger size was best represented. With the exception of some 10 to 20 fishes of other species, the entire catch consisted of white crappie.

During the 1954 season, plug fishing in Crab Orchard Lake was poor (Table 2). On an average it required about 19 hours to catch a largemouth bass. The majority of the largemouth taken weighed three pounds or more. Both casting and trolling methods were used, although most fishermen favored trolling with deep-running plugs. Bass catch per hour reached its peak during the months of May and June with an average catch of about one fish every nine and one-half hours.

Pole fishing from boats was rather limited. Those fishing by this method used worms and cockroaches. There was recorded a total of 143

man-hours of fishing with worms, the total catch from which included 0.1 carp per hr., 0.08 bluegills per hr., and 0.01 bullheads per hr. Sixty-one hours of fishing with cockroaches were reported. The catch was 212 bluegills or 3.5 bluegills per hour.

There was not enough fly fishing and spinning encountered to warrant any conclusions as to the effectiveness of these methods. A total of 26 man-hours of fly fishing produced a catch of 6 largemouth bass and one carp. Sixty-four man-hours of spinning yielded a catch of nine bass and five crappies.

#### LITERATURE CITED

- WHITACRE, MAURICE A. 1952. The fishes of Crab Orchard Lake, Illinois. Master's Thesis, Southern Ill. Univ., Carbondale, 60 pp.
- STALL, J. B., J. B. FREHRENBACHER, L. J. BARTELLI, G. O. WALKER, E. L. SAUER, and S. W. MELSTED. 1954. Water and land resources of the Crab Orchard Lake Basin. Ill. State Water Surv. Div. Bull., 42:53 pp.
- CARLANDER, KENNETH D. 1950. Handbook of freshwater fishery biology. Dubuque, Iowa, Wm. C. Brown Co., 281 pp.