



Crab Orchard Lake

Fisheries Fact Sheet

Crab Orchard Lake is a 6965-acre impoundment located in the Crab Orchard National Wildlife Refuge between Marion and Carbondale in Williamson County Illinois. The Crab Orchard Lake fishery is cooperatively managed by the Illinois Department of Natural Resources and U.S. Fish and Wildlife Service.

No sampling was conducted in 2021 because of a 4ft lake drawdown begun July 5th 2021 and maintained until early March 2022. This drawdown was necessary for much needed dam and boat ramp repairs. IDNR biologists and USFWS staff worked cooperatively to take advantage of this drawdown and conducted multiple habitat optimization projects beginning before the drawdown and continuing through till the lake was returned to normal pool. Beginning in late 2020, approximately 175 snagless fish attractors were sunk in optimal locations for boat and bank anglers. These structures were built from recycled HDPE fiber optic cable conduit donated by Clearwave communications. Before and during the drawdown nearly 500 large sycamore, maple, birch and sweet gum trees were dropped in areas with optimal spawning or year round use habitat. During the peak of the drawdown 1250 water willow plugs were planted in 7 sites in an attempt to reestablish the massive water willow beds the lake was once known for. These sites were selected for varying depth, substrates, and prevailing wind patterns to determine optimal planting parameters for future planting projects. Additionally, 80 Largemouth bass spawning bench structures were constructed in optimal LMB spawning habitat. The efficacy of these efforts will be assessed in the coming years and it is my intention to continue habitat and population mitigation efforts as Crab Orchard continues to age and available habitat degrades at an ever-expediting rate.

These efforts, in conjunction with sediment restabilization, and nutrient reallocation associated with a large scale/long term drawdown are likely to contribute to a mini “new lake effect” in Crab Orchard over the next few years. The additional benefits of forage species concentration are likely to lead to improved growth and condition in sportfish species. The resulting change in size structure of forage species, especially Gizzard shad, will hopefully lead to smaller individuals making up larger portions of these populations, thereby providing more forage of optimal size to a variety of important sportfish. IDNR/refuge staff are hopeful in the benefits and impacts this drawdown will have on such a storied, aging, and in some ways troubled fishery.

Largemouth bass: The bass fishing forecast for Crab Orchard Lake is good to very good. In 2020, the percentage of bass larger than 16 inches continued to increase (44%). Of these, 18% were also larger than 18 inches slightly higher than the previous year. Largemouth bass abundance in the 2020 sample decreased slightly compared to the previous year (51/hr). Body condition of largemouth bass in Crab Orchard Lake has remained excellent. General good condition of the Crab Orchard Lake bass population in recent years can be at least partially attributed to a combination of more stringent harvest regulations, increased bass fingerling stocking, habitat enhancement (through fish attractor installation, hinge cutting of shoreline trees, and vegetation reestablishment), and establishment of a spawning refuge area with artificial spawning substrates. The Crab Orchard National Wildlife Refuge is also limiting each bass club to one fish-off event per year to reduce angling pressure and angler conflicts.

Bluegill: The abundance of Crab Orchard Lake bluegill decreased for the fifth year in a row in 2020, but the proportion of fish over 6 inches in length increased from 40 to 62%. Abundance however still exceeded the management goal for the fifteenth year in a row. The proportion of bluegill larger than seven inches doubled at 23%. Bluegill body condition remained excellent, indicating another good forecast for bluegill anglers.

Channel catfish: Crab Orchard Lake channel catfish quality and body condition, similar to previous years, was excellent, and 55% of the fish collected were larger than 22 inches in length.

Crappie: The percentage of white and black crappie larger than 8 inches remained high in 2019 at 53% for black crappie and 86% for white crappie. The percentage of white crappie larger than ten inches in length was good at 40%, while 19% of black crappie in the sample achieved that size. Body condition of both white and black crappie was good, but near the lower end of the management plan goal range. Crappie smaller than 10 inches in length tend to be overabundant in Crab Orchard Lake, and anglers are encouraged to remove these fish to thin the population and improve the quality of the fishery.

White bass: Numbers of Crab Orchard Lake white bass collected during the fall 2020 survey, although relatively small at 12 fish per hour of electrofishing, represented the second highest in fourteen years, and the proportion over 10 inches (84%) was impressive. Fish in the sample ranged in size from 5 to 15 inches, and 49% were larger than 12 inches. White bass body condition just met the management plan goal.

Regulations in effect: Largemouth bass -- 16 inch (41 cm) min length limit, 3 per day creel limit. No other size or creel limits are in effect. Consult the Illinois Fishing Information booklet for additional regulation information.

Fees: A user permit is required to access the Crab Orchard National Wildlife Refuge, and a special use permit is required for competitive events. Information may be obtained by calling the refuge visitor center at 618-997-3344.

Additional Fisheries Information can be obtained by calling IDNR District Biologist Luke Nelson at 618-364-5381.