Leech Lake

Leech Lake is one of the most diverse among Minnesota's large lakes, offering outstanding angling opportunities for a variety of species. Walleyes are the most targeted species by anglers visiting Leech Lake, a popular destination for fishing opener. Walleye abundance in Leech is being driven by the historically large 2021-year class, now measuring 17-21 inches, and the 2023-year class, now measuring 13 – 16 inches. Walleye sampled in 2025 ranged in length from 8 to 26 inches. The walleye regulation of 4 fish with only 1 over 20 inches allowed in possession was implemented in 2019 and will continue based on observed desired effects on the walleye population. Last spring (2025) a stocking evaluation was carried out in accordance with objectives outlined in the 2021 – 2025 Leech Lake Management Plan. Results showed that natural reproduction in the lake was suitable, however first summer survival of fry was low, a consequence of reduced zooplankton abundance as the food web has been in flux following the expansion of zebra mussels in the lake since 2021. The large average size of the 2025-year class of fingerlings sampled in October may result in a year-class that outperforms expectations and provides good fishing, like the 2023-year class.

As of March 1, 2021, sunfish and black crappie reduced daily limits on Leech Lake were implemented. Specifically, anglers can harvest 5 sunfish and 5 crappie daily; statewide possession limits of 20 sunfish and 10 crappie remain unchanged. The purpose of these reduced bag limits is to ensure that quality size structure of panfish is maintained. Anglers often target panfish in the shallower muddy bays of the lake in the spring and on weed edges throughout the summer. A targeted panfish assessment is scheduled for May – June 2026 on Leech to track abundance and size structure metrics.

Leech Lake supports a low – moderate northern pike density. Maintaining a stable abundance of northern pike is important as northern pike provide angling year-round and are a predator in competition with walleye for forage. Northern pike on Leech Lake fall under the North Central Pike Management Zone where anglers can keep 10 northern pike, but no more than two longer than 26" and all from 22 to 26" must be released. Northern pike abundance has decreased in annual assessments since 2015. Low pike abundance promotes quality size, an objective that has been recognized as important to anglers visiting Leech Lake.

Yellow Perch abundance remains below management objectives, nevertheless quality size structure continues to provide exceptional perch fishing, and many anglers reported success this past winter. Anglers harvest more yellow perch (by number) on Leech Lake than any other species throughout the year. Above average trawl catches of perch in 2023 and 2025 showed the first positive sign in over a decade of a potential increase in perch abundance at the juvenile stage. Perch sampled in the 2025 fall assessment ranged from 5 to 13 inches.

Increased interest in bass angling on Leech Lake over the past decade has been captured in summer creel surveys, particularly by anglers targeting Smallmouth Bass. Smallmouth were targeted by a substantial share of anglers visiting Leech Lake in 2024, comparable to largemouth bass, northern pike, and panfish. Main lake rock reefs and humps provide great habitat for smallmouth, while largemouth are frequently targeted in the shallower vegetated bays along with panfish.

Muskellunge angling is also popular on Leech Lake with the chance to catch a trophy. The muskellunge population, in addition to being prized widely by muskie anglers, possesses a unique genetic strain characterized by its large size potential. Several ongoing muskellunge focused research projects are happening on Leech Lake in 2026 including a genetic based mark-recapture effort and a telemetry study focused on muskellunge movement, habitat use, and mortality. For more information on these projects please reach out to the Walker Area Fisheries office (walker.fisheries@state.mn.us).

MN DNR fisheries staff collect monthly water samples at 5 stations around Leech Lake and have documented reduced zooplankton abundance in recent years following zebra mussel expansion throughout the main lake and western bays. Zebra mussels are filter feeders that consume plant-like organisms called phytoplankton. Phytoplankton are the basis of the lake's food web and are critical for zooplankton production. There are currently no known methods to control or reduce zebra mussels once they are established in natural systems. Starry stonewort, an invasive alga, was found in Steamboat Bay in 2021. Aquatic invasive species (AIS) like zebra mussels and starry stonewort are moved from infested to non-infested waters by anglers, boaters, and lake shore owners and can adversely impact lakes and fish populations. Other invasive species in Leech Lake include Eurasian water milfoil, rusty crayfish and curly-leaf pondweed. To avoid spreading AIS, lake users are required to remove all aquatic plants or animals from their watercraft and drain all water from their boat before leaving the access. Additional information on all these topics can be found on the MN DNR website (www.dnr.state.mn.us) or by contacting the Walker Area Fisheries office.