Wisconsin Department of Natural Resources
Fishery Information Sheet

LAKE: Murphy Flowage  COUNTY: Rusk  YEAR: 2019

Murphy Flowage is a 171-acre, soft water impoundment on Hemlock Creek surrounded almost entirely by Rusk County forest land. Three of its four tributaries are classified as trout waters. Maximum depth is 14 feet, and 45% of the reservoir is shallower than its average depth (5 feet). Bottom materials in the shallow area near shore are mostly silt (65%) and detritus (20%) with smaller amounts of boulder (10%) and gravel (5%). Two consecutive winter drawdowns (1968-1970) attempted to control dense aquatic vegetation that hampered fishing access in portions of the flowage, a condition that persists today. The dam was breached by a flood in 1970 and reconstructed in 1994. Submerged woody structure is plentiful—the likely result of shrubs that recolonized the exposed lakebed and natural recruitment of fallen trees along publicly-owned shorelands with little of this important habitat component intentionally removed by people. The Department manned a research station at Murphy Flowage (1955–1970) to study the effect of liberalized harvest regulations on fish populations. Today’s regulations aim to offer quality fishing opportunities. The minimum length limit is 18 inches on largemouth and smallmouth bass and 26 inches on northern pike. The daily bag limit on panfish is 10 in total. In late spring 2019 when water temperature was 69°F, WDNR assessed largemouth bass and bluegill populations by electrofishing. We sampled 2 miles of shoreline in 0.85 hour, including a half mile sub-sampled for all species in 0.23 hour. Low conductivity reduced our electrofishing efficiency.

Largemouth Bass

We caught 55 largemouth bass that ranged 5.5 – 19.8" and averaged 12.3" long, and we saw 15–20 more bass that eluded capture. Electrofishing catch rates of 24 bass ≥ 8" per mile or 56 per hour indicated moderately high population abundance. Among bass 8" and longer, 35% were at least 15" and 6% were legal-size bass ≥ 18". Bass population abundance and size distribution were similar in our 2011 and 2019 assessments. As the principle predator in the fish community, largemouth bass are apparently not effective in controlling bluegill abundance.

Bluegill

In late spring 2019 we dip-netted 162 bluegills at electrofishing capture rates of 302 fish ≥ 3" per mile and 657 per hour, indicating very high population abundance. Bluegill size structure was mediocre. They ranged 1.6 – 7.7" and averaged only 4.8" long. About 28% of bluegills ≥ 3" in our sample were at least 6", 13% were 7" or longer, but none attained 8". Population status was similar in our last survey when late spring 2011 electrofishing captured 274 bluegills/mile or 484/hour, 28% were ≥ 6", and 4% were ≥ 7". With not enough effective predators to control
bluegill recruitment, crowding leads to food competition and slow growth. Most bluegills in Murphy Flowage will probably die of natural causes before they can reach the sizes that anglers like to catch and keep.

Our sample also included two black crappies 8.4–10.9", a 21.4-inch northern pike, and 11 pumpkinseeds 5.7–7.8" long.

For questions or additional information contact:

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