

Bear Lake Fisheries Survey

Summary Report – 2002

In 2002, the Department of Natural Resources conducted a comprehensive fish survey of Bear Lake in order to provide direction for the future fisheries management of this lake. The following report is a brief summary of all activities conducted this past year with some preliminary fisheries information. All survey data will be analyzed and a report will be completed at a later date. In the meantime, if you have any questions, please contact: Ross Langhurst, Fisheries Biologist, 647 Lakeland Rd. Shawano, WI. 54166. Phone: 715-526-4227 or Scott Bunde 920-787-4686 ext. 3018

Comprehensive Fish Survey – What is it?

A comprehensive fish survey is an assessment of the entire fish community in a lake. Different survey methods are used to sample all the different fish species that inhabit a lake (including the smaller forage fish). Fyke-netting and boomshocking are the primary fish capture methods, however, seines and other gear are also utilized. Once fish are captured, information can be collected as it relates to species composition, abundance, size structure, age classes, growth, survival, and reproductive success.

This past year the following surveys were conducted on Bear Lake:

Fyke Netting after ice-out: This survey is conducted to target spawning northern pike and yellow perch.

Boomshocking: This survey is conducted at night and is used to target largemouth bass. Other species are also collected.

Summer Fyke-Netting: Nets are utilized to catch pre-spawn bluegills and other sunfish species as they migrate to their spawning areas.

Summer Mini Fyke-Netting: Smaller version of fyke-net used to capture newly hatched young of year gamefish and minnow species.



Gamefish Summary

Largemouth bass was the dominant gamefish sampled in Bear Lake. A total of 621 largemouth bass were captured during our surveys with length ranges of 2.3-20.3 inches and a mean length of 11.0 inches. Growth Rates – Slightly Below Average (14 inches after 6 years) CPE Excellent = 128 fish per hour > 8 inches Anglers appear to be having an impact on fish 14 inches and larger.

Northern pike were also present but comprised a small portion of the predator (gamefish) population. 67 pike were captured, length ranged from 10.1 - 38.0 inches with a mean length of 18.3 inches. Growth Rates – Slightly Below Average It is felt that the survey missed the peak of the spawn.

Panfish Summary

Bluegill was the dominant panfish sampled in Bear Lake. A total of 1508 bluegill were captured with length ranges of 1.8 – 9 inches and a mean length of 4.6 inches. Growth Rates – Average (~6 inches after 4 years) Size structure = Good PSD = 34% (34% of bluegills larger than 3 inches were also larger than 6 inches).

Other species caught during the survey included: walleye, smallmouth bass, black crappie, yellow perch, rock bass, pumpkinseed, warmouth, white bass, green sunfish, brown bullhead, yellow bullhead, black bullhead, common carp, gizzard shad, lake chubsucker, sheepshead, longnose gar, bluntnose minnow, golden shiner, brook-silverside, common shiner, and central mudminnow.

