



**WISCONSIN DNR
FISHERIES INFORMATION SHEET**

LAKE: BIG EAU PLEINE

COUNTY: MARATHON

YEAR: 2003

The Department of Natural Resources surveyed the Big Eau Pleine Reservoir, Marathon County, from April 13 through May 6, 2003, to determine the health of its fishery. The survey design focused on sampling adult walleye and northern pike. The Big Eau Pleine, with its surface area of 6,830 acres, over 66 miles of shoreline, an average depth of 16 feet and a maximum depth of 43 feet at full pool, was a challenge to adequately sample.

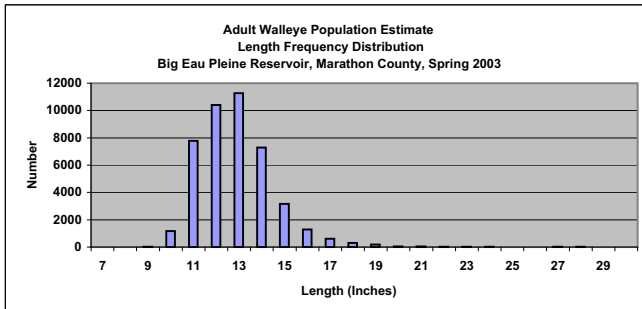


Figure 1. Length frequency distribution of 43,695 adult* walleye estimated to be in the Big Eau Pleine Reservoir based on a spring 2003 survey.

* Note: Adult walleye are defined as all sexable walleye and walleye of unknown sex ≥ 15 inches long.

Smallmouth Bass

Smallmouth bass were not a primary target of our survey of the Big Eau Pleine. Sampling occurred prior to peak smallmouth spawning. However, we did capture 121 smallmouth bass, 8-inches or larger, during our fyke netting and electro-fishing sampling. Nearly one-third (40) of those smallmouth were 14 inches long or larger (five ≥ 18 inches). The largest smallmouth we captured was 20.2 inches long.

Walleye

We conducted a mark-recapture survey of the Big Eau Pleine's adult* walleye population from April 13-22, 2003. We captured and marked 11,915 adult walleye in nine days of fyke netting. Five crews sampled the reservoir with electro-fishing boats on April 22nd and captured 1,820 adult walleye. Approximately 27% (488) of those walleye bore the mark given during fyke netting.

Based on those results, we estimated that the Big Eau Pleine was home to 43,695 adult walleye (6.4/acre). The majority of adult walleye (66%) were between 12 and 14.9 inches in length. Approximately 13% were 15 inches long or larger. The largest walleye we captured was a female just over 30 inches long.

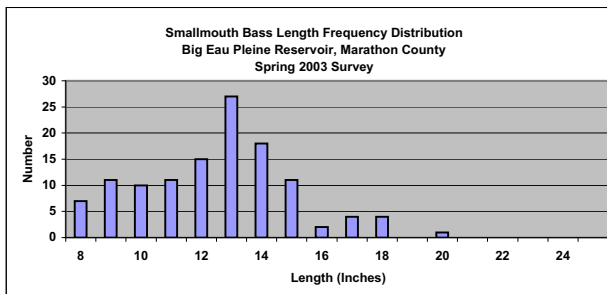


Figure 2. Length frequency distribution of 121 smallmouth bass ≥ 8 " captured during a fisheries survey of the Big Eau Pleine Reservoir in spring 2003.

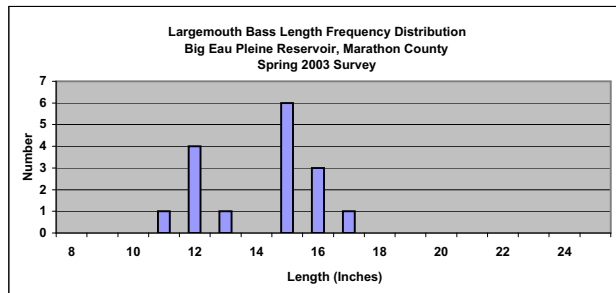


Figure 3. Length frequency distribution of 16 largemouth bass ≥ 8 " captured during a fisheries survey of the Big Eau Pleine Reservoir in spring 2003.

Largemouth Bass

Largemouth bass were also an incidental catch in our survey of the Big Eau Pleine. We captured 16 largemouth bass, 8 inches or larger, during our fyke netting and electro-fishing sampling. Ten of those largemouth were over 14 inches long. The biggest largemouth bass we captured was 17.6 inches long.

Northern Pike

We captured 1,375 adult* northern pike in fyke nets fished in the Big Eau Pleine from April 13-21, 2003. We captured abundant small northern pike in the 9-20 inch size range. However, there were good numbers of quality-size northern pike in our sample too. Nearly 20% (271) of the northern pike we captured were 26 inches long or larger. Approximately 3% (38) of the northern pike in our catch were 32 inches long or larger. The largest northern pike we captured was a 43-inch female.

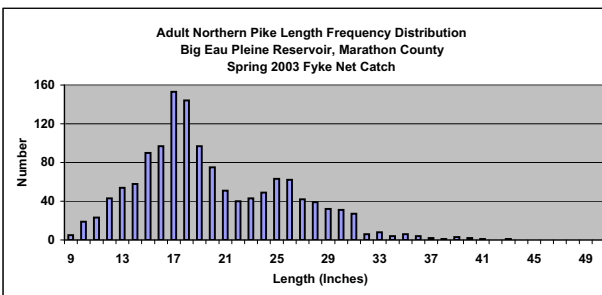


Figure 4. Length frequency distribution of 1,375 adult* northern pike captured in fyke nets during a fisheries survey of the Big Eau Pleine Reservoir in spring 2003.

* Note: Adult northern pike are defined as all sexable northern pike and northern pike of unknown sex ≥ 12 inches long.

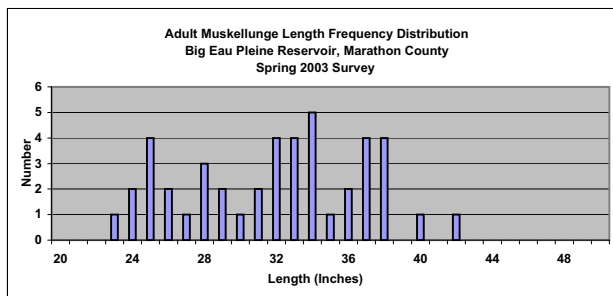


Figure 5. Length frequency distribution of 44 adult* muskellunge captured during a fisheries survey of the Big Eau Pleine Reservoir in spring 2003.

Muskellunge

Muskellunge were not a primary target of our sampling of the Big Eau Pleine Reservoir. We did not sample during the peak of muskellunge spawning. We captured 44 adult* muskellunge during our fyke netting and electro-fishing sampling for walleye and northern pike. Approximately 41% (18) were 34 inches long or larger (two ≥ 40 "). The largest muskellunge we captured was a 42-inch male.

* Note: Adult muskellunge are defined as all sexable muskellunge and muskellunge of unknown sex ≥ 20 inches long.

White Bass

White bass were first documented to inhabit the Big Eau Pleine Reservoir during a fall 2001 survey. We captured a total of 89 white bass during our fyke netting and electro-fishing sampling in 2003. We captured two distinct size classes of white bass. One size group ranged from 6 to 7 inches long, the other from 11 to 12 inches long.

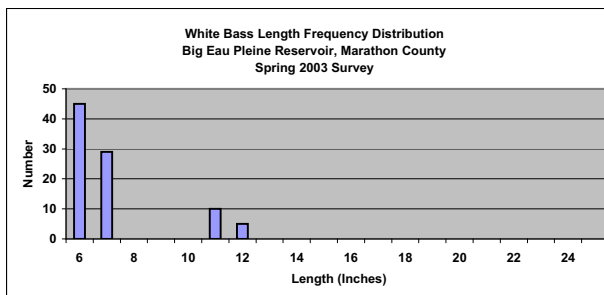


Figure 6. Length frequency distribution of 89 white bass captured during a fisheries survey of the Big Eau Pleine Reservoir in spring 2003.

Other Species

We captured 10 species of fish in our fyke netting and electro-fishing sampling of the Big Eau Pleine Reservoir in addition to the game fish mentioned above. Shorthead redhorse, common carp, yellow perch, golden shiners and white sucker were common in our fyke net catches. We also caught moderate numbers of black crappie, yellow bullhead, black bullhead, bluegill and pumpkinseed. Additional sampling of panfish is planned for late summer 2003. Young-of-year walleye will be sampled in fall 2003.

We are also conducting a creel (angler harvest) survey on the Big Eau Pleine Reservoir this year. A creel clerk will visit access sites to interview anglers and examine their catch throughout the 2003-04 fishing season. Greg Wagner is the primary creel clerk for the Big Eau Pleine Reservoir during the open-water season.

Table 1. General Fishing Regulations for the Big Eau Pleine Reservoir, Marathon County, 2003

FISH SPECIES	OPEN SEASON	DAILY LIMIT	MINIMUM LENGTH
Walleye	May 3 - March 1	3	15 inches
Largemouth and Smallmouth Bass	May 3 - March 1	5 in total	14 inches
Muskellunge	May 24 - Nov. 30	1	34 inches
Northern Pike	May 3 - March 1	1	32 inches

A brief summary of selected fishing regulations for the Big Eau Pleine Reservoir is included above (Table 1). While the regulatory information provided was current at the time the surveys were conducted, it is not comprehensive and should not be used as a substitute for the current fishing regulation pamphlet. You may obtain a copy of current fishing regulations when you purchase your fishing license, or download a copy from our web site at:

<http://www.dnr.wi.gov/fish/regulations/>

This report is interim only; data and findings should not be considered final. Results of creel surveys should be available by June 2004. If you are interested in a summary of the creel survey or want an update on this year's fyke netting and electro-fishing survey results, contact:

Mike Coshun, Treaty Fisheries Biologist
 Wisconsin Department of Natural Resources
 8770 Highway J
 Woodruff, WI 54568
 (715) 358-9209
 Email: Michael.Coshun@Wisconsin.gov

For answers to questions about fisheries management activities and plans for Big Eau Pleine Reservoir, Marathon County, contact:

Tom Meronek, Fisheries Biologist
 Wisconsin Department of Natural Resources
 5301 Rib Mountain Drive
 Wausau WI 54401
 (715) 359-7582
 Email: Thomas.Meronek@Wisconsin.gov