



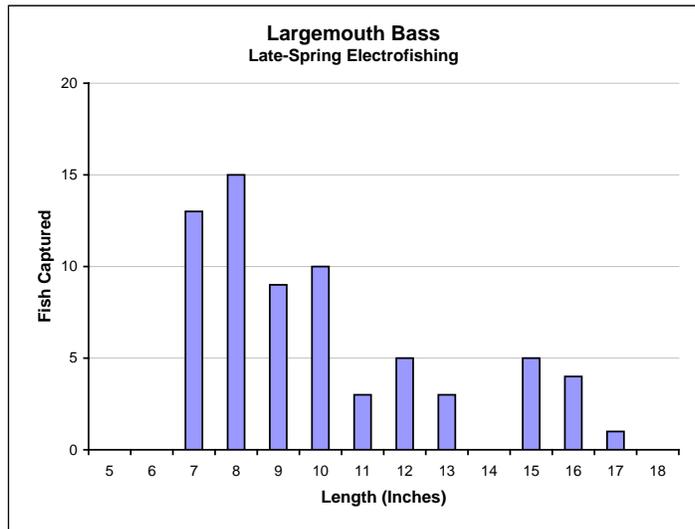
Late-Spring Electrofishing Survey Summary Smith Lake, Sawyer County, 2010

The Hayward DNR Fisheries Management Team conducted an electrofishing survey on Smith Lake on May 24, 2010 as part of our baseline monitoring program. A total of 2 miles of shoreline were sampled (0.5 mile sub-sampled for panfish). Primary target species were largemouth bass and bluegill. A fyke netting survey conducted by our team in early April documented the status of the walleye, northern pike, black crappie, and yellow perch populations. Those results are presented in a separate survey summary. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society.

Largemouth Bass



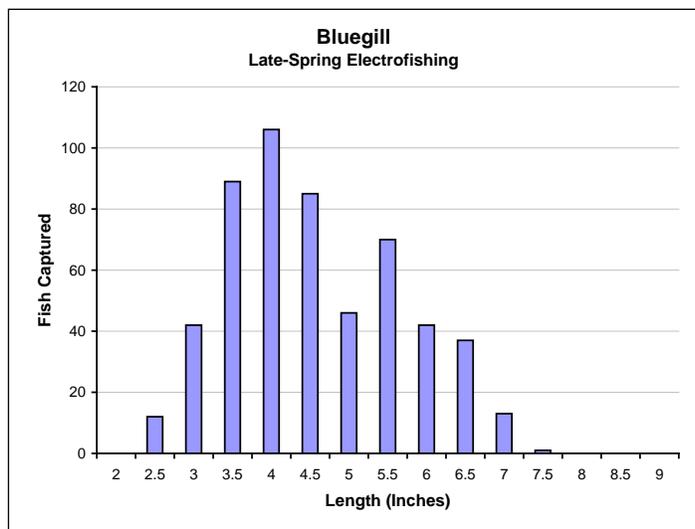
Captured 46 per mile $\geq 8''$	
Quality Size $\geq 12''$	33%
Preferred Size $\geq 15''$	14%



Bluegill



Captured 1062 per mile $\geq 3''$	
“Keeper” Size $\geq 7''$	3%
Preferred Size $\geq 8''$	0%



Summary of Results

This survey was well timed to sample bass and bluegills of all sizes during their spawning seasons. Water temperature was 71°F and secchi disk visibility was 7 feet the night of the survey.

Largemouth bass were captured at a high rate (46/mile of shoreline), but most fish in our sample were relatively new recruits less than 11 inches long. This observation and overabundant 4- to 6-inch bluegills suggest that high largemouth bass recruitment and density is a recent development, possibly in response to high angler harvest of previously abundant large pike that may have controlled bass numbers at one time. Regulations allowing increased harvest of largemouth bass may be needed to improve growth and size of bass and to allow recruitment of walleyes with which largemouth bass compete. It appears that walleyes would do a better job of controlling bluegills than largemouth bass in Smith Lake.

Bluegills were captured at an extremely high rate (over 1,000/mile of shoreline), reflecting insufficient control by Smith Lake predators. Size structure was very poor, with very few fish of “keeper” size over 7 inches. At the current density, Smith Lake bluegills cannot achieve good growth and will produce few preferred-size fish. When Smith Lake was dominated by walleye, bluegills were of exceptional size and were protected with a 10-daily bag limit for panfish. The increase in bluegill abundance and decrease in mean size has happened concurrently with a decline in walleye abundance. Despite numerous northern pike (which strongly prefer to eat perch over bluegills) and a growing largemouth bass population, bluegill population density is likely to remain too high to allow satisfactory growth to angler-preferred sizes. Walleye must be restored as the dominant predator if quality fishing for panfish is to return to Smith Lake.

Black bullhead, black crappie, yellow bullhead, bluntnose minnow, golden shiner, yellow perch, and northern pike were also captured during this survey.

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