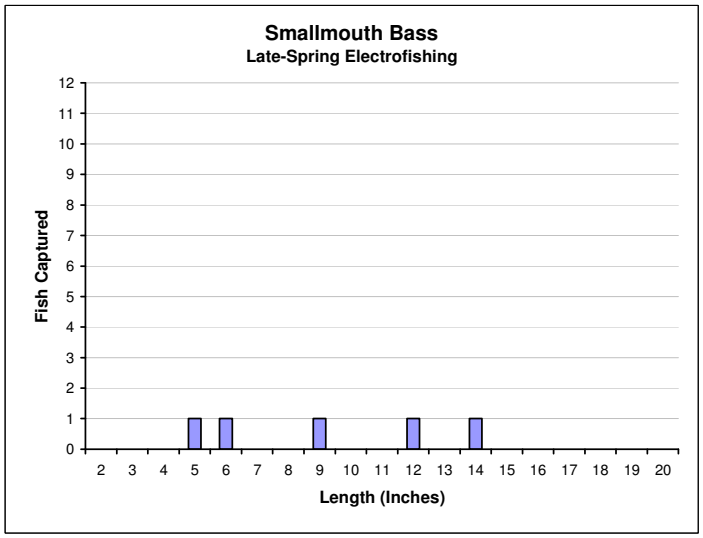
Late-Spring Electrofishing Survey Summary
Osprey Lake, Sawyer County, 2011

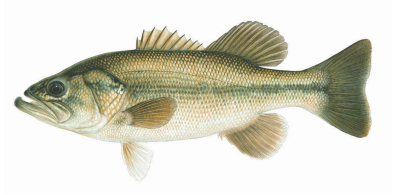
The Hayward DNR Fisheries Management Team conducted an electrofishing survey on Osprey Lake on June 9, 2011 as part of our baseline monitoring program. A total of two miles of shoreline were sampled (0.5 mile sub-sampled for panfish). Primary target species were largemouth bass, smallmouth bass, and bluegill. We also obtained useful data on the status of juvenile walleye. A fyke netting survey conducted by our team in early May documented the status of the adult walleye, northern pike, yellow perch, and black crappie. 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.

Smallmouth Bass

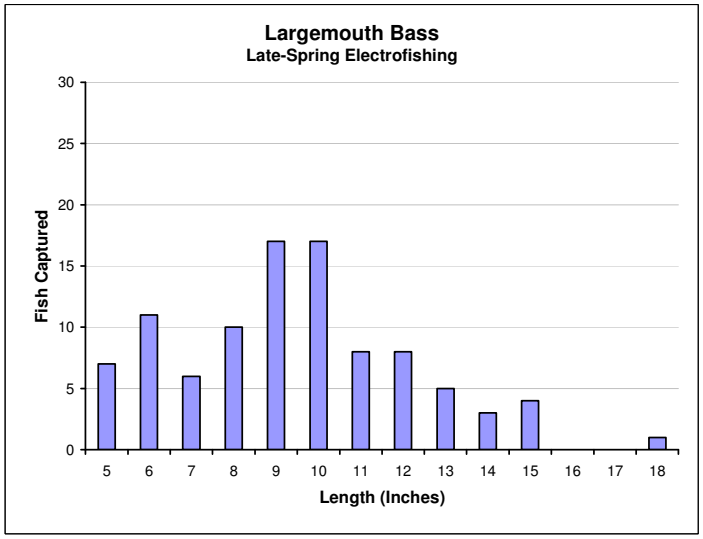
Captured 2 per mile ≥ 7”	
Quality Size ≥ 11”	67%
Preferred Size ≥ 14”	33%
Memorable Size ≥ 17”	0%



Largemouth Bass

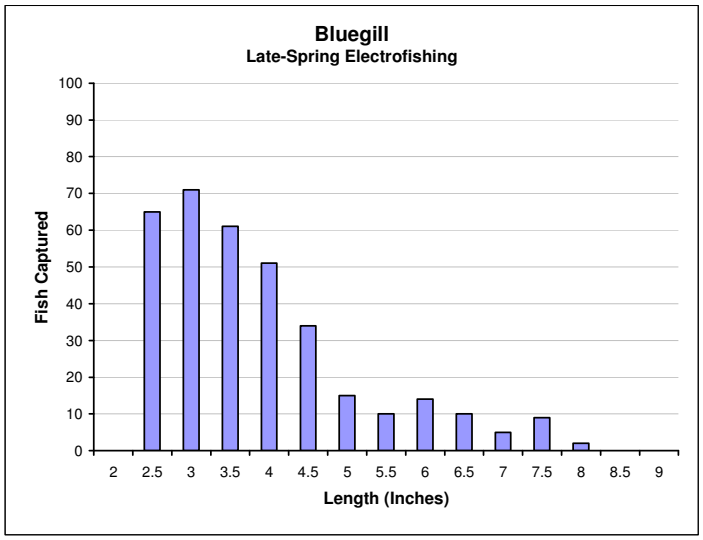


Captured 67 per mile ≥ 8”	
Quality Size ≥ 12”	29%
Preferred Size ≥ 15”	7%



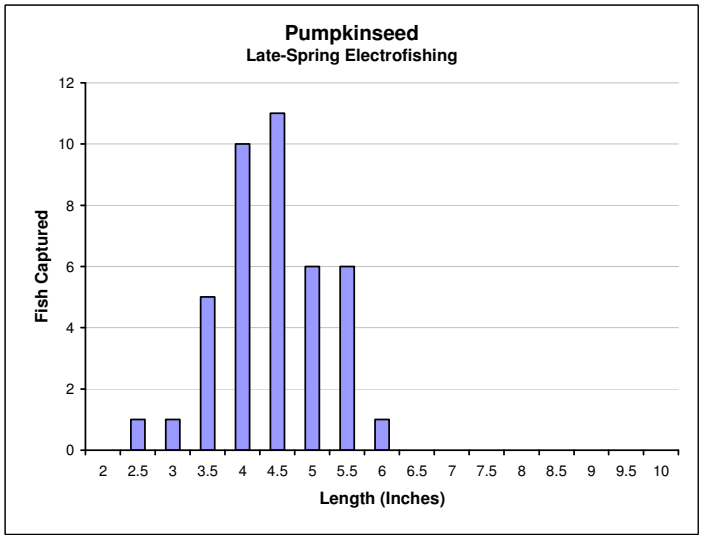
Bluegill

Captured 564 per mile ≥ 3”	
“Keeper” Size ≥ 7”	6%
Preferred Size ≥ 8”	1 %



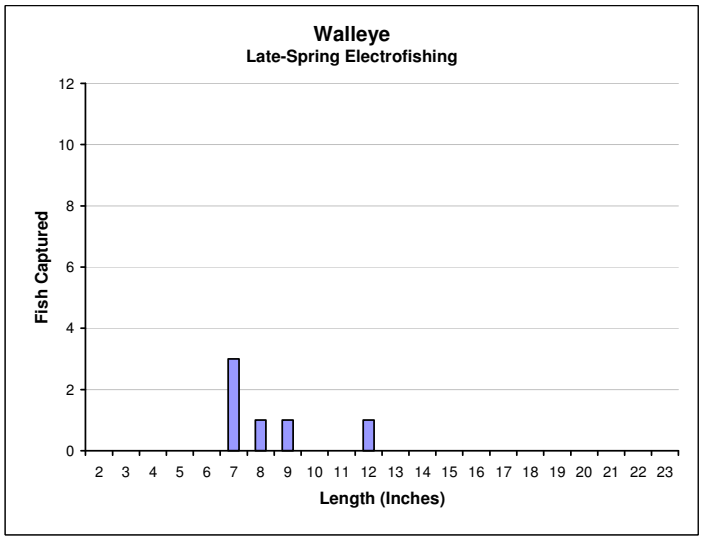
Pumpkinseed

Captured 81 per mile ≥ 3”	
“Keeper” Size ≥ 7”	0%
Preferred Size ≥ 8”	0 %



Walleye

Captured 3 per mile <10 ”



Summary of Results

Water temperature was 68°F at the time of this survey, ideal for sampling bass guarding nests and bluegills preparing to spawn in shallow water.

Smallmouth bass were captured in low numbers during this survey. Osprey Lake has clear water and ample rocky substrate considered very suitable for smallmouth bass, yet this species is far less abundant than largemouth bass. Competition between these species in Osprey Lake appears to be favoring largemouth bass, although the mechanism of interaction is not certain.

Largemouth bass were captured at a very high rate (67 per mile) but exhibited poor size structure with few preferred-size fish. The density of largemouth bass in Osprey Lake is likely limiting growth potential for this species and may be limiting recruitment of others, namely walleye and smallmouth bass. Osprey Lake would likely benefit from liberalized harvest regulations for largemouth bass that would allow anglers to thin this population.

Bluegills were highly abundant (captured 564 per mile of shoreline) and had poor size structure. Historically, Osprey Lake produced very large bluegills; but currently very few fish in this population are big enough to interest anglers. This system has shifted from walleye to largemouth bass as the dominant predator. Largemouth bass are not controlling bluegill numbers in this 280-acre lake with its high ratio of open-water area (refuge from bass predation) to shoreline area (where most bass reside). This results in very poor growth rate and size structure of bluegill. Restoring this lake to a walleye dominated system may also restore the quality bluegill fishery that once existed here.

A small number of juvenile walleyes were sampled in this survey. These fish are likely the result extended-growth fingerling stockings (6- to 8-inch fish stocked in the fall) by the Lac Courte Oreilles Band of Lake Superior Chippewa in recent years. Though survival does not appear to be high, these fish represent the start of a restoration effort. Restoring natural recruitment of walleye will require large changes to the fish community of Osprey Lake, primarily a reduction in the number of largemouth bass.

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