



Late-Spring Electrofishing Survey Summary Island Lake, Sawyer County, 2012

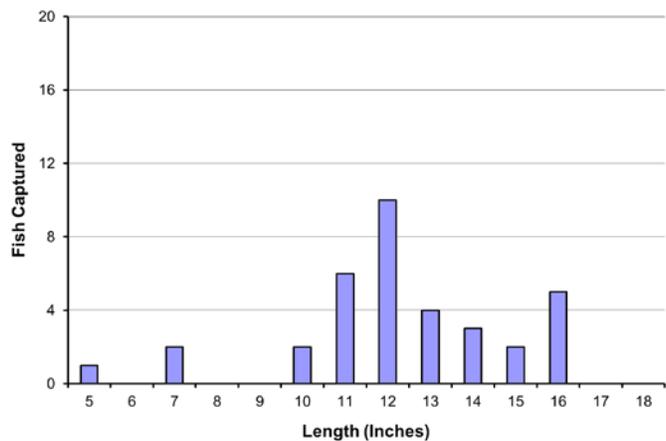
The Hayward DNR Fisheries Management Team conducted an electrofishing survey on Island Lake on May 10 as part of our baseline monitoring program. The entire 1.5 miles of shoreline were sampled (0.5 mile sub-sampled for panfish). Primary target species were largemouth bass, bluegill, and pumpkinseed. We also obtained useful data on the status of juvenile walleye. A fyke netting survey conducted by our team in late March documented the status of adult walleye, muskellunge, northern pike 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

Largemouth Bass



Captured 22 per mile $\geq 8''$	
Quality Size $\geq 12''$	75%
Preferred Size $\geq 15''$	22%

Largemouth Bass
Late-Spring Electrofishing

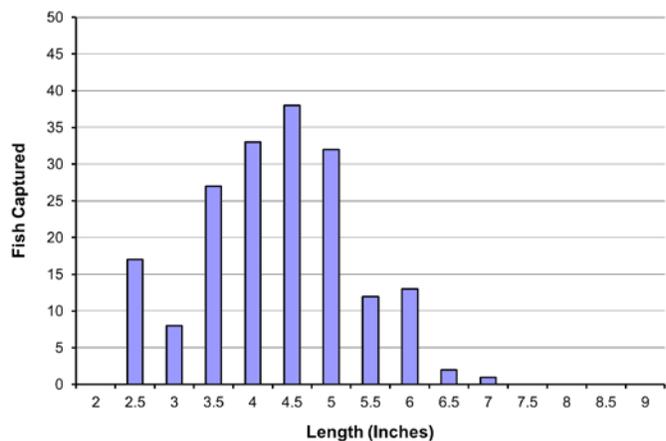


Bluegill



Captured 332 per mile $\geq 3''$	
"Keeper" Size $\geq 7''$	2%
Preferred Size $\geq 8''$	0%

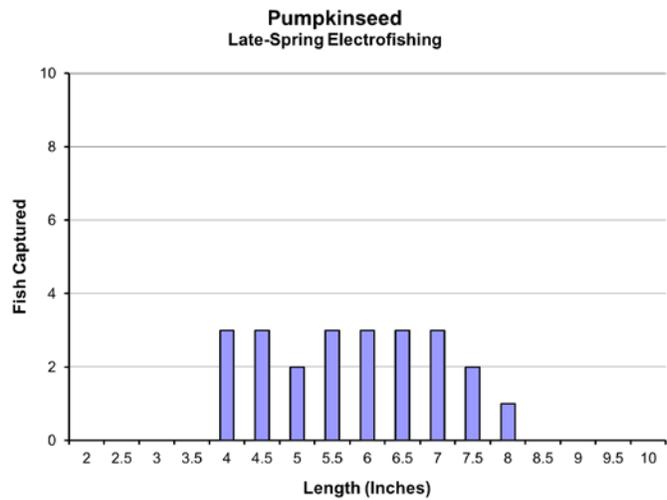
Bluegill
Late-Spring Electrofishing



Pumpkinseed



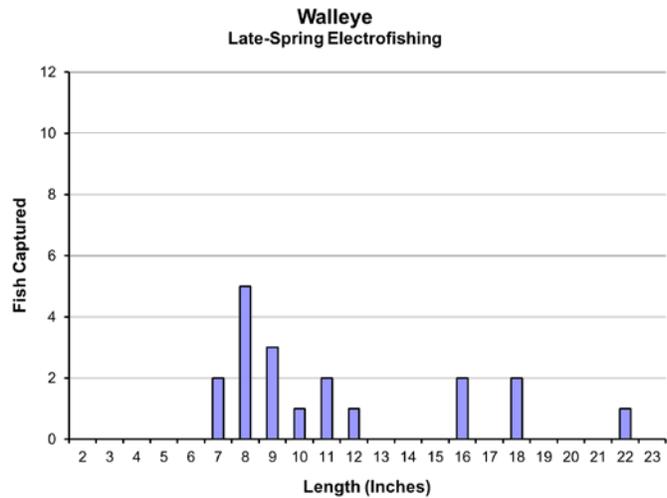
Captured 46 per mile $\geq 3''$	
“Keeper” Size $\geq 7''$	26%
Preferred Size $\geq 8''$	4%



Walleye



Captured 7 per mile $<10''$



Summary of Results

Electrofishing was conducted when bass and panfish were still pre-spawn but occupying the abundant shallow water habitat in Island Lake. Because of warm early spring weather, aquatic vegetation was already dense and serving as refuge for panfish and bass in the near-shore zone where our sampling occurred.

Largemouth bass were captured at a moderate frequency (22 per mile) with desirable proportions of quality- and preferred-size fish. There is an abundance of small panfish in Island Lake that, along with golden shiners, likely serve as a forage base that allows satisfactory growth rate of largemouth bass.

Bluegills were captured at a high frequency but exhibited poor size with few fish over 7 inches long. Insufficient numbers of largemouth bass or walleyes in a lake with dense aquatic vegetation (refuge from predators) is leading to unchecked recruitment of bluegills which are probably growing too slowly to reach desirable sizes.

Management solutions for overabundant panfish are limited. Increasing predator density through stocking may not be effective given the amount of refuge available in Island Lake and the already high rates of walleye and muskellunge stocking. Mechanical removal of bluegills, which had been employed in the past, is no longer feasible due to recently imposed logistical barriers to transferring wild fish. Removal or treatment of vegetation is costly and temporary.

Like bluegills, pumpkinseeds appeared in relatively high numbers and poor size. Interestingly, many of the largest panfish sampled during this survey were pumpkinseed x bluegill hybrids that typically grow faster and get bigger than their parent species because they invest little or no energy in reproduction.

A moderate number of juvenile walleyes were captured during this survey. Though adult walleyes are present in Island Lake, we believe natural recruitment is unlikely, and the juvenile fish in this sample probably were stocked as 6- to 8-inch "extended-growth" fingerlings in fall of 2011. This year class appears to be surviving and growing well in Island Lake and may contribute to the fishery in coming years.

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