



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

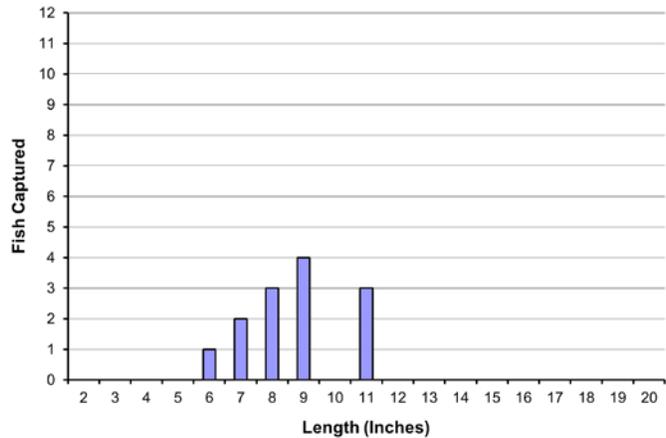
The Hayward DNR Fisheries Management Team conducted an electrofishing survey on Windigo Lake on June 6 as part of our baseline monitoring program. A total of four miles of shoreline was sampled (one mile sub-sampled for panfish). Primary target species were smallmouth bass, largemouth bass, and bluegill. We also obtained useful data on the status of juvenile walleye. 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

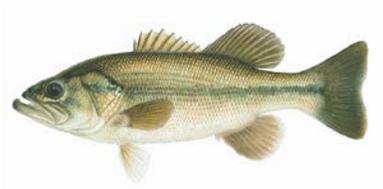


Captured 3 per mile $\geq 7''$	
Quality Size $\geq 11''$	25%
Preferred Size $\geq 14''$	0%
Memorable Size $\geq 17''$	0%

Smallmouth Bass
Late-Spring Electrofishing

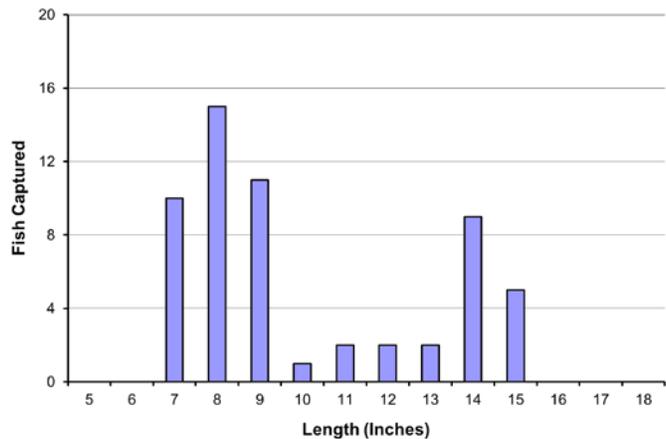


Largemouth Bass



Captured 12 per mile $\geq 8''$	
Quality Size $\geq 12''$	38%
Preferred Size $\geq 15''$	9%

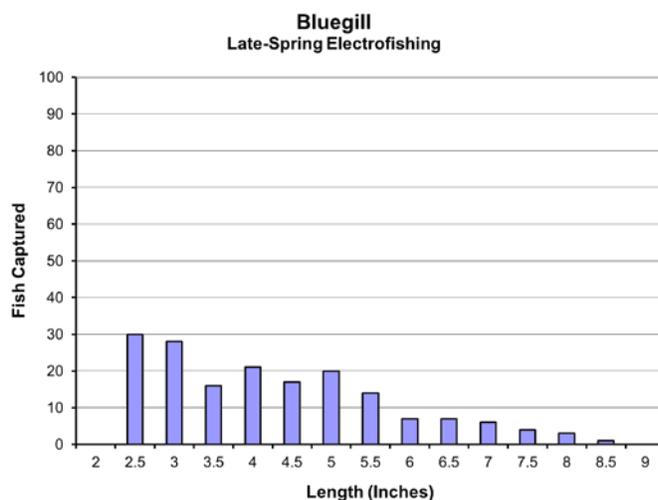
Largemouth Bass
Late-Spring Electrofishing



Bluegill



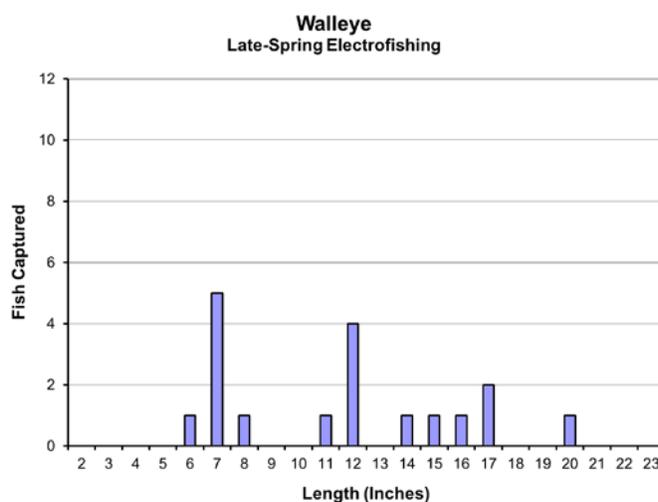
Captured 144 per mile ≥ 3 "	
"Keeper" Size ≥ 7 "	10%
Preferred Size ≥ 8 "	3%



Walleye



Captured 2 per mile <10 "



Summary of Results

Water temperature at the time of this survey was 71 °F—appropriate for sampling bass and bluegill that were occupying shallow water habitat, but possibly a bit late for purposes of capturing all sizes of adult bass that may have completed spawning after an extraordinarily early spring warm-up. Water conductivity in Windigo Lake is very low, which to a degree limits the effectiveness of electrofishing sampling. This should be considered when “catch-per-mile” data are interpreted and compared with other lakes.

We captured smallmouth bass at a relatively low rate. Few large fish appeared in our survey, but it is possible that large females had already finished spawning and moved offshore. Nonetheless, smallmouth bass numbers were not as high as expected, and the reason is not clear. Habitat is quite favorable for smallmouth (lots of clean, cobble-sized rock in near-shore areas).

We captured four times as many largemouth bass as smallmouth bass, and more largemouths were of legal size 14 inches and longer. Area personnel recall that largemouth bass were rarely caught at Windigo Lake a decade or two ago. The well-established population of largemouth bass evident at the time of our 2012 survey may help to explain low capture rates of yellow perch (April fyke netting survey) and young walleye (this electrofishing survey); and it is possible that increasing numbers of largemouth bass could eventually prevent smallmouth bass from achieving their full potential to support the bass fishery in this lake.

Bluegills were captured at a moderate rate, but size structure was disappointing as only 10% exceeded “keeper” size of 7 inches. There is an interesting pattern in the distribution of bluegill sizes captured during this survey. The steady decline in the number of fish from one size class to the next starting at 2.5 inches is not commonly observed. Normally there is a peak in bluegill abundance at about 5 inches. Results from this survey may indicate that natural mortality of bluegill is high (anglers rarely keep 3-5 inch bluegills) and constant across all sizes. Reductions in predator density (pike) might reduce natural mortality of bluegills and provide more bluegills of preferred size for anglers to catch.

A few walleyes were captured during this survey, including a low number of small (6-8 inch) fish resulting from natural reproduction in 2011 when no stocking occurred in Windigo Lake.

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