



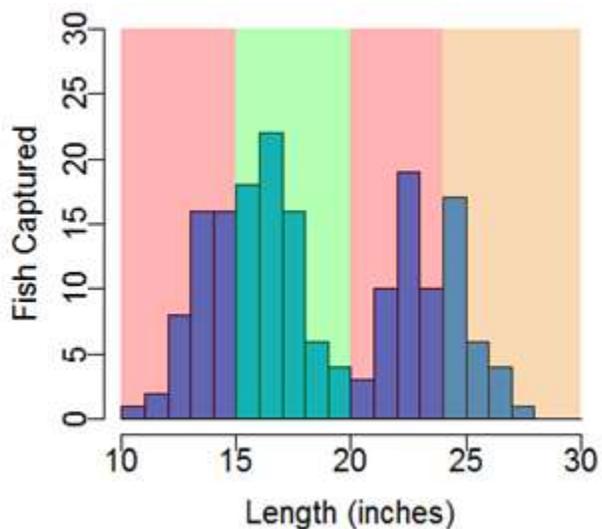
## Spring Fisheries Survey Summary Barber Lake, Sawyer County, 2016

The Hayward DNR Fisheries Management Team conducted a fyke netting survey on Barber Lake on April 5-12, 2016 to assess the adult walleye, northern pike, muskellunge, yellow perch and black crappie populations in the lake. Eight nets were set overnight for 5 nights which resulted in 36 total net-nights of effort (several nets were compromised by weather). 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.

### Walleye (Adult)



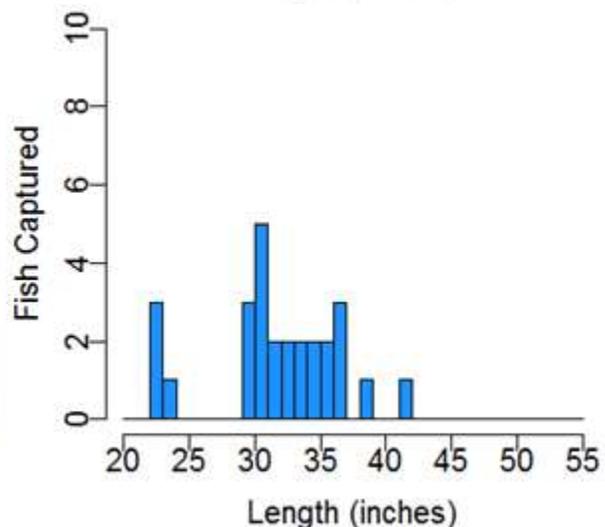
<b>Captured 5 per net-night <math>\geq</math> 10 inches</b>	
<b>Quality Size <math>\geq</math> 15"</b>	<b>76%</b>
<b>Preferred Size <math>\geq</math> 20"</b>	<b>39%</b>



### Muskellunge



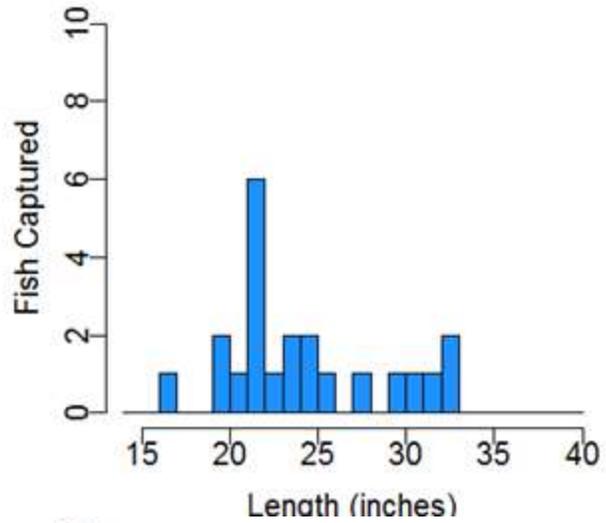
<b>Captured 0.75 per net-night <math>\geq</math> 20 inches</b>	
<b>Quality Size <math>\geq</math> 30"</b>	<b>74%</b>
<b>Memorable Size <math>\geq</math> 42"</b>	<b>0%</b>



### Northern Pike



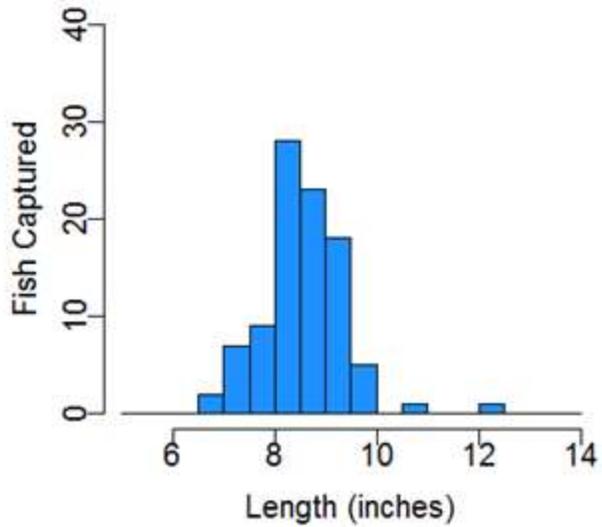
<b>Captured 0.6 per net-night <math>\geq</math> 14 inches</b>	
<b>Quality Size <math>\geq</math> 21"</b>	<b>82%</b>
<b>Preferred Size <math>\geq</math> 28"</b>	<b>23%</b>



### Black Crappie



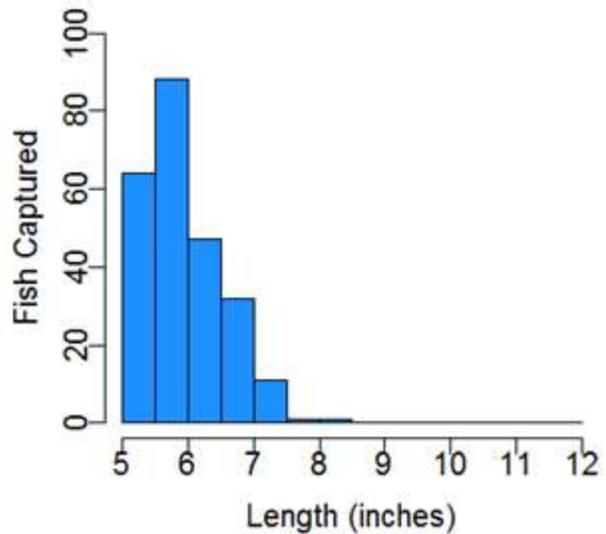
<b>Captured 2.6 per net-night <math>\geq</math> 5 inches</b>	
<b>Quality Size <math>\geq</math> 8"</b>	<b>81%</b>
<b>Preferred Size <math>\geq</math> 10"</b>	<b>2%</b>



### Yellow Perch



<b>Captured 7 per net-night <math>\geq</math> 5 inches</b>	
<b>Quality Size <math>\geq</math> 8"</b>	<b>0.1%</b>
<b>Preferred Size <math>\geq</math> 10"</b>	<b>0%</b>



## Summary of Results

Barber Lake is a 138 acre drainage lake in eastern Sawyer County with a maximum depth of 21 feet. The water is somewhat stained and there is dense aquatic plant growth in many areas of the lake.

Our survey was well timed to sample walleye during their pre-spawn and early spawning periods as well as other species included in this report. Most nets were spread through Big Barber, but several nets were also set in Little Barber.

Walleye were the main focus of our effort and most net locations were selected to target walleye. We captured walleye at a moderate rate of 5 per net per night. The relative abundance of walleye in Barber Lake actually compares very favorably to other lakes that rely on stocking because natural reproduction of walleye is weak. The reason why walleye do not reproduce successfully in Barber Lake is not clear, but stocking seems to work well in this lake and delivers a fishable population. There was a healthy representation of walleye that are in the harvest slot (15-20 inches, shown in green above), the protected slot (20-24 inches, red) and over the 24 inch mark where anglers could harvest one fish per day as a part of their bag. Overall, our survey data shows this lake offers both harvest and trophy opportunities for walleye.

Muskellunge in Barber Lake have been shown to be abundant based on previous surveys. However, catch rates in this survey were lower than expected, which we suspect was due to cool water temperatures that minimized near shore movements. The muskellunge population is mostly made up of fish in the 30-40 inch size range as a result of higher density and competition for food. Barber Lake is an action fishery for muskellunge, where anglers can expect to encounter more fish than on most other lakes, but should not expect great size. In addition to collecting measurements during our survey, we also tagged the muskellunge. This tagging will allow us to track growth and also allow for more precise population estimates in the future.

Pike abundance is often too high in small lakes which can result in 'hammer handle' sized fish. But this is not the case in Barber Lake where pike density remains low and size is fair. We measured 22 northern pike during our survey that provided a density relatively similar to muskellunge. The largest pike measured was 33 inches, with nearly one of four greater than 28 inches.

Both black crappie and yellow perch were present in moderate abundance but displayed poor size structure. It is not clear if the poor size is a result of slow growth, but there are indications that may be the case. At this time there are no easy solutions that would improve size of panfish size in Barber Lake. However, continued walleye stocking may alleviate overcrowding and improve panfish growth.

Bluegill, pumpkinseed, and largemouth bass are also present in Barber Lake but were not targeted during this survey.



WDNR Fisheries Technicians Russ Warwick (L) and Scott Braden (R) with volunteer Mike Cookas, showing off some nice walleye from Barber Lake in spring 2016. Photo by Max Wolter.

Report by Max Wolter – Fisheries Biologist, Sawyer County

Survey conducted by Max Wolter, Russ Warwick (Fisheries Technician), and Scott Braden (Fisheries Technician)

Special thanks to volunteer Mike Cookas

Reviewed and Approved by Scott Toshner – Acting Fisheries Supervisor