



Early-Spring Fyke Netting Survey Summary Spring Lake, Sawyer County, 2012

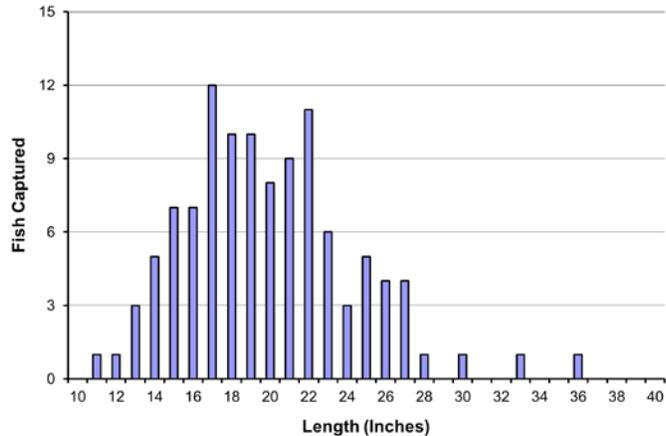
The Hayward DNR Fisheries Management Team conducted a fyke netting survey on Spring Lake on March 27, 2012 to assess the northern pike and panfish populations. Five nets were set overnight for one night. An electrofishing survey conducted in late May documented the status of largemouth bass and bluegill. Those results are summarized in a separate survey report. 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.

Northern Pike



Captured 21 per net-night $\geq 14''$	
Quality Size $\geq 21''$	44%
Preferred Size $\geq 28''$	4%

Northern Pike
Early-Spring Fyke Netting

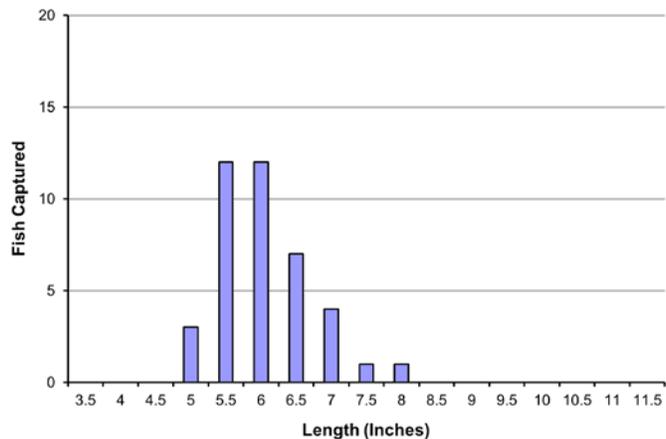


Yellow Perch



Captured 8 per net-night $\geq 5''$	
Quality Size $\geq 8''$	3%
Preferred Size $\geq 10''$	0%

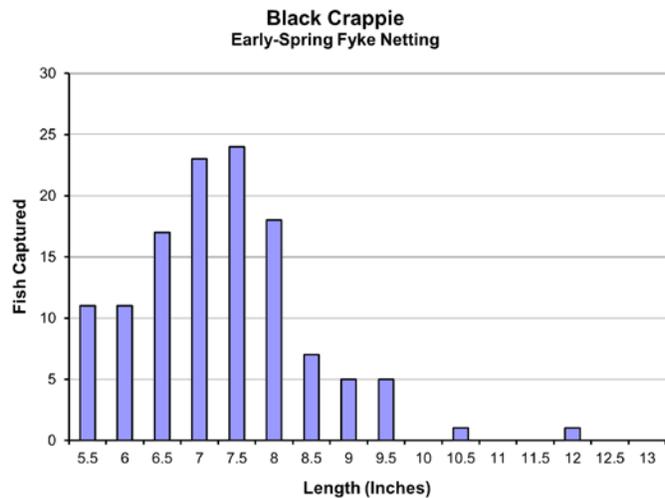
Yellow Perch
Early-Spring Fyke Netting



Black Crappie



Captured 33 per net-night $\geq 5''$	
Quality Size $\geq 8''$	25%
Preferred Size $\geq 10''$	1%



Summary of Results

Water temperature was 45°F at the time of this survey which coincides with the spawning range for both northern pike and yellow perch which were the target of this survey. Black crappies were also occupying shallow water habitat and were captured at a high rate.

Northern pike ≥ 14 inches long were abundant in Spring Lake, as reflected by a very high capture rate of 21 per net-night. Almost half of those fish were of quality size, and an above-average number were in the 24- to 28-inch range that anglers typically consider desirable to catch and keep. The pikes' highly preferred prey—yellow perch—were captured at a relatively low rate, reflecting high predation by abundant predators, which also includes largemouth bass in this lake (see late-spring electrofishing survey summary). The size distribution of perch suggests that the biggest pike may have eaten the largest perch available before they got big enough to interest anglers (at approximately 8 inches). There does not appear to be enough suitable prey (in this case small to medium-sized perch) to support fast growth of the abundant pike in Spring Lake. More angler harvest of small and medium-sized northern pike (< 24 inches) is encouraged to bring this fish community closer to a state of balance.

Black crappies were captured at a relatively high rate in early-spring fyke nets. Like perch, the size structure was poor, but for a different reason. Northern pike are ineffective in controlling deep-bodied prey like bluegill and black crappie. But pike prey upon young largemouth bass, resulting in too few bass to control recruitment of juvenile bluegill and crappie. High survival of young crappie creates excessive competition for available prey (plankton and minnows), slow growth rate (not actually measured), and ultimately a size distribution in which very few fish are big enough to interest anglers. Winterkills (low oxygen levels associated with long duration of ice and snow cover) used to happen regularly in Spring Lake. This natural population control had previously kept panfish numbers low and allowed excellent growth rate and size attainment. A winterkill was observed following the extremely long winter of 2012-2013, but changes in climate will likely make winterkills less frequent. In the future, we will have to rely on better predator management in order to maintain panfish quality at Spring Lake.

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