

A/OFRC PROJECT UPDATE

DOKIS FIRST NATION

Sept 2017

PIKE LAKE BROAD SCALE MONITORING

INTRODUCTION

The Anishinabek/Ontario Fisheries Resource Centre (A/OFRC), in partnership with Dokis First Nation, conducted a Broad-scale Monitoring (BsM) survey and habitat assessment on Pike Lake. A similar survey was done in 2005 before a quarry was established next to the lake. The results of this project will assist in determining if the runoff from the quarry is impacting the fish community in Pike Lake.

METHODS

A total of 15 gill nets were set in Pike Lake and allowed to sit overnight from July 31 - August 2, 2017. The gill nets were composed of a variety



A/OFRC Fisheries Technician, Aireal Starr, measuring fish captured in minnow traps

of mesh sizes, ranging from 13 mm to 127 mm, ensuring that both small and large-bodied fish were targeted. From large-bodied fish, length and weight was measured, sex and maturity was determined, and aging structures were removed for age determination. Muscle tissue samples were collected from northern pike for contaminant analysis. All smaller fish were measured for length. In addition to gill nets, 20 minnow traps were set overnight around the perimeter of the lake. Fish caught in the minnow traps were measured for length. Water samples were collected for water chemistry analysis. Both a shoreline and a littoral habitat survey were conducted along the entire edge of the lake. Bottom sediment samples were collected at 11 sites around the lake to determine if rocks from the quarry are altering the sediment composition of the lake.



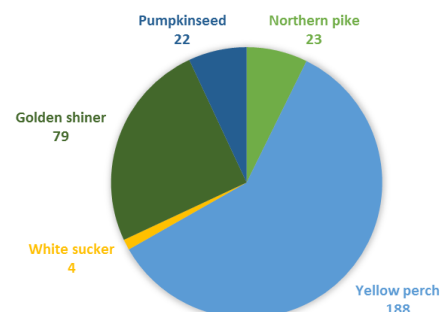
Dokis First Nation Game Warden, Jim Dokis, gave the A/OFRC crew a tour of the French River. Here he is pointing out a bird's nest above pictographs painted on a rock wall in the French River

RESULTS

In total, 23 northern pike, 188 yellow perch, 22 pumpkin seed, 4 white sucker and 79 golden shiner were caught in the gill nets. The most abundant fish collected the minnow traps were pumpkin seed, with 530 individuals being caught. Other fish caught in the minnow traps were 37 yellow perch, 2 golden shiner, and 1 juvenile northern pike.

CONCLUSION

Many of the same species were caught during the 2017 survey as those caught in 2005 before the quarry had been established, suggesting that the quarry adjacent to Pike Lake has not significantly changed the fish community structure. The results of the water chemistry analysis will help us to identify any changes that the quarry runoff has had on the chemistry of the lake. A full technical report will be available in spring 2018.



Species and number of individuals caught using multi-mesh gill nets during a BsM survey on Pike Lake, 2017



For more information on this or other fisheries projects please contact:
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