

Summary of Fish Population Surveys of White Lake

Introduction

The following is a brief synopsis of White Lake fish stock information gathered to date by provincial bodies based on field surveys between 1959- 2008. It does not include any reference to the current 2014 survey as this data has yet to be collated and analysed. This summary is therefore based primarily on the 1969, 1998, 2008 survey reports as well as through discussion with provincial regulators.

History

The original fish community in White Lake has been significantly affected by human activity such as species introductions, cottage development, recreational fishing pressure, and changes to the biophysical environment likely brought on by the effects of climate change. White Lake is a eutrophic waterbody which tends to favour coarse fish and warmer water recreational sport fish over species such as walleye (yellow pickerel) which prefer more mesotrophic conditions. The introduction of largemouth bass in 1957 appears in part to have caused a gradual decline in pickerel populations although a direct link is uncertain. While largemouth bass and coarse fish numbers have continued to rise over subsequent years pickerel numbers have declined and remain relatively low to date. The overall health of the existing White Lake fish community shows that most species exhibit higher than average growth rates which point to White Lake offering good habitat conditions for the species in question.

Other factors such as increasing water temperatures have favoured greater number of coarse fish (e.g. perch, pumpkinseed sunfish, rock bass) which thrive in the environment provided by White Lake. These species are known to prey heavily on walleye fry and juveniles. Combined with predation by largemouth bass and pike on juvenile walleye the overall

Since walleye are a sought after species there have been attempts to address this shortfall through the use of past stocking programs. Based on the limited success of these programs they were discontinued in 1969.

Another approach used in the 1960s was introduction of predatory species (muskellunge) to reduce coarse fish populations. However, there was little evidence that this has had any appreciable effect as muskie numbers remained low in subsequent years and this program was also discontinued. A commercial fishery was also initiated targeting specific coarse fish (primarily perch) but did not prove commercially viable.

Current Status

The Ministry is currently in the midst of a 5 year monitoring program which to assess White Lake fish stocks. One of the historic challenges inherent to comparing White Lake fishery data across decades was the lack of a consistent field capture methodology which prevents any form of quantitative analysis. Provincial authorities have worked to develop standardized field collection techniques with index trapnetting the main tool for assessing recreational fishery. Improvements to the overall field monitoring program have aided in the effort to better understand anthropogenic effects on fish populations of White Lake. This along with improved creel census information should continue to provide an ever more comprehensive portrait of White Lake stocks. At present there remain the risk (mostly through recreational fishers and boaters) of introduction of invasive species into White Lake that could further upset the fish community balance. There are currently no fish stocking programs in place although, depending on identified need, a targeted program(s) might be considered in future.

Improved updated water quality data gathering would also assist in the overall understanding of White Lake's ecosystem dynamic which in turn allows for more accurate assessment and fish population trends. For future WQ monitoring programs to be successful local engagement by local community groups is imperative. This includes an increased scrutiny and analysis of water level management planning and a more formalized methodology for routine water quality measurement.

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