

Understanding where walleye spawn in Saginaw Bay to ensure better management and habitat protection



CORE QUESTION:

Can we better understand the relative importance of the rivers and reefs in which walleye are spawning to improve management of a recovered fishery in Lake Huron?

SURVIVING IN SAGINAW BAY

Invasive species, habitat degradation, and declining water quality led to a collapse of walleye (*Sander vitreus*) populations in Saginaw Bay in the mid-1990s. Fortunately, because of water quality and other improvements, these populations have since recovered. Now that these populations have achieved recovery targets, management goals have shifted to ensuring a sustainable harvest.

Little is known, however, about where these fish spawn and originate – spawners can choose among 14 different rivers and 5 off-shore reefs. In addition, some walleye are resident to the bay while others migrate into Lake Huron. It is generally believed that Saginaw Bay populations support much of the Lake Huron fishery in the Michigan waters of the lake and in Ontario waters in the southern main basin.

MANAGING WALLEYE POPULATIONS

Travis Brenden, Ph.D., Professor and Director, Quantitative Fisheries Center Quantitative Fisheries Center, Department of Fisheries and Wildlife, Michigan State University, is leading the team to identify walleye spawning sites and their relative contributions in Saginaw Bay.

Over two years, the team will place 355 acoustic tags on walleye and install acoustic receivers in the mouth of

each river and on the reefs. The receivers will record the presence of the fish by tracking the tags using sound to determine where they are spawning. These findings also will shed light on whether differences in spawning exist between resident and migratory walleye.

Determining the relative importance of each river and reef for spawning can help fisheries managers better prioritize habitat improvement, fish passage projects, dam removals, or other initiatives. Ultimately, this project will illuminate individual walleye spawning aggregations and determine their relative importance to the Saginaw Bay population – one of the last key missing pieces of information in understanding and helping to manage the newly recovered population and fishery.

CONTACT

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