

An Overview of the Southern Lake Michigan Management Unit Walleye Rearing and Stocking Program

The broodstock source for the majority of the walleye raised and stocked into Michigan's Lower Peninsula waters come from the Muskegon River. With an estimated spawning population of approximately 40,000, the Muskegon River boasts the largest walleye spawning run in Lake Michigan south of Green Bay. While many of these fish spend the majority of the year in Muskegon Lake, a large portion migrate along the shores between Indiana and Leland before returning each year to spawn. During 4-5 days in late March and early April, crews from Southern Lake Michigan Management Unit (SLMMU) electro-shock walleye below Croton Dam and bring them to shore for hatchery crews to spawn. After the spawning process, the fish are released back into the river unharmed. Fertilized eggs are then transported to Wolf Lake and Platte River State Fish Hatcheries for incubation. After approximately 3 weeks, newly hatched fry are stocked into rearing ponds or stocked directly in rivers and lakes throughout Michigan's Lower Peninsula.

In the SLMMU, walleye are stocked into waterbodies as 2-3 day old fry, 35-45 day old spring fingerlings (sf), or 5 month old fall fingerlings (ff). Younger fish are less expensive to stock but they also have lower survival rates. Thus, stocking sites receiving fry typically receive 250,000 to several million fish, while sf stocking sites typically range between 10,000 to 50,000 fish and ff usually between 500 to 2,500 fish. In SLMMU, more than 2 million walleye fry are stocked biennially in the Grand and Kalamazoo Rivers while some of our larger sf plants (100,000-200,000) occur in the St Joseph River, along with Muskegon Lake and White Lake in the Central Lake Michigan Management Unit (CLMMU). In all, about 35 waterbodies are stocked with walleye in the SLMMU with additional fish from our ponds stocked in many CLMMU waters. In addition to our walleye program, several lake associations and fishing clubs obtain permits to purchase ff walleye from certified private aquaculture facilities to stock in public and private lakes.

The SLMMU operates five walleye rearing ponds and three fathead minnow forage ponds. We partner with the White Lake Area Sportfishing Association in the raising of walleye at Muskegon rearing pond. We have cooperative agreements with clubs that raise additional walleye in ponds for Lake Macatawa (Holland Fish and Game Club) and Gun Lake (Gun Lake Protective Association). Walleye are raised to spring fingerling, fall fingerling or both life stages in the rearing ponds. Soy/alfalfa meal is applied to the walleye ponds at a rate of 100lbs/acre prior to and during the walleye growing cycle to encourage phytoplankton growth, and in turn, zooplankton growth. Zooplankton provide the main food source for sf walleye while aquatic invertebrates and fathead minnows are the primary food source for walleye raised to the ff stage. West Michigan Walleye Club, Clear Lake Association, and private individuals have assisted SLMMU by providing funds for purchase of fathead minnows.

Jackson rearing pond is located north of Jackson on Michigan Department of Corrections property and is maintained with assistance from Michigan DNR Parks and Recreation Division personnel from the Jackson field office. It is a 15 acre drainable pond which is filled with water pumped from the Grand River. The pond is stocked with 500,000 walleye fry in late April and harvested around the last week in May. The average yearly production (2015-2024) is 277,896 sf walleye at 1.3 inches. Harvest is done with maxi-mini fyke nets over 3 to 4 days. Until 2024, the fish remaining

in the pond after the spring netting were released into the Grand River. In 2024, the water level in the pond was maintained until the fall, and fathead minnows were stocked to provide food for the walleye that remained after sf harvest. Netting in October and early November 2024 yielded 2,648 ff walleye averaging 8.0 inches. Fall fingerling production is expected to continue in this rearing pond.

Muskegon rearing pond is located in the Muskegon State Game Area and managed in partnership with the White Lake Area Sportfishing Association and CLMMU. It is a 15 acre drainable pond with water pumped from the Muskegon river. The pond is typically stocked with 1 million walleye fry in late April and harvested around the first week in June. The average yearly production (2015-2024) is 465,162 sf walleye at 1.2 inches. Harvest is done with maxi-mini fyke nets over 4 to 5 days with the remaining fish in the pond released into the Muskegon River. Along with this yearly pond release into the river, approximately 200,000 sf walleye are stocked into Muskegon Lake every other year to maintain the broodstock population. Walleye from this pond are typically stocked in SLMMU and CLMMU lakes and rivers. Only sf walleye have been raised at the Muskegon pond; however, there are plans to initiate ff walleye rearing at this location. SLMMU recently received funding through the Habitat Improvement Account to install one or two wells at this site which would allow us to maintain the desired water level in the pond throughout the summer. (The Habitat Improvement Account was created by a hydropower licensing and settlement agreement with Consumers Energy. It provides funding to support projects that enhance aquatic habitat or recreation within the Manistee, Au Sable, and Muskegon watersheds.) The current goal is to complete installation of the well(s) in 2025 and have everything operational by the 2026 rearing season.

SLMMU also operates three small (<4 acre) ff walleye ponds and a fathead minnow pond at Wolf Lake State Fish Hatchery. Walleye fry are stocked in late April, followed shortly by adult fathead minnows. The fathead minnows reproduce in the ponds providing the walleye with suitable size prey at the time of conversion to a fish diet. As the walleye get larger throughout the summer, they eat all the juvenile and adult fatheads. These ponds are also given additional amounts of fatheads from the forage pond on site in July to September. The walleye harvest typically occurs the second full week in October and is done by pond draining into collection boxes. The average harvest from 2015-2024 for these ponds combined has been 4,847 fish at 6.1 inches.

SLMMU's walleye ff program was started in 2013 with the goal of raising larger fish to stock in lakes where survival of much smaller sf walleye was low. Survival of larger ff walleye appears to be substantially higher but comes at a higher cost in terms of money and effort. For the most part, these ff ponds are managed extensively by letting minnows breed and produce more forage. However, producing quality ff walleye in both size and numbers requires purchasing and moving minnows from forage ponds to the walleye ponds in mid-late summer along with pond maintenance duties in spring and fall.

In 2015 we began clipping the ventral (pelvic) fins of ff walleye stocked into some of our lakes. This stemmed from discussions with other staff throughout the state for a need to obtain more known-age fish to update statewide walleye growth charts and for fish aging training purposes. Walleye can be difficult to age, especially as they get older and their growth rings become less distinguishable. Walleye growth can also be highly variable across waterbodies and regions. Fish

age and length are used to calculate growth rates which, in turn, help in the stocking evaluation of a waterbody. This is a great opportunity to help Fisheries Division and our management unit needs with little additional time and effort. As of 2024, we have surveyed 8 lakes in the SLMMU where these fin-clipped walleye were stocked.

The most effective walleye surveys on our lakes occur soon after ice-out and last a few weeks. Due to this narrow time frame and other fisheries commitments (including the walleye egg take on the Muskegon River), we generally are limited to one spring walleye evaluation per year. To further help us evaluate the success of our walleye stocking programs, we highly encourage anglers to report their catches to Amy Swainston at the SLMMU office via phone (269-685-6853) or e-mail (swainstona@michigan.gov). In addition, we ask that anglers look for missing ventral fins and record lengths of fish caught in our stocked lakes. Many of these lakes have signage at the boating access sites encouraging anglers to report their catches and showing the ventral fin locations.



Attention Anglers

Please report Walleye catch information:

Michigan DNR Fisheries Division has stocked walleye in this lake. Please help us track the success of stockings by reporting your catch information.

Fish Illustration by
Joseph R. Tomelleri ©



Left Ventral Fin:



Please note the presence or absence of the ventral fins.

Stocked fish may have both ventral fins (no clip) or may be missing a right or left ventral fin (clip).

A clipped fin may appear curled or slightly smaller than other ventral fin.

Report by email: SwainstonA@michigan.gov

or telephone Plainwell DNR: (269) 685-6853

or website: <https://forms.office.com/g/AT3G7Q0AWD>

Please Provide: the name of the waterbody, date, length, condition, if it had a left or right ventral fin clip or no clip, if you released or kept the fish and any other comments you wish to provide. Thank you for your participation.