

Michigan Department of Natural Resources – Fisheries Division
Public Act 166 of 2020, Section 603
Fish Hatcheries Performance – Fiscal Year 2020

The Michigan Department of Natural Resources (DNR) Fisheries Division Fish Production Section (FPS) maintains and operates six extensive, cold water fish hatcheries, three of which also produce cool water species (Table 1). There are also several ancillary programs managed by FPS to provide the support necessary to run a quality fish stocking program. Those include Fish Health and Quality, Fish Stocking, Fish Marking, and Electronics.

Table 1. Location of and species reared by Michigan DNR Fish Hatcheries

Hatchery Name	Location	Species Reared
Wolf Lake State Fish Hatchery	Mattawan (Van Buren County)	Steelhead, Chinook Salmon, Muskellunge, Walleye
Harrietta State Fish Hatchery	Harrietta (Wexford County)	Rainbow Trout, Brown Trout, Atlantic Salmon
Platte River State Fish Hatchery	Honor (Benzie County)	Coho Salmon, Chinook Salmon, Atlantic Salmon, Walleye
Oden State Fish Hatchery	Alanson (Emmet County)	Rainbow Trout, Brown Trout, Arctic Grayling
Thompson State Fish Hatchery	Thompson (Schoolcraft County)	Steelhead, Chinook Salmon, Walleye
Marquette State Fish Hatchery	Marquette (Marquette County)	Brook Trout, Lake Trout, Splake (Hybrid), Arctic Grayling

Recreational fishing in Michigan is a significant economic driver, valued at well over \$2 billion. Fish stocking is one of the few tools available for fisheries professionals to use in managing the state’s world-class fisheries. Fish are stocked for four primary reasons:

- Provide diverse fishing opportunities (e.g. walleye, steelhead)
- Maintain ecosystem balance (e.g. Chinook salmon)
- Rehabilitate depressed fish populations (e.g. lake sturgeon)
- Reintroduce extirpated species (e.g. Arctic grayling)

The following summarizes the performance of the six DNR fish production facilities in five areas of focus during fiscal year 2020.

Broodstock Management

Broodstock management includes rearing and maintenance of captive brood populations at Oden Hatchery and Marquette Hatchery, as well as collecting gametes from feral stock. Oden maintains the brown trout and rainbow trout captive brood. The brook trout and lake trout brood are maintained at Marquette. All egg needs for brown trout, rainbow trout, lake trout, brook trout, and splake (hybrid cross of lake trout and brook trout) were met in full. Gametes were also collected from two feral broodstocks. Chinook eggs collected from the Little Manistee River Weir fully met DNR needs. Coho eggs were collected from the Upper Platte River Weir. Steelhead gametes are typically collected from the Little Manistee River Weir. However, the COVID-19 pandemic resulted in cancellation of the spring

2020 steelhead egg collection efforts in the interest of staff health and safety. With the exception of steelhead, all in-state egg requests were filled for cold water species, and fertilized eggs were shared with neighboring states. Atlantic salmon eggs were collected by Lake Superior State University (LSSU) from feral brood running the St. Mary's River. The cooperative agreement with LSSU supplied all eggs needed for LSSU's rearing assignment and fully filled DNR's needs.

Walleye gametes are normally collected from feral fish in the Muskegon River and Little Bay de Noc and Great Lakes strain muskellunge eggs are collected from the Detroit River. However, the COVID-19 pandemic resulted in the spring 2020 cool water species egg collection efforts being cancelled in the interest of staff health and safety.

Fish Rearing and Stocking

During fiscal year 2020, more than 7.3 million fish weighing just over 645,000 pounds were produced and stocked into Michigan waters. This included seven salmonid species, one hybrid salmonid, and two cool water species. The fleet of specialized stocking trucks traveled over 85,000 miles on 368 trips stocking fish at 616 sites. Nearly 2,142 staff hours were spent stocking fish during fiscal year 2020. The COVID-19 pandemic resulted in significant decreases in stocking statistics. The lack of cool water egg collections in 2020 dropped the numbers tremendously. The reduced trips are due to a combination of fewer fish being stocked and staff efforts to consolidate stocking trips to the greatest extent practicable in the interest of staff health and safety.

Fish Health, Quality, and Pathogen Control

The Great Lakes Fishery Commission's Fish Health Committee works to coordinate regional efforts in the Great Lakes basin to prevent the introduction and spread of communicable diseases among fish populations. DNR follows the protocols developed by the committee and reported in the *Great Lakes Fish Disease Control Policy and Model Program*. DNR continues to work with the Michigan State University Aquatic Animal Health Laboratory (MSU-AAHL) for all fish health inspection, diagnostic, and disease treatment recommendations. This partnership has been ongoing since 2002 and has resulted in a fish health management program that is highly respected regionally and beyond. During fiscal year 2020, there were 20 pre-stocking inspections, eight production lot diagnostic cases, 16 captive broodstock inspections, and five feral broodstock inspections. All production lots were run through a Fish Quality Assessment procedure prior to stocking. No significant deficiencies were noted.

As part of the fish health program, staff from MSU-AAHL perform an annual site inspection at each hatchery. This includes a thorough inspection of all parts of the hatchery with an eye toward identifying situations, conditions, and/or practices that put fish health at risk. Following each inspection, a debrief meeting is held with facility staff. This interaction between hatchery staff and MSU-AAHL staff is valuable, as biosecurity and general fish health practices are reinforced.

Fish Marking

Marking stocked fish so that they can be identified as such by anglers or by managers during lake and stream sampling efforts is a valuable tool used by fishery managers. Each year, the DNR Fish Marking Review Committee evaluates fish marking proposals that are submitted by managers. During fiscal year 2020, there were three proposals reviewed and all were approved. Fewer marking projects than normal

were completed during the year as a result of the COVID-19 pandemic. Steelhead were clipped and tagged in a cooperative effort using the U.S. Fish and Wildlife Service's (USFWS) mass marking trailers. Muskellunge stocked in inland brood lakes were marked with Passive Integrated Transponder (PIT) tags. The Atlantic salmon reared at Platte Hatchery were clipped and tagged as planned, but those reared at the Harrietta Hatchery were neither clipped nor tagged because the pandemic resulted in the USFWS marking crew being recalled to their base after they arrived at Harrietta but before they could begin marking fish. Furthermore, none of the Chinook salmon slated to be clipped and tagged by the USFWS crew were marked. A return to normal fish marking activity is anticipated in fiscal year 2021.

Facility Maintenance/Electronics

DNR hatcheries are mechanically complex facilities. Each hatchery has highly trained maintenance staff. There are also two staff members dedicated to designing, installing, and maintaining the facilities' electronic monitoring and alarm systems. Work accomplished by the maintenance staff includes, but is not limited to, daily equipment and facility inspections, preventative maintenance and minor repairs, janitorial tasks, grounds maintenance, data entry, equipment fabrication, and coordination with vendors on large projects. Examples of work completed in fiscal year 2020 include retrofitting all stocking trucks with fall restraint systems to bring them into compliance with Michigan Occupational Safety and Health Administration (MIOSHA) regulations, repair of electrical distribution systems, calibration of flow meters, and repairs of effluent management system components. Effort is made to complete projects on the backlog list of deferred maintenance projects, but the aging infrastructure often dictates that the limited funds available be used to address emergency repairs.