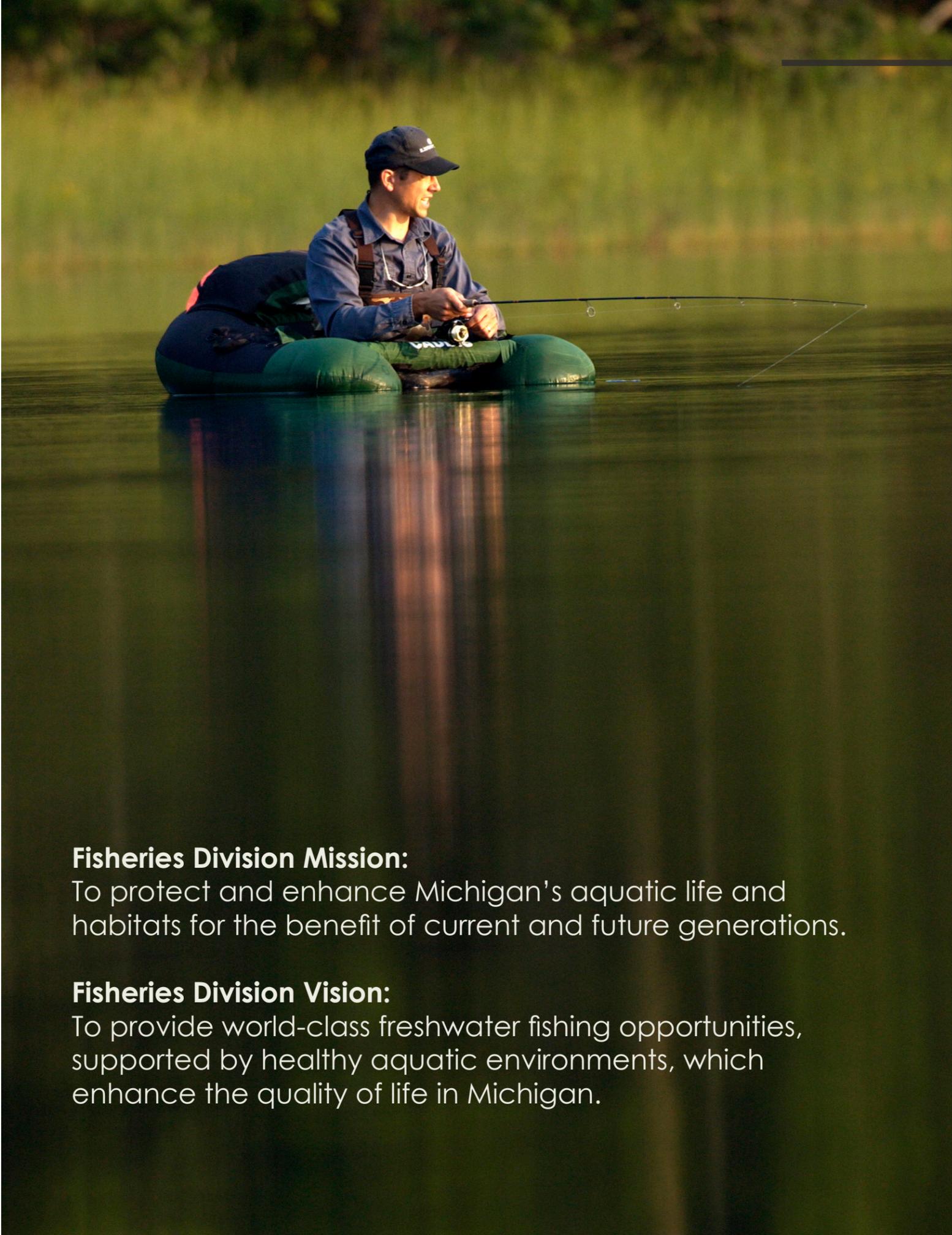


A man wearing a black beanie with "DNR MICHIGAN" in yellow and green, and a green jacket with a "MICHIGAN FISHERIES DNR" patch, is holding a fish in a net. The background shows a body of water and trees.

Fisheries Division  
**Annual Report**  
Fiscal Year 2014





---

# Contents

- 4 Welcome from Keith Creagh & Jim Dexter
  - 5 Introduction
  - 8 Healthy Aquatic Ecosystems & Sustainable Fish Populations
  - 10 Diverse Fishing Opportunities
  - 13 Strategic Resource Partnerships
  - 16 Strategically Focused Assessment & Decision Support Tools
  - 19 Efficient Division Operations
- 

## **Fisheries Division Mission:**

To protect and enhance Michigan's aquatic life and habitats for the benefit of current and future generations.

## **Fisheries Division Vision:**

To provide world-class freshwater fishing opportunities, supported by healthy aquatic environments, which enhance the quality of life in Michigan.

*Note: Throughout this report you will find text in blue. This distinguishes content that is linked to additional information online.*

*[Sport Fish Restoration Funds](#) are monies provided to state agencies which come from federal excise taxes on fishing equipment and a portion of the gasoline fuel tax revenue attributed to motorboats. The funds are provided to individual states based on a distribution formula of land and water area and number of state fishing license holders. Michigan's Fisheries Division received \$9.9 million in 2013. These funds were used for programs such as fish hatchery operations and maintenance, statewide fisheries assessment activities, and applied research.*

January 2015

Dear Michigan Citizens,

Word is spreading about Michigan's amazing freshwater-fishing opportunities. For homegrown anglers or visitors from across the country, our Great Lakes waters, rivers, lakes and streams provide plenty of chances for the angling experience of a lifetime. Don't believe us? Ask the five anglers who caught state-record fish or the hundreds of folks recognized through our Master Angler program for outstanding catches – all in just the last year!



These exceptional, often record-breaking fish demonstrate the exemplary quality of Michigan's fisheries resources – quality that remains a major focus of the Department of Natural Resources' fisheries management efforts.

Along with maintaining, protecting and improving habitat (which goes hand-in-hand with outstanding recreational opportunity), the DNR's Fisheries Division also uses fishing regulations and fish stocking to boost the state's economy and quality of life. These strategic efforts are critical to improving and maintaining the world-class fisheries that help ensure our state remains a great place for people to live, work and play.

Thank you for taking the time to learn about the work of DNR fisheries staff in fiscal year 2014. We are proud of this team of dedicated employees, engaged citizens and valuable partners – and the important work they accomplish every day.

We encourage your input on specific ways we can improve aquatic resources for all Michigan citizens. Your voice is important to us, because it's our responsibility to manage these resources on your behalf. To share ideas, please email us at [DNR-FISH-Accomplishments@michigan.gov](mailto:DNR-FISH-Accomplishments@michigan.gov) or contact us by phone at 517-284-5830.

Sincerely,



Keith Creagh  
Director, DNR



Jim Dexter  
Chief, DNR Fisheries Division



In the world of freshwater fishing, Michigan stands head and shoulders above the rest. With 3,000 miles of Great Lakes shoreline, more than 11,000 inland lakes, and tens of thousands of miles of rivers and streams, you're never more than 10 minutes away from an angling opportunity. Fishing in Michigan is truly world-class.

Sportfishing is much more than just a pastime. It is a major economic driver for many Michigan communities. The state's healthy and diverse fisheries provide significant economic benefits to Michigan. According to the most recent data, the 28 million days anglers spent afield generated \$4.4 billion in economic activity which generated \$623 million in local, state and federal tax revenue. As an industry, sportfishing is estimated to support nearly 38,000 jobs\*.

As part of its public trust responsibility, the Michigan Department of Natural Resources, Fisheries Division plays a critical role in managing our state's aquatic resources. Fisheries Division's five-year strategic plan ([Charting the Course: Fisheries Division's Framework for Managing Aquatic Resources](#)) details how we will continue managing fish and aquatic communities, habitat, anglers and the division itself. This annual report for Fiscal Year 2014 (Oct. 1, 2013 through Sept. 30, 2014) is organized to reflect activities of the division as they relate to the five goals identified within the plan. The values held at a premium by Fisheries Division – Integrity, Professionalism, Leadership, Collaboration, Innovation, Integrity and Transparency – are displayed daily by our dedicated staff, as is evident in the pages that follow.

\* 2013 American Sportfishing Association report

Michigan DNR took a leadership role in a multi-jurisdictional field exercise in Michigan waters of Lake Erie in Sept. 2014. The exercise involved approximately 70 staff from 12 organizations, including state, federal, and Canadian agencies and university staff. The collaborative multi-agency effort was used to increase preparedness on Asian carp sampling methodologies, while concurrently increasing the information base of the grass carp population in western Lake Erie.

Did you know? Fisheries Division is one of the oldest state agencies and was established in 1873 as a result of the acknowledged waste and degradation of Michigan's fisheries resources at that time.

## Healthy Aquatic Ecosystems & Sustainable Fish Populations

### Strategic Plan - Goal 1

Healthy fisheries require high-quality and diverse habitat. The protection and rehabilitation of aquatic resources and habitats are the crux of DNR's public trust responsibility, making them among Fisheries Division's most important duties, as is protecting against aquatic invasive species and their impacts on the state's natural resources.

In FY2014, Fisheries Division staff:

- Worked to reconnect 195 more miles of river habitat by implementing and further developing the [Dam Management Grant Program](#). The program provided \$350,000 in funding to remove one high hazard dam (Hubbardston Dam, Ionia Co.) and to repair the Foch Lake Flooding Dam (Montmorency Co.), an impoundment which receives high recreational use for its fisheries resource.
- Helped to reconnect more than 424 miles of river habitat and to restore natural stream processes to impaired stream reaches by developing and implementing the new [Aquatic Habitat Grant Program](#). This program provided \$1,000,000 in funding for eight stream restoration projects which included road stream crossing repair, stream rehabilitation, and dam removals.
- Set the stage for more than 102 additional miles of reconnected aquatic habitat by providing technical assistance on eight dam removals, the Menominee River system fish passage initiative, and six road stream crossings.
- Completed a database and web-based viewer of Michigan's Road Stream Crossing Inventory and initiated six workshops focused on teaching non-government organizations and volunteers how to gather data on road stream crossing.
- Worked to better assess, control and manage the spread of silver and bighead carp in the Great Lakes basin by continuing our participation in the [Asian Carp Regional Coordinating Committee](#).
- Assisted in preventing the introduction and spread of invasive species by actively participating on the State of Michigan Aquatic Invasive Species Core Team, a multi-agency committee.
- Learned various sampling techniques used to capture live bighead and silver carp by sending eight employees to Illinois for valuable training.
- Hosted Hazard Assessment and Critical Control Point training as it relates to aquatic invasive species. The training was held in conjunction with a Fish Production Section meeting and was attended by commercial fish producers, university staff, tribal hatchery staff, and division hatchery staff.

- Took strides to protect and rehabilitate aquatic habitat leading to enhanced and sustainable fish communities by providing the hydrological and stream morphology (channel shape) expertise for six stream habitat rehabilitation projects ranging from future dam removals to excessive erosion sites to channel re-establishment.
- Conducted two 3-day stream geomorphology workshops throughout Michigan for Department of Environmental Quality (DEQ) and DNR staff and assisted with a national level stream geomorphology training held in Minnesota.
- Ensured protection of riparian zones on 15 watersheds by reviewing 114 [Natural Rivers](#) permit applications.
- Helped to protect habitat and public access on 19 watersheds throughout the state by providing input on hydropower projects administered by the Federal Energy Regulatory Commission.
- Provided input to the DEQ related to thermal power plant effects on aquatic resources, with recommendations for mitigation and prevention.
- Reviewed and provided comments on approximately 70 DEQ/ Michigan Department of Transportation permit applications to ensure consideration of habitat protection.
- Improved our understanding of Michigan's habitat by engaging in various habitat initiatives such as aerial photo surveys of river corridors, lake habitat mapping in select Northern Michigan lakes, and shoreline feature analyses.

Fisheries Division manages a Habitat Improvement Account that was established to mitigate resource impacts from hydropower dam operations. These mitigation funds are used to implement habitat improvement and research projects on the Au Sable, Manistee and Muskegon river watersheds. In 2014, Fisheries Division staff:

- Reviewed applications and approved funding for six projects in FY2015 for \$290,565 that included:
  - o Installing large woody structure for fish cover and sediment management on the North Branch of the Au Sable River.
  - o Installing large woody structure for fish habitat of the main stem of the Au Sable River upstream of Grayling.
  - o Taking inventory and refurbishing fish cover structures on the main stem of the Au Sable downstream of Grayling.
  - o A study of the salmonids species in Bear Creek, a tributary to the Manistee River.
  - o A barrier inventory on the Muskegon River watershed.
  - o Installing large woody structure by placing whole trees on the Au Sable main stream below the Mio Dam.

## Diverse Fishing Opportunities

Strategic Plan - Goal 2

Fisheries Division creates, promotes, maintains and enhances diverse fishing opportunities through species and habitat conservation and management, fishing regulations and permitting, outreach and education, and fishing access development and enhancement. One component of species and habitat conservation and management includes fish stocking, which can be prescribed to restore, enhance and create new fisheries in Michigan's inland lakes, Great Lakes and streams. To accomplish this task, Fisheries Division operates six fish hatcheries, cooperatively manages up to 50 walleye rearing ponds and 13 Great Lakes net pen locations for salmon and steelhead, and maintains a fleet of 18 specialized fish stocking trucks.

Another key component of Michigan's fishery is oversight of state-licensed commercial fishing and the implementation of consent decrees that provide for tribal commercial and subsistence fishing rights. Scientific management of state-licensed commercial fishing, in partnership with the tribes, helps to maintain sustainable fisheries and provide local economic stability in treaty-ceded waters while also minimizing conflict with recreational fisheries. Implementation of consent decrees and other legal judgments ensures protection of all citizens' rights and of Michigan's fisheries resources.

In FY2014, Fisheries Division staff:

- Contributed an estimated \$394 million in economic activity from fishing and fishing-related expenditures by [stocking more than 22 million fish](#), collectively weighing nearly 398 tons. Fish stocked in 2014 included:
  - o Seven species of trout and salmon, including nearly 168,000 Atlantic salmon at four locations on Lake Huron, and one hybrid (splake).
  - o Seven coolwater species, including walleye and muskellunge.
- Stocked fish at 835 sites through 431 stocking trips, driving more than 115,000 miles in the process.
- Captured returning adult steelhead, coho and Chinook salmon by operating six fish blocking weirs on five Michigan streams. Eggs and milt were collected from these fish to perpetuate statewide rearing and stocking programs. In 2014, division personnel collected:
  - o More than 4.4 million Chinook salmon eggs at the Little Manistee weir during the fall migration. This was enough to fully meet our needs plus those of two neighboring states.
  - o More than 4.8 million coho salmon eggs at the upper Platte River weir during the fall migration, fully meeting in-state and out-of-state requests.
  - o Almost 4.5 million steelhead eggs taken in a single day at the Little Manistee weir during the spring migration.

(continued on page 12)

# Success Story

Record high water levels during the spring 2014 steelhead run on the Little Manistee River caused a blowout of the fish blocking weir. This blowout put the pumps that supplied water to the ponds holding more than 2,000 adult steelhead at significant risk of failure.

At 8 a.m. on the Monday after Easter, a team of very dedicated Fisheries Division staff conducted a marathon egg-take session that ended at 1 a.m. Tuesday to secure the eggs necessary to maintain the statewide steelhead stocking program. In one exceedingly long day they accomplished what is normally a three or four-day project. Division maintenance staff coordinated an emergency repair, completed by a local contractor, which resulted in a much more secure weir superstructure that should help meet our management goals into the future.

Did you know? Chinook and Atlantic salmon were the first species stocked by public fisheries agencies (U.S. Fish Commission) in Michigan waters in 1873. These initial stocking efforts were only marginally successful and were abandoned until nearly a century later.

- Facilitated data collection and improved future fishing opportunities by distributing more than 74,000 lake sturgeon and more than 107,000 muskellunge harvest tags. This is 335% more sturgeon tags and 115% more muskellunge tags than were issued the previous year.
- Helped to restore lake sturgeon populations by operating four streamside lake sturgeon rearing facilities, including on the Black (Cheboygan Co.), Kalamazoo (Kalamazoo Co.), Cedar (Menominee Co.), and Whitefish (Delta Co.) rivers.
- Experienced no significant fish losses in the entire fish production system from mechanical malfunctions or human error.
- Reduced energy usage and greatly reduced likelihood of mechanical failure by switching Harrietta State Fish Hatchery over to using bulk liquid oxygen rather than mechanically generated oxygen for fish rearing. This is the last of the six state hatcheries to make the conversion.
- Measured the overall quality of fish that are released into state waters by completing a total of 48 fish quality assessments. These included 29 for hatchery lots and 19 for net pen operations or cooperative rearing facilities.
- Reviewed and issued 50 state-commercial fishing licenses spread among four Great Lakes.
- Continued actively working with the Michigan Fish Producers Association, which represents state-licensed commercial fishers, to review and update Michigan's commercial fishing statute.
- Continued implementation of the 2000 Great Lakes and 2007 Inland [Consent Decrees](#) and worked to improve communications with Tribal governments in 1836 and 1842 ceded territories.
- Simplified fisheries rules and created new recreational fishing opportunities by modifying 10, rescinding three, and renewing five [Fisheries Orders](#).
- Developed 140 fish management recommendations and actions designed to improve fisheries.
- Discussed potential changes to bass fishing regulations aimed at increasing angling opportunities statewide by conducting nine public meetings throughout the state.
- Recognized more than 800 valid entries in the [Master Angler Program](#), 153 of which placed the anglers' entries in the top five for specific categories. State records were broken for five species, including black buffalo, brown bullhead, flathead catfish, quillback and white perch.
- Assisted anglers with assessing local fishing opportunities by disseminating weekly fishing reports to thousands of anglers using multiple communication tools.
- Shared more than 600 unique fishing-related messages with the hundreds of Twitter followers of [@MDNR\\_Fisheries](#). This is a 100% increase over FY2013.
- More than 1.1 million visitors viewed the "Fishing" section of the DNR's website. This is more than a 20% increase over FY2013.

## Strategic Resource Partnerships

### Strategic Plan - Goal 3

Managing Michigan's diverse world-class fisheries is no small task. In order to be successful, strategic partnerships with stakeholder groups, other Michigan state agencies, federal agencies, tribal governments, universities and many others have been developed over many years. These partnerships not only allow us to get more work done, but they also serve to further educate and inform our stakeholders on issues important to the state's aquatic resources.

In FY2014, Fisheries Division staff:

- Protected smallmouth bass, rainbow trout, brown trout, walleye and yellow perch populations from excessive predation by collaborating with DNR Wildlife Division, U.S. Department of Agriculture, and numerous active stakeholders to cull nearly 10,000 double crested cormorants.
- Provided enhanced customer service to charter fishing captains by significantly improving electronic data reporting options.
- Hosted nearly 44,000 people at the visitor centers at Oden and Wolf Lake State Fish Hatcheries. These visitors participated in programs ranging from interpreter-guided tours of the hatcheries to structured catch-and-release fishing programs for kids.
- Gained valuable assistance from 76 individuals who volunteered more than 1,900 hours of service.
- Partnered with 18 groups at net pens or cooperative rearing facilities.
- Provided technical guidance to multiple internal and external agencies on resource issues and concerns.
- Cooperatively managed fisheries of four Great Lakes with multiple state, tribal, U.S. federal and Canadian agencies, much of which was facilitated through the Great Lakes Fishery Commission.
- Served as active members of a workgroup aimed at ensuring that growth in the commercial aquaculture industry happens in a controlled, thoughtful way with the health of impacted aquatic systems given premium consideration.
- Continued to provide technical guidance to agencies and groups coordinating the "Restore the Rapids" project in Grand Rapids. This project seeks to enhance recreational opportunities on the Grand River in downtown Grand Rapids.
- Received input and recommendations on important fishery resource issues by continuing to work closely with each Great Lakes and inland citizen fishery advisory committees and a broad range of other external committees.

(continued on page 15)



## Success Story

The Michigan Inland Lakes Partnership held the inaugural Michigan Inland Lakes Convention at Boyne Mountain Resort on May 1-3, 2014. More than 400 people participated in the convention, including riparian property owners, non-governmental organizations, local government officials, students, commercial vendors, and state, federal, and tribal biologists.

Convention sessions covered a wide array of topics such as aquatic invasive species, fisheries management, natural shoreline protection, and watershed planning. Fisheries Division was heavily involved in the planning and implementation of this event.

- Assisted with outreach programs at the DNR's five salmon weirs. Several thousand people visited the weirs during the salmon season, including 16 school groups made up of nearly 800 children.
- Assisted with the yearly implementation of the [Salmon in the Classroom program](#) that had 203 schools and more than 16,000 students participating in rearing and stocking Chinook salmon.
- Continued collaboration with the Michigan Economic Development Corporation and regional economic development initiatives.
- Collaborated with university, agency and public partners on several projects such as:
  - o a collaborative review of proposed commercial aquaculture developments with Michigan Department of Agriculture and Rural Development, Department of Environmental Quality, and private industry and
  - o revising Lake Huron's Atlantic salmon stocking strategy.



## Strategically Focused Assessment & Decision Support Tools

Strategic Plan - Goal 4

Fish in Michigan's lakes, streams and hatchery systems require ongoing assessments to enable management of critical fisheries and fish populations including but not limited to walleye, yellow perch, muskellunge, lake sturgeon and many species of trout and salmon. Management actions may then be prescribed to improve a fishery through stocking, habitat improvement, regulations and education.

In FY2014, Fisheries Division staff:

- More than 45,000 anglers were interviewed at 60 Great Lakes ports, five inland lakes, and six streams during creel survey efforts. More than 100 requests for creel survey information from internal and external agency biologists, researchers, media and the public were filled.
- Collected fish samples throughout the state for ongoing fish disease monitoring and contaminant analysis for the Michigan Department of Community Health.
- Addressed fisheries management questions by conducting more than 50 research projects in the Great Lakes and inland waters.
- Took actions to formulate new or follow up on previous management activities or to evaluate and refine fish stocking strategies by completing more than 240 lake and stream surveys. These management actions create or enhance fishing opportunities for species such as walleye, northern pike, Great Lakes muskellunge, trout and salmon and enhance aquatic habitat that support sustainable fisheries.
- Collected biological data from anglers on more than 10,000 fish at Great Lakes and inland creel survey locations.
- Interacted with tens of thousands of non-angling members of the public to answer questions about fishing, hunting, parks, local geography and statewide policies related to natural resources management via 33 Statewide Angler Survey Program staff.
- Maintained and developed partnerships with diverse entities to achieve common goals by reviewing and issuing 276 scientific collectors permits, allowing permit holders to survey and possess aquatic species for research or education purposes.
- Gained an understanding of the dynamic fish populations in the Great Lakes by safely operating research vessels on four of the lakes to collect data.
- Conducted annual monitoring to maintain long-term trend information on fish communities and recreational angling use and success.
- Performed 153 fish health inspections for hatcheries, wild fish transfers, and broodstock sources and analyzed 16 diagnostic cases.
- Analyzed 29 lots of wild fish, with a majority being trout, from the Au Sable River near Grayling.



## Success Story

Funding was approved for construction of a new Lake Huron research vessel to replace the Research Vessel (R/V) Chinook which has been in operation since 1947. The new vessel will be named in honor of Howard Tanner, former DNR Director and Fisheries Division Chief who successfully introduced salmon to the Great Lakes in the mid-1960s.

When built, the R/V Tanner will incorporate tremendous increases in safety, reliability, speed and capacity for work critical to the continued recovery and monitoring of Lake Huron, Saginaw Bay and the St. Marys River. Fisheries Division had everything in place to hit the ground running by working with a marine architect to tweak and update blueprints originally developed and used to construct the R/V Lake Char, our Lake Superior research vessel and the newest boat in the fleet, in service since 2007.



Did you know? Michigan's first professionally trained fisheries biologist was Dr. Jan Metzelaar who joined Fisheries Division in 1927 and was one of the first trained state fisheries biologists in the country.



## Success Story

The Statewide Angler Survey Program is Michigan's long-term angler monitoring program. The program has approximately 30 personnel who interview anglers about their trips, collect fish data, and take counts of boats and anglers who are fishing. Throughout the season, roughly 10 million pieces of information are collected, processed and analyzed.

Monitoring angler harvest in close-to-real time is necessary to ensure Michigan doesn't exceed its quotas for certain species. Until this year SASP was capturing and recording data using Personal Digital Assistants with custom built software. These devices have since been discontinued by the manufacturer, so during 2014 SASP started the transition to data entry using smart phones. All clerks will start using the smart phones permanently during the winter fishing season of 2015. This will mark the first time Fisheries Division has relied on smart phones for data entry.

## Efficient Division Operations *Strategic Plan - Goal 5*

Fisheries Division is similar to many other businesses in that we have to do our work with fewer staff than we have had historically. To do so effectively requires deliberate strategic direction, division-wide planning, outreach and quality human and financial resources that ensure efficient operation and accountability of the division to the public.

In FY2014, Fisheries Division staff:

- Encouraged employees to critically evaluate current Fisheries Division processes and developed and implemented an internal "Bureaucracy Buster" process. The process encourages employees to critically evaluate current division processes and submit recommendations on how to improve efficiency and effectiveness.
- Managed an annual appropriation of more than \$30 million, with funding appropriated from the following sources: \$17,701,600 (Game and Fish), \$938,000 (Game and Fish Settlement), \$9,667,567 (Federal, Dingell-Johnson), \$34,030 (Federal, Other), \$75,834 (Private), and \$250,000 (General Fund/General Purpose).
- Appropriated the above funds to Fisheries Division's initiatives, including: \$938,000 (Aquatic Mitigation), \$9,412,936 (Fish Production), \$6,359,247 (Field Management), \$6,373,197 (Research & Assessment), \$1,841,800 (Creel), \$1,712,175 (Resource Support - Aquatic Species and Regulatory Affairs, Tribal, Habitat Management units), \$1,997,942 (Administrative - Executive and Program Support).
- Implemented year one of the five-year strategic plan ([Charting the Course: Fisheries Division's Framework for Managing Aquatic Resources](#)) and its associated supplemental tactical plan.
- Completed nearly 20% of the tactics determined by the strategic plan and implemented a biennial review to keep us on track and to assesses our progress.
- Sought input from all levels of staff in the development of an updated staffing plan that is focused on accomplishing the goals set forth in the strategic plan.
- Facilitated the division's human resource, information technology, education and outreach, purchasing, accounting and budgeting activities.
- Recognized employee accomplishments, engaged in team-building, and shared information by holding an in-service for all Fisheries Division employees for the second year in a row. Future division-wide meetings will be held every other year.

Learn more about Fisheries Division and fishing in Michigan by visiting [www.michigan.gov/fishing](http://www.michigan.gov/fishing).

Find us on Facebook at [www.facebook.com/midnr](http://www.facebook.com/midnr).  
Follow us on Twitter at [www.twitter.com/MDNR\\_Fisheries](http://www.twitter.com/MDNR_Fisheries).



Sign up for email from the Michigan DNR!  
Visit [www.michigan.gov/dnr](http://www.michigan.gov/dnr) and click on the red envelope.

Michigan Department of Natural Resources  
Fisheries Division  
525 W. Allegan Street  
Lansing, MI 48933  
(517) 284-5830

To provide comments on this report, please email them to  
[DNR-Fish-Accomplishments@michigan.gov](mailto:DNR-Fish-Accomplishments@michigan.gov).

The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations.

*Cover photo: Fisheries Biologist Scott Hanshue participates in a cisco survey on Harwood Lake in Cass County.*

