



**Michigan Department
of Natural Resources
Fisheries Division
2012 Annual Report**

Greetings,

From just about any angle – recreationally, economically or environmentally – our state’s fisheries are a Pure Michigan treasure, made possible through the hard work of the Department of Natural Resources’ Fisheries Division and the many public and private partnerships staff has cultivated over the years.

Michigan is home to world-class fishing opportunities in large part because of the sound, dedicated management and effort of those staff and partners. Filled with a robust variety of species, our lakes and inland waters are a tremendous draw for anglers seeking everything from brook trout and bass to perch and panfish.

Keeping those fisheries and water resources healthy, sustainable and accessible to the public is a responsibility the DNR Fisheries Division takes to heart, each and every day. Whether conducting aquatic surveys, designing habitat-improvement projects, evaluating proposed projects for their fisheries’ impact, or handling other critical tasks, these people do the real work that makes a real difference – and 2012 was a prime example of that commitment.

As you read about the year in review, I hope you are struck by the scope of what Fisheries Division and its many stakeholders have been able to accomplish, despite a number of challenges. I have full confidence that the coming years will be equally as impressive.

Sincerely,



Keith Creagh
Director, Department of Natural Resources



Dear Michigan Citizens,

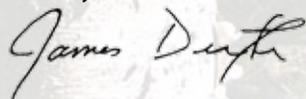
Thank you for taking the time to learn about Michigan’s fisheries and the work our staff has completed over the past year in order to sustain and improve this state’s great aquatic resources.

Each year we are reminded how difficult it is to maintain the state’s fisheries, particularly as revenue from fishing and hunting license sales – upon which we are financially dependent – continues to waver. But also each year we are encouraged by what we are able to achieve and by the positive responses and feedback we get from anglers like you.

This past year brought many successes for Michigan’s Fisheries Division as employees worked diligently on a variety of issues to manage some of the country’s best freshwater fishing resources. We are encouraged by how our efforts continue to translate into better fishing and an increased awareness of the various ways everyone can support or enjoy Michigan’s fisheries. For example, this past year we saw an increase of 84 recipients in the Master Angler program, four state records broken, one new world record, sales of the Voluntary Youth Fishing License increase by nearly 13 percent, a jump in participating Salmon in the Classroom schools by 26 percent, enhanced creel clerk efforts with the surveying of 18 new locations, and much more. These few examples highlight just how hard everyone has been working to maintain the status of Michigan’s fisheries.

While we progress into 2013 and begin work on Fisheries Division’s new strategic plan, “Charting the Course,” we will continue to manage Michigan’s aquatic resources for current and future generations. As always, we encourage your input on what we can do to continue to improve our resources for all Michigan citizens. Your voice is critical to us, because it is our job to manage these resources on your behalf. To share your thoughts please email us at DNR-Fish-Accomplishments@michigan.gov.

Sincerely,



Jim Dexter
Chief, DNR Fisheries Division



In Michigan you're never more than 10 minutes away from great fishing. Michigan has great fisheries diversity and in fact, has the largest freshwater fishing portfolio in the world. That means access to 153 different species of fish; 3,000 miles of Great Lakes shoreline; more than 11,000 inland lakes; and more than 36,000 miles of rivers and streams, including 20,000 miles suitable for trout or salmon.

Those species, shorelines, lakes and streams require management and stewardship so they can be conserved and protected for future generations. This management is conducted by the Michigan Department of Natural Resources, Fisheries Division which implements numerous activities and initiatives on an annual basis.

Michigan's fishery includes fish, habitat and people. This annual report is organized along those lines. Without the dedicated efforts of Fisheries Division staff, the people of the state would not be able to enjoy the world-class fisheries and aquatic resources that they do.

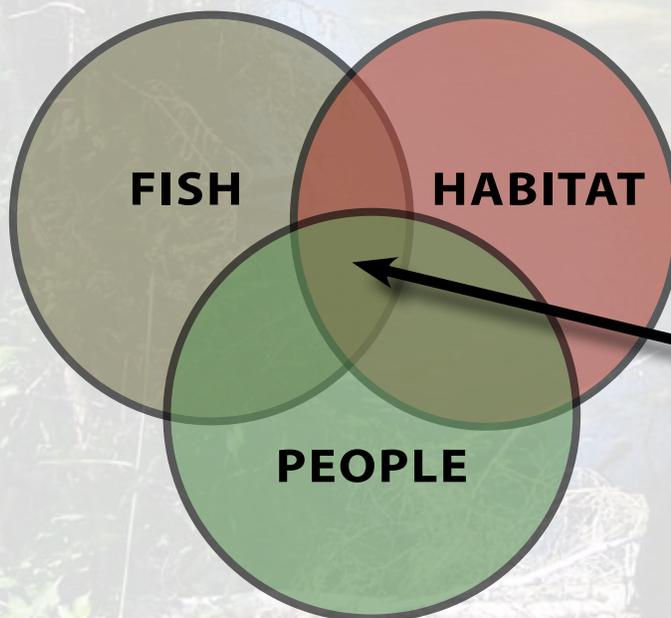
Recreational fisheries are a huge economic engine for the state and provide the largest and highest-value use of Michigan's aquatic resources. As documented in a 2013 [American Sportfishing Association](#) report, approximately 1.4 million Michigan residents and 347,000 non-residents fished in state waters in 2011. These anglers fished nearly 28 million days and contributed an overall annual value of sportfishing to Michigan's economy estimated at \$4.4 billion. That figure includes \$2.4 billion from retail sales, \$1.4 billion in wages and salaries, \$623 million in tax revenues, and the rest from various smaller sources. In addition, nearly 38,000 jobs were attributable to Michigan's sportfishing industry. In this study, Michigan ranked third nationally with respect to angler expenditures following Florida and New York.

In addition, Michigan's commercial fishery was valued at \$11.2 million in 2011. Wholesaling, processing and retailing produce an additional estimated \$10 million annually in economic benefit.

Quick Fact:

Michigan has 11,000 inland lakes that are five acres in size or larger.

Many of these provide significant fishing and other recreation opportunities!



**Michigan's
Fishery**

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

How does Fisheries Division manage Michigan's fishery?

Fisheries Division:

- Regularly interacts with the public and other agencies;
- Conducts aquatic surveys and assessments to measure status, evaluate management success, and serve as an early warning to environmental problems;
- Reviews permit applications that may impact fisheries in order to provide advice and counsel for protection of fisheries resources;
- Prescribes, designs, conducts and assists in habitat improvement projects;
- Implements fishing regulations on inland waters and the Great Lakes;
- Manages state-licensed commercial fishing; and
- Stocks fish in public waters for rehabilitation of fish populations; providing diverse fishing opportunities, improving fish community balance, and for experiments.

Quick Fact:

To manage Michigan's vast fisheries resources there are 149 fulltime and 40 seasonal employees in the DNR's Fisheries Division.

Each full-time Fisheries Division field biologist currently manages an average of 510,000 surface acres - more by far than employees from any other state in the country.

Michigan's Fish & Fish Communities

Fish in Michigan's lakes, streams and hatchery systems require on-going assessments to evaluate their health. Management actions may then be prescribed to improve a fishery through stocking, habitat improvement, regulations and education. In 2012, Fisheries Division:

- Completed 92 lake surveys and 100 stream surveys. As a result of these surveys, 102 management actions were developed to evaluate and refine fish stocking strategies. These management actions will either continue, create or enhance fishing opportunities for species such as walleye, northern pike, Great Lakes muskellunge and trout. Thirteen additional management actions were developed to enhance aquatic habitat that will support sustainable fisheries.
- Completed a walleye management plan for [Little Bay de Noc](#) and a [State of Michigan Lake Sturgeon Rehabilitation Strategy](#).
- Investigated fish kills caused by low dissolved oxygen, diseases and accidental spills.
- Collected fish samples throughout the state for ongoing fish disease monitoring and contaminant analysis for the [Michigan Department of Community Health](#).
- Conducted more than 50 research projects in the Great Lakes and inland waters to address priority fisheries management questions.
- Addressed management of critical fisheries and fish populations including walleye, yellow perch, steelhead, lake sturgeon and lake trout through research and assessment.
- Collaborated widely with university, agency and public partners on several projects such as:
 - a new walleye assessment model for [Lake Erie](#) that will more accurately predict species abundance to inform recommended harvest quotas,
 - a Chinook salmon stocking reduction plan was implemented in [Lake Huron](#), and
 - a proposal to reduce Chinook salmon stocking was developed for [Lake Michigan](#).
- Conducted annual monitoring to maintain long term information on fish communities and recreational angling use and success.



Michigan's Fish & Fish Communities

- Implemented new technologies (e.g., voice recognition for data collection, hydroacoustic assessments of fish populations) to increase efficiency and reduce cost, expanding information collection capabilities.
- Evaluated regulation and stocking actions that included the modification of 13 [Fisheries Orders](#) resulting in rule simplification and new fishing opportunities and the writing and reviewing of 143 fish management prescriptions designed to improve fisheries.
- Conducted 117 inspections for all hatcheries and broodstock sources, analyzed 22 fish health cases, and analyzed more than 10,000 fish (representing 26 species) for Viral Hemorrhagic Septicemia (VHS).
- Completed 38 Fish Quality Assessments by hatchery and field personnel, including 25 groups of fish at state hatcheries and 13 groups at net pens or cooperative rearing facilities.
- Saw no significant fish losses in the entire fish production system from mechanical malfunctions or human error. As a result of rigorous hatchery inspection protocols, only one significant fish health issue was documented in the fish production system. Marquette State Fish Hatchery had an outbreak of fish herpes virus (Epizootic Epitheliotropic Disease or EEDv) which caused a 20% loss of fall fingerling lake trout in inventory.

Fish stocking is 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 rearing ponds and 12 Great Lakes net pen locations for salmon and steelhead, and maintains 17 specialized fish stocking trucks. In 2012, fish production staff:

- Stocked more than 19,500,000 fish weighing nearly 370 tons, including:
 - 8 species of trout and salmon and
 - 4 coolwater species including walleye and muskellunge.
 - Stocked 728 sites via 585 stocking trips, driving nearly 138,000 miles to stock fish.



Protecting & Rehabilitating Michigan's Aquatic Habitat

Healthy fisheries require habitat that provides high quality and diversity. Through cooperation with other divisions, agencies, organizations and the public, the protection and rehabilitation of aquatic resources and habitats is one of the DNR's most important duties and responsibilities. In 2012, Fisheries Division staff:

- Engaged in 12 projects that reconnected and improved 150 miles of streams and rivers. As a result of these projects, habitat conditions for species such as brown trout, brook trout and walleye were improved which will contribute to enhanced fishing experiences in these rehabilitated areas.
- Provided technical assistance on three dam removal projects resulting in 155 miles of rehabilitated stream habitat.
- Provided technical expertise and stream morphology (shape) assistance on more than 50 stream habitat rehabilitation projects. As a result of these efforts, habitat conditions that have degraded fisheries communities, such as perched culverts and excessive erosion sites, were mitigated which will contribute to enhanced and sustainable fish communities for a variety of species.
- Engaged in various habitat initiatives including aerial photo surveys of river corridors, lake habitat mapping in select Northern Michigan lakes, and shoreline feature analyses to improve our understanding of Michigan's habitat.
- Worked with Michigan Department of Environmental Quality, county road commissions, drain commissioners, conservation districts, conservation organizations, U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Army Corps of Engineers, and Michigan Tech University to develop and implement an electronic inventory of road stream crossings which will allow for prediction of fish passage through a culvert structure. The collected road stream data will allow uploading of information to a statewide database that may be used by anyone with internet access.

Quick Fact:

Since 2001, the Habitat Improvement Account has distributed more than \$2 million to fund habitat improvement projects, fishing access development/improvement, dam removal, road stream crossing improvement, and other habitat and access efforts in the AuSable, Manistee and Muskegon river watersheds.

Protecting & Rehabilitating Michigan's Aquatic Habitat

Many development projects have direct effects on Michigan's fisheries by impairing fish habitat. Such negative effects can be either (1) avoided or minimized during the application or licensing process; or (2) mitigated by a development applicant who either directly corrects project effects or provides funds to Fisheries Division to offset resource damage. In 2012, Fisheries Division staff:

- Reviewed and provided comments on nearly 3,000 Michigan Department of Environmental Quality/ Michigan Department of Transportation permit applications in efforts to ensure habitat protection.
- Provided key input for the DNR on new Michigan Department of Environmental Quality rules for [General Permits](#) for development projects and U.S. Environmental Protection Agency power plant rules that will protect a broad range of fish habitat and prevent unnecessary fish losses from power plant operation.
- Reviewed 128 Natural River Program permit applications ensuring protection of riverine riparian zones.
- Developed a new consolidated draft rule package covering all 14 state designated [Natural Rivers](#) that will be available for public comment in 2013.

Fisheries Division manages a Habitat Improvement Account (HIA) that was established in order to mitigate for resource impacts from hydropower dam operations. These mitigation funds are used to fund and implement habitat improvement and research projects on the AuSable, Manistee and Muskegon river systems. In 2012, Fisheries Division staff:

- Supported six dam removal projects (\$304,000); five habitat improvement projects with large, woody structure (\$334,782); a roadstream crossing project (\$100,000); two research projects, with one addressing fish movement (\$27,794); two information gathering projects, one for road stream crossings and a creel survey (\$47,191); and two angler access projects (\$115,000) - all with HIA mitigation funds.
- Worked collaboratively with Consumers Energy regarding a settlement agreement and compliance efforts on the AuSable, Manistee and Muskegon rivers. These efforts are protecting key fisheries stream habitat and ensuring continued availability of recreational opportunities on 11 impoundments and in tail water areas of 11 dams.



Michigan's People

Successful fisheries management includes educating Michigan's public and anglers about the state's aquatic resources. Educational programs and information, coupled with appropriate regulations, can help inform the public about diverse public fishing opportunities that maximize the value of Michigan's aquatic resources and fishing. In 2012, Fisheries Division staff:

- Culled nearly 11,000 double crested cormorants to protect smallmouth bass, rainbow trout, brown trout and yellow perch populations from excessive predation. This was a result of a collaborative partnership among DNR Wildlife Division, DNR Fisheries Division, U.S. Department of Agriculture, and numerous active stakeholders.
- 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 and U.S. and Canadian agencies.
- Actively engaged with each [Great Lakes and Inland Citizen's Fishery Advisory Committee](#) and a broad range of other external committees to receive recommendations on important resource issues. As a result of engaging and listening to public concerns, Fisheries Division redesigned its webpage to be more user-friendly and began an initiative to provide information commonly requested, such as schedules and reports of fisheries surveys.
- Actively engaged with the public on regulation proposals and fish stocking through public meeting venues.
- Recognized 1,189 successful entries into the [Master Angler Program](#).
- Provided weekly fishing reports using multiple communication tools to assist anglers in assessing fishing opportunities.
- Produced and distributed educational materials on fish diseases, such as [VHS](#).
- Assisted with programs at the DNR's [interpretive centers](#) at six hatcheries that had more than 42,000 visitors in 2012.
- Assisted with the [Salmon in the Classroom](#) program that now has 180 schools participating in raising and stocking Chinook salmon, a 26% increase since 2011.
- Conducted [creel surveys](#) of more than 45,000 anglers at 55 Great Lakes ports, two inland lakes, and nine streams, and filled hundreds of requests for creel survey information from biologists, researchers, media and the public.
- Collected biological data from anglers on more than 10,000 fish at Great Lakes and inland creel survey locations.
- Benefitted from the services of 175 individuals who volunteered more than 4,480 hours.

Quick Fact:

There were more than 1.2 million total resident and non-resident licensed anglers in Michigan in 2012.

This is a 9% increase compared to 2011.

Michigan's People

A key component of Michigan's fishery includes the oversight of state licensed commercial fishing and the implementation of consent decrees that provide for the exercising of tribal fishing rights. Management of state-licensed commercial fishing maintains stable commercial fisheries, provides local economic stability, and accommodates tribal fishing rights in treaty-ceded waters through negotiated harvest levels that minimize conflict with recreational fisheries. Implementation of tribal consent decrees and other legal judgments ensure both tribal fishing rights and Michigan's fisheries resources are protected. In 2012, Fisheries Division staff:

- Reviewed and issued 50 state commercial fishing licenses covering four Great Lakes.
- Continued implementation of the [2000 Great Lakes](#) and [2007 Inland Consent Decrees](#) and improved communications with Tribal governments in 1836 and 1842 ceded territories.
- Collaborated on various stocking approvals, walleye population estimates, brook trout regulation changes, lake sturgeon population estimate and allocation in Black Lake (Cheboygan County), and improved data reporting and collaboration with 1836 Tribal governments. Also, collaborative work continued on the [Boardman Watershed](#) restoration project and the [Inland Waterway](#) survey, which focuses on several large lakes and connected rivers in northern Michigan to gain a better understanding of walleye populations and harvest.
- Reviewed and issued 257 scientific collectors permits, allowing permit holders to survey and possess aquatic species for research or education purposes. As a result of these efforts, we maintained and developed active partnerships with diverse entities to achieve common goals such as assessing wood turtle population status and assisting in growing local wood turtle populations through egg incubation, hatching, rearing and stocking.

Quick Fact:

In 2011, Michigan supported a Great Lakes commercial fishery that landed 9.7 million pounds of fish (72% lake whitefish). Most of the fish landed are harvested by tribal fishers, the remainder are harvested by state-licensed fishers.

Fisheries Division can not operate without strategic direction, division-wide planning, outreach, and quality human and financial resources that ensure efficient operation and accountability of the division to our publics. In 2012, Fisheries Division administrative staff:

- Facilitated the division's human resource, information technology, education and outreach, purchasing, accounting and budgeting activities.
- Managed an annual appropriation of more than \$27 million, with funding received from the following sources: \$15,052,100 (Game and Fish), \$937,600 (Game and Fish Settlement), \$9,985,300 (Federal - Dingell-Johnson), \$199,600 (Federal - Other), \$89,300 (Private), and \$1,038,100 (General Fund/General Purpose).
- Appropriated the above funds to Fisheries Division's initiatives, including: \$937,600 (Aquatic Mitigation), \$9,092,600 (Fish Production), \$6,365,000 (Field Management), \$6,427,000 (Research & Assessment), \$1,653,300 (Research - Creel), \$1,556,500 (Resource Support - Aquatic Species and Regulatory Affairs, Tribal, Habitat Management Unit), \$1,270,000 (Administrative - Executive and Program Support).
- Ranked in the top 10 state and local organizations (DNR) for most shared content (via email and social media) according to [GovDelivery](#).
- Fisheries Division had more than 225,000 subscribers to its fishing-related email listservs. These individuals received information related to [Weekly Fishing Report and Tips](#), [Free Fishing Weekends](#), and Fishing Hot Topics.
- Distributed more than 234,000 information and promotional materials and publications to interested individuals located throughout the state and the country by the Education and Outreach Section.
- Received more than 2.4 million visitors to the "[Fishing](#)" section of the DNR's website, with the most popular months being April, May and June.



Spotlight on Partners

Michigan not only contains world-class aquatic resources, it contains world-class stakeholders and organizations committed to partnering with Fisheries Division to protect, enhance and provide recreational fisheries for current and future generations. Fisheries Division simply could not adequately achieve its mission without the assistance and dedication of diverse partners throughout the state. We are extremely grateful to all the individuals and organizations that partner with us, and take this opportunity to recognize some of the individuals and organizations we partnered with in 2012.

The following received Fisheries Division's **Outstanding Partnership Award** in 2012 which recognizes individuals or organizations (ie. clubs, industries, municipalities) outside of the DNR that have shown dedication and enthusiasm in helping Fisheries Division provide recreational fisheries and/or protection of the fishery resources:

- The **Barry County Conservation District** for their leadership, participation and commitment to aquatic habitat restoration projects and natural resources education and outreach efforts in Barry and Eaton Counties.
- The **Conservation Resource Alliance** for their facilitation and coordination of numerous habitat and fisheries enhancement projects in the Northern Lower Peninsula.
- The **Michigan Muskie Alliance** for their consultation and volunteer efforts to develop and implement management, research, education, and outreach projects that enhanced hatchery operations and muskie populations throughout the state.
- The **Upper Black River Council** for their efforts to collect data and implement habitat restoration projects in the Black River that serves as a model for watershed restoration.
- **Frank Krist** for his tireless volunteer and outreach efforts over the past 25 years. Mr. Krist is the Chairman of the **Lake Huron Citizen Advisory Committee** and Co-Chair of the **Inland Waterways Citizen Advisory Committee**.
- **Dick Callen** from southwest Michigan for volunteering his time to assist with Fisheries Division surveys, egg takes, fin clipping projects, fishing tournaments, and fish ladder maintenance.
- **Todd Losee** and **Amy Lounds** with the Michigan Department of Environmental Quality for their efforts to negotiate the general and minor permit categories for DEQ over the past seven years.
- **Robert Homan** of Lansing for his volunteer work to input thousands of historical Fisheries Division records into an up-to-date electronic database.



Bay de Noc Great Lakes Sport Fisherman, Inc. of Delta County received a **Partners in Conservation Award** from DNR Director Keith Creagh and the Michigan Natural Resources Commission in 2012 for their outstanding contributions to natural resources management or initiatives. This organization, through the coordination of special events and projects, improves the fishery in Lake Michigan and Upper Peninsula waters and provides opportunities to introduce youth to the sport of fishing.

In addition to the above mentioned partners, the DNR worked collaboratively in 2012 with several other entities and individuals on special projects. These collaborations and projects include:

- Michigan State University's Partnership for Ecosystem Research and Management (PERM)
- Lake Huron/Lake Superior hooking mortality studies for lake trout
- Lake sturgeon rearing on Northern Michigan's Black River and the Kalamazoo River
- Lake Huron Reef Restoration study
- Atlantic salmon production (Lake Superior State University)
- Boardman River dam removal process



Fisheries Division

Mission & Vision Statements

In 2012, Fisheries Division undertook the task of developing a new strategic plan. A large part of this process included both external and internal input on where the division should focus its future efforts. Fisheries Division emailed Michigan anglers seeking input on the DNR strategic planning process. Anglers were asked to go online and fill out a survey with 22 questions. There were 10,280 respondents that took that online survey. Also, Jim Dexter, Chief of Fisheries Division, spoke personally with individual leaders/representatives of various angler groups to seek their input on the DNR strategic planning needs by asking nine questions about their opinions of division work efforts.

As a result of these efforts, the 2013-2017 strategic plan – “[Charting the Course](#)” – provides a vision and relevant activities for managing the various components of Michigan’s fisheries, including its fish, their habitat and anglers. It is designed to assist the division in meeting its long-standing responsibilities to protect, manage and enhance Michigan’s aquatic resources for the benefit of current and future generations.

Mission Statement:

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

Vision Statement:

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



Values:

The following six values guide the work of the Michigan Department of Natural Resources, Fisheries Division:

- Integrity
- Professionalism
- Leadership
- Collaboration
- Innovation
- Transparency



Next year's annual report will move Fisheries Division into an updated reporting schedule that will reflect activities on a State of Michigan fiscal year basis (October 1 – September 30) and linkage to the new strategic plan, "Charting the Course."

Learn more about Fisheries Division and fishing in Michigan by visiting www.michigan.gov/fishing.

Find us on Facebook at www.facebook.com/midnr.
Follow us on Twitter at www.twitter.com/MichiganDNR.



Sign up for email from the DNR!
Visit www.michigan.gov/dnr and click on the red envelope.

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To provide comments on this report, please email them to
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: DNR Fisheries Technician Bob Kerry with a Great Lakes muskellunge on the Detroit River.



Fish for the Future

