

Michigan Department of Natural Resources

Fisheries Division
Annual Report

Fiscal Year 2013



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.

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.

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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 2014

Greetings,

From steelhead and salmon to whitefish and walleye, Michigan's lakes, rivers and streams are teeming with one of Michigan's most prized and sought-after natural resources. Our long, strong fishing tradition is a significant contributor to Michigan's economic, recreational and environmental health, safeguarded in large part by the dedicated staff of the Department of Natural Resources' Fisheries Division.



More than a responsibility, more than a job, managing Michigan's world-class fisheries is a passion for the men and women of this division. Every day, staff and valued partners are working on behalf of the resource, and the work they do is diverse. In fiscal year 2013, Fisheries Division:

- Engaged the public on regulation proposals and fish stocking efforts;
- Constantly assessed the health and quality of fish being produced by hatchery and field personnel;
- Provided continued leadership on aquatic invasive species, including conducting an Early Detection and Prudent Response exercise for Asian carp on the St. Joseph River;
- Prepared well over 100 fish management prescriptions designed to improve state fisheries; and
- Leveraged multiple communications tools to share weekly fishing reports including news on recreational fishing opportunities to thousands of anglers.

That's just a snapshot of the many accomplishments Fisheries Division achieved in 2013. I encourage you to look through this report to learn more about the excellent effort put forth by staff and stakeholders this year. This year's good work prepares us for even more success in 2014.

Thank you for being a part of this proud Michigan tradition.

Sincerely,

Setth Creagh

Keith Creagh

Director, Department of Natural Resources

January 2014

Dear Michigan Citizens,

Thank you for taking the time to learn about the state's fisheries and the work our staff completed during Fiscal Year 2013 to sustain and improve Michigan's world-class aquatic resources.

Every year we are presented with new challenges when it comes to maintaining the state's fisheries. We strive to overcome these challenges to ensure our resources continue to stand out as some of the best in the world.



This past year brought many successes for the Michigan

Department of Natural Resources. Fisheries Division employees worked tirelessly on numerous issues to manage the state's fisheries. Much of our effort translates into better angling for all and an increased awareness of the various ways residents and visitors can enjoy or support Michigan's fisheries. In fact, in 2013 *BASS Magazine* ranked Lake St. Clair as the best bass fishery in the nation, and four other Michigan waters ranked in the top 100.

Over the past year we've increased our communication with the public through a variety of outlets, including social media; we've engaged people of all ages about the state's fisheries and their importance; we've connected with more anglers about fishing and their thoughts on our management efforts, and there's much more than that! These activities highlight just how hard everyone has been working to maintain the integrity and status of Michigan's fisheries.

I'd like to note that this year's annual report is reflective of the State of Michigan's fiscal year, running from October 1 through September 30. This year's report is also linked more closely to our strategic plan which was also completed this year (*Charting the Course*). We hope you enjoy this new format.

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 you can email us at

DNR-Fish-Accomplishments@michigan.gov or contact us by phone at 517-284-5830.

Sincerely,

Jim Dexter

Chief, DNR Fisheries Division

Michigan has the largest freshwater fishing portfolio in the world. In this state you're never more than 10 minutes away from excellent, diverse angling. That means you've got access to 154 different species of fish; 3,000 miles of Great Lakes shoreline; more than 11,000 inland lakes; and tens of thousands of miles of rivers and streams, of which 20,000 miles are suitable for trout or salmon.

The Michigan Department of Natural Resources, Fisheries Division plays a critical role in managing and providing stewardship for those species, shorelines, lakes and streams. The division implements numerous activities and initiatives on an annual basis so that resources can be enjoyed and perpetuated by current and future generations.

In 2013 Fisheries Division completed a five-year strategic plan (*Charting the Course: Fisheries Division's Framework for Managing Aquatic Resources*) that details how we will continue managing fish and aquatic communities, habitat, anglers and the division itself. This annual report for Fiscal Year 2013 is organized to reflect activities of the division within that strategic plan and achieve its mission, vision, values and five goals.

Being home to popular and diverse fisheries brings many economic benefits to Michigan. 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 from 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.

^{*}Includes anglers less than 17 years of age that do not require a fishing license.



Fisheries Division Values

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



Fisheries Division Strategic Plan Goals

Goal 1: Healthy Aquatic Ecosystems & Sustainable Fish Populations

Goal 2: Diverse Fishing Opportunities

Goal 3: Strategic Resource Partnerships

Goal 4: Strategically Focused Assessment & Decision Support Tools

Goal 5: Efficient Division Operations



Quick Fact:

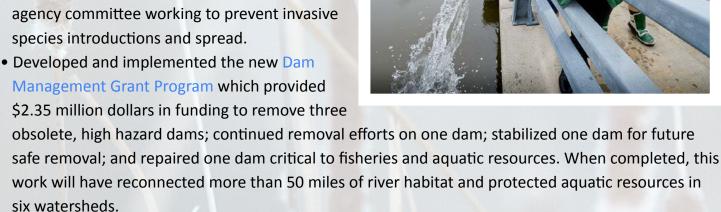
Globally, people consume more fish than cattle, sheep, poultry and eggs combined. Michigan's state-licensed commercial fishermen provided 1,750 tons of fish in 2013 for human consumption.

Goal 1: Healthy Aquatic Ecosystems and Sustainable Fish Populations

Healthy fisheries require high quality and diverse habitat. The protection and rehabilitation of aquatic resources and habitats is one of the DNR's most important duties and responsibilities, as is protecting against aquatic invasive species and their impacts on the state's natural resources.

In 2013, Fisheries Division staff:

- Actively participated on the Asian Carp Regional Coordinating Committee to assess, control and manage the spread of silver and bighead carp in the Great Lakes basin.
- Actively participated on the State of Michigan Aquatic Invasive Species Core Team, a multiagency committee working to prevent invasive species introductions and spread.
- **Management Grant Program which provided** \$2.35 million dollars in funding to remove three



- Provided technical assistance on three additional dam removals, two fish passage initiatives, and two road stream crossings that will result in more than 65 additional miles of reconnected aquatic habitat.
- Provided the hydrological and stream morphology (channel shape) expertise for nine stream habitat rehabilitation projects ranging from future dam removals to excessive erosion sites to channel re-establishment. This work will eventually protect and rehabilitate aquatic habitat leading to enhanced and sustainable fish communities.
- Reviewed 113 Natural River permit applications ensuring protection of riparian zones on 12 watersheds.
- Completed a public review process and implemented new Natural Rivers Administrative Rules that consolidated and refined regulations for all 14 designated Natural Rivers into one rule.
- Provided input on hydropower projects administered by the Federal Energy Regulatory Commission, thereby helping to protect habitat and public access on 19 watersheds throughout the state.

- Provided input to the Department of Environmental Quality related to thermal power plant effects on aquatic resources, with recommendations for mitigation and prevention.
- Investigated fish kills caused by low dissolved oxygen, diseases and accidental spills.
- Reviewed and provided comments on nearly 3,000 Michigan Department of Environmental Quality/ Michigan Department of Transportation permit applications to ensure consideration of habitat protection.
- Engaged in various habitat initiatives; such as 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.



Fisheries Division manages a Habitat
Improvement Account (HIA) 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 2013, Fisheries Division staff:



- Facilitated the completion of two projects, including a fish barrier analysis on the Muskegon River (\$26,163) and improvements to the Mio Dam tailwater access site (\$105,000).
- Supervised the continuation of eight projects with a total funding of \$748,126 including:
 - o Five habitat improvement projects (Bear Creek, Manistee River system; South Branch of the Au Sable River; North Branch of the Au Sable River; Mainstream of the Au Sable River, and the Williams Tract of the Au Sable River).
 - o Three research projects (trout movements in the Au Sable River; creel survey below Foote Dam, Au Sable River; and steelhead survival below Croton Dam, Muskegon River).
 - o One road-stream crossing project (Yates Road, Manistee River).
- Approved five new projects for 2014 totaling \$328,070 that included:
 - o Two fish habitat improvement projects (Au Sable and Muskegon rivers).
 - o One basin-wide fish habitat analysis project to improve prioritization of work in the Au Sable River.
 - o One road-stream crossing inventory project on the Manistee River.
 - o One project evaluating effectiveness of installed habitat improvement structures in the North Branch of the Au Sable River.

Goal 2: Diverse Fishing Opportunities

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 17 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 fishing rights. Management of state-licensed commercial fishing helps to maintain stable fisheries, provide local economic stability, and accommodate tribal fishing rights in treaty-ceded waters by



scientifically controlling harvest levels and minimizing conflict with recreational fisheries. Implementation of consent decrees and other legal judgments ensures protection of both the rights of all citizens and of Michigan's fisheries resources.

In 2013, Fisheries Division staff:

- Reviewed and issued 50 state-commercial fishing licenses applicable to 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.
- Modified 13 and rescinded three Fisheries Orders providing fisheries rule simplification and new recreational fishing opportunities.
- Prepared and reviewed 124 fish management prescriptions that recommend management actions designed to improve fisheries.
- Recognized more than 900 successful entries in the Master Angler Program and verified a
 new state record Great Lakes muskellunge (and subsequent world record) caught on Lake
 Bellaire (Antrim County).

- Distributed weekly fishing reports to thousands of anglers using multiple communication tools to assist them in assessing fishing opportunities.
- Shared more than 300 unique fishing-related messages with the hundreds of Twitter followers of @MDNR_Fisheries.
- Received more than 900,000 visitors to the "Fishing" section of the DNR's website.
- Operated five lake sturgeon rearing facilities, including on the Black (Cheboygan Co.), Kalamazoo (Kalamazoo Co.), Cedar (Menominee Co.), Whitefish (Delta Co.) and Ontonagon (Ontonagon Co.) rivers to help restore lake sturgeon populations.
- Distributed nearly 17,000 lake sturgeon and 50,000 muskellunge harvest tags which will facilitate data collection and improve future fishing opportunities for these species.
- Operated blocking weirs on five Michigan streams to capture returning adult steelhead, coho and Chinook salmon. Eggs and milt are collected from these fish to perpetuate statewide rearing and stocking programs. In 2013, division personnel collected:
 - o Nearly 6,500 adult Chinook salmon and more than 4 million eggs at the Little Manistee weir during the fall migration.
 - o Nearly 34,000 adult coho salmon and 4.8 million eggs at the Platte River weir during the fall migration.
 - o Nearly 3,700 adult steelhead and 4.3 million eggs at the Little Manistee weir during the spring migration.
- Stocked approximately 16 million fish weighing nearly 350 tons. Fish stocking contributes a
 minimum of \$300 million dollars in economic activity from
 fishing and fishing-related expenditures. Fish stocked in 2013
 - o Seven species of trout and salmon, including 120,000
 Atlantic salmon at four locations on Lake Huron, and one hybrid (splake).
 - o Seven coolwater species, including walleye and muskellunge.

included:

- Stocked fish at 996 sites representing 546 stocking trips, driving nearly 131,600 miles to stock fish.
- Experienced no significant fish losses in the entire fish production system from mechanical malfunctions or human error.
- Completed 44 fish quality assessments, including 27 for hatchery lots and 17 for net pen operations or cooperative rearing facilities, to ensure healthy and high-quality fish are released into state waters.



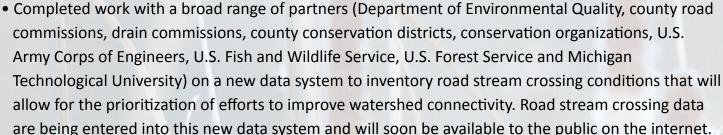
Goal 3: Strategic Resource Partnerships

Successful fisheries management includes educating Michigan's public, anglers and stakeholders about the state's aquatic resources. Educational programs and information, coupled with appropriate regulations, can help inform these audiences about diverse public fishing opportunities that maximize the value of Michigan's aquatic resources and fishing.

In 2013, Fisheries Division staff:

- 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. and Canadian agencies facilitated through the Great Lakes Fishery Commission.
- Distributed more than 145,000 informational and promotional materials
 and publications to interested individuals





- Collaborated with DNR Wildlife Division, U.S. Department of Agriculture, and numerous active stakeholders to cull nearly 11,000 double crested cormorants. This was done to protect smallmouth bass, rainbow trout, brown trout, walleye and yellow perch populations from excessive predation.
- Continued execution of a settlement agreement and compliance efforts with Consumers Energy on the Au Sable, Manistee and Muskegon rivers. These annual efforts protect and improve key stream habitats and ensure continued availability of recreational opportunities on 11 impoundments and tail water areas of 11 dams in these watersheds.
- Provided technical guidance to multiple agencies and groups for the "Restore the Rapids" project in Grand Rapids. This project seeks to enhance recreational opportunities in downtown Grand Rapids.
- Significantly improved electronic data reporting options for charter anglers, providing enhanced customer service to these groups.



- Actively engaged with each Great Lakes and inland citizen fishery advisory committees and a broad range of other external committees to receive recommendations on important fishery resource issues.
- Actively engaged with the public on regulation proposals and fish stocking through public meeting venues.
- Assisted with outreach programs at the DNR's five salmon weirs that had more than 7,000 visitors.
- Produced and distributed educational materials on fish diseases and invasive species.
- Assisted with programs at the DNR's interpretive centers at six hatcheries that had 46,700 visitors.
- Assisted with the Salmon in the Classroom program that had 166 schools and more than 16,000 students participating in raising and stocking Chinook salmon.
- Benefitted from the services of 98 individuals who volunteered more than 3,000 hours.
- Partnered with 13 groups at net pens or cooperative rearing facilities.
- Enhanced collaboration with the Michigan Economic Development Corporation (MEDC) and regional economic development initiatives.
- Collaborated with university, agency and public partners on several projects such as:
 o a new yellow perch assessment model for Lake Erie to predict species abundance and
 inform recommended harvest quotas,
 - o an Atlantic salmon stocking strategy for Lake Huron, and
 - o a Chinook salmon stocking reduction plan which was implemented in Lake Michigan.



Quick Fact:

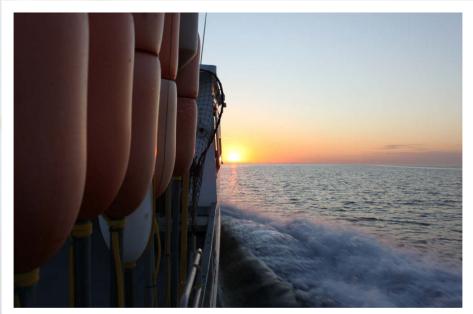
Fisheries Division had more than 325,000 subscribers to its fishing-related email lists. These subscribers received information related to the Weekly Fishing Report, Free Fishing Weekends, Fishing in Michigan and Fishing Hot Topics.

Goal 4: Strategically Focused Assessment and Decision Support Tools

Fish in Michigan's lakes, streams and hatchery systems require ongoing assessments to address management of critical fisheries and fish populations including but not limited to walleyes, 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 2013, Fisheries Division staff:

 Completed almost 200 lake and stream surveys. As a result of these surveys, actions were taken to follow up on previous management activities or to evaluate and refine fish stocking strategies. These management actions create or enhance fishing opportunities for species such as walleyes, northern pike, Great Lakes muskellunge, and trout and



salmon and enhance aquatic habitat that support sustainable fisheries.

- Conducted creel surveys of more than 50,000 anglers at 59 Great Lakes ports, six inland lakes, and 13 streams, and filled hundreds of requests for creel survey information from internal and external agency biologists, researchers, media and the public.
- Collected biological data from anglers on more than 9,000 fish at Great Lakes and inland creel survey locations.
- Interacted with approximately 100,000 non-angling members of the public to answer questions about fishing, hunting, parks, local geography and statewide policies related to natural resource management via 30 Statewide Angler Survey Program staff.
- Reviewed and issued 307 scientific collectors permits, allowing permit holders to survey and possess aquatic species for research or education purposes. As a result, we maintained and developed partnerships with diverse entities to achieve common goals.

- Collected fish samples throughout the state for ongoing fish disease monitoring and contaminant analysis for the Michigan Department of Community Health.
- Operated research vessels on four Great Lakes to collect data necessary to ensure



maintenance of world-class fisheries in these waters.

- Conducted more than 50 research projects in the Great Lakes and inland waters to address priority fisheries management questions.
- Conducted annual monitoring to maintain long-term trend information on fish communities and recreational angling use and success.
- Performed 159 fish health inspections for hatcheries, wild fish transfers, and broodstock sources and analyzed 68 diagnostic cases (mostly for Epizootic epitheliotropic disease virus) at the Marquette State Fish Hatchery.
- Analyzed 29 lots of wild fish, with a majority being trout, from the Au Sable River near Grayling.
- Completed 38 fish quality assessments, by hatchery and field personnel, of

25 groups of fish at state hatcheries.



Quick Fact:

There were more than 1.28 million fishing licenses sold in Michigan in Fiscal Year 2013.

This is a 6.2% increase compared to Fiscal Year 2012.

Goal 5: Efficient Division Operations

Fisheries Division cannot operate without 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 2013, Fisheries Division administrative staff:

- Completed a five-year strategic plan and supplemental tactical plan.
- 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: \$16,954,800 (Game and Fish), \$934,800 (Game and Fish Settlement), \$9,536,500 (Federal, Dingell-Johnson), \$21,700 (Federal, Other), \$40,000 (Private), and \$100,000 (General Fund/General Purpose).
- 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.
- Appropriated the above funds to Fisheries Division's initiatives, including: \$934,800 (Aquatic Mitigation), \$9,220,700 (Fish Production), \$6,274,200 (Field Management), \$6,239,400 (Research & Assessment), \$1,751,100 (Research Creel), \$1,509,000 (Resource Support Aquatic Species and Regulatory Affairs, Tribal, Habitat Management units), \$1,658,500 (Administrative Executive and Program Support).
- Prepared an interim staffing plan to help guide division efforts in filling key vacancies.
- Increased skills and knowledge of 68 Fisheries Division employees through 106 professional trainings in resource management.
- Conducted an early detection, prudent response exercise on the St. Joseph River to assess survey techniques commonly used to collect Asian carp, and to develop protocols and templates to be used in the event that live bighead and silver carp are detected in the Great Lakes.
- Held an in-service for all Fisheries Division employees for the first time in 10 years to recognize employee accomplishments, engage in team-building, and sharing broad information.

Quick Fact:

Did you know that whenever you buy fishing equipment or gasoline for your motorboat, a portion of your purchase goes to support Michigan's fisheries (Sport Fish Restoration Fund)?



According to the U.S. Geological Survey, only 2.5% of the world's total water is freshwater. And of all the freshwater on Earth, only 0.3% is contained in rivers and lakes - yet rivers and lakes are where most of the water we use in our everyday lives exists.



Partnerships

Michigan not only contains world-class aquatic resources, it has 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. We take this opportunity to recognize some of the individuals and organizations we partnered with in 2013.

The following received Fisheries Division's Outstanding Partnership Award in December 2013 which recognizes individuals or organizations (i.e., 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:

- Mason County Walleye Association for their efforts to raise nearly four million walleye fingerlings since 1989.
- Muskegon River Watershed Assembly for their efforts to collaboratively conduct research and management enhancement activities in the Muskegon River watershed.
- Bill Rupright for his volunteer efforts in support of the Chinook salmon program at the Little Manistee Weir.
- St. Marys Cement Group (Charlevoix Plant) for their support in the Chinook salmon harvest and egg-take and net pen programs at the Medusa Creek weir.

The Michigan Department of Natural Resources gives out Partners in Conservation awards to individuals and organizations for their outstanding contributions to natural resources management or initiatives. The following received this award in 2013:

- The City of Dearborn's staff at Camp Dearborn for 40 years of cooperative partnership with the state in raising sport fish for stocking in the state's public inland waters to enhance fish populations for the benefit of current and future Michigan residents.
- The St. Clair-Detroit River Sturgeon for Tomorrow Chapter for its efforts in the conservation and management of lake sturgeon in southeast Michigan.
- The Clinton River Watershed Council for its stewardship and protection of the Clinton River and its watershed.

In addition to the above mentioned partners, the DNR worked collaboratively in 2013 with several other entities and individuals on special projects. These collaborations and projects included:

- Assisting Wildlife Division and the Michigan United Conservation Clubs to develop the new On-The-Ground volunteer program that provides dedicated volunteers to assist the DNR with completion of diverse habitat projects.
- Various research and management projects in collaboration with Michigan State University's Partnership for Ecosystem Research and Management (PERM).
- Atlantic salmon production in cooperation with Lake Superior State University.
- The Boardman River Dams removal project, which involves more than 20 stakeholder groups working collaboratively to restore the natural flow regime of the watershed by removing three dams. In October, 2012 the Brown Bridge dam was the first to be removed which restored over a mile of free-flowing river and 13 acres of wetland habitat.



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/MDNR Fisheries.



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**.

Cover photo: DNR employees participating in the Early Detection and Prudent Response field exercise on the St. Joseph River in September 2013.



