

# Virtual Resources Connecting People to Great Lakes Experiences: Birding Trails, Water Trails and More!

Elliot Nelson, Extension Educator  
Michigan Sea Grant College Program



MICHIGAN STATE  
UNIVERSITY



# Outline

- ◆ Michigan Tourism Over Time
- ◆ Online Trails Overview
- ◆ Creating a Community Asset
- ◆ The Trails
  - ◆ Water Trails
  - ◆ Birding Trails
  - ◆ Fisheries Heritage Trail
- ◆ Impacts

MI Sea Grant: fostering economic growth and protecting Great Lakes coastal resources throughout Michigan through...

# Outreach

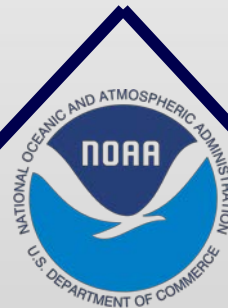


Education

Research

MI Sea Grant: fostering economic growth and protecting Great Lakes coastal resources throughout Michigan through...

# Outreach



**MICHIGAN STATE**  

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**UNIVERSITY**

**Extension**

**Education**

**Research**

MI Sea Grant: fostering economic growth and protecting Great Lakes coastal resources throughout Michigan through...

# Outreach

## Focus areas

Healthy Coastal Ecosystems

Sustainable Fisheries & Aquaculture

Resilient Communities & Economies

Envir. Literacy & Workforce Development

Education ————— Research



# OFFICE LOCATIONS

[www.miseagrant.umich.edu/contact](http://www.miseagrant.umich.edu/contact)



# Great Lakes Trivia!

◆ How much water is contained in the Great Lakes?

- 1) 600 billion gallons
- 2) 12 trillion gallons
- 3) 600 trillion gallons
- 4) 6 quadrillion gallons
- 5) 2 quintillion gallons

That's  
5,500  
cubic  
miles!!!!



◆ How much of the worlds surface fresh water is located in the Great Lakes?

1) 2%

2) 6%

3) 10%

4) 20%

5) 25%

95 of USA  
Surface  
fresh  
water!!!!

◆ How much Michigan Great Lakes coastline is there?

- a) Equivalent to the entire USA Atlantic and Gulf of Mexico coast combined
- b) Equivalent to the Atlantic New England coastline
- c) Equivalent to the USA Gulf of Mexico shoreline
- d) Equivalent to the entire USA Atlantic Coastline

# Spatial Extent

The Great Lakes basin drains almost 520,000 km<sup>2</sup> (200,000 mi<sup>2</sup>)

Length of shoreline totals 17,000 km (10,200 mi, including connecting channels, mainland and islands).

The U.S. shoreline is 7,200 km (4,500 mi), longer than the U.S. east coast and Gulf Coasts combined.

If the water of the Great Lakes were spread across the continental us, everything would be covered in 10 feet of water

# Great Lakes, Great Resources, Great Recreation!



Promotional booklet published by the GR & I railroad company, ca. 1886. (Courtesy of Clarke Historical Library, Central Michigan University, Mount Pleasant.)

**MICHIGAN**  
for your Vacation

**Send for these VACATION DIRECTORIES**

... showing you in pictures the recreational and scenic appeal of Michigan ... giving you detailed and unbiased information about each section of the State ... its resorts, hotels, cottage colonies and activities.

Michigan's keen, clear air offers hay fever relief.

Name your own sport or activity and Michigan will furnish it in abundance... golf... best fishing in the middle west... 5000 lakes and 2000 streams for ALL water sports... bathing beaches... nearly 80,000 miles of good highways.

Send to addresses below for the directories... or directories you desire.

**Michigan**

EAST Michigan Vacation Directory  
By City, Michigan

WEST Michigan Vacation Directory  
Grand Rapids, Michigan

SOUTHEAST Michigan Vacation Directory  
South Building, Detroit, Michigan

LURE of the Land of Hiawatha  
Marquette, Michigan

STATE OF MICHIGAN CO-OPERATING

**Here we go**  
to a  
**Water Wonderland Vacation**

Here we go to Michigan, delightfully air-conditioned by four Great Lakes. Miles and miles of sun-kissed beaches and flashing streams—11,937 inland lakes for fishing and boating.

Here we go to Michigan where the whole family finds vacation pleasure. Whatever your sport, whatever your hobby, there's lots more fun for all in this blue-water vacationland.

Here we go to Michigan where accommodations are of the finest. Want a cabin? Prefer a motel, hotel or resort? Michigan offers them all—at budget-pleasing rates.

Enjoy three exclusive Michigan "extras"

- Soo Locks Centennial Celebration
- 100th Anniversary of Michigan State College
- See the Mackinac Bridge abutting at historic Straits of Mackinac

Please Drive Safely

Here we go—to really live again in  
**MICHIGAN**

MICHIGAN TOURIST COUNCIL  
ROOM 11, CAPITOL BLDG., LANSING 4, MICHIGAN

I would like Michigan's free color booklet and literature of the tourist association checked.

Name \_\_\_\_\_

Address \_\_\_\_\_

City & State \_\_\_\_\_

Upper Peninsula Development Bureau     East Michigan Tourist Association  
 West Michigan Tourist Association     Southeast Michigan Tourist Association

<http://www.waterwinterwonderland.com/michiganpromos.aspx>

# Growing Tourism Areas: Birding

**Table 8. Trip and Equipment Expenditures for Birding by Category: 2011**

<b>Total Trip and Equipment Expenditures</b>	<b>\$40,942,680,033</b>
<b>Trip-Related Expenditures*, total</b>	<b>\$14,868,424,740</b>
Food	\$4,625,942,734
Lodging	\$3,105,418,864
Transportation	\$5,084,858,642
Other	\$2,052,204,500
<b>Equipment**, total</b>	<b>\$26,074,255,293</b>

**100% growth in 30 years!**

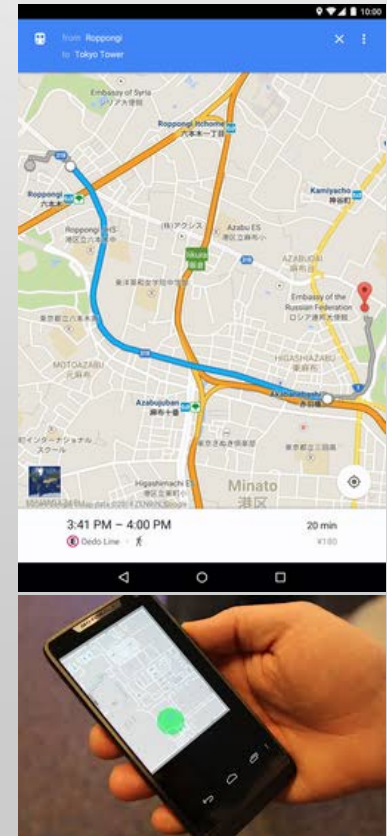
# Growing Tourism Areas: Kayaking



# How to Plan your Trip?



<https://www.davidrumsey.com/>



<https://www.Wikimedia.com>

# Online Trails

- ◆ Driving trails
- ◆ Highlight a navigable route
- ◆ Highlight notable places to stop
- ◆ Provide interpretive information
  - ◆ Travel resources
  - ◆ Natural features
  - ◆ Cultural features

**DISCOVER HERITAGE ROUTE 23**

**Huron Shores Heritage Route**  
*Your Pathway to Michigan's Sunrise Coast*

Home About Regions Tours Interests Events Stories Plan Your Trip

[Home](#) > About Huron Shores Heritage Route

**Discover US 23: Your Pathway to the Sunrise Coast**

**PURE MICHIGAN**  
Your trip begins at michigan.org

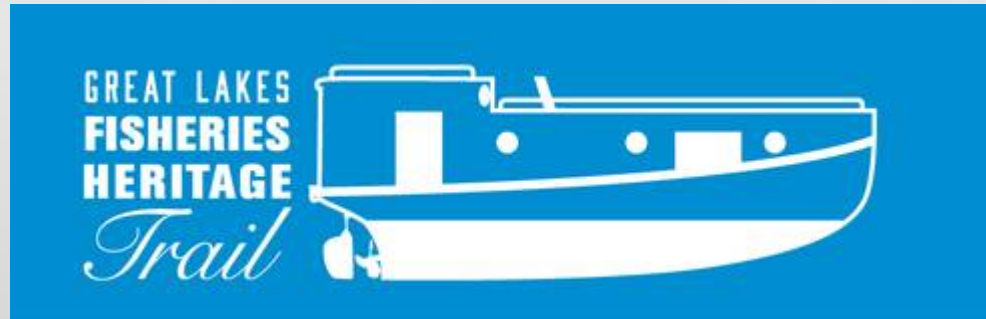
Editor Log In  
Share f t G |

Mackinac City Cheboygan Rogers City Alpena Harrisville Oscoda AuSable Tawas Au Gres Standish



# Featured Online Trails

- ◆ Birding
- ◆ Kayaking
- ◆ Great Lakes Fisheries Heritage



# Creating A Community Asset

- ◆ Grassroots driven
- ◆ Diverse local and state partnerships
- ◆ Community buy in
- ◆ State assistance, but local community leadership

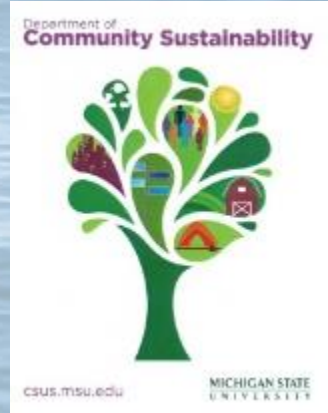


# North Huron Birding Trail Partners





# Network of partners:



Extension

# Water Trails



[Regions](#)

[About](#)

[Plan Your Adventure](#)

[Weather & Safety](#)

[Paddling in Michigan](#)

[Video](#)

[More Trails](#)

Upper Peninsula

Northwest Michigan

Northeast Michigan

Saginaw Bay Area

West Michigan

Michigan's Thumb

Mid-Michigan

Southwest Michigan

Southeast Michigan

Southern Michigan

*Michigan is for paddlers!*

Over 3,000 miles of trails on the Great Lakes, Inland Lakes, and Rivers await your canoe, kayak, or stand-up paddleboard!

Choose a region and prepare for your adventure!

[+ Add to Itinerary](#)

From [The Blueways of St. Clair](#)

### [Interactive Map](#)

Access the water at the Kayak Store or the Dyke Road/M-29 Bridge over Beaubien Creek. This route is easy paddling up the waterway, past marshland foliage. Lots of wildfowl, good fishing. Don't enter the protected wildlife refuge.

Level - Easy

Length - 2 miles round trip



## Show Places on the Map

Click an icon below to add or remove places on the map.



Access to River, Lake or Stream



Hide All Water Trails



Baubien Creek Route



Bluewater Accomodations



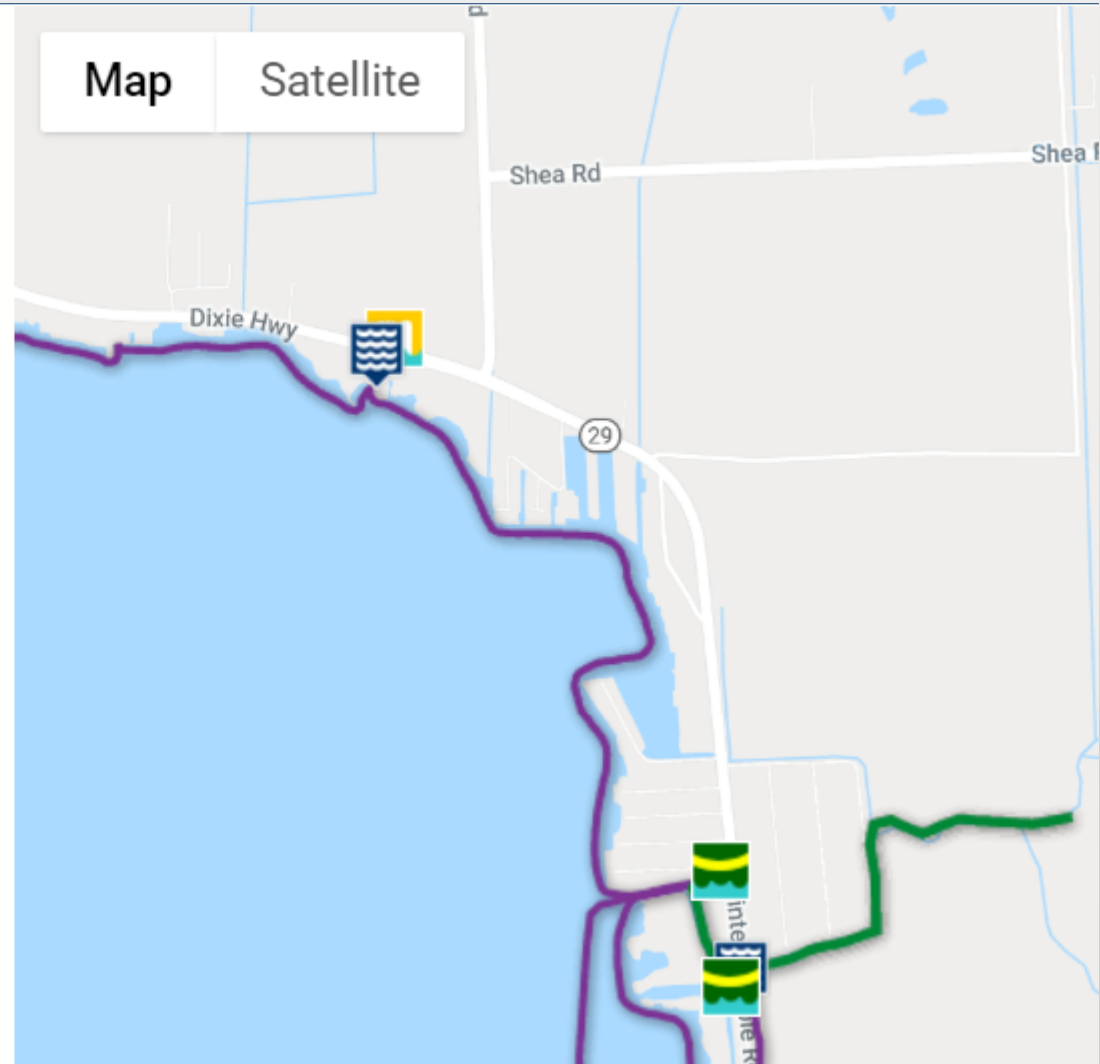
Bluewater Attractions



Bluewater Dining



Show Shoreline Photos



Click an icon below to add or remove places on the map.

 Access to River, Lake or Stream

 Campground

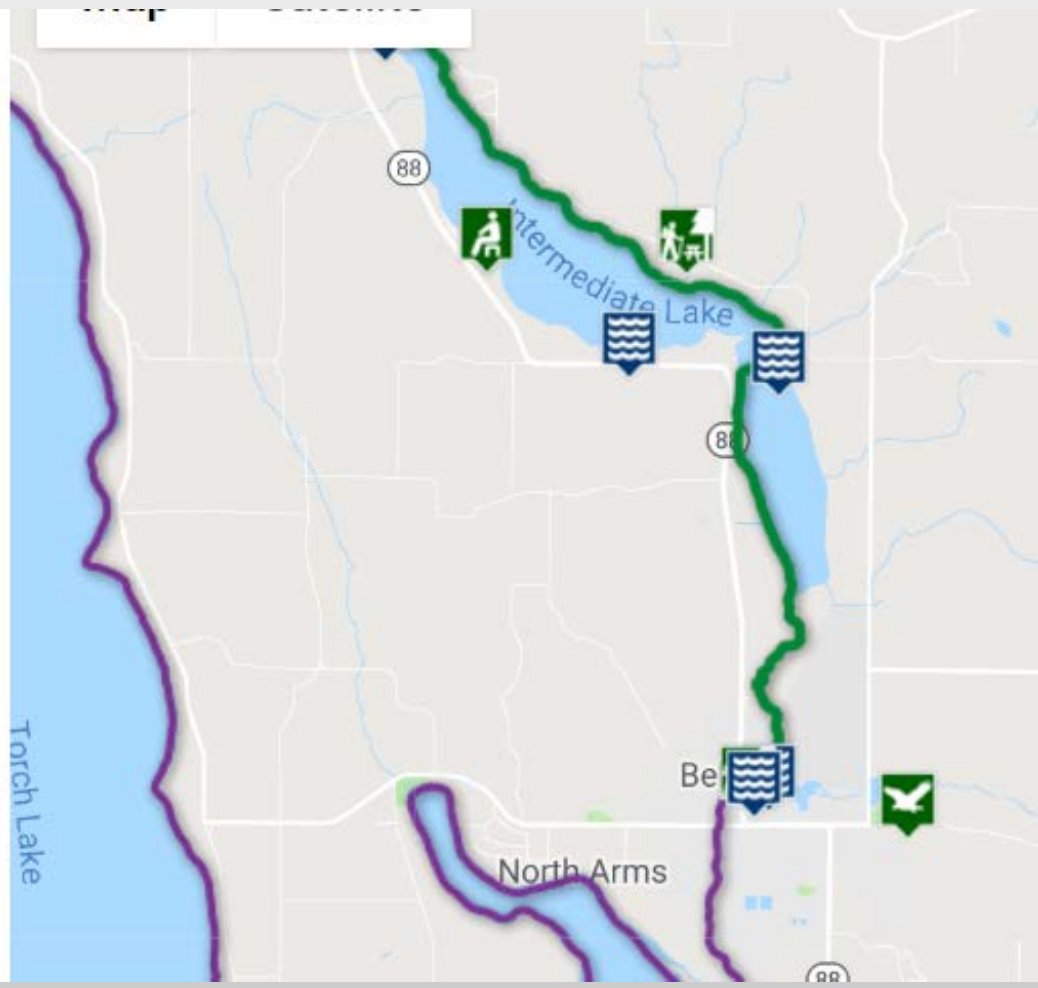
 Natural Area or Preserve

 Park

 Rest Stop

 Hide All Water Trails

 Upper Chain Water Trail





**What are you interested in?**

Type a word, for example *swimming* or *pizza*.

**Find places near...**

**This address**

**Within (miles)**

**Or, choose from these lists:**

**Attractions**



[Access to River, Lake or Stream](#)



[Accomodation](#)

**Activities**



[Alternate Boat Access](#)



[Animal Viewing](#)

# Water Trails

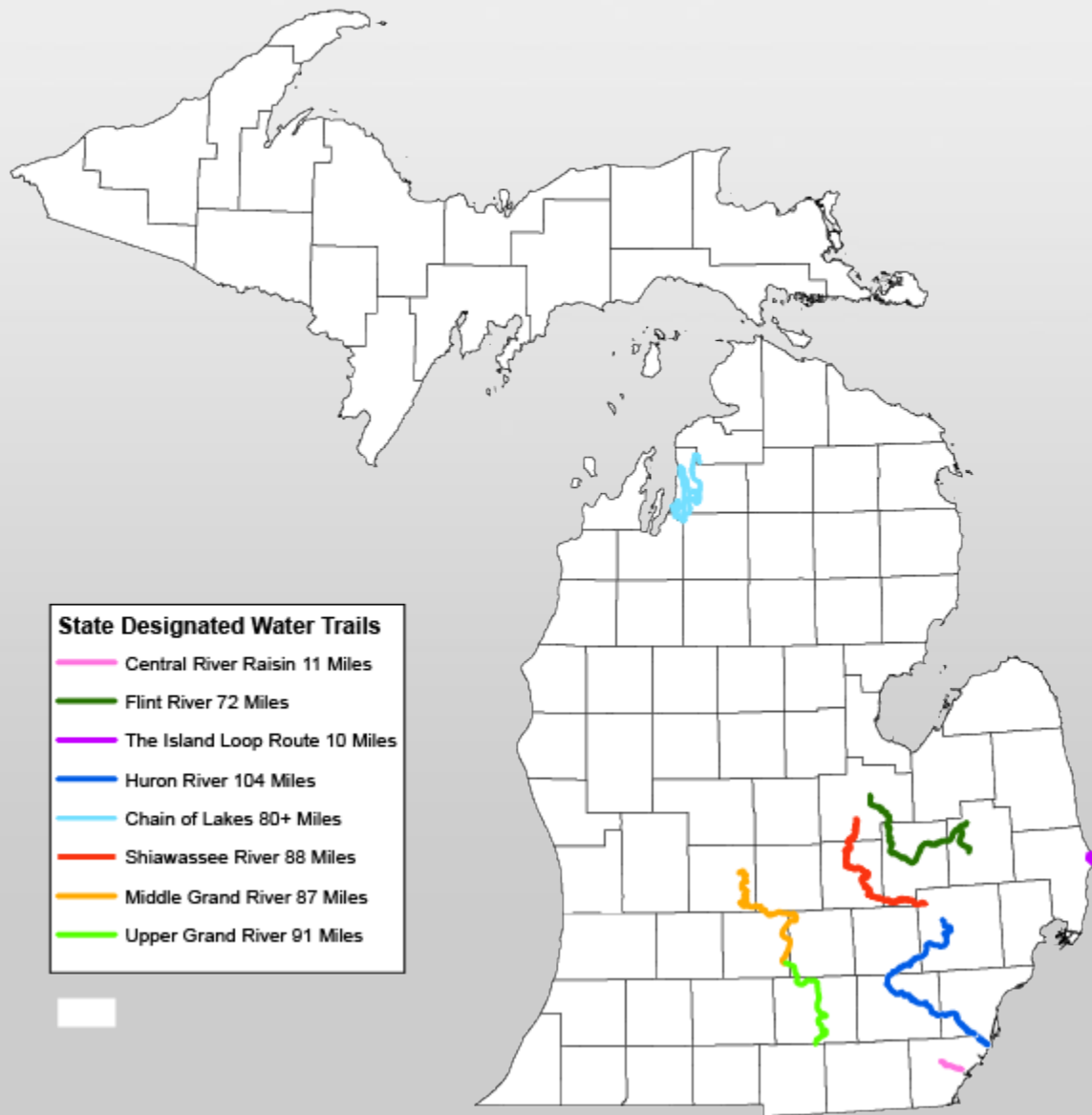


## MICHIGAN WATER TRAILS MANUAL

*Your guide to creating a water trail*



# State Designated Water Trails





## Quiet Water Symposium

March 2, 2019 (Saturday). Save the date! Join the Huron River Water Trail and Michigan's best outdoor recreation providers, experts and outfitters in East Lansing for talks, demonstrations and exhibits. Plan your summer paddling adventures at this day-long indoor expo. Details COMING SOON!



## Paddler's Companion Waterproof Maps

This 50-plus page waterproof map flipbook for the entire Water Trail includes launches, liveries, parks, amenities, hazards and more. There are latitude and longitude coordinates for all launches and recommendations for a five-day



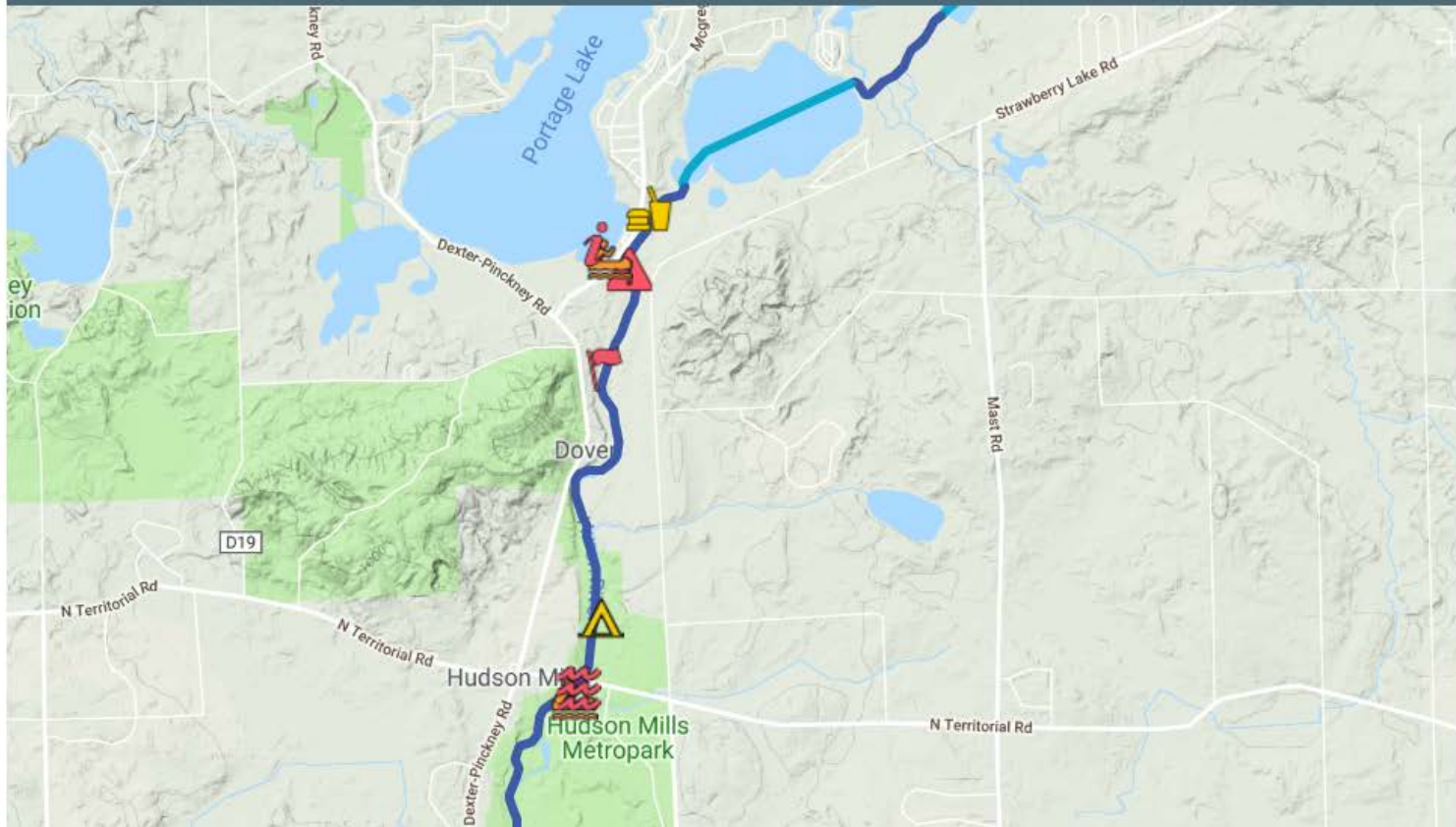
Order a  
Printed Map



Plan a  
Trip



Explore the Huron River Water Trail



# MICHIGAN BIRDING TRAILS



# Welcome to the North Huron Birding Trail



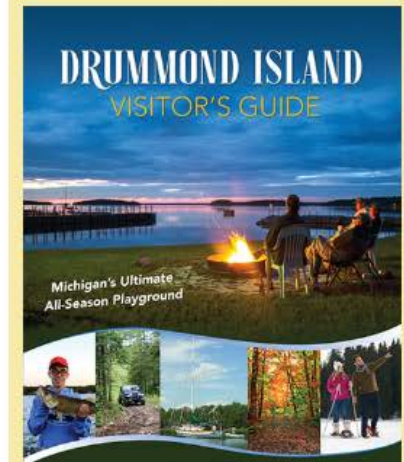
The north shoreline of Lake Huron in Michigan's Upper Peninsula has long been known as one of the most beautiful and pristine areas of wilderness in all of the Midwest. The Nature Conservancy has recognized this area of shoreline as **one of "The Last Great Places" in the Northern Hemisphere**, and for many years countless folks have escaped to this area to enjoy the bounty of natural wonders it has to provide. The rocky shorelines and protected bays create excellent habitats for many species of sport fish, a multitude of rare orchids and ferns, and one of the Midwest's most diverse collection of bird species.



As a result of this research and recognition of Michigan's most Northern Lake Huron shoreline as a pristine gem, many local non-profits and government agencies have successfully protected large amounts of shoreline and surrounding areas through conservation easements and the creation of nature preserves. The passion of these organizations along with large amounts of publicly accessible land and the impressive diversity of bird species who utilize the area make it one of the most enjoyable birding trails in Michigan.

## FEATURED Links

Sign up!









### Directions

From M-129, head east on 22 Mile Road for approximately 2.5 miles. Turn left (north) onto Gray Road. Walk or drive along Gray road to bird this area. Walking along the road allows viewing access of most species. Numerous small pothole ponds are located to the east of the road. A short walk can allow access to view the ponds, however no paths are present and the ground is often wet.

In late May through July birding access is from the road only. Ground nesting birds and sensitive waterfowl can easily be disturbed or harmed by individuals walking through the grasslands off the road, so please do not disrupt these species by walking through the fields.

### Birding Information

This area has had the highest recorded densities of breeding Le Conte's Sparrows in the entire state. The Le Conte's sparrow is a secretive species, but can be often heard and even seen directly adjacent to Gray Road just north of 22 mile road. Sedge Wren, Alder Flycatcher, Black-billed Cuckoo, Wilson's Snipe, American Bittern, Bobolink, Common Yellowthroat, Clay-Colored Sparrow and Swamp Sparrow are all additional



American Bittern

Photo by: Paul Rossi



### Other Exciting Features

This area, now known as "the potholes" was once a farmstead back in the early 1900s. Through the efforts of a local sportsman club and the Michigan DNR the area was transformed to a pothole pond wetland complex through the creation of a number of small ponds. These ponds attract a large variety of breeding waterfowl. Possibly even more important than the ponds, the grasslands and wet meadows here attract numerous Le Conte's sparrows and Sharp-tailed Grouse. The Eastern Upper Peninsula is the only location in Michigan that hosts a population of these Grouse large enough to allow a hunting season. The meadows, however, are not permanent features and without proper management woody shrubs and trees would encroach on the area and make the habitat unsuitable for these rare species. The DNR uses controlled burn methods on a 2-5 year cycle to burn portions of the potholes. While this may seem destructive, it actually maintains the habitat keeping out woody plant and ensuring that the grassland species found here can live on for generations to come.

**Link to Site Map and Additional Info:** See Page 19 for map including Gray Road area.

[http://www.midnr.com/Publications/pdfs/ForestsLandWater/Cmpt\\_Reviews/Sault\\_Ste\\_Marie/2017/GEM\\_Munuscong\\_Plan\\_2015\\_draft.pdf](http://www.midnr.com/Publications/pdfs/ForestsLandWater/Cmpt_Reviews/Sault_Ste_Marie/2017/GEM_Munuscong_Plan_2015_draft.pdf)

# MI Birding Trail Network

- ◆ Newly formed
- ◆ Website being developed
- ◆ Manual being developed

# Michigan's Great Lakes Fisheries Heritage Consortium

- ◆ Since July 2012:
  - ◆ Strategic planning
  - ◆ Coordinated efforts statewide
  - ◆ Statewide support for local partners
  - ◆ Branding a 'Trail' of partners
- ◆ MI Sea Grant Planning & Development Investment
- ◆ Investments to create fisheries heritage tourism trail across Michigan – website, signage, etc.
- ◆ Great Lakes Fisheries Heritage Trails Conference



They tell the **STORY** of  
Michigan's Great Lakes  
Fisheries History...

...**OUR** Great Lakes Fishing  
Heritage.

...**AND...**

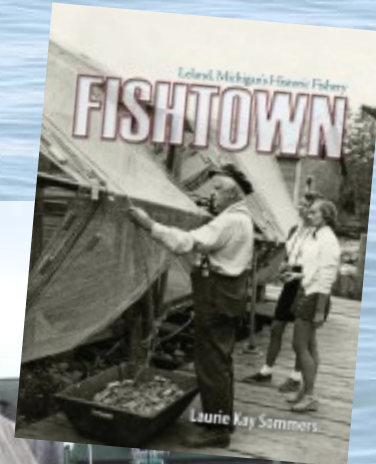
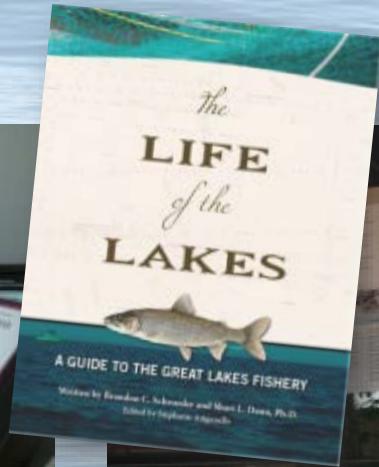


# Promote living history reflected in today's fishery



Photo: Keith Burnham 2005

# ...A Wealth of Interpretive, Educational & Heritage Tourism Opportunities



## Show Places on the Map

Click an icon below to add or remove places on the map.



Festival



Library and Archive



Museums and Interpretive Center



Organization / Business



Other



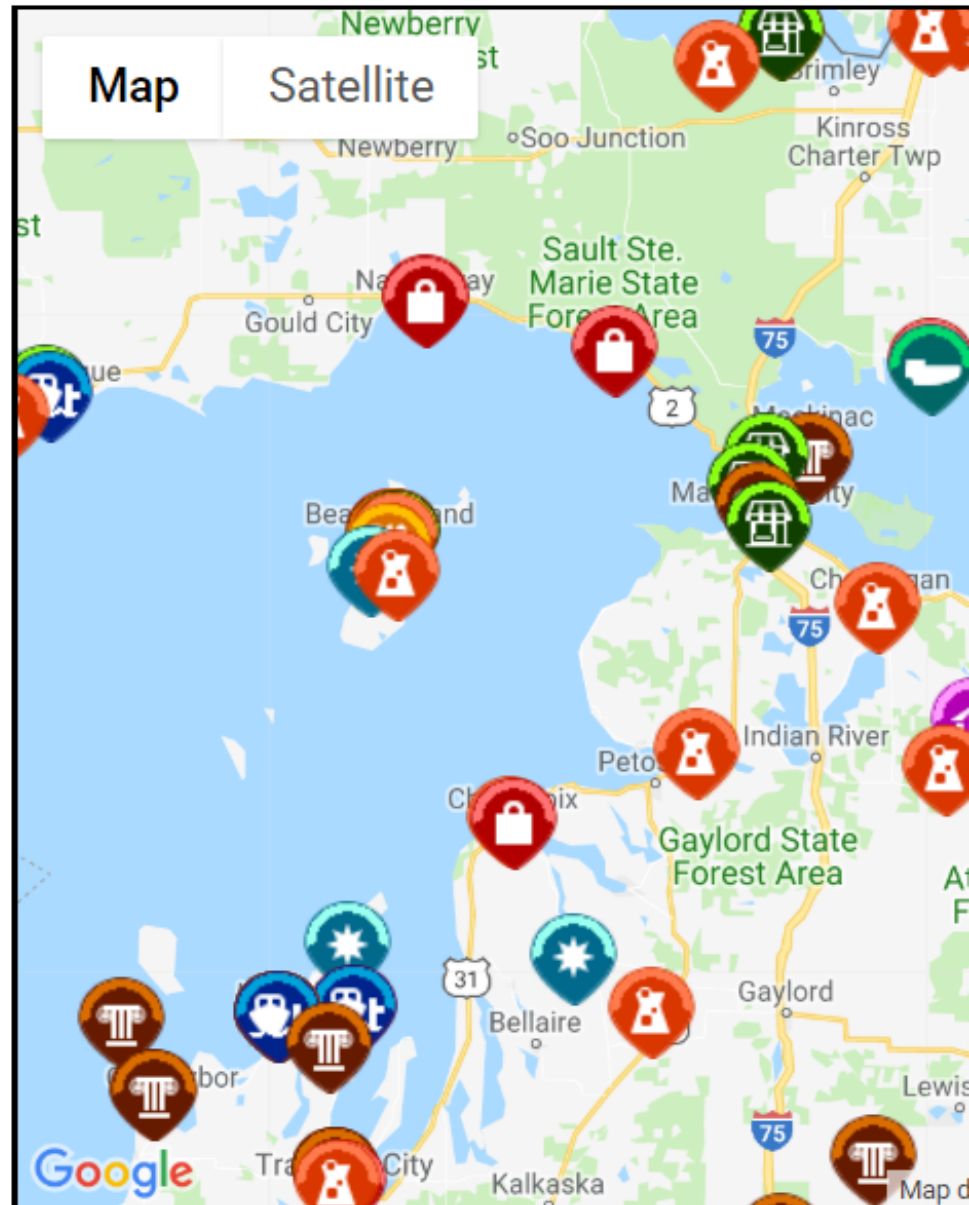
Restaurant



Retail Market



Science and Management Facility





# Lake Michigan Commercial Fishing Vessels Over Time

## INDUSTRY INNOVATIONS AND EVOLUTION

**DRAFT**

### PEOPLE, FISH AND FISHING OUR GREAT LAKES FISHERIES HERITAGE

Ecologically, seasonally and regionally variable, Great Lakes fisheries have supported people and communities for generations. The Great Lakes Fisheries Heritage Trail looks at the past, present and future of the lakes through the lens of fish and fishing.

Great Lakes fisheries heritage is the story of how we relate to aquatic ecosystems, historically, under quality and environmental change. The history is the thread running through all of them, and serves as a source of common sustainability and quality of life across our Great Lakes coastal communities.

Great Lakes Fisheries Heritage Trail sites include museums, seafood fishing communities, fish markets and processing facilities, and research and extension centers throughout Michigan. These sites educate and culture water communities to explore the dynamic and interconnected and environmental changes that have shaped today's fisheries.



**FISHING FROM SHOORE**  
Native American and early settlers fished from shore using hand methods such as seine nets that could be pulled through shallow waters. ▼

**MACKINAW BOATS**  
Originally used in the fur trade, these sailing boats were considered the "yoking trucks" of their time for their versatility. As fur trading began to decline, many Mackinaw boats were retrofitted for commercial fishing. ▶

**THE GREAT LAKES GILL NET YACHT**  
Designed for gill net fishing methods, this boat design and gear dominated commercial fishing activities through the late 19th and early 20th centuries. A design unique to the Great Lakes, this enclosed "barle back" boat allows fishermen to fish in the coldest waters of the Great Lakes. ▼

**MODERN TRAWLING BOATS**  
Trawling — or dragging a large parachute-like net — was made possible by advances in engine technology. ▼

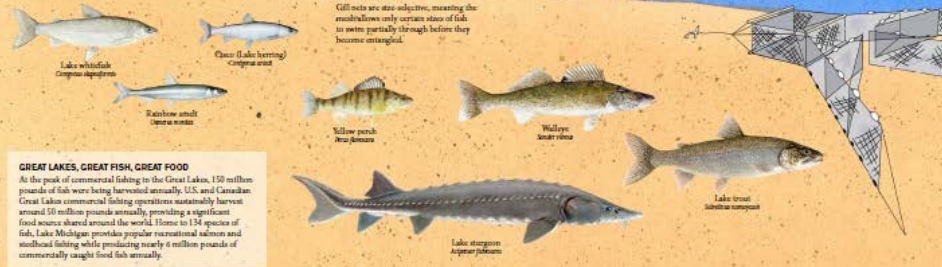
**TRAP NET BOATS**  
Trap netboats are set in deeper waters and can be extremely large. These cumbersome nets require specialized boats with large, open platforms that give operators space to work the net. ▼



**POUND NETTING (OR POUND NETTING)**  
Standing nets to shallow water fished fish into a small pen. Boats that could be moved (hand-powered) or sailed (wind-powered) provided the ability to take the nets out farther from shore.

**GILL NETTING**  
Gill nets are size-selective, meaning the mesh allows only certain sizes of fish to swim partially through before they become entangled.

**TRAP NETTING**  
Trap nets fished fish into an enclosed box net, a "trap" where they can still swim freely prior to being retrieved. This allows fish that are undesirable due to their size or species to be released without harm once the net is retrieved. ▼



**GREAT LAKES, GREAT FISH, GREAT FOOD**  
At the peak of commercial fishing in the Great Lakes, 150 million pounds of fish were being harvested annually, U.S. and Canadian Great Lakes commercial fishing operations routinely harvest around 50 million pounds annually, providing a significant food source around the world. Home to 134 species of fish, Lake Michigan provides popular recreational salmon and steelhead fishing while producing nearly 6 million pounds of commercially caught fish annually.



### PEOPLE, FISH AND FISHING OUR GREAT LAKES FISHERIES HERITAGE

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# Katherine V

## A LOCAL LEGEND AND THE LONE SURVIVOR

**DRAFT**

Great Lakes fisheries — fish and people who fish — have significantly benefited coastal communities, the Great Lakes region and the nation throughout history and still do today. An emblem of Great Lakes fisheries heritage, the *Katherine V* reflects the social, ecological and technical changes that occurred within the fishery and across the Great Lakes region during the early part of the 20th century.

A Great Lakes gill net fish tug, the *Katherine V* was built in 1928 on the shores of northern Lake Huron in Rogers City by Native American builder Henry Vincent of Nanticoke. The "Vigilantism" family owned and operated the *Katherine V* from its launch until it was retired from service in 1975. The vessel is 57 feet in length with a maximum beam, or width, of 14 feet. Constructed of white oak, northern white cedar and spruce, and entirely enclosed, the tug is an example of late 19th and early 20th century Great Lakes commercial fishing vessels. The boat was sketched in steel and aluminum only to its fishing career to assist in fishing through the winter and was powered by a Kalamazoo 3-cylinder engine.

Representative of a Great Lakes netboat fleet that once consisted of over 500 vessels, this boat exhibits the gill net fishing methods and gear that dominated late-of-the-century commercial fishing activities. The *Katherine V* has a design — unique to the region — that allowed fishermen to fish in the coldest waters of the Great Lakes. Its functionality is reflected in the large number of such vessels fishing the Great Lakes in the early decades of the 20th century. Since the near cessation of gill netting in the 1960s, these iconic gill net boats have nearly disappeared. Wood or steel hulled, these enclosed gill net boats play a limited role in commercial fishing today.

### THE PEOPLE THE FISHERY THE TECHNOLOGY

The history of the *Katherine V* contains aspects of history, Native American fisheries, early European commercial fisheries and contemporary recreational fisheries. It tells of changing attitudes toward Great Lakes resources, and reflects the diverse values found in our fishery today.

In service from 1928 to 1976, the *Katherine V* fished the Great Lakes during an era of significant ecological change. Water quality threats, habitat degradation and food web changes caused by the introduction of invasive species took place while the *Katherine V* fished the northern Great Lakes. Changes that took place in her fishing past make the boat a powerful educational tool that points to similar navigability issues challenging the Great Lakes region today.

The *Katherine V* exemplifies changes to fishing methods and gear over the decades. Scurves of the *Katherine V* from the 1920s through the 1960s tells of three years when gasoline and diesel propulsion replaced sail and steam, when ice and refrigeration replaced salt, and when fresh lake trout and whitefish were shipped from northeastern Michigan ports by the train-car load.

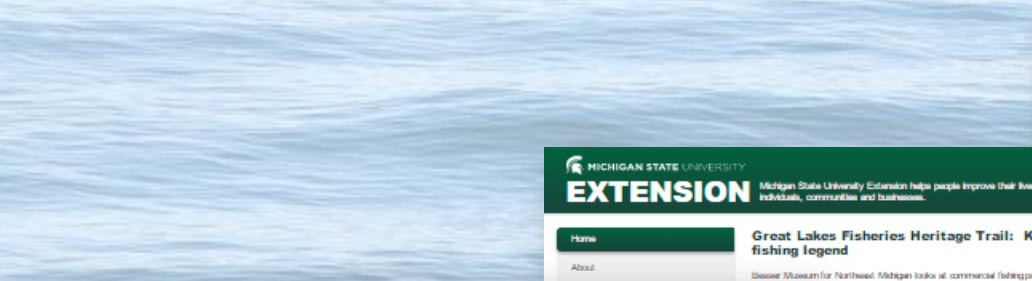


High 1200 photo of Katherine V, age 10, exhibiting early fishing reduction efforts.



An enclosed steel hull fishing in all seasons.





Home  
 About

**Great Lakes Fisheries Heritage Trail: Evelyn S. still making history**

The Michigan Maritime Museum offers visitors the chance to board the historic Great Lakes fish tug Evelyn S. and peer into the daily life of a commercial fisherman.

23, 2016 by **Dan O'Keefe**, Michigan State University Extension, Michigan Sea Grant, and Ashley M. Diering, Museum

Like | Share | Print

The Fisheries Heritage Trail offers opportunity to explore the past, present and future of the lakes through the lens of fish and fishing. In this article, we explore the Michigan Maritime Museum to explore the history of Great Lakes fish and fishing — today.



Evelyn S., above, in her new role as an educational exhibit at Michigan Maritime Museum. Below shown in 1950. Photo: Michigan Maritime Museum.

As built in 1939 by Sturgeon Ship Dock Works in Marquette, Mich., she fits the typical tug design so prevalent on the waters during the 95-year-long with a 13-foot beam, Evelyn S. also a Kohlerburg diesel engine (much like the engine on the Evelyn at the DeWier Museum in Alpena, Mich.) of the vessel, Evelyn S. was also modified to easily enclosed deck to protect her crew against the elements.

As she added to a commercial fishing company in commercial fishing was part of a thriving diverse on Lake Michigan from the 1800s to the 1950s, she plied the waters of Lake Michigan bringing in catches that helped make local communities such as South Haven and St. Ignace into a thriving fishing community. In 1970, the founder of the Michigan Maritime Museum realized the importance of the vessel as an example of a changing aspect of the diverse maritime economy and she soon became a main attraction as an on-water exhibit for the museum in South Haven. After 40 years of life, Evelyn S. now serves as an educational tool to represent these once common vessels and the way they had local communities.

The Evelyn S. was restored by the museum as a land-based exhibit after a sinking incident at the museum in 2015. Evelyn S. was again restored after the City of South Haven and the museum were awarded a grant from the Environmental Quality's Coastal Zone Management Program which was coupled with local funds and helped the restoration. Evelyn S. was moved to her permanent home on the museum campus and anchored in a dock work, which included making the boat seaworthy and removing dry rot, was undertaken by Great Lakes Boat Builders, Hines Wagner and others. Sanding and painting efforts were conducted by volunteers and museum interns. The vessel features commercial fishing artifacts and historic photos for visitors to explore. On the exterior, there is a new feature an interactive touch screen that allows visitors to watch life aboard commercial fishing and that exhibit is scheduled to open May 1, 2016.

The Evelyn S. is also being used in a variety of new educational programming at the museum. In 2015, Evelyn S. had with Michigan Sea Grant to develop a lesson plan that targeted 2<sup>nd</sup> through 5<sup>th</sup> grades. The interactive STEM (Science, Technology, Engineering, and Math) theme, introducing students to commercial fishing and the history over time. The activity touches on invasive species, technological changes, and economic and environmental

important role in bringing these themes to life for the students. The museum's 2015 STEM Summer Camp is a fishing education program that incorporated the lesson plan, a tour of Evelyn S., and a four aboard [Evelyn S.](#) on the water. The activity touches on invasive species, technological changes, and economic and environmental



The Maritime Museum is proud to have Evelyn S. as a part of its Fisheries Heritage Trail and fishing these vessels fishing heritage across land and water. Evelyn S. will be installed in the spring of 2016 to be history of commercial fishing and Evelyn S., as well as all of the donors, sponsors, and volunteers that made it possible. For more information on Evelyn S. and the museum visit [www.michiganmaritimuseum.org](http://www.michiganmaritimuseum.org).

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**Great Lakes Fisheries Heritage Trail: People, fish and fishing**

Celebrate and experience our Great Lakes fisheries heritage while traveling Michigan. Posted on **January 23, 2016** by **Brandon Schroeder**, Michigan State University Extension, Michigan Sea Grant

Like | Share | Print

From lighthouse to shipwreck, Michigan is rich in maritime heritage traditions. Great Lakes fisheries — fish and people who fish — have significantly benefited coastal communities. The Great Lakes region and the nation throughout history and still today. Ecologically, economically and recreationally valuable. Great Lakes fisheries have supported people and communities for generations. Great Lakes fish and fishing — today, commercial, and recreational — have shaped the culture, economy, and quality of life for people in Michigan.



A new [Great Lakes Fisheries Heritage Trail](#) offers opportunity to explore the past, present and future of the lakes through the lens of fish and fishing. Museum exhibits and educational opportunities, events and experiences along the trail highlight our fisheries heritage, ecology, management, and the economic and social issues that have defined Michigan's coastal communities.

**Valued Great Lakes fisheries:**

Of national significance, the Great Lakes encompasses more than 11,000 miles of shoreline and contain about 20 percent of world's surface freshwater. The lakes are home to a diversity of Great Lakes fish species valued for their food and recreational contributions, ecological and economic significance.

- Food** — close to 150 million pounds of Great Lakes fish were harvested annually at the turn of the twentieth century; these fish were consumed locally and preserved by salt and ice to be shipped by boat, train and truck to help feed the growing population across the country. Today, nearly 50 million pounds of fish are sustainably harvested for food.
- Fun** — 1.8 billion U.S. anglers enjoy fishing recreationally in Great Lakes waters today. With Michigan banking four of the lakes, it comes as no surprise that fisheries contribute greatly to recreational tourism from coast to coast.
- Economy** — Great Lakes fisheries contribute \$4 billion to \$7 billion in economic value annually through fishing-related sales, commercial and charter fishing, community tournaments and coastal tourism.
- Ecology** — at least 170 species of fish contribute to biodiversity and healthy Great Lakes ecosystems, and many ecological issues of the past, from water quality to invasive species introductions, remain so relevant and important today.

**Explore the Great Lakes Fisheries Heritage Trail**

The [Great Lakes Fisheries Heritage Trail \(GLFHT\)](#) network represents a partnership among museum, maritime heritage, and fisheries partners cooperating across Michigan to promote our fisheries heritage. The collective efforts of these partners is helping to preserve and interpret historical artifacts, enhancing local communities and heritage-based tourism, and offering educational opportunities focusing on [Great Lakes Biology](#) and stewardship.

The trail includes museums, coastal fishing communities, fish markets and processing facilities, works, research and science centers throughout Michigan. Visitors are offered unique opportunities to explore the dynamic social, technological and environmental changes that have shaped today's fisheries. View an [interactive map of Great Lakes Fisheries Heritage Trail sites](#) or [trail](#).

Want to learn more about our Great Lakes fisheries heritage? In future articles we will explore the fisheries heritage stories we told through the partners and places located along the trail. A Michigan Sea Grant publication [The Life of the Lakes: A Guide to the Great Lakes Fisheries](#) or also offers a more in-depth look at the diverse, dynamic and valuable Great Lakes fishery, exploring Ecology and Management, Today's Great Lakes Fisheries, History of the Great Lakes Fisheries and the Future of these resources.

Michigan Sea Grant helps to foster economic growth and protect Michigan's coastal, Great Lakes resources through education, research and outreach. A collaborative effort of the University of Michigan and Michigan State University and its [MSU Extension](#), Michigan Sea Grant is part of the NOAA-National Sea Grant or network of 33 university-based programs.

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The Fisheries Heritage Trail offers an opportunity to explore the past, present and future of the lakes through the lens of fish and fishing. In this article, we explore the DeWier Museum for Northwest Michigan into the history of Great Lakes fish and fishing — today.



The Katherine V on Lake Huron. Courtesy photo

As the first fish tug, the Katherine V was built in 1928 on the shores of Lake Huron in Hagers City by Native American (Anishinabe) and was fished by the Vagstad family, who acquired the Katherine V from her search and retirement in 1961 in length, entirely enclosed, and powered by a cylinder engine the tug is an example of late 19th and early Great Lakes commercial fishing vessels. Constructed of white oak and cypress, the boat was eventually steel and aluminum early in its fishing career to take in the winter.

With recent written by Frank & Nancy Prothero rediscovers her "lone survivor" calling attention to the vessel's crew-life, built locally and fished locally in Lake Huron her entire fishing career. The vessel caught game many other commercial fish in shipwreck and having one or more "laker" ship" built from some design plan. It was also common that Great Lakes cargo companies or be repaired for other industries, and so equally rare that she fished out of some Lake.

Of Great Lakes fisheries heritage, the Katherine V reflects the social, ecological and technical changes that occurred over and across the Great Lakes region during the early part of the 20th century.

The history of the Katherine V contains aspects of historic Native American fisheries, early European commercial and contemporary recreational fisheries. It tells of changing attitudes towards Great Lakes resources, and reflects the values found in our fishery today.

In service from 1928 to 1970, the Katherine V fished the Great Lakes during an era of significant ecological change, water quality, habitat degradation and food web changes caused by the introduction of invasive species took place while Katherine V navigated the northern Great Lakes. These ecological changes from her fishing past call attention to similar fish issues challenging the Great Lakes region still today.

As technologies, the Katherine V exemplifies changes to fishing methods and gear over the decades. Services of the Katherine V from the 1920s through the 1950s took of the years when gasoline and diesel propulsion replaced sail and steam, and refrigeration replaced salt, and when fresh lake trout and whitefish were shipped from northwestern Michigan ports to other land.

As a Great Lakes maritime trail that once consisted of over 900 vessels, the boat exhibits the gill net fishing gear that dominated turn-of-the-century commercial fishing activities. The Katherine V has a design — unique to the laker fishermen to fish in the cold waters of the Great Lakes. Its functionality is reflected in the large number of fishing the Great Lakes in the early decades of the 20th century. Since the near cessation of gill netting in the 1950s, gill net boats have nearly disappeared. Wood or steel built, these enclosed gill net boats play a limited role in our fishery today.

Brought to the DeWier Museum in 2003, continues preservation concerning the vessel and fishing an exhibit about northwestern Michigan's fisheries heritage. [Michigan Sea Grant](#) and [Michigan State University Extension](#) great parts have been accomplished over the past few years thanks to the help of skilled volunteers — including [Todd Alperin](#), [Paula Diering](#) — who share a similar heritage and passion for our fishery and the Katherine V. The DeWier Museum's modern day recreational fisheries exhibit, including vintage fishing gear and a vessel of designed to visitors in the ecological diversity of our fishery.

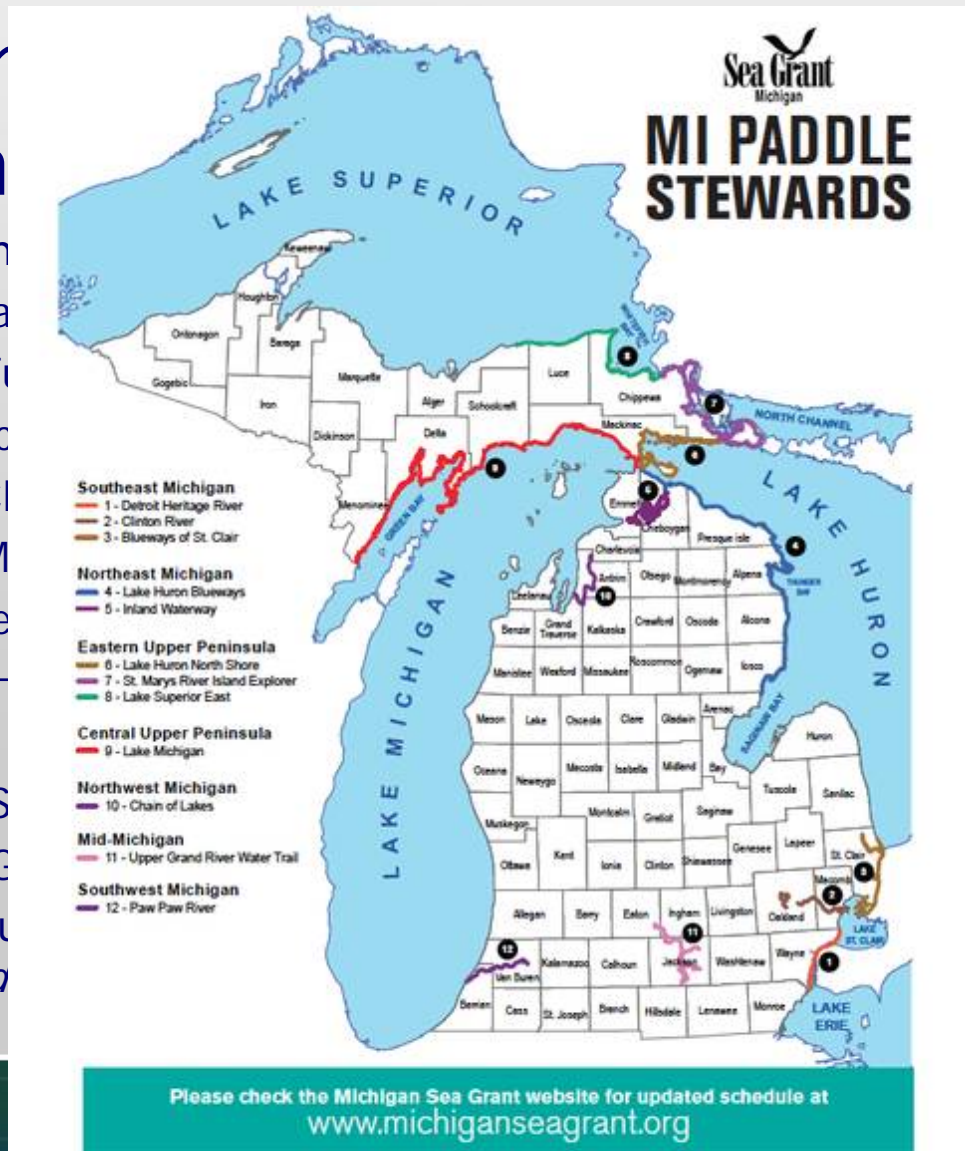


# Impacts

# Water Trails and Conservation

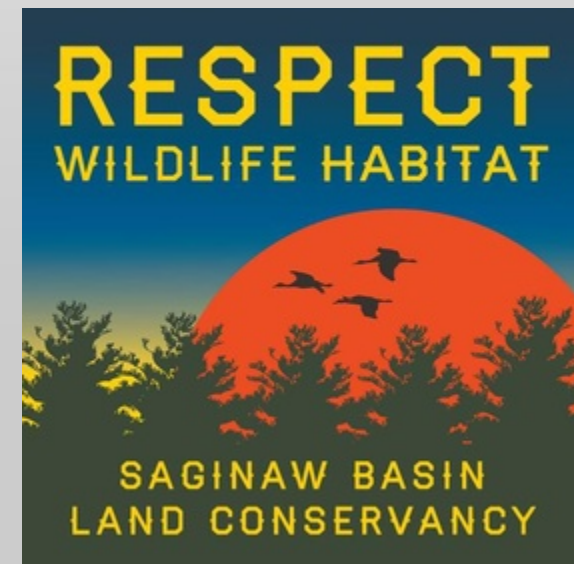
## ◆ The pre training

- ◆ July 26 in Ch...
  - ◆ July 29 in Ra...
  - ◆ Aug. 1\* in Tr...
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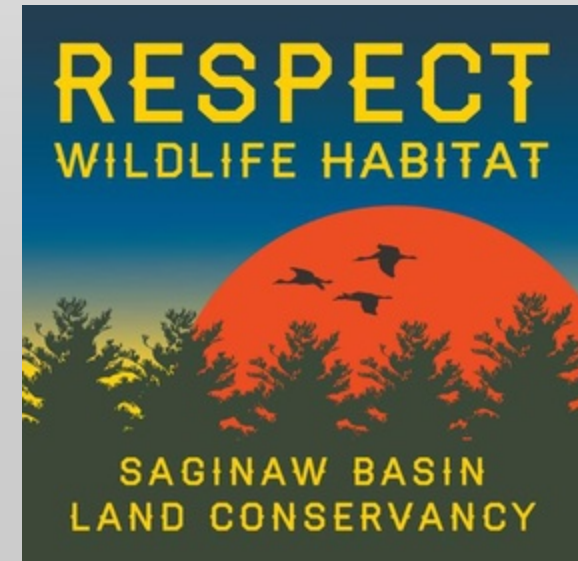
# Birding Trails and Conservation

- ◆ Raise awareness of conservation land issues
  - ◆ Invasive species
  - ◆ Habitat degradation
  - ◆ Partnerships
- ◆ Organize Volunteers
  - ◆ Generate networks



# Birding Trails and Conservation

- ◆ Garner Funds for restoration
  - ◆ Saginaw Basin Land Conservancy garners CZM Grant for;
    - ◆ Invasive species management
    - ◆ Expanded trail
    - ◆ Developed new trail materials




# Birding Trails and Conservation

- ◆ Raise awareness of conservation lands importance to birds
- ◆ Increase Perceived value of conservation lands =
- ◆ Increased local support



# North Huron Birding Trail - Insights

Mar 1, 2016 - Feb 27, 2019 

## Overview

Unique Visits

**49,124**

Page Views

**147,282**

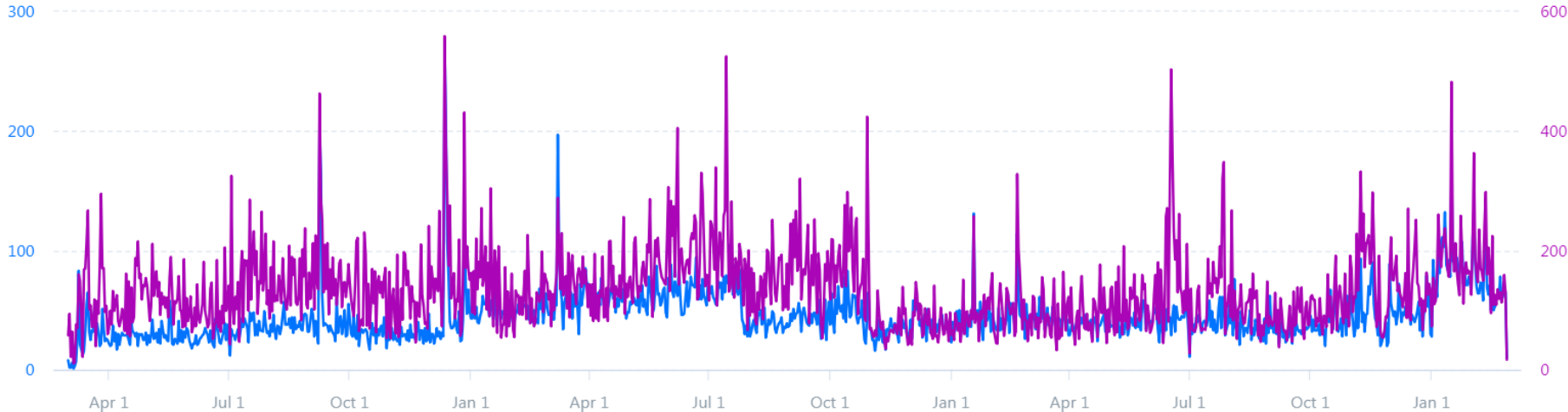
Compare your data

Unique Visits 

Page Views 

Include previous period

● Unique Visits ● Page Views



A photograph of a sunset over the ocean. The sun is low on the horizon, creating a bright orange and red glow that reflects on the water's surface. The sky is a mix of orange, red, and dark blue. The water is dark blue with some whitecaps.

# Thank You.

**QUESTIONS, COMMENTS OR REMARKS?**

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