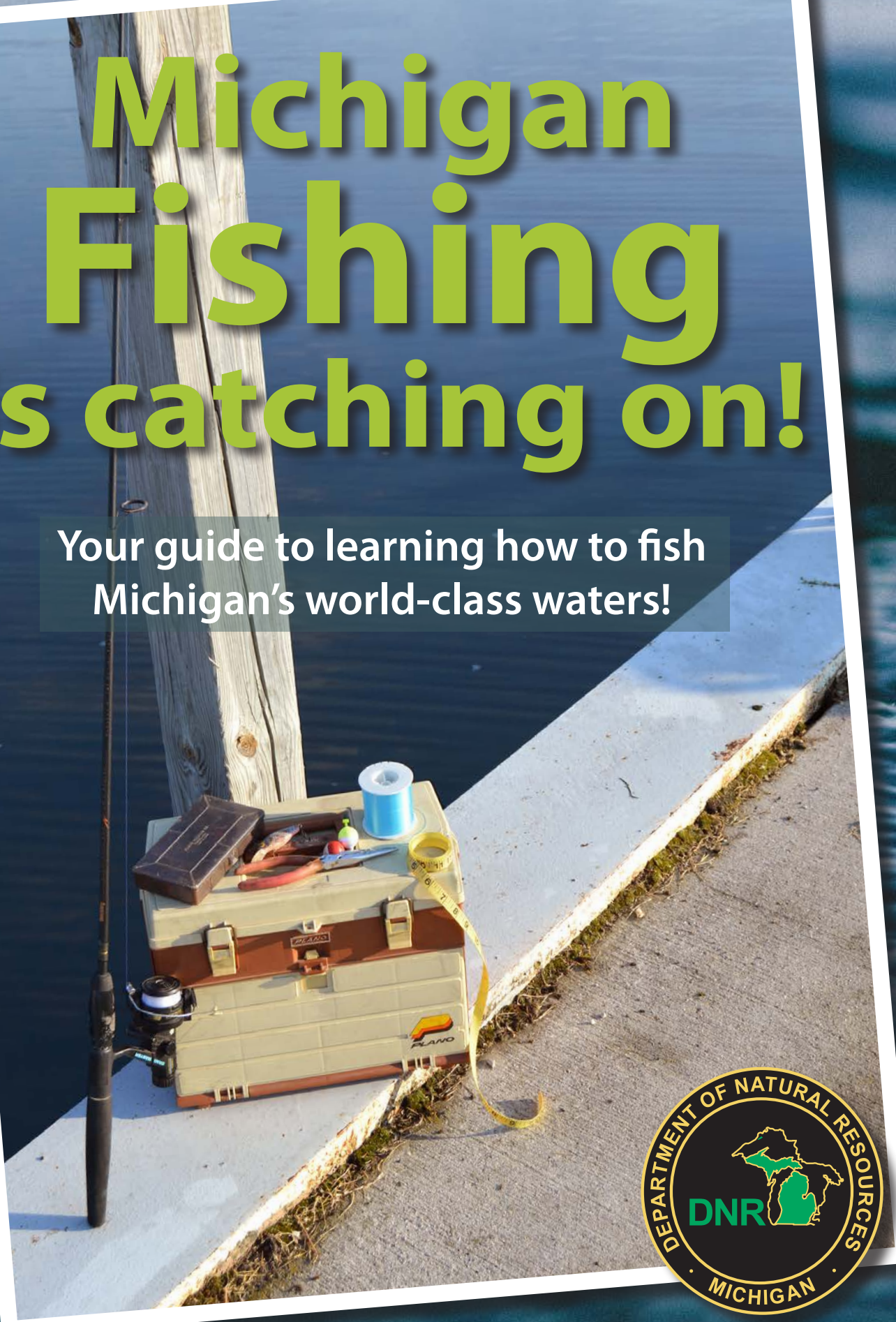
Michigan Fishing is catching on!

Your guide to learning how to fish Michigan's world-class waters!



DEPARTMENT OF NATURAL RESOURCES · MICHIGAN · DNR

michigan.gov/fishing

Welcome!

We are so happy you want to fish in Michigan! This booklet will help you learn the basics of fishing in our state so you can begin to experience Michigan's more than 150 species of fish, 3,000 miles of Great Lakes shoreline, tens of thousands of miles of rivers and streams, and 11,000 inland lakes. Michigan and fishing are a perfect match!

Take your family out fishing!

Check out the DNR's "Family Friendly Fishing Waters"! Find a great place to fish that is easy to access, has a high likelihood of catching fish, and is all-around family friendly!

Visit **michigan.gov/fishing** and look for the red-and-white bobber to get started! Once there you'll find a map of Michigan. Click on any county to find family-friendly fishing locations.

All fish illustrations in this booklet are courtesy of Joseph A. Tomelleri.

Michigan's World-Class Fisheries

The Michigan Department of Natural Resources, Fisheries Division is responsible for managing more fresh water than any other state, and these waters contain a variety of aquatic life, including more than 150 different species of fish. Unlike any other place in the U.S., if you are anywhere in Michigan, you're never more than seven miles away from fishable water. These natural resources (in proximity to the large population base in Michigan and the Midwest) provide unmatched fishing opportunities and require state-of-the-art, scientifically-guided fisheries management to ensure their continued excellence.

Michigan's fisheries rely on the management actions taken by Fisheries Division, whose budget is funded by a relatively small direct user group (anglers). Nearly all funds come from license sales and federal match. At this time, tax dollars from the state's General Funds are not used to support aquatic habitat protection, rehabilitation or management, even though all Michigan citizens benefit from these activities.

Michigan's world-class fisheries and aquatic resources are fragile and subject to threats from invasive species as well as increasing development pressures. Intensive protection and management efforts go well beyond fishing regulations and habitat protection.

Without these efforts, the state's fisheries would quickly decline. In fact, it was the rapid degradation of Michigan's aquatic resources in the early 1870s that led to the establishment of the Michigan Fish Commission in 1873. As a direct descendent of that commission, Fisheries Division is now the second oldest administrative agency in state government with a strong reputation both nationally and with the public. Fisheries Division has the privilege of continuing to meet its long-standing responsibilities to protect, manage and enhance the state's aquatic public trust resources for the benefit of all Michigan citizens, current and future.

The "Reel" Story

Many anglers use a basic piece of gear: a fishing rod.

A simple cane pole with a line tied to the end can work when fishing in shallow water, off a dock, or close to shore, but if you want to get your bait way out there on the water, you'll need a rod and reel. There are many kinds of rod and reel options.

A **spin-casting reel** is the easiest reel to use when learning how to fish. Anglers simply hold the button down and cast, releasing the button as the rod moves forward to throw the bait. The weight of the bait pulls the line off the reel and out into the water. The reel sits on top of the rod just above the angler's hand.

With an **open-face spinning reel** the angler must hold the line with a finger or by pressing it against the rod with their thumb. Release the line when the rod is moving forward. This reel is a bit more advanced than the push button of the spin-casting reel. The reel sits under the rod just above the angler's hand.

A **fly rod and reel** is used when fly fishing and is an advanced rod for anglers to use. This method of fishing actually uses the weight of the line to move the flies out to their intended spot on the water during a cast. It takes lots of practice to use a fly rod.

An **ice fishing rod** is typically much shorter and the angler does not cast the line or bait but releases it down a hole in the ice.

A **tip-up** is also used to ice fish and is set up above the ice hole and dangles the bait beneath them under the water. Tip-ups get their name from a small flag attached that tips up when a fish takes the bait signaling the angler that they have a fish.

Know your Knots

The best fishing line in the world is only as good as the knot you tie. Make sure your knots are tied right so your line doesn't break or you don't lose a hook and a fish! Let us show you how to tie two simple knots!

Improved Clinch Knot

This is one of the easiest knots you can tie to make sure your line retains its breaking strength. It is probably the most common knot used by anglers and can be used to tie a snap swivel, hook, fly or artificial lure to your line.

Step 1: Put the end of your line through the eye of the hook.

Step 2: Wrap the end of the line around the other strand 5 times.

Step 3: Take the end & run it through the loop closest to the eye.

Step 4: Run the line back through the large loop that was just formed.

Step 5: Hold the end of the line & pull on the hook smoothly until the knot is tight. Then clip off the "tag" end.

Palomar Knot

This is another very easy knot to tie!

Step 1: Double about 6" of line & pass it through the eye of the hook.

Step 2: Tie a simple overhand knot in the double line, allowing the hook to hang loose. Avoid twisting the lines.

Step 3: Pull the end of the loop down & pass it completely over the hook.

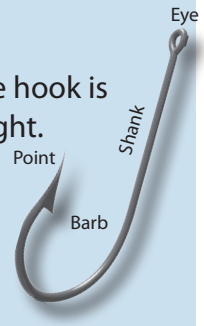
Step 4: Pull both ends of the line to draw up the knot & trim the excess "tag" end.

Tackle This

You will need a container -- called a tackle box -- for your fishing gear. Tackle boxes come in many sizes and shapes. Some look like toolboxes, others like small cabinets, and many look like soft lunch bags or backpacks. Your tackle box should have all the things you need for fishing such as hooks, sinkers, bobbers or floats and lures.

Hooks

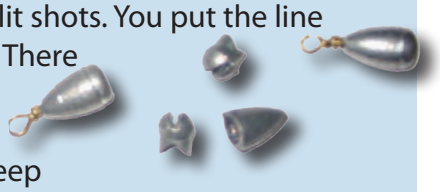
There are many kinds of hooks, but the basic fishhook is shaped like the letter "**J**".



- At the top of the "J" is the eye (or hole), where the line is attached. At the other end of the hook is the point, which is part of the barb. The barb helps hold a fish on the hook when it's caught. The main body of the hook is called the shank.
- Some hooks have multiple barbs and points. Other hooks are made in unusual shapes and are designed to hold specific baits, such as smelt hooks or egg hooks. A jig is similar to a basic hook, but it has a weight attached to it by the eye so you don't need a sinker.

Sinkers

Also called weights, sinkers come in many shapes and sizes.



- Some sinkers are simple, round balls with a slice on one side -- called split shots. You put the line through the slice and pinch the sinker right on the line above the hook. There are also sinkers that slide on the line, called cinch sinkers.
- Pyramid and bell sinkers are used at the end of the line when the hooks are higher on the line. Use only as large a sinker as you need to keep your bait on the bottom. Deeper water and strong currents require heavier sinkers.

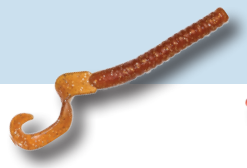
Bobbers

These serve two purposes:

- They control the depth of your bait and can alert you when a fish is biting.
- When the bobber goes down, that's your signal to set the hook!

Artificial Lures

- Artificial lures are designed to look like the real thing -- minnows, frogs, worms or even insects.
- Artificial lures come in many shapes, sizes and colors. Some of them float on the surface and are called topwaters. Others, mostly those designed to look like baitfish or crayfish, float on the surface at rest, but dive when you reel them in. These are often called crankbaits. Topwaters and crankbaits are both called plugs.
- Other lures, like spoons, jigs and spinners, will sink to the bottom. The angler controls their depth by changing the speed of the retrieve. These lures can be fished anywhere from the bottom to just below the surface.
- Hand tied flies are often used by fly fishing anglers who are trying to match their bait to what the fish are eating that day. Dry flies float on the surface and mimic either emerging insects like mayflies or "terrestrials" -- bugs that usually live on land (like crickets) but sometimes fall in the water. Wet flies sink and are used to imitate frogs, leeches, insect larvae or macroinvertebrates that live underwater permanently or until they emerge as adult insects.



Rigging Live Bait

There are several kinds of live bait. Here's how to put them on your hook.

- To keep **minnows** lively to attract fish, hook them through the lips or through the back under the dorsal fin (but not through the backbone).
- You can hook **worms** in a number of ways. Some people like to hook them once lightly, some prefer to thread the entire hook through them, while others run the hook point through multiple times and gob the worm on the hook. Some people cut the worm up into multiple pieces. Experiment and see what works best for you. Wax worms are also a good option.
- You may hook **crickets** and **grasshoppers** through their hind-end starting underneath and moving the hook upward to their top.

Whenever you use live bait, never throw what you have left over at the end of the day into the water! Please dispose of any live or dead bait in a garbage can on land. Doing so helps prevent the introduction or spread of unwanted species and disease that could harm the state's waters.

Depending on the size of the fish you are trying to catch, the size and type of bait matter! Visit **michigan.gov/fishing** to get more information on methods for successful catches of many different fish species.

Parts of a Fish

- Instead of arms and legs, fish have fins to propel them through the water. The tail is the strongest fin and does most of the work. The back (dorsal), side (pectoral) and bottom (pelvic and anal) fins serve mostly as stabilizers for balance and steering.
- Fish don't have lungs. They breathe with their gills, which absorb oxygen from the water. The gills are vulnerable to injury; they are covered by a flap that keeps them protected from harm.
- Most fish have a built-in air sac known as a "swim bladder", which helps keep them upright and keeps them from sinking. Some fish, such as sharks, do not have swim bladders. They have to keep moving constantly or they will sink.

Check out the diagrams on the next page for full details about all the parts of a fish - both inside and outside! →

Cleaning a Fish

To properly clean a fish you need to use a sharp knife – so be careful! If you filet a fish then you don't need to gut it. For more information, check out the DNR's fish cleaning handout and video online at **michigan.gov/howtofish**.

How to Filet a Fish

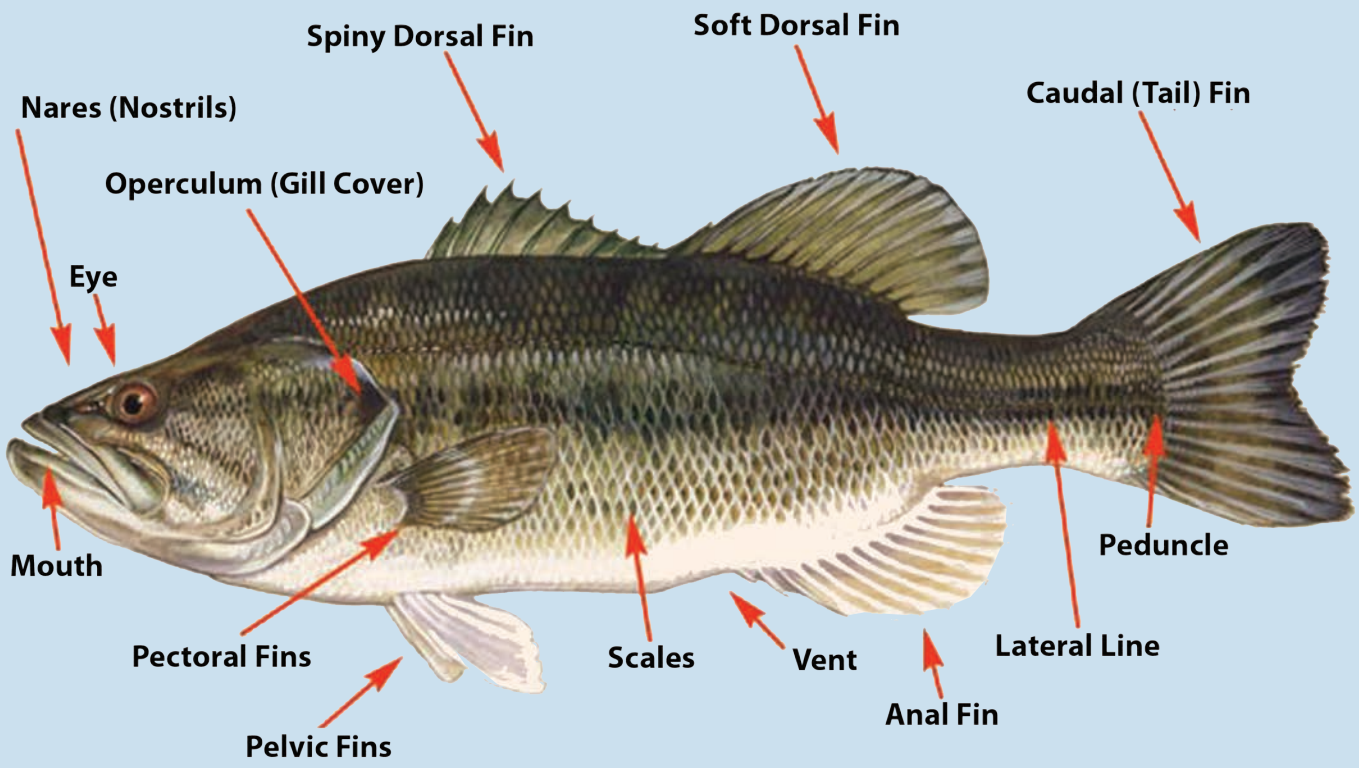
1. Make a cut behind the head and along the backbone.
2. To slice the meat off the bones, run the knife along the backbone all the way to the tail. Do the same on the other side.
3. Skin the fish by running the blade between the skin and meat with the skin side facing down.

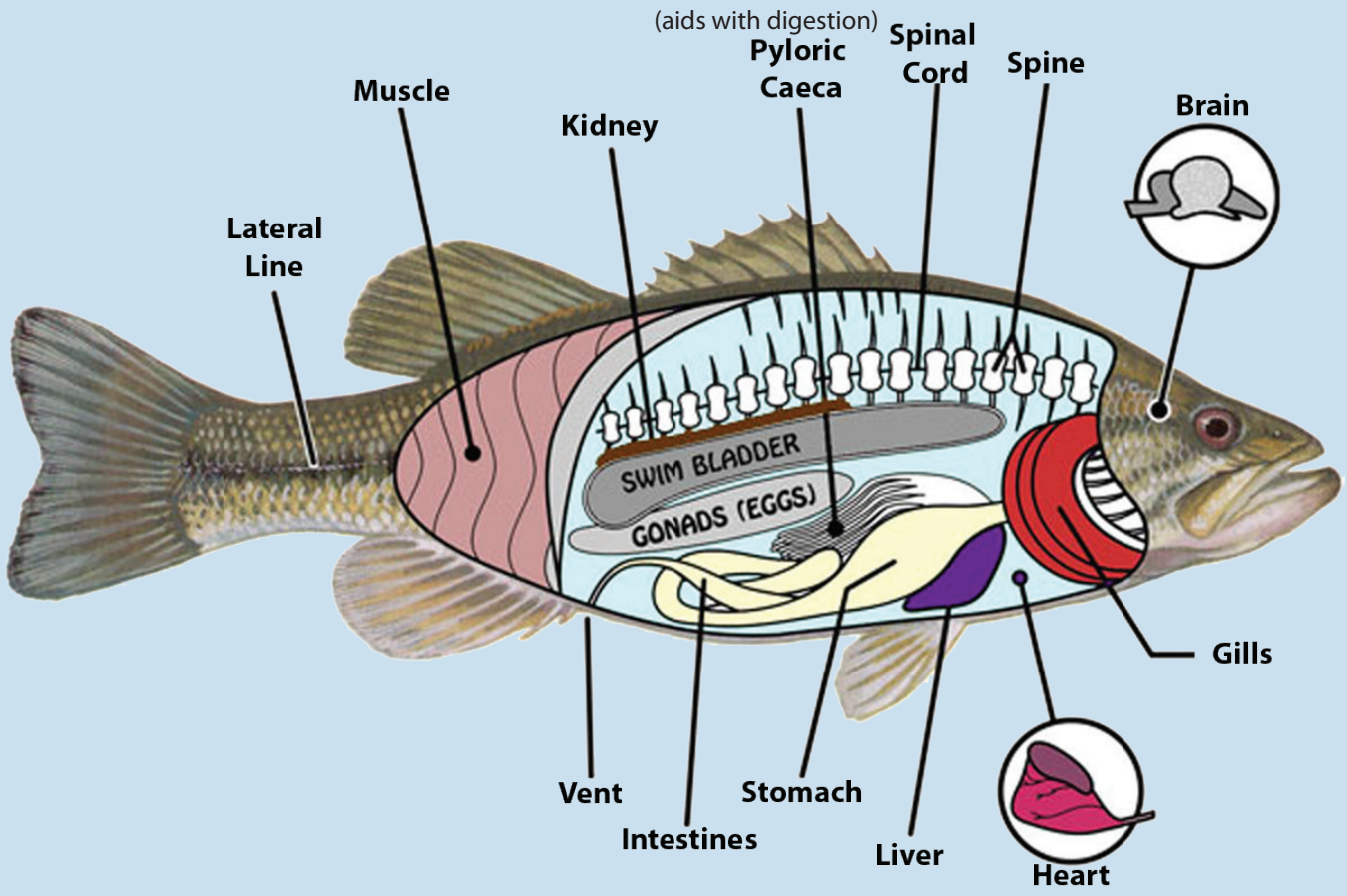
Images courtesy Ohio DNR

Eating Your Catch

There are many ways to prepare fish -- including grilling, baking or frying -- and all are delicious! Nothing tastes better than fresh fish you caught yourself.

Visit the *Eat Safe Fish* website by the Michigan Department of Health & Human Services for more information and the health benefits of eating fish. Also check out the "Hooked on Fish - Recipes from the Great Lakes State" booklet to find different ways to prepare your fish dinner.
Just visit **michigan.gov/eatsafefish**.


Spiny Dorsal Fin
Soft Dorsal Fin
Nares (Nostrils)
Caudal (Tail) Fin
Operculum (Gill Cover)
Eye
Mouth
Peduncle
Pectoral Fins
Scales
Vent
Lateral Line
Anal Fin
Pelvic Fins


(aids with digestion)
Pyloric Caeca
Spinal Cord
Spine
Muscle
Kidney
Brain
Lateral Line
SWIM BLADDER
GONADS (EGGS)
Gills
Vent
Stomach
Intestines
Liver
Heart

A Good Angler Always:

1. Respects other anglers and doesn't crowd others where they are fishing.
2. Respects private property and never trespasses.
3. Keeps only the fish they want or need and never wastes fish.
4. Practices safety on and around the water.
5. Never litters or pollutes.
6. Follows all fishing and boating regulations.
7. Doesn't release bait or any fish into the water, unless it was just caught!
8. Always lets someone know where they are going and when they will be back.
9. Carries their fishing license and identification with them when fishing -- it's the law if you are 17 years or older!
10. Properly releases fish immediately and without harming them if they are not to be kept.

Fishing & Water Safety

Fishing is fun, but there is always the potential for accidents. Follow these easy rules to keep everyone healthy and happy:

1. When you are casting, make sure there's no one too close to you or behind you; remember fish hooks are sharp and can catch your skin or an eye -- just like they can a fish!
2. If your line gets hung up, don't pull it straight back toward you but rather pull out toward the side; you could get hit by a sinker or stuck with a hook if you pull it toward you.
3. Handle fish carefully so you don't get cut by sharp fins or spines.
4. Never stand up in a canoe or kayak.
5. Always stay seated whenever a boat is in motion. If you're in a small boat, move very carefully when you stand up or change seats.
6. Whenever you're near deep water -- either on a dock or pier or in a boat -- do not engage in horseplay!
7. It's recommended you wear your Personal Flotation Device (PFD) or life jacket when you are on or near the water, even if you know how to swim. (Children less than six years of age are, by law, required to wear a PDF when on a boat.)

Be sure to know the rules of the water and take a boater safety course: **www.boat-ed.com**.

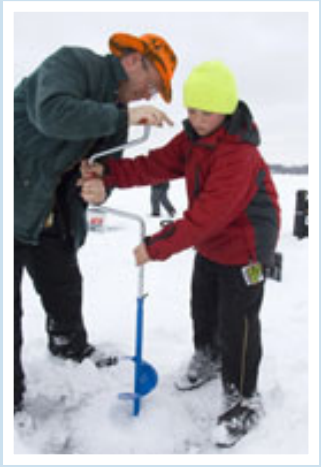
Ice Fishing Fun & Safety

Fishing season doesn't have to end when winter arrives! Many anglers continue to fish through winter by drilling a hole in the ice. Some people even say they like ice fishing better than fishing in open water!

1. Ice fishing can be very dangerous if the ice isn't strong enough to support your weight. You can never tell if the ice is safe just by looking at it! Always allow more experienced ice anglers to go out onto the ice first.
2. Cracks in the ice, places where the ice is discolored, or where an object is sticking out (like a tree or piece of wood) are just a few signs of weak ice.
3. Always wear your PFD (life jacket) and carry a rope to throw in case someone breaks through the ice so they can be pulled out.
4. Always wear several layers of warm clothing and waterproof boots.

To go ice fishing you need four things (besides warm clothes):

1. Something to make a hole in the ice.
2. Something to clean the slush out of the hole.
3. A fishing rod or tip-up and gear.
4. Bait and/or lures.



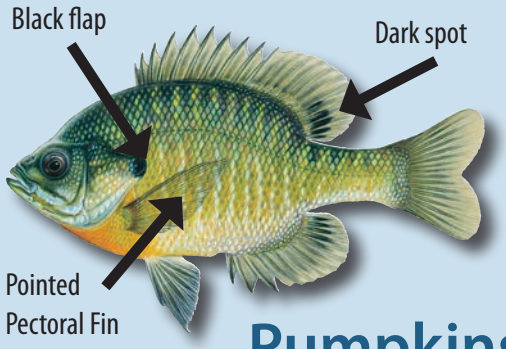
- Anglers use **ice spuds** and **augers** to make holes in the ice. For really thick ice, some anglers use power augers with electric or gasoline engines to make their holes in the ice.

- Once a hole is cut, a **skimmer** (or **slush scoop**) is used to get the ice out of a hole. A skimmer resembles a spoon with a long handle, but it has holes in it to allow the water to drain through when scooping out slush.

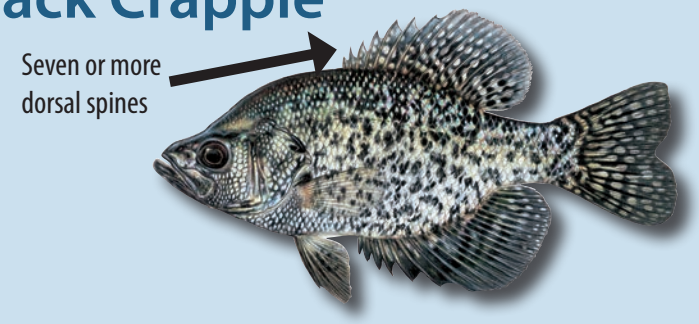
- Any **pole** or **rod and reel** will work for ice fishing, though most anglers use short ice fishing rod so they can sit close to the hole. Others use a "tip-up". A **tip-up** is a special device that has a built-in spool and line supported by a frame that sits on the ice. A tip-up includes a flag on a springed post that is bent down. When the fish takes the bait, the flag flies up alerting the angler to action. The angler then sets the hook and hauls the line -- and fish -- in by hand.

Catch One of The

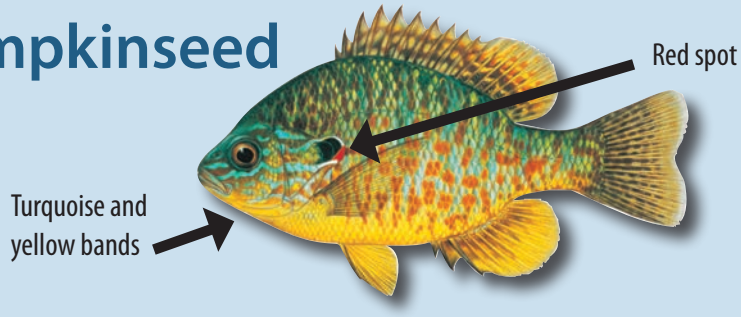
Bluegill



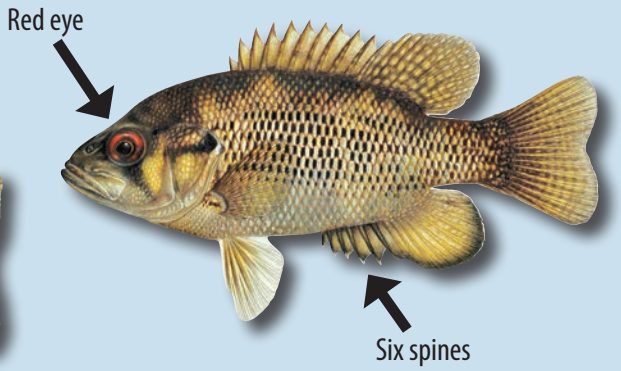
Black Crappie



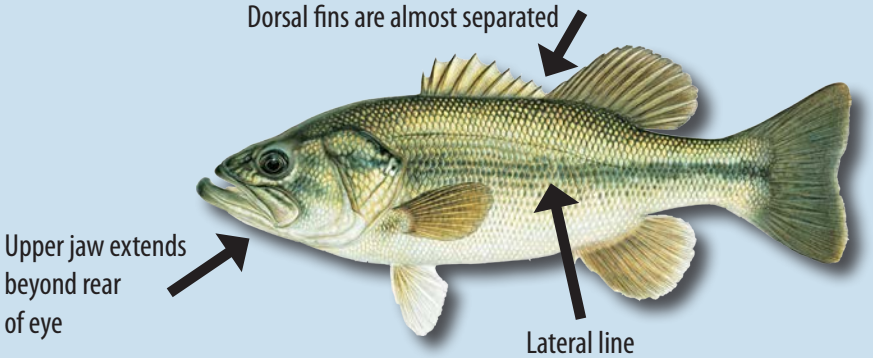
Pumpkinseed



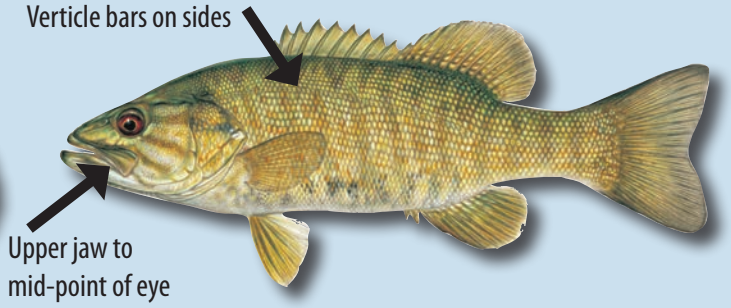
Rock Bass



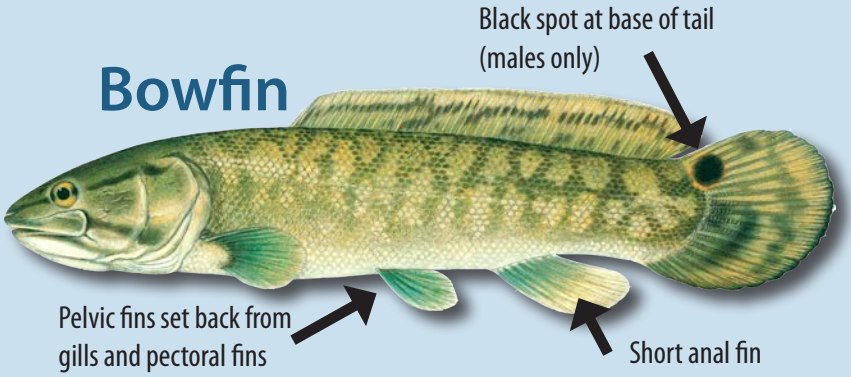
Largemouth Bass



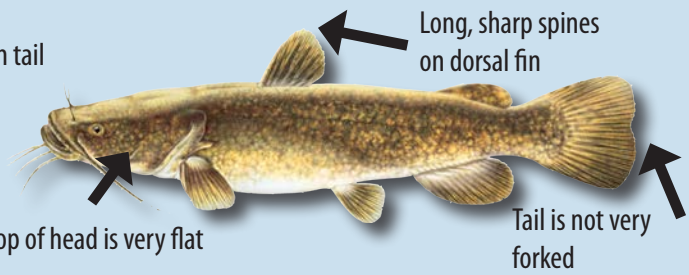
Smallmouth Bass



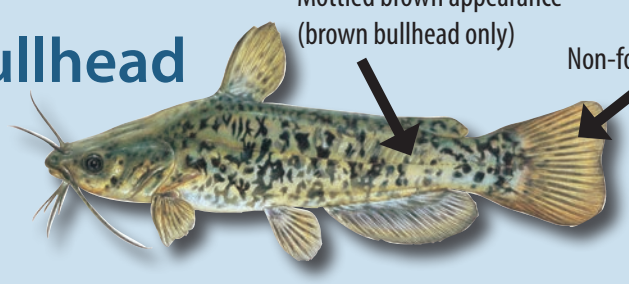
Bowfin



Flathead Catfish



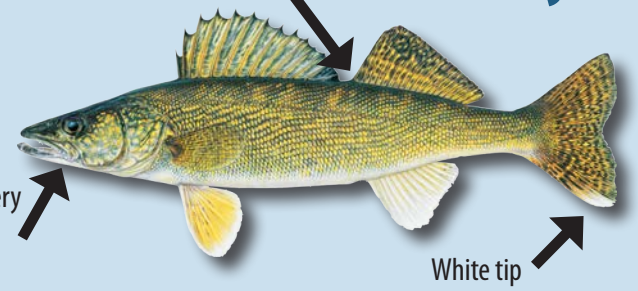
Bullhead



ese Michigan Fish

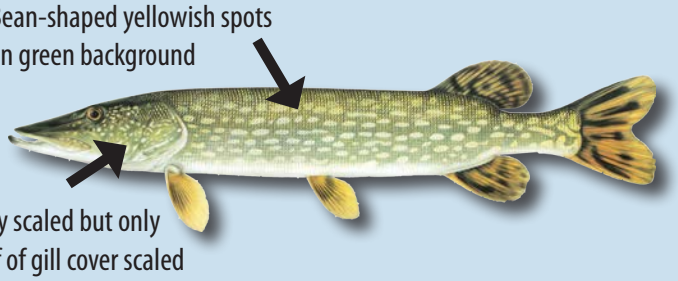
Yellow Perch

Walleye

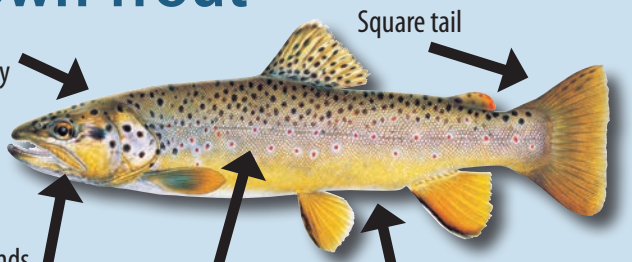


Channel Catfish

Northern Pike

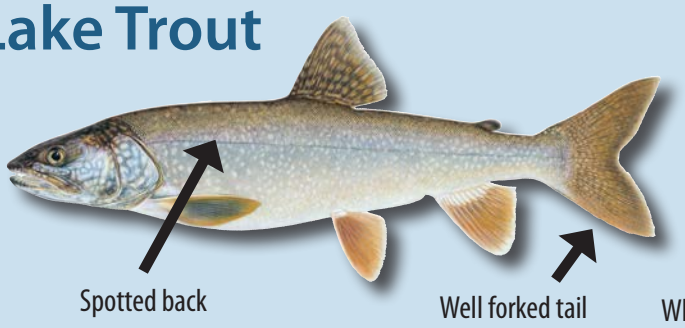


Brown Trout

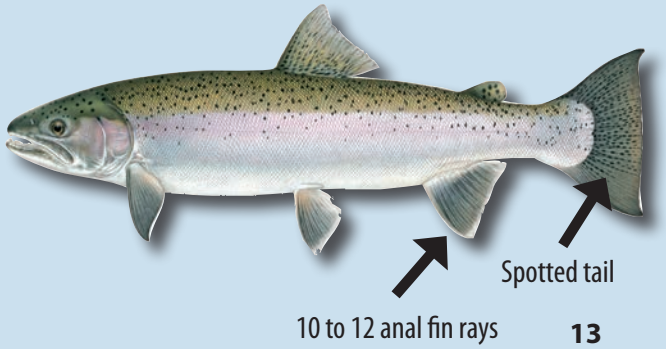


Chinook Salmon

Lake Trout



Steelhead (Rainbow Trout)



Want to ID even more MI fish?
Visit michigan.gov/fishing!

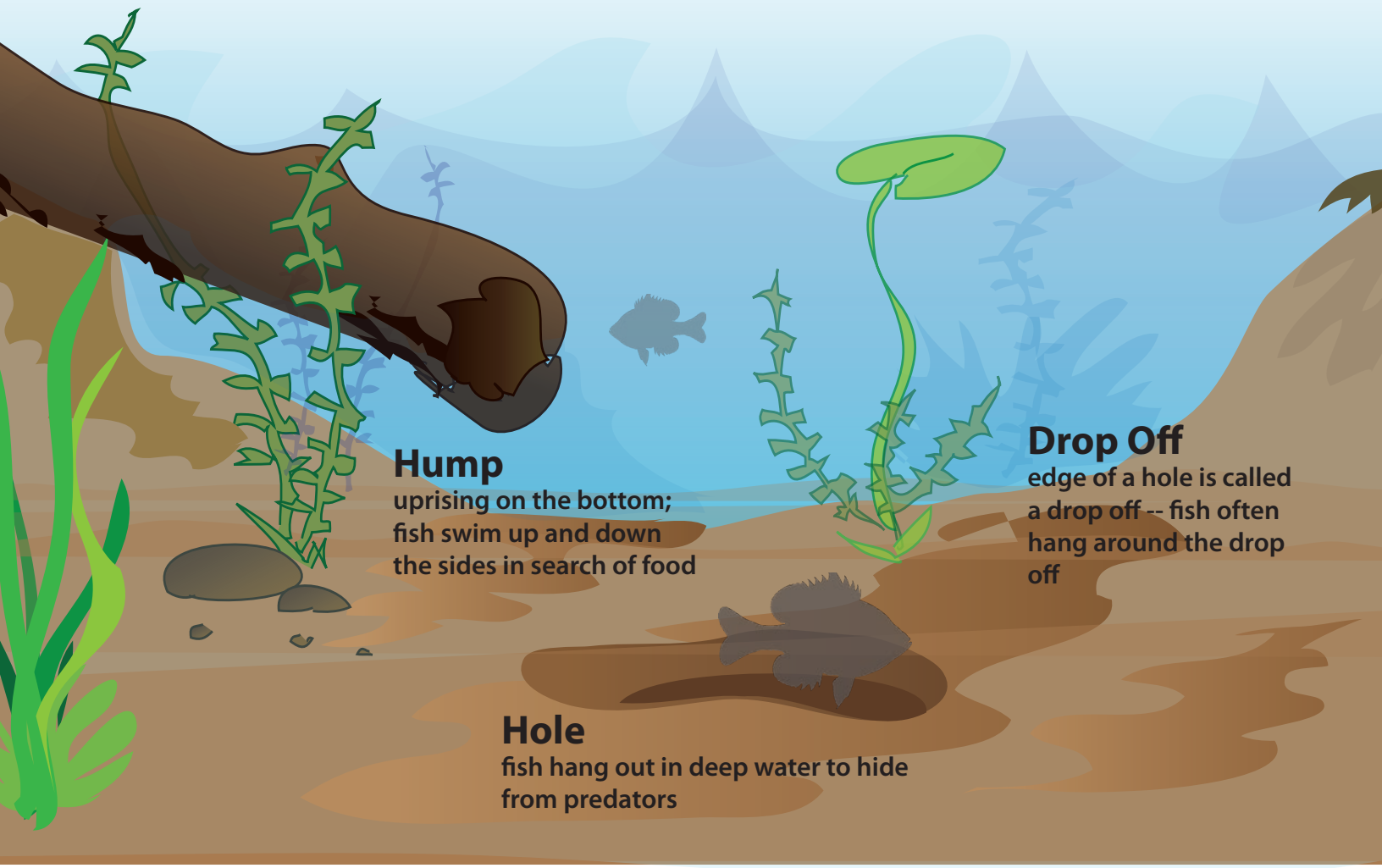
Where fish live in lakes, rivers & streams

Before you can catch fish, you have to find where they live. There are places in lakes, rivers and streams where fish prefer to live. The areas where fish find conditions suitable to their needs -- food, cover, space, temperature and enough oxygen in the water -- is called **habitat**. Fish often live where they are protected from natural enemies such as bigger fish, birds and some mammals.

Learn to think like a fish! On a hot, sunny day many fish will seek shade just like you, so cast your line into areas of the water shaded by shoreline vegetation or towards rocks and woody debris in the water. Some fish prefer to feed at night or feed mostly at dawn and dusk. To discover more about a fish species you wish to catch, visit **michigan.gov/fishing** and type in the name of a fish in the search box. This will provide you information on that species' preferred habitat, food preferences and when it is the best time to catch them!

Lakes

Fish wait in deep waters, but come up to shallower water to feed. Usually fish will stay close to cover along weed beds or under downed trees, docks or lily pads. Cover not only helps protect fish from predators, it also gives them a hiding place to ambush their own prey.



How is it different during winter? Most fish decrease their activity during the colder months, but still hang out in many of the same locations as the summer months.

Riffles
where water moves swiftly over rocks and gravel

Pool
deeper water where fish like to rest and feed

Shoreline Vegetation
important for providing shade and cover

Cover
natural debris, like these logs, provides good hiding places from predators for small or young fish

Water Seam
looks like a line of bubbles and is where fish often feed

Rock Eddy
reflects the current and may provide cover

Hole or Pool
deeper water where fish like to rest and feed

Run
often slower water where river or stream widens or straightens (can be fast or slow)

Rivers & Streams

In streams and rivers, fish often seek out places where they don't have to fight the current.

Aquatic Invasive Species

Keep Watch for these INVADERS!

They are called "invasive species" because they cause environmental or economic harm and they are threatening life in the Great Lakes. Unwanted fish, plants and mollusks (snails, clams, mussels) move in, multiply and crowd out or kill Michigan's Great Lakes native species. Invasive species are sometimes accidentally introduced by anglers.

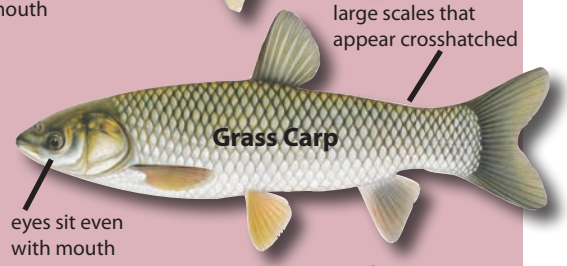
5 Easy Steps you can take to Prevent the Spread of Invasive Species:

1. Clean boats, trailers, fishing equipment and waders between fishing trips. This is called "decontamination" and it is similar to washing your hands to prevent the spread of germs. We also call this: **CLEAN, DRAIN, DRY** and **DISPOSE!**
2. Do not release bait back into any waterbody whether it is alive OR dead. Dispose of it properly by putting unused bait in a garbage can.
3. After cleaning, allow boats, trailers and other fishing equipment to fully dry for 5 days. This helps to kill any small aquatic invasive species that are difficult to see.
4. Never move fish or fish parts from one body of water to another.
5. If you suspect an invasive species where you are fishing, go to **michigan.gov/invasivespecies** for more information -- including photos for identification and how to contact the DNR to report what you have found!

Bighead, Silver & Grass Carps

These species of invasive carp are moving toward Michigan and threaten our fisheries. If these carp become established in Michigan waters, they will eat the food supply that our native fish depend on and crowd them out of their habitat. This will greatly reduce your chance to catch your favorite game fish.

Invasive carp are fast growing, can weigh up to 100 pounds, reproduce rapidly, have very large appetites, and eat plankton which our native fish depend upon for food.



Red Swamp Crayfish

These invasive crayfish -- sometimes called Louisiana crayfish or crawfish -- are not yet established in Michigan waters, but live in a variety of permanent freshwater habitats. Crayfish feed heavily on snails, fish, amphibians and plants. Red swamp crayfish compete aggressively with native crayfish species for food and habitat.

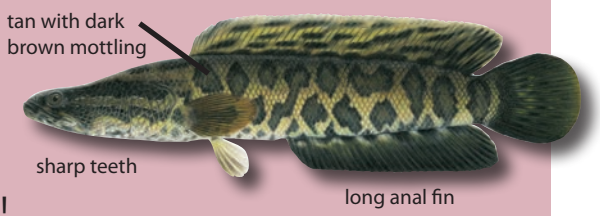
New Zealand Mudsnail

- average length, 1/8 inches
- brown with 5 whirls

These tiny snails can tolerate a wide variety of aquatic habitats and so are considered highly adaptable. They eat phytoplankton and decaying plant and animal matter attached to submerged debris. They have no nutritional value for native fishes, and a single female can resolute in a colony of 40 million snails in one year!

Northern Snakehead

These large predators are found in a variety of habitats and can breathe out of water from three to seven days! Even though they are slow, they have the ability to move on land from one body of water to another by using their pectoral fins. They have sharp teeth like a pike and they have no natural predators in the U.S. If introduced in Michigan they will eat many of our native species with their large appetites!



Sea Lamprey

- grayish blue-black on sides
- silver-white coloration on underside

Sea lampreys are parasitic fish native to the Atlantic Ocean that have invaded the Great Lakes and some of Michigan's inland rivers. They are unique from other fish as they do not have jaws or bony structures and resemble eels, although they are fish. They attack and kill fish by sucking their blood and other body fluids by attaching to them by their mouth which is a large sucking disk filled with sharp, horn-shaped teeth surrounding a razor-sharp rasping tongue.

Invasive Aquatic Plants:

Hydrilla

This submerged aquatic perennial prefers the slow moving water found in lakes, ponds, reservoirs and ditches. It is usally rooted in water up to 20 feet deep with little branching in deep water but dense branches at the water's surface. It has not yet been found in Michigan.

Eurasian Water Milfoil

This submerged aquatic perennial has feather-like leaves and is usually from three to 10 feet in length. It prefers nutrient rich water with disturbed shorelines and can be found throughout the Midwest in lakes and ponds.

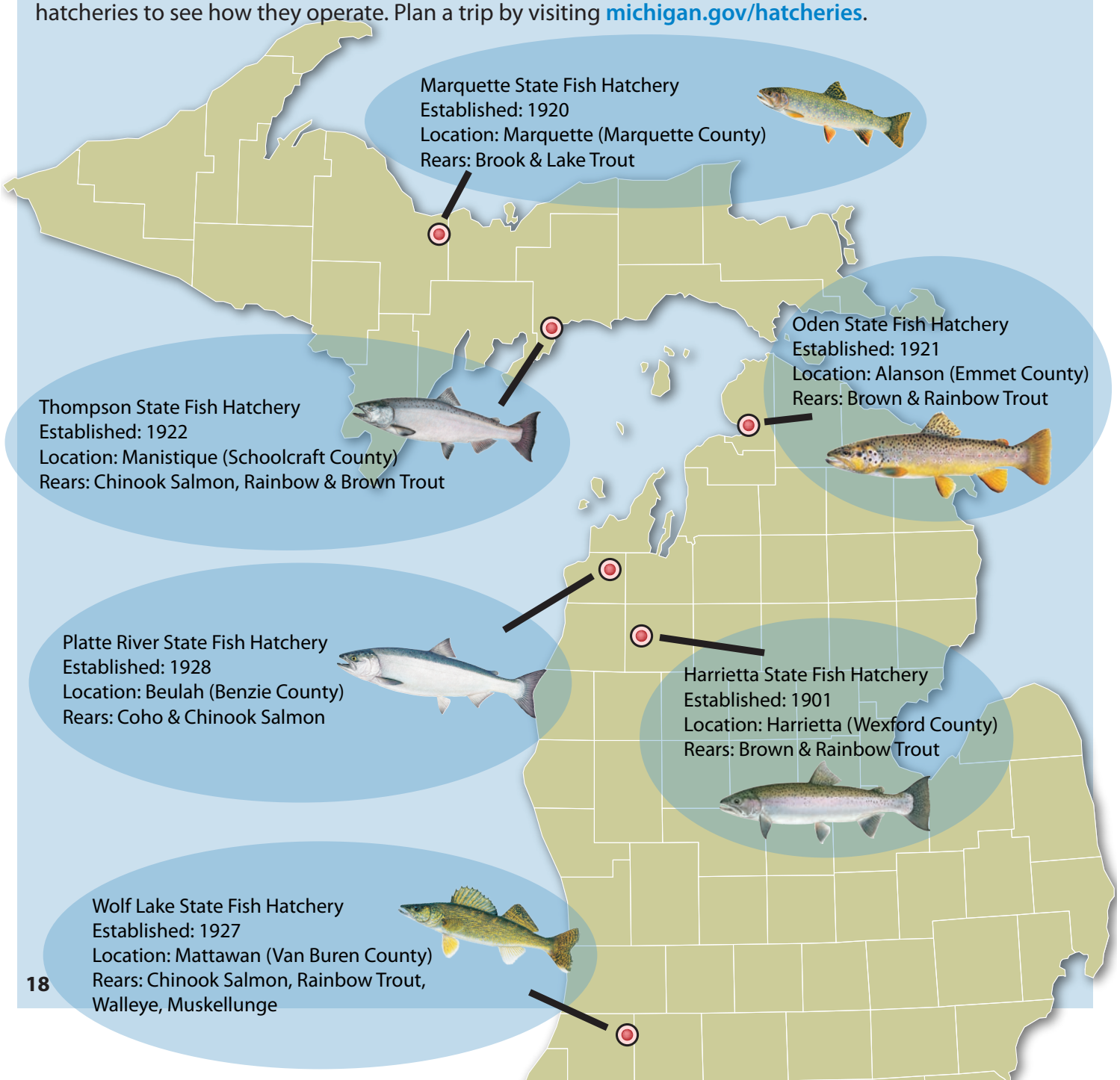
European Frogbit

This aquatic perennial is free floating and forms large colonies that create dense mats with tangled roots. It prefers shallow and slow-moving water on the edges of lakes, rivers, streams, wetlands, marshes and ditches. It has been found in southern Michigan.

Michigan's Fish Hatcheries Help Anglers

The DNR hatches, rears and transports fish as part of its Fish Production Program. These activities benefit the state's inland and Great Lakes fisheries and increase angling opportunities. To manage Michigan's fish populations, the DNR sets limits on the size and number of fish that can be caught and kept. Some species are managed with size limits so they can grow big enough to reproduce before they are caught by anglers. Other fish species don't have size limits, but there is still a limit on the number anglers can keep.

In some cases, even with the best management, fish are not able to reproduce fast enough to keep up with angler demand. When that happens, the DNR sometimes adds to the number of fish in lakes and streams - also called "stocking" fish. To do this, the DNR rears fish in hatcheries (shown below) until they are large enough to survive on their own. Then they are transferred to waterbodies where they can grow large enough for anglers to keep. Everyone is welcome to come and visit one of the state's six fish hatcheries to see how they operate. Plan a trip by visiting **michigan.gov/hatcheries**.



Resources You Can Use to Go Fishing

Weekly Fishing Report

This weekly report is available each Thursday and highlights where the fish are currently biting across Michigan! You can read the report online, listen to it over the phone, or sign up to have it sent directly to your email. Visit **michigan.gov/fishingreport** for more information.

Family Friendly Fishing Waters

The DNR's Family Friendly Fishing Waters project can help you find great places to fish. Just visit **michigan.gov/fishing** and click on the red-and-white bobber to enter the Family Friendly Fishing Waters website. There you'll find a map of Michigan that highlights family-friendly fishing locations throughout the state.

Hook, Line & Sinker

Join the DNR for this weekly fishing program, conducted by staff at more than 30 state parks, recreation areas and state fish hatcheries. We'll teach you casting and fishing basics, and can provide a rod and reel for you to use. These programs run from mid-June until the end of summer. Visit **michigan.gov/hooklineandsinker** for a list of locations.

Fish Bites

Sign up for an e-newsletter made specifically for students, parents and teachers that focuses on fishing-related information. Just visit **michigan.gov/fishing** and look for the red envelope.

Sign-up to get fishing-related emails

The DNR can send you emails about fishing information you can use. Just visit **michigan.gov/fishing** and click on any red envelope you see – then get signed up for one of our many fishing-related topics!

Free Fishing Weekends

Two days, twice a year, families and friends (both residents of Michigan and non-residents) can enjoy one of Michigan's premiere outdoors activities, fishing, for FREE! That means you don't have to have a fishing license to head out to your favorite waterbody. All other fishing rules and regulations still apply. For more information, visit **michigan.gov/freefishing**. During all other times of the year, those age 17 and older need to purchase a license to go fishing.

Trout Trails

Michigan is nationally known as a trout fishing destination with nearly 20,000 miles of cold, quality trout streams and hundreds of trout lakes accessible to anglers. With all these sites to visit, how does an angler decide where to go?Check out Michigan's Trout Trails, **michigan.gov/trouttrails** which are biologist-verified great trout waters that are often lesser known.

This website includes detailed descriptions and photos for each site, as well as information for area lodging, restaurants and guide services to assist with your trip planning needs. In addition, site-specific information such as the trout species available, regulations, stocked or natural reproduction and other noteworthy tidbits are all at your fingertips!

YouTube Videos

Check out the DNR's YouTube channel for "How-To" fishing videos by visiting **youtube.com/MichiganDNR**.

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Michigan's State Fish: The Brook Trout

The **brook trout** is Michigan's official state fish.

"Brookies" have a long, streamlined body with a large mouth. They can be olive color, blue-gray or black with a silvery white belly and markings that look like worms along the side. They have red spots sometimes surrounded by bluish halos on their sides. The lower fins have a white front edge with black and the rest of the fin is reddish orange. Brook trout live in most areas of the state including creeks, streams, rivers, lakes and in the Great Lakes. They like clean, cool and clear streams that are about 57 to 60 degrees Fahrenheit.

Brook trout live about six years and often grow to be about 7-9 inches long in streams and up to 25 inches in the Great Lakes. They like to hide under jutting rocks and logs and they don't move around much, but they do eat a lot! Brook trout eat zooplankton, crustaceans, worms, fish and insects. Anglers like to fish for brook trout for food and for enjoyment. To catch one for yourself, try using worms, crickets, grasshoppers, wet or dry flies, spoons or spinners.

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.

In accordance with State and Federal law, the State of Michigan, Department of Natural Resources provides equal employment opportunity and services to all individuals regardless of ability, race, color, national origin, religion, age, gender, sexual orientation, height, weight, marital status or political affiliation under the Civil Rights Acts of 1964 as amended (MI PA 453 and MI PA 220, Title V of the Rehabilitation Act of 1973 as amended and the Americans with Disabilities Act). If you believe that you have been discriminated against in any program, activity or facility, or if you require additional information, please contact: Human Resources, Michigan Department of Natural Resources, P.O. Box 30028, Lansing, MI 48909-7528 or Michigan Department of Civil Rights, Cadillac Place, 3054 W. Grand River Blvd., Suite 3-600, Detroit, MI 48202, or Office for Diversity and Civil Rights, U.S. Fish and Wildlife Service, 4040 North Fairfax Drive, Arlington, VA 22203.