Select a fish that lives in Wisconsin that you would like to learn more about. Use this worksheet to profile the fish as you work through the different sections of this booklet. If each of your classmates selects a different fish, your classroom will know how to catch just about anything!

**Profile of a Swimmer**

**Common Name(s):**

**Scientific Name:**

<table>
<thead>
<tr>
<th>SENSE</th>
<th>FEATURE AND DESCRIPTION</th>
<th>IMPORTANCE TO FISH (HIGH, MEDIUM, LOW)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Smell</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hearing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Taste</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Touch</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Identifying Characteristics:**

**Natural Food:**

**Habitat Description:**

**Niche (role):**

**Spawning habits and habitat:**

**Environmental stressors:**

**Tackle and Bait:**

**Bag Limit:**

**Is there a health advisory for this fish? if so, where?**

**Any restoration or stocking efforts for this fish?**

**Good to eat or simple recipes?**

**Other interesting facts about this species (list 5):**

**Sources:**

**SENSE FEATURE AND DESCRIPTION IMPORTANCE TO FISH (HIGH, MEDIUM, LOW)**

- **Sight**
- **Smell**
- **Hearing**
- **Taste**
- **Touch**

**Identifying Characteristics:**

**Natural Food:**

**Habitat Description:**

**Niche (role):**

**Spawning habits and habitat:**

**Environmental stressors:**

**Tackle and Bait:**

**Bag Limit:**

**Is there a health advisory for this fish? if so, where?**

**Any restoration or stocking efforts for this fish?**

**Good to eat or simple recipes?**

**Other interesting facts about this species (list 5):**

**Sources:**
Welcome, Anglers!

You are holding a guidebook that will provide you with Field Knowledge to take you through the various steps of fishing. This booklet is organized into two main sections: **Section A, Field Knowledge—Know Before You Go** and **Section B, Field Knowledge—Making the Catch**.

In Section A, Know Before You Go, you will learn about:
- fishing equipment
- techniques
- regulations
- safety considerations

You will build on what you learn in this section when you go outside for an actual fishing trip. Section B, Making the Catch guides you through:
- reading the water
- catching a fish
- deciding whether or not to keep your fish
- cleaning your catch
- cooking your catch

This booklet can be paired with the *Hook, Line, & Thinker: Science Guide* that focuses on the biology, ecology, and management of fish in Wisconsin. Even when done together, however, these booklets are not detailed enough to make you an expert angler. Fishing is a life-long adventure and the more you fish, the more you’ll learn.

Be sure to thank your teacher and community members for offering you this chance to get outside and test the waters. We wish you the best in making an exciting catch and hope you will enjoy angling for many years to come!
The Scene

You and your friends are out fishing on Devil's Lake. You’ve each caught and kept your limit of one northern pike for the day, but the weather is perfect and you’re all enjoying yourselves so much that you decide to keep fishing for a few more hours. If you catch any more fish, you’ll release them. You sit back to watch the hikers on the ridge, when suddenly your bobber sinks and your line goes taut. You pick up your rod and struggle to reel in what turns out to be the largest northern pike you’ve ever seen! It’s much bigger than the fish you caught several hours ago and would feed many more mouths. What would you do? Would you keep it or release it? Why? If you release it, how will you go about making it a safe release for the fish?

SECTION A

Field Knowledge—Know Before You Go

Knowing when to keep a fish and when to release it is an important part of being a responsible angler. In this booklet you will learn about the gear, techniques, and skills necessary for fishing, but most importantly you will learn some guidelines on how to be an ethical and responsible angler. It will be up to you to put these ethics into action!

Fishing is an excellent way to connect with the water world around you while relaxing with friends and family. But first you need to select your tackle, practice your casting, and make sure you have a handle on water safety and fishing regulations.
Tackling Tackle

Newcomers to fishing are often overwhelmed when they step into a bait shop and face a wide variety of gear and gadgets. Anglers have a language all their own when it comes to tackle (gear), but fishing club members, bait shopkeepers, and probably some of your classmates are happy to translate. Where could you go for tackle advice in your community? Here are the basics to help you start a conversation and make the best selection for your fishing goals.

Hook, Line, and Sinker

All you really need to fish is a soda can, a piece of fishing line, a hook and some bait. If you wrap the line around the can about 50 times and thrust the can forward while letting the line release, you have a very inexpensive form of fishing tackle. Most people, however, find that a rod and reel help them better meet their fishing goals.

Rods and Reels

Rods and reels are two separate pieces of equipment, but they are almost always sold and used together. Most rods (poles) are made of graphite, fiberglass, composites, or bamboo. In general, the more high-tech the rod material, the more expensive the rod will be. Most rods have guides (loops) along their length to thread fishing line through. Rods can be as short as four feet or as long as 16 feet, but most are about six feet in length. In general, the longer the rod, the further you can cast. However, a shorter rod allows for greater accuracy.

Reels are used to cast (send out) and retrieve fishing line. The reel attaches to the base of the rod. Many people, however, start fishing on the no-reel cane pole, the simplicity of which allows new anglers to focus on fish, rather than on gadgets.

The type of rod and reel you choose depends on the type of casting you will be doing.

Spinning gear is designed for long, backlash-free casts and is effective with relatively light weights.

Baitcasting gear (also called “levelwind”) is designed for precision casting and can be used with heavier weights and heavier line. Beware of the backlash though; baitcasting gear can leave your line in tangles.

Spincasting gear is similar to spinning gear, but has a button on the reel that makes it one of the simplest reels to use.
Rods and reels are two separate pieces of equipment, but they are almost always sold and used together.

**Fly-fishing gear** is very different from the others listed above. The reel is designed to store line, not to cast and retrieve, and the rod is long and limber. The angler does the casting, rather than the gear; it takes some skill and a lot of practice to become a successful fly angler.

**Lines**

Fishing line winds around the reel up through the guides on the rod and is tied off with a hook on the end. Line comes in a variety of sizes and strengths. There are four basic types: monofilament (meaning “one line”), braided, high-performance polyethylene, and fly line. The type you choose depends on your rod and reel, the fish you plan to catch and the bait you will be using. The higher the “pound test” on the line, the stronger it is. A 10-pound test line should break when a fish pulls back with 10 pounds of force or more. Lines are actually under-rated to allow for knots, the weakest point on your line. For optimal castability, look for limp, 8-pound test line.

**Hooks**

There are many fish hook styles and sizes, and you will want to try to match the hook size to the size of your intended catch’s mouth. Hook sizes work the opposite of what one might logically expect. The larger the number, the smaller the hook. So a no. 24, used for fly-fishing, is tiny and much smaller than a no. 2. It might seem, then, that there would be no hook larger than a no. 1. There are, but sizes larger than a no. 1 add a “/0.” So the next size up is a 1/0, then 2/0, 3/0 (pronounced “three-oh” or “three-ought”) and so on. At this end of the scale, the larger the number the larger the hook, so a 12/0 is larger than a 2/0.
Buy Local!

Take a guess: how many large tackle manufacturers are based in Wisconsin?

If you guessed over 30, you’re correct. With a little pre-shopping research, you could boost Wisconsin’s manufacturing industry by assuring that your rod, reel, spoons, spinners, plugs, tackle box, artificial baits, and lure components were all produced in the state. In the 2006–2007 fishing season, anglers spent $2.75 billion dollars on their hobby here in Wisconsin. What better way to help the economy than to go fishing?

Bobbers

Also known as “floats,” bobbers have two jobs: to hold your bait at the right level in the water and to help you detect fish bites. Bobbers are Styrofoam® or hollow plastic and are attached to the line. When a bobber dips down, you might have a fish (or maybe a stump!)

Sinkers

Sinkers are weights to help get your bait and hook under the water. There are many different sinker shapes and weights. Choose one that meets your needs—but avoid ones with lead. Lead poisons wildlife. Many anglers have turned to non-lead alternatives. Tin and bismuth sinkers are lighter, so you need more of them to sink your bait.

Snaps and Swivels

Snaps are used to connect a hook or lure to the line, and swivels are used to prevent the line from twisting. The number one mistake beginning anglers make is to add too many snaps and swivels. Try starting without snaps and swivels and only add what you need.

Luring Them In

The method you choose to entice a fish to bite depends entirely on what species of fish you want to catch. Your attention-grabbing item could be live bait or an artificial lure. Both serve the same purpose of luring in the fish either by offering something to eat or something to attack.

Bait

Worms, grasshoppers, live minnows, and dough balls are common baits you can slip onto your fishing hook. Not all baits are legal at all times so check the regulations before you drop your line in the water.

Obtaining bait is easy, but what to do with it after a day of fishing requires some thought. Transferring bait from one waterbody to another is prohibited due to concerns about spreading invasive species and viral hemorrhagic septicemia (VHS).
In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.

A spinner is a wire shaft with a treble hook at the bottom and a blade that spins (revolves) when pulled through the water. A variation of this is the spinnerbait, a weighted lure with one or two spinning blades set over the hook. It spins around a shaft that looks like a safety pin. Spinners also attract fish by catching and reflecting sunlight.

In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.

In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.

In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.

A spinner is a wire shaft with a treble hook at the bottom and a blade that spins (revolves) when pulled through the water. A variation of this is the spinnerbait, a weighted lure with one or two spinning blades set over the hook. It spins around a shaft that looks like a safety pin. Spinners also attract fish by catching and reflecting sunlight.

In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.

A spinner is a wire shaft with a treble hook at the bottom and a blade that spins (revolves) when pulled through the water. A variation of this is the spinnerbait, a weighted lure with one or two spinning blades set over the hook. It spins around a shaft that looks like a safety pin. Spinners also attract fish by catching and reflecting sunlight.

In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.

A spinner is a wire shaft with a treble hook at the bottom and a blade that spins (revolves) when pulled through the water. A variation of this is the spinnerbait, a weighted lure with one or two spinning blades set over the hook. It spins around a shaft that looks like a safety pin. Spinners also attract fish by catching and reflecting sunlight.

In order to prevent the spread of VHS, it is illegal to harvest wild minnows, both commercially and for personal use, from all known and suspected VHS waters. It is also illegal to possess or use minnow harvesting gear on any of the VHS waters. A current listing of these waters is posted on the DNR’s Website.

Worms are another matter. All common bait worms are non-native and often become invasive. They can change the species composition of the forest by devouring the leaves that would normally decompose slowly and provide important soil nutrients for tree seedlings, wildflowers and ferns. So, just like you wouldn’t dump your leftover minnows in the water, don’t dump your worms in the woods; put them in the trash.

Lures

Lures are designed to resemble natural fish food, grab a fish’s curiosity, or just make a fish mad enough to bite. Lures come in a variety of shapes, sizes, and colors. They’re fun to look at and to make.

A plug is a casting lure, usually made of wood or plastic. It is designed to imitate a small fish or other aquatic animal moving on the water or below the surface. The actions of the angler make plugs dip, dive, rattle and thrash like live prey. The faster you retrieve a wooden plug, the deeper it will “swim.”

A spoon is a curved, tapered slab of metal designed to wobble or flutter upon retrieval. As it is retrieved, the spoon will catch light and flash, attracting a fish’s curiosity. Spoons may be fished at virtually any depth.
How Many Hooks are Legal?

The regulations state that you can fish with only three hooks, baits, or lures. What does that mean for lures with treble hooks? A treble hook has three points and some lures have three treble hooks or nine points, but still are counted as one bait or lure. So, you can fish with three lures that have treble hooks. You’ll learn more about regulations later.

**Plastic tails, pork rind, and marabou** are generally fished behind a jig or a weight. Plastic tails come in a tremendous array of shapes, colors, sizes, and even flavors! They imitate worms, eels, frogs, or salamanders. Many have curly-cue ends that wiggle upon retrieval.

Very thin, colored, cured strips of pork skin are appropriately called pork rind. Pork rind has amazingly lifelike action in the water and, although more expensive than plastic, is tougher and can’t be pulled off a hook.

Marabou is a type of feather that takes on lifelike movements in the water.

Fish will bite on flies that imitate what they would encounter in nature, so anglers need to “match the hatch” or choose flies to match the insects that are currently on the water.

**Wet flies** are used below the surface while **dry flies** float on the surface.

The dry fly (left) is a Traun-wing caddis; it mimics the veining of a caddis fly’s wing. The wet fly (right) imitates the woolly bear caterpillar.

**Poppers** are bug-like flies that, because of their shape, pop when pulled along the surface.

The marabou lure imitates the mayfly nymph, a favorite food of trout.

Don’t Catch Birds!

A major cause of wildlife entrapment is fishing line that has been cut loose and left as litter by anglers.

Good fishing ethics include proper disposal of old line when you re-spool your reel with new line. Patronize local bait shops that will recycle old line.
## Know Your Fish

Your choice of equipment, bait, and technique when fishing all depend on the fish you are hoping to catch. Here is an easy chart that you can use to help you make the right choices.

<table>
<thead>
<tr>
<th>FISH SPECIES</th>
<th>PREFERRED HABITAT</th>
<th>EQUIPMENT CHOICE</th>
<th>BAIT</th>
<th>PRINCIPLE FOOD</th>
<th>TECHNIQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluegill</td>
<td>shallow, fertile, warm waters often around weeds</td>
<td>light tackle: poppers, flies, bait</td>
<td>worms</td>
<td>insects</td>
<td>jiggle bait, depth is key</td>
</tr>
<tr>
<td>Pumpkinseed</td>
<td>open water, or near logs/weed beds; in cooler water in summer</td>
<td>bait casting rod with light line</td>
<td>minnows or small jigs or spinners</td>
<td>insects, fish</td>
<td>early morning is best</td>
</tr>
<tr>
<td>Crappie</td>
<td>open water, or near logs/weed beds; in cooler water in summer</td>
<td>medium bait casting or spinning rod</td>
<td>weedless artificial worms, minnows</td>
<td>fish, crayfish</td>
<td>casting into cover is best</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>warm water with cover such as lily pads and weed beds</td>
<td>medium bait casting or spinning rod</td>
<td>weedless artificial worms, minnows</td>
<td>fish, crayfish</td>
<td>casting into cover is best</td>
</tr>
<tr>
<td>Smallmouth Bass</td>
<td>rocky substrate, deep and cool water in summer</td>
<td>medium spin casting or bait casting, fly rod on occasion</td>
<td>hellgrammite, crayfish, dragonfly larvae</td>
<td>fish, crayfish, insects</td>
<td>quiet casting near old logs or rocks, deep holes</td>
</tr>
<tr>
<td>Perch</td>
<td>cool open water</td>
<td>light casting or spinning</td>
<td>minnows, worms</td>
<td>insects, fish</td>
<td>find a school, jig bait in the school</td>
</tr>
<tr>
<td>Walleye, Sauger</td>
<td>shallow at night, deep during day</td>
<td>medium casting</td>
<td>leeches, night crawlers, minnows, small plugs</td>
<td>insects, fish</td>
<td>trolling or casting in known habitats</td>
</tr>
<tr>
<td>Salmon</td>
<td>open water of Great Lakes</td>
<td>heavy trolling with downriggers, heavy casting in fall</td>
<td>plugs and spoons when using downriggers on open water; spawn bags of fish eggs and streamer flies on tributaries</td>
<td>insects, fish</td>
<td>trolling in open water around epilimnion</td>
</tr>
<tr>
<td>Brook Trout</td>
<td>head of streams, small pools</td>
<td>fly rod or light casting in streams</td>
<td>flies, worms, minnows, small spinners</td>
<td>insects, fish</td>
<td>quietly using flies in pools</td>
</tr>
<tr>
<td>Brown Trout</td>
<td>deep pools or rocky ledges of streams</td>
<td>fly rod or light casting</td>
<td>flies, worms, minnows, small spinners</td>
<td>small minnows, crayfish, fish eggs, insects</td>
<td>May to June using dry flies</td>
</tr>
<tr>
<td>Rainbow Trout</td>
<td>cold, clear stream</td>
<td>fly rod or light bait casting</td>
<td>flies, worms, minnows, small spinners</td>
<td>minnows, insects</td>
<td>fly-fishing at night is best</td>
</tr>
<tr>
<td>Catfish, Bullheads</td>
<td>shallows at night</td>
<td>medium casting</td>
<td>stinkbait</td>
<td>fish, mollusks, insects</td>
<td>use their sense of smell against them</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>weed beds</td>
<td>heavy casting or spinning</td>
<td>rapalas, bait fish</td>
<td>fish</td>
<td>casting in weed beds</td>
</tr>
<tr>
<td>Muskellunge</td>
<td>weed beds and old logs</td>
<td>heavy casting or spinning</td>
<td>live suckers or large plugs, spoons, and bucktails</td>
<td>fish</td>
<td>10,000 casts</td>
</tr>
</tbody>
</table>
Got Skills?
Fishing is a set of skills that can be quickly learned but will improve over a lifetime of experiences. To head out fishing you need to know how to tie knots, assemble tackle, and cast your line.

Knot—As Easy As It Looks
Before you can catch a fish, your hook or lure needs to be attached to your line with a knot. Every angler has a favorite knot, and all knots have certain purposes and advantages or work best on certain types of line. Review the knot diagrams in this section and tie knots using practice materials such as rope and a shower curtain ring. Once you’ve mastered a knot or two using practice materials, move to fishing hooks and fishing line.

Regardless of how well you tie your knot, the knot is always the weakest point on a line—the part most likely to break when a fish fights back. A great knot still only retains about 90% of the line’s test strength. For this reason, test strength on lines is almost always under-estimated. A 10-pound line may actually test at 11 to 16 pounds of pull, but it is rated down to account for your knot.

Tying Line to Reel
The Arbor knot is simple, easily learned, and effective. It is used most often to tie line onto a fishing reel, but is also used when setting up spinning reels.

Tying Line to Hook or Lure
The Improved Clinch Knot is an angler’s old standby. It works well on smaller line, but not with line over 12-pound test. It is used to tie a hook or lure to your line.
The **Palomar Knot** is a strong and reliable way of tying a hook to a line. It can be tied in the dark of night, if you practice.

![Palomar Knot](image)

The **Clinch Knot** is for use with monofilament lines. It can attach hooks, swivels, and lures to monofilament in a way that resists slippage and failure.

![Clinch Knot](image)

**Tying Line to Line**

The **Blood Knot** can tie lines of similar size together in a simple and effective manner.

![Blood Knot](image)

The **Nail Knot** ties lines of different diameter together. The Nail is smooth and will easily pass through the guides on a rod.

![Nail Knot](image)

**Multi-Purpose**

The **Uni Knot** can be used for most knot purposes and can be tied in the dark. It is not as strong as some of the other knots, but it is very versatile.

![Uni Knot](image)
Get Rigged

The combination of tackle used at the end of your fishing line is called terminal tackle. The type you use will correspond to the type of fish you want to catch.

What combination of tackle would you rig up for use on a bluegill? How about a walleye? A catfish? Consider where you will find your fish, what it likes to eat, and what method of casting will work best for the fish. As you go through this activity, take notes on the tackle your classmates used:

Terminal Tackle Set-ups

Top: light terminal tackle for bluegill: bobber, split-shot, and artificial bait.
Middle: medium set-up for walleye: spinner, beads, worm harness.
Bottom: heavy terminal tackle set-up for bullheads and catfish: sinker, artificial natural-scented bait.
Finger Bait

Watch your fingers when baiting a hook! One of the most common fishing accidents is getting stuck with a fish hook. If this happens to you and just the point of a fish hook is stuck, pull it out! If the hook goes into your skin past the barb, however, the wisest thing to do is to have a doctor remove it. If that’s not possible, have your trusted fishing buddy loop a string around the shank of the hook, push down on the eye, and pull the string straight out. Flush the wound with hydrogen peroxide and make sure your tetanus shot is up to date!

Cast Away

Being able to cast well enough to accurately place the bait increases your chances of catching fish. Casting games help to develop your casting ability and improve your skill. The more you practice, the more control you have over your fishing success.

Before you cast ALWAYS look around you to make sure no one is nearby. Look behind you for trees and bushes and overhead for power lines. Make sure your line isn’t wrapped around the tip of the rod. Lines can quickly become tangled messes!

A spinning reel has a bail that you must flip to free the line. To cast:

1. Grasp the line under your index finger, hold it against the rod, and flip the bail.
2. Point the rod in the direction you want the bait to go and bend at the elbow for an overhand cast, or extend your arm for a side arm cast.
3. Smoothly throw forward and let your finger off the line to release it.
4. Reel It In! Apply tension by holding the line between your thumb and first finger to take up the slack. This helps the line wind snuggly around the spool minimizing tangles.

Similar steps apply to a spincasting reel (above), which has a pushbutton mechanism to free the line. In this case you do not need to grasp the line when casting, only when reeling.

For baitcasting, (below) hold your thumb over the line as it feeds off the reel to prevent snarling the line as it pays out.
Golden Rules

Actually, we might call them “Golden Regulations.” In the 2007–2008 fishing season, over one million people spent 21 million days casting their lines into Wisconsin waters. That’s a lot of time and a lot of anglers. Imagine if all these anglers were able to keep as many fish as they wanted, regardless of species. Overfishing, especially on smaller lakes and with popular fish, could eliminate certain fish populations. Historically, many species of fish suffered because of overharvest. To sustain our diverse fishery and aquatic ecosystems, anglers observe regulations. An important one you’ll learn about in these pages is the requirement for anglers to have a fishing license.

General Regulations

To help keep fisheries healthy, the DNR has an overlying set of regulations that all Wisconsin anglers must follow. DNR conservation wardens enforce these regulations. It is the responsibility of every angler to know them before going fishing. Each of the restrictions has a sensible explanation and reason behind it. See if you can figure out why the DNR has the following five regulations:

1) It is illegal to fish in any waters of the state without a Wisconsin fishing license.
2) It is illegal to possess a fish that is within a protected size range (“slot” limit) or below the minimum length limit for the waterbody being fished.
3) It is illegal to release unused bait into Wisconsin lakes, ponds, rivers, or streams.
4) It is illegal to fish for a species during a closed season for that species even if you release the fish you catch.
5) It is illegal to leave any fish line unattended. When fishing in open water, anglers must remain within 100 yards of their lines.

Species Specifics

Beyond the general rules that all anglers must follow, specific rules apply to each species of game fish and body of water in Wisconsin. These rules can change from year to year based on fish populations and the health of different bodies of water. It is important to always have a copy of the current DNR fishing regulations with you so that you can refer back to them when you catch a fish. Many fish are regulated by total daily bag limits (the number you can keep in a day from all Wisconsin waters). For this reason, you need to be able to identify each species of fish you catch. Knowing that you can only keep one northern pike on your local lake isn’t helpful if you don’t know when you’ve caught a northern pike!

There are three important things to consider when identifying your fish:

- The overall size and shape of the fish:
  - Is it round like a bluegill? Long like a musky?
- The size, shape, and position of the fins:
  - Is the dorsal fin ray-shaped, like on a pumpkinseed? Is it pointed like a whitefish?
- The pattern of markings: Is it spotted like a brown trout? Striped like a perch?

Practice identifying the fish you are most likely to catch on your fishing trip and quiz yourself regularly.
### Game Fish, Rough Fish, Minnows

<table>
<thead>
<tr>
<th>All Fish</th>
<th>Rough Fish</th>
<th>Minnows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alewife</td>
<td>Buffalo</td>
<td>Darters</td>
</tr>
<tr>
<td>Carp*</td>
<td>Carpsucker</td>
<td>Killifish</td>
</tr>
<tr>
<td>Bowfin</td>
<td>Dace*</td>
<td>Madtoms</td>
</tr>
<tr>
<td>Burbot</td>
<td>Quillback</td>
<td>Mudminnows</td>
</tr>
<tr>
<td>FW Drum</td>
<td>Redhorse</td>
<td>Sculpin</td>
</tr>
<tr>
<td>Gar</td>
<td>Suckers</td>
<td>Sticklebacks</td>
</tr>
<tr>
<td>Goldeye</td>
<td></td>
<td>Stonecat</td>
</tr>
<tr>
<td>Goldfish*</td>
<td></td>
<td>Trout-perch</td>
</tr>
<tr>
<td>Lamprey</td>
<td></td>
<td>All Cyprinids</td>
</tr>
<tr>
<td>Mooneye</td>
<td></td>
<td>(except carp and goldfish)</td>
</tr>
<tr>
<td>Smelt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shad</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By state law all fish are “game” fish if not “rough” fish or “minnows.” Game fish may not be harvested unless an open season is specified in Administrative Code.

* Taxonomically, carp and goldfish are in the minnow family. Legally, however, they are classified as “rough” fish, but not as “minnows” in Wisconsin. Although dace are also members of the minnow family, legally, they are classified as both a minnow and a rough fish. All members of the sucker family are considered rough fish for legal purposes; they are in the same order as minnows. Other fish legally referred to as “minnows,” are in several different taxonomic families.
Catch and Keep?
Use this chart as the basis for a fishing journal. Record your paper “catch” and whether or not you could keep your fish:

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>LENGTH</th>
<th>DATE</th>
<th>LOCATION</th>
<th>BAG LIMIT</th>
<th>LEGAL?</th>
<th>WILL KEEP?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bag Limit Scavenger Hunt!
Use the regulation book or go online to find out:

1) What is the total daily bag limit on largemouth and smallmouth bass during summer months?

2) What is the total daily bag limit on muskellunge?

3) What is the daily bag limit for panfish on Sawdust Lake in Bayfield County?

4) What’s the difference between “daily bag limit” and “possession limit”? ?

5) Why can’t you keep a slender madtom?

6) Suppose that you go to a lake that has a bag limit of three for walleye and you catch three walleye. Later that day you want to go to another lake that also has a three-fish bag limit on walleye. What do you do?

7) If you have questions about the fishing regulations, who do you call in your area?
License Loop

You don’t need special training or certification to fish, but you do need a license to wet a line when you reach driving age. Anglers age 16 and 17 pay less for a license, while fishing is free for those age 15 and under. Your license fees come back to you in the form of more fish to catch through habitat restoration or improvement, stocking, and hatchery operations. License fees fund education programs and places to fish along waterways.

The funding also enables fisheries biologists to conduct fish population surveys, and creel clerks to interview anglers, record their success rates and estimate fishing pressure. These assessments help set bag limits. In 1977, Wisconsin introduced an inland trout stamp followed by a Great Lakes trout and salmon stamp in 1982. Stamp sales fund salmon production and projects to restore or improve trout and salmon habitat.

What about Trout and Salmon?

Regulations for trout and salmon that inhabit the Great Lakes and their tributaries are listed separately in the back of the general hook and line fishing regulations booklet. More detailed regulations for inland trout are outlined in a separate booklet. Specific size and bag limits for trout are color-coded to a stream map of Wisconsin and vary from one stream to the next. It’s important to be able to read a map and figure out where you are when you go trout fishing! You also need a trout or salmon stamp if you intend to fish for those species, in addition to a fishing license.
Safety First!

Ethics are a close second. Fishing can be relaxing and sociable, a quiet personal escape, or an exciting group adventure. Regardless of your goals for your fishing trip, safety and outdoor ethics should always be a consideration when you pack your gear.

Gearing Up

Think about the environment you will be in while you are fishing. What are three dangers you might face?

1) ___________________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

2) ___________________________________________________________________
   ___________________________________________________________________

3) ___________________________________________________________________
   ___________________________________________________________________

Think about the types of gear that you could bring that would help you to avoid these dangers or allow you to address them if they happen. Make a list below.

1) ___________________________________________________________________
   ___________________________________________________________________

2) ___________________________________________________________________
   ___________________________________________________________________

3) ___________________________________________________________________
Before You Go

When getting ready to take a fishing trip, it is always a good idea to check the weather. High winds, hot temperatures, or cold rain could all change the location you choose to fish and the gear that you will take. You might have to postpone your trip until another day. No matter when and where you end up going, you should always tell someone where you are planning to fish and when you will return. Even if you are just walking down the road to the local creek with a friend, tell a family member or leave a note. It is always better to be safe than sorry.

At the Waterfront

If you’re going to be fishing from shore or wading in the water, it’s a good idea to take a look around before you start fishing. Check with a walking stick to see how stable the banks are, how even or uneven the stream bottom or lakebed is, and whether there are any hazards on the bank or in the water. If you are going to be in the water, wear a lifejacket personal flotation device (PFD)—especially if you plan to wear waders. If you fall, waders can fill with water and make it hard for you to swim. If you are staying on shore, a PFD is still a good idea. You never know when it could come in handy.

If you are going fishing in a boat, be careful not to overload it. Weather can change quickly on the water. A boat that seemed appropriately loaded in calm water may not be suitable for waves. Pack as if the weather were going to get bad, even if storms are not in the forecast. Make sure that there is a PFD for every person onboard the boat (it’s the law), and set an example by wearing yours. If you are under 16, you MUST have either an adult onboard with you or a boating certificate.

Back at Home

When you return from a fishing trip, always take a moment to think through any near-misses you may have had or any actions others were taking that seemed unsafe. What could be done differently to avoid the danger? Anglers can always learn from themselves and from the actions of others, no matter how experienced they are.
An Ethical Note

Anglers are always faced with choices. Which bait? Where to fish? When to quit for the day? Sometimes, choices made are based on fishing regulations while others are guided by a set of personal ethics, or what you do when no one is watching. Public perception and support of angling depends a lot on the behavior of anglers. When stream banks and shorelines are littered with worm containers and fishing line, an accusing finger is pointed at all anglers. To help cultivate or maintain the image of anglers as conservationists, we have to clean up after a few thoughtless individuals and set a good example for novices.

As a group, brainstorm a list of ethical and unethical fishing behaviors. In small teams, use the list to role-play different scenarios in skits. Some examples are listed below to get you started; there can be more than one choice for each situation. Consider landowner-angler interactions and note any legal or ethical violations as well as positive behaviors. When the skits are over, discuss your observations.

1. You come upon an angler fishing a pool in a nice stretch of stream. You:
   a. backtrack around the angler and find a different spot a respectable distance away.
   b. wade in to claim a good spot for yourself.
   c. wait for the angler to finish.

2. You’ve been wading a stream and decide it’s time for lunch. You:
   a. clamber up the bank near a private home for a picnic. (trespassing)
   b. find a big, comfortable log hanging over the water to take a rest.
   c. hop up on the nearest pier. (trespassing)

3. You and a friend have been fishing for a time near clusters of other anglers and it’s time to quit for the day. You:
   a. crank up some music.
   b. reel in and go for a quiet dip.
   c. look around for old fishing line or other trash you may have dropped.

4. As you and your friend are fishing, a pair of loons swims within 100 feet of you. Your friend starts throwing rocks at the birds. You:
   a. start practicing your loon call.
   b. remind your friend that there are laws against harassing wildlife.
   c. try to prove that you’re a better aim.

5. You’re hungry for fish and decide that you’re going to keep a couple to eat if luck is with you today. You catch a legal-sized fish and put it on the stringer. A few casts later, you catch an even bigger one of the same species. Keeping it would put you over the daily bag limit. You:
   a. release it immediately.
   b. give away the smaller one and keep the big one. (illegal)
   c. switch it for the one on your stringer. (illegal)

Here are some questions to ask when confronted with a decision:
- Is it legal?
- Would it be good if everybody did it?
- Would you want to be on the receiving end of the action?
- Would it make you proud?

Here are a few simple guidelines to help you fulfill your ethical responsibility to the outdoors:
- Leave the environment as you found it. Pack out anything you brought with you on your fishing trip and take it home with you. Do not leave trash or discarded fishing line behind.
- Be courteous to others in the outdoors. Avoid crowding other anglers and keep your voice down! Sound carries very well over water, so speak softly.
- Take advantage of opportunities to help improve our out-of-doors. Community groups occasionally have clean up or maintenance trips to improve the quality of our public lands and waters.
- Be aware of public-private boundaries and ask private landowners for access to the water before venturing onto their land. Check the DNR Website to learn about your water rights as an angler, through the Public Trust Doctrine under the state constitution, dnr.wi.gov/org/water/wm/dsfm/shore/doctrine.
SECTION B
Field Knowledge—Making the Catch

It's finally time to go in for the catch! How will you know where to fish, how to get the fish out of the water, and what to do with it once you’ve caught it? Read on! Remember: It is up to you to be respectful and to be safe. No one else will make decisions for you.
Reading the Water

You can read a book and you can read your friend like a book, but can you read the water? Perhaps you have a favorite place that you know very well. It’s a place that you feel comfortable in—you know where it is busy, where it is quiet, where to get snacks, and where you can find your friends. Like humans, fish have favorite spots where they regularly spend time. Knowing a fish’s habits and being observant about water conditions can help you find your target in the water.

Productive Water?

Informed anglers know that predator fish (most game species) need prey. When you first approach a waterway, take a look around. Can you see enough aquatic plants, the right assortment of insects, and minnows or other small fish to support your desired catch? If you overturn rocks on the shore of a lake and spot crayfish, you can be almost certain that there are bass in the lake. If you peer into the shallows and find tadpoles, however, there are likely few bass, since they would have eaten the tadpoles if they were around. Keep an eye out for the food sources of the fish you hope to catch. Chances are, if you can find the food, you can find the fish.

How fish find food is also important. Those that ambush their prey will usually be close to some type of cover or will use their natural camouflage to help them blend into their habitat. Know your fish’s favorite haunts, like weeds for the muskellunge, and where fish will blend in with their surroundings.

Water that is stinky, stagnant, blanketed in algae, visibly polluted, empty of small fish, or shows other signs of being unlivable will probably not be the best place to cast your line. Be observant! The more you fish, the more you will learn.

Wisconsin Waters—Keep Your Feet Wet

Where can you fish in Wisconsin? Anywhere you can legally gain access to the water! All navigable water (water you can float a canoe, skiff, or kayak down during any time of the year on a recurring basis) is held in trust (protected) by the State of Wisconsin for all Wisconsin citizens, including anglers. If you keep your feet in navigable waters, you have the right to be there, regardless if it is a stream or a lake! You may exit the water to portage around an obstruction, water too shallow to boat, or water too deep to wade, but by the shortest route possible. Still, be considerate of riparian landowners when choosing your fishing hole and exercising your water rights.
**Fever or Chills?**

As long as a waterbody has sufficient oxygen, water temperature is the most important factor in determining where a fish will be. Even within a body of water, a slight temperature variation can affect the location of fish. Know what temperatures your fish species likes and seek out spots that meet the fish's requirements.

Look for areas that are a degree or two warmer in cool weather, such as a shallow bay in early summer, or a degree or two cooler in warm weather, such as a shaded bank. Fish are extremely sensitive and react to even the smallest of differences in temperature.

<table>
<thead>
<tr>
<th>FISH SPECIES</th>
<th>PREFERRED TEMPERATURE °F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Catfish</td>
<td>XX</td>
</tr>
<tr>
<td>Bullhead</td>
<td>XX</td>
</tr>
<tr>
<td>Sunfish</td>
<td>XX</td>
</tr>
<tr>
<td>Largemouth Bass</td>
<td>XX</td>
</tr>
<tr>
<td>Muskellunge</td>
<td>XX</td>
</tr>
<tr>
<td>Chinook Salmon</td>
<td>XX</td>
</tr>
<tr>
<td>Lake Trout</td>
<td>XX</td>
</tr>
</tbody>
</table>

**Moon Sense**

During the new moon it is very dark at night. Fish do not feed as much in the darkness, which leaves them hungrier during the day. Take advantage of it! During a full moon, some fish will feed all night. Perhaps a night fishing trip is in order?

**Stay Current**

In general, fish position themselves so that they don’t have to constantly battle a stream or river current. This is particularly true for trout and salmon. Deep pools are important holding areas for game fish, as are undercut banks. Undercut banks provide depth, calm water, shade, and occasionally back currents that deliver food right to a fish’s mouth. Look for logs, rocks, sandbars, and other natural and artificial structures that break the current. Where there is shelter, there are fish.

Lakes and ponds don’t have currents, but there are still predictable places to look for fish. Most Wisconsin lakes are moderately to very fertile. They are shallow and warm enough in summer to host aquatic vegetation and plankton. Most fish caught in lakes and ponds are found around structures or cover. In weed beds, near rocky points, and under culverts are all good places to look for fish. Open water is only suitable habitat for a few species of fish. Can you name one?
Fish Out of Water

Once you’ve selected your fishing spot, set up your gear, and cast your line, you’re ready to land a fish. Follow these steps to get the fish out of water:

1. **Stay Calm!**

2. **Set the Hook** You want the hook to be secure in the fish’s mouth before you reel the fish in. To set the hook, give the line a quick jerk. How hard you pull on the line to set the hook depends on the fish species. Be gentle with soft-mouth fish like crappie, but jerk hard to set the hook in the bony mouths of musky and northern pike. Frequently the fish will set the hook themselves as they engulf your bait and try to swim away.

3. **Reel It In** Keep your rod tip up. An upright rod acts like a spring to keep the line from breaking, yet keeps tension on the hook so it does not slip out. Be careful to keep the line from rubbing on the boat, dock, and rocks and keep it clear of the boat’s motor. Tension weakens the line and may cause it to break. If your fish jumps up out of the water, release the line or the fish may dislodge the hook as it shakes its head. Many experienced anglers recommend bowing to the fish as it jumps.

4. **Net It** Gently guide the fish into a net, head first. Bringing a net up behind a fish might spook it and cause it to swim away in a frightened burst of energy.

5. **Store or Release** If the fish is of a legal size and species and you have not exceeded your daily bag limit, you have to decide whether you want to keep or release it. If you are releasing a fish, do so immediately by following the instructions below. If the fish is legal and you decide to keep it, try to keep it alive until you can put it on ice. A wire basket or stringer will keep the fish alive all day. If that is impractical, quickly kill the fish and put it on ice. You must kill your fish (remove it from water) BEFORE you leave your fishing spot to prevent the spread of viral hemorrhagic septicemia (VHS).

6. **Record Your Catch** One of the best ways to learn how to fish is to learn from yourself. Keep a fishing journal to track your fishing success. Note where you caught the fish, what the weather conditions and water temperature were, and what type of tackle you used. For ideas see the back page of this booklet. If you are careful in your record keeping, you will soon have a book of knowledge on how to catch fish.

**Play Nice**

Do not “play” the fish any longer than absolutely necessary, especially if you are planning to release it. As the fish fights, it builds up lactic acids in its muscles. This can ultimately kill the fish even though it was still alive when you released it.
Catch and Release

What if you want to catch a fish, but do not want to keep it? Catch and release is a very popular form of fishing in Wisconsin. In fact, even though approximately 88 million fish were caught in the 2007 season, only 33 million were kept! Catch and release is a conservation practice that allows people the pleasure of fishing, but if done effectively, doesn’t lower the fish population of a lake. Catch and release is a necessary skill to learn so that you can follow regulations when you catch a fish under the legal size or within a restricted size range.

Different Strokes for Different Folks

People have a variety of opinions about catch and release. On one extreme are people who always practice catch and release, and on the other extreme are people who never practice catch and release. The people on these extremes may have very strong opinions about why you should or should not catch and release a fish. One argument for releasing is that it lets people enjoy fishing, but does not deplete the fish population in the lake. One argument against releasing is that if catch and release is not done with great care, the released fish may die soon after being put back in the water. In that case, you have depleted the fish population without getting a tasty meal.

CPR For Fish

If you decide to catch and release, Consider Proper Release (CPR) to help fish survive after you have put them back in the water. Fish can be traumatized, weakened, or injured during the catching and releasing process. By following the CPR steps, you can help fish survive.

- Don’t play the fish to exhaustion. Use a landing net to bring the fish under control and be as quick as possible.
- Handle the fish in the net; don’t bring it out of the water.
- If you must take the fish out of water, wet your hands first, turn the fish belly-up, and keep the fish horizontal while removing the hook.
- Don’t remove swallowed hooks, just clip the fishing line. If legal, consider keeping fish with swallowed hooks, as they are unlikely to survive.
- Don’t keep a fish out of water for more than 10 to 15 seconds.

Very Horrible and Scary

Viral hemorrhagic septicemia (VHS) is an invasive disease that causes fish to bleed to death. It caused large fish kills in the lower Great Lakes in 2005–2006 and was detected in lakes Michigan and Winnebago in May, 2007. VHS spreads easily when a healthy fish eats an infected fish or when fish swim in water carrying the virus. Infected bait (often minnows) is a primary source of the disease. Anglers can make a big difference in preventing VHS from moving into new lakes.

- Do not move live fish or fish eggs away from any water.
- Only purchase minnows from a licensed Wisconsin bait dealer. You can use these minnows again on the same water or other waters if no lake or river water or other fish were added to the minnow container.
- You may not harvest minnows from VHS waters. However, suckers can be taken, but may not be transported away while alive. Check the DNR Website for the list of VHS waters.
- Do not use dead fish for bait unless they have been preserved by methods other than refrigeration or freezing.
- Report sick fish to the DNR.

VHS does not harm humans, but it is deadly for fish. Do your part to keep the fishery healthy.
Cooking, Cleaning, and Companions

Cooking and eating a fish you caught is one of life’s simple pleasures. First, however, you have to prepare it. Preparing a fish provides an opportunity to learn more about fish anatomy and fish diets. After preparing, you’re ready to cook and eat the fish. Fish are low in fat and calories and are a good source of protein.

Staying Sharp

Cleaning is the technique used to prepare fish without removing bones. Filleting leaves the fish boneless, and occasionally skinless, and is generally used for larger fish. The most important step in preparing any fish is choosing a sharp knife of the correct size and shape. Most fillet knives have thin, slightly flexible blades five to eight inches long. A dull knife can be more dangerous than a sharp knife because you have to work harder to make the proper cuts. Make sure your knife is sharp, and hold it away from your fingers and body as you prepare your fish. Work patiently and attentively.

Cleaning Steps

- Use a spoon or fish scaler to remove scales.
- Without cutting through bones or internal organs, cut around the head, behind the pectoral fins, and down to the anus.
- Break the backbone by bending the head downward and twisting. Remove the head and internal organs.
- Check local rules, but generally you can dispose of wrapped waste in a trash bin or bury it deep in your garden. Fish waste does not belong in compost bins.

Fish Fillet

- Cut along the dorsal fin from head to tail and along the anal fin from anus to tail.
- Just behind the gill cover make a vertical cut through the flesh down to the bone. This cut extends from the back to the stomach. Deepen the cut made along the dorsal fin working from head to tail. Hold the knife nearly parallel to the row of bones extending upward from the spine to the back. This cut should extend downward only as far as the backbone.
- Repeat this procedure on the stomach side. Cut first from behind the gills to the anus, then along the anal fin cut you made earlier. These cuts should be just below the surface of the belly skin to avoid rupturing internal organs. As you cut up toward the backbone your fillet will come free.
Do not cut the fillet from the tail. Flip the fillet so that it is lying skin-side down. Hold the fish down with one hand just in front of the tail fin. Beginning at the tail carefully skin the fillet, working away from your hand. Work slowly and patiently; cutting too deeply will result in cutting through the skin and not cutting deeply enough will result in lost meat.

Check local rules, but generally you can dispose of wrapped waste in a trash bin or bury it in your garden.

A note about catfish and bullheads: skin removal is accomplished by cutting around the head and pulling the skin off with pliers.

Flaky, Not Fishy

Fish are a tasty, healthy way to add a lot of muscle-building protein to your diet without adding fat. Many cookbooks have recipes specific to different species of fish, but fish can be prepared quite simply as well. Regardless of how much time you take with your fish preparation, fish should be flaky in texture and shouldn’t taste fishy. The muscle layers of a properly cooked fish should separate effortlessly (flake) and the flesh will turn from translucent to white. Fish can easily be overcooked, making them taste dry. Fish can also be undercooked, which could transfer fish parasites to humans. And no fish tastes good if it was left too long in the sun after being caught, so remember to ice your fish and keep it cool! Give your own cooking skills a try by following the recipe below:

The Famous Triple Dip Fish Fry

1 pound fish fillets
1 cup flour
¼ teaspoon ground pepper
¼ teaspoon paprika
¼ teaspoon salt
1 egg
1/8 cup water
1–1½ cups bread or cracker crumbs
cooking oil

1) Pat fish dry with paper towels and set aside.
2) In a shallow dish, mix flour, pepper, paprika, and salt.
3) In another shallow dish beat egg together with water to make an egg wash.
4) In a third shallow dish, place the crushed crumbs of your choice.
5) Pick up a fillet and dip it in the first bowl until coated with flour. Next dip the fillet in the egg wash, then transfer it to the third dish and pat the crumbs evenly over the entire fish. Do this for each fillet, separating them by aluminum foil on a plate.

TO FRY Heat ¼ inch of cooking oil in a heavy skillet. When a pinch of flour sizzles in the pan, it’s hot enough for the fish. Cook a few fillets at a time until the fish are brown and crispy.

TO BAKE Coat a pan with cooking oil and place it in the oven. Heat oven to 450°F. Place fillets on the heated pan and cook about 6-7 minutes on each side, until crispy.
Swimming Upstream

Fishing is an amazing way to spend time outdoors, learn about the natural world, enjoy time with family and friends, explore the state, and catch fabulous food. But maintaining a healthy fishery requires our attention and care. If you see something that concerns you while out on the water—litter, erosion, a thick mat of algae—do something about it! The future of fishing in this state rests in the hands of those who regularly use it. If you think fishing is a valuable and important pastime, it’s up to you to make your voice heard and your opinions matter.

There are direct and indirect paths to helping protect our natural resources. Some people choose to dedicate their lives to natural resources in careers at conservation organizations like the DNR. If you are planning a career in natural resources, check the DNR Website for a sampling of jobs in the field. If you see one that looks great, interview someone in that job to find out what sort of skills you should be getting while still in school. You can also check university Websites to see what types of courses they offer for people interested in our natural resources.

You don’t need a career in conservation to be a conservationist. No matter what career you choose, artists, economists, cashiers, mathematicians, and flight attendants, to name a few, can all advocate and volunteer on behalf of natural resources. There are many ways to stay involved with and learn more about Wisconsin’s fish and waters. Here are a few suggestions:

- Take a friend fishing. One of the best ways to gain support for the resource is to introduce others to it.
- If you like trout fishing, or are interested in starting, contact Trout Unlimited to see if they have a chapter near you. You could help with a restoration effort, or meet others who want to help trout.
- Start a fishing club at your school or join one in your community.
- Speak up! Write letters to your representatives and senators about your resource concerns and vote as soon as you are eligible!
- Get outside. Being an active observer is the first step to working for the changes you would like to see.

It’s not always easy to improve our natural resources, but neither is it to swim upstream and plenty of fish do it every year. Keep your eyes on the water and your mind open. Even if you don’t continue fishing, you will continue to live in a world where water resources and aquatic wildlife will play a role in the health and stability of our planet. Don’t lose touch with the water in your world!

Cut It Out!

Even though eating fish is healthy, you should be aware that certain lakes and rivers have special advisories about PCBs and mercury. PCBs and mercury are toxins that are found in high concentrations in the fish of some lakes. Check the DNR Website at dnr.wi.gov/fish/consumption to investigate which ones have advisories.

You can safely enjoy fish from Wisconsin waters as a regular part of a healthy diet. Just observe these recommendations in the DNR’s Choose Wisely fish consumption guide: cut the fat off of your fish; eat younger, smaller fish; and eat a wide variety of fish.
Cheap Date

Take your date or a pal fishing! After a small annual investment, you can fish 365 days a year with whomever you want. Many Wisconsin communities are situated on or near fishable waters. Pack a picnic, call a friend or two, hop on your bike, and head for the water’s edge.

A love of fishing has inspired generations of anglers to pay close attention to natural resources. Invite a friend to join you in enjoying the beauty and excitement that fishing offers.

Where does your license money go?

Money collected through the Sport Fish Restoration Fund and fish license fees funds the fisheries program at the Department of Natural Resources. Within the fisheries program, the money gets divided into many different projects, illustrated in the pie chart below:

All that for less than the cost of one night on the town!  Data from 2006 DNR Fishing Report

Compare the cost of a day of fishing to other leisure activities. Consider total costs of participation and how often you can use your investment. Here are some examples:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>MINIMUM REQUIREMENTS</th>
<th>COST</th>
<th>ONE-TIME USE OR OPPORTUNITY</th>
<th>MULTIPLE USES OR OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing</td>
<td>License &amp; Stamps Rod Reel Bait Tackle Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prom</td>
<td>Ticket Clothes Dinner Flowers Special Transportation Other:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A night out</td>
<td>Several options: movie, food, gasoline. List what you would do.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A night at home</td>
<td>Several options: games, music, snacks. List what you would do.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Glossary

Arbor knot
a knot used to tie fishing line to a reel

Bait
live or dead animal material used to attract fish to a hook

Baitcasting
a rod and reel combination designed for larger baits

Barbels
slender, whisker-like taste receptors found on certain fish, such as catfish, bullheads, and sturgeon; used to find food

Blood Knot
a knot used to tie two fishing lines of similar width together

Bobber
a float used to keep terminal tackle at the desired depth in the water

Cast
the action of sending fishing line out over the water

Clinch Knot
a knot used to tie a fishing hook to a fishing line

Consider Proper Release (CPR)
the steps to follow when releasing a caught fish

Creel clerk
DNR fisheries staff who gathers information from anglers such as catch rates and the size and number of fish harvested on a particular lake. The number of boats and weather data are also recorded to help determine fishing pressure.

Downrigger
a special type of fishing tackle that gets lures down into deeper water (e.g. Great Lakes)

Ethical
good, respectable, acceptable

Fillet
a cutting technique used to remove the bones from fish

Fly
an artificial lure designed to imitate an insect

Fly-fishing Gear
a rod and reel combination consisting of a long, flexible rod and a simple reel that holds the line but does not assist the angler in casting

Guides
the loops found along a fishing rod that hold the fishing line in place

Hellgrammite
the aquatic nymph stage of a dragonfly; used for fish bait

Hook
the tackle used to attach a fish to fishing line, usually used with bait

Improved Clinch Knot
a knot used to tie a fishing hook to fishing line

Jig
a type of lure; a hook with a colorful weight attached to the top of the hook

Lateral line
a canal along the side of a fish containing pores with sensory organs that detect vibrations

Line
a thin, strong, often clear, cord used to attach a fishing hook to a reel

Lure
a combination of colorful artificial bait and hook, attached to a fishing line, to attract fish

Marabou
a type of feather that looks lifelike underwater and is attached to a lure to attract fish

Nail Knot
a knot used to tie fishing lines of different diameters together

Navigable
water being deep enough and wide enough to allow a boat to pass
PFD
a personal flotation device, or lifejacket, used to hold a person’s head above water

Palomar Knot
a knot used to tie a fishing hook to a fishing line

Plastic Tail
a piece of plastic used to imitate worms, salamanders, eels, or frogs; usually tied below a jig or weight to attract fish

Plug
a lure designed to imitate a small fish or other aquatic animal

Popper
an artificial bug-like fly that pops as it is pulled along the water’s surface

Pork Rind
a colored, cured strip of pork skin that is attached to a jig to attract fish

Possession Limit
the maximum number of a species that you can control, transport, etc., at any time; includes fish you have at home or in a vehicle. It is twice the daily bag limit.

Rapala
a type of fishing lure

Reel
a piece of tackle used to hold fishing line and to assist an angler in casting and retrieving line

Riparian
living or located on the bank of a natural waterbody

Rod
a fishing pole, used to extend the distance an angler can cast

Sinker
a weight used to hold terminal tackle below the surface of the water at the level desired by the angler

Snap
a piece of tackle used to assist the angler in attaching a hook or lure to fishing line

Spincasting Gear
a rod and reel combination with a push-button closed-bail reel; good for beginners

Spinner
a lure that has blades which spin as it is pulled through the water

Spinnerbait
a weighted lure with one or two spinning blades attached to it

Spinning Gear
a rod and reel combination with an open-bail reel designed for long backlash-free casting

Spoon
a lure that wobbles and flutters as it is retrieved

Stink Bait
smelly bait often used to attract catfish

Stringer
a string or wire that anglers hang fish from

Swivel
a piece of tackle used to connect a hook or lure to a fishing line

Tackle
fishing gear

Terminal Tackle
the combination of tackle used at the end of a fishing line, generally consisting of hooks, bait, lures, sinkers, snaps, and swivels

Total Daily Bag Limit
the total number of fish that an angler may keep in one day from all Wisconsin waters

Uni Knot
a versatile knot used in many fishing applications

Viral Hemorrhagic Septicemia (VHS)
an invasive disease that causes fish to bleed to death
# Fishing Journal

## Date & Time

<table>
<thead>
<tr>
<th>Time</th>
<th>Location (DETAILED)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Weather Details

<table>
<thead>
<tr>
<th>AIR TEMPERATURE:</th>
<th>WATER TEMPERATURE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SKY:</th>
<th>Clear</th>
<th>Partly Cloudy</th>
<th>% Cover</th>
<th>Overcast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WIND:</th>
<th>Direction</th>
<th>Calm</th>
<th>Breezy</th>
<th>Windy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRECIPITATION:</th>
<th>None</th>
<th>Drizzle</th>
<th>Hard Rain</th>
<th>Snow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Catch

### 1

<table>
<thead>
<tr>
<th>SPECIES:</th>
<th>SIZE:</th>
<th>KEPT?:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BAIT:</th>
<th>METHOD:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION OF CATCH (CURRENT, WAVES, STRUCTURE):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### 2

<table>
<thead>
<tr>
<th>SPECIES:</th>
<th>SIZE:</th>
<th>KEPT?:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BAIT:</th>
<th>METHOD:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION OF CATCH (CURRENT, WAVES, STRUCTURE):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### 3

<table>
<thead>
<tr>
<th>SPECIES:</th>
<th>SIZE:</th>
<th>KEPT?:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BAIT:</th>
<th>METHOD:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION OF CATCH (CURRENT, WAVES, STRUCTURE):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

### 4

<table>
<thead>
<tr>
<th>SPECIES:</th>
<th>SIZE:</th>
<th>KEPT?:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BAIT:</th>
<th>METHOD:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION OF CATCH (CURRENT, WAVES, STRUCTURE):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Next Time Bring:

### 1

<table>
<thead>
<tr>
<th>SPECIAL NOTES:</th>
<th>(INSECT HATCH, SPAWNING, ETC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2

<table>
<thead>
<tr>
<th>SPECIAL NOTES:</th>
<th>(INSECT HATCH, SPAWNING, ETC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3

<table>
<thead>
<tr>
<th>SPECIAL NOTES:</th>
<th>(INSECT HATCH, SPAWNING, ETC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4

<table>
<thead>
<tr>
<th>SPECIAL NOTES:</th>
<th>(INSECT HATCH, SPAWNING, ETC)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hook, Line, & Thinker: Field Guide
Publication Number FH-919-2009

PROJECT MANAGER
Theresa Stabo

AUTHORS
Theresa Stabo
Amalia Baldwin

EDITORS
Wendy Weisensel
Judy Klippel

LAYOUT AND DESIGN
Lorraine Ortner-Blake
Artifax

ILLUSTRATION
John Miller
Lorraine Ortner-Blake

CONTRIBUTORS & REVIEWERS
Jeff Janvrin
Barb Flom
Mike Baumgartner
Mark Baldock
Becky Nutt

Elizabeth Janvrin
Dennis Vanden
Cheryl Peterson
Christal Campbell
Sue Beyler

Carrie Morgan
Bloomen
Kal Larson
Karl Scheidegger
Joe Hennessy

Beth Bernhardt
Kendall Kamke
Gene Fiser
Steve Kinzel
Steve Hovel

Frank Pratt
Dave Bartz
Greg Breese
Jen Hauxwell
Jeff Schimpff

Rachel Piacenza
Matt Coffaro
Jennifer Wudi
Kurt Thiede
Byron "Dale" Simon

Judy Hunt
Laura Stremick-Thompson
Bill Tjoflat
Janet Hutchens
Lois Simon

Dan Graff

Special thanks to the many angler education instructors who have helped to guide our program efforts over the years and have taken the time to introduce youth to Wisconsin's fishery.

With all due respect to 19th Century French sculptor, Auguste T. Rodin, we are using playful renditions of his masterpiece, The Thinker to lead us through these guides. The Philadelphia Museum of Art houses the original sculpture and notes on their Website that “Rodin was faithful to nature in his work.” We hope these words and your experiences outdoors will inspire you to do the same in your work and play.

The Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240.

This publication is available in alternative format (large print, Braille, audio tape, etc.) upon request. Please call (608) 267-7498 for more information.