



DNR

Beginner's Guide to Fishing

www.dnr.sc.gov/aquaticed



It is my hope that this guide will make your journey into the world of recreational angling (fishin') uncomplicated, enjoyable and successful. As you begin this journey, I encourage you to keep in mind the words of the 15th century nun Dame Juliana Berner, "Piscator non solum piscatur." Being a 15th century nun, naturally Dame Juliana tended to write in Latin. This phrase roughly translates to "there is more to fishing than catching fish." Dame Juliana knows what she's talking about, as she's believed to have penned the earliest known volume of sportfishing, the beginners guide of its day, "A Tretyse of Fysshynge with an Angle."



As you begin to apply the ideas and concepts in our beginners guide, you will start to develop new skills; you will get to exercise your patience; and, most importantly, you will begin to share special experiences with your family and friends. In the early nineties, I can remember sitting in a canoe with my four-year-old daughter on the upper end of Lake Russell fishing for bream with cane poles and crickets. My daughter looked back at me from the front seat of the canoe and said, "Daddy, I sure do hate to kill these crickets, but we got to have bait." Later, we spent hours together in the backyard perfecting her cast and talking about how to place the bait in just the right spot. We took those new skills to the pond. The first good cast, bait placed like a pro, and a "big bass" hit like a freight train. The first words out of her mouth were, "Daddy, what do I do now?" All those hours of practice and we left out the part about what to do when the fish show up. I hope this guide will insure that you have covered all the bases so you will be prepared when the fish show up.

A limitless supply of wondrous treasures await you on the creeks, rivers, lakes and ponds in our state. Use this guide as your key to unlock these treasures for yourself, your family and your friends. The staff of the Department of Natural Resources will keep working to insure you have places to fish and fish to catch. Your job is pick up a rod and step outdoors to collect the treasures you will hold dear the rest of your life. Heck, if it wasn't for fishin' my daughter would never have been able to answer the bonus question in her class at college, "How many links are in a can of Vienna Sausage?" There is more to fishing than catching fish, and the memories are always bigger than the fish.

Ross L. Self

Ross L. Self
Chief, Freshwater Fisheries



Welcome to Fishing

Learning to fish can be as simple as tying your shoe. You may find yourself sitting on the bank of a river or pond using a cane pole and a can of worms, or using a fully-rigged boat with state-of-the-art equipment. Either way, with some basic knowledge and minimum skill, a beginning angler can embark on a lifetime of fun, relaxation and camaraderie with other anglers.

Discussed in the next few pages are several styles of fishing, types of rods, reels, knots, baits, lures, freshwater fish and aquatic habitats. You'll find tips to improve your skills and prepare you for a fun, exciting and successful fishing trip. You'll also learn ways to protect your aquatic resources.

And don't forget, fishing isn't just about catching fish! As experienced anglers will tell you, fishing is one of the best ways families and friends can relax together as they enjoy being outdoors and learning new skills.







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Angler Ethics

What are ethics?

- Rules and values that change your behavior, causing you to do the right thing.

To determine if something is ethical, ask yourself three questions:

- Is it legal?
- Would it still be ok if everyone was doing it?
- Would it make you or people who know you proud?

Ethical Anglers:

- Are considerate of one another, respecting other anglers' space and being quiet so as to not disturb others.
- Always leave their fishing area cleaner than when they arrived so as to protect the resource.
- Abide by all rules and regulations.
- Obey all fishing regulations and report violators by calling 1-800-922-5431.
- Respect the resource. Keep only those fish that are injured or those you intend to eat.
- Respect the rights of landowners. Get permission to fish on their property first.
- Respect other anglers' territory or space. Treat them the way you would like to be treated.
- Pass it on. Teach a child or a friend to fish.
- Support fisheries research and habitat protection through your South Carolina Department of Natural Resources (SCDNR).



Photo courtesy of Take Me Fishing™



Safety

- Keep at least one rod's length between you and the next angler before, during and after you cast.
- Always look behind you and to the side before casting to prevent hooking power lines, trees or a person.
- Wear sunglasses, sunscreen, bug spray and other protection from the natural elements.
- Always be aware of your surroundings and be on the alert for ant mounds and snakes. Avoid thick grassy areas where you can't see your feet.
- Be very careful around water and make sure you have a fishing buddy with you. If fishing from a boat, always wear a life jacket or PFD (personal flotation device).



SC Reel Kids fishing safely with their PFDs



Regulations FAQs

Why do we have Regulations? People! Along with natural pressures such as predators and competition for food and space, fish have to worry about pressures we put on them. Those pressures include pollution, in the forms of litter and runoff, which damages water quality; loss of adequate habitat due to changes in the landscape, such as urban development and farm practices; and overfishing, which comes from the unnecessary harvest of too many fish or from harvesting fish that are too small and haven't had the opportunity to reproduce. SCDNR's role is to protect and manage the resource through science and provide suggestions to the legislature on necessary laws. The South Carolina General Assembly then votes to make the bills law and SCDNR law enforcement officers enforce these laws. Some of the common management practices include daily bag or creel limits on the amount of fish an angler can catch and possess in a day, slot or size limits on fish to allow fish to reach sexual maturity and reproduce and restrictions on what type of gear can be used to harvest or catch certain fish—game versus non-game.

Frequently Asked Questions about Fishing Regulations

Where do I find fish and wildlife regulations for the state of South Carolina?

- Regulations are available at every license vendor in the state. They are also found on the website at www.dnr.sc.gov/regulations.

At what age, do I need a fishing license?

- When you turn 16, you must have a fishing license in order to fish legally in public waters.





Do I need a fishing license to fish from my private property?

- Yes, you will need a license to fish in public waters (such as lakes or rivers) even if you're on private land. You don't need a license to fish on private property in a private pond unless you are fishing in a commercial pay pond. You don't need a license to fish in a commercial pay pond when the pond is permitted by DNR.

Where do I go to buy a license?

- You can visit any of the 500 license agents throughout the state at the nearest local bait and tackle store; the SCDNR office in Charleston, Clemson, Columbia and Florence between 8:30 a.m.-5:00 p.m. Monday through Friday; or call 1-866-714-3611 (7 days a week 24 hours a day), or visit the web at www.dnr.sc.gov/purchase.

When I buy a license, how is that money used?

- Every fishing license purchase helps to support fisheries research, habitat enhancement and management projects.

For questions regarding your license purchase, please call 803-734-3833.

**Purchase your
South Carolina Hunting
& Fishing License Online**
at dnr.sc.gov or by
phone 1-866-714-3611

Spend more time outdoors...

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Practice Catch & Release Fishing

Practice Catch & Release Fishing

Currently, many fish species of popular game fish have legally mandated size and catch limits, requiring anglers to release undersized and over the limit fish. Many anglers voluntarily release their fish. If these fish are not released properly, their chance of survival is reduced.

Whether anglers choose to release fish or are required to do so by law, all released fish should be handled carefully to give the fish the best chance for survival.

When practicing catch and release fishing, you should do the following:

- Use barbless or circle hooks and needlenose pliers or forceps to reduce injury and handling time of the fish.
- Land the fish as quickly as possible to minimize the fish's fighting time.
- Use wet hands when handling a fish and minimize the time out of water to 20 to 30 seconds.
- Never hold a fish by the gills.
- When returning a fish to the water, point the fish into the current or cradle it in your hands loosely under the water until the fish swims away on its own.
- If a fish is landed and the hook has been swallowed, cut the line as far down in the fish's mouth as possible. Do NOT pull the hook out!

Catch & Keep

Most of the game fish species are excellent fare for the frying pan or grill. If fishing to keep, make sure you follow all fishing regulations with regards to size and catch limits. Keep only fish you will use and release the rest. Plan ahead and

bring a proper storage container to put the fish on ice or in water. Get fish cleaned as soon as possible and enjoy! Bon appetite!



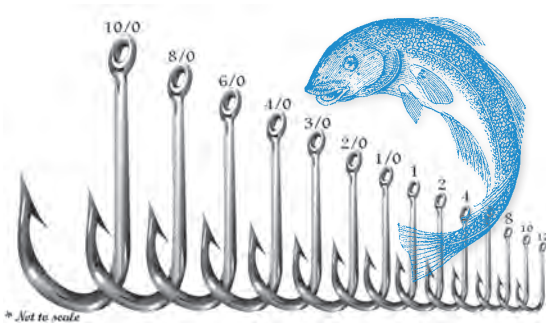


Equipment Overview

Basic Fishing Tackle or Terminal Tackle

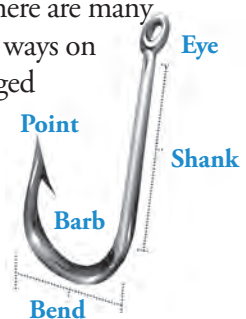
Hooks

Hooks come in a variety of sizes and shapes. Size 1/0 (called one aught) is big to size 12, which is small. For hooks size 32 to size 1, the larger the number, the smaller the hook. For hook sizes from 1/0 to 19/0, the larger the number, the larger the hook size. Popular hook styles are: treble, Kirby, octopus, wide gap, O'Shaughnessy, baitholder, circle and weedless.



To determine what hook size to use, picture the species you'd like to catch and look at its mouth and what they like to eat.

- Hook anatomy
 - **Point:** The sharp end of the hook that punctures the fish's mouth; there are many different point types such as spear, hollow or rolled in.
 - **Barb:** An extension of the point that projects backwards to keep the fish on your hook.
 - **Eye:** Just like an eye of a needle, the eye of the hook is the loop at the top used to connect the hook to the line; there are many types of eyes and they can be positioned in many ways on the shank (up-turned, down-turned, straight, ringed or lopped).
 - **Bend & Shank:** The portion of the hook that connects the point to the eye; the hook shank can be straight or have curves, kinks, bends and offsets which allow for easier setting of the hook, better fly imitation or bait holding.





Equipment Overview

- **Monofilament Line**

- Like the hooks, monofilament line comes in a variety of weights for different species.



- Monofilament line is measured in “pound test,” meaning the amount of

weight required to break the line. 10 pound test line is stronger and thicker than 6 pound test line; so the higher the pound test, the stronger the line.

- When choosing the right pound test, it is always best to match the line to the capabilities or size of your rod and reel and to take into account the lures/bait you’re using and the species you want to catch.
- Always discard properly or recycle monofilament line as it can cause harm to wildlife.

- **Fluorocarbon Fishing Line**

- Other alternatives to standard nylon monofilament lines have been introduced made of copolymers or fluorocarbon, or a combination of the two materials. Fluorocarbon fishing line is valued for its refractive index, which is similar to that of water, making it less visible to fish. Fluorocarbon is also a more dense material, and therefore, is not nearly as buoyant as monofilament.

- **Braided Fishing Lines**

- There are also braided fishing lines, cofilament and thermally fused lines, also known as ‘superlines’ for their small diameter, lack of stretch, and great strength relative to standard nylon monofilament lines.



- **Sinkers**

- Sinkers come in a variety of weights (measured in ounces) and shapes.
- They allow you to cast your bait or line down to the bottom.
- Popular sinker types: bank, pyramid, split shot, egg, bell and bullet.



- **Bobbers, Corks, or Floats**

- Bobbers keep your bait at the depth where the fish are.
- Serve as a strike indicator, letting you know when you're getting a bite by bobbing down in a quick, jerky motion.
- Bobbers come weighted, unweighted and in many different shapes and sizes.

Note: If you ever have questions about what terminal tackle you need for the fish you want to catch, make sure you stop by your local bait and tackle shops. These folks can provide you with what tackle to buy, what rigs and lures to use and let you know which fish species are biting.



Equipment Overview

Rod Types

Cane Pole is a pole with fishing line tied to it, mainly used for shoreline fishing.



Spincasting & Baitcasting rods have small guides for line to move through on the top side of the rod, a handle with a finger grip and a reel that mounts on the top side of the rod.



Spinning rods have large guides for line to move through that decrease in size as they get closer to the rod tip, no finger grip on the handle and reel mounts on the bottom.



Fly rods are very flexible with guides and reel mount on the bottom.





Equipment Overview

What to look for in a rod?

The type of rod chosen depends on the fish you plan to catch and the type of bait or lure you'll be using. Remember, when in doubt ask a local bait and tackle shop or an avid angler.

- Length: a longer rod is better for distance casting and controlling the lure.
- Action: refers to the portion of the rod at which it bends; measured as slow, medium or fast:
- Fast Action: rod bends mainly near the tip; good for surface lures or detecting subtle strikes when jigging.
- Medium Action: rod bends over the front half or $\frac{3}{4}$ the way up the rod; good for live bait fishing.
- Slow Action: rod bends over the entire length or at the halfway point; good for absorbing pressure when fighting a big fish so as not to break the line.
- Power: similar to rod action; refers to the amount of force required to bend a rod; measured as light, medium, & heavy or on a scale of 1 to 10 where 1 is the lightest; light rods easily bend under the weight of a lure so heavy rods are needed for heavy lures.



Equipment Overview

Reel Types

Spincast reels



Spincast reels are also known as push button or close faced reels; easiest to use and great for beginners.

Spinning reels



Spinning reels are also known as an open faced reel; line spools off quickly, casting farther than a spincast; suitable for light lures.

Rate The Reel

Overall Ease of Use: **Beginner**

Typically, great for children

Cost: **Inexpensive**

\$10.00 - \$40.00

Maintenance: **Easy**

All moving parts are enclosed within the reel so disassembly is required for major cleaning and re-greasing of gears. This also makes the reel NOT good for saltwater fishing.

Casting: **Simple**

Spincast Reels have a one button line release. Casting only requires one hand.

Pros

Easy to use, inexpensive, no backlash, good for light-lures or baits

Cons

Low gear ratio, simple drag system, not durable.

Rate The Reel

Overall Ease of Use: **Intermediate**

Great transition reel for kids that have mastered the spincast.

Cost: **Moderately expensive**

\$20.00 - \$100.00

Maintenance: **Easy**

Daily cleaning is easy since most of the moving parts can be rinsed with tap water. Major cleaning and re-greasing requires disassembly.

Casting: **Moderately Difficult**

Spinning Reels have a bail that has to be opened for casting. This requires two hands.

Pros

Simple and durable, no backlash, good for light lures and baits

Cons

Line will twist and tangle from time to time.



Baitcast reels



Baitcast reels are difficult to master, mainly used to cast large lures and bait long distances; line is controlled during the cast by the angler's thumb.

Rate The Reel

Overall Ease of Use: **Expert**

Not recommended for children. It takes some time and practice to master.

Cost: **Moderately Expensive to Expensive**

\$30.00 - \$150.00 plus

Maintenance: **Difficult**

Baitcast reels can be difficult to maintain as there are complicated gearing mechanisms that wind and release the line.

Casting: **Difficult**

Without practice, you will backlash the line on reel causing a "birds nest" of line.

Pros

Handles heavy line well, high gear ratio, casting accuracy

Cons

Backlash, expensive, not good for light lures and baits, learning curve to master the reel

Fly reels



Fly reels, used in fly fishing, hold the line, but the casting is done by projecting the line out instead of the weight of the lure casting the line.

Rate The Reel

Overall Ease of Use: **Intermediate**

In order to use a fly reel, you will need a lot of practice and instruction. You will have to learn a new angling method.

Cost: **Expensive**

\$50.00 - \$300.00 plus

Maintenance: **Easy**

Daily cleaning is easy since most of the moving parts can be rinsed with tap water. Major cleaning and re-greasing requires disassembly.

Casting: **Difficult**

There is no release mechanism for the fly reel. Also, retrieving your lure or fish is done by hand, not by reeling the reel.

Pros

Great for light lures and baits, very rewarding when you catch a fish

Cons

Expensive, difficult to master



Casting Overview

In fishing, casting is the act of throwing a lure or bait via fishing line over the water with a flexible fishing rod. The usual technique is for the angler to quickly flick the rod from behind toward the water.

Casting Techniques

Casting techniques vary with the type of fishing involved. The technique using a spincast or baitcast outfit requires the angler to push a button to release the line when you are casting. When using a spinning outfit, you are required to “flip the bail” to cast your lure. Fly fishermen use artificial flies as a lure and use lighter rods and lines. They develop much finesse casting the flies, using motions of the hand and arm, so the flies land with great accuracy out on the water and mimic the behavior of real flies.

Saltwater anglers usually use heavier rods lines, lures and bait. Specialized, two-handed casting techniques are used to cast the lure or bait the added distances required in many cases to reach fish feeding inshore. In these casts, the entire body rather than just the arms are utilized to deliver the cast, which may travel many hundreds of feet.





Spincasting

A spincasting reel has a button you push with your thumb to release the line. This button also acts as a brake if you push and hold the button.

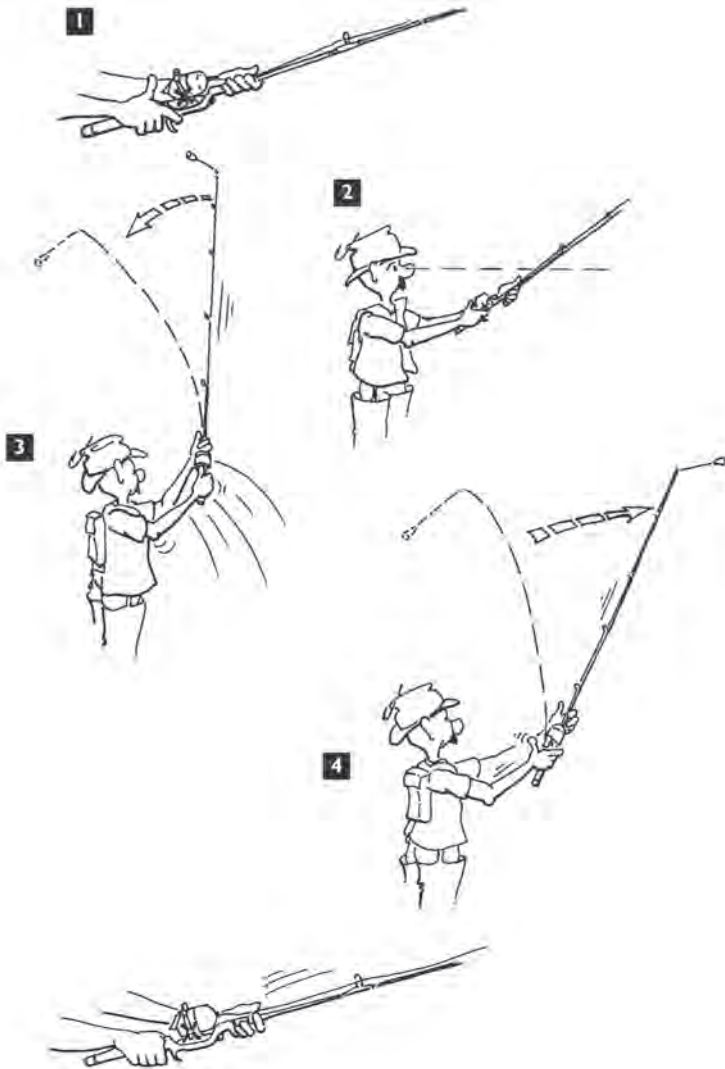
1. Grasp the rod's handle or pistol grip with one hand. Push the reel's thumb button down and hold it in.
2. Face the target area with your body turned to a slight angle, about a quarter turn. Aim the rod tip toward the target, about level with your eyes.
3. Swiftly and smoothly bend your arm at the elbow, raising your hand with the rod until it almost reaches eye level. When the rod is almost straight up and down, it will be bent back by the weight of the lure. As the rod bends, move your forearm forward with a slight wrist movement.
4. When the rod reaches eye level, release the thumb button.

If the lure landed close in front of you, you released the thumb button too late. If the lure went more or less straight up, you released the thumb button too soon.





SPINCASTING





Spinning

With a spinning reel, you use your finger to release the line.

1. Grasp the rod's handle, placing the reel "stem" that attaches the reel to the rod between your middle fingers. Extend your forefinger to touch the spool cover. Open the reel's bail with your other hand.
2. Face the target area with your body turned at a slight angle, about a quarter turn. The arm holding the rod handle should be closest to the target. Aim the rod tip toward the target at about eye level.
3. Swiftly and smoothly, using just one motion, bend your casting arm at the elbow and raise your forearm so that your hand is almost at eye level.
4. When the rod is almost straight up and down, it will be bent by the weight of the lure. As the rod bends, move your forearm forward with a slight wrist movement.
5. When the rod reaches eye level, straighten your forefinger to release the line.



If the lure landed close in front of you, you straightened out your index finger to release the line too late. If the lure went more or less straight up or behind you, you straightened your index finger too soon.

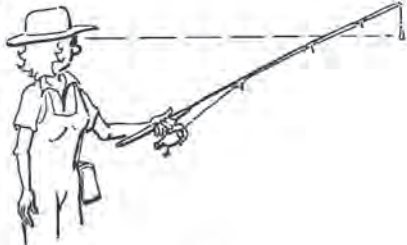


SPINNING

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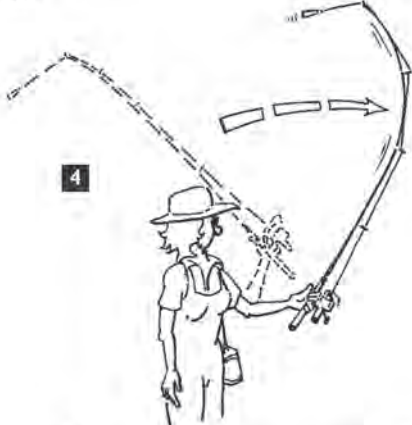
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Baitcasting

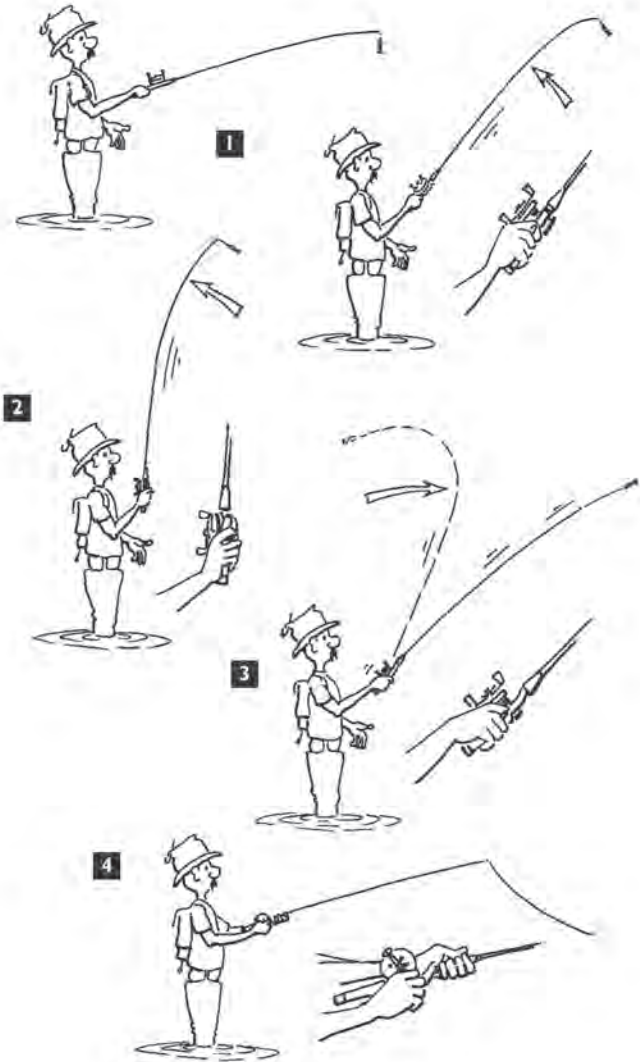
The baitcasting reel has a button either on the top right-hand side of the reel or a “thumb” button behind and center of the spool that you push with your thumb to release the line.

1. Grasp the rod’s pistol grip or handle with one hand. Push the reel’s thumb button down and move your thumb on the spool. Release the line so that the casting plug falls to the ground. Adjust the spool tension knob (located on the side of the reel) so that the spool stops when the plug hits the ground. It may take a couple of times to accomplish this and adjust it correctly. This will reduce the reel from backlashing when casting. Backlashing occurs when momentum from the cast allows the spool to keep rotating, causing line to ball up once the plug hits the water or ground.
2. Face the target area with body turned at a slight angle, about a quarter turn. Aim the rod tip toward the target, about level with your eyes.
3. Swiftly and smoothly bend your arm at the elbow, raising your hand with the rod until it almost reaches eye level. When the rod is almost straight up and down, it will be bent back by the weight of the practice plug. As the rod bends, move your forearm forward with a slight wrist movement.
4. When the rod reaches eye level, release your thumb off the spool. As the practice plug hits the ground, place your thumb back on the spool to reduce backlash.

If the plug landed close in front of you, you released your thumb too late. If the plug went more or less straight up, you released your thumb too soon.



BAITCASTING





Fishing Knot Characteristics

Fishing knots are designed to be tied with monofilament line, which is relatively inexpensive. The emphasis of a good knot, therefore, is on compactness and reliability. Fishing knots often require multiple, tightly wound turns or loops. The structure of such knots changes under pressure or weight – outer wraps are pulled into the knot and the inner line becomes outer wraps.

Lubricating, Tightening, & Trimming

Fishing knots are intended to be pulled extremely tight or cinched down before use. To ensure the knot tightens smoothly, and to avoid generating friction, the knot should be moistened with water before cinching it down. The most conveniently available source of water is saliva!

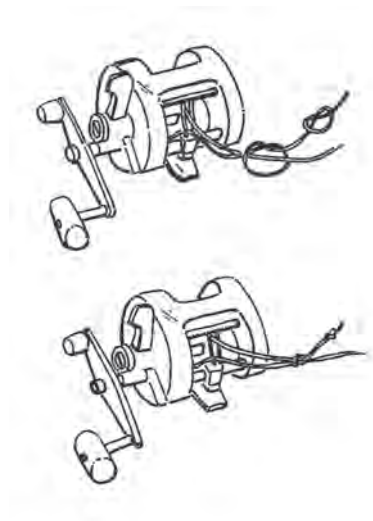
The ends of most fishing knots can, and should, be trimmed closely against the knot. The best tool for the purpose is a nail clipper. You should trim all loose ends about ¼" or the width of your pinky fingernail across.

Arbor Knot

Quick, easy connection for attaching line to the reel spool.

1. Pass the line around the reel arbor (spool).
2. Tie an overhand knot around the main line.
3. Tie a second overhand knot in the tag (loose) end.
4. Pull the knot in the tag end tight and clip off the excess line.

Snug down the first overhand knot on the reel.

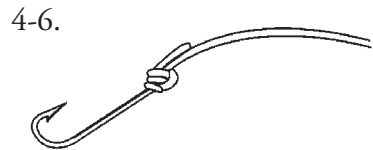
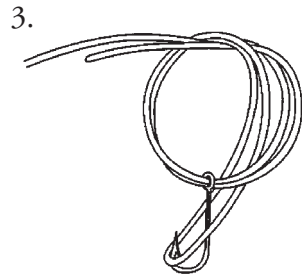
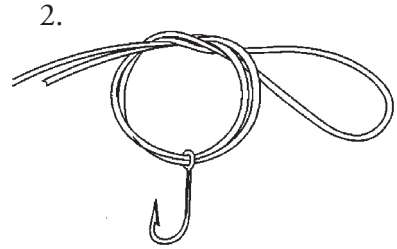
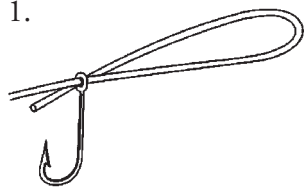




Palomar Knot

The easiest to tie and the strongest knot known to hold terminal tackle.

1. Double 4 inches of line to form a loop and pass the loop through the eye of the fishing hook. Let the hook hang loose.
2. Tie an overhand knot in the doubled line. Don't twist or tighten line.
3. Pull the loop far enough to pass it completely over the hook.
4. Wet the line.
5. Hold the hook carefully, and pull the loose end with the standing line slowly to tighten the loose end.
6. Clip extra line a $\frac{1}{4}$ ".



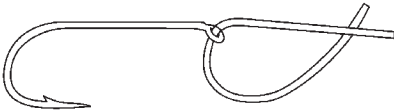


Improved Clinch Knot

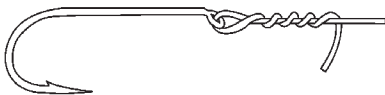
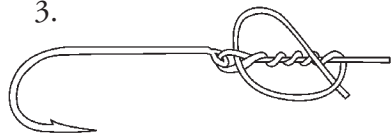
An “old standby” known as the fisherman’s knot.

1. Pass the line through the hook eye and, with the tag end, make 5 or 6 turns around the standing line.
2. Insert the loose end of the line between the eye and the first loop formed.
3. Bring the end through the large second loop formed.
4. Wet the line and tighten the knot slowly while holding the loose end of the line end between thumb and index finger so the knot is partly closed before it’s secured against the eye.
5. Clip extra line $\frac{1}{4}$ ".

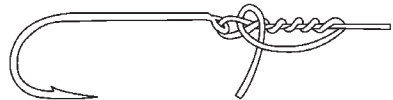
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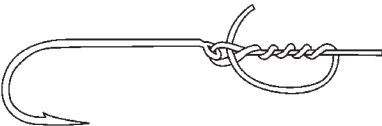
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5.





Tackle Box Checklist

- Pliers



- Nail clippers



- Hooks (various sizes)

- Bobbers



- Weights (various sizes & types)

- Snap swivels



- Artificial lures



- Measuring tape

- Regulations

- Fish identification guide



- First aid kit



- Bug spray



- Sunscreen

- Backup spools of monofilament line

- Stringer for keeping fish you plan to eat





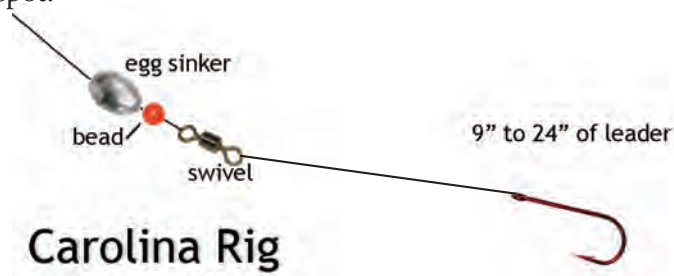
Rigging

Rigging refers to the way that you tie together your terminal tackle (hooks, swivels, sinkers, bobbers, etc.) and bait and/or lures with your line.

The most popular and most often used rig of all is the bobber rig. This involves placing a bobber on your line. The depth of the bobber can differ depending on where and what fish species you are targeting. Placing the bobber two feet from the end of your line is a good place to start after your hook and sinker or split-shot have been attached. The key to the bobber rig is to make sure after you cast, click over your reel handle so your line is tight from the reel to the bait or lure. This helps to feel the fish biting at your bait.

Another easy-to-use rig is a bottom or standard rig. For this rig, just tie on a hook, attach some live bait and enough split shot to sink it to the bottom. Click over your reel handle and hold your line tight, as you would if you were fishing a bobber rig, but be careful not to move it. Let the fish come to your bait. If you don't get a bite after 15 minutes, reel in and cast again in a new spot.

Bobber Rig





Common Freshwater Live Bait

- **Worms** come in a variety of choices—earthworms, red worms and nightcrawlers. Anglers can create their own compost pile or worm bed



to house worms for use. When you purchase worms from the store, leftover worms after your fishing trip can be stored in the refrigerator for a couple of days until the next fishing outing.

When placing a worm on your hook, make sure to loop the worm through the hook 2-4 times and to leave some of the worm dangling from the bottom of the hook. Don't leave more than an inch of worm dangling below the hook or else fish will nibble away at the worm without biting the hook.

- **Crickets and Grasshoppers** are excellent bait for sunfish, bass and catfish. These insects can be purchased from most local bait and tackle shops and placed into a specially designed cricket cage. To prolong the life of your crickets, place a moist paper towel into the cricket cage with some lettuce and shredded carrots. Just be careful that the paper towel doesn't aid your crickets in escaping.



To properly bait your hook with a cricket, the hook should be inserted behind the cricket's head under the collar (or thorax).

- **Minnows** is a loosely used term by anglers to mean baitfish. Minnows are technically members of a specific fish taxonomic family. Fish used as bait typically include shiners, chubs and dace as well as minnows. Minnows will live longer in an aerated minnow bucket where the minnows aren't crowded.



Baiting your hook with a minnow involves hooking them through the lips or under their dorsal fin. Avoid hooking the fish through the backbone when hooking under their dorsal fin to prevent killing the minnow.

Tip: make sure to always present the bait on your hook as naturally as possible and hook your bait in way to keep it alive as long as possible.



Lures

Many companies make fishing lures in different types, patterns, sizes and colors. “How to” instructions are either on the package or inside with the lure. Both fresh and saltwater anglers use lures interchangeably to catch a variety of fish.

Plugs

Use for: black bass; crappie; striped, white and hybrid bass; seatrout; red drum; flounder and several offshore species

Plugs can be made of various materials such as plastic, wood and sometimes cork. Plugs are classified as topwater and crankbaits (shallow diving, medium diving and deep diving). Either two or three treble hooks are attached to plugs to cover the fish's striking area.

PLUGS



Spoons

Use for: black bass; striped, white and hybrid bass; seatrout; red drum; flounder and several offshore species

Spoons are metal, spoon-shaped lures made to resemble a swimming or injured baitfish. You can jig them (jiggle them up and down), cast and reel them in, or troll them behind a boat (let it drag on a fishing line behind the boat). Many anglers attach a swivel to the spoon to prevent it from twisting their line during retrieval.



SPOONS



JIG



CURL-TAIL JIG



TUBE JIG



SPINNER BAITS

Jigs

Use for: black bass; striped, white and hybrid bass; crappie; seatrout; red drum; flounder and several offshore species

Jigs have weighted metal or lead heads with a body and tail made of rubber skirts, feathers, soft plastic or animal hair. Numerous sizes, colors and patterns are used to catch a large majority of fresh and saltwater fish.

Spinnerbaits

Use for: black bass; coldwater trout and crappie on small in-line spinners

Spinnerbaits have one or more blades that spin or rotate around a straight wire or “safety pin” type shaft. Nearly all spinner baits have tails and bodies made of rubber skirts, animal hair, soft plastic, feathers or other materials.



Soft Plastics

Use for: black bass; seatrout; red drum and flounder

Soft plastics are pliable lures made into worms, grubs, lizards, crayfish, minnows, shrimp, crabs and many others, resembling what fish eat. Plastics are available in different sizes, colors and some with fish-attracting scents. They can be used with or without bullet weight sinkers, jig heads or spinnerbaits.



SOFT PLASTICS

Flies and Poppers

Use for: almost all common sport fish will strike a fly or popper of some variety, but very popular among coldwater trout fisherman

Flies and poppers are small, very light, almost weightless lures used primarily for flyfishing. A spincast or spinning rod and reel outfitted with a “bubble” (clear bobber) placed four to five feet above the lure works well if you don’t have a fly rod. Most any fish can be caught on these baits.



WOOLLY BUGGER



POPPING BUG



How to Tell a Fish is Biting

Fishing with a Bobber:

Fishing with a bobber allows anglers to know when a fish bites. However, sometimes the movement in the bobber isn't so obvious. Sometimes a biting fish will cause the bobber to twitch only a bit or the bobber will start to move across the surface of the water.

Fishing without a Bobber:

If you are not using a bobber the best way to tell when a fish is biting is by keeping your line tight and feel for tugs, jerks or taps. When fishing without a bobber, you should set the hook or pull on the rod as soon as you feel that you are getting a bite. The most important tip regarding bottom fishing is keeping your line tight at all times.

Drag

Drag is a mechanical means of applying variable pressure to the turning spool in order to act as a friction brake against it. Properly set drag allows larger and more powerful fish to be safely brought to boat and landed, as the drag will “slip” below the breaking point of the line, but in combination with the flex in the rod, drag will tire a fish by converting the energy from the fish into heat in the drag system. Drag systems differ from not only different reel types, but within each reel groups.

Drag is a helpful tool, but you need to make sure your drag isn't set too loose as you'll never land that fish. If the drag is set too tight, then you will definitely pop your line if you catch a large fish. To set your drag, start by turning it as far as the dial allows towards the plus sign. Then, push the button to release your line. Pull the line with one hand while holding the rod with the other. Line should make a “zzzing” noise as it comes off the reel. You want to allow some line to come off your reel but not all when that fish decides to swim away. So, turn the drag dial towards the negative. Continue to do this until you have a medium drag set where line can come off the reel, but won't continuously do so.



How to Set the Hook

When you see signs of a fish biting, move your rod tip from pointing towards the water to pointing straight out your belly button and wind up all slack line. Then, quickly pull the rod back to set the hook. Practice makes perfect when it comes to learning the timing of setting the hook. The feel of setting the hook will vary based on the fish species you're targeting, the lure or bait you're using and the size of your rod, reel and line.

After setting the hook, keep a bend in your rod and wait for the fish to make its move. If the fish is pulling against the fishing reel, let him simply pull. **DO NOT** wind in line if the fish is pulling line off your reel. After the fish quits pulling, begin reeling in, keeping a bend in your rod. Take this process slowly.

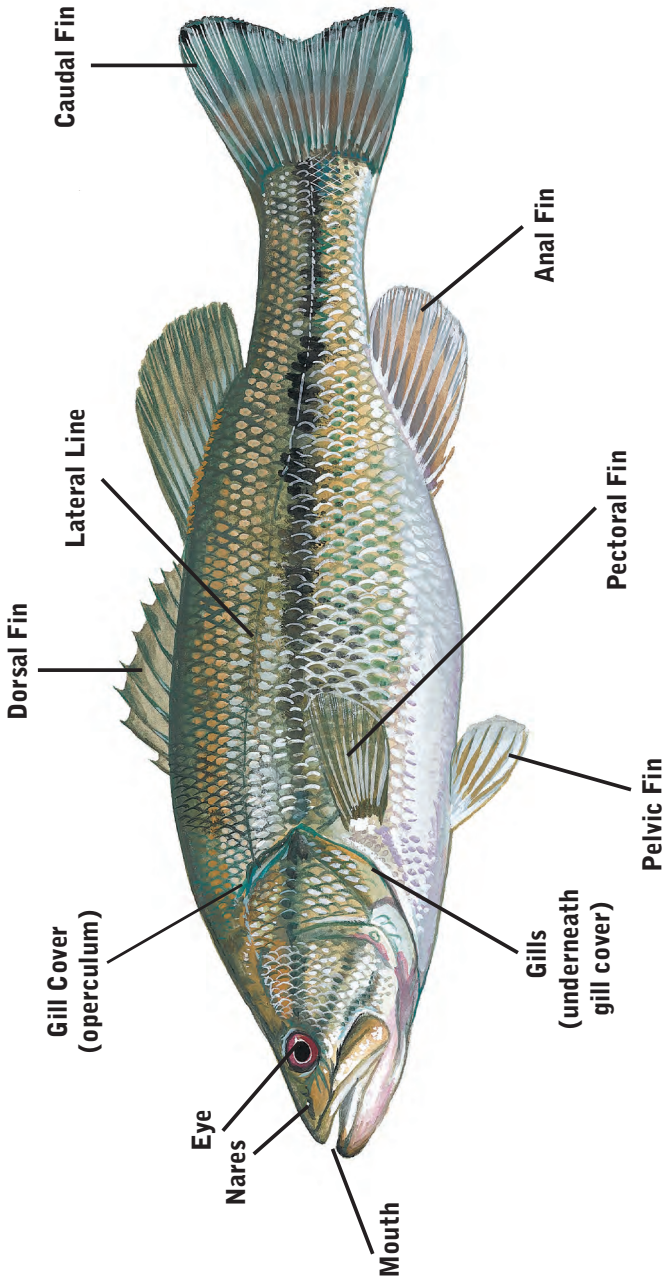




Fish External Anatomy & Senses Introduction

To understand fishing, you first have to understand fish anatomy and senses. Did you know you can look at a fish's mouth and tell how it feeds or that fish sense the smallest vibration using its lateral line? Knowing more about their anatomy and senses will give you the edge when you are fishing.

- The lateral line is a special sensory organ that fish have in addition to the usual senses of seeing, hearing, tasting and smelling. The lateral line is a collection of nerve endings along a fish's side that feels vibrations in the water. It helps the fish determine the speed, direction of movement and even the size of the predator or prey, thus helping them find food and avoid being eaten. The lateral line is very important to fish that live in deep water or in murky water.
- Fish eyesight is similar to ours. They see brightness and color; however, some species have better color vision than others. Fish that live in deep water don't see the full spectrum of colors since water filters out color. Fish can see up to 100 feet in extremely clear water and in murky water about 10 to 20 feet out in front of them. A fish's field of vision is all directions except for straight down and straight back. Fish can also see above-water objects so anglers should keep a low profile when approaching fishing spots, especially in clear waters.
- Fish hear using an inner ear with tiny bones that pick up sound. They lack external ears like we have.
- The fish sense of smell is highly developed. They detect odors by a nasal sac in their mouth. Water comes in through the nare and is passed through the nasal sac and out again. Smells allow fish to return to spawning grounds and alert them to the presence of predators or prey.
- Taste is a useless sense in most fish, except for catfish and bullheads which have skin and barbels or whiskers that have taste-sensitive cells. These fish can use their sense of taste to help track down food sources.



Largemouth Bass



How to Handle Your Catch

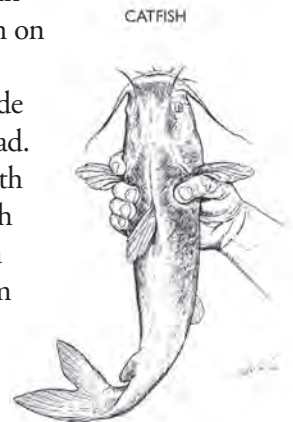
Handling fish properly protects both you and the fish. Some fish have sharp fins or teeth that can cut you if you don't hold them correctly. Thus, different fish species need to be handled in different ways. You hold some fish by the jaw, such as bass or trout, and others along the body, such as a catfish. Keep the following rules in mind when catching fish:

If practicing catch and release:

- Always wet your hands first before handling fish. Wet hands are less likely to damage the protective coating of mucous on the outside of the fish. This slimy layer helps protect the fish disease.
- Don't allow fish to flop around on the bank, the dock, or the floor of the boat.
- Take the fish off the hook as soon as possible. Gently lower it into the water until it begins to swim away. If it isn't ready to swim, you may need to slowly swish it in the water first. Remember, no fish is a "junk" or "trash" fish. All fish play important roles in the aquatic ecosystem.
- Use a barbless hook which can make it easier to take the fish off the hook.

If you keep the fish:

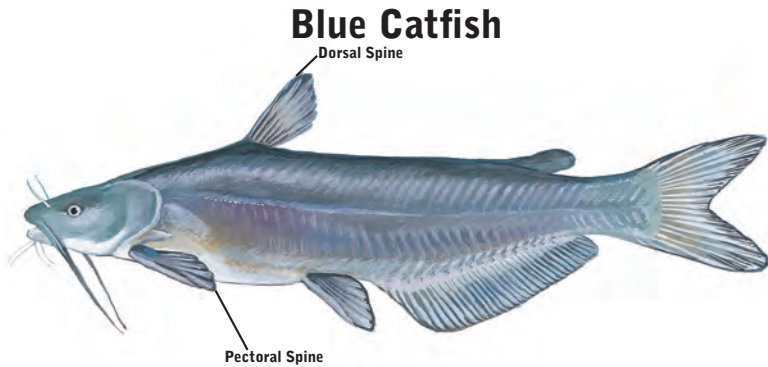
- Put them on ice or in a bucket of cool water.
- You can keep them on a stringer or in a basket in water to keep them alive until you can get them on ice.
- Fish that CAN be held by the bottom lip include crappie, sunfish, bass, perch, catfish and bullhead. You'll feel small, dull teeth inside the fish's mouth somewhat like sandpaper. For larger bass, catfish and bullhead, support the body of the fish with your other hand once the hook is removed from the fish. Barbless hooks can make it easier to remove the fish from the hook.





Catfish

- The common way to hold a catfish is from below the catfish's belly, gripping the catfish below both pectoral fins. Be very careful to avoid the fish's spines that are located in the pectoral fins and the dorsal fin. Hold the fishing line in one hand to steady the fish and slide your hands from the belly of the fish upward under the pectoral fins.



Sunfish

- There are two ways to hold a sunfish. One is from the fish's belly, loosely gripping the fish between your four fingers and thumb across the fish's side. The other is from the top of the fish's body over its dorsal fin. Be very careful of the dorsal fin; it has very sharp spines that can hurt you.



Perch

- Perch should be held under the belly underneath the pectoral fins loosely between your four fingers and thumb across the fish's side. Be very careful of this fish's gill covers or operculum because they are very sharp.



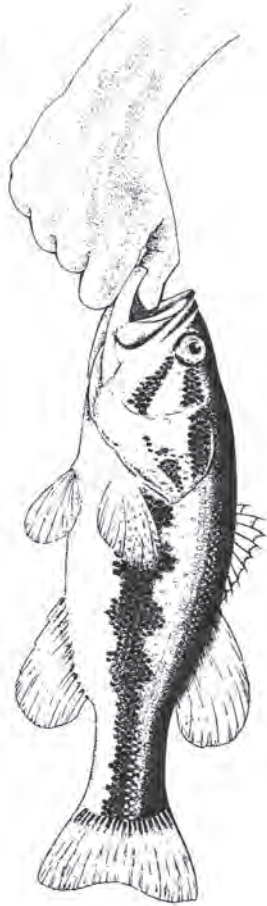


BASS

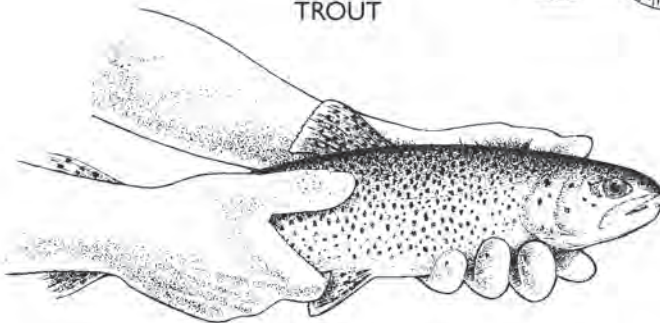
For bass three pounds or more, support its body with your other hand.



SUNFISH



TROUT



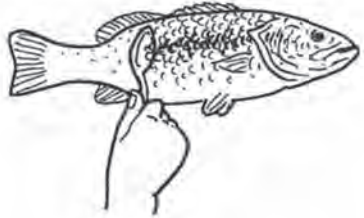


How to Clean Your Catch

It's fun to learn to clean and cook your fish. Ask an adult for help and be careful with the knife. Keep cleaned fish ice-cold. Prior to cleaning your fish, you need to make sure they are kept on ice, catch basket or stringer.

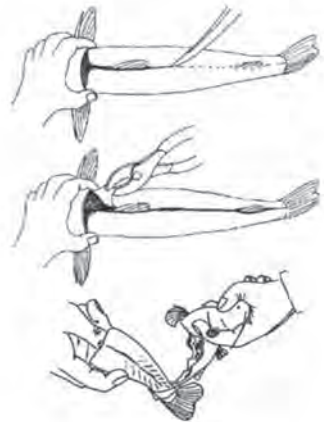
Scaling and Cleaning a Fish

- The common catch such as sunfish and bass must first be scaled. To scale a fish, hold it by the tail and scrape from tail to head with a fish scaler, butter knife or tablespoon. Cut directly behind the gill cover. Remove the head with the innards. Then, slice along each side of the dorsal fin and remove. Cut along both sides of the anal fin and remove by pulling it toward the tail. Cut the belly from the area where the head was removed to the tail and pull out all the remaining innards. If desired, cut off the tail. Rinse fish quickly and prepare for cooking.



Skinning and Cleaning a Catfish

- Catfish and bullheads must be skinned instead of scaled. Your first cut will start behind the head at the pectoral fin on one side up and over to the other side's pectoral fin. Then, slice down the backbone on one side of the dorsal fin and create another slice on the other side of the dorsal fin to connect the cut just made. Now, use pliers and pull the skin back from the body of the fish while holding the head with one hand. After removing the skin from the catfish, cut the head completely and remove the innards. Prepare for cooking. When filleting a catfish, make sure to cut away all dark red meat along the lateral line as this meat often has a strong flavor.





Filleting

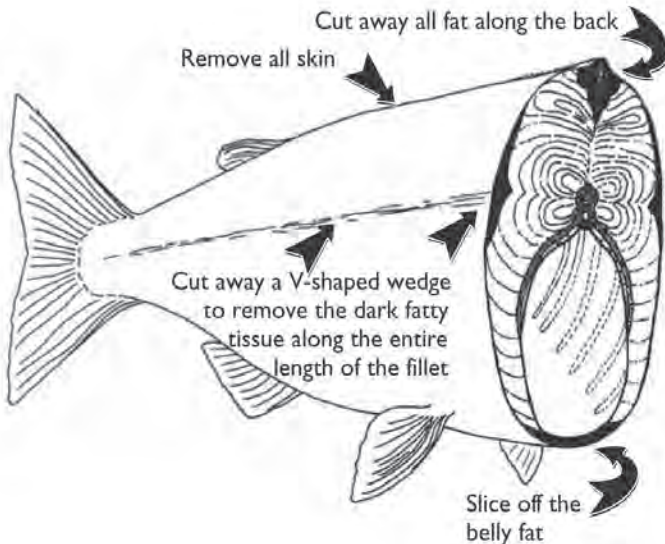
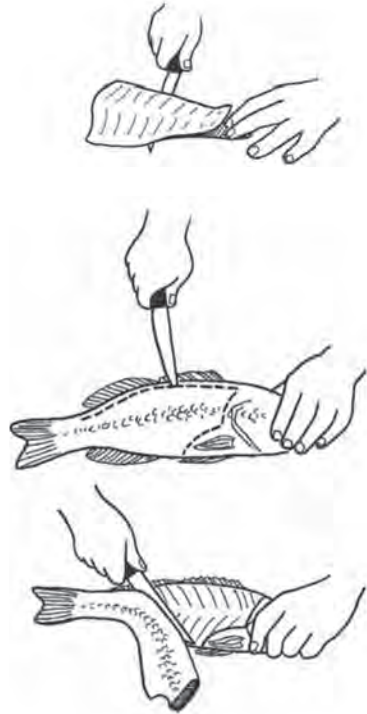
Always cut away from yourself.

To make boneless fillets:

Cut down to the backbone behind the head and along the side of the fish.

Slice the meat off the bones. Skin a fillet by placing it skin-side down on the cutting board. Score a line, using a knife right behind the head. Start at the tail and keep a tight grip on the skin. With the knife at an angle, saw the flesh off the skin.

Turn the fish over and repeat.





What Are Invasive or Nuisance Aquatic Species?

Invasive or nuisance aquatic species are non-native organisms that lack natural predators or diseases that help keep their growth in check. Some of the common invasive plants in South Carolina include hydrilla, water hyacinth, giant salvinia, water primrose, phragmites and alligator weed. These plants grow very dense, covering large areas, degrading water quality, displacing native plant species and making recreation and boating impossible. Preventing the occurrence of these invasive species can save millions of public and private dollars in control costs. South Carolina law also includes fines up to \$500 and/or imprisonment for persons spreading nuisance aquatic weeds.



Zebra Mussels



**Snakehead
(juvenile)**



Asian Clam



Hydrilla

Anglers should also be aware of unnoticed passengers on their boats and/or waders and take the necessary precautions to assure they are not spreading harmful exotic animal hitchhikers from one stream to another. A few of the invasive animals include green mussels, zebra mussels, mud snails, flathead catfish, spotted bass, Asian carp and lionfish. The larvae (immature form) of animals can be so tiny that they are not visible to the naked eye. These animal larvae can live in mud, dirt, sand and on plant fragments. Therefore, anglers should always remove visible mud, sand, plants or plant fragments from their boats, wading gear, clothing and fishing equipment before leaving a water body. Do not transport any potential hitchhikers, even back to your home. Remove and leave them at the water body.



Stop Aquatic Hitchhikers!

To avoid further damage from exotic species, anglers should never take resource management into their own hands. Unplanned stocking of fish, other aquatic animals or plants by anglers can disrupt the natural balance in an aquatic ecosystem causing damage to the established fishery, fish habitat and prey base. Not to mention, stocking or moving fish and other aquatic organisms is illegal. Unplanned stockings often occur from the careless use of live baits. Excess live bait, whether purchased at a local bait store or obtained from another body of water, should not be released (It is also illegal!). It may be disposed of in a trash receptacle or on one's compost heap. Even if you think your live bait is native, it has the potential to house nuisance species and disease that can have negative impacts on aquatic ecosystems. Dispose of shrimp parts and oyster shells properly. Shrimp heads and shells need to be disposed of in the trash and not thrown into the water because non-native shrimp parts have the potential to spread disease. Oyster shells can be taken to a nearby oyster recycling facility. Harmful exotics such as Whirling Disease spores, Didymo algae, zebra mussels, mud snails, Asian clams and many more are becoming more common threats to aquatic resources.



Hydrilla covered over 10,000 acres in upper Lake Marion.



Anglers should thoroughly clean their boats and wading gear after each use!

Ways to Clean Wading Gear

- Once wading gear is 100% dry, allow it to remain dry for 5 days before using again.
- Another option is to dip wading gear in a 3% bleach solution, rinse well (as chlorine can be harmful to gear) and allow to dry thoroughly. To avoid possible damage from chlorine, anglers can dip their gear in a 100% vinegar solution for 20 minutes or in a 1% salt solution for 20 minutes. Don't forget your best fishing buddy! Pets can be carriers of harmful exotics too. Pets should be rinsed thoroughly in warm water, towel dried and brushed well after each fishing or wading trip.



STOP AQUATIC HITCHHIKERS!™

Prevent the transport of nuisance species.
Clean all recreational equipment.

www.ProtectYourWaters.net

Eliminate water from equipment before transporting. Clean and dry anything that comes into contact with the water (boats, trailers, equipment, clothing, dogs, etc.).

Taking time to prevent the spread of aquatic hitchhikers will help assure the resources are protected from harmful, exotic species.

Report aquatic weed problems in public waters to the Aquatic Nuisance Species Program, SCDNR, by calling (803) 755-2836 or emailing invasiveweeds@dnr.sc.gov.



How Can You Help?

When you leave a body of water:

- Remove any visible mud, plants, fish, or animals before transporting equipment. Preventing the occurrence of these invasive species can save millions of public and private dollars in control costs. South Carolina law also includes fines up to \$500 and/or imprisonment for persons spreading nuisance aquatic weeds.
- Eliminate water from equipment before transporting.
- Anglers using wading gear should thoroughly clean it after use. They can wait for the gear to dry 100% and allow it to remain dry for 5 days before using again or dip wading gear in a 3% bleach solution, rinse well (as chlorine can be harmful to gear) and dry thoroughly. To avoid chlorine damage, anglers can dip their gear in a 100% vinegar solution for 20 minutes or in a 1% salt solution for 20 minutes.
- Wash all pets that went into the water with warm water, towel dry and brush well.
- Clean and dry anything that comes into contact with water (boats, trailers, equipment, clothing, dogs, etc.).
- Never release plants, fish, or animals into a body of water unless they came out of that body of water, otherwise - you're breaking the law!
- Dispose of bait properly, especially live bait, by placing it in the trash can within a sealed container or saving live bait in a sealed container for later use. Even if you think your live bait is native, it has the potential to house nuisance species and disease that can have negative impacts on aquatic ecosystems. It is illegal to purposefully release excess bait.
- Dispose of shrimp parts and oyster shells properly. Shrimp heads and shells need to be disposed of in the trash and not thrown into the water because non-native shrimp parts have the potential to spread disease. Oyster shells can be taken to a nearby oyster recycling facility.
- Report aquatic weed problems in public waters to the Aquatic Nuisance Program, SCDNR, by calling (803) 755-2836.





HABITAT

“Where Fish Live”



Healthy fish need water, food, cover and space. These four things are called “habitat.” It’s important that people take good care of lakes and streams so fish and other life in the water will have what they need to stay healthy.

Fishing Spots

Typically fish love cover or structure. This is where fish hide from predators or wait for their next meal. Good fishing spots can be found near aquatic vegetation, brush piles, sand bottoms, rock and gravel bottoms, fallen trees, boat docks and stumps.

In the following section you will learn more about different fish species and their habitat so you have a better chance of landing the big one.



BREAM



Bream Habitat



Bluegill

Range: Statewide.

Preferred Habitat: Bluegills are very tolerant of many habitat types including pools of creeks and rivers, swamps, oxbow lakes, ponds, vegetated shores of impoundments, man-made lakes, ponds and retention basins. They prefer sluggish or slow moving water.

Food Habits: Bluegills are opportunistic carnivores feeding on a variety of prey types. They will feed on mature and immature insects, small invertebrates, crayfish, mollusks (mussels) and other fishes. They have small mouths however, the larger the bluegill the larger the prey type they can consume. They mostly feed near the surface.

Spawning: Bluegills are colonial nesters with 100 or more different bluegill nests in one area. This helps provide extra protection for the eggs and fry from predators. Bluegill become sexually mature at 1 or 2 years of age and then construct nests in shallow water over sand or mud bottoms as water temperatures exceed 75 degrees Fahrenheit, usually from May to August. Females can produce up to 80,000 eggs per year. A female may deposit eggs in several adjacent nests within a nesting colony. Highly unusual for sunfishes, male bluegill will sneak into nests of other males to deposit their sperm to produce more of their offspring versus another male. Males will guard their nests and aerate the eggs by fanning their fins until the eggs hatch, within 1-2 days. Males continue to guard the area as the young fry disperse.



Green Sunfish

Range: Mostly in the Blue Ridge and Piedmont foothills, but may also be found in parts of the Coastal Plain.

Preferred Habitat: Green sunfish prefer slow pools and backwaters of streams and rivers, but they also occur in ponds, lakes and reservoirs. They are highly tolerant of turbidity and drought conditions.

Food Habits: Aquatic insects, crayfish and small fishes.

Spawning: From April through August, green sunfish spawn almost always making nest near some type of shelter such as a log or clumps of vegetation over gravel or sand. Green sunfish nests are often located in large groups. Depending on the female's size, she can lay between 2,000 and 10,000 eggs per spawning season.





Redear Sunfish

Range: Statewide.

Preferred Habitat:

Redear can be found in a variety of habitat types including ponds, lakes, reservoirs, swamps, streams and small rivers. They prefer slow moving, sluggish or non-flowing waters and are often found in or near areas of vegetation and over a mud or sand bottom.



Food Habits: Redear sunfish feed on the bottom and therefore eat aquatic organisms that live on the bottom such as mussels, snails and insect larvae.

Spawning: Redear sunfish can begin spawning at age one, but most don't until age two at temperatures above 70 degrees Fahrenheit usually in late spring to early summer. They create shallow nests in water 6 inches to several feet deep on sand, gravel or mud. The nests may be solitary or in groups of several dozen and up to one hundred. The female will lay up to 45,000 eggs which the male guards and aerates during incubation.

Redbreast Sunfish

Range: Statewide.

Preferred Habitat:

The redbreast sunfish can be found in areas with slow moving or sluggish water such as pools and backwaters of streams and rivers and upstream reaches of reservoirs. They can be found in areas with woody debris, stumps, undercut banks, shoreline riprap and rocky points. They prefer areas with a sandy bottom and generally avoid areas that are stagnant or heavily vegetated.



Food Habits: The redbreast sunfish feeds predominantly on aquatic and terrestrial insects, crayfish, mollusks and other fish.

Spawning: Redbreast sunfish spawn during late May through the end of July when water temperatures are from 65 degrees to 75 degrees Fahrenheit. Males construct large saucer-shaped nests typically in shallow waters on sand or gravel substrates. Nests may be solitary or built in groups of more than 80 nests. Fertilized eggs are sticky and clump together in the nest.



Warmouth

Range: Statewide in all flowing and impounded habitats.

Preferred Habitat: The warmouth prefers slow moving streams, swamps, Carolina bays, ponds and reservoirs, especially areas with submerged cover—riprap or vegetation.

Food Habits: Aquatic insects, mussels, crayfish and fish.

Spawning: Warmouth begin spawning in late spring through the summer months when water temperatures are above 70 degrees Fahrenheit. Male warmouth build multiple nests sometimes in groups with other warmouths on top of gravel or sandy bottoms. Females then lay their eggs in multiple nests, depositing as few as 2,000 eggs to as many as 20,000 eggs. The eggs are guarded until hatching and after for a short period.



Pumpkinseed

Range: Statewide.

Preferred Habitat: Pumpkinseeds can survive and reproduce in a variety of habitat types including pools and backwaters or streams, rivers, ponds and reservoirs over a variety of bottoms. They prefer the vegetated areas of these habitat types.

Food Habits: Aquatic insects, mussels, snails and crayfish.

Spawning: Pumpkinseed begin to spawn when water temperatures exceed 70 degrees Fahrenheit around late spring to early summer. Males construct nests in shallow water either singularly or in loose groups. Females can produce up to 14,000 eggs during a laying season, producing 2,000-3,000 sticky eggs at one time in the bottom of their sandy nests. The male fertilizes the eggs, guards them throughout incubation and protects them during their early development.





BREAM

NATURAL/LIVE BAIT



crayfish



*crickets and
grasshoppers*



insect larvae



earthworms



BREAM

ARTIFICIAL LURES



tinsel jig



small plastic worm

Lead-headed jigs and jig bodies (feathers, natural hair or plastic) can be mixed and matched in any combination. Fish sometimes respond better to different colors.



beetle



in-line spinner



bream killer



beetle spin



popping bug

How to Fish an Artificial Lure



Retrieve near cover.

beetle spin



BLACK BASS



Black Bass Habitat



Largemouth Bass

Range: Statewide in all warm water habitats.

Preferred Habitat:

Largemouth bass can be found in

slow moving streams, pools of large rivers, natural lakes and all sizes of man-made impoundments.

Largemouth bass prefer warm, moderately clear water that has no appreciable current.

Food Habits: Newly hatched bass feed on zooplankton, switching first to insects and then to larval and juvenile fish as they grow. Adult largemouth bass primarily consume other fish. In a large impoundment, the major prey species include threadfin and gizzard shad, while in small impoundments sunfish will predominate in the diet. Basically, the largemouth bass will consume any organism that opportunity allows.

Spawning: Spawning usually begins when water temperatures range between 65-75°F, around April to June. The male largemouth bass constructs a saucer-shaped nest at a depth of 2 to 10 feet. One or more females will deposit 5,000 to 150,000 eggs over the nest while the male fertilizes them. The eggs are guarded and fanned by the male until they hatch in 3 to 4 days. The male continues to guard the fry until they disperse several weeks after hatching.



Smallmouth Bass

Range: Lakes Jocassee and Keowee; Broad River. Not native to South Carolina.

Preferred Habitat:

Smallmouth can be found in cooler waters of the Foothill reservoirs or pool sections of clear, cool streams. In streams, smallmouth limit their range to one pool or several adjacent pools.

Food Habits: Young eat microcrustaceans and aquatic insects, tadpoles, fish larvae and as they grow progress to crayfish and fish such as darters, minnows, yellow perch and sunfishes.

Spawning: Smallmouth bass will begin their nesting activity in the spring when water temperature reach 60 degrees Fahrenheit, usually in April or early May. Nests, constructed of coarse gravel, are usually located in shallow areas of reservoirs or in protected areas of streams where the current is minimal. Several females may spawn in the nest of one male. The typical nest will contain about 2,500 eggs which are guarded by the male until they hatch in two or three days. The newly hatched-fry are guarded by the male until they disperse in 12 to 16 days.

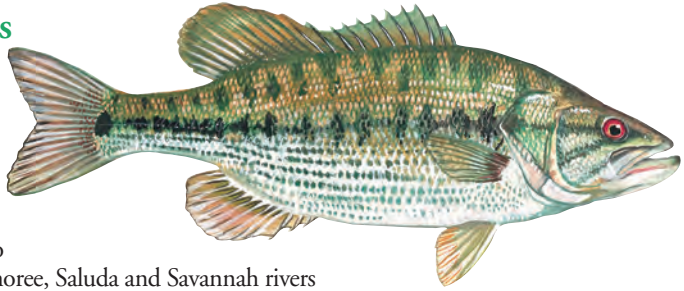




Spotted Bass

Range: Upper Savannah River drainage, primarily lakes Keowee, Russell, Jocassee and Hartwell;

also introduced into tributaries of the Enoree, Saluda and Savannah rivers and in the Catawba River reservoirs upstream of the state line. Not native to South Carolina.



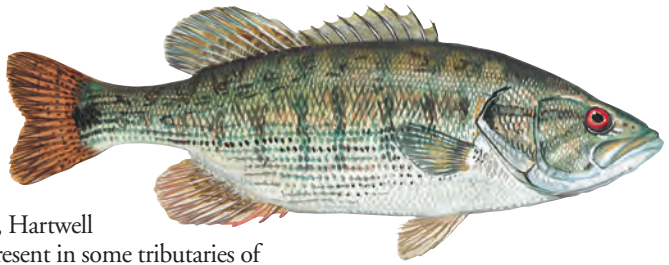
Preferred Habitat: The spotted bass is found in medium to large cool and warm mountain streams and reservoirs. It adapts well and outcompetes other black basses such as the largemouth or smallmouth as it is more tolerant of excess sediment.

Food Habits: Major foods for spotted bass are crayfish, aquatic insects and fish such as shad. Spotted bass eat fewer fish than other blackbass species.

Spawning: Spotted bass reach sexual maturity at age 2 or 3 and begin spawning activity in April and May when water temperatures reach 65 degrees Fahrenheit. Males construct shallow saucer-shaped nests on soft, clay bottoms or on gravel bars. The female will lay 3,000 to 30,000 eggs. The male guards the nest with eggs hatching in 4 or 5 days.

Redeye Bass

Range: Located in the northwestern parts of the state, primarily in the Savannah River basin—including lakes Jocassee, Keowee, Hartwell and Russell. It is also present in some tributaries of the upper Saluda and the Broad rivers in the Santee basin.



Preferred Habitat: Redeye bass occur naturally in rivers and streams with a lot of structure such as undercut banks, vegetation, boulders and submerged logs. They seem to prefer rocky areas with at least moderate current. Redeye can also be found in several upstate South Carolina reservoirs.

Food Habits: Redeye predominantly eat terrestrial insects but will also eat aquatic insects, crayfish, salamanders and small fishes.

Spawning: Redeye bass spawn when water temperatures are between 62 and 68 degrees Fahrenheit, usually from May to early June. At this time, redeye males who have reached sexual maturity at three or four years of age begin constructing a nest over coarse gravel for the female redeye to deposit between 2,000 and 3,000 eggs. The eggs are maintained and guarded by the male throughout incubation and development of the fry.



BLACK BASS

NATURAL/LIVE BAIT



crayfish



minnow



shad



small sunfish



*crickets and
grasshoppers*



earthworms



frogs



BLACK BASS

ARTIFICIAL LURE



deep-diving crankbait



spoon



grub



lipless crankbait



top-water popper



swim bait



beetle



plastic worm



spinner bait

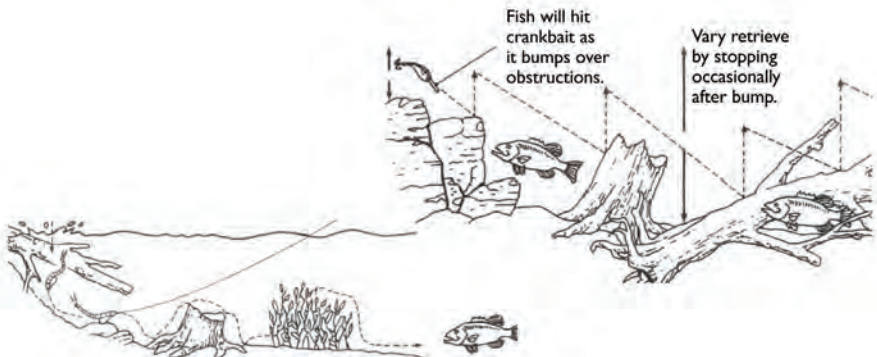


jig



top-water prop bait

How to Use an Artificial Lure





CATFISH



Catfish Habitat



Channel Catfish

Range: Statewide.

Preferred Habitat: The channel catfish inhabits

a variety of habitat types including small to large creeks, rivers, reservoirs and ponds over a range of substrates.

Food Habits: Fish, crayfish, mollusks, immature mayflies and caddisflies, as well as aquatic vegetation.

Spawning: Spawning occurs from May to July when the water temperature is approximately 70-80 degrees Fahrenheit. A gelatinous mass of eggs is deposited in a nest constructed by the male below undercut stream banks, logs or other secluded areas. The nest is guarded by the male for some time after the eggs hatch.



Blue Catfish

Range: Blue catfish are native to the Mississippi River basin.

In South Carolina, blue catfish are

found in almost every drainage. This species is found in South Carolina Department of Natural Resources' public fishing lakes and large impoundments such as lakes Wateree, Marion and Moultrie.

Preferred Habitat: Blue catfish prefer rivers and large creeks with moderate to swift current over rock, gravel or clean sandy bottoms; however, they also do well in large impoundments.

Food Habits: The blue catfish feeds on a variety of organisms including clams, snails, aquatic insects, freshwater mussels, fish and plant material.

Spawning: Spawning occurs in late spring or early summer in water temperatures of 70-75° Fahrenheit. Egg masses are deposited in cavities afforded by logs, brush or undercut riverbanks. Unlike other catfish, the male and female both assist in guarding the eggs and the young while they remain in the nest.





Flathead Catfish

Range: The flathead can be found in the Pee Dee, Santee, Edisto and Savannah river drainages of the Coastal Plain and Piedmont.



Preferred Habitat: The flathead catfish prefers deep holes in sluggish or slow water in medium to large rivers in areas with good structure such as fallen trees, stumps and undercut banks. Flatheads have also done well in large reservoirs, though growth rates tend to be slower in non-river habitats.

Food Habits: Primarily a diet of fish

Spawning: In South Carolina, flathead catfish spawn from mid-May to mid-July in areas around hollow logs and undercut banks. The males create nests that are 3-15 feet in depth. The yellow gelatinous egg masses that can contain 4,000 to 100,000 eggs are tended by the males. They guard and aerate the eggs with fin movements during incubation. Parental protection continues until the young fish absorb their yolk sacs and disperse.

Yellow Bullheads

Range: Statewide.

Preferred Habitat: Yellow bullheads can be found in a variety of habitat types but they typically are found in pools with soft bottom of silt or accumulated leaves in small- and medium-sized rivers.



Food Habits: Crayfish, mussels, insects, fish and fish eggs.

Spawning: Yellow bullhead spawning occurs from May through June when water temperatures reach 75-80 degrees Fahrenheit. Both the male and female participate in nest construction, but only the male guards the nest. The nests may be located under logs, rocks or in open areas. Approximately 2,000-4,000 eggs are deposited in a mass by one female. The eggs hatch in 5-7 days.



CATFISH

NATURAL/LIVE BAIT



crayfish



minnow



earthworms



small sunfish

PREPARED BAITS



hearts and liver



cheese



stink baits



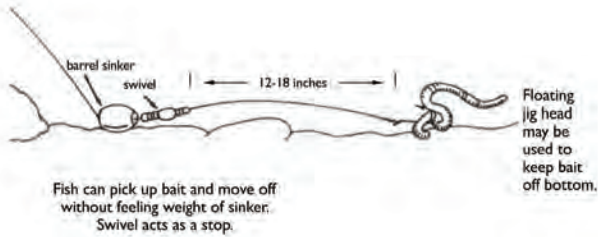
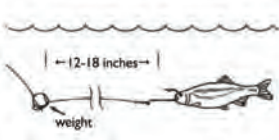


How to Rig

There are several ways to rig line to catch catfish. These work in both moving and still water. Prepared baits also can be used with these rigs.

swift, shallow river

Use enough weight to get bait below waterline to the bottom.



Fish can pick up bait and move off without feeling weight of sinker. Swivel acts as a stop.

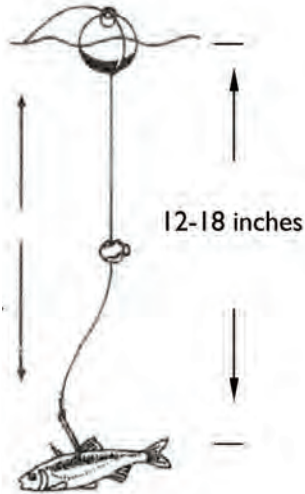
Floating jig head may be used to keep bait off bottom.

deep, slow-moving river



3-way rig

still water



Bobber with light sinker adjusted to a depth so the bait will be near the bottom.



CRAPPIE



Crappie Habitat



White Crappie

Range: Statewide.

Preferred Habitat: The two species of crappie are found in almost all waters with the exception of mountain streams.

They are more abundant in large impoundments, natural lakes and backwaters. White crappie are more tolerant of turbid conditions with the black crappie preferring clearer lakes.

Food Habits: Young crappie feed on invertebrates such as zooplankton and insects. When they reach a size of about 7 inches, fish become more prevalent in the diet. In large impoundments, adult crappie feed on threadfin shad and small gizzard shad throughout the year; however, they will feed extensively on mayfly nymphs during the summer months.

Spawning: As water temperatures approach 60° Fahrenheit, the male crappie will prepare a nest by fanning out a shallow depression on top of sand, gravel or mud in 2 to 8 feet of water. Nests range from 8 to 15 inches in diameter and are usually found in colonies, with as many as 30 nests found in a 9-square yard area. Females deposit from 3,000 to 15,000 eggs per spawn, but may spawn with several different males. Large females have the potential to lay up to 150,000 eggs. The male guards the fertilized eggs for 2 to 3 days until hatching after 2 to 3 days and continues to guard for an additional 3 to 4 days until fry leave the nest.



Black Crappie

Range: Statewide.

Preferred Habitat: Black crappie are found in vegetated areas of backwaters in streams, rivers, ponds and reservoirs. They prefer cool, clear waters.

Food Habits: Predominantly feed on small fish, but may also consume mussels, snails, crayfish, aquatic insects.

Spawning: As water temperatures approach 60 degrees Fahrenheit in late February to early May, male black crappie build their nests on top of sand, gravel or mud in shallow water. Females will deposit large amounts of eggs per spawn—3,000 to 15,000 eggs! Large females can lay up to 150,000 eggs. The male guards the fertilized eggs until they hatch and the fry leave the nest.





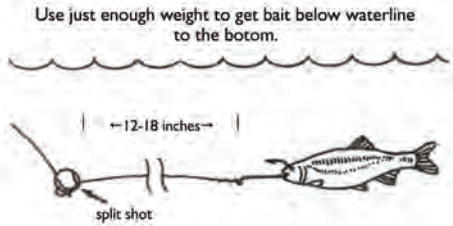
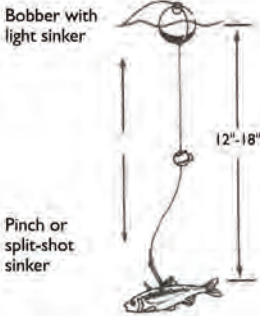
CRAPPIE

NATURAL/LIVE BAIT



minnow

How to Rig



Minnows can be hooked through the back, just before the tailfin or through both lips. Try to keep your minnow alive and moving to attract bigger fish.





CRAPPIE

ARTIFICIAL LURE

curl-tail jigs



tube jigs



lead heads



small crankbait



road runner



small spinner bait



hair jig



tinsel jig



critter jig



slider



beetle





TROUT



Trout Habitat



Rainbow Trout

Range: Mountain streams of Oconee, Pickens and Greenville counties. Also present in Lake Jocassee and the tailraces of lakes Murray and Hartwell.



Preferred Habitat: The rainbow trout prefers clear and cold waters (not in excess of 68 degrees Fahrenheit) in creeks, rivers, lakes and reservoirs. This habitat exists in tailraces of large impoundments or occasionally in the deeper waters of certain reservoirs. In a normal mountain stream habitat, rainbow trout will inhabit the faster moving waters such as at the head of a pool area.

Food Habits: Aquatic and terrestrial insects, crayfish and fishes.

Spawning: Rainbow trout spawning occurs in February and March in the riffle areas of South Carolina mountain streams. The females prepare nesting areas, called redds, by fanning out a shallow depression several inches deep. The eggs are laid, fertilized, covered with gravel and left unattended to incubate and hatch some 30-50 days later. Females are known to deposit eggs in several redds during the spawning process. Wild self-sustaining rainbow trout populations occur in South Carolina's mountain region, generally east of the Chattooga Ridge along the Blue Ridge Escarpment in streams with elevations from 1,300 to 3,000 feet. The South Carolina Department of Natural Resources has an active trout stocking program which expands rainbow trout fishing opportunities seasonally, particularly in lower elevation streams.

Brown Trout

Range: Mountain streams of Oconee, Pickens and Greenville counties. Also present in Lake Jocassee and the tailraces of lakes Murray and Hartwell.



Preferred Habitat: Brown trout can tolerate warmer water temperatures (not exceeding 68 degrees Fahrenheit for any extended period) than the brook and rainbow trout. Brown trout can be found in small creeks, rivers and reservoirs. They inhabit the deeper pools and undercut banks of these habitat types, seeking out areas of low light intensity. Brown trout are better competitors than rainbow and brook trout in larger streams with multiple species.

Food Habits: Aquatic and terrestrial insects, crayfish and fish.

Spawning: Brown trout spawn from October through November when the females deposit 600-3,000 eggs into a shallow nest called a redd.



Brook Trout

Range: Mountain streams of Oconee, Pickens and Greenville counties.

Preferred Habitat: Brook trout prefer small, cool, clear mountain streams with well-oxygenated water.

Food Habits: Aquatic insects, terrestrial insects, crayfish, salamanders, frogs and fish.

Spawning: Brook trout spawning occurs during October and November when water temperatures approach 50 degrees Fahrenheit. The female constructs the nest, called a redd, which is protected by both the male and female trout. The female brookie can lay from as few as 100 eggs to more than 5,000. Once the eggs are deposited, the male fertilizes them and the eggs are covered with gravel. The eggs hatch in approximately 50 days.





TROUT

NATURAL/LIVE BAIT



crayfish



earthworms



minnow



insect larvae

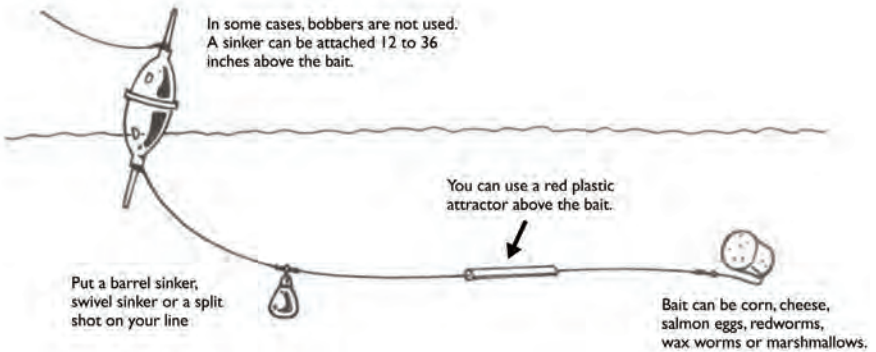


salmon eggs



scented bait

Technique for Using Natural and Prepared Bait



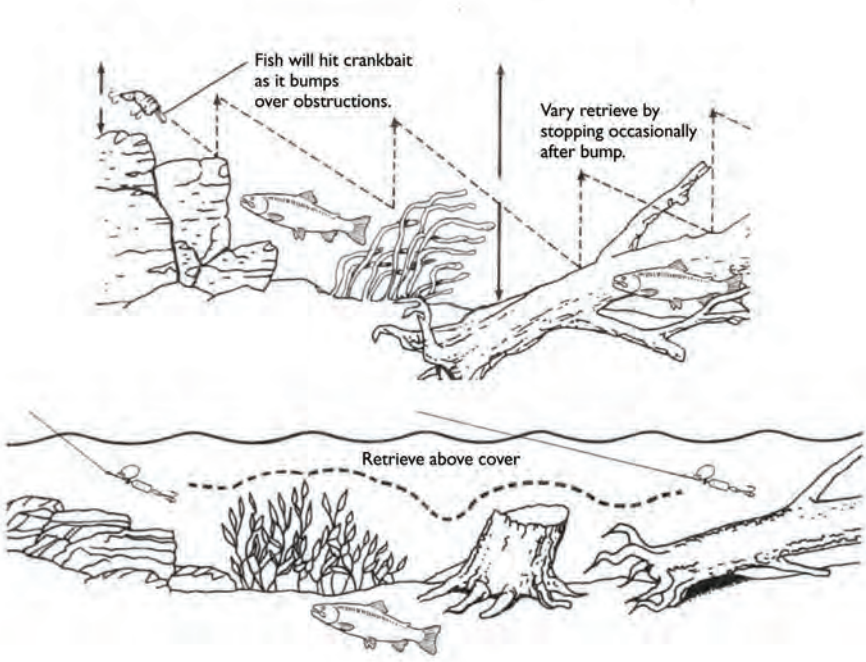


TROUT

ARTIFICIAL LURE



Technique for Using Natural and Prepared Bait





Aquatic Education Programs

The Aquatic Education Section of SCDNR offers FREE education programs on recreational fishing techniques, opportunities and angler ethics.

Here are some of the unique, fun fishing and learning opportunities available.

Reel Art

A component of the SC Reel Kids program, the Reel Art program is an art competition for kids in kindergarten through 12th grade. Kids learn about fish and their habitats while creating their fun, creative fish art. Deadline for the competition is March 1st of each year.

Youth Bass Fishing Clubs

SCDNR and The Bass Federation of SC have teamed up to help bring youth bass fishing clubs to schools around the state. Students can establish school bass fishing clubs to compete for prizes, scholarships and more on a club, state and national level

Family Fishing Clinics

Family Fishing Clinics are an introductory class to fishing. Families with kids ages 4 and up can learn how to tie fishing knots, rig a rod and reel, cast and try their hand at fishing.

Fishing Tackle Loaner Program

The tackle loaner program has sites all around the state in various state and county parks that allow adults, kids and families to try their hand at fishing. Checking out a rod, reel and tackle is free. Bring your own bait and pay the park entry fee and the fishing fun is free!

To learn more about these education programs, visit www.dnr.sc.gov/aquaticed for more information or call 803-737-8483 or email aquaticed@dnr.sc.gov.



References

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- Maas, Dave, et al. The Complete Guide to Freshwater Fishing. Creative Publishing International Inc., 2002.
- Texas State. Texas Parks & Wildlife. A Basic Guide for the Beginning Angler. 2008.
- A special thanks goes to the Texas Parks and Wildlife Department, Wisconsin Department of Natural Resources and the Arkansas Game and Fish Commission for the use of their artwork.