



Learn to Fish



**A Basic Guide for
the Beginning Angler**

WELCOME TO FISHING IN TEXAS!

Life's better outside. Learning to fish is an inexpensive and wonderful way to spend time outdoors with family and friends. You may find yourself sitting on the bank of a river or pond using a cane pole with a bobber and worm, or using a fully rigged boat with state-of-the-art equipment. Either way, with some basic knowledge, you can begin a safe, fun and relaxing hobby, and create a lifetime of memories.

In the next few pages, you'll find tips to improve your skills to have an exciting and successful fishing trip. You'll also learn how you can help protect our state's precious aquatic resources.

Support the Sport

Buy a fishing license and fish responsibly.





Learn to Fish

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Learn to Fish

Hooks

Hooks come in an assortment of sizes and styles. Circle hooks are great for beginners and safe for fish. If you plan to release your catch, use barbless hooks or bend down the barb to make it easier to remove the hook. Choose the size of hook for the species of fish you are trying to catch and the type of bait you are using. Ask a seasoned angler or a bait and tackle dealer for suggestions.

Line

Fishing line comes in pound-test (the line size or strength). The larger the line size the stronger it is. Six-pound test line is more flexible but is not as strong as 12-pound test line. Match your fishing line to your rod and reel capability and the species of fish you want to catch. Using heavier line or higher pound test than needed may reduce the number of hits or strikes you get because heavier line is more visible to fish.

Sinkers

Sinkers are weights used to cast your bait, take bait to the bottom, hold bait in place, or keep your bobber upright. Use lead-free sinkers when possible. Sinkers are designed in several different shapes and sizes for various types of fishing techniques. They range in size from small (a fraction of an ounce) BB split shot to large five-pound weights used in offshore fishing. For a basic tackle rig, place your sinker approximately four inches above the hook to allow live bait to look natural to the fish.

Bobbers

Bobbers are used for three reasons. They keep your bait where the fish are biting, they keep bait off the bottom, and they let you know when you're getting a bite. Bobbers come in various shapes and sizes, and some are lighted or make noise. Most bobbers are spring-loaded and attach to your fishing line with a clip; some allow the line to slip through for slip-cork fishing where the bobber adjusts for water depth.

FISHING RODS**3**

Rods come in several varieties, each with its own advantages. Choosing a rod is a personal choice. You can fish with a can and string or a fancy rod and reel. One of the simplest and easiest fishing rods is the cane pole.

Cane Poles

Cane poles are simply a pole or straight rod with a fishing line tied on to it. Use cane poles mainly for shoreline fishing since you're restricted to depth and distance you can reach. Cane poles can be made of bamboo, fiberglass, graphite or even a straight tree branch. Cane poles are easy to use and inexpensive.

Spincasting and Baitcasting Rods

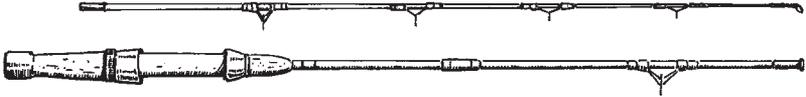
FINGER GRIP OR STRAIGHT HANDLE
LINE GUIDES ON TOP

Casting rods have “spincast” or “baitcast” reels and line guides mounted on top. Spincast rods are easy to handle and perfect for beginners. These rods have straight handles and small line guides. Spincast tackle is the most popular. Baitcasting rods have either a finger-grip or straight handle. The baitcast rod with its more complex reel is more difficult to control and is better suited for an experienced angler.



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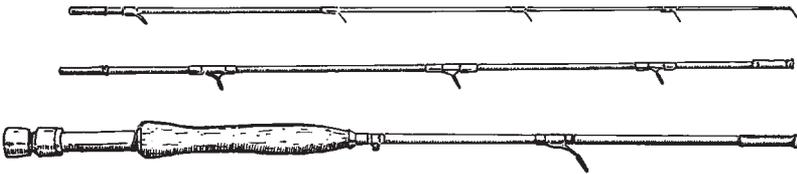
Spinning Rods



STRAIGHT HANDLE, LINE GUIDES ON BOTTOM

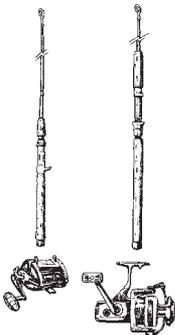
Spinning rods have straight handles with large line guides and reels mounted on the bottom. Spinning reels cast quickly and long distances, making this rod suitable for all types of freshwater and saltwater fishing.

Fly Rods



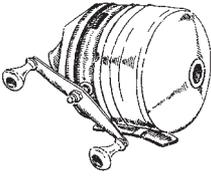
LONG FLEXIBLE ROD, LINE GUIDES ON BOTTOM

Fly rods are very long, flexible rods. In flyfishing, you cast the line, not the lure. You'll see anglers develop almost artistic casting techniques, adding to the appeal of the sport. Line guides and reel are mounted on the bottom of the rod. Fly rods come in various weight classes and lengths, suited for different locations and fish.



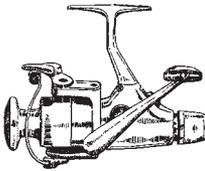
Saltwater Tackle

Going after saltwater fish involves a little change in the strength of the equipment. The rods, reels, hooks, line and lures or baits vary just as in freshwater fishing, but they can be stronger and heavier, built to withstand larger fish and natural or artificial structures.



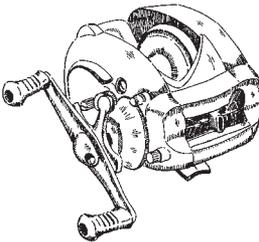
Spincast

This popular reel is ideal for beginners but used by experienced anglers as well. Known as a “closed-faced reel,” it’s the easiest reel to use.



Spinning

This “open-face reel” mounts under the rod. Fishing line spools off quickly allowing longer casts and is preferred for lighter baits and lures.



Baitcast

Baitcast tackle is suitable for all types of fish and fishing. The spool turns when you cast, however, and can entangle the line if not properly adjusted. You’ll need to practice with this model.



Fly Reel

The fly reel is designed to allow fluid movement of the fishing line. This reel is mounted on the bottom of the rod. Reels come in different sizes and should match the rod size.



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CASTING TIPS

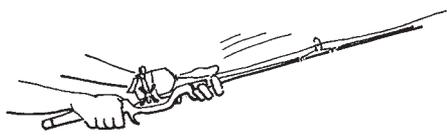
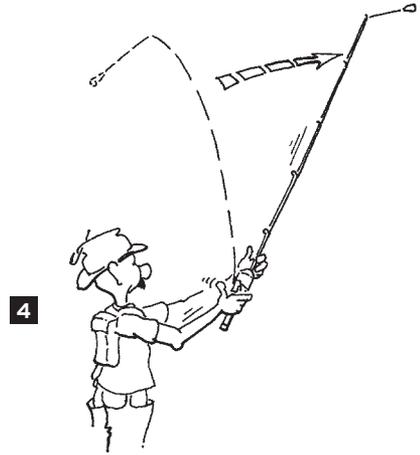
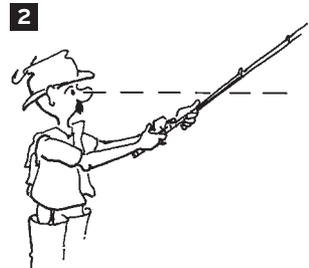
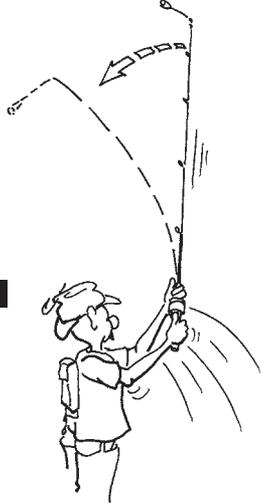
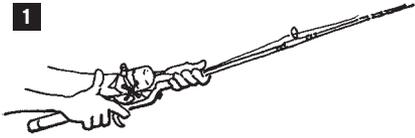
Spincasting

A spincast reel has a button that you push with your thumb to release the line.

1. Grasp the rod's handle with one hand. Push the reel's thumb button down and hold it in.
2. Face the target area. 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 or weight. 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 plug landed close in front of you, you released the thumb button too late. If the plug went more or less straight up, you released the thumb button too soon.

SPINCASTING





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CASTING TIPS

Spinning

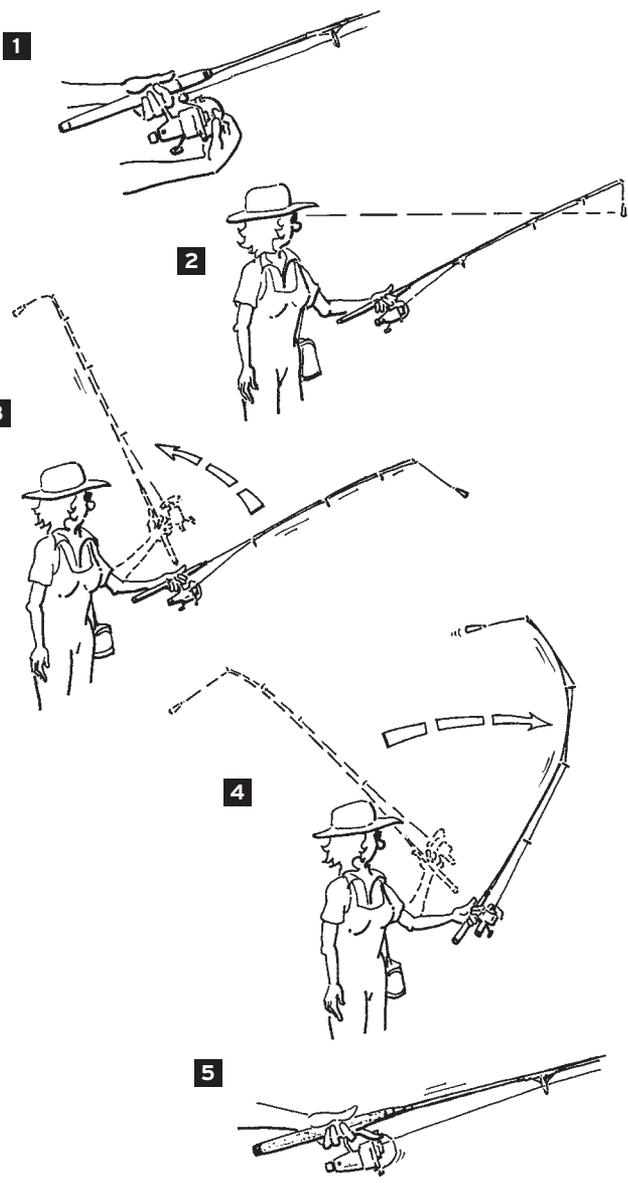
With a spinning reel, you use your finger to release the line.

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 hold the line against the rod. Open the reel's bail with your other hand.
2. Face the target area. 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 practice plug. 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.
6. Many reels will automatically flip the bail as you reel in, use your hand to flip the bail back before reeling in.

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

CASTING TIPS

SPINNING





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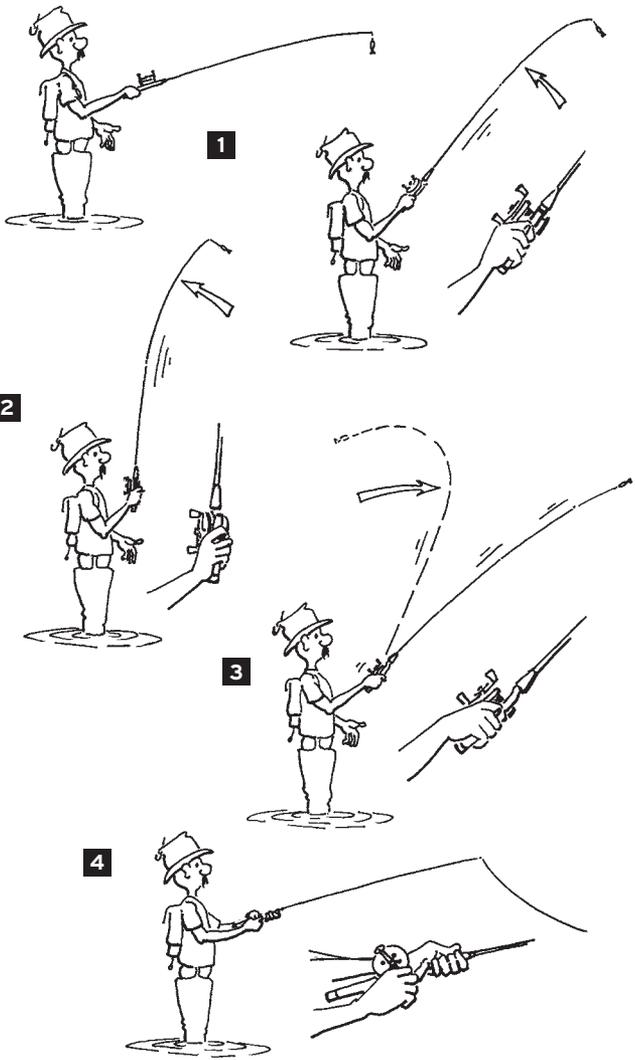
Baitcasting

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 finger 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 practice 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 cast. 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. 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. The moment the practice plug hits the ground, quickly place your thumb back on the spool to stop line from spinning in the reel and reduce backlash.

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

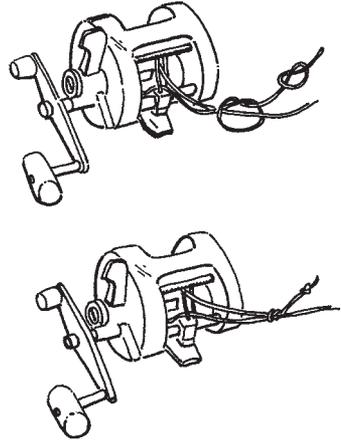
BAITCASTING



Arbor Knot

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

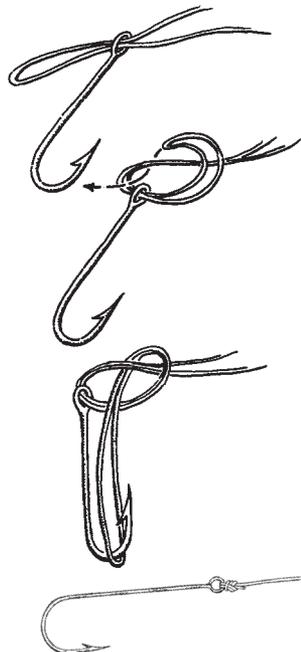
1. Pass the line around the reel arbor (spool).
2. Loosely tie an overhand knot around the main line.
3. Tie a second overhand knot in the tag (loose) end, tighten and clip off the excess line.
4. Wet the line, pull the main line to slide the main knot against the reel spool.



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 above the hook eye.



KNOT TYING

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 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.

Clip the loose end of the line.

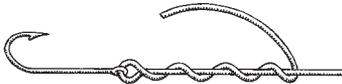
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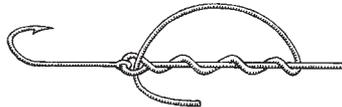
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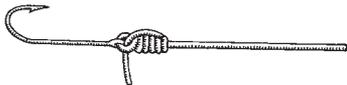
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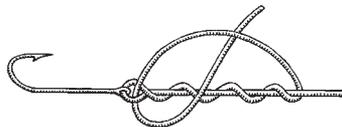
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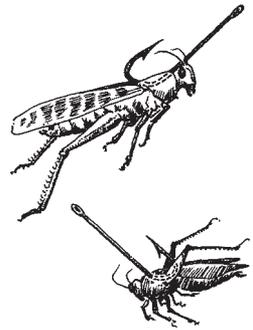
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Always check current fishing regulations to make sure your choice of bait is legal.

COMMON FRESHWATER BAITS

Crickets and Grasshoppers

These are excellent choices for sunfish, bass and catfish. Both of these insects can be caught by hand or with an insect net. Look for them in thick, tall grass or at night under lights. Laying a cloth, towel, cardboard or newspaper on the grass will attract crickets. You want to use small hooks for sunfish (#6-#10) and medium-sized hooks for bass and catfish (#1 or #2). Make sure the point of the hook is completely covered to increase bites.



Worms

Whether it's an earthworm, red wiggler or nightcrawler, worms are a favored choice for the majority of freshwater fish in Texas. You can either raise your own in a compost pile, dig them from your garden or purchase from bait shops and fishing tackle stores. Remember to cover the point of the hook when fishing for sunfish to keep them from pulling the worm off the hook. Store live, leftover worms in the refrigerator for the next time you go fishing.

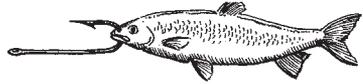


NATURAL AND LIVE BAITS

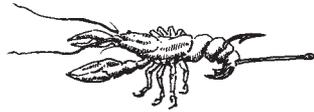
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Minnows

Varieties of minnows and other bait fish are used to catch both fresh and saltwater fish. Keep minnows in an aerated minnow bucket and don't crowd them. Remember to change the water often to keep the minnows lively. Hook them through the lips or under the dorsal fin. Avoid hooking through the backbone because this will kill the minnow. See the Outdoor Annual for bait regulations.

**Crayfish**

Crayfish, known as crawfish, crawdads or mudbugs, are used for catching large-mouth and smallmouth bass, white bass, catfish and freshwater drum. They can be caught in small ponds, roadside ditches or where depressions hold water frequently and usually after a rain. These can be fished either live, dead or using just the tail. Hook through the underside of the tail so the point protrudes through the top. Catfish and freshwater drum don't mind if it's alive or dead. Grasp the crayfish, and pull the tail away from the head, threading the hook through its tail or both sides of body. Freshwater drum prefer crayfish to any other type of live or dead bait.

**PREPARED BAITS**

From homemade recipes to commercially-made baits, these are primarily used for catching bottom-feeding fish like catfish and carp. Choices include canned corn, stink bait, cottonseed cake, hot dogs, dough balls – the list is endless. Fishing with treble hooks works best to keep the bait on the hook. Do not use treble hooks for catch and release fishing or with young children.



Learn to Fish

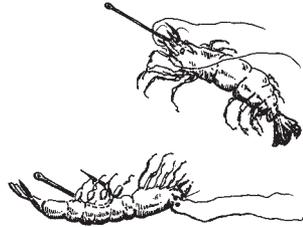
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NATURAL AND LIVE BAITS

COMMON SALTWATER BAITS

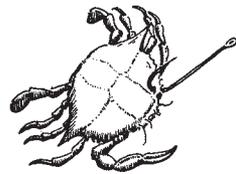
Shrimp

Shrimp is a popular choice for fishing in fresh and saltwater. **ONLY USE SHRIMP NATIVE TO THE GULF OF MEXICO** (see bait regs). Shrimp can be either alive or dead. Hook live shrimp under the rostrum "horn" on the head. Peel or leave the shell on fresh dead shrimp for fishing on the bottom.



Crab

Different species are used for saltwater fishing to catch sheepshead, red drum, black drum, cobia and snapper. Sheepshead and snapper go after hermit and fiddler crabs hooked through the body. Black drum and cobia have a liking for blue crabs. Break in half or quarters for black drum and hook through the body sections. Use small, whole, live blue crab for cobia by removing the pinchers and hook through the body.



Squid

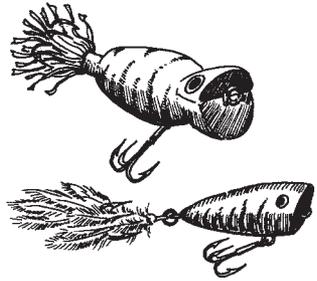
You can purchase dead squid for saltwater bottom-fishing. Fish such as gafftopsail catfish, and snapper are good examples. Hook the squid two or three times in and out through body to avoid small fish stealing the bait.

Both fresh and saltwater anglers use lures to catch a variety of fish. There are many types of fishing lures with various patterns, sizes and colors. "How to" instructions may be on the package or videos can be found online. When selecting a lure, consider where the fish you are targeting can be found in the water column.

Plugs and Crankbaits

black bass, crappie, striped, white and hybrid bass, seatrout, red drum, flounder and several offshore species

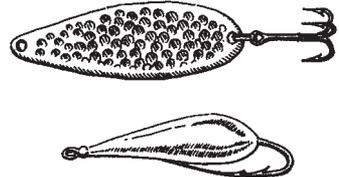
Plugs and crankbaits can be made of various materials such as plastic, wood and sometimes cork. They are classified as topwater or diving (shallow, medium and deep diving). Most plugs and crankbait lures have two treble hooks attached to cover the fish's striking area. Some have crankbaits also make noise.



Spoons

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 behind the moving boat). Many anglers attach a swivel to the spoon to prevent it from twisting their line during retrieval.



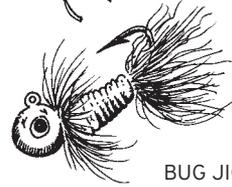
Jigs

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. They fish in the water column depending on how long you let them sink and how fast you retrieve them.



RUBBER SKIRT

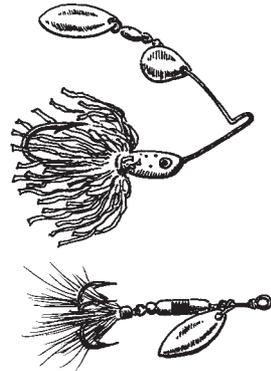


BUG JIG

Spinnerbaits

black bass, rainbow trout, 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. They fish in the water column depending on how long you let them sink and how fast you retrieve them.

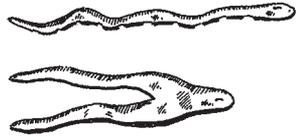


LURES

Soft Plastics

black bass, seatrout, red drum and flounder

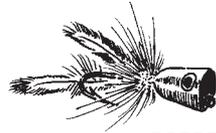
Soft plastics are pliable lures made into worms, grubs, lizards, crayfish, minnows, shrimp, crabs and many others, resembling what fish eat. Plastics are available in different sizes, colors, and some with fish-attracting scent. They can be used with or without bullet weight sinkers, jig heads or spinnerbaits.



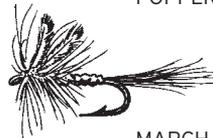
Flies and Poppers

almost all common sport fish will strike a fly or popper of some variety

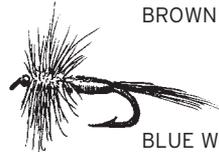
Flies and poppers are small, very light, almost weightless lures used primarily for flyfishing. A spincast or spinning rod and reel outfitted with a "bubble" (clear bobber) placed four to five feet above the lure works well if you don't have a fly rod. These lures are excellent for sunfish and bass,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



POPPERS

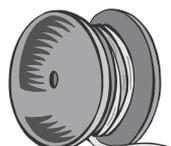
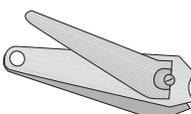
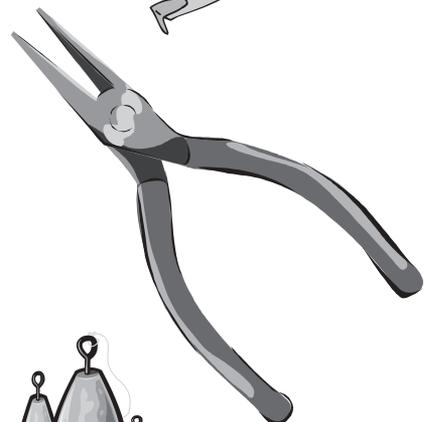
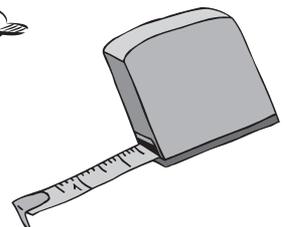
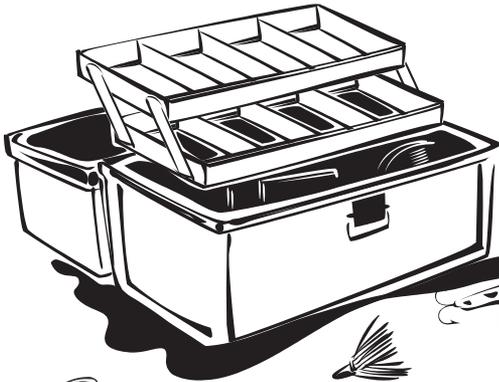


MARCH BROWN



BLUE WING OLIVE

What You'll Need in Your Tackle Box



WHAT GOES IN THE TACKLE BOX

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Pliers

Line or nail clippers (to clip line)

Small first aid kit

Hooks (various sizes, depending on the type of fish you are targeting)

Bobbers

Weights (sinkers)

Snap swivels (optional)

Artificial lures

(plugs, spinners, spoons or soft plastics)

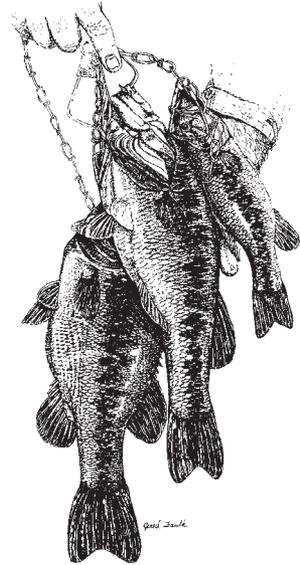
Stringer or ice chest with ice, to keep fish from spoiling
(if you plan to keep and eat the fish)

Measuring tape

Outdoor Annual book or app - Rules and regulations

Fish identification card or booklet

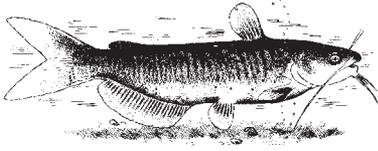
Small spool of monofilament fishing line



Selection of artificial lures will depend on what fish you are targeting. When selecting artificial lures, it is wise to choose lures that are designed to fish at different water levels, such as top water poppers and diving plugs.

Other items to take along with you on your fishing trip:

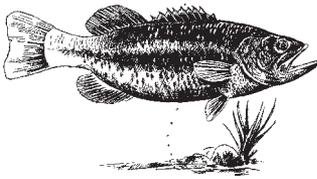
- Cell phone and/or camera
- Bug repellent and sunscreen
- Fish net (with rubber coating), fish grabber or fish gloves



Channel Catfish

Ictalurus punctatus

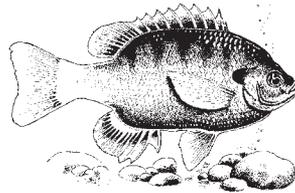
Fishing Tips: Most active in the evening or early night. Easily attracted and caught during the day by baiting holes with soured grain, cottonseed cake, hard dog food or alfalfa cubes. Use worms, cutbait, shrimp, liver, blood or stink baits.



Largemouth Bass

Micropterus salmoides

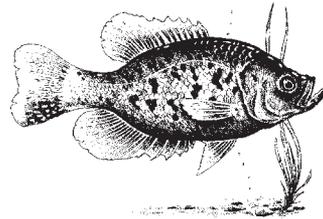
Fishing Tips: They will strike artificial baits including crankbaits, spinner baits, jigs, soft plastics, spoons, flies and other various live bait look-alikes. Largemouth bass relish live baits such as minnows, earthworms, crawfish, leeches, frogs, lizards, insects and even small mice when the opportunity offers itself.



Bluegill

Lepomis macrochirus

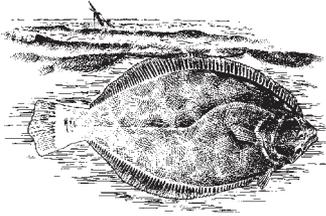
Fishing Tips: The simplest of tackle is all that is needed to catch these feisty, hand-sized fish. Preferred baits are worms, crickets, mealworms, small jigs, spinners, miniature insect crankbaits or flyfishing tackle (i.e., flies, poppers, worm imitations, etc.).



Black Crappie

Pomoxis nigromaculatus

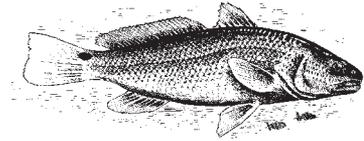
Fishing Tips: Black crappie are fond of small minnows, small streamer flies, small marabou or plastic jigs and worms.



Southern Flounder

Paralichthys lethostigma

Fishing Tips: Fish with live finger mullet, mud minnows, live shrimp or artificial lures close to the bottom. May also be gilled in shallow water along reefs or shorelines during low moon phases with a tide movement using a lantern or some other artificial light.

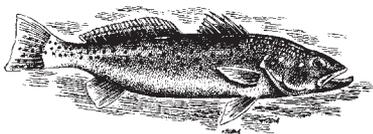


Red Drum

Sciaenops ocellatus

Fishing Tips: Use live finger mullet, cut mullet, live croaker, live or dead shrimp and lures fished close to the bottom. Gold and silver spoons also work well.

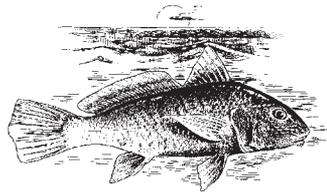
Note: There are stocked red drum in a few of our freshwater impoundments.



Spotted Seatrout

Cynoscion nebulosus

Fishing Tips: Use live shrimp, live finger mullet, live croaker or artificial baits (i.e., shrimp/shad imitations).



Atlantic Croaker

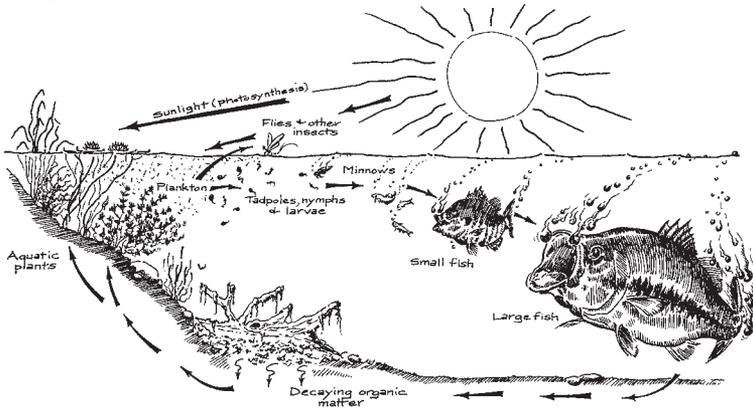
Micropogon undulatus

Fishing Tips: Offer peeled shrimp fished close to the bottom. In fall, catch larger fish during migration to the Gulf.



Aquatic Food Chain

Knowing where fish live and what they eat will improve your chance of catching a fish.



Texas Farm Ponds

Farm ponds are common in Texas. They vary widely in size, water quality and the habitats they offer aquatic life. Most are less than an acre in size, but even these small ponds can be home to sport fish like largemouth bass, sunfish and catfish.

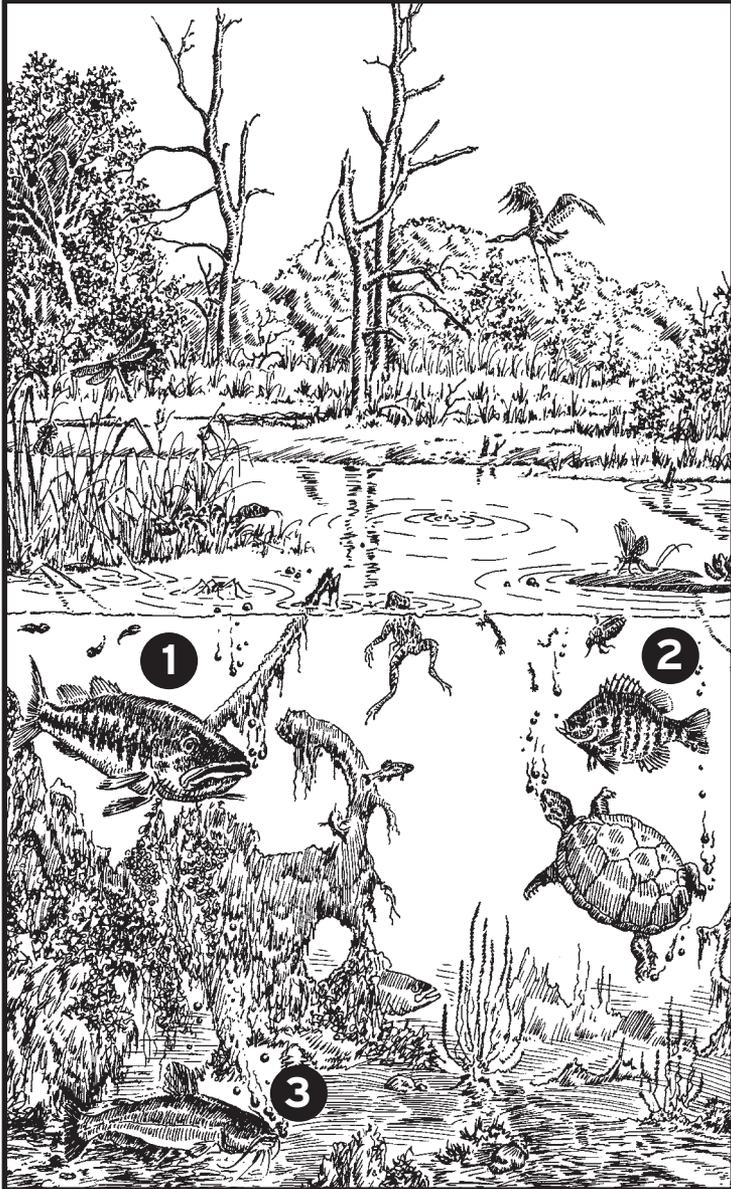
Good fishing requires good pond management. Careful stocking and proper harvest help maintain the balance of predatory fish and their prey. Control of aquatic plants keeps a balance between shelter and open water.

Texas Parks and Wildlife Department does not provide stocking or on-site consulting services for private lakes and ponds. However, resources are available to landowners who want to manage ponds for fishing. You'll find some useful links and tips on where to get more information.

www.tpwd.texas.gov/landwater/water/habitats/private_water/

Can you identify the numbered fish in the illustration?

(Answers are in back)



POND LIFE



Learn to Fish

Texas Hill Country Streams

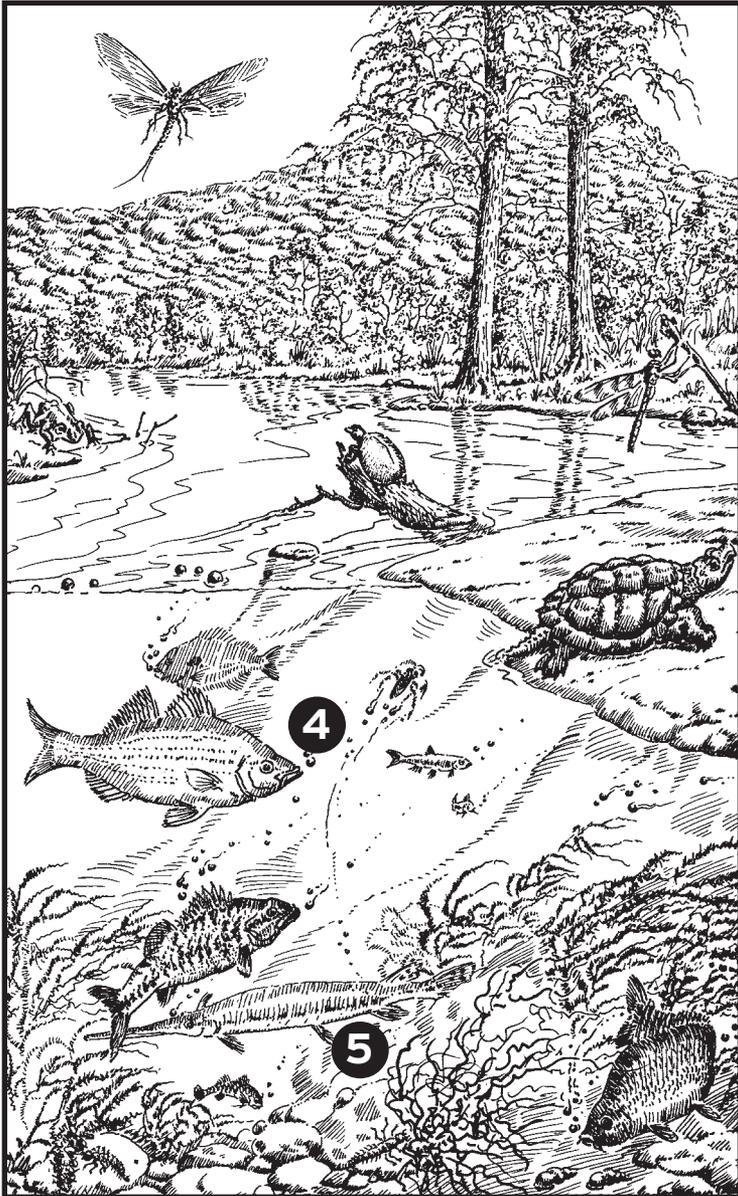
Many of the streams that run swiftly through the rocky, tree-shaded hills of Central Texas are fed by springs. These streams are home to many species of fish, amphibians, plants and insects, which depend on a steady flow of clean water for survival. Some of these species (salamanders in particular) are found only in these special spring-fed environments. Our state freshwater fish, the Guadalupe bass, is found in several streams and rivers of Central Texas.

Hill Country streams provide good cover for fish with tree roots, branches and other vegetation along the edges and uneven, rocky bottoms. Insect larvae like to hide under rocks to catch bits of food in the current. These larvae, in turn, become food for fish. Many fish lay their eggs in the streams' shallow, gravelly riffles. Anglers can expect to catch bluegill, bass and catfish in the Hill Country on a variety of baits and lures.

Hill Country streams have always been popular among people who love to fish, paddle, swim or watch nature. Many community groups have organized to help keep these streams clean, healthy, and flowing through wise water use and land use planning.

Can you identify the numbered fish in the illustration?

(Answers are in back)



A TYPICAL HILL COUNTRY AQUATIC COMMUNITY



Learn to Fish

East Texas Streams

Streams wander between the hills and across the plains of East Texas, through banks lined with pines, hardwoods and brush. Leaf litter and muddy bottoms cause the water to be cloudy, but they also add vital nutrients, providing for a healthy ecosystem.

East Texas streams include a number of different habitats – riffles, runs, open water pools and sloughs, as well as oxbow lakes (remnants of streams cut off from the main channel). Seasonal flooding of nearby bottomlands provides yet another habitat for the catfish, sunfish, bass and other species that thrive there. Catfish are especially adapted to this environment and can be caught by fishing near the bottom using worms, stink-bait, chicken liver or shrimp native to the Gulf of Mexico.

West Texas Streams

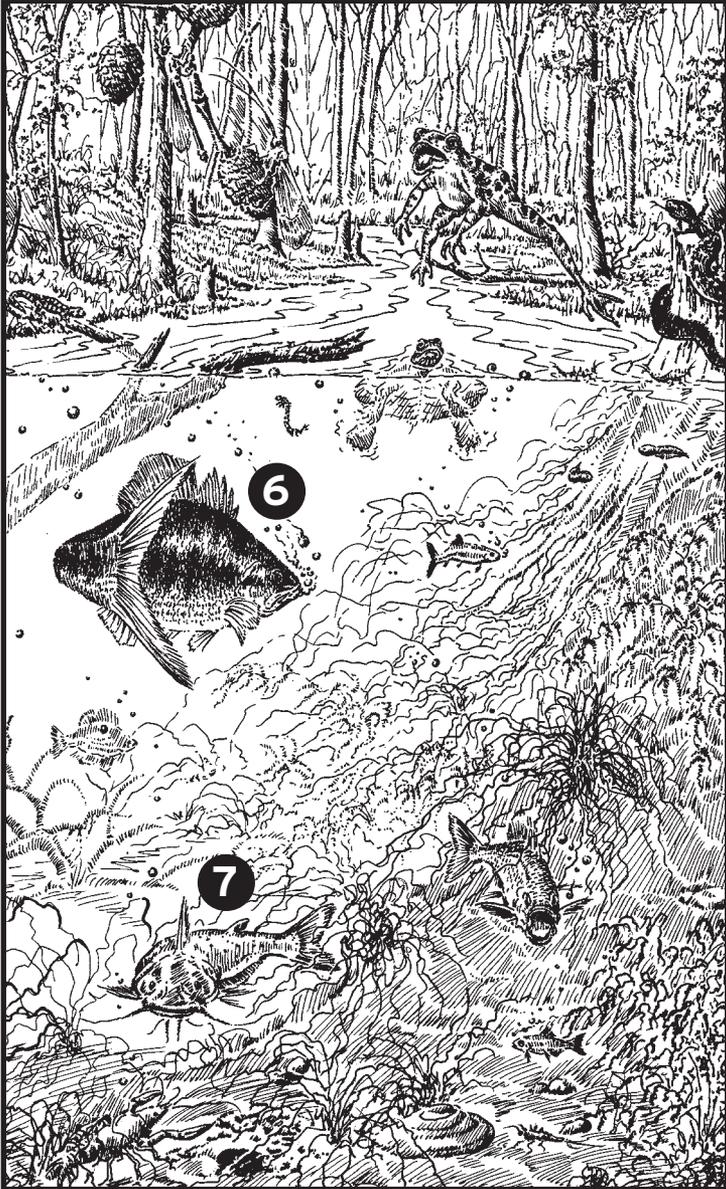
West Texas streams are part of a very fragile ecosystem, dependent upon a scarce water supply, often fed by springs. As in other parts of the state, these streams provide a variety of habitats, from shallow, swift-flowing areas to deeper, slow-moving pools supporting a variety of fish, reptiles, amphibians, insects and mammals. Because water is scarce in West Texas, the riparian areas (banks of a river, stream or lake) teem with wildlife.

Save Water for Wildlife

You can make a difference by caring for the creeks and rivers that run through your neighborhood. Conserve water to preserve aquifers and keep springs and streams flowing. Keep litter and pollutants from getting into the streams by disposing of litter and pollutants properly. Protect vegetation along stream banks and do not disturb streambeds to help provide cover and food for fish.

Can you identify the numbered fish in the illustration?

(Answers are in back)



A FRESHWATER RIVER AQUATIC COMMUNITY



Learn to Fish

Reservoirs

Did you know that Texas has only one natural lake – Caddo Lake? All other lakes are “reservoirs,” made when streams or rivers are dammed for flood control, public water supply, electric generation, irrigation and recreation.

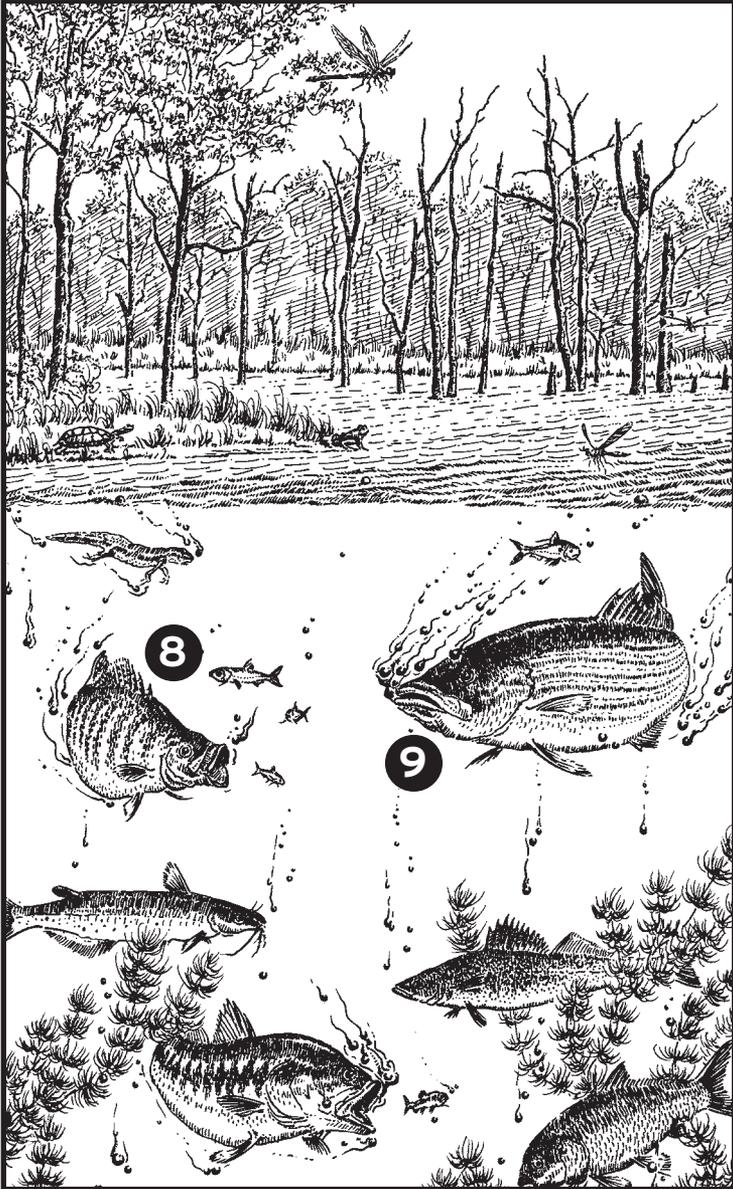
Texas reservoirs vary in size, shape, depth and clarity across the state. In the west, they tend to be broad, flat, shallow and somewhat cloudy with sediments, their water level changing with amounts of rainfall. Central Texas reservoirs are often steep-sided and deep. These waters are relatively clear, depending upon amounts of storm water run-off. Water levels can fluctuate dramatically on some lakes during drought and flood events. East Texas reservoirs are shallow and relatively clear with a more constant water level.

Each reservoir’s combination of water, aquatic vegetation and substrate, or bottom, provides habitat for fish and other aquatic organisms. The fish draw anglers who support a statewide, multi-billion-dollar sportfishing industry.

Many reservoirs are stocked with fish such as striped bass, largemouth bass, crappie and catfish. Anglers use a wide variety of tackle and fishing techniques. Check with local marinas and bait shops for current fishing forecasts and tips. You can also check the weekly fishing reports on the Texas Parks and Wildlife website:
www.tpwd.texas.gov/fishreport

**Can you identify the numbered
fish in the illustration?**

(Answers are in back)



AQUATIC LIFE IN A RESERVOIR



Learn to Fish

Coastal Habitats

You can fish on the Texas Coast in many places. You can paddle or wadefish in the bays, fish from a jetty or pier, surf fish, or go deep sea fishing on a charter boat.

Spotted seatrout, red drum and southern flounder are a few of the more popular species to catch. Anglers use croaker, finger mullet, shrimp, squid and blue crab for bait along with a variety of lures.

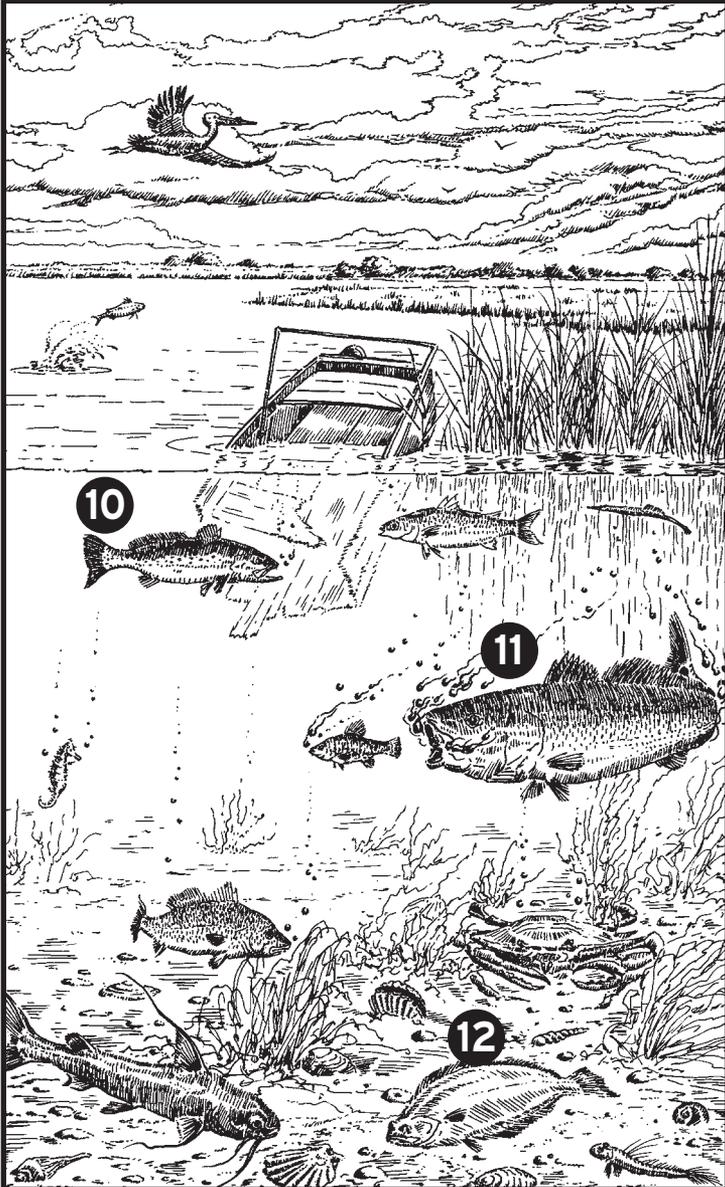
Bays and Marshes

Coastal wetland habitats contain the largest diversity of plants and animals of any aquatic ecosystem. In the bays, water is salty, but fairly shallow, with seagrass beds providing important cover for fish, crabs, shrimp and shellfish. Sandbars, spoil islands and shell reefs also provide structure. Tidal movements influence the feeding activity of all species.

At the mouths of rivers and streams, the water is less salty with cattails and salt-tolerant reeds providing cover. The flow of freshwater helps maintain a fragile balance of water chemistry that many plants and animals have become adapted to and dependent upon. These areas are the nurseries for many saltwater fish, crabs, shrimp, and shellfish and their importance can't be overstated. In addition to aquatic species, coastal wetlands also support a diversity of bird life. Songbirds migrating in the spring often travel great distances across the Gulf of Mexico before landing safely on Texas shores. Sadly, coastal wetland habitats are being destroyed at an alarming rate as a result of development, decreases in water quality and other threats. Communities and resource professionals are teaming up to conserve these productive habitats.

Can you identify the numbered fish in the illustration?

(Answers are in back)



COASTAL BAY AND MARSH HABITAT



Learn to Fish

Good Habitat Equals Good Fishing

Food

Food sources vary for different species of fish. What natural food does the fish you are trying to catch like to eat? (See pages 14-19.) Where would you find its natural food? Use a natural bait or artificial lure to mimic their prey or food preference and cast your line where the prey would be naturally found.

Oxygen

Dissolved oxygen is introduced into the water by photosynthesis from plants and algae, and as water mixes with the surface air when it tumbles over rocks, or wind creates waves. Cold water holds more oxygen than warm water. In the summer, when the water is warmer, fish may hang out in deeper water where the water is cooler and there is more oxygen.

Water

Water quality is important and sometimes difficult to determine by just looking. "Clear" looking water may have harmful chemicals or lack plankton and other nutrients for fish. Some species like catfish have adaptations and can thrive in muddy water while others prefer moderately clear waters.

The physical (temperature) and chemical (pH and salinity) properties of water, along with the biodiversity of plant and animal life all play a role in a healthy habitat that is ideal for fish. Look for a fishing spot that has good biodiversity.

Shelter

All fish need "structure" such as rocks, stumps, aquatic plants, and piers to provide cover from bright sun, predators and to hide out and wait for prey. If the water is flowing, try fishing downstream below one of these structures.

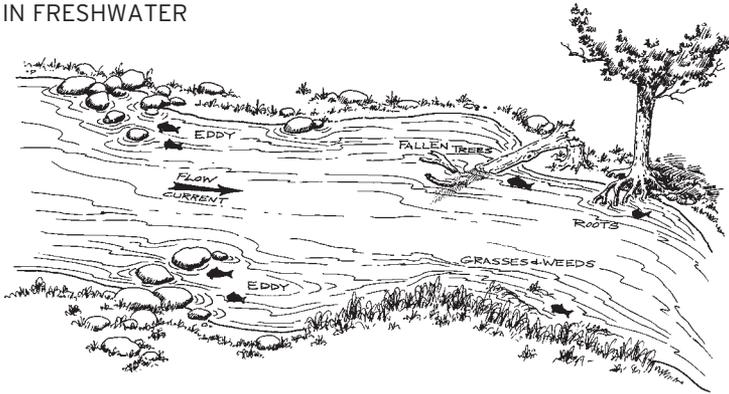
In saltwater, fish deal with currents and tides. Near the shoreline, find a fishing spot down-current from structures such as jetties, piers, and rocks where fish are somewhat protected and can catch food floating by. In bays and other shallow areas, seagrass beds provide good cover for small fish, crabs, and shrimp. These organisms attract larger predatory fish like spotted seatrout and red drum.

Space

What type of habitat does the fish species prefer? Shallow or deep water? Still, slow or fast-moving water? Good fish habitat has enough space to raise their young and provide a good arrangement of structure for protection and rest, not only for them, but for their prey species as well.

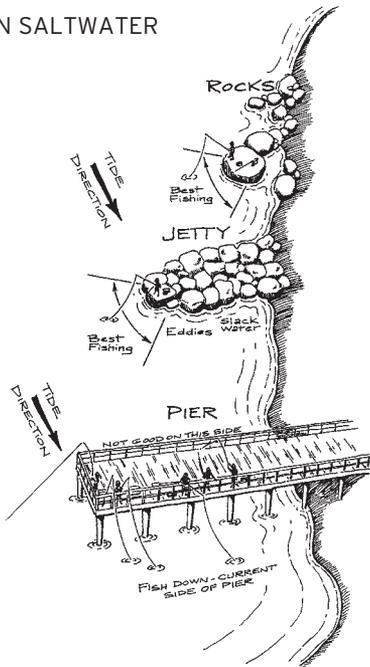
FINDING GOOD FISHING SPOTS

IN FRESHWATER



IN SALTWATER

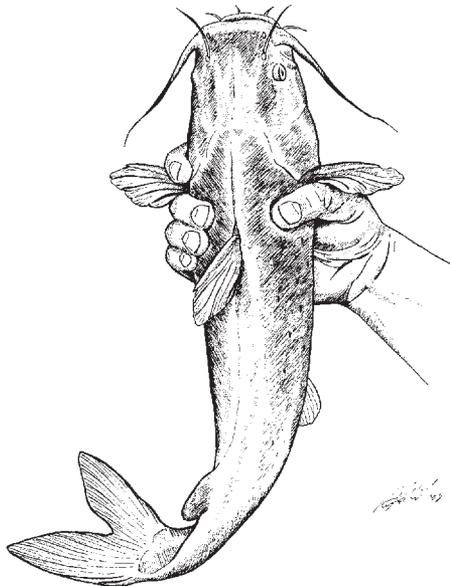
Try fishing down-current from "structures" such as rocks, trees and stumps, jetties and piers.



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. Use fish gloves, a fish grabber or rubber fish net to safely land your fish. Learn by watching an experienced angler, but keep the following rules in mind:

1. 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's skin from disease and makes it glide easily in the water.
2. Don't allow fish to flop around on the bank, the dock, or the floor of the boat. If keeping fish, put them on ice or in a bucket of cool water.
3. If you are not keeping the fish, take the fish off the hook as soon as possible. Gently lower it into the water tail first 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.
4. If you are not keeping the fish, using barbless hooks can make it easier to take the fish off the hook.

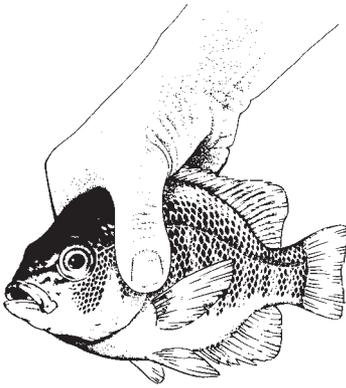
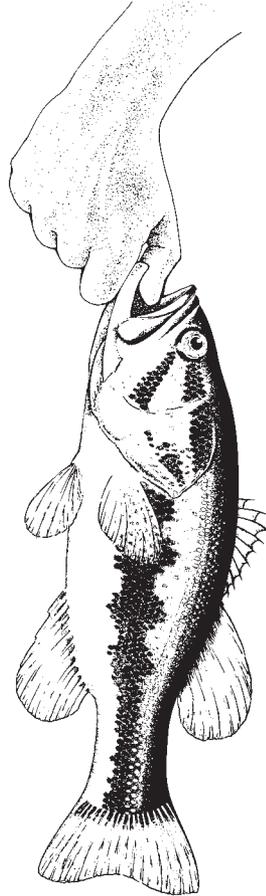
CATFISH



HOW TO HANDLE FISH

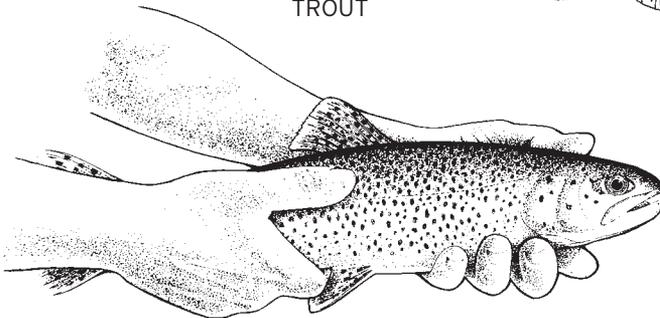
BASS

For bass three pounds or more, support its body with both hands.



SUNFISH

TROUT





Learn to Fish

38

HOW TO CLEAN FISH

It's fun to clean and cook your catch. Many fish cleaning how-to videos and delicious fish recipes can be found online.

Keep your catch fresh. Put the fish on ice. If keeping for an extended period or overnight, remove the insides and gills to reduce spoilage. There are three ways to clean your fish:

- Filleting
- Skinning
- Scaling

Always cut away from yourself.

To fillet a fish:

Use a cutting board and sharp knife.

1. Lay the fish on its side on a flat surface and hold the fish head with one hand.
2. Place the knife behind the gill cover and cut through the skin and flesh down to but not through the backbone, then work the knife toward the tail. Keep the blade flat and tight against the bones.
3. Place skin side down. Hold the tail with one hand, work the knife along the skin. Cut until the fillet is free from the skin.
4. Repeat the above steps for the other side of the fish.

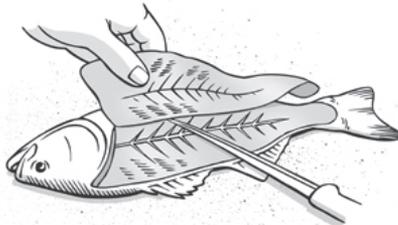


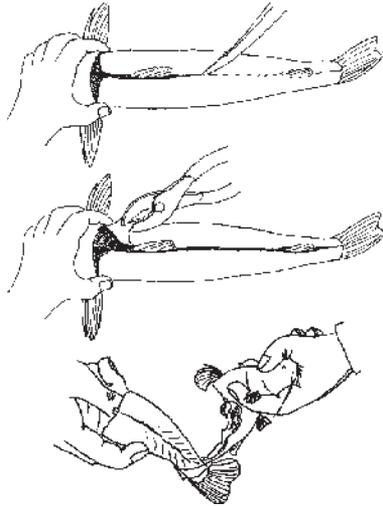
Illustration by Clemente Guzman, TPWD

HOW TO CLEAN FISH

To skin a catfish:

Use a cutting board, sharp knife and pliers.

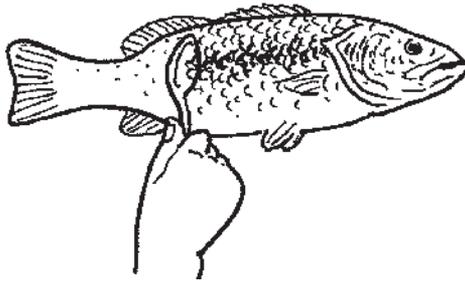
1. Use the knife to cut around the head and down the dorsal to the tail.
2. Use the pliers to pull the skin back.
3. Remove the head and insides.



To scale fish:

For most fish, you'll want to remove the scales if the skin is left on. Use a knife, fish scaler or large spoon.

Hold the fish by its tail and scrape from tail to head.



Catfish and scale illustrations by Linda Pohlod, courtesy of Wisconsin Department of Natural Resources



Learn to Fish

1. Youth should only go fishing under adult supervision.
2. Protect yourself from the sun and hooks. Wear a hat, sunglasses, sunscreen or sun-protecting clothing.
3. Keep at least one rod's length between you and the next angler; look behind you and to the side before casting to avoid hooking anyone or anything.
4. Consider fishing with barbless hooks or bend the barbs down with pliers. It is safer for us and the fish.
5. Wear a properly fitting life jacket and fasten it securely. Eighty-five percent of drowning victims would be alive today if they were wearing a life jacket.
6. To rescue a person who falls into the water: **REACH** the person with something they can hang on to; **THROW** a flotation device to them; **ROW** out to them if you are in a boat; and then **GO** – for help! Don't jump in and risk drowning yourself.
7. Use the "buddy system" when fishing. If something happens to you like slipping down a bank, your buddy can help.
8. Check the weather forecast before going outside (lightning or storms). When fishing in hot or cold weather, protect head, eyes, hands, feet, and skin from exposure to wind and sun. In hot months, wear light-colored clothing, hat, sunscreen, and take plenty of water with you. In cold months, wear layers of clothing, gloves, a knit hat and water-proof shoes.
9. If your line gets snagged when you have cast it out, gently jiggle your line back and forth and from side to side to loosen it. If you pull too hard, the hook and line could come loose with such force that it could fly back at you and hit you (or someone else).
10. Check fish consumption advisories (see the Outdoor Annual App).



Do the Right Thing

Ethics are the rules or values you use to help you choose behavior that is fair to others and to yourself. "Do the right thing" even when no one else is looking.

To decide if your behaviors are ethical, ask yourself the following questions.

- Is it legal?
- Would it be good if everybody did it?
- Would it make you proud?

Be Considerate of Others

1. Respect others fishing, swimming, or boating near you. Give others plenty of space, avoid loud voices and noises so all can enjoy the outdoors.
2. Respect private property and do not trespass; always know where you can fish legally.
3. Plan ahead and take a trash bag to pack out all litter, even if it's not yours.

Conserve Fish and Habitats

1. Play and land fish quickly. If you are not keeping the fish, gently place them back in the water as quickly as possible. (See Handling Fish on pages 36-37)
2. Fish can become stressed during extreme weather (heat or cold, droughts and floods), wait until conditions improve to protect the fish populations.
3. All native fish (even the ones you may consider nuisance fish) play important roles in the habitat.
4. Recycle fishing line and other items when possible.

Did you know?

A major cause of injury for fish and wildlife in and around waterways is getting tangled in abandoned fishing line or eating plastic waste they mistake for food.



Learn to Fish

Fishing regulations are important for several reasons. Many regulations help assure that certain types of fish or certain areas will not be over-fished. Some regulations protect certain sizes of fish, allowing for better fish reproduction. Fishing regulations protect the rights of all anglers as well as the rights of landowners. Below are answers to some of the most frequently asked questions about fishing regulations.

1. Where do I find all fish and wildlife regulations for the state of Texas?

Fishing and wildlife regulations are found in the Texas Parks and Wildlife Outdoor Annual. The regulations are also available on the free Outdoor Annual App or online at www.tpwd.texas.gov/oa/fishing. Limited print copies are sometimes available from TPWD.

If you have a question or need clarification, contact your local game warden or regional Texas Parks and Wildlife law enforcement office. You can find those numbers online at www.tpwd.texas.gov/warden.

2. Is a fishing license required to fish in Texas?

Yes, a valid fishing license with a freshwater or saltwater endorsement is required of any person who fishes or takes fish, mussels, clams, crayfish, or other aquatic life in the public waters of Texas.

In addition, recreational anglers must have a Texas fishing license and saltwater endorsement to possess in state water any fish taken in federal waters or possess fish on a vessel in the tidal waters of Texas.

Support the Sport ~ Buy a License through the Outdoor Annual App, online or at a retailer near you. www.tpwd.texas.gov/license.

See the Outdoor Annual for more information about licenses, fee discounts and exemptions.

3. Are youth required to buy a license?

Youth under age 17 are not required to purchase a license. Youth ages 17 and up must have a fishing license in order to fish legally in public waters.

4. How often do I need to renew my fishing license?

Annual fishing licenses are good for one year, with two options available. You can purchase a license that is good from Sept. 1 to Aug. 31.



Or you may purchase a license that is good for one year from the date of purchase. One Day All-Water licenses are also available.

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

It depends. You DO need a license if you are fishing into public waters (such as lakes and rivers) even if you are on private land. But you don't need a license to fish on private property in a private pond that is self contained and not a result of damming a public stream or subject to over-flow from public water unless the land-owner requires it.

6. What does a "daily bag limit" for fish mean?

The quantity of a species of a wildlife resource that may be lawfully taken in one day.

7. What does "possession limit" for fish mean?

The maximum number of fish a person may possess before returning to their residence. Possession limit is twice the daily bag on game and nongame fish, except as provided in the Outdoor Annual, and does not apply to fish in the possession of or stored by a person at their residence.

8. What does "slot limit" mean?

There are two different types of slot limits:

Freshwater – Slot limits mean you must release any fish between the slot limit numbers. For instance, a largemouth bass at a particular lake has a 14" - 21" slot limit. That means you must release largemouth bass between 14 and 21 inches. Depending on the fish species, some lakes, reservoirs, rivers and streams have exceptions to statewide freshwater harvest regulations. See the Outdoor Annual for those exceptions.

Saltwater – Slot limit means you may keep any fish between the slot limits. For example, a black drum with a 14" - 30" slot limit means you may retain any black drum between 14 and 30 inches. All others must be released.

Remember to check your state bag and size limits before going fishing.



Learn to Fish

9. Can I give another person my fish if I don't want to bring them home?

Yes, whether they have a fishing license or not. However, you need to give them a Wildlife Resource Document (WRD) along with the fish you're giving them. A WRD form can be found in the Outdoor Annual or it can be handwritten on a piece of paper. It must have the following information:

- Name, signature, address, phone number, and fishing or hunting license number, as required, of the person who caught or killed the wildlife resource
- Receiver's name and address
- Description of the fish (number and type of species or parts)
- Date fish was caught or killed
- Location where fish was caught or killed (name of county, lake, area, bay, stream or ranch)

10. What if I catch a fish that is under the size limit, but it dies. Can I keep it?

No, if a fish dies while in your possession and it does not meet the size or bag limits, the law requires that you must still release it in the water where it will become food for other animals.

11. What should I do with a fish that I catch in a public waterway that I don't want to keep because I consider it an undesirable fish?

You should put it safely back in the water. It is not legal to catch and purposefully kill non-game fish or fish that don't meet the legal bag and size requirements.

12. Are there special regulations for bait?

Yes, there are several regulations that apply to bait. It is unlawful to use game fish (whole or part) as bait. Some counties also have specific bait fish regulations, know where you are fishing and the local regulations.

See the online Outdoor Annual or App for ALL bait regulations.



INVASIVE SPECIES

Harmful aquatic invasive species can attach to your equipment, gear, paddlecraft, boats and trailers, hitchhiking to other lakes and streams.

There are many harmful aquatic plant and animal species. See the TPWD website or the Outdoor Annual for a list of species.

Our biggest problems are:

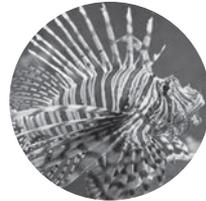
ZEBRA MUSSELS



GIANT SALVINIA



MARINE LIONFISH



Invasive zebra mussels have infested several Texas lakes. The microscopic larvae of this species can't be seen with the naked eye, but they can travel from one watershed to another in water in your gear and boats.

To curb the spread of zebra mussels, boaters and anglers in public fresh waters are **required to drain all water** from boats and onboard receptacles before leaving or approaching a water body.

See the Outdoor Annual or App for laws about live bait, and fish listed as harmful or potentially harmful.

Never dump your live bait or aquarium plants and animals into a bay, pond, lake or stream. Instead find someone to adopt your aquarium. Share unused bait with other anglers or put it in a trash can.

For more information on invasive exotic species that threaten Texas waters and how you can help prevent their spread, visit www.TexasInvasives.org



Learn to Fish

More Information on Fishing in Texas

The information below can be found in the free Outdoor Annual App or on TPWD's website, www.tpwd.texas.gov

Where To Fish

Explore fishing spots with online maps and lists. Find paddling trails and leased river access info too. See page 48 for State Park information.

Fishing Reports

Discover what's biting on more than 90 freshwater lakes and saltwater bays with these local fishing condition reports which are updated each week.

Stocking Schedule

Find out where TPWD is stocking freshwater and saltwater fish throughout Texas.

Fishing Events

Fishing events and classes are held statewide. Find an event on the TPWD Calendar.

Fish Records and Awards

The program maintains state record lists for public and private waters and water body records for all public lakes, rivers, and bays. Anglers (under 17 years of age) compete in a separate division.

ShareLunker Program

Anglers who reel in any largemouth bass at least 8 pounds or 24 inches can participate by entering their lunker catch information. Go online or use the ShareLunker mobile app during the year-long season (January 1 through December 31).



Teach Fishing

Become a TPWD Certified Angler Education Instructor and teach fishing to youth and adults in your community. TPWD provides free training, materials, and equipment (where available) to certified volunteers who want to share their love of fishing. Contact Angler Education at (512) 389-8183 or visit us online.

Aquariums and Fisheries Centers

Texas Freshwater Fisheries Center – Athens, Texas

Discover the mysteries of underwater life in this world-class aquarium and hatchery. Also explore our wetlands area and catch a fish at our well-stocked fishing pond.

Sea Center Texas – Lake Jackson, Texas

See the ocean without getting wet! See some of the biggest fish you can imagine in our marine aquarium. Our fish hatchery, gift shop and education center are also worth the trip.

Connect with TPWD

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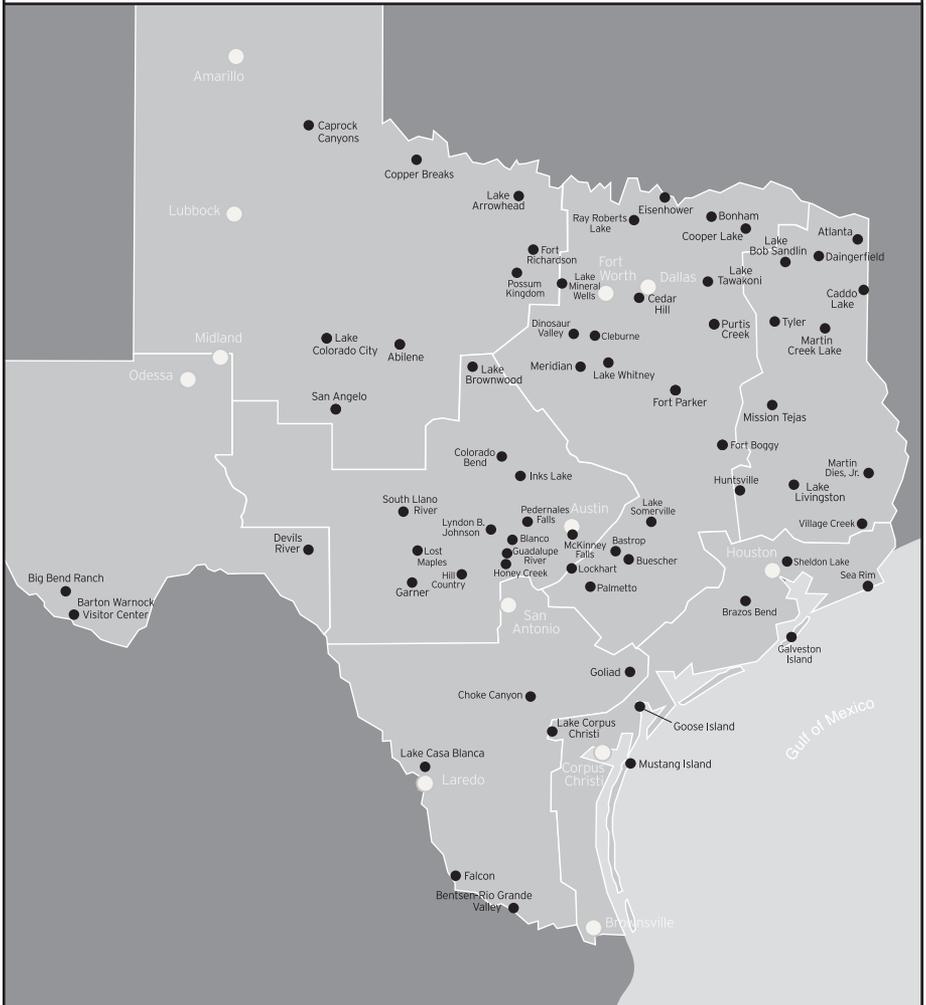
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Learn to Fish

No fishing license is needed at TPWD state parks* when you fish from the park property. Park entry fees apply. Many state parks may also provide free loaner fishing equipment.

*Fishing licenses are required if fishing from a boat or paddle craft on a lake that is not fully enclosed by the park; and at all other public waters including city, county and other community parks and lakes.



ANSWERS FOR FISH IDENTIFICATION

1. largemouth bass
2. sunfish
3. channel catfish
4. bass (white or striped)
5. longnose gar
6. largemouth bass
7. catfish
8. crappie
9. bass (white or striped)
10. spotted seatrout
11. redbfish
12. flounder



This publication and the Angler Education Program is funded by the U.S. Fish and Wildlife Service Sport Fish Restoration program.

Did you know?

Excise taxes on fishing equipment (paid by manufacturers) along with motorboat and small engine fuels, import duties and interest are collected and appropriated from the U.S. Fish and Wildlife Service Sport Fish Restoration and Boating Trust Fund. These funds are apportioned to states and U.S. territories based on a formula of land area and the number of paid license holders.

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