

TEXAS PARKS AND WILDLIFE

Angler
Education Program

Fish Texas

I N S T R U C T O R G U I D E



ANGLER EDUCATION

INSTRUCTOR

GUIDE

March 2017

TEXAS PARKS AND WILDLIFE DEPARTMENT MISSION

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

TEXAS PARKS AND WILDLIFE DEPARTMENT PHILOSOPHY

We seek to balance outdoor recreation with conservation as we achieve greater self-sufficiency. On one hand, we must manage and protect our natural and cultural resources. At the same time, we must generate increased revenue by adding value through more and better public services. We affirm that a culturally diverse well-trained staff will best achieve this balance. And we must never forget, not in the haste of business, nor in the pride of science, that the outdoors should above all be a source of joy! Providing outdoor experiences, whereby young minds form values, will be our greatest contribution to the future.



The Dingell-Johnson Act (Federal Aid to Sport Fish Restoration) provides funds for fisheries management and aquatic education activities from the excise taxes you pay on motorboat fuels and fishing tackle and accessories. This "user pays/user benefits" system is the greatest conservation success story in the world and provides much needed habitat and management of our water resources. Coupled with this federal funding, Texas Parks and Wildlife Department's Mission and Philosophy provide the foundation for strong aquatic education in Texas.

TEXAS PARKS AND WILDLIFE DEPARTMENT

Aquatic Education • 4200 Smith School Road • Austin, Texas 78744

1-800-792-1112 • tpwd.texas.gov

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WELCOME

Texas Parks and Wildlife Department Aquatic Education staff invites you to join our team by becoming a volunteer Angler Education Instructor.

Working as a team, Texas Parks and Wildlife Department and adult volunteers can provide Texas youth with opportunities to fish. We can be successful, not only in preserving our Texas fishing legacy, but enhancing it for future generations. Texas anglers have the talent, dedication and passion to ensure success.

The purpose of this guide is to provide you, our angler education volunteer, with ideas for presenting your Angler Education classes in a hands-on format, while covering the basic knowledge and skills necessary for students to become successful anglers. The activities provided in this guide describe teaching methods that may be modified by instructors depending upon student age, number of students in the class, and the physical learning environment. In Parts VII and VIII of this manual, instructors will find further information and resources to make teaching your classes as easy as possible. You will also find tips for taking kids fishing.

Texas Parks and Wildlife Department offers two levels of angler training. A **Basic or Junior Angler** class teaches basic skills of assembling tackle, identifying fish, understanding fishing regulations and safety, and describing good fish habitat. An **Advanced or Master Angler** class teaches about both fresh and saltwater fishing, identifying several fish in both categories, and using different types of fishing equipment and techniques. This guide uses the terms Junior Angler and Master Angler, but feel free to refer to your classes as Basic or Advanced if you prefer.

SUPPORTING ANGLER EDUCATION

Below are a few ways you can support youth fishing in Texas.

- Become an Angler Education Instructor and teach youth the life-long sport of fishing.
- Partner with clubs, civic organizations, schools, and city or county recreational programs that introduce kids to fishing through fishing clinics and other hands-on events.
- Support a group of adult volunteers who will help with youth fishing events and training.
- Provide fishing opportunities that are family oriented, that are not dependent upon a boat, that are inexpensive, and that are easy to reach.
- Access the TPWD Web site at www.tpwd.state.tx.us for fishing updates, angler class schedules, volunteer opportunities, fishing publications, fishing events, and for the "Tackle Loaner" sites.

For further information about TPWD staff and facilities, aquatic resources or aquatic resource issues, contact:

Aquatic Education:	(512) 389-4732
Inland Fisheries:	(512) 389-4444
Coastal Fisheries:	(512) 389-2011
Fish Kills or Chemical Spills:	(512) 389-4848
Texas Freshwater Fisheries Center:	(903) 676-2277
Sea Center Texas:	(979) 292-0100

ANGLER EDUCATION INSTRUCTOR GUIDE

Part I – Angler Education Classes and Activities

- Fishing in Texas
- Class Descriptions
- Becoming an Angler Education Instructor
- Angler Education Skills Checklist

Part II – Fishing Equipment and How to Use It

- Basic Tackle – assembling basic fishing tackle
- Know Your Knots – learning to tie additional fishing knots
- Fish ‘n’ Bait – learning to identify fish and bait used to catch them
- Learning to Cast – practicing safe casting

Part III – Fish Ecology

- Habitat Hangout – creating a diorama showing good fish habitat
- Go Fish – identifying the habitat requirements of fish
- Fish Prints – identifying the body parts of a fish

Part IV – Angling Ethics

- It’s Your Decision – making decisions about ethical dilemmas dealing with catch-and-release and environmental responsibility

Part V – Fishing Regulations and Safety

- Safety First – a memory activity
- Fishing Regulations – True or False
- Fishing Pictionary® – play a game to learn fishing safety rules and fishing regulations
- Fishing Pictionary® – student page
- It’s the Law

Part VI – Advanced Angler Education Classes

(Sections may be added as instructor takes advanced classes, i.e., fly fishing, tackle crafting)

Part VII – Essentials for Instructors

- Instructor Standards and Policies
- Insurance for TPWD Certified Volunteers
- Preparing for a class
- Documenting Classes and Events/Incentives for Students
- Fishing with Kids
- Providing Angler Instruction in an Event Setting
- Become an Angler Education Area Chief
- Other Fishing Programs in Texas
- Contact Information
- Instructor Resources

Part VIII – Instructor Forms

PART I

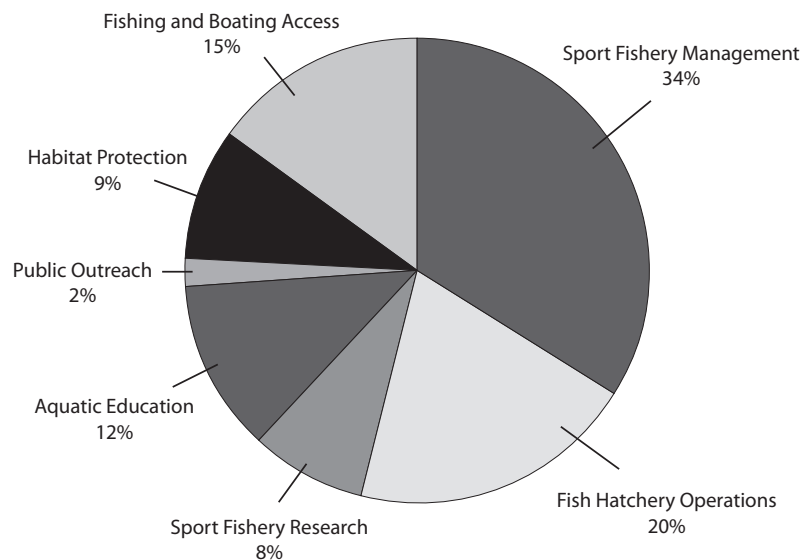


ANGLER EDUCATION CLASSES AND ACTIVITIES

FISHING IN TEXAS

Texas is recognized nationally by anglers and fisheries professionals as providing exceptional sport fishing opportunities. Over 1 million recreational anglers fished Texas waters in 2006, contributing an estimated \$3.2 billion to the state economy. This high level of angler participation and satisfaction is maintained through the support of the Sport Fish Restoration Program.

The Sport Fish Restoration Program is a partnership among anglers, boaters, the fishing and boating industry, the Texas Parks and Wildlife Department and the U.S. Fish & Wildlife Service. The program is supported by taxes on fishing equipment, electric motors, sonar, and motorboat fuel. These revenues are collected by the U.S. Treasury and apportioned to the U.S. states, insular territories and the District of Columbia, based on a formula that includes total land and water area and number of licensed anglers. In 2007, Texas received the maximum allowable apportionment of \$17.5 million, five percent of the over \$340 million available. Annual funding received from the Sport Fish Restoration Program is utilized by Texas Parks and Wildlife Department to support activities that directly benefit anglers and ensure that the tremendous sport fishing opportunities offered in the State of Texas are available for years to come. Major programs in Texas supported by the Sport Fish Restoration Program are discussed below.



Distribution of Sport Fish Restoration Fund funding in Texas (approximately \$17.5 million annually)

From Texas Parks and Wildlife Web site:
www.tpwd.state.tx.us/fishboat/fish/programs/federal_aid/index.phtml

Angler Education Instructor Class

The 4 to 6-hour instructor classes provide adults with the knowledge and skills necessary to teach youth basic fishing skills. Adult instructors serve on a volunteer basis, usually working through boys and girls clubs, scouts, schools, or other organizations. Instructor classes are offered at various locations throughout the state. Dates, times, and locations of these classes may be accessed through the TPWD Web site, www.tpwd.texas.gov/calendargor by calling Aquatic Education staff at (512) 389-8183 or 1-800-792-1112 x 65.

Basic and Advanced Angler Classes

Junior and Master Angler classes provide activities that introduce youth (ages 6+) to the life-long sport of fishing. The classes accentuate active learning by following a “hands-on” format rather than a lecture format. Class participants will be involved in practicing new skills, solving problems, and making decisions. The primary goals of the classes are to: 1) provide young anglers with confidence in their basic fishing knowledge and skills, 2) promote ethical behavior in fishing and towards aquatic habitats, and 3) instill in young anglers the desire to get out and go fishing.

Advanced Fishing Classes

TPWD staff and volunteers also offer advanced fishing classes such as tackle crafting and fly fishing. Following a similar format as the Junior and Master Angler classes, the **Basic and Intermediate Fly Fishing** classes provide an opportunity to extend fishing knowledge and skills in a sport growing in popularity. To find out more about these classes, check the TPWD Web site or call (512) 389-4732 or 1-800-792-1112 x 65.

Additional Volunteer Instructor Opportunities

An Angler Education Instructor who feels comfortable in his or her ability to teach fishing to youth and who has an interest in teaching other adults to be instructors can take training to become an **Angler Education Area Chief**. Area Chiefs work with staff and other adults in their communities to provide angler education opportunities to community youth. Area Chief training is given at a special Area Chief meeting held in the spring of each year. To find out more about becoming an Angler Education Area Chief, see section VII in this guide.

BECOMING AN ANGLER EDUCATION INSTRUCTOR

Who volunteers to be an Angler Education Instructor?

People who enjoy spending time with kids, have a sense of humor, good communication and organizational skills, and who also want to share their love of fishing make good angler education instructors. Angler education instructors must be at least 18 years of age, of reasonably good health, of high integrity, and have completed an Angler Education Instructor Workshop. Many are affiliated with scouts, boys and girls clubs, city recreation departments, church groups, camps, and public and private schools.

What is expected of Angler Education Instructors?

1. Instructors will use a hands-on approach and create a positive, fun, learning environment for their classes.
2. Instructors will teach youth and adults the basics of fishing as outlined in this guide.
3. Instructors will train at least 10 persons each year or volunteer for at least two angler education events to remain active.
4. Instructors will order materials and equipment **at least 3 weeks prior to the class** and will submit necessary roster forms upon class completion.
5. When asked, instructors will participate in class evaluations and surveys to help TPWD staff and volunteers strengthen the program.

How does TPWD support Angler Education Instructors?

1. Equipment to teach the class is available in Angler Education Instructor Kits available in many locations around the state. Check the TPWD Web site for the kit nearest you.
2. Written materials and incentive awards for students help make the class easy to teach.
3. Twice a year TPWD publishes a newsletter, *Reel Lines*, that provides teaching ideas and publicity for angler education classes.
4. Aquatic Education Specialists and other TPWD staff are available to answer questions and help instructors make the teaching experience enjoyable.

How does one become an Angler Education Instructor?

1. Participate in and complete an Angler Education Instructor course.
2. Fill out and turn in all required forms after which you will receive your instructor certificate.
3. Plan your classes in advance to optimize publicity and to order supplies and equipment needed to teach the class.
4. Include actual fishing in your angler education classes whenever possible.
5. Participate in fishing and other outdoor events to promote the program, TPWD, or other angler education activities.
6. Turn in required reports to TPWD's Aquatic Education Program.

These are the skills your students should be able to demonstrate by the end of their instruction.

BASIC ANGLER SKILLS CHECKLIST

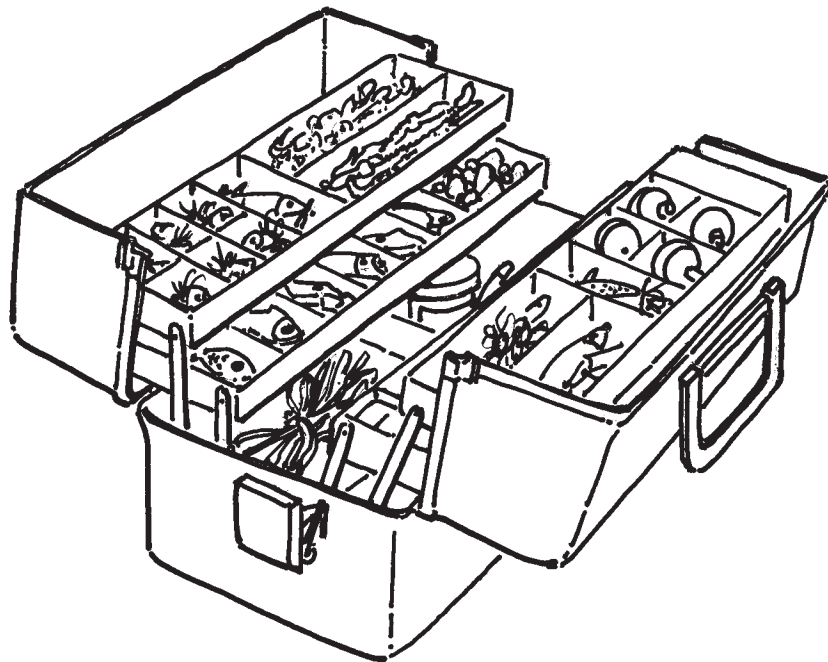
- OBJECTIVE 1. Assemble basic tackle (hook, sinker, and bobber)
- OBJECTIVE 2. Tie 1 fishing knot
- OBJECTIVE 3. Cast safely with a spincast reel/rod combo
- OBJECTIVE 4. Identify 3 fish species
- OBJECTIVE 5. Identify 3 baits/lures
- OBJECTIVE 6. Discuss 2 fishing safety rules (1 water safety rule; 1 fish handling rule)
- OBJECTIVE 7. Discuss 2 ethical dilemmas (1 catch and release; 1 environmental responsibility)
- OBJECTIVE 8. Discuss 1 fishing regulation and tell where fishing regulations are found
- OBJECTIVE 9. Explain the elements of good fish habitat

ADVANCED ANGLER SKILLS CHECKLIST

Basic Angler Skills plus:

- OBJECTIVE 1. Tie 3 additional fishing knots
- OBJECTIVE 2. Identify 4 different rods and reels
- OBJECTIVE 3. Learn to cast the spinning reel and either the baitcasting reel or the fly reel
- OBJECTIVE 4. Identify 5 additional fish species
- OBJECTIVE 5. Identify 5 fish body parts and their functions
- OBJECTIVE 6. Match at least 3 fishing scenarios with appropriate tackle
- OBJECTIVE 7. Discuss 4 ethical dilemmas (2 catch and release; 2 environmental responsibility)
- OBJECTIVE 8. Discuss 5 fishing safety rules (water safety and fish handling)
- OBJECTIVE 9. Explain 4 fishing regulations
- OBJECTIVE 10. Describe 4 different types of aquatic habitats and good places to fish in each habitat

PART II



FISHING EQUIPMENT AND HOW TO USE IT



BASIC TACKLE

Summary

Students first practice tying one simple fishing knot, then learn how to assemble basic tackle.

Basic Angler Objectives 1 & 2

Students will be able to assemble basic tackle, including learning to tie 1 fishing knot.

Time

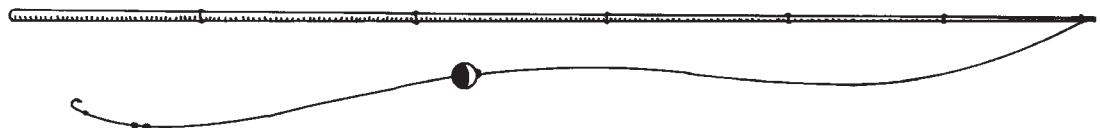
10-15 minutes

Materials

Plastic bobbers for the number of students who will work at one time
Sinkers for the number of students who will work at one time
Monofilament line, about 2 ft. per person
Barbless hooks or eye bolts
Practice cord for knot-tying practice (about 18 inches per student)

Background

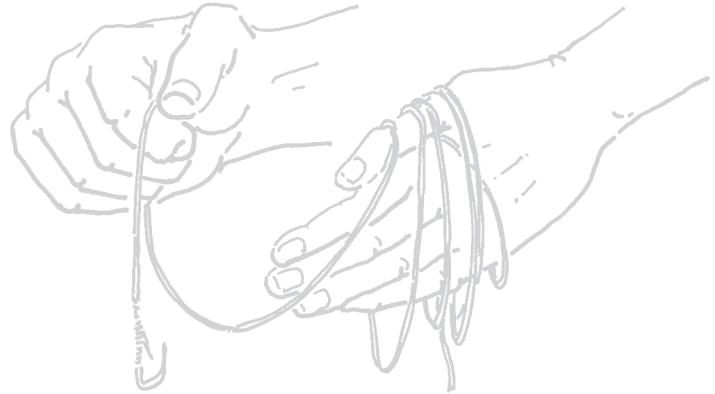
Cane poles, tree branches, and even aluminum cans can be the basis for a person's first fishing experience. With line, bait, and a hook, people have fished for thousands of years. But many people have not learned the basics of fishing and not had the opportunity to put together the basic (and inexpensive) tackle needed to catch that first fish. By learning how to tie a hook on a line, how and why to attach a simple bobber and sinker, and how to attach their line to a pole, any person will be ready to fish. The following are suggestions for teaching these simple skills.



Procedure

1. Explain that one of the easiest types of fishing uses a pole (cane or other) and a hook with live bait.
2. Explain that the first thing an angler must do is learn to attach a hook to the line in a way that the hook won't come off (and the fish be lost). Begin by demonstrating the Improved Clinch Knot or the Palomar Knot. Use eye bolts and nylon cord and allow students to practice until they feel that they know the knot.
3. Bobbers and sinkers help get the bait in the fish-feeding zone and let the angler know when a fish is biting. Explain to students that different fish like to stay in different depths of water depending upon their eating habits, the water temperature, and other conditions.
4. Provide bobbers, sinkers, barbless hooks (or eye bolts), and line to students.
5. Demonstrate how and where to attach the bobber to the fishing line (depending on how far below the surface you want the bait to be). Ask students if they know which end is "up" on the bobber? (**small end on a spring-loaded, plastic bobber and the large end on a saltwater popping cork**).
6. Allow time for students to attach bobbers on their line.
7. Why is a sinker needed along with a bobber? (**to keep the bobber upright in the water instead of lying on its side**) Note: Some bobbers (saltwater popping corks) come weighted so that sinkers don't have to be added to keep it upright. Sinkers also aid in casting.
8. Demonstrate on the fishing line that the sinker is placed below the bobber and above the hook, which will be tied on last to prevent hooks from injuring students.
9. Allow time for students to attach their sinkers. *Be sure to provide pliers so students don't use their teeth!*
10. As a review, ask students why bobbers are used on a fishing line and what the sinker does.
11. Allow students to attach a barbless hook to the end of the monofilament line.

KNOW YOUR KNOTS



Summary

Students will learn how to tie 3 fishing knots (in addition to the 1 knot learned as a Basic Angler). Suggested knots: palomar, arbor, blood-knot, double surgeon's loop or snelled knot.

Advanced Angler Objective 1

Students will be able to:

1. Correctly tie 3 additional fishing knots
2. Explain what the knots are used for

Time

15-30 minutes

Materials

Nylon cord cut in 1-2 ft. lengths (1-2 per student – bloodknot needs 2)
Eye bolts or plastic hooks (1 per student)
Junior/Master Angler Guidebook (pages on knots)

Procedure

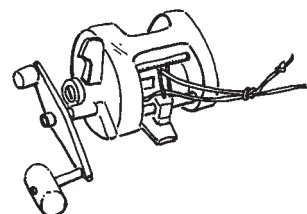
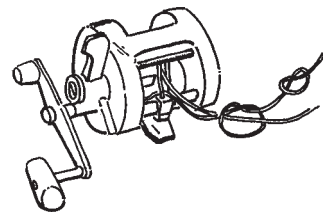
1. Distribute the nylon cord and the eye bolts to the students.
2. Demonstrate each knot, allowing students to do each one along with the instructor, then allowing them time to practice on their own.
3. Check for accuracy and help students where needed.
4. Explain the purpose for each knot.
5. After students feel they know how to tie the knots, let them see how many they can tie correctly in 2 minutes or set up a relay race for student teams to tie a certain number of knots.

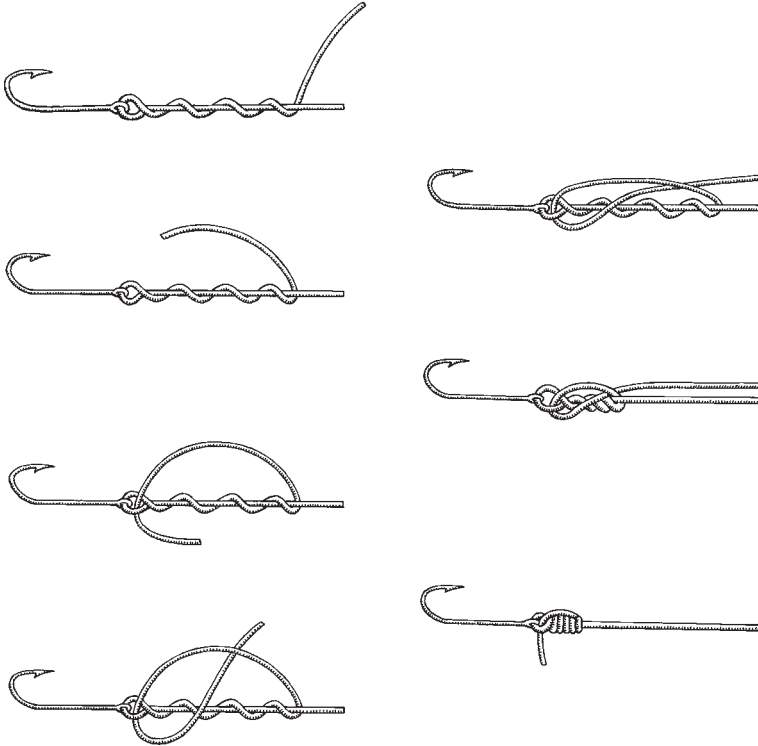
Arbor Knot

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.





Improved Clinch Knot

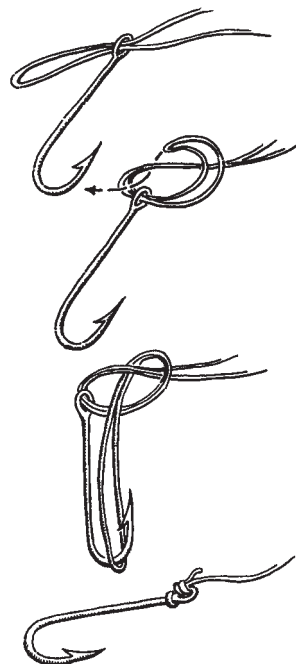
An "old standby" known as the fisherman's knot.

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.

Palomar Knot

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

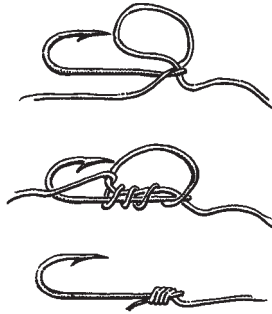
1. Double 4 inches of line to form a loop and pass the loop through the eye of the fishing hook. Let the hook hang loose.
2. Tie an overhand knot in the doubled line. Don't twist or tighten line.
3. Pull the loop far enough to pass it completely over the hook.
4. Wet the line.
5. Hold the hook carefully,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



Snelled Knot

Makes a strong connection when fishing with bait and using a separate length of leader

1. Thread the line through hook eye about 6 inches.
2. Hold line against hook shank and form a circle.
3. Make 5 or 6 wraps through loop and around line and shank.
4. Close the knot by pulling on tag end of the line.



Tighten by pulling on main line in one direction and the hook in the other.



Simplified Blood Knot

Mostly used to join two lines together of about the same diameter.

1. Take the two lines' ends and tie an overhand knot (this knot will be clipped off later).
2. Tighten to combine the two lines into one.
3. Form a loop where the two lines meet, with the overhand knot in the loop.
4. Pull one side of the loop down and begin taking turns with it around the standing line. Keep point where turns are made open so turns gather equally on each side.
5. After eight to ten turns, reach through center opening and pull remaining loop (and overhand knot) through. Keep finger in this loop so it will not spring back.
6. Hold loop with your teeth and pull both ends of line, making turns gather on either side of loop.
7. Set knot by pulling lines tightly as possible. Tightening coils will make loop stand out perpendicular to line.

Then clip off the loop and overhand knot close to the newly formed knot.

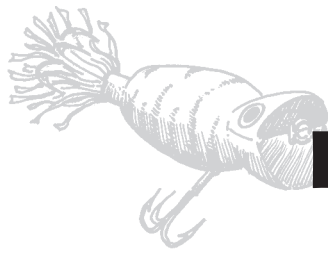
Double Surgeon's Loop

Quick, easy way to tie a loop in the end of a leader; often used as part of a leader because it's relatively strong.

1. Double the end of line to form a loop and tie an overhand knot at the base of double line.
2. Leave the loop open in the knot and bring the double line through again.
3. Hold the main line and tag end and pull the loop to tighten the knot. The size of the loop can be determined by pulling the loose knot to the desired point, and holding it while the knot is tightened.

Clip end 1/8" from knot.





FISH 'N' BAIT

Summary

Using enlarged drawings and descriptions of both freshwater and saltwater fish, students learn what baits and lures are best to catch specific types of fish.

Basic Angler Objectives 4 & 5

Students will be able to:

1. Identify 3 fish
2. Identify at least 3 different types of baits and lures

Advanced Angler Objectives 4 & 6

Students will be able to:

1. Identify 5 additional fish species
2. Match at least 3 fishing scenarios with appropriate tackle

Time

15-30 minutes

Materials

Posters of Texas freshwater and saltwater fish

Descriptions of those fish, emphasizing specific physical and behavioral features that would help students decide which baits or lures to use

Large drawing paper, blackboard, or pictures of fish habitats

Markers, etc.

Examples of different bait and lures

Background

It is important for novice anglers to begin to learn to identify different species of fish. Laws regarding keeping fish refer to specific rules for specific species. You can't use the excuse,

"Officer, I didn't know I was over the limit because I didn't know what fish species I was catching." Besides, learning about different fish species makes catching them more enjoyable.

Different species of fish are attracted to different types of bait. Many factors affect what types of bait will attract a particular fish species. These factors include physical features of the fish such as the shape, size, and position of the fish's mouth; whether the fish has a keen sense of smell or sight; or whether it relies on its sensitivity to vibrations in the water to identify food. (See the "Fish Printing" activity for more information about fish biology.) Other factors include the fish's behavior. Where does the fish spend most of its time? Does it like to hang out near the bottom or the top of the water column, or near structures such as tree stumps, piers or rocks? Does it move slowly or quickly? Does it prefer swiftly moving water or slow moving water? What does the fish eat naturally? Does it like insects that hover near the water's surface, or does it prefer different food found on or near the bottom?

With knowledge about fish, it will be easier for an angler to make decisions about the particular type of bait to use, whether to use natural or live bait, or whether to try artificial lures.

Natural or live bait includes: **minnows, worms, crabs, dead or live shrimp**, and other organisms. Shrimp can be used to catch a variety of saltwater fish. For the majority of freshwater fish, worms are a reliable choice. In addition to living organisms, prepared bait can be used. Homemade stink bait, canned corn, hotdogs, and cottonseed cakes are just a few of the prepared baits which are great for catching catfish and other species.

PART II – FISHING EQUIPMENT AND HOW TO USE IT

Artificial lures simulate natural baits or otherwise invoke a strike by the fish. They vary in size, shape, and color. The same artificial lures can be used for saltwater or freshwater fishing. Lures are divided into **plugs, spoons, jigs, spinnerbaits, soft plastics, flies and poppers**. Plugs are made of various materials and usually have 2 to 3 treble hooks. For example, you may not be able to catch bluegills with a plug because their mouths may be too small. Metal spoons are used to mimic baitfish such as minnows, shad or mullet. Colorful soft plastics imitate a variety of worms, grubs, crayfish and other natural prey. Jigs are effective at catching a wide variety of freshwater and saltwater fish. Spinnerbaits rotate around a straight wire and have tails made of rubber, animal hair, feather or other material. Flies and poppers imitate a variety of amphibians, fish and insects at the various life stages and are popular in flyfishing.

Procedure

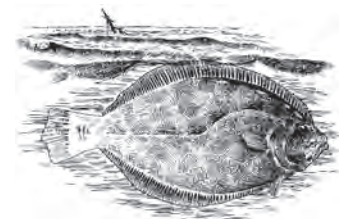
1. Begin by passing out the Junior and Master Angler Guidebooks.
2. Read each of the fish descriptions below without saying the name of the fish. Be sure to emphasize physical features of the fish and behavioral attributes of the fish that help determine the fish species, what types of bait to use and where to fish for that species.
3. Allow students to guess the fish species and discuss habitat and possible baits. **Remember that this is simply an introduction to bait and lures and that the best bait to use will vary depending upon weather, seasons, and other factors. Novice anglers should ask experienced anglers' advice about the best fishing tackle and techniques to use at particular locations, at specific times, and for specific fish species.**
4. Pass out the drawing paper and ask the students to make a very simple drawing showing a cross section of a stream, pond, river, or coastal habitat with the bottom and top of the water drawn in. In their drawings, students will show where one fish species might be found. You can also ask them to include structure (rocks, piers, aquatic plants) in the water that provide cover for fish. Then ask students to look in their Junior/Master Angler Guidebooks to decide what type of bait or lure you would most likely use to catch that fish.
5. After the students or student groups have made their decisions, allow them to show their drawings and discuss their fish species and bait decisions with the group. Show the students examples of different artificial lures, naming each one.

Fish Species Descriptions

Note: These simplified descriptions focus on physical features or behavior that help novice anglers identify the species and decide what type of bait or lure to use to catch it.

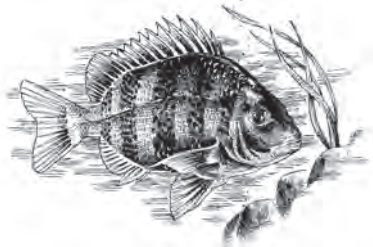
SALTWATER FISH

1. Southern Flounder – a flat-bodied fish with eyes on top of its body. It can change the color and pattern of its upper side to match the color of the bottom of bays, bayous, and other shallow areas. Eats shrimp, small fish, and marine worms. Likes structure such as marsh grasses, oyster reefs and spoil islands.



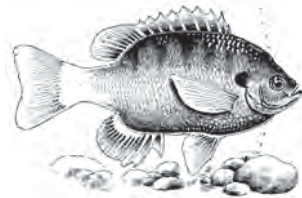
PART II – FISHING EQUIPMENT AND HOW TO USE IT

2. Red Drum – reddish-bronze with a black spot on each side of its tail. It's mouth and feeding pattern with head down and tail up make it feed close to the bottom on crabs, shrimp, marine worms, and small fish. Young live in shallow bays, but migrate to the gulf as adults.
3. Spotted Seatrout – a torpedo-shaped fish with silvery sides, a greenish back, and numerous dark spots on the upper sides and dorsal and tail fins. Likes shallow waters near sea grass beds, reefs, or marshes. Eats shrimp and small fish.
4. Sheepshead – a deep-bodied fish with black and white bars up and down its sides and rather large teeth. Eats crabs and shrimp and lives around rock jetties, oyster reefs, and pier pilings.



FRESHWATER FISH

1. Bluegill – a deep-bodied fish with a small mouth. Has deep blue on the underside of the gill flap and a black ear flap. Lives in shallow backwater rivers, lakes and ponds near vegetation or sunken trees. Average size is less than a pound, but can reach up to 4 pounds. Eats worms and small insects.
2. Channel Catfish – a torpedo-shaped fish with a deeply forked tail. Has an olive- brown to dark blue body with lighter tones underneath. Has feelers on each side of its mouth to detect movement in muddy water. Has a sensitive sense of smell. Averages from 2-6 pounds, but can reach up to 40 pounds. Eats live and dead worms, insects, and other small fish. No scales.
3. Black Crappie (pronounced "crop-ee") – a deep-bodied fish; silvery olive with numerous black spots irregularly spaced over the body. Has dorsal spines. Likes to live in deep water lakes with brush or underwater structure. Averages less than 2 pounds and eats minnows and aquatic insects.
4. Largemouth Bass – a moderately deep-bodied fish with olive to dark green or yellowish coloring and darker splotches along its side. Has deeply notched or separated dorsal fins. Averages 1 to 6 pounds, but 12-14 pounds is common. Likes to live near vegetation or logs or stumps in rivers, lakes, and ponds. Eats minnows, worms, crawfish, frogs, insects, or other small fish.





LEARNING TO CAST



Summary

Students will practice casting safely to “hook” plastic fish.

Basic Angler Objective 3

Students will be able to safely use a spinning rod and reel.

Advanced Angler Objective 3

Students will be able to cast the spinning reel and either the baitcasting reel or the fly reel.

Time

15-45 minutes

Equipment/Materials

At least 2 “Backyard Bass” plastic fish for each person casting at the same time (available in the Angler Education Instructor Kit) or hula hoops or some other way to delineate casting targets

Rods and reels set up with plugs instead of hooks

An area large enough and open enough (note trees, power lines, etc.) for safe casting for the number of students casting at one time (See “Casting Tips” below for help in teaching casting skills for 4 different rods and reels.)

Procedure

1. If casting on land, determine your boundaries and mark them with flagging or cones.
2. Spread the fish out in the casting area with the cup area toward the student and the tail facing away from the student. These fish float so you can practice casting in a lake, swimming pool, or on dry land. Or, set up other casting targets.
3. Assign points to each fish (or target) based on distance or difficulty of cast or on any other predetermined criteria.
4. Explain to students the rules of safe casting: 1) Always look around you before you start casting to be sure that the distance between you and anyone else is twice the length of your arm and rod extended. 2) Check for any other obstructions both overhead, to the sides, in front, and behind. 3) Never cast at another person, an animal, or any object that could get hurt or damaged by the cast.
5. Allow students time to practice casting, helping students who have trouble. (See “Casting Tips” below.)

PART II – FISHING EQUIPMENT AND HOW TO USE IT

6. You may want to determine a winner or a winning team. Use these suggestions or make up your own rules. Or, skip the contest aspect altogether and simply focus on learning a new skill. The winner can be:
 - the first person to catch a fish
 - the person with the most points after all the fish are caught
 - the person who catches the fish placed in the most challenging position
 - the person who catches the most fish
 - the person who took the least number of casts to land the most fish
 - the person who catches the most fish in a certain amount of time

CASTING TIPS**Spincasting**

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

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 practice plug. As the rod bends, move your forearm forward with a slight wrist movement.
4. When the rod reaches eye level, release the thumb button.
5. 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.

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. Place your thumb on top of the handle and extend your forefinger to touch the spool cover. With the other hand, rotate the reel spool until the line roller is directly beneath your extended index finger. Pick up line in front of the roller with your index finger and 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 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. If the 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.

PART II – FISHING EQUIPMENT AND HOW TO USE IT

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 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. 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.
5. 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 release your thumb too soon.

Fly rod casting

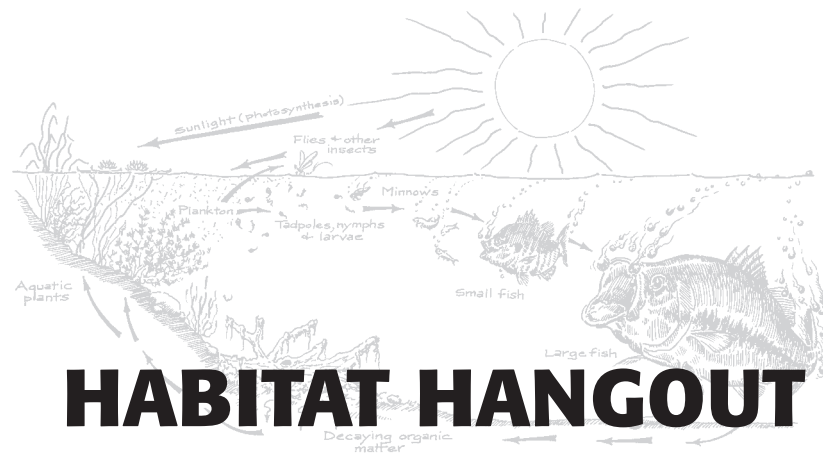
Casting with a fly rod and reel is different than casting a lure or heavy bait. With spincasting, spinning and baitcasting, the weight of the bait or lure and any added weight pulls the line behind it to the target. Fly lures are light and have little weight. The line acts as the weight and is designed to bring the lure to the fish. Lay your rod down and measure out 20 to 30 feet of line from the tip of the rod. Do not have a fly tied on for practice; tie on a piece of brightly colored yarn.

1. Grasp the rod as though shaking hands with it. Your thumb should be on top of the grip. Using this grip, the line will go in the direction your thumb points.
2. With your elbow at your side and bent at a 90° angle, point your rod in front of you. Cock your wrist slightly. **Do not bend your wrist as you would with the other 3 methods.**
3. Lift your forearm smoothly, bringing the rod straight up and back. Keep your wrist cocked.
4. When the rod reaches just past 12 o’clock, stop moving your forearm. Snap your wrist back.
5. Your line should form a nice tight loop in the air behind you.
6. As the loop opens and the line becomes nearly straight behind you (**don’t rush it**), begin your forward cast.
7. Push your forearm back in the direction you started and down to about a 45° angle (10 o’clock). End with a snap of the wrist in the direction of the target.
8. Lower the rod slowly and smoothly toward the surface of the water.
Line should drift down gently. If the line splashes, either you have aimed too low or the forward cast was not delivered in one smooth action.

PART III



FISH ECOLOGY



HABITAT HANGOUT

Summary

Students do research about a particular Texas saltwater or freshwater aquatic habitat and create a diorama of that habitat, including one or two fish that can normally be found in that habitat. Presentations of the dioramas to the class with discussion of each habitat, its fish and fishing tactics allow for extended learning.

Basic Angler Objectives

4, 5 & 9

Advanced Angler Objectives

4, 6 & 10

Students will be able to:

1. Identify and depict in a diorama the five essential components of fish habitat: food, water, shelter, space and oxygen.
2. Identify and describe different freshwater and saltwater fish found in Texas waters.
3. Describe fishing tactics that an angler could use to catch fish in the different habitats.

Time

40 minutes to an hour or more

Materials

(suggested materials for making dioramas)
cardboard boxes (large shoe boxes, boot boxes, etc.)
markers, crayons and pencils
play dough and pipe cleaners
glue sticks or tape
scissors
construction paper
scraps of yarn or sewing material

Background

Refer to the Junior and Master Angler Guidebook for descriptions of the different aquatic habitats found in Texas (Aquatic Ecosystems section). You may also want to provide students with other electronic or written resources about Texas aquatic ecosystems if time allows them to do more extensive research. Creating a habitat diorama allows students to display their knowledge about the five elements of good fish habitat: food, water, shelter, oxygen and space. At the same time, they will research different fresh and saltwater habitats found in Texas and about fish that inhabit each type of aquatic habitat. Each diorama should illustrate all of the critical habitat elements for the fish they are assigned.

Procedure

1. Gather boxes and other materials to create the dioramas.
2. Ask the students to divide up in groups of 2 to 3.
3. Assign each group a different type of aquatic habitat from the Junior and Master Angler Guidebook and let them research and choose one or two fish which fish can be found in that habitat.
4. Give the students about 30 to 40 minutes to make their dioramas of the habitat and the chosen fish.
5. Provide the students with a handout (or display on a board) the questions on the next page to use as a guideline as they create their diorama.
6. Ask each group to present their habitat to the class and explain how the habitat meets the needs of the fish they included, using the questions above as a springboard for discussion.

1. What do your fish eat and how do they generally get their food?
2. What kind of shelter would your fish find in this habitat?
3. Could the lack of oxygen or space ever cause problems for fish in your habitat?
4. What could cause a lack of oxygen in this habitat?
5. How could human activities impact this habitat?
6. How could natural events (such as flood or drought) impact this habitat?
7. Are these impacts good or bad for your habitat and the fish that live there?
8. What are the best methods and tackle to fish for each species?





GO FISH!

Summary

Students representing habitat components and fish play a “tag game” to simulate the influences that affect fish population size. This activity is a modification of the Project WILD activity “Oh, Deer.” To learn more about the award-winning Project WILD program in Texas, view the Web site: www.twpd.texas.gov/education or call 1-800-792-1112.

Basic Angler Objective 9 Advanced Angler Objective 10

Students will be able to:

1. Identify and describe food, water, shelter, space, and oxygen as five essential components of habitat
2. Describe factors that influence fish populations
3. Recognize that some fluctuations in a wildlife population are natural and ecological systems undergo constant change

Time

30-45 minutes

Materials

Cones or some other method to mark boundaries
Area – indoors or outdoors – large enough for students to run
Minimum of 20 students

Background

A variety of factors may influence the ability of fish to successfully reproduce and maintain their population size over time. The most fundamental of life’s necessities for any fish include food, water, shelter, space, and oxygen. Without these essential components, fish cannot survive.

This activity illustrates:

- Good habitat is key to wildlife survival.
- A population will continue to increase in size until some limiting factors are imposed.
- Limiting factors contribute to fluctuations in wildlife populations.
- Nature is never in “balance” but is constantly changing.

Disease, predator/prey relationships, weather conditions, habitat destruction and degradation are among the limiting factors that affect population size. Populations are not static. They fluctuate in response to a variety of stimulating and limiting factors. Population sizes often appear to be almost totally controlled by the habitat components of food, water, shelter, space, and oxygen. Habitat components are the most fundamental and the most critical of limiting factors in most natural settings.

This activity is a simple but powerful way for students to grasp some basic concepts: first, that everything in natural systems is interrelated; second, that populations of organisms are continuously affected by elements of their environment; and third that population of animals continually are changing in natural systems.

Procedure

1. Tell students they will be participating in an activity that emphasizes the most essential things animals need in order to survive. Take a moment to talk about the different types of freshwater habitats in Texas such as ponds, creeks, lakes, rivers, and marshes. Review the essential components of habitat with the students: food, water, shelter, space, and oxygen. Students should not forget the importance of fish needing a suitable arrangement of these habitat components to reach their maximum size.
2. Ask the students to count off in fives. All the ones go to one area; all twos, threes, fours, fives go to another area. Mark 2 parallel lines on the ground or floor 10-20 yards apart. Have the ones line up behind one line; the rest of the students line up behind the other line, facing towards each other.
3. The ones become “fish.” You can pick a particular freshwater fish such as bluegill, bass, or catfish and talk about that particular type of fish and its particular habitat. All fish need good habitat in order to survive. Again ask the students what the essential components of habitat are: food, water, shelter, space, and oxygen in a suitable arrangement. We will not depict “space” in this game, but students should remember that space is an essential element of habitat. The fish (the ones) need to find food, water, shelter, and oxygen in order to survive. When looking for food, the “fish” will clasp their hands over their stomachs. When looking for water, the “fish” make a horizontal wave motion using their hands. When looking for shelter, the “fish” clasp their hands over their heads. When looking for oxygen, they flap their gills (place hands on cheeks to represent gills). A fish can choose to look for any one of the necessary habitat components during each round or segment of the activity; the fish cannot, however, change what it is looking for (e.g. when it sees what is available during that round). It can change what it is looking for in the next round if it survives.
4. The twos, threes, fours, and fives are the food, water, shelter, and oxygen – components of the habitat. Each student is allowed to choose at the beginning of each round which component he or she will be during that round. The students depict which component they are in the same way the fish show what they are looking for; that is, hands on stomach for food, etc.
5. The activity starts with all players lined up behind their respective lines (fish on one side, habitat components on the other side) – with their backs facing the other students along the other line.
6. Begin the first round by asking all of the students to make their signs – each individual fish deciding what it is looking for, each habitat component deciding what it is. Give the students a few moments to put their hands in place – over stomachs, on cheeks, over their head, or making a wave motion. (The two lines of students normally will display a lot of variety – with some students portraying oxygen, some food, shelter and, water. As the activity proceeds, sometimes the students confer with each other to make the same sign. That’s okay, although don’t encourage it. For example, all the students in the habitat might decide to be shelter. That could represent a drought year with no available food and little water.)

NOTE: Switching symbols in the middle of the round can be avoided by having stacks of four different tokens, pieces of colored paper, different colored practice jerseys, a deck of cards (each suit a different component), or wrist bands to represent food, water, shelter, and oxygen at both the habitat and fish end of the field. At the start of each round, players choose one of the symbols before turning around to face the other group.

PART III – FISH ECOLOGY

7. When the students are ready, say “Go Fish!” Each fish and each habitat component turns to face the opposite group, continuing to hold their signs clearly.
8. When the fish see the habitat they need, they are to run to it. Each fish must hold the sign of what it is looking for until getting to the habitat component student with the same sign. Each fish that reaches its necessary habitat component takes the “food,” “water,” “shelter,” or “oxygen” back to the fish side of the line. “Capturing” a component represents the fish successfully meeting its needs and successfully reproducing as a result. A fish that fails to find its food, water, shelter, or oxygen dies and becomes part of the habitat. That is, any fish that died will be a habitat component in the next round.

NOTE: when more than one fish reaches a habitat component, the student who arrives there first survives. Habitat components stay in place until a fish chooses them. If no fish needs a particular habitat component during a round, the habitat component just stays where it is in the habitat. The habitat components can, however, change which component it is from round to round.

9. If desired, record the number of fish at the beginning of the activity and the end of each round. Continue the activity for approximately 15 rounds. For further understanding of aquatic habitats, start the activity over discussing the components of **saltwater** habitats.

EXAMPLES OF LIMITING FACTORS IN FISH HABITAT

	Salt Water Habitats	Fresh Water Habitats
FOOD	Availability of shrimp, smaller fish, plankton, fish eggs, dead organisms, plants, crabs	Availability of dead organisms, smaller fish, plants, insects, amphibians, crayfish
WATER	Salinity levels too high or low, or water moving too fast/slow	Water moving too fast or too slow, or quick changes in water depth or temperature
SHELTER “structure”	Amount of reefs, sea grass, piers, jetties, rocks, oil rigs	Amount of rocks, fallen trees, tree roots, grasses and reeds
SPACE	Changes in size of water body due to drought, floods, or other factors	Changes in size of water body due to drought, floods, or other factors
OXYGEN	Stagnant water and algal blooms decrease oxygen levels. Moving water and a balance of aquatic plants increases oxygen levels.	Stagnant water and algal blooms decrease oxygen levels. Moving water and a balance of aquatic plants increases oxygen levels.

Activity Variations

The following variations to this activity include ecological explanation and examples.

Instructor can reduce the number of habitat components students can select from.

Students cannot be “water”

- A drought greatly decreases the amount of available water.
- Significant increases in water use by cities and towns decreases the amount of fresh water in the river.
- Springs quit flowing because too much water is being pumped from the aquifer.

Students cannot be “oxygen”

- Nutrients get washed into the water creating an algal bloom. At night when the huge quantity of algae is using oxygen out of the water, the oxygen levels fall, causing fish kills.

Students cannot be “shelter”

- A big flood sweeps all the dead logs out of the river. There are now fewer places to hide from predators.
- A dredge is used to maintain a coastal channel for ship traffic. It cleared all the bottom rocks and vegetation away.

Students cannot be “food”

- An oil spill occurred, killing many small fish and aquatic invertebrates, which are food for larger fish.
- Sediments wash into the water from a construction site, covering up bottom-dwelling invertebrates, which are food for many fish.

Select students (usually 2 at a time) can be assigned special jobs and be located along the sidelines.

Students can become:

Anglers – over-fishing decreases many fish population sizes. Regulations have been established to ensure tomorrow’s angler will have plenty of fish to catch.

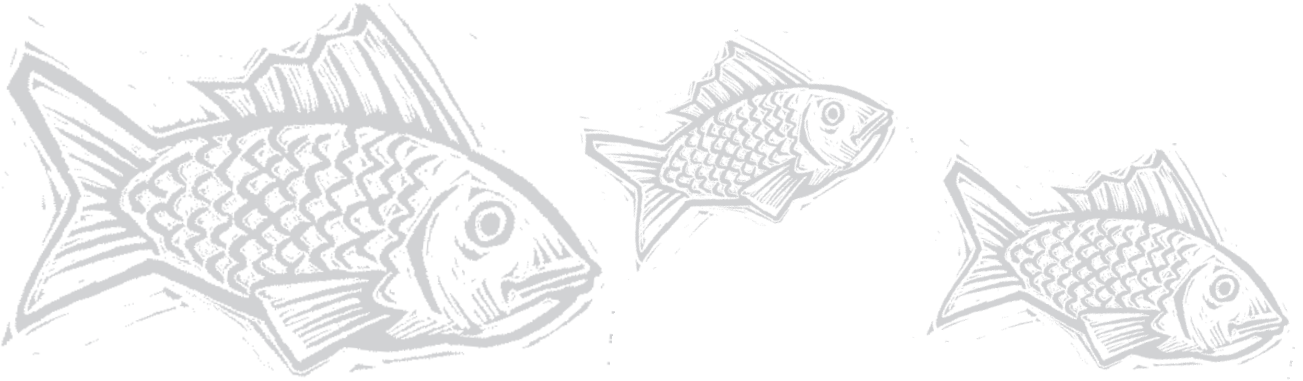
- Two students standing on the sides of the game field can toss small Nerf™ balls dipped in cornstarch at the fish going by or they may simply tag fish going by. If fish are “caught” they become habitat. Demonstrate the difference between ethical anglers and unethical anglers by allowing the anglers to “catch” as many fish as they can one round and limiting the catch to 2 fish the next round.

Pollution – in addition to toxins in the water, fish can get entangled in trash.

- Students can walk, hop, or skip through the cross traffic of people (avoiding violent collisions). If the pollution touches the fish, the fish die and become part of the habitat.

Invasive Species – non-native species have been introduced into our waterways. Some invasive non-native species out-compete native species for food or shelter, reducing the numbers of native fish.

- Students can walk, hop, or skip through the cross traffic of people (*avoiding violent collisions*). If the native fish and the invasive species come in contact, the native fish dies and becomes part of the habitat.



FISH PRINTS

Summary

Using paint and a plastic fish, students will create a print of the fish on a piece of paper. Students will then identify the parts of the fish.

Advanced Anger Objective 5

Students will be able to identify 5 fish parts and explain their functions

Time

15-30 minutes

Materials

Rubber fish (bluegill, largemouth bass, rainbow trout, flounder)

Various colors of paint

Containers for paint

Foam brushes

Butcher paper or newspaper

8 1/2" x 14" paper

Plastic scrub brush

Old towels

Large tub or bucket

Water for cleanup

Background

Use the following information about fish body parts to help students understand basic fish biology.

Fins – for balance and movement

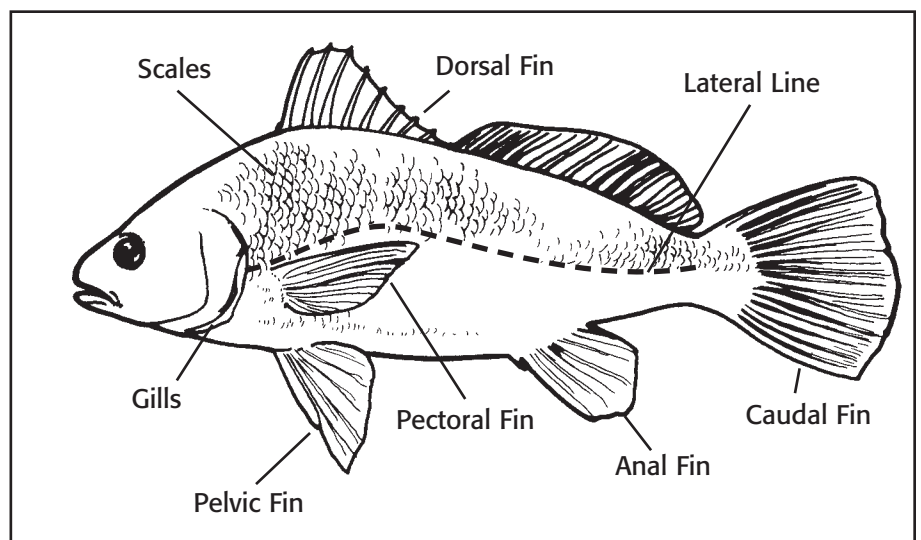
Caudal (tail) fin used for propulsion, forward movement

Dorsal fin provides balance and maneuverability

Anal fin provides balance and maneuverability

Pectoral fin allows fish to remain stationary, stay in one place; also used for diving and surfacing

Pelvic fin used for maintaining balance and position



Gills – let the fish “breathe” underwater. Water enters through the mouth and passes over the gills. As the water passes over the gills, oxygen is captured. Damage to gills is usually fatal.

Lateral Lines – only occur in fish. The lines help fish feel vibrations and locate nearby movement.

Fish ears - located on the head below the skin, allow fish to hear far-away sounds.

Scales – protect the fish. Scales grow larger as the fish gets older. As a result, scales are used to determine the age of fish.

Fish slime – not a true body part. The slime is a mucous coating which helps to prevent infection and disease. It also reduces friction with the water allowing the fish to move more easily through the water. To protect the fish slime, always wet hands before handling a fish.

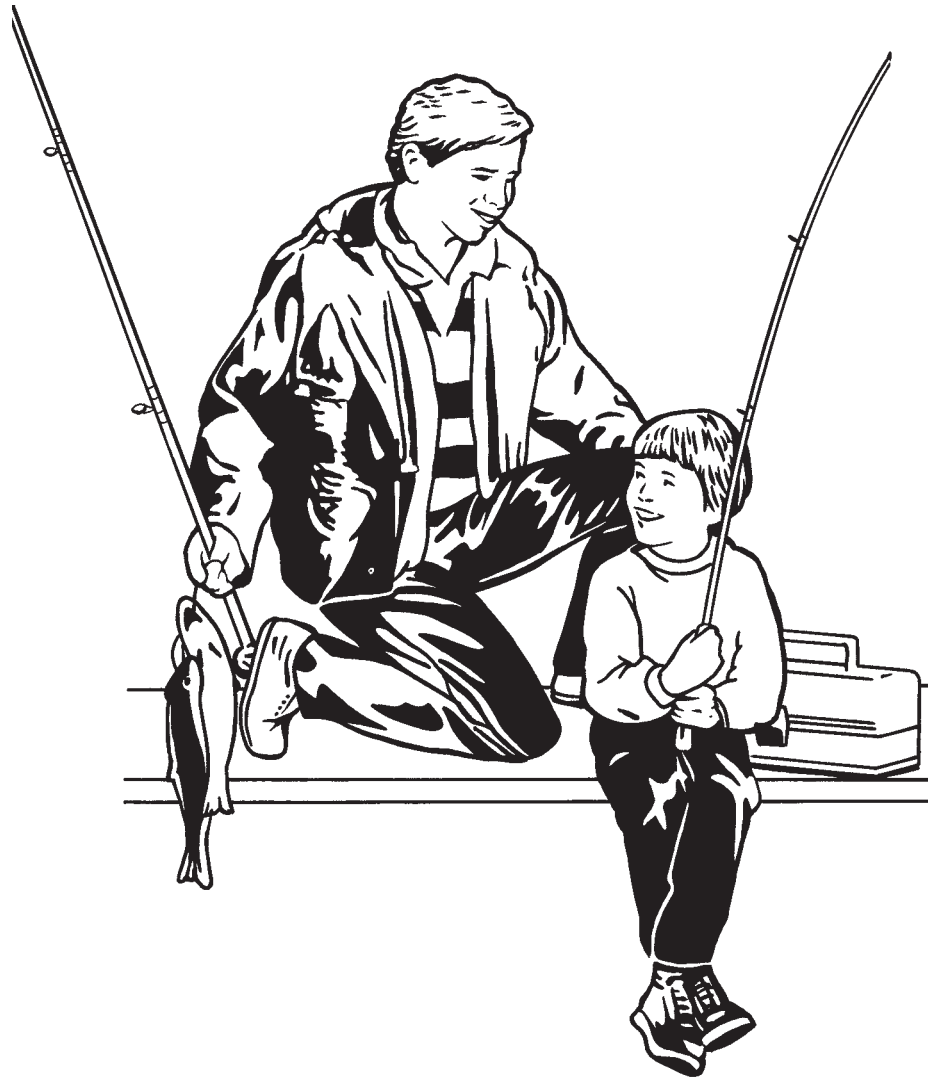
Procedure

1. Cover work area with butcher paper or newspaper to protect from spills.
2. Distribute containers with paint, plastic fish, paper and foam brushes.
3. Demonstrate to the class by applying a thin coat of paint to one side of the rubber fish. Multiple colors can be used on one fish, but don't allow students to mix a color from one container into another.

NOTE: You may have to experiment with the right application of paint to make the print clear. Too much paint can smudge the print. Too little paint will make the features of the fish unclear.

4. Lay a sheet of paper on the painted side and gently rub the entire fish.
5. Pull the paper up and lay it aside to dry. When dry, label the various body parts of the fish.
6. Instruct students to use the same procedure to create a fish print of their own.
7. After students have finished painting their fish and are letting the paint dry, discuss the main body parts of the fish and how they function.
8. Use the plastic scrub brush and bucket to clean the fish and foam brushes after painting.

PART IV



ANGLING ETHICS

IT'S YOUR DECISION – ETHICAL DILEMMAS



Summary

Given a fishing scenario involving an ethical dilemma, students will explain what they think a person should do in that situation. Groups of students can create a skit about the dilemma and the ethical response, or simply explain it.

Basic Angler Objective 7

Students will be able to:

1. Explain catch and release
2. Explain the ethical behavior for at least 1 fishing dilemma

Advanced Angler Objective 7

Students will be able to explain the ethical behavior for at least 4 fishing dilemmas

Time

10-20 minutes, depending on the number of students

Materials

Set of ethical dilemma cards (available in the Angler Education Instructor Kit or see dilemmas below)

Outdoor Annuals to use as a reference

Procedure

1. Begin by asking students what "ethical behavior" means. Guide students into a discussion of ethical behavior using these questions:
 - 1) Is it legal?
 - 2) Would it be good if everybody did it?
 - 3) Would it make you and your family proud?

2. Next, discuss the concept of catch and release:
 - a. What does catch and release mean? (Immediately after you catch a fish, you let it go.)
 - b. Why would you practice catch and release?
 1. To protect breeding-sized fish.
 2. To protect young fish and allow them to reach breeding size.
 3. To protect people from eating fish caught from polluted waters.
 4. To ensure that fish will always be there to catch in the future.
 5. To allow for people who just like to catch fish and have no interest in eating them.
 - c. How do you practice catch and release?
 1. Never allow a fish to touch the ground, dock, or boat deck. Fish are coated with a slime-like protective layer of mucous. This slimy coat prevents parasites, fungus, and bacteria from attacking the fish. Handling a fish roughly or carelessly can decrease or remove the fish slime.
 2. To prevent damage to the fish slime, pull the fish out of the water when the amount of line out is about the length of the rod or pole. Raise your tip straight up and the fish will automatically swing toward you.
 3. Wet your hands before touching the fish.
 4. Hold sunfish and catfish around the belly between your fingers and thumb. Hold largemouth bass by the lower lip between your thumb and forefinger.
 5. Remove hooks as gently and as quickly as possible. The use of a pair of needle-nosed pliers or a hook disgorger may be required.

PART IV – ANGLING ETHICS

6. Release the fish gently into the water. DO NOT drop or throw the fish back into the water.
3. Divide the class into groups of 3 or 4 students.
4. Give each group a dilemma to decide what the ethical response or behavior would be.
5. You may also ask each group to create a short skit to illustrate the dilemma and both the ethical and unethical response to the dilemma, allowing the rest of the group to guess what dilemma and behavior they are representing. Or simply ask the group to report on the dilemma and the way they feel one should respond.
6. Ask the whole group to discuss each issue/dilemma.

BASIC ANGLER ETHICAL DILEMMAS – Catch and Release

1. You are canoeing and fishing on the Guadalupe River. The catfish are really biting the dough bait you made. When you have caught enough fish for dinner, the catfish are still biting and you want to continue fishing. What do you do with the extra fish you catch?

Practice catch and release, carefully releasing all extra fish.

2. You are fishing for bass using a popper and all you seem to be catching are small gar. You take each gar off the hook and...

carefully release it because all fish play a role in the aquatic ecosystem – even species some people might wrongly refer to as “trash” fish

3. You haven't caught anything all day. You finally catch a 12-inch rainbow trout. You recall the minimum size for that stretch of river is 18 inches. You...

carefully release it back into the water.

4. You are using your cast net to catch some live finger mullet and shrimp to use as bait. Along with the mullet and shrimp you catch several hundred small shad. You don't want to use the shad for bait. You decide to...

get the shad back in the water as soon as possible because you realize they provide food for other fish and are an important part of the ecosystem.

PART IV – ANGLING ETHICS

BASIC ANGLER ETHICAL DILEMMAS – Environmental Responsibility

1. You are fishing off of a jetty on the coast and notice that the person fishing next to you left some line on the rocks. He also left a drink can and a candy wrapper. What should you do?

Even though it is not your trash, you should pick it up and dispose of it properly to help keep aquatic habitats healthy for wildlife. Always "leave it better than you found it" so we can all extend our fishing privileges and opportunities.

2. You are sitting outside your house when you notice your neighbor pouring motor oil down a storm drain. You know that the storm drain empties into a small creek and you know that oil can harm aquatic life. You decide to...

explain to your neighbor what can happen to the oil and ask him politely to take used oil to a recycling center (or offer to take it yourself).

3. You are moving and can't take your aquarium with you. It has tropical fish and some snails. You don't want your fish to die, so you...

give them to a friend or someone who will take care of them. You know not to put them in a nearby creek or river because they are not native to that water and they could either die or cause damage to the ecosystem.

4. You are fishing with a friend who threw his drink cans in the water. He tells you that the drink cans provide cover for small fish and are good for the lake. You tell him...

natural objects such as tree branches and large rocks make better cover for fish. Man-made objects like bottles and cans pollute the lake.

ADVANCED ANGLER ETHICAL DILEMMAS – Catch and Release

1. You have caught three red drum, one of which is over the maximum limit of 28 inches. You forgot to purchase the special red drum tag that allows you to keep one red drum over the maximum length limit per year. You decide to...

Release it, go buy the special red drum tag and try again right away.

2. You have just landed an undersized largemouth bass and you notice that it's bleeding from the gills. You try to release the bass, but it floats to the surface and is no longer breathing. You decide to...

put it back in the water anyway. It is still illegal to have an undersized fish. The fish may provide food for other animals.

3. You have reached your limit of rainbow trout. There are still plenty of trout biting and lots of room left in your cooler. You decide to...

practice catch and release, releasing any additional trout you may catch.

4. You have just finished catching your daily bag limit, but your friend hasn't. Your friend asks you to help him catch his limit. You tell your friend...

it is against the law for you to help him catch his limit. If you want to continue fishing, you will practice catch and release. (You may also want to donate some of your catch later if your friend would like to have more fish for supper.)

PART IV – ANGLING ETHICS

ADVANCED ANGLER ETHICAL DILEMMAS – Environmental Responsibility

1. You live in a new subdivision and notice that bulldozers are clearing all the vegetation along the creek. You know that without the vegetation holding the soil in place, the soil will wash into the creek whenever it rains. You decide to...

talk with others about the situation. Get some support and think of alternatives for the developers. Then with adult support, talk with the developers, explaining how their actions are harming the aquatic ecosystem, and ask for their help.

2. You get your line tangled in an overhanging branch and have to cut off a large length of line. You can see that some of the line is hanging in the water within reach. You decide to...

get as much of the line as you can safely do so because you know that wildlife can get tangled in leftover fishing line and can die.

3. You have friends who like to drive 4-wheelers up and down the bed of the river when it is very low. They don't think they are harming fish because they don't see any fish there. You tell them...

that even they don't see fish there, they are doing damage to the stream bed, creating pollution downstream, and destroying small organisms that provide food for fish.

4. You have been cutting the grass around your house and have a pile of clippings to get rid of. You could dump the clippings in a nearby ravine, but the clippings could wash into a nearby pond when it rains, creating food for bacteria to grow. When bacteria grow in very large numbers they can use up all the oxygen in the water, killing fish. You decide to...

put the clippings in a compost pile that will provide nutrients for your gardens instead of throwing them in the ravine.

FRIENDLY FISHING ETHICS! You can use these as bonus dilemmas.

1. You are fishing at night at a lighted pier and are not catching anything. Suddenly you hear a shout from the other end of the pier that someone has caught a nice bass. Then, you hear them again just a few minutes later. The fish seem to be biting there, but not where you are fishing. You decide to...

ask the person who is catching fish what kind of bait they are using and any other hints they might be able to give you. Sometimes anglers will offer to share their space with you, but remember not to crowd another angler.

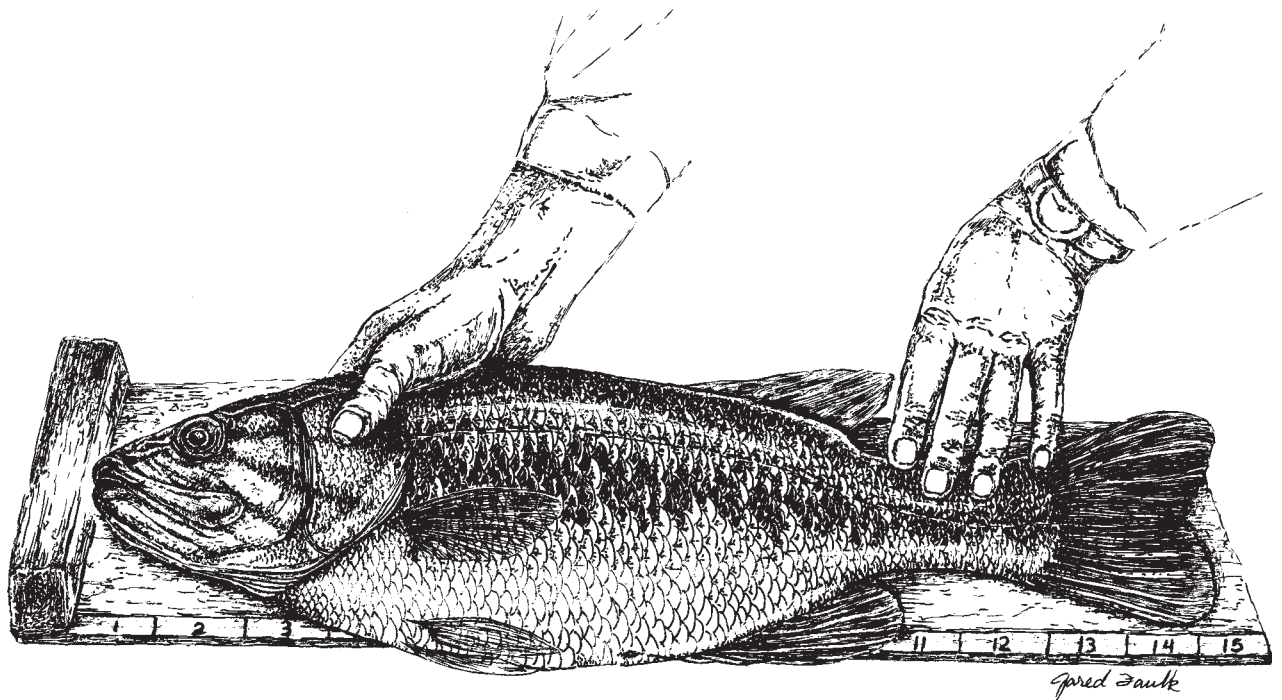
2. You have been fishing only a short time and have just learned the proper way to hook minnows, crickets and grasshoppers. You are catching bluegills and having fun. You notice another young angler with her dad trying unsuccessfully to hook minnows. You decide to...

show them how to hook the minnow properly, even though it will take time away from your fishing.

3. You are trying to fish from a pier at a state park in an area open for fishing. Several people in 2 boats pull up to the pier and begin making a lot of noise. You decide to...

be patient for a while to see if they will be quiet or leave. But if they don't, you explain that their noise is making it difficult to fish. If they continue, you can ask park personnel to intervene.

PART V



FISHING REGULATIONS AND SAFETY



SAFETY FIRST

Summary

Given examples of safety equipment that each angler should have available on each fishing trip, participants will explain to the group how each piece of equipment helps anglers be safe when fishing.

Basic Angler Objective 6

Students will be able to:

1. Identify safety equipment needed for fishing
2. Explain the proper use of each piece of safety equipment

Advanced Angler Objective 8

Students will be able to:

1. Identify safety equipment needed for fishing
2. Explain the proper use of each piece of safety equipment

Time

10-20 minutes

Materials

At least two PFDs (life jackets) in different sizes
Pliers to compress the barbs on hooks (if practicing catch and release—mainly for safety of the fish, but for novice anglers, it can mean safety for themselves and other anglers)

First Aid Kit

Hat

Sunscreen

Water

Insect repellent

Sunglasses

Nail clippers

Cell phone or emergency strategy

Labels made for each of these items and a bag to put them in

Procedure

1. Allow students to draw one label card out of the bag.
2. Ask “Who has the label for the _____” in regard to each of the safety items.
3. Have the student with the label come up and set it by the item and explain why the item is important to your safety or health while fishing.
4. Be sure all students hear the answer and take time to discuss each item.

OR

1. Have items on the table, covered with a cloth. Tell students that they will need to look carefully when the cloth is removed for 30 seconds to try to remember what safety items were on the table.
2. Have students recall or list as many items as they can remember (if writing, give students one minute).
3. Have students explain why each item is important to have on a fishing trip.

FOR BOTH ACTIVITIES:

1. Ask two students to try on the PFD’s and check to make sure they know how to put them on and how to determine if they fit properly. The instructor should show the students that a properly fitting PFD cannot be pulled up above the ears by the shoulder straps. It must be snug.
2. Ask students if they know what “Reach, Throw, Row and Go” means in terms of how to help someone who is in the water and having difficulties. Discuss the importance of first trying to **Reach** that person with an oar or something they can grab. If you don’t have something, then **Throw** them a flotation device, preferably attached to a rope. If you don’t have that, then get in a boat and **Row** out to them. Or, **Go** for help. Young people should never jump in to save someone.



FISHING REGULATIONS – TRUE OR FALSE

Summary

Students answer true-false questions about fishing regulations with discussion and explanations to follow. This activity may be used as a team activity, with scores for right answers.

Basic Angler Objective

Students will be able to:

1. Identify the Outdoor Annual as the publication of fishing regulations in Texas
2. Explain at least 1 fishing regulation

Advanced Angler Objective

Students will be able to explain at least 4 additional fishing regulations

Time

15-20 minutes per game

Materials

Fishing Regulations – True or False Teacher's Key
Fishing Regulations – True or False Student Page

Procedure

Divide participants in groups of 3 or 4. Copy and cut the following statements apart. Put the statements in a box so that participants can draw a statement and decide if it is True or False. Keep team scores and discuss each statement to make sure participants understand the regulation.

INSTRUCTOR KEY

1. A book of hunting and fishing regulations comes free when you buy a fishing license. (T)

An Outdoor Annual should be provided when you purchase your license, but if it is not, request one. You can also get one simply by asking for it from a point of sale business such as a tackle shop or other outdoor shop.

2. In Texas you must purchase a fishing license when you turn 16. (F)

You are not required to purchase a fishing license until the age of 17.

3. In Texas, you must renew your fishing license every other year. (F)

Fishing licenses must be renewed every year. However, you have a few options. You can purchase one that is valid from Sept. 1 to Aug. 31 or elect to purchase one that is valid for one year from date of purchase. Daily options are also available. See the Outdoor Annual for more details.

4. If I am standing on private property, but fishing into a Texas river, I don't need a fishing license. (F)

In addition to needing a fishing license, you must also have permission from the property owner.

5. If I am fishing in a stock pond on private land, I don't need a fishing license. (T)

However, the property owner could make it a requirement if he or she wished.

6. If the daily bag limit is 10 for spotted sea trout, that means the possession limit is 15. (F)

Bag Limit is the number of fish that can be legally taken in one day. Possession Limit is twice the bag limit of fish unless stated otherwise in the TPWD Outdoor Annual.

7. All sportfish species have a minimum length limit if you are keeping them. (F)

On some water bodies, the rule is "Catch and Release"; read through the TPWD Outdoor Annual for specific water body rules. Harvest rules may vary from water body to water body. Anglers must check specific exception rules for different water bodies and different species. These rules are found in the Outdoor Annual.

8. There is a maximum length limit for some sportfish species. (T)

For freshwater species, there are generally no maximum length limits, but there are some exceptions for specific water bodies. Check the Outdoor Annual for those exceptions. There are some maximum length limits for some saltwater species, too. There may also be minimum and maximum length limits (slot limits) that must be carefully reviewed by the angler in the Outdoor Annual before each fishing trip.

9. It is unlawful to catch a fish in a manner that is meant to hook the fish anywhere other than its mouth. (T)

This is known as foul-hooking and is illegal.

10. In freshwater, it is unlawful to fish with more than 100 hooks. (T)

Trotlines may not have more than 50 hooks.

11. You do not need a fishing license to catch shrimp and oysters. (F)

You must have a valid fishing license and a saltwater stamp to harvest either.

PART V – FISHING REGULATIONS AND SAFETY

12. When measuring a fish, you can't count the length of the tail. (F)

To determine the precise total length of a fish, the tail must be either squeezed together or turned to the extreme tip of the tail.

13. It is unlawful to drive a motor vehicle in a streambed of a navigable river, unless approved by a local river access plan. (T, but with a few exceptions)

Some areas have been designated for vehicle access; however most are not.

14. Anyone fishing in fresh water must have a fresh-water fishing stamp. (T)

They are available at the same location as fishing licenses are sold.

15. You must have a fishing license to take crayfish, mussels and clams in the public waters of Texas. (T)

16. When a person has caught his/her limit of fish, it is legal to help another person catch their limit of fish. (F)

17. You don't need a license to fish in Texas state parks. (T)

Provided that you remain within the boundaries of the park and fish from the shore, bank or pier. Fishing from a boat requires a valid fishing license unless the body of water is completely contained within the park boundaries.

18. Sea turtles, which are considered a delicacy, may be taken with a valid fishing license. (F)

It is illegal to take, kill or disturb sea turtles, sea turtle eggs, porpoises, dolphins (mammals), or whales or any endangered or threatened species such as paddlefish, shovel-nosed sturgeon and others.

19. Funds to support our state fish hatcheries and fishing management in Texas come from a special tax placed on fishing gear, boats, motorboat fuel and other outdoor gear. (T)

The source of this funding comes from the The Federal Aid in Sportfish Restoration Act which was passed by Congress in 1950.

20. Protected slot limits are there for no other purpose than to confuse the angler. (F)

Slot limits are there to protect reproducing females needed to increase fish populations.

TRUE OR FALSE STATEMENTS

1. A book of hunting and fishing regulations comes free when you buy a fishing license.

2. In Texas you must purchase a fishing license when you turn 16.

3. In Texas, you must renew your fishing license every other year.

4. If I am standing on private land, but fishing into a Texas river, I don't need a fishing license.

5. If I am fishing in a stock pond on private land, I don't need a fishing license.

6. If the daily bag limit is 10 for spotted sea trout, that means the possession limit is 15.

7. All sportfish species have a minimum length limit if you are keeping them.

8. There is a maximum length limit for some salt-water sportfish, but no maximum length limit for freshwater sportfish.

9. It is unlawful to catch a fish in a manner that is meant to hook the fish anywhere other than its mouth.

10. In freshwater, it is unlawful to fish with more than 100 hooks.

11. You do not need a fishing license to catch shrimp and oysters.

12. When measuring a fish, you can't count the length of the tail.

13. It is unlawful to drive a motor vehicle in a streambed of a navigable river, unless approved by a local river access plan.

14. Anyone fishing in fresh water must have a freshwater fishing stamp.

15. You must have a fishing license to take crayfish, mussels and clams in the public waters of Texas.

16. When a person has caught his/her limit of fish, it is legal to help another person catch their limit of fish.

17. You don't need a license to fish in Texas state parks.

18. Sea turtles, which are considered a delicacy, may be taken with a valid fishing license.

19. Funds to support our state fish hatcheries and fishing management in Texas come from a special tax placed on fishing gear, boats, motorboat fuel and other outdoor gear.

20. Protected slot limits are there for no other purpose than to confuse the angler.

FISHING PICTIONARY®

Summary

Given basic fishing regulations and safety rules, students will play a game like Pictionary® to try to get other students to guess and state the regulation or safety rule.

Basic Angler Objectives 6 & 8

Students will be able to:

1. Explain 2 fishing regulations and tell where to find them
2. Explain 2 fishing safety rules (1 water safety rule and 1 fish handling rule)

Advanced Angler Objectives 8 & 9

Students will be able to:

1. Discuss 5 fishing safety rules (water safety and handling fish)
2. Explain 4 fishing regulations

Time

15-30 minutes

Materials

Copies (see following pages) of the safety rules and regulations cut apart and put in separate containers. Fishing Safety and Fishing Regulations cards are available in the Angler Education Instructor Kit.

Current Outdoor Annuals (or any Texas fishing regulation publication)

Large tablet and markers (or blackboard and chalk)

Timer

Fishing Pictionary Student Page (optional)

Procedure

1. Copy the list of fishing regulations and safety rules listed at the end of this lesson. This is only a short list. Consult the Junior/Master Angler Guidebook and an Outdoor Annual for a more complete list. Cut the list of safety rules and regulations apart and put each rule or regulation in containers for students to draw from. Students will know whether they are drawing from the “regulations” container or the “safety” container.
2. Ask students if they know any fishing regulations (laws) or where those regulations can be found.
3. Show them a copy of the Outdoor Annual and explain that the laws for both hunting and fishing are published each year and are free where you get a hunting or fishing license. All citizens are expected to obey these regulations when fishing. These regulations help ensure that there will be enough fish for future anglers. At the same time, anglers must be sure they have safety for themselves and others in mind at all times. This game will help you identify safety rules and fishing regulations important for you to remember when fishing.
4. Divide students into groups of 2-4. The students will be acquiring points as a team by successfully drawing or successfully guessing the regulation or safety rule drawn by a member of one group.

PART V – FISHING REGULATIONS AND SAFETY

5. One team is selected to go first as the “picture” team. That team asks 1 team member to select a safety rule or regulation from the “regulation” or “safety rules” containers. The audience will be told which category was drawn. Then, without using words or numbers, that person begins to draw a representation of the safety rule or regulation, while the members of the other teams begin to try to guess the safety rule or regulation. The person who is doing the drawing and his/her team may not give any verbal directions to the audience, but may signal “yes” or “no” or encourage the audience nonverbally if they are on the right track. If students are having a hard time guessing the rule, you may allow the audience to use the Junior/Master Angler Guidebook. The “picture” team may decide if the guesses are close enough to be counted as a win and who had the winning guess. The rules or regulations are followed by further explanation in parentheses that may be discussed after the teams have guessed the rule or regulation.
6. Use a timer and allow 3-5 minutes for both the drawing and the guessing. If the safety rule or regulation is guessed within the 3-5 minute time frame, then both the team that drew the picture and the team that guessed correctly get a point. If no one guesses correctly, then the safety rule or regulation is read aloud and another team gets to be the “picture” team. No points are given. Take time to discuss each safety rule or regulation to make sure students understand them.
7. Play continues until either time is up or until all of the safety rules and regulations have been drawn.
8. Instructors can take time to discuss any safety rules or regulations not drawn. See the Junior/Master Angler Guidebook for a more complete list.

FISHING Pictionary CARDS – Fishing Regulations

#1

You cannot keep more than your limit of any species of fish per day. (This is called the “daily bag limit.” Check the current Outdoor Annual for information on daily bag limits.)

#2

You must have a license if you are fishing **into** lakes and rivers (which are public property) even if you are standing on private land.

#3

You cannot help another person catch their limit of fish if you have already caught your limit of fish. (A limit of any one type of fish is called a bag limit. Your daily bag limit is your limit of any one type of fish per day.)

#4

You don't need a fishing license until you turn 17. (When you turn 17, you must have a fishing license in order to fish legally in public waters).

#5

You may only keep fish that are legal in length. (Use the current Outdoor Annual to check legal fish lengths and find out how to measure fish correctly.)

#6

You must have a fishing license and a saltwater stamp to take any saltwater fish, including crabs, shrimp and oysters. (The saltwater stamp is properly termed a “saltwater conservation stamp.”)

#7

Fishing licenses are good from September 1st to August 31st. (You must renew after September 1st each year.)

#8

If you catch a fish that is too small to keep, but it is dead when you bring it in, you must still release the fish back into the water.

FISHING PICTONARY CARDS – Fishing Safety Rules (for both fish and anglers)

#1

Always wet your hands first before handling fish. (Wet hands are less likely to damage the protective coating of slime 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

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 waterproof shoes.)

#3

If you are not keeping the fish, take the fish off the hook as soon as possible. (Then you can 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.)

#4

Wear a life jacket that fits properly and make sure it's fastened securely. (A life jacket is also known as a PFD – Personal Flotation Device. Eighty-five percent of drowning victims would be alive today if they were wearing a PFD.)

#5

Don't allow fish to flop around the bank, the dock or floor of the boat. (If you are keeping fish, put them in a live well, on ice or in a bucket of cool water).

#6

The distance between you and the angler next to you should be 2 times to the length of your arm and a fishing rod. (You should keep this length before, during and after you cast. Look behind you and to each side before casting to avoid hooking anyone or anything.)

#7

If someone falls into the water, **reach** the person with something they can hang on to or **throw** something that floats (a flotation device) out to them. (If that doesn't work, you can **row** out to them if you are in a boat; and then **go** for help! Don't jump in and risk drowning yourself.)

#8

Try to go fishing with someone such as a friend, relative, a "buddy." (This is called the "buddy system." If something happens to you such as slipping down a bank, your buddy, can help you. Children should always have adult supervision, especially around water.)



FISHING PICTIONARY[®] STUDENT PAGE

FISHING SAFETY RULES

- Junior Anglers should only go fishing under adult supervision.
- Keep at least one rod's length away from other anglers before, during, and after casting.
- Look behind you and to the side before casting to avoid hooking anyone or anything.
- Consider fishing with barbless hooks, or having an adult bend the barbs down with pliers. Barbless hooks are easier to remove if you hook yourself, someone else or a fish.
- Wear a properly fitting personal floatation device (PFD or life jacket) and fasten it securely. 85% of drowning victims would be alive today if they had been wearing a PFD.
- To rescue a person who falls in the water: REACH the person with something they can hang onto; 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.
- Use the "buddy system" when fishing. If something happens to either one of you, you can help each other out.
- Protect head, eyes, hands, feet, and skin from exposure to wind and sun. During hot months wear light colored clothing, hat, sunscreen and drink plenty of water. In cold months wear layers of clothing, gloves, a knit hat and waterproof shoes.
- If your line gets snagged when you cast it out, gently jiggle your line back and forth and from side to side to loosen it. Don't pull too hard! If you do, it could come loose with force and snap back and hit you or someone else.
- Master Anglers who have learned how to clean fish should always use safety glasses and gloves to protect eyes and hands. Always cut away from your body when using a knife.

SAFETY FOR THE FISH!

- If you plan to release the fish, use wet hands when handling the fish. Wet hands are less likely to damage the protective mucous coating on the outside the fish. This slimy layer helps protect the fish from disease and makes it easier for them to glide in the water.
- Don't allow fish to flop around on the bank, dock or floor of the boat. If keeping the fish, put them on ice or in a bucket of cool water.
- If releasing the fish, take the hook off the fish as soon as possible. Gently lower it into water until it swims away. You may need to slowly swish it in the water if it is not ready to swim immediately.
- No fish is a "junk" or "trash" fish so respect it by releasing it unharmed if you are not keeping it. All fish play important roles in the aquatic ecosystem.

TEXAS FISHING REGULATIONS

- At age 17, you must have a fishing license in order to fish legally in public waters.
- Fishing licenses are good from September 1st to August 31st. You must renew after September 1st each year.
- A fishing license is required for ALL public waters, even if you are on private land. However, you don't need a license to fish on private property in a private pond unless the landowner requires it.
- If you catch a fish that is too small to keep, it must be released back into the water, even if it is already dead.
- You must have a fishing license and a salt-water conservation stamp to take any saltwater fish. This includes crabs, shrimp and oysters.
- You can't keep more than your limit of any species of fish per day. This is called the daily bag limit and can be found in the current Outdoor Annual.
- Once you have caught your daily bag limit you can't help a friend catch their limit. After you catch your limit, you may not keep any more fish.
- You may only keep fish that are legal in length. A current Outdoor Annual will tell you legal fish lengths and how to measure fish correctly.



IT'S THE LAW

Summary

Students will use a copy of the Outdoor Annual to answer questions about fishing regulations and other topics that the instructor poses.

Advanced Angler Objective 9

Students will be able to:

1. Explain 3 fishing regulations
2. Use the Outdoor Annual as a reference in the field.

Time

10-20 minutes

Materials

- 1 current Outdoor Annual for each student
- List of questions for students to answer using their Outdoor Annuals

Procedure

1. Discuss the importance of following the rules and regulations set up by Texas Parks and Wildlife Dept. Fishing is fun, but along with that fun comes responsibility. We must all work together to protect the wildlife resources of Texas to ensure that they are abundant today as well as in the future.
2. Discuss the results of refusing to follow these rules. It can result in fines, imprisonment, confiscation of equipment, and/or financial restitution.
3. Ask students questions found in the current copy of *Texas Parks and Wildlife Outdoor*

Annual. The Outdoor Annual is provided to you when you purchase your fishing license.

4. Award small rewards such as soft plastics or tokens for each first correct answer.

Questions:

1. How much does a fishing license cost?
2. Do I need any special or additional licenses?
3. I'm planning a fishing trip on the Texas border. Are there any special requirements?
4. What are the general fishing rules?
5. What are the boundaries of lakes in Texas?
6. What are the coastal boundaries in Texas?
7. How do you properly measure a fish or a crab?
8. How do you identify a striped bass, white bass, yellow bass, and their hybrids?
9. What is the definition of fishing tackle?
10. What are the legal devices and restrictions for taking fish?
11. Where do I find the freshwater bag and length limits?
12. Where do you find the exceptions to the statewide harvest regulations?
13. Where do you find saltwater bag and length limits?
14. Where do you find shellfish regulations?
15. Where do you find shrimp harvest regulations?
16. Where do you find crab harvest regulations?
17. Where do you find oyster harvest regulations?
18. Where do you find information about waters where there is a fish consumption ban?
19. Where do you find information about reporting illegal fishing/hunting activity? (Operation Game Thief)

Regulation Dilemmas

1. You are 17 years old. You and your family are picnicking at a park near a lake. You notice a large fish jumping out of the water and decide to get your rod and reel out of the car. On the way to the car, you realize that it is after Sept. 1st and you forgot to purchase your new fishing license. If you go to the nearest bait shop you can buy a license, but if you don't fish now, you might miss catching the big one. What do you decide to do?

Buy a license because it is against the law to fish without a license if you are 17 or older. You will probably not miss the big ones.

2. You are traveling down a country road along the Blanco River and notice a perfect fishing spot on the other side of a fence. You have your gear and your fishing license with you so you decide to stop. Before you cross the fence, you decide to...

check with the landowner first to get the landowner's permission to fish. If you can't contact the landowner, you should find a public access point to the river, staying out of private land.

3. You and your friend are fishing for white bass on Lake Granger. Your friend has already caught his legal limit of white bass for the day (25). You have caught 19 and are still trying to fill your daily bag limit. Your friend tells you that he will help you catch the rest of your limit, and hooks into a nice sized white bass. He removes the hook from the fish and proceeds to place it in the ice chest. You tell him...

to put it back in the water because he has already caught his limit. You have to catch your own limit.

P A R T V I

ADVANCED ANGLER EDUCATION CLASSES

YOUTH FLY FISHING

INTRODUCTION

As part of its Angler Education program, Texas Parks and Wildlife Department (TPWD) is offering two levels of introductory fly fishing training geared primarily for youth. **Basic Fly Fishing** training is an introduction to fly fishing, and is *not* meant to prepare participants to fly fish immediately. We hope that this introduction will inspire participants to continue with the **Intermediate Fly Fishing** activities, which will provide sufficient skills and knowledge necessary to begin fly fishing. In addition, we hope participants in our basic and intermediate classes will be inspired to seek out additional fly fishing opportunities through the 4-H Sportfishing program, Boy Scouts or through local fly fishing clubs.

TPWD's fly fishing classes are most appropriate for youth ages 12 through 16 and, with some modifications, for adult beginners as well. Instructors may choose to teach the **Basic Fly Fishing** activities alone if appropriate for the participants and time frame. Instructors teaching **Intermediate Fly Fishing** activities will choose whether to teach the knowledge and skills of both levels separately, with Intermediate activities following Basic activities, or as a combined class. Each set of activities should take about half a day. We recommend offering time for casting practice and fishing after the class to increase participants' confidence and interest in fly fishing.

PHILOSOPHICAL APPROACH

1. Activities geared for youth should be age-appropriate, fun and activity-based rather than lecture-based.
2. Instilling a conservation ethic is a very important component of all TPWD youth education programs.
3. Fly fishing should be presented as a life-long pursuit for people of all ages and abilities.
4. Fly fishing equipment comes in a variety of price ranges, making it a sport that is accessible to most Texans.
5. Texas has a wealth of good fly fishing sites and experienced anglers to mentor youth.

BASIC FLY FISHING SKILLS CHECKLIST

1. Identify the different parts of fly tackle (including rod, reel, backing, fly line, leader and tippet).
2. Explain how fly rods and reels are different from other types of rods and reels.
3. Perform a safe four-part fly cast .
4. Learn how to tie the fly to the tippet.
5. Discuss different types of flies and when and where they might be used.
6. Tie one simple fly pattern such as a foam-body fly or jig head nymph. (optional)
7. Explore an aquatic habitat, identifying the components of a healthy aquatic ecosystem, including different aquatic insects that serve as food for many fish.
8. Discuss safety equipment for fishing (life jacket, hat, sunglasses, water, knife and pliers for compressing barbs on flies).
9. Read 4 ethical dilemmas and justify responsible actions for each.

INTERMEDIATE FLY FISHING SKILLS CHECKLIST

1. Identify 3 different types of fly lines (floating, sinking and sink-tip) and explain when to use each.
2. Review and demonstrate the basic 4-part cast.
3. Demonstrate safe distance casting (false casting and shooting line).
4. Tie 2 additional fly fishing knots and explain when each would be used (fly line to leader; leader to tippet; tippet to fly).
5. Tie 2 different types of flies and discuss situations when each would be used to catch fish. Relate fish biology and behavior to fishing strategy.
6. Identify coldwater, warmwater, and saltwater fish and fish habitats found in Texas, discussing fishing strategies in each habitat.
7. Explain where fishing regulations are found and demonstrate the ability to use the regulations book, the Outdoor Annual, to find creel limits, length limits, slot limits and possession limits for fresh and/or saltwater fish.
8. Simulate or demonstrate the proper and safe way to handle fish to catch and release.
9. Discuss the proper way to handle fish that are being kept (may include how to clean and prepare fish to eat).

P A R T V I I

ESSENTIALS FOR INSTRUCTORS

INSTRUCTOR STANDARDS AND POLICIES

Safety First

1. Make sure that children are supervised 100% of the time. No child should be left alone.
2. Have a cell phone or other phone handy in case of emergencies and know local emergency numbers.
3. Instruct students about potential safety hazards.
4. Have a simple first aid kit handy in case of minor scrapes, but don't administer any medicines or antiseptic ointments yourself. Allow students or their parents to do that themselves.
5. Have water and paper towels handy.
6. Create emergency plans for each class and each location.

When Working with Children

1. Never be alone with a child.
2. Always stay with a group and have another trusted adult to help supervise children. (If working with a civic group, other adults should be involved to help. Or a child's parent can help supervise.)
3. Discuss class expectations (both what students will learn and what you expect them to do) in a positive manner at the beginning of the class.
4. Keep the class interesting by letting them "do" more and "listen" less. Break the class up into short segments or stations that allow children to participate and move around as much as possible.
5. Provide children with positive feedback about their behavior and performance of the class objectives. It may be necessary to redirect a child's behavior or, if necessary, ask another adult to quietly work with a child one-on-one.
6. Try to take students from what they presently know to the new ideas you will teach them. Relate new ideas and skills to their present knowledge and skills. Questioning children and involving them in discussion is one way to find out what they already know.
7. Have fun with the children, helping them understand the importance of being an ethical angler and steward of our water resources.

Instructor Standards

1. Maintain the dignity and integrity of TPWD with the public and as you teach the class.
2. Wear a name badge.
3. Accept the guidance/decisions of the Aquatic Education Coordinator and his/her staff. Report to them on a regular basis.
4. Know the subject and prepare hands-on activities to the greatest extent possible.
5. Teach at least one class or event per year with at least 10 students.
6. Be punctual, dependable, and carry out duties promptly and reliably.
7. Evaluate the instruction to improve performance.
8. Complete records and submit them within a week of course completion.
9. Attend in-service training workshops when possible to improve performance and to receive program updates.
10. Communicate with the Angler Education staff about the scheduling of upcoming classes or the canceling of scheduled classes if they are open to the public and can be put on our web site.
11. Be available to assist with other special events in your area dealing with fishing or angler education.
12. Refrain from the use of profanities, obscenities, and negative behavior when working in the capacity of a TPWD volunteer or volunteer instructor.
13. Do not use alcoholic beverages or tobacco products right before and, especially, during a class or when volunteering.
14. Be friendly, warm and courteous to all students.
15. Refrain from stating personal opinions or philosophies, especially any that may conflict with the mission and purpose of TPWD and the Angler Education Program.
16. Involve others and solicit help, support and sponsorship from local resources.

INSURANCE FOR TPWD CERTIFIED VOLUNTEERS

TPWD provides personal liability insurance for certified, registered TPWD/Angler Education volunteers. The policies provide protection for a personal injury or a property damage liability claim arising out of the performance of the volunteer's duties. This coverage is secondary and in excess of and non-contributing with any other valid and collectible insurance the volunteer may have.

What IS Covered:

- Personal Liability Coverage: 1 Million (\$1,000,000); does not cover auto accidents
- Medical Policy: \$25,000. Covers most accidents or personal injuries to a volunteer, and is secondary to the volunteer's personal medical coverage
- Any registered volunteer if they harm someone or property in the course of performing a TPWD approved volunteer service

What is NOT Covered:

- General sickness, disease or hernias of any kind
- Criminal acts
- Harm caused by gross negligence, reckless misconduct, conscious indifference to rights or safety of the person harmed, or criminal misconduct
- A volunteer when not partnered with TPWD
- A volunteer performing restitution of any sort
- A volunteer driving a TPWD motor vehicle
- Volunteer in transit to and from assignment

COVERAGE SUMMARY:

The primary policy is a standard accident policy, which covers all “registered volunteers” for most medical expenses, as well as accidental death and dismemberment, incurred as the result of most types of accidents involving a volunteer. The coverage applies while volunteers are performing volunteer “assignments”. This policy will cover the volunteer’s medical expenses for injuries incurred in the operation of motor vehicles.

The primary exclusions to this particular policy are accidents resulting from the following: acts of war, injuries incurred “in flight,” and injuries incurred while acting as a volunteer fireman, rescue squad member or sports team member. The policy does not cover general sickness or disease, nor does it cover hernias of any kind. If the volunteer has his own personal insurance, this coverage will provide for medical expenses in excess of those covered by the volunteer’s personal insurance. If the volunteer does not have any insurance coverage, this coverage will then serve as the volunteer’s primary coverage.

Volunteers should not drive TPWD motor vehicles as they could be personally liable, since they do not fall under the limitations of the Tort Claims Act.

Volunteer insurance policies are administered through SORM (State Office of Risk Management)

HOW TO REPORT AN INCIDENT:

In the event of an accident, within one (1) business day of the occurrence the volunteer should contact the Aquatic Education Program Coordinator at 512-389-4732 and request a **PWD 009 form (Injury, Incident, Property Report Form)**. TPWD’s Legal Division (512-389-4804 or 512-389-8626) should also be contacted to insure proper tracking and guidance for filing a claim.

PREPARING FOR A CLASS

The best way to prepare for teaching this curriculum is to take the Angler Education Instructor Class. In that class, you will participate in many of the activities that you will use to teach Angler Education objectives, giving you hands-on knowledge and new ideas for teaching. You will also learn about the support you can expect from Texas Parks and Wildlife Department and expectations TPWD has of you as an instructor. At the same time, you will learn how to schedule, report, and document your classes. These topics will be addressed in this section of the Instructor Guide.

Scheduling Your Class

If you are scheduling a class that is open to the public, send the information about the course (reservation information) to Aquatic Education staff. We can put that information on TPWD's Web site to help you promote your course. Give us a 6-week lead to get the information on the Web site. Most instructors allow about 3 hours to teach from 10 to 25 students, depending upon how many assistants they have (if any) and whether or not there will be actual fishing to follow the instruction. We encourage angler instructors to include fishing because, of course, that experience will cement a student's knowledge and enthusiasm for fishing.

Organizing a Basic or Advanced Angler Class

Location: Because of the activity-based style of teaching proposed in this guide, the ideal location for a class is a large open area outside, weather permitting, or a large indoor site such as a gym. This will permit students to practice casting safely. It will also allow for students to move from one skill station to the next.

Class duration: A Basic Angler class of 40 students divided into 5 groups can complete all 5 skill stations in about 2 hours if there is an assistant at each station to help students complete the activities successfully before they rotate to the next station. Time needed to complete the Advanced Angler class will vary, depending upon the students' skill/knowledge levels and class size. In general, if students have recently completed Basic Angler instruction, the Advanced Angler class will take another 2 hours to complete.

Teaching Methods: Because of the wide range of situations under which instructors teach, there is a great deal of flexibility in teaching methods. Ideally, instructors will minimize the "lecture" approach to teaching, providing activities that allow a more engaging, hands-on approach. One method to organize the class is to set up the activities suggested in this guide in stations, with students moving from station to station, completing the objectives/activities at each station. Copy the skills checklists on page VII-13, giving one to each student. Then as students complete each station, the instructor initials the checklist to document completion. Several objectives may be taught at each station, with instructors initialing more than one spot on the checklist as students complete the station. If the instructor is working alone, he/she can teach each station consecutively, but it is recommended that class size remain small. If the class size is larger, instructors will need trained assistants at each station to guide students as needed. Students will move from station to station in groups, learning each of the skills. Assistants should be knowledgeable and skillful in guiding the activity. We encourage you to consider anyone from teenagers to senior citizen volunteers as possible assistants.

PART VII – ESSENTIALS FOR INSTRUCTORSSample Basic Angler Class:

The Basics/Knot Tying – Objectives 1 & 2

Learning to Cast – Objective 3

Fish 'n' Bait – Objectives 4 & 5

Fishing Pictionary – Fishing Safety and Regulations – Objectives 6 & 8

It's Your Decision/Ethical Dilemmas – Objective 7

At the beginning or end, have the class as a whole participate in "*Habitat Hangout*" or "*Go Fish*" to learn about aquatic habitats – Objective 9

Sample Advanced Angler Class:

Advanced Angler students will go into greater depth at the Basic Angler stations and will take longer to complete the following activities:

Know Your Knots – Objective 1

Learning to Cast – Objectives 2 & 3

Fish 'n' Bait – Objectives 4 & 6

Fish Prints – Objective 5

It's Your Decision – Ethical Dilemmas – Objective 7

Fishing Pictionary – Objective 8

It's the Law – Objective 9

At the beginning or end of the session, have advanced Angler students participate in the activity, "*Go Fish*" or "*Habitat Hangout*" – Objective 10.

Teaching Equipment, Supplies, and Student Achievement Awards

1. Most of the equipment and teaching aids needed to teach a basic or advanced Angler class are in the **Angler Education Instructor Kit**. These kits are located throughout the state and are available on a loaner basis. Call Aquatic Education at 1-800-792-1112 x65 or access the Web site to find the kit nearest you. Or, if you will be teaching Basic or Advanced Angler classes on a regular basis, check with TPWD about getting a kit on a more permanent basis. Be sure to reserve your trunk several weeks in advance of your class to ensure that it will be available when you need it. The contents of the trunk is listed on the following page.
2. Supplies not found in the kit may be purchased at a hardware store or an outdoor store (check the materials listed for each activity). If you want to teach the Basic/Advanced Angler objectives using different types of activities, you may need alternative equipment.
3. Written materials and incentive awards for Basic/Advanced Angler classes can be ordered from TPWD using the form provided in Part VII. Written materials and incentive awards must be ordered **3 weeks prior** to each class to ensure that you receive them on time.
4. Ordering and reporting forms are available online at: <http://tpwd.texas.gov/education/angler-education/instructor>

Choose **Angler Education**, then **Angler Education Instructor Resources**, the password is: **gofish**

ANGLER INSTRUCTOR KIT INVENTORY

Note: Items that are “optional” may be included in some kits. For kits without those items, instructors may decide to provide them if needed.

1 Angler Education Instructor Guide

Rods & Reels *NOT TO BE USED FOR ACTUAL FISHING!*

- 6 Spincast rod/reel combos
- 1 fly rod/reel combo (optional)
- 1 baitcast rod/reel (optional)
- 1 spinning (open face) rod/reel combo (optional)

Casting

- 6 Backyard Bass casting targets
- 10 yellow casting plugs

Knot Tying

- 10 small eye bolts (student)
- 10 small diameter nylon cords (student)
- 1 large eyebolt (instructor)
- 1 white, large diameter nylon cord (instructor)

Assemble Basic Tackle

- 20 non-lead split shot sinkers (Pliers are not included in the kit, but should be provided by the instructor.)
- 10 bobbers
- 10 eyebolts
- 1 spool of line

Lures *NOT TO BE USED FOR FISHING!*

- 3 plugs
- 3 jigs
- 6 soft plastics
- 1 spinner bait
- 1 spoon
- 1 package of flies

Posters

- 1 Marine Debris Timeline(optional)
- 1 Habitat mat and fish

Books

- 10 Basic Guide for the Beginning Angler
- 10 Outdoor Annuals

Ethics and Safety

- 1 set of Safety and Regulations Cards
- 1 set of Ethical Dilemma Cards
- 1 Golden Rule measuring board
- 1 Rubber fish for measuring

EQUIPMENT AND TEACHING AIDS FOR EACH ACTIVITY

Basic Tackle

Plastic bobbers for the number of students who will work at one time
Sinkers for the number of students who will work at one time
Monofilament line, about 2 ft. per person
Barbless hooks or eye bolts for the number of students who will work at one time

Know Your Knots

Cotton cord cut in 1-2 ft. lengths (1 or 2 per student)
Eye bolts (1 per student)
Basic Guide for the Beginning Angler

Fish 'n' Bait

Basic Guide for the Beginning Angler
Descriptions of freshwater and saltwater fish, emphasizing specific physical and behavioral features
Large drawing paper, blackboard, or pictures of fish habitats
Markers
Examples of different bait and lures

Learning to Cast

Two "Backyard Bass" plastic fish for each person casting at the same time (available in the Angler Education Instructor Kit) or hula hoops or some other way to delineate casting targets
Spincasting rods and reels set up with plugs instead of hooks (For Advanced Angler – spinning rod/reel combo and either baitcasting or fly casting)

Go Fish

Cones or some other method to mark boundaries for the outdoor playing field

Habitat Hangout

cardboard boxes (large shoe boxes, boot boxes, etc.)
markers, crayons and pencils
play dough and pipe cleaners
glue sticks or tape
scissors
construction paper
scraps of yarn or sewing material

Fish Prints

Rubber fish (bluegill, largemouth bass, rainbow trout, flounder)
Various colors of paint
Containers for paint
Foam brushes
Butcher paper or newspaper
8 1/2" x 14" paper
Plastic scrub brush
Old towels
Large tub or bucket
Water for cleanup

It's Your Decision – Ethical Dilemmas

Set of ethical dilemma cards (available in the Angler Education Instructor Kit)
Current Outdoor Annuals to use as a reference

Safety First

At least two PFDs (life jackets) in different sizes
Pliers to compress the barbs on hooks (if practicing catch and release—mainly for safety of the fish, but for novice anglers, it can mean safety for themselves and other anglers)
First Aid Kit
Hat
Sunscreen
Water
Insect repellent
Sunglasses
Nail clippers
Cell phone or emergency strategy
Labels made for each of these items and a bag to put them in

Fishing Regulations – True or False

Student page true/false statements copied, laminated and cut apart
Instructor key
Outdoor Annuals for each student

Fishing Pictionary®

Current Outdoor Annuals (or any Texas fishing regulation publication)
Cards or pieces of paper with a basic fishing regulation written on it (available in the Angler Education Instructor Kit)
Cards or pieces of paper with a fishing safety rule written on it (available in the Angler Education Instructor Kit)
Large tablet and markers or dry erase board or blackboard
Timer
Fishing Pictionary Student Page (optional)



REPORTING YOUR CLASSES AND EVENTS

As you complete the class or event, use the Angler Education Class and Event form (see Part VIII) to document the participants by age and gender, and activities taught. Please be sure to complete the entire form, including the names of other instructors or assistants that helped you and the hours that you and your assistants worked. All volunteers must print, list the hours and date worked, and sign the roster. This important information helps Texas Parks and Wildlife Department document your contributions and the success of our program. Without documentation of our work, we may not receive adequate funding to keep this important program going. **Please submit your online report to www.tpwd.texas.gov/volunteer.** Send in your roster form(s) **within a week** of completing your class or event, email to education@tpwd.texas.gov or fax to (512) 389-8673 or mail to TPWD Aquatic Education Coordinator, 4200 Smith School Rd., Austin, TX 78744-3291

INCENTIVE AWARDS FOR STUDENTS

Basic Angler Incentives

1. Basic Angler fresh or saltwater fish pin
2. Basic Angler certificate
3. Basic Guide for the Beginning Angler (optional – because these booklets are expensive, we leave it up to the instructor to decide whether or not the students would really use the guidebook)
4. ***Outdoor Annual***
5. Common Freshwater or Saltwater Fish of Texas laminated card
6. Angler Activity Book
7. "Catch a Smile" plastic bags

Advanced Angler Incentives

1. Advanced Angler fresh or salt water fish pin
2. Advanced Angler certificate
3. Basic Guide for the Beginning Angler
4. ***Outdoor Annual***
5. Freshwater or Saltwater Fish I.D. Pocket Guide
6. "Catch a Smile" plastic bags

FISHING WITH KIDS

After teaching an Angler Education course, a fishing trip is the best way to ensure that those students will catch the “fishing bug.” Listed below are a few tips to help ensure a positive fishing experience for all and a lifelong fishing relationship.

1. Check out the proposed fishing location at least a couple of days prior to fishing. Find out what fish species are there, what they're biting on, and when they're biting.
2. Determine if there is adequate shade, good bank fishing access, and bathrooms. Will you need to bring insect repellent for biting/stinging insects? Are there any hazards such as poison ivy or unsafe areas of the bank or dock?
3. Pre-bait to bring the fish to you, instead of trying to find the fish. There's no reason to feel guilty; kids want to catch fish! Cottonseed cake, alfalfa range cubes, and soured grain will bring the catfish to the table. A little pre-trip scouting works wonders and they will enjoy all your efforts.
4. Make sure you have adequate supervision for the number of young anglers you will be taking on the trip. You should plan for 1 adult to every 4 or 5 kids under 10 years old. For kids over 10, you can increase the adult/child ratio.
5. Match the child with the proper sized rod and reel or use a simple cane pole, bobber, sinker, and hook. Children have a much harder time learning to use an adult's rod and reel and may become frustrated.
6. Begin with easy-to-catch, prolific species like bream (sunfish). They can be found along almost any shoreline, especially around fallen wood and docks. Young anglers are often not concerned with which species they catch, but just want to catch something.
7. Most lures are only as good as the action they impart. Young children don't have the skill to properly work lures. Crickets and earthworms are simple to use and the most productive of all baits.
8. Make sure each child has a life vest that fits snugly. A loose life jacket will come up over a child's head. Always keep the vest on when underway in a boat. (Here in Texas, that applies to all children under 13 and means any time you're not anchored or tied to a dock!) Safety is first in importance.
9. If fishing from a shoreline, be sure to have throwable inflatables (Type IV PFD and/or throwing ropes) at 20-30 yard intervals within the perimeter of the fishing area. These will assist should anyone accidentally fall into the water.
10. Kids can burn fast in the summer sun, so go early or go late, but avoid the heat of the day – 11:00 a.m. to 4:00 p.m. Hats, sunglasses, and sunscreen are a must.
11. Bring snacks and drinks if you are going to be fishing for longer than an hour.
12. Don't stay too long. Kids wear out fast and have shorter attention spans than adults. A 6 year-old may not want to fish more than an hour, whereas a 10 year-old might last half a day if there are plenty of breaks, snacks, and the fish are biting. The adults supervising the trip will know the children best and be able to determine when young anglers have had enough.

PROVIDING ANGLER INSTRUCTION IN AN EVENT SETTING

Many communities sponsor outdoor events geared for family fun. These events are often wonderful settings for offering Junior Angler instruction.

Prior to the Event

1. To successfully certify participants as “Basic Anglers” at large events, an instructor will need trained assistants to man each skill station. The instructor will need to organize assistants well in advance of the event, keeping in mind that most volunteer assistants may only want to work a couple of hours. Allow some time to train each of your assistants.
2. Order written materials needed for the event from the Aquatic Education office 3 weeks prior to the event to allow time for the materials to be packaged and mailed to you. Use the order form in Part VII of this guide.
3. Locate your nearest Angler Education Instructor Kit and make arrangements to reserve and pick up the kit for your event. Call the Aquatic Education office at (512) 389-4732 or 1-800-792-1112 x 65.
4. Adequate room is required for teaching safe casting skills. That space should be investigated prior to the event. Look for a space that has no obstructions overhead or to each side of the casting area and an area that extends at least 50 feet from where casters will stand. The best surface is one which is fairly level and without deep grass or clumps. Pavement and concrete surfaces will work. Make sure that each caster can stand at least an extended arm and rod length away from the next caster.
5. Provide a list of each of the skills needed to complete Basic Angler instruction for each participant (see page VII-11). As each participant completes each skill, the instructor at that station initials it.

Setting up the Angler Skill Stations at the Event

The following suggestions may help organize instruction for the skill stations:

OBJECTIVE 1 – Assemble basic tackle – Using 3 ft. lengths of monofilament line, with an eye-hook attached, allow participants to attach a bobber and sinker in the proper locations on the line. The instructor should ask participants what a bobber does, why it is located where it is, and what the sinker does and why it is located where it is. (See page II-2)

OBJECTIVE 2 – Tie 1 fishing knot – Use eye bolts and cord to teach participants how to tie either the improved clinch knot or the palomar knot. Allow time for participants to practice the knot several times. (See page II-2)

Objectives 1 and 2 may be combined in the same station.

OBJECTIVE 3 – Cast safely with a spincast rod/reel combo – Use spincast rod/reel combos and hula hoops, “Backyard Bass,” or other means of creating targets for participants to cast. Instructors at this station should be able to explain and demonstrate how to cast safely and how to adjust if the cast is not going where it should go. (See page II-9-10)

OBJECTIVE 4 – Identify 3 fish and OBJECTIVE 5 – Identify 3 baits/lures – Use fish posters, the Junior/Master Angler Guidebooks, or fish pocket guides. Allow participants to choose a fish, learn some of its special characteristics, what it eats, what bait or lures to use to catch it, and what its habitat is like. Participants can draw a picture of the fish in its habitat and explain what bait you would use to catch it. Or, you can provide pictures of fish and have participants name the fish. Then, provide an aquarium with water and several types of lures on short lengths of line to allow participants to see how lures work in the water. The instructor can discuss with partici-

PART VII – ESSENTIALS FOR INSTRUCTORS

pants how lures mimic natural prey both in their physical form and in their movements in water.

OBJECTIVE 6 – Discuss 2 fishing safety rules – Instructors can use the Fishing Safety Cards in the Angler Education Instructor Kit (See page V-3) to simply ask students safety questions or create a scenario and ask participants to explain what they would do in that situation or what safety rule covers that situation.

OBJECTIVE 7 – Discuss 2 ethical dilemmas – Use the Ethical Dilemma Cards in the Angler Education Instructor Kit (See pages IV-2-4). Instructors read the dilemma printed on the card and each participant explains what he/she thinks is the ethical thing to do in that situation.

OBJECTIVE 8 – Know 2 fishing regulations – Instructors can use the Fishing Regulations Cards in the Angler Education Instructor Kit (See page V-2) to simply ask students regulations questions or create a scenario and ask participants to explain the regulation for that situation.

Combine Objectives 6, 7, and 8 in the same station.

OBJECTIVE 9 – Explain the elements of good fish habitat – Set up an aquarium or fish bowl with any type of fish. Ask students to explain how the aquarium meets the basic needs of the fish. Ask them to explain what wild fish need in order to survive, emphasizing the need for cover (structure) and space as well as food and oxygen. The aquarium should have some kind of structure in the bottom to illustrate structure in the wild. Discuss different types of structure found in various aquatic habitats and the importance of structure in fishing. If providing a working aquarium is not feasible, simply provide a large bowl with water and plastic models or representations of fish food, fish, and structure. Also provide items that are not necessary for survival. Allow students to choose which items are necessary for fish survival and explain how they represent the basic needs of fish. Then allow students to place those items necessary for survival into the bowl. Another option is to provide a picture of good fish habitat and allow students to point out elements of the habitat that meet the needs of the fish.

During the Event

1. Set up a check-in table where participants receive the skills check list and instructions about how to go through the stations to become a Basic Angler. Be sure to tell them that some stations may take 10 or more minutes to complete.
2. When each participant completes all the Basic Angler skills, he/she can then present the checked off skills list to an instructor.
3. The instructor receives the completed skills list and presents the participant with a Basic Angler pin and certificate. (Be sure to sign and date the certificate.) The instructor may also provide other Angler Education literature.
4. The instructor also uses the participant roster or registration sheets to record the participants demographics (gender, ages, and ethnicities.) when submitting the online event report.

After the Event

1. Within a week after the event, instructors should submit the online report to www.twpd.texas.gov/volunteer Receiving documentation of students served by our program and hours worked by volunteers helps Texas Parks and Wildlife Department continue to support educational fishing activities around the state.
2. If using an Angler Education Instructor Kit, please check to be sure all items are replaced and in good order. Then return the kit as soon as possible.

PART VII – ESSENTIALS FOR INSTRUCTORS

BASIC ANGLER CHECKLIST

- ____ STATION 1. Fish and fish habitat
- ____ STATION 2. Rods, reels, lures and baits
- ____ STATION 3. Knot tying
- ____ STATION 4. Assemble basic tackle
- ____ STATION 5. Regulations and ethics
- ____ STATION 6. Safe casting

NAME: _____

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- ____ STATION 6. Safe casting

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PART VII – ESSENTIALS FOR INSTRUCTORS

BASIC ANGLER SKILLS CHECKLIST

- ___ OBJECTIVE 1. Assemble basic tackle (hook, sinker, and bobber)
- ___ OBJECTIVE 2. Tie 1 fishing knot
- ___ OBJECTIVE 3. Cast safely with a spincast reel/rod combo
- ___ OBJECTIVE 4. Identify 3 fish species
- ___ OBJECTIVE 5. Identify 3 baits/lures
- ___ OBJECTIVE 6. Discuss 2 fishing safety rules (1 water safety rule; 1 fish handling rule)
- ___ OBJECTIVE 7. Discuss 2 ethical dilemmas (1 catch and release; 1 environmental responsibility)
- ___ OBJECTIVE 8. Discuss 1 fishing regulation and tell where fishing regulations are found
- ___ OBJECTIVE 9. Explain the elements of good fish habitat

NAME: _____

BASIC ANGLER SKILLS CHECKLIST

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- ___ OBJECTIVE 9. Explain the elements of good fish habitat

NAME: _____

BECOME AN ANGLER EDUCATION AREA CHIEF

What is an Angler Education Area Chief?

Area Chiefs are a small group of dedicated Angler Education (AED) instructors who have volunteered to help the Aquatic Education team train other AED instructors. AED Area Chiefs must have completed Angler Education Instructor training or Fly Fishing Instructor training and have demonstrated leadership in training youth. Area Chiefs also receive additional training that prepares them to hold instructor-training workshops and to support angler education in their communities. Area Chiefs are exemplary in their ethics and their ability to represent Texas Parks and Wildlife Department in a positive manner.

How can you become an AED Area Chief?

1. Become trained as an AED Instructor.
2. Demonstrate leadership in the training of youth in your area.
3. Communicate your desire to become an AED Area Chief to TPWD Aquatic Education staff.
4. Be nominated by a staff member.
5. Attend a special training workshop held once a year. Those who complete the training and who accept the responsibility to train other adult instructors, will become Area Chiefs.

What are the responsibilities of an AED Area Chief?

1. Provide positive, ethical leadership in your local area.
2. Organize and teach at least one AED instructor training per year.
3. Communicate regularly with TPWD Aquatic Education Specialists.
4. Communicate important program information to other local AED instructors.
5. Participate when possible in local fishing or aquatic events, reporting activities to your AED Specialist.
6. Turn in all necessary paperwork in a timely fashion.
7. Help AED staff in the important work of evaluating our program.
8. Attend a yearly meeting of AED Area Chiefs or make arrangements with staff to be updated on the Aquatic Education program.
9. Report problems you may encounter when working with other AED instructors or when working at events in the capacity of Area Chief.
10. Observe all safety precautions listed in your AED Instructor Guide when teaching AED Instructor courses or when participating in an Aquatic Education activity.
11. Report to your Aquatic Education Specialist or to the Aquatic Education Coordinator any injuries that occur when you are teaching or participating in an Aquatic Education activity.

How are AED Area Chiefs supported by TPWD?

1. AED Staff will provide equipment to support the AED activities of each Area Chief.
2. AED Staff will provide a name badge and volunteer shirt to identify AED Area Chiefs when they are participating in AED activities.
3. AED Staff will provide opportunities for Area Chiefs to attend advanced training workshops and a yearly AED Area Chief meeting to stay up-to-date on AED initiatives, program changes, and ideas for improving the program.
4. Through our Web site, news releases and AED staff, Area Chiefs will receive early notification of fish stocking and connections to other groups, organizations and individuals who have similar goals.
5. Area Chiefs will also be able to advertise their training and events through our Web site and newsletter.

What are the benefits of being an Area Chief?

Since most AED instructors are associated with local youth-oriented clubs and organizations which use the AED Program, the local program will receive the benefits of having an instructor who can sustain the local program by

teaching other adults to carry on the program, even when he or she is unavailable. Area Chiefs will be able to create a local cadre of adults who will be supportive of the angler education activities that the Area Chief proposes. Area Chiefs will have the satisfaction of knowing that their efforts are making a lasting contribution to Texas youth.

Area Chiefs will be recognized by TPWD in yearly publications and will have a chance to help AED staff improve the program as needed. AED Area Chiefs will earn extra incentive points in our Instructor Incentive Program, resulting in more substantial awards.

OTHER FISHING PROGRAMS OR ACTIVITIES IN TEXAS

Fishing Activities at Community Events

Texas Parks and Wildlife Department is often asked to participate in fishing derbies, outdoor shows, celebrations, and expos. We usually need volunteers to help us introduce fishing activities to youth attending the events. Sometimes angler instructors organize events in their own communities. For events where it is not feasible to offer an entire angler education training, we provide simple, hands-on activities for participants. If you would like more information about offering fishing activities at a local event, call the Aquatic Education office at (512) 389-4732.

Tackle Loaner Program

Individuals or groups may borrow basic fishing equipment from Tackle Loaner sites around the state. Find locations on the Tackle Loaner Web site: <http://tpwd.texas.gov/education/angler-education/tackle-loaner-program>

4-H Sportfish Program (County Extension Service)

Involve youth in a long-term and on-going community-based sportfishing and aquatic resources education program. This program will involve youth in a deeper understanding of the world of fishing in several different areas: angling skills; tacklecrafting; aquatic ecology and fish biology; people and fish (issues about management and ethics). But most of all, this program is FUN! For more information about this program, contact your county extension agent or Texas A&M Extension at (979) 845-4865.

CONTACT INFORMATION

Texas Parks and Wildlife Department – www.tpwd.texas.gov

Aquatic Education Coordinator, Austin
(512) 389-4732 or 1-800-792-1112, ask for ext. 4732
education@tpwd.texas.gov

Regional Aquatic Education Specialists

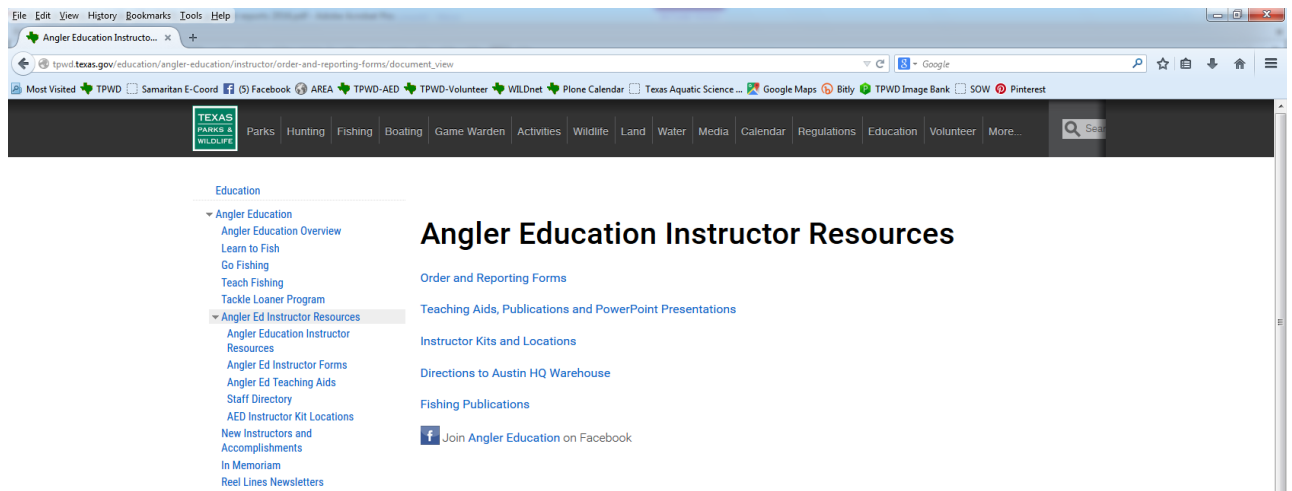
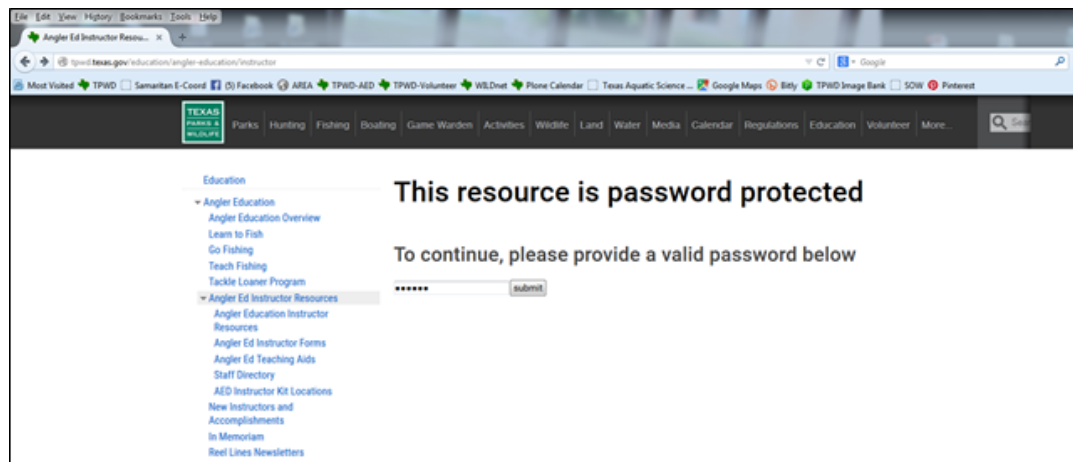
Central Texas (512) 389-4472	Dallas - Fort Worth (469) 644-2705	Houston (281) 534-0123
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INSTRUCTOR RESOURCES

www.tpwd.texas.gov/education/angler-education

Logon and get access to great information like teaching aids, publications, forms, certificates, places to fish and water information.

The password is: *gofish*



P A R T V I I I

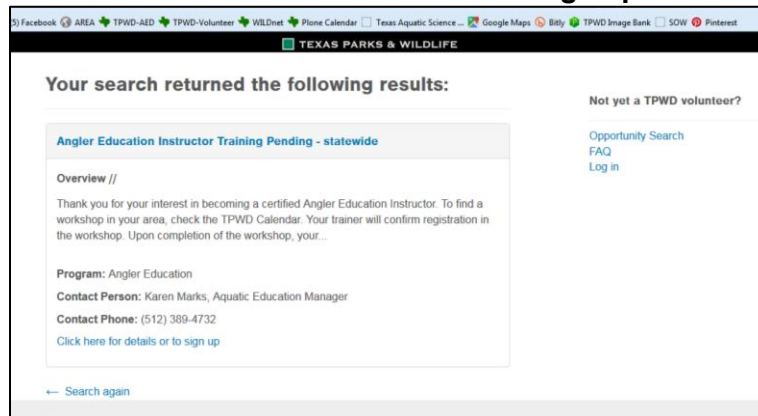
INSTRUCTOR FORMS

ANGLER EDUCATION INSTRUCTOR APPLICATION PROCESS

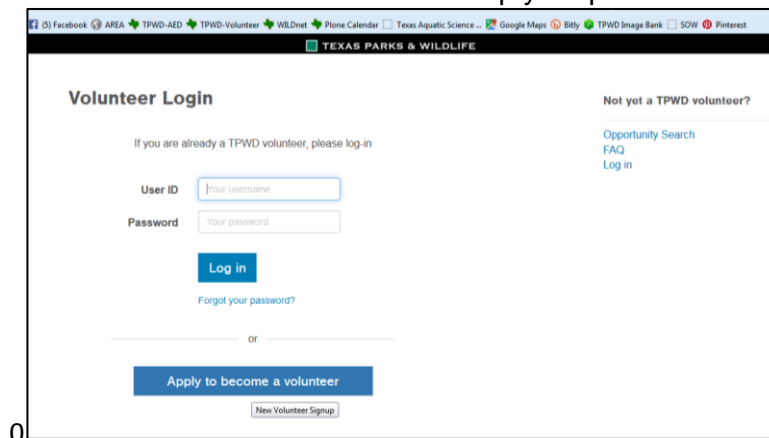
To complete the application process to become a Certified TPWD Angler Education Instructor, please go to the TPWD Volunteer website, www.tpwd.texas.gov/volunteer and **complete the steps below****:

****Note:** If you are already a registered TPWD Volunteer with another program (Texas Master Naturalist, Sea Center Texas, TFFC, etc.) please inform your trainer and skip the following steps.

1. Select **“FIND AN OPPORTUNITY”** and enter in the **KEYWORD** search box: **Angler Education Instructor**.
2. The Opportunity, *Angler Education Instructor Training Pending* with the location **“statewide”** will appear, click on the **“Click here for details or to sign up”** link at the bottom



3. On the following screen, click on the blue **SIGN UP** button, then click on the **“Apply to become a Volunteer”** link at the bottom and set up your profile.



Remember to...

- ✓ Authorize and complete the Criminal Background Check section.
- ✓ All fields must be completed including your Drivers License number and Date of Birth

Once you have completed the above steps, we will process your application and background check. Within 2-4 weeks, you will receive an email to confirm your eligibility as an official TPWD Angler Education Instructor, at that time you will be eligible to order free supplies, and borrow instructor kits where available.

If you need help creating your profile or have any questions, please contact your Angler Education trainer or our office at (512) 389-8183.



REQUEST FOR LITERATURE ANGLER EDUCATION

Send Supply Order Form To:

Texas Parks & Wildlife Department
 Angler Education
 4200 Smith School Road
 Austin, TX 78744

Phone: 512-389-8183
 Fax: 512-389-8673

Email: education@tpwd.texas.gov

Order Date: _____		Preferred Delivery Date: _____	
Lead Instructor Name: _____ e-mail address: _____ Phone: (____) ____ - ____		Assistant Instructor Name: _____ e-mail address: _____ Phone: (____) ____ - ____	
<p>Ship To: Name: _____ Address 1: _____ Address 2: _____ City: _____, TX Zip: _____</p>	<p>Class Information: <input type="checkbox"/> Basic Angler <input type="checkbox"/> Advanced Angler <input type="checkbox"/> Basic/Adv Combo <input type="checkbox"/> Fishing Outreach Event <input type="checkbox"/> Specialty Clinic Class/Event Date(s): _____ Start Time: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM End Time: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM Post workshop on TPWD web site? <input type="checkbox"/> Yes <input type="checkbox"/> No Location (facility name): _____ City: _____ County: _____ Class Contact Phone: (____) ____ - ____ Class Email: _____</p>		
Description	Order Qty	Issued	TPWD warehouse use
For all classes:			
Angler Education Student Roster / Report <i>(also available online)</i>			
Business Reply Envelope			
Angler Education Program Brochure			
<i>Outdoor Annual</i>			
Laminated Fish ID Card			
Plastic Catch-a-Smile Bag			
For Basic Angler classes:			
Angler Activity Booklet			
Basic Fishing Certificate			
*Bluegill Fish Pin (for Basic Freshwater class)			
*Redfish Fish Pin (for Basic Angler Saltwater class)			
For Advanced Angler classes:			
<i>Take Me Fishing: Basic Guide for the Beginning Angler</i>			
Advanced Fishing Certificate			
Freshwater Fish ID Pocket Guide			
Saltwater Fish ID Pocket Guide			
*Largemouth Bass Fish Pin (for Adv Fishing Freshwater Class)			
*Spotted Seatrout Pin (for Adv Fishing Saltwater class)			
Other:			
* Please order only one (1) pin and certificate per student			
For TPWD Use Only	Faxed to warehouse:	Class ID:	Carrier: Filled by: Date Shipped:



REQUEST FOR LITERATURE FLY FISHING EDUCATION

Send Supply Order Form To:

Texas Parks & Wildlife Department
 Angler Education
 4200 Smith School Road
 Austin, TX 78744

Phone: 512-389-8183
 Fax: 512-389-8673

Email: education@tpwd.texas.gov

Order Date: _____ Preferred Delivery Date: _____

Lead Instructor Name: _____ e-mail address: _____ Phone: (____) ____-____
 Asst. Instructor Name: _____ e-mail address: _____ Phone: (____) ____-____

Ship To:
 Name: _____
 Address 1: _____
 Address 2: _____
 City: _____, TX
 Zip: _____

Class Information:
 Beginning Fly Fishing Intermediate Fly Fishing
 Beg/Int. Combo Fly Fishing Outreach Specialty Clinic

Class Date: _____
 Start Time: _____ AM PM End Time: _____ AM PM
 Post workshop on TPWD web site? Yes No
 Location (facility name): _____
 City: _____ County: _____
 Class Contact Phone: (____) ____-____
 Class Email: _____

Description	Order Qty	Issued	TPWD warehouse use
Angler Education Student Roster / Report <i>(also available online)</i>			
Business Reply Envelope			
Angler Education Instructor Program Brochure			
<i>Outdoor Annual</i>			
<i>Basic Fly Fishing for Students</i> handout			
<i>Take Me Fishing: Basic Guide for the Beginning Angler</i>			
Laminated Fish ID Card			
Freshwater Fish ID Pocket Guide			
Saltwater Fish ID Pocket Guide			
Basic Fly Fishing Certificate			
Basic Flyfisher Pin			
Intermediate Fly Fishing Certificate			
Intermediate Flyfisher Pin			
Plastic Catch-a-Smile Bag			
Other:			

For TPWD Use Only	Faxed to warehouse:	Class ID:	Carrier:	Filled by:	Date Shipped:
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Life's better outside.®

For TPWD Use Only: <input type="checkbox"/> Include on LBB Report <input type="checkbox"/> Include on Fed Aid Report

ANGLER EDUCATION CLASS / EVENT REPORT

Class/Event Start Date: _____ Class/Event End Date: _____

Class/Event Name: _____

Facility Name: _____ City: _____

Facility Type (choose one):

- City/Community/County Park
 Church/Rel Bldg.
 Community/Public Bldg.
 College/Univ.
 Museum
 Nature/Env. Edu Ctr.
 School/ISD Site
 Scout Facility/Youth Camp
 TPWD site or park
 Zoo
 Other

Class/Event Type: Basic Angler Advanced Angler Basic/Adv. Combo Fishing Outreach

Beginning Fly Fishing Int. Fly Fishing Beg/Int. Fly Fishing Combo Fly Fishing Outreach

Specialty Clinic (Conventional or Fly Fishing)

Class/Event Description (please list activities provided):

ATTENDANCE (For large events, use tick marks IIII)

	ADULT MALES:	ADULT FEMALES:	YOUTH MALES: (17 & under)	YOUTH FEMALES: (17 & under)
White				
Black				
Hispanic				
Asian				
Other/ Unknown				
TOTALS:				
How many of the above people with disabilities?				

Figures above are: Actual Figures Estimated Figures (If estimated, what was total event attendance? _____)

Lead Instructor Name: _____ e-mail or ph#: _____
(please print)

*Lead Instructor Hours: _____ Signature: _____ Date: _____
(please sign)

**If reporting multiple dates, please itemize your volunteer hours per day on the attached roster.*

If the event or class start date is within 45 days of submitting report, please report online at www.tpwd.texas.gov/volunteer

If other volunteers participated in this event, please use page 2 of this form to document their volunteer hours.



Life's better outside.

ANGLER EDUCATION VOLUNTEER ROSTER

Each volunteer must sign for their volunteer hours if they are not reporting their hours online.

For TPWD Use Only:
 Include on LBB Report
 Include on Fed Aid Report

Lead Instructor's Name: _____ Event Date(s): _____ Event Name: _____
 Facility: _____ City: _____

Volunteer Assistants (Please print first and last name)	Check if Certified Angler Ed Instr	Signature (required)	Email address or phone number (please print)	Check if TPWD Staff	Check if reporting hours online	Date one day per line	Hours Worked (including prep & clean- up hours)	For TPWD Use Only: Hours entered and approved
Total Volunteer Hours								

The lead instructor must submit the volunteer roster to TPWD for any volunteers not reporting online (signatures required).
Note: Volunteers who plan to report their hours online, may also choose to sign this roster – however they should check the "reporting online" box.
 Need technical support or help with online reporting? Call 512-389-4732 or 512-389-8183

OR mail, email or fax completed form to:

Texas Parks and Wildlife Department
 Attn: Aquatic Education
 4200 Smith School Rd.
 Austin, TX 78744
 Email: education@tpwd.texas.gov Fax: 512-389-8673