



Channel Catfish

COURSE TITLE: Warm-water fishing for beginners.

INSTRUCTIONAL GOAL:

Students will learn how to identify the different warm-water fish species; learn fish facts and terminology; and learn about fishing techniques, gear and regulations.

INSTRUCTIONAL OBJECTIVES:

Upon completion of this block of instruction, the participant(s) will be able to:

1. Name at least three species of bass that can be caught in New Mexico.
2. Know which warm-water fish we discussed that have skin instead of scales.
3. Know the daily bag limit for walleye.
4. Name one nickname for largemouth bass.
5. Name the fish we discussed that has zebra colors.
6. Know the group of warm-water fish that have a statewide minimum size limit.
7. Know how many species of warm-water fish New Mexico has.
8. Name the warm-water fish stocked as fry by the New Mexico Department of Game and Fish (NMDGF).
9. Know the minimum size limit for smallmouth bass in Conchas and Ute Reservoirs.
10. Name the warm-water species NMDGF stocks in the summer.
11. Name a type of lure that works for catching walleye or bass.
12. Name a type of knot that can be used to attach lures, weights and hooks to your fishing line.

INSTRUCTIONAL METHODS: PowerPoint lecture and some videos.

HANDOUTS: New Mexico Fishing Rules & Information Booklet:
<https://www.wildlife.state.nm.us/home/publications/>.

COURSE DURATION: Approximately 6 hours.

CURRICULUM REFERENCES:

NMDGF, "Fishing Conditions & Trip Planner": <https://www.wildlife.state.nm.us/fishing/fishing-conditions-trip-planner/>.

NMDGF, "Warm Water Regulations": <https://www.wildlife.state.nm.us/fishing/game-fish/warm-water-regulations/>.

NMDGF, "New Mexico Bass Challenge": <https://www.wildlife.state.nm.us/fishing/fishing-challenges/nmbc/>.

ADDITIONAL READING MATERIAL:

iFish (Release Planned for July 2024), NMDGF's free mobile application. This application allows the user to upload a form about their fishing trip by areas of the state. You will also be able to purchase a fishing license and see a map of fishing waters.

SAFETY CONSIDERATION Handle sharp fillet knives and hooks with care to avoid cutting your hands or hooking yourself. A Kevlar fillet glove is recommended.

EQUIPMENT, PERSONNEL, AND SUPPLIES NEEDED: Laptop (with presentation uploaded), projector or screen, USB drive with presentation or uploaded to computer, power cords (if needed), extension cords (if needed), nine (9) 3D fish models, different colored rope/yarn to demonstrate knot tying, fishing rods, reels, line, terminal tackle, casting plugs and the latest New Mexico Fishing Rules & Information Booklet: <http://www.wildlife.state.nm.us/home/publications/>.

NOTE: Please check out Additional Reading Material and References for more material to look over.

TARGET AUDIENCE: Beginning-level anglers.

COURSE PREREQUISITES: None.

EVALUATION STRATEGY: Verbal final test.

AUTHOR & ORIGATION DATE: John Martsh, September 20, 2023.

REVISION / REVIEW DATE(S):

REVISED / REVIEWED BY:

CRITERION TEST:

1. What are at least three species of bass that can be caught in New Mexico?
2. Which of the nine fish we discussed have skin instead of scales?
3. What is the daily bag limit for walleye?
4. Name one nickname for the largemouth bass?
5. Which of the nine fish we discussed has zebra colors?
6. Which group of warm-water fish have a statewide minimum size limit?
7. How many species of warm-water fish does New Mexico have?

8. Which of the warm-water fish is stocked as fry by NMDGF?
9. What is the minimum size limit for smallmouth bass in Conchas and Ute Reservoirs?
10. Which of the warm-water species does NMDGF stock in the summer?
11. What type of lure that works well for catching walleye and bass?
12. What is one knot that can be used to attach lures, weights and hooks to your fishing line?

CRITERION TEST ANSWERS:

1. Smallmouth bass, largemouth bass and spotted bass.
2. Channel catfish.
3. Five.
4. Any of the following: bucketmouth, bigmouth, black bass, green trout or widemouth.
5. White bass.
6. Black bass.
7. 22.
8. Walleye.
9. 14 inches.
10. Channel catfish.
11. Crankbait or plastic jig.
12. Improved clinch knot.

COURSE OUTLINE:

- I. Introduction/overview
 - A. Give name and title.
 - B. Why?
 - C. Student introductions.
- II. Give goals and objectives.
- III. Definitions.
- IV. Species of warm-water fish.
- V. Knot tying.
- VI. Practice casting.
- VII. Fishing techniques.
- VIII. Clothing.
- IX. Essential gear and equipment.

- X. Rules and regulations.
 - 1. Key angling laws regarding warm-water fishing.
 - 2. Where to find and learn about laws and regulations.
 - 3. Remain ethical.

- XI. Conclusion.

COURSE CONTENT:

Course Introduction and Overview

In New Mexico we have the age-old question: red or green? It's the same with fishing. Cold-water or warm-water fishing? The vast majority of our state fishes for cold-water species. Warm-water fish deserve some attention too! They are easy to catch from the bank and can be fun to reel in.

Warm-water fish are also known as spiny ray fish. These fish include non-game fish like the common carp and the longnose gar. Some of these fish can grow to incredible size, like the catfish and the striped bass. We are only going to focus on nine of these species in this beginner course. These nine are quite plentiful, easy to catch from the bank and great tasting. Some of these fish, like the black bass, fight extremely hard and are prone to aerial acrobatics. Each year, the NMDGF stocks thousands of channel catfish and largemouth bass and millions of walleye fry.

Why fish? Fishing is relaxing and a great way to relieve life's stresses. Memories and bonds can be created with friends and family members from time spent on the water. Fishing can provide healthy meat, high in omega-3 fatty acid and vitamin D. The jolt of excitement that happens to you when an unseen fish tugs on your lure is priceless. These fish can, and should, be released the right way if the angler isn't intending to eat them. We will teach you the proper way to release fish.

Have students introduce themselves to the class. They should tell their motivation for learning to fish.

Goals and Objectives

My goal for this presentation is to inform the novice angler about the fishing methods used to catch different warm-water fish. Students will learn about fish identification, the gear and equipment needed, knot tying and some of the pertinent rules and regulations. They will have opportunities to ask questions throughout the class.

The objectives are that at the conclusion of this presentation, the student will be able to:

1. Name at least three species of bass that can be caught in New Mexico.
2. Know which warm-water fish we discussed that have skin instead of scales.
3. Know the daily bag limit for walleye.

4. Name one nickname for largemouth bass.
5. Name the fish we discussed that has zebra colors.
6. Know the group of warm-water fish that have a statewide minimum size limit.
7. Know how many species of warm-water fish New Mexico has.
8. Name the warm-water fish stocked as fry by NMDGF.
9. Know the minimum size limit for smallmouth bass in Conchas and Ute Reservoirs.
10. Name the warm-water species NMDGF stocks in the summer.
11. Name a type of lure that works for catching walleye or bass.
12. Name a type of knot that can be used to attach lures, weights and hooks to your fishing line.

Definitions

Adipose fin - on back, small, close to caudal fin.

Anal fin - on belly, in front of the caudal fin.

Barbels - appendages around a catfish's mouth that resemble a cat's whiskers. Used for taste and smell.

Buck - term for male largemouth bass.

Bull - term for a male bluegill.

Caudal fin - tail.

Dorsal fin - fin on back of fish.

Fry - fish less than 1" length that has no yolk sac and has learned to hunt for food.

Fingerling - young fish 1" to 3" in length.

Lateral line - system of sensory organs used to detect movement, pressure and vibration.

Pectoral fins - paired, on side of fish, behind the head.

Pelvic (ventral) fins - paired, on fish belly, in front of the anal fin.

Sow - term for female largemouth bass.

Tapetum lucidum - reflective layer on the retinas of walleye give the eyes that opaque appearance.

Weberian apparatus - connects the auditory system to the swimbladder in catfish. It acts as an amplifier of sound waves.

Instructor Notes:

Show life-like, 3D models of the nine species of warm-water fish. Point out the coloration of each fish and how to identify it. Point out locations and names of all the fins. Participants can hold the 3D models.

Warm-Water Species

New Mexico has 22 species of warm-water fish that can be fished for. Nineteen of these are game fish. However, we are going to focus on the nine most popular and best eating of these. These nine species are: bluegill, channel catfish, crappie, largemouth bass, smallmouth bass, spotted bass, walleye, white bass, and yellow perch. Each of these species have different coloration and physical attributes that make them unique.

Bluegill (*Lepomis macrochirus*), also known as bream, sunny and brim. These small fish rarely get to two pounds. They are usually the most abundant species of fish in any body of water that they exist in. Bluegill are usually found close to shore and structure and will willingly bite any small bait or lure. They are considered a panfish because their fillets can easily fit inside a frying pan. Bluegill are also a sunfish because they are in the family Centrarchidae. Fish in this family have 6-9 anal spines and 2 dorsal fins. Bluegill can be found in almost any body of water across the state.

Identification: Oval-shaped fish. Very shallow notch between connected spiny and soft dorsal fin. Black spot at back base of soft dorsal fin. Five to nine vertical black bars from the top of back to the belly on both sides. Black lobe attached to upper gill cover. Males are darker. They have a purple/blue body, orange breast and sloping forehead. Females have a pale-yellow body with bright-yellow breast. Caudal fin is deeply forked and olive green in color. Males are larger than females. Reach maturity at 2-3 years. State record is 11-3/4 inches and 3 pounds, 1.5 ounces from Lovington lake. Lifespan is 4 to 6 years.

Channel Catfish (*Ictalurus punctatus*) are also known as spotted catfish, lake catfish, fiddler, white cat and chucklehead cat. They have an incredible sense of taste and smell. This is due to having taste buds on their entire body. They have a Weberian apparatus that amplifies their sense of hearing. Catfish often spin in a circle when fighting the angler. These fish are great eating. They are the most important species of aquatic animal commercially cultured in the United States. Small lakes and ponds statewide are stocked with 17" plus channel catfish from May through September. These bodies of water are designated as special summer catfish waters and the bag limit is two catfish. In the heat of the summer, channel catfish are often caught at night. Healthy populations of channel catfish exist in Caballo, Cochiti, Conchas, Elephant Butte, Storrie and Ute Lakes.

Identification: Olive brown or slate back; silver, blue or grey sides; white or silver bellies. Numerous small black spots on back and sides, which may be absent in adults. Four pair of barbels surround the mouth (one upper pair, one side pair and two lower pairs), spiny pectoral and dorsal fins, rounded anal fin, deeply-forked tail. Caution must be exercised when handling the catfish due to the spines on the dorsal and pectoral fins that can easily penetrate skin. The barbels contain about 24 taste buds per square millimeter. Male catfish turn dark during spawning season and develop a thick pad on the top of the head. Spawning occurs in late spring and early summer. Males are larger than females. Reach maturity at 3 years of age. Average size would be between 12" and 24" in length and between 2 to 4 pounds. State record is 38 inches and 36 pounds, 8 ounces from Stubblefield Lake. Maximum age is 20 years old.

Crappie (*Pomoxis annularis*), also called papermouths, speckled bass, specks, speckled perch and strawberry bass. We have both white and black crappie in New Mexico. White crappie are found in more lakes and are more abundant than black crappie. Crappie are considered a panfish and are in the sunfish family. Crappie can be caught in large numbers when they are spawning in shallow water. The best crappie waters include Caballo, Cochiti, Conchas, Elephant Butte, Navajo and Santa Rosa Lakes.

Identification: Oval shaped body. The skin around the mouth is fragile and translucent. Green/black back, silver sides and silver belly. Large, yellow eyes. Upper jaw extends to back of the eye. Spiny and soft dorsal fins are connected. White crappie have five or six spines on their dorsal fin and black crappie have seven or eight. Black crappie have random black blotches on their sides and white crappie have vertical, black bars. The caudal fin is narrowly notched. Females are larger than males. Spawning occurs in late spring and early summer. State record is 16 inches and 4 pounds, 9 ounces from the Black River. Lifespan three to four years in the wild.

Largemouth Bass (*Micropterus salmoides*) known as bucketmouth, widemouth, bigmouth, black bass, Potter's fish and green trout. A large female is referred to as a "hawg". This fish belongs to the sunfish family and is a species of black bass. It is not a panfish. With the proliferation of bass tournaments, these fish have become the most well-known and popular of all warm-water fish. Forward facing sonar has changed fishing forever. This technology makes it super easy to catch large numbers of fish and possibly overfish a species. These fish are ambush predators. They prefer structure, and are often found around underwater trees, docks, tires, logs, brush, humps, and depressions. Largemouth bass often jump out of the water when hooked. It is the state fish of Alabama, Georgia, Florida and Mississippi. Largemouth can be found in Bill Evans lake, Clayton, Cochiti, Conchas, Elephant Butte, Lake Roberts and Ute Lakes.

Identification: The upper jaw extends past the rear margin of the eye when the mouth is closed. Eye is brown or yellow. They have an olive-green coloration on their back and sides with a white belly. The lateral stripe is a wide band of black splotches. They have black, irregular spots along their back and sides. Deep notch between soft and spiny dorsal fins. The caudal fin is deeply forked. They can be found throughout the state. Females are larger than males. Spawning occurs in late spring and early summer. Maturity is reached at 3-12 months of age. State record is 26.5 inches and 15 pounds, 13 ounces from Bill Evans Lake. Lifespan is up to 16 years.

Smallmouth Bass (*Micropterus dolomieu*). Its nicknames include: bronzeback, brown bass, brownie, smallie, bronze bass and bareback bass. This fish belongs to the sunfish family and is a species of black bass. It is not a panfish. Smallmouth fight extremely hard and have lots of stamina once hooked. The three lakes that contain large numbers of smallmouth are Conchas, Navajo and Ute Lakes.

Identification: Upper jaw extends to the midpoint of the eye. Eye is red or orange. Several brown bands extend back from the eye. Back and sides are brown to bronze, with 8 to 11 vertical dark brown bars along the back and sides. Shallow notch between soft and spiny dorsal fins. Caudal fin is narrowly forked. Females are larger than males. Commonly 10" to 14" in length. State record is 24 inches and 7 pounds, 3 ounces from Ute Lake. Lifespan is up to 12 years.

Spotted Bass (*Micropterus punctulatus*). Common nicknames: spots, Alabama Spotted bass, Kentucky bass, Northern spotted bass and redeye. This fish belongs to the sunfish family and is a species of black bass. It is not a panfish. Spotted bass are longer and thinner than largemouth bass. This fish is relatively rare in New Mexico, being found only in Brantley, Lake Carlsbad, the Pecos river and Sumner Lake.

Identification: Upper jaw extends to middle of pupil. Eye is yellow. Tooth patch on the tongue, a dark, round spot in the center of the tongue that feels like sandpaper. Have lines of irregular black spots below the lateral line that form stripes. Back and sides are olive green with a white belly. Shallow notch between soft and spiny dorsal fins. Females are larger than males. State record is 21.5 inches and 5 pounds, 14.72 ounces from Lake Carlsbad. Lifespan is 6 years.

Walleye (*Sander vitreus*). Nicknames: Ol' Marble Eye, walleyed pike, yellow pike, yellow perchpike, or yellow pickerel. The name walleye comes from the pearl and opaque appearance of their eyes, caused by the highly reflective tapetum lucidum. This allows the fish to see extremely well in low light conditions. Walleye belong to the perch (*Percidae*) family. Commonly caught at night during the hot summer months. Abiquiu, Caballo, Clayton, Cochiti, Conchas, Elephant Butte and Ute Lakes contain good numbers of walleye.

Identification: A walleye can have between thirty and forty teeth along their upper and lower jawlines. Olive green back, sides are golden, with a white belly. Spiny and soft dorsal fins are disconnected. Females are larger than males. Maturity is reached at two to four years. State record is 32 inches and 16 pounds, 9 ounces from Clayton Lake. May live decades. Oldest recorded walleye was 29 years old.

White Bass (*Morone chrysops*). Common nicknames: whites, sand bass, sandies, white rock bass, silvers and streakers. A schooling, roaming fish. If one is caught, usually there are more in the same area. White bass are a panfish, but they are not a sunfish. As these fish roam the shallows, they are easily caught from the bank. Good populations of white bass exist in Brantley, Cochiti, Conchas, Elephant Butte, Santa Rosa, Sumner and Ute Lakes.

Identification: Upper jaw extends to the beginning of the eye. Lower jaw juts out past upper. Yellow eyes. Upper back is silver-green with a white belly. Black, thin irregular lines run horizontally along the back and belly, with one line running from head to tail. Spiny and soft dorsal fins are separated, spiny dorsal has nine spines. The anal fin has 3 rigid spines. One tooth patch on the back of tongue. Deep bodied, more than 1/3 length. Caudal fin is deeply forked. Females are larger than males. Spawning occurs in the spring. Commonly 12" to 15" in length. Average .5 pound to 2 pounds in weight. State record is 19.5 inches and 4 pounds, 13 ounces from Bill Evans Lake. Lifespan is 4 to 5 years.

Yellow Perch (*Perca flavescens*). Nicknames: American perch, coontail, lake perch, raccoon perch, ring-tail perch, ringed perch and striped perch. Perch are a panfish, but they are not a sunfish. These are highly sought after by anglers because of their mild and delicious flavor. Perch are found in Abiquiu, Cochiti, Eagle Nest, Lake Alice, Lake Maloya, and Stubblefield.

Identification: Yellow eyes. Upper jaw extends to the mid-point of the eye. Disconnected dorsal fins. Black spot on rear of the spiny dorsal fin. Upper back, sides and upper belly are a vibrant gold/yellow. Lower belly is white. Six to eight vertical, downward pointed black bars extend down from the upper back towards the belly. Long, thin body. Mouth has many fine teeth. Rough to touch because of ctenoid scales. Caudal fin is deeply forked. Females are larger than males.

State record is 16 inches and 2 pounds, 5.3 ounces from Maxwell Lake 13. Lifespan is 9 to 10 years.

Knot Tying

Colored yarn or rope will be used. Demonstrate and have the students tie the following four knots:

Improved Clinch knot- used to tie terminal end of line to hook or lure.

Double surgeon's knot- used to connect leaders to your main line.

Surgeon's loop- used for a loop to loop connection or to connect line to hook or artificial lure.

Arbor knot- used to tie line to reel spool.

Practice Casting

Instructor Notes:

Demonstrate the equipment needed to practice casting. Show them how to cast.

Casting a lure or bait can be a hard technique for a beginning angler to master. This requires mastering distance and accuracy. The angler can practice casting before they ever get near a body of water. All that is required is an outdoor area with no obstructions, a fishing rod and reel (preferably the one they will be fishing with), fishing line, a casting plug and a coffee can. After tying the casting plug to the end of the line with an improved clinch knot, the coffee can is placed out on the field. The angler practices casting the hose into the can from different distances.

Fishing Techniques

There are three techniques used to catch warm-water fish from the bank. The first two techniques can be done with either a spinning rod and reel combination, a spin casting rod and reel combination, or a bait casting rod and reel combination, see essential gear below. The third technique is done with short (28" – 36"), sensitive ice fishing rods coupled with spinning or spin cast reels and 2 to 6-pound test line.

The first technique is bait fishing. Bait is generally fished on the bottom with a slip sinker rig, which consists of an egg or bullet sinker, a barrel swivel, and a 12" to 24" leader tied to a baitholder hook. The catfish rig, consisting of a 6" coated steel dropper and 12" coated steel leader attached to a ball bearing swivel. The ends of these are attached to snap swivels. The shorter dropper is for the fish hook and the longer for the bass casting sinker. Weights can range from ¼ ounce up to a full ounce and hooks can be #8 for panfish, up to 4/0 for large catfish. If fish are suspended, the bait could be fished under a bobber and weighted with split shot. Dangling a chunk of nightcrawler, on a #8 hook, with some split shot, under a bobber, is a surefire way to catch all of the panfish species. Bass, catfish, crappie and walleye can all be caught on minnows or worms floated under a bobber or on the bottom. Artificial baits are fished either under a bobber or on the bottom, using the same rigs listed above.

The second technique is lure fishing. Popular lures include: include spinnerbaits, in-line spinners, crankbaits, plastic baits, top water baits, swim/glide baits and skirted jigs. The spinnerbaits, in-line

spinners, and crankbaits are cast out, allowed to sink to various depths and retrieved steadily. Some crankbaits float and dive to various depths when retrieved, via a plastic lip. Skirted jigs and plastics are cast out, allowed to sink to the bottom, and then retrieved with a jigging motion. These plastic jigs can also be fished under a bobber if fish are suspended. Top water baits float on the surface and are either steadily retrieved or jerked and held, depending on the type. Swim/glide baits mimic a swimming baitfish. A sideways, start and stop, yoyo retrieve is used for these lures.

The third technique is known as ice fishing. It is really a combination of lure and bait fishing. This is not done from the bank, but anyone with an ax or auger can participate. During the winter months, usually in January, a few lakes in the northern half of the state become covered with ice. A hole is made through the ice with an ax or auger. Lake Alice, Lake Maloya and Eagle Nest Lake all have yellow perch that can be caught through the ice. These are caught by jigging ice fishing lures tipped with a meal worm, wax worm, or a chunk of a nightcrawler. Ice fishing jigs are a brightly colored, metal or plastic jig head from 1/64 to ¼ ounces in weight. Sometimes the jig heads glow in the dark. Different depths can be fished by drilling holes varying distances from the bank.

Clothing

Warm-water fishing can be done year-round, although during the colder winter months it can take many casts to get a fish to bite. These fish are sluggish and less active when the water temperature gets cold. They eat less often. Dress appropriately for whatever time of year you will be fishing in New Mexico. Dark, natural colors are best when bank fishing, as black bass and panfish have good eyesight in crystal clear lakes and streams. Stick to browns, green, black and tan. As a bank angler, you will be moving to different locations, so comfortable footwear is a must. In the spring and summer, polarized sunglasses and a cap, or wide brimmed hat, should be worn to keep the sun out of your eyes. For ice fishing; gloves, waterproof boots, wool socks, layered clothing and Yaktrax would be ideal.

Essential Gear and Equipment

Instructor Notes:

Demonstrate the different gear used to fish for our nine warm water species. Also, show the equipment needed to clean and store the meat.

There is some essential gear that the beginning warm-water angler needs to take to a body of water. This includes a fishing license, rod, reel, fishing line, stringer, natural baits, artificial baits, lures, terminal tackle, fillet knife, filleting glove, cooler, tackle box (or bag), auger or ax and an ice skimmer. Optional gear includes a hemostat (or needle nose pliers), clippers, net, waders, and a fish basket.

A fishing license is required for all anglers in New Mexico that are 12 years of age and over. Be sure to buy one before going fishing. A resident license can be purchased for a license year (April 1 til March 31), for one day, or for five days. Junior (12-17), Senior (65-69) and Handicapped annual licenses can be purchased for a discounted rate. Anglers 70 and older need to obtain a

free license to fish. Anglers 18 through 69 years of age, are required to purchase a habitat management and access validation (HMAV). If fishing on a Bureau of Land Management (BLM) or U.S. Forest Service body of water, the angler will have to purchase a Habitat Stamp.

An ultralight rod would be excellent for all of the panfish. A medium action fishing rod is perfect for walleye and smaller black bass. A medium heavy to heavy rod would work best for channel catfish and larger largemouth, smallmouth and spotted bass. These rods could either be a spinning rod, with the reel seat under the handle, or a spin casting/bait casting rod with the reel seat on top. The spin casting and bait casting rods typically have trigger handles. A 6' to 7' rod would be perfect for beginners. Note: for ultralight rods, they can be purchased in the 5' to 6' length. Ice fishing rods are usually 28-36" in length and ultra or medium light actions.

The fishing reel can be spinning, spin casting, or bait casting. The important thing is to be sure to pair it with the proper rod. Bait casting reels are prone to bird nesting if a thumb isn't applied at just the right moment, when the spool stops spinning. Spinning reels require the bail arm to be opened and the line to be released with the trigger finger upon casting. A spin casting reel is most beginner friendly since it only requires the push of a button to cast. Different reel brands will have their reel sizes designated by various numbers. The smaller the number the less amount of line will fit on the reel and the lighter the pound test recommended. The most important part of the spinning reel is the number of ball bearings. Bait casting reels are more suited to bass and catfish fishing since they are made for higher pound test fishing lines. Purchase a reel with at least five ball bearings to ensure smooth action. The gear ratio is the number of times the bail rotates per turn of the handle. A good gear ratio would be 5:1 or faster.

Fishing line is the most crucial part of the rod/reel/line triad. The reason being that it directly connects the angler to the fish. A rod and reel can break and the fish can still be landed, but if the line breaks, the fish is lost. There are three types of fishing line: monofilament, braid and fluorocarbon. In general, monofilament is cheapest, with braid and fluorocarbon being roughly 3X more expensive. Fishing line is rated by the pounds of pressure it takes to break an unknotted line, known as pound-test or breaking strength. For warm-water fishing, stick to 2-30 pound-test lines. If panfishing or ice fishing, a 2 to 6-pound line would be recommended. Walleyes can be caught with 8-10-pound line. Black bass fishing pound tests can vary from 6 to 25 pounds depending on the techniques and type of cover you will be fishing. Catfishing requires 14 to 30-pound line.

Memory is a line's tendency to "remember" a spool's shape and coil. The following are some pros and cons of each line type. Pros: monofilament is inexpensive, hard to see underwater, medium memory; braid is strong, no stretch, no memory, sensitive, doesn't absorb water; fluorocarbon is sensitive, has high abrasion resistance, doesn't absorb water, and is almost invisible underwater. Cons: monofilament absorbs water, little abrasion resistance, it stretches; braid is expensive, easy to see underwater, and hard to untangle; fluorocarbon is expensive, high memory, and stiff. For a beginner, Trilene XL, XT or Stren, clear, monofilament line would be hard to beat.

A stringer is used to store caught fish. One end is tied somewhere on the bank and the other end sits in the water with the fish on it. A stringer can be made out of aluminum, polypropylene braided rope or nylon rope. The rope stringers have a large tapered metal piece attached to one end that

looks like a needle and the other end has an “O” ring. The pointed metal piece is threaded through the gill plate of the first fish and then through the O ring. Subsequent fish are threaded on top of the first fish. Aluminum stringers are chain link with large snaps attached every few inches.

Bait can be natural or artificial. It is recommended that the angler have a variety of natural and artificial baits. Natural baits include: liver or preserved minnows, bread, shad, live or preserved meal/wax worms, red wigglers, nightcrawlers, crickets, grasshoppers, crawfish, leeches, frogs, chicken livers, cut bait. Artificial baits include stinkbait and PowerBait and Gulp! brand nibbles, maggots, grubs, worms and minnows.

Warm water lures include spinnerbaits, in-line spinners, crankbaits, plastic baits, top water baits, swim baits, skirted jigs, and ice fishing jigs. All of these lures are available in different lengths and weights. For panfish, stick to lures 1/64 ounce up to ¼ ounce and 1/2” to 2” in length. For black bass and walleye, lures ¼ up to 1 ounce and 1” to 6” in length. A variety of natural and unnatural colors would work for fishing these.

Terminal tackle includes bobbers, slip sinkers, split shot, swivels, snap swivels, and hooks. Different sized bobbers allow the angler to cast farther or shorter, depending on the situation. Weighted bobbers could be used if casting long distances. Slip sinkers in bullet heads from 1/4 ounce to 2 ounces could be used. An assortment of multiple sized swivels and snap swivels could pair well with different size lures. Hooks should range from size #8 to 4/0. These can be barbed baitholder, Aberdeen, and (plastic) worm hooks. If practicing catch and release, barbless hooks in the same sizes, would make it easier and less stressful for the fish.

A fillet knife is crucial to gut, skin and fillet any caught fish that aren’t going to be released. The blades on these knives are super flexible and thin. This allows them to move along the backbone and remove any meat adjacent to the ribs. Blades on these knives are typically 6” to 13” long. A good, all-around blade length would be 7” long. Keeping the blade sharp is crucial to proper filleting.

Fillet gloves have Kevlar or stainless-steel fibers woven in. These gloves protect your hand(s) from errant fins, or cuts from fillet knives. Typically, these are sold alone, and you can easily get by with one on your non-knife holding hand. This glove will also make gripping a slippery fish much easier.

A cooler with ice packs and a gallon sized resealable bag is perfect for storing filleted fish. Fish need to be kept cool as soon as they are processed. This will keep them from spoiling and allow the flesh to be much firmer.

A tackle box with a handle or a tackle bag with a strap should be used to store all your fishing equipment. Tackle boxes have trays with different size compartments to store terminal tackle, lures and baits. They also have a large spacious lower area to store fillet knives, stringers, baits and fillet gloves. Tackle bags have five or more compartmented trays that fit inside them. These trays can hold lures and terminal tackle. These bags also have outer pockets to fit baits, extra fishing line, stringers, fillet knives and gloves.

Ice fishing will require an auger or ax to create a hole in the ice. Augers can either be manual, gas or electric powered. They can drill holes from 6" to 12" in the ice. Axes can also be used to make holes in the ice, though this will take considerably longer than an auger if the ice is thick.

An ice skimmer is a plastic or metal tool that keeps the ice fishing hole free of ice. This skimmer can keep your hands dry when it's freezing outside.

Non-essential, optional gear to consider would be a hemostat (or needle nose pliers), clippers, net, waders and a fish basket. This gear is not really necessary, but would make angling easier and unhooking and releasing fish simpler.

Rules and Regulations

Instructor Notes:

Show a slide with a Top Ten list of rules and regulations.

All of the rules and regulations pertinent to warm-water fishing won't be listed here, because there are too many. It is each anglers' responsibility to know all of the laws and rules prior to fishing. Studying the current fishing rules and information booklet and having a copy of it in the field will allow the angler to know the rules and follow them. This booklet is online, so anyone with a cellphone can access it in the field. I will list a few of the major rules and regulations, but make sure you know all of them before fishing.

1. Bluegill and crappie bag limit is 20 per day.
2. Black bass (largemouth, smallmouth and spotted) limit is 5 per day. Largemouth bag limit in trophy bass waters is 2. Largemouth and spotted bass 14" minimum size limit statewide. Smallmouth bass 12" minimum size limit statewide, except Ute and Conchas where it's 14". Smallmouth have no size limit in the Rio Grande in Rio Arriba and Taos counties.
3. Catfish bag limit is 15 per day except on summer catfish waters where the limit is 2.
4. Walleye bag limit is 5 per day. No length limits on walleye statewide.
5. White bass bag limit is 25 per day.
6. Yellow perch bag limit is 30 per day.

***Possession limit for each species is twice the daily bag limit, except for trophy bass waters where it is equal to the bag limit. Bag limits and season dates are subject to change, please consult the latest Fishing Rules & Information booklet for the most up-to-date information.

It is illegal to:

7. Fish without a license if you are 12 years old or older.
8. Fish with three or more rods at a time. To fish with two rods, a second rod validation (\$4) is required.

9. Take game fish by net, seine, trap, grappling or other means not permitted by regulations.
10. Possess or transport any live game fish away from the water where they were caught.

Conclusion

Warm-water fishing can be tons of fun, and it is not that hard to learn a few basic skills and techniques to that will allow you to be successful on the water. It is always recommended to reach out to people who have spent some time perfecting their skills, friends, relatives, even neighbors, or perhaps look into to joining a fishing club. Most people that fish are excited to tell you about what they do and give you some pointers. If you don't have access to any in person help, there is a lot of information on the Internet. To avoid information overload, and possibly spending a lot of money on gear and baits that you don't need, try to narrow your searches to specific destinations. Such as bass fishing at Cochiti Lake or catfishing on the Rio Grande. The more you fish the more questions you will have, but that is what makes it so much fun. Every day on the water brings new challenges, and learning opportunities.

After you have fished multiple times and are confident in your ability to catch fish, please take the time to share this knowledge with someone else. Fishing will only survive as a tradition if we are willing to share our knowledge and experience with new people. Warm-water fishing requires a minimal amount of inexpensive gear compared to other forms of fishing. Warm-water fish are simple and quick to fillet and they provide nutritious, delicious meat.

A good mentor will teach the mentee fishing etiquette. Please adhere to the following:

- 1) Give other anglers at least 50 yards of room to fish.
- 2) Don't cross examine other anglers.
- 3) Never litter. Always carry out more trash than you brought in. This will keep our bodies of water trash free.
- 4) When fishing on private land, close gates behind you.
- 5) Don't jet ski or water ski close to a bank angler.

There are four species of bass that need to be caught to complete the "New Mexico Bass Challenge". This challenge is sponsored by the New Mexico Department of Game and Fish. It is free of charge to enter. To complete this challenge, an angler would need to catch one (1) each of the following species: largemouth bass, smallmouth bass, spotted bass and white bass, in New Mexico. Then submit the following information: full name, mailing address, email address, fishing license number, customer identification number, body of water each species was caught in, and a photo of the fish. This information would be emailed to: dgf-fishingchallenges@state.nm.us. Once verified, the angler will receive a challenge coin, certificate of achievement, and have their name added to the challenge hall of fame on the Department's website.

Post Test

1. What are at least three species of bass that can be caught in New Mexico?
2. Which of the nine fish we discussed have skin instead of scales?
3. What is the daily bag limit for walleye?
4. Name one nickname for the largemouth bass?
5. Which of the nine fish we discussed has zebra colors?
6. Which group of warm-water fish have a statewide minimum size limit?
7. How many species of warm-water fish does New Mexico have?
8. Which of the warm-water fish is stocked as fry by NMDGF?
9. What is the minimum size limit for smallmouth bass in Conchas and Ute Reservoirs?
10. Which of the warm-water species does NMDGF stock in the summer?
11. Name a type of lure that works well for catching walleye and bass?
12. Name a knot that can be used to attach lures, weights and hooks to your fishing line?