



SUSTAINABLE FISHING & ENVIRONMENTAL STEWARDSHIP CHECKLIST FOR RECREATIONAL ANGLERS





Environmentally conscious fishing guides and private anglers help preserve and maintain fishery resources for future generations. By practicing sustainable fishing and environmental stewardship techniques, anglers demonstrate their commitment to interacting with Texas coastal and marine environments in a responsible, respectful,



and knowledgeable manner. Texas Sea Grant encourages all anglers to hold themselves to high standards and to incorporate the following practices into their fishing activities. This checklist presents tips and guidelines for implementing sustainable and responsible behaviors when fishing recreationally.

TABLE OF CONTENTS

Sustainable Fishing Techniques	3
Catch and Release Best Practices	5
Environmental Stewardship Practices	7
Bait and Invasive Species	8
Habitat and Wildlife Encounters	9

SUSTAINABLE FISHING TECHNIQUES

- Ensure you have the proper fishing license for the type of fishing you plan to do. When fishing on a charter with a captain/guide, you still require an individual fishing license. See Texas Parks and Wildlife Department's website at [tx.ag/fishinglicenses](https://www.tpwd.state.tx.us/fishing/licenses) for license requirements and to purchase your license to fish in Texas waters.
- Know your fishing regulations, which have been implemented to promote sustainable fishing. Knowing proper bag and size limits for the species you encounter will help you make release decisions faster.
- Use appropriate gear for your fishing method and target species to reduce bycatch and to minimize fish fight times. Consider bait type, rod and reel type, line test, hook type and size, and tackle.
- Keep fish identification guides handy so that you can accurately identify the species you catch and

can consult fishing regulations for that species to determine if you need to release the fish.

- Have measuring tools on hand so you can determine whether the fish you catch are of legal size, so you can release them quickly and efficiently if they are not legal size.
- Bring in fish quickly to avoid exhausting the fish.
- Keep your fish in the water until you know you want to keep them.
- Brief your customers and guests on fish handling practices to promote safety and efficiency when landing and releasing fish.
- Have and know how to use proper handling tools, such as dehooking tools, descending devices, venting tools, and a knotless net.



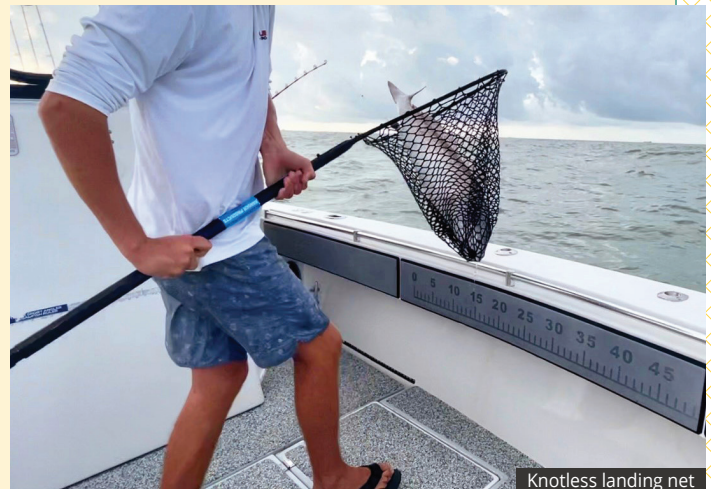
ALEXIS SABINE/TEXAS SEA GRANT

Keep a ruler handy to ensure your catch is the appropriate size.



ALEXIS SABINE/TEXAS SEA GRANT

A dehooking device being used



ALEXIS SABINE/TEXAS SEA GRANT

Knotless landing net

★ **DEHOOKING TOOLS:**

Fish: Dehooking tools are used to quickly extract hooks from a fish's mouth while minimizing the angler's risk of injury. Dehooking tools are useful when the fish has sharp teeth or a small mouth or when the hook is buried deep in the fish.

Sea Turtles: Federally permitted reef fish guides are required to have dehooking gear for detangling sea turtles. Other fishing guides and anglers are also encouraged, though not required, to have sea turtle release gear on their vessels. See the list of requirements on the "Where to Get Sea Turtle Release Gear" webpage by NOAA Fisheries at www.fisheries.noaa.gov/southeast/where-get-sea-turtle-release-gear.

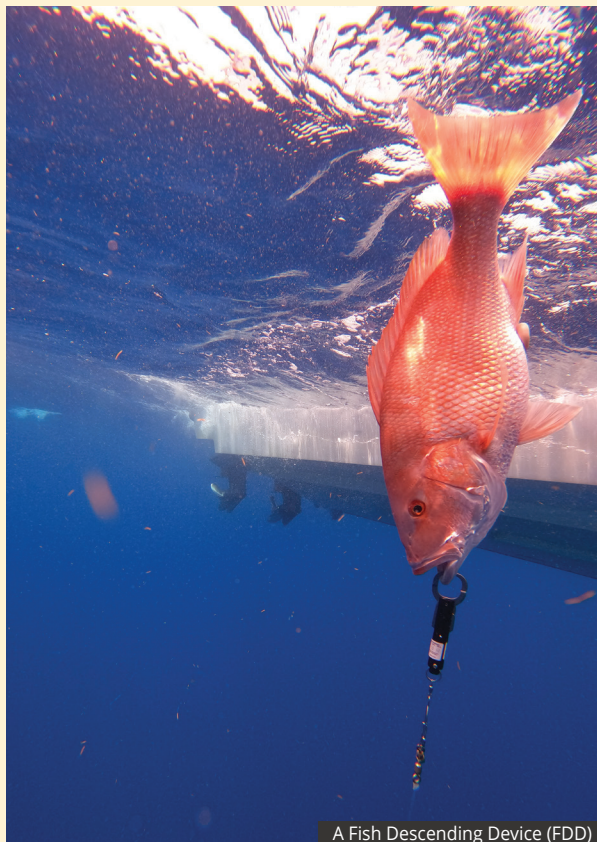
★ **KNOTLESS LANDING NET:** A landing net can be very useful in reducing fish fight time and handling time when removing a hooked fish from the water. Knotless nets prevent the fish from snagging or tangling in the net, which reduces the likelihood of injuries such as loss of scales, frayed fins, and loss of mucus.

★ **FISH DESCENDING DEVICES (FDDs):** FDDs are tools used to release fish that have experienced barotrauma. Barotrauma consists of pressure-related injuries that occur in fish when they are brought from depth to the surface, as indicated by the stomach protruding from the mouth, bulging eyes, protruding intestines, bubbling scales, or a bloated belly. FDDs, such as a lip clamp, inverted hook, or protective cage, carry fish back to depth before releasing them. See returnemright.org for more information on FDDs and best practices for using them.

★ **VENTING TOOLS:** Sharp, hollow tools are another option that anglers can use to treat barotrauma in fish they plan to release. To use a venting tool, puncture the body of the fish at a 45° angle behind the pectoral fin to release expanded gas from the fish's swim bladder so it can swim back down to depth. See "Venting: A Guide to Releasing Fish Suffering from Barotrauma" from Florida Sea Grant at flseagrant.org/fisheries/venting/ for more information.



A venting tool



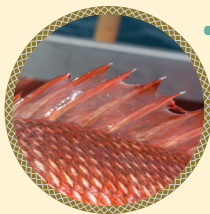
A Fish Descending Device (FDD)

CATCH AND RELEASE BEST PRACTICES

BEFORE LANDING FISH:

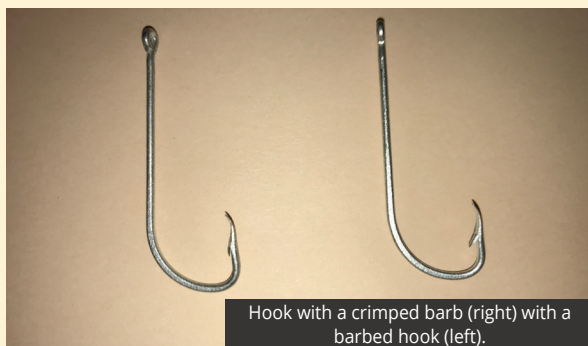
- Use circle hooks instead of J-hooks when catch-and-release fishing to minimize chances of fish getting hooked in the gut. Circle hooks are much more likely to hook fish in the mouth, reducing the likelihood of internal damage to the fish.
- Use barbless hooks (hooks without the V-shaped component at the pointed end of the hook) if you plan on releasing your fish. Flatten/crimp barbs and remove extra hooks on artificial lures. Barbless hooks are easier and faster to remove from fish, meaning you can release your fish back into the water quicker, and you are less likely to seriously injure the fish.
- As described on the previous page, have your dehooking, descending, and venting tools available, and know how to properly use them.

WHEN LANDING FISH:



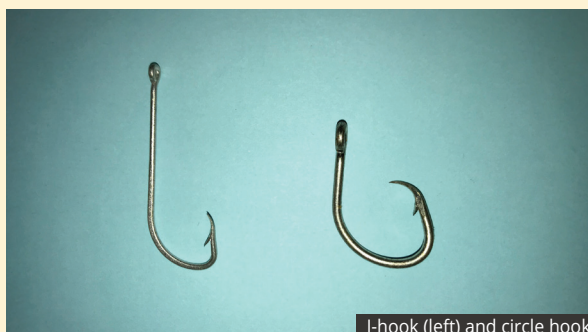
- Be cautious of fish spines, teeth, and gill plates when handling fish. These features are sharp and may cut your fingers or hands if you touch them.

- Use wet hands when handling fish. Dry hands will remove the protective layer of mucus from the fish's body, leaving it vulnerable to diseases, fungus, parasites, and harmful chemicals, such as oil.
- Use a knotless landing net to avoid fish snagging in the net and to prevent lost scales or frayed fins, and leave fish in the water while you dehook them, if possible. The landing net will minimize injury to the fish while you are removing the hook and will make it easier for you to release the fish.
- Hold fish properly when handling them. Never squeeze fish — this can damage their internal organs. Instead, hold the fish horizontally using two hands to gently cradle the fish, with one hand on the tail and the other under the abdomen for support. Avoid touching the gills and eyes, as this can harm or kill the fish.
- If you want to photograph your fish, have your camera ready and take pictures while the fish is still in the water to minimize stress on the fish.
- Do not use a gaff on fish you plan to release, as this will cause a major injury that will likely kill the fish.



Hook with a crimped barb (right) with a barbed hook (left).

TEXAS SEA GRANT/R.J. SHELLEY



J-hook (left) and circle hook.

TEXAS SEA GRANT/R.J. SHELLEY



Hold the fish horizontally with both hands.

TEXAS SEA GRANT/R.J. SHELLEY



Photograph your fish in the water.

SETH PATTERSON

WHEN RELEASING FISH:

- In general, release fish quickly and gently to minimize stress. Remove hooks before releasing fish and never rip hooks out, as this can cause major injuries to the fish.
- However, if a hook is buried deep in the fish's gut or throat, trying to remove the hook is likely to severely injure the fish and kill it. In this case, it is best to cut the line close to the hook, leaving the hook in the fish. Fish can expel or reject hooks on their own over time, leading to a greater chance of survival than if an angler were to try to remove a deep-set hook before releasing the fish. Using circle hooks increases the likelihood of fish being hooked in the lip rather than the throat or gut.
- Know how to recognize signs of barotrauma, such as bulging eyes, a protruding stomach, or a bloated belly, and know how to utilize descending and venting tools when releasing fish with barotrauma to increase their likelihood of survival.
- Release fish back into the water head-first as soon as possible. If a fish you are releasing is exhausted, hold the fish upright underwater to give it time to recover. You can also revive the fish by moving it in the water in a figure 8 motion. See the "Figure Eight Recovery Technique Video" from the Center for Sportfish Science and Conservation at Texas A&M University–Corpus Christi's Harte Research Institute at tx.ag/figure8.
- Consider releasing very large fish to allow them to continue to grow and reproduce. Larger fish tend to carry exponentially more eggs and hold greater reproductive value compared to younger or smaller fish, especially for species that have long lifespans. Thus, releasing larger individuals helps sustain fish populations well into the future.
- Unless prohibited by regulations, keep injured fish that are not likely to survive release. Fish that are hooked in the eyes, gills, or deep in their gut are not likely to survive release.



MIKE SIPOS, FLORIDA SEA GRANT

A fish experiencing barotrauma

ENVIRONMENTAL STEWARDSHIP PRACTICES

- Brief customers and guests on the environmentally friendly practices you use to increase their awareness and compliance.
- Recycle your used monofilament fishing line by depositing it in one of the 300+ PVC monofilament recycling bins located at boat ramps, piers, and tackle shops throughout coastal Texas. See the Monofilament Recovery and Recycling Program at tx.ag/MRRP for more information.
- If providing water or other beverages on board your vessel, use large refillable containers and offer reusable or biodegradable cups to guests.
- Have a system for containing garbage on your boat so trash doesn't get blown overboard.
- Retrieve and dispose of any floating trash you see.
- Avoid using single-use plastics (plastic bags, straws, and other items) and plastic packaging, when possible, when purchasing fishing and boating supplies.
- If plastic packaging is unavoidable, remove the plastic and properly dispose of it before leaving the dock to reduce the chances of the plastic being blown off the boat.
- Use non-toxic and biodegradable cleaning products when cleaning your vessel.



SARA CARNEY/TEXAS SEA GRANT



SARA CARNEY/TEXAS SEA GRANT



BAIT AND INVASIVE SPECIES

- Consult the Texas Parks and Wildlife Department and the Gulf of Mexico Fishery Management Council or the Code of Federal Regulations – 50 CFR 622 for bait regulations in state and federal waters, respectively.
- Buy or collect only the amount of bait you plan to use on your fishing trip to avoid waste.
- Release any leftover live bait in the area you collected it from or in a similar habitat nearby.
- Dispose of unwanted dead, native bait in the trash.
- *Never release non-native bait into the water!* Dispose of unwanted non-native bait in the trash, not in the water at marinas, boat ramps, or offshore.
- *Using shrimp as bait:* Under Texas law, it is illegal to introduce imported or non-native shrimp to the aquatic environment, regardless of whether it is alive or dead, whole or in pieces. Non-native shrimp, such as imported Pacific white shrimp,

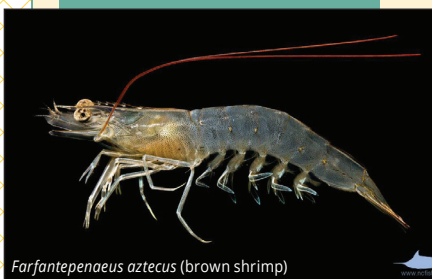
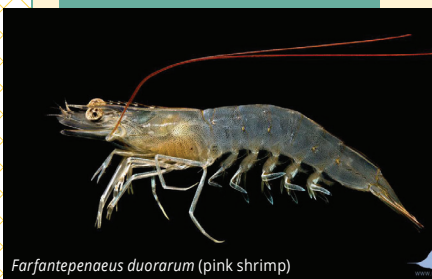
can introduce viruses to native Gulf shrimp, crab, and crawfish populations.

- Avoid transporting bilgewater or living organisms, such as fish or plants, from one water body to another. Take the following steps:

- 1 Inspect your boat, trailer, and equipment (including waders and boots) and remove visible aquatic plants, animals, and mud before leaving the area.
- 2 Thoroughly rinse your vessel and all equipment with high pressure or hot water.
- 3 Drain water from your vessel's bilge, live wells, bait containers, and ballast before relocating your vessel.

- Report any sightings of potentially new invasive aquatic species to the Texas Invasives Network at texasinvasives.org.

NATIVE SHRIMP SPECIES



HABITAT AND WILDLIFE ENCOUNTERS

- Brief customers and guests on wildlife and habitats you are likely to encounter on your fishing trip.
- Protect coral reefs, seagrass, and other benthic vegetation and animals by never anchoring on these living habitats.
- Avoid interacting with marine mammals in any way when boating or fishing. The Marine Mammal Protection Act prohibits the take and importation of marine mammals. This includes **harassment, feeding, hunting, capturing, or killing any marine mammal or an attempt to do so**. "Harassment" is defined as "any act of pursuit, torment, or annoyance," which has the potential to injure or disturb a marine mammal in the wild by causing disruption of behavioral patterns including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.
- Never feed bait, fish, chum, or other items to marine mammals, sea turtles, or other wildlife.
- Scan the area around you for seabirds before casting to keep them from crossing your line or stealing your bait. Reel in your line if any wildlife approaches while you are fishing.
- Keep your bait in closed containers and maintain a clean area around you, free of any fish remains.
- Use a weight to sink your bait.
- Don't leave fishing poles unattended with bait dangling from the hook.
- Follow protocols for your area to report a hooked sea turtle, marine mammal, or seabird:
 - ★ Report stranded marine mammals to the **Texas Marine Mammal Stranding Network** at 1-800-9-MAMMAL (1-800-962-6625).
 - ★ Report stranded, injured, dead, or hooked sea turtles to the hotline at **1-866-TURTLE-5** or look up local turtle stranding contacts in your area at [tx.ag/turtles](https://www.texas.gov/ag/turtles). Additionally, report sightings of live sea turtles, hatchlings, nests, and tracks to this hotline.
- ★ To locate wildlife rehabilitators in your Texas county, visit the Texas Parks and Wildlife Department website at [tx.ag/rehab](https://www.texas.gov/ag/rehab).
- If you accidentally hook or entangle a seabird in your line, take the following steps:
 - 1 Carefully and slowly reel the line in and use a landing net to bring the bird onto the vessel, dock, or shore where you are fishing from.
 - 2 While holding the bird's head behind its eyes, gently hold the wings against its body to prevent the bird from flapping its wings.
 - 3 Calm the bird by covering the head with a towel or shirt.
 - 4 If the hook has a barb, cut the barb and back the hook out of the bird.
 - 5 Carefully cut any line that is wrapped around the bird and recycle the line at a monofilament recycling bin. If the bird has no other hooks in it, you may release it.
 - 6 **Never cut hooked seabirds loose.** If a seabird has swallowed the hook or it is deeply embedded in the bird, leave the hook in place, cut the fishing line approximately 8-10 inches above the hook, and contact a wildlife rehabilitation specialist in your area: [tx.ag/rehab](https://www.texas.gov/ag/rehab).
- Do not approach seabird nesting areas and avoid disturbing seabirds or other wildlife on beaches. According to Texas Parks and Wildlife Code, it is illegal to "disturb or destroy the eggs, nest, or young of a bird that is not a game bird" (Title 5, Subtitle B, Chapter 64.002). Further, the Texas Colonial Waterbird Society recommends keeping a distance of at least 50 yards away from waterbird rookery islands when boating, fishing, and swimming, to minimize potentially harmful disturbances to nesting seabirds.



SETH PATTERSON



TEXAS SEA GRANT/CINDIE POWELL



SETH PATTERSON



For more
information, contact:
Alexis Sabine
Fisheries Specialist
Texas Sea Grant
asabine@tamu.edu
361.825.3460


AT TEXAS A&M UNIVERSITY

For additional fisheries resources visit:
tx.ag/anglerresources