

Catch and Release

Releasing Caught Fish Helps Ensure Sustainability

Fishing is a favorite pastime of both Florida residents and visitors. Fishing efforts in Florida have increased dramatically over the past decade, making it more important than ever to practice effective catch-and-release techniques to reduce fishing impacts.

The majority of fishing trips in Florida result in some fish being caught and then released. Regulated species, such as red drum, are released if they are outside the slot limit, either too small or too large. Tarpon and bonefish are examples of fisheries that are strictly catch-and-release only. Some anglers even fish with the intention of releasing everything they catch. Fish are released for a variety of reasons and increasing a fish's chance of survival after it is released will help ensure that fish populations remain sustainable for future generations.

Causes of Angling Mortality in Fish

The most common causes of post-release mortality are physiological stress on the fish resulting from struggle during capture, injuries caused by the hook and mishandling of the fish by the angler. There are, however, many techniques that anglers can use to increase the chance of survival when a fish is released. If you catch a fish that you do not intend to keep or that cannot be harvested, use the following steps to increase the chances that the fish you release will survive.



These anglers demonstrate proper fish handling technique.

Strive for 100% survival of the fish you release - a fish is too valuable to catch only once!

Know Before You Go

- Decide beforehand which species and sizes you intend to keep and immediately release all others.
- Do not engage in a prolonged debate over whether or not to release a fish after it has been landed.
- When in doubt, throw it out
- Make sure you can identify common fish species in your area, specifically the fish you are targeting. Have a resource, such as this guide, to help you identify unfamiliar fish.
- Always have knowledge of current fishing regulations, fish measurement techniques, size limits, bag limits and seasons to help minimize handling time when determining whether a fish can be harvested (visit [MyFWC.com/Fishing](https://www.fwc.com/Fishing) to view updated regulations).



FWC/Tim Donovan

Tackle

- Use tackle heavy enough to bring the fish in quickly.
- Using tackle that is too light exhausts the fish and depletes its energy reserves, which can put the fish at risk of death by predation and physiological stress.



FWC/Tim Donovan

Hooks

- Use non-offset circle hooks to reduce the chance of gut-hooking a fish. Circle hooks are designed to catch in the corner of a fish's mouth, reduce internal harm, decrease dehooking time and increase the likelihood of hook removal.



1 - Use circle hooks (left) rather than J-hooks (right) or kahle hooks.

2 - Offset vs Nonoffset: Use non-offset circle hooks (left) when fishing with natural bait to avoid gut-hooking a fish.

- Avoid using multi-hook rigs or lures. If you do use them, remove one or two of the hooks. When using treble hooks, remove one or more of the points and flatten the remaining barbs.



- Using barbless hooks, or hooks with a flattened barb, is one of the most important things an angler can do to minimize internal damage to the fish and make release quicker and easier.



Jig-head with/without barb: Bend the barb down on fishing hooks (right).

- If a hook cannot be removed, cut the line as close to the hook as possible.
- Use non-stainless steel hooks, as they will rust and deteriorate out of the fish over time.



Hook images courtesy of Florida Sea Grant

Dehooking Tools

- Dehooking tools allow the hook to be secured and the barb shielded without re-engaging when the hook is removed from a fish.
- These tools come in a variety of shapes and sizes; even a pair of needle-nose pliers is considered a dehooking tool.
- Keep these tools in a convenient place so fish may be released quickly.
- If a fish swallows the hook, it is better to cut the line as close as possible to the hook instead of trying to remove it.



Handling Fish

- Leave fish in the water during release and when taking photos, if possible.
- If a fish must be removed from the water, use wet hands to reduce the amount of protective slime removed from the fish. The slime protects the fish from infection and aids in movement.
- A knotless, rubber-coated landing net is ideal when handling a fish since it supports the fish's body weight and protects the fish's slime layer.
- A landing tool that grips the jaw can also be used to help control fish.
- If you want to take a picture of your catch, hold the fish horizontally and support its weight with both hands to decrease internal damage.
- Always avoid lifting a fish by the gills, eyes or tail if it is to be released.
- Only gaff a fish when you intend to keep it.
- In general, handle the fish as little as possible and release it as quickly as possible.



Reviving Fish

- If the fish doesn't immediately swim away and is lethargic or erratic, some resuscitation may be needed.
- Revive exhausted but otherwise healthy fish by first placing the fish in the water, one hand under the belly and the other hand holding the bottom lip or tail.
- If the vessel is anchored, point the fish head-first into the current to gently force water through the mouth and over the gills.
- If the vessel is not anchored or there isn't a current, hold the fish in the water alongside the boat and gently nudge the boat into gear, forcing water through the gills of the fish.
- If you are fishing from a non-motorized vessel such as a kayak, place the fish in the water, hold its front lip (use a gripping tool if the fish has teeth) and move the fish in a "figure-eight" motion.
- Never move fish backward in the water, since water will not flow properly through the gills.



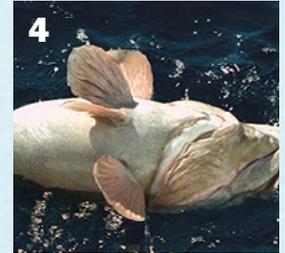
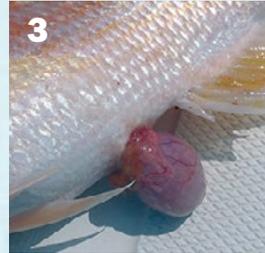
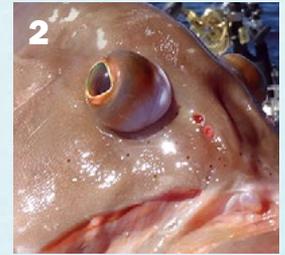
Deep Water Release

- When fish are pulled up from deep water (typically depths greater than 50 feet), the reduced atmospheric pressure causes gases in the swim bladder to expand, resulting in a condition called barotrauma.
- Fish suffering from barotrauma are less likely to swim properly when released and may not survive due to exposure or predation.

Signs of barotrauma:

1. Stomach protruding from mouth
2. Bulging eyes
3. Distended intestines
4. Bloated belly

- If a fish needs to be released and shows any or all of these signs, venting tools and descending devices may increase the fish's chance of survival after release.



Images courtesy of Florida Sea Grant



Venting tools: Sharpened, hollow instruments (such as a hypodermic syringe with the plunger removed) that help release trapped gases from the swim bladder.

- Insert a hollow-tipped needle into the fish at a 45-degree angle, under a scale approximately 1 to 2 inches from the base of the pectoral fin, just deep enough to release trapped gases. The belly will visibly deflate and you should be able to hear the air escaping.

Descending devices: Used as an alternative to venting by reversing the effects of barotrauma without puncturing the body cavity.

- Descends fish back down to a depth where increased pressure from the water will recompress swim bladder gases, allowing the fish to swim away.
- Many different styles of descending devices can be purchased or made at home.



Pressurized release tool
(courtesy of Florida
Sea Grant)



Weighted milk crate



Wire hook



Weighted spring release
tool

Releasing Large Fish

- Large fish such as billfish, tunas, sharks and tarpon should be brought alongside the boat as quickly as possible.
- Do not bring large fish aboard – they are dangerous to both themselves and the crew.
- To reduce physiological stress and damage to both internal and external organs, do not drag a large fish over the gunwale or side of the boat.



Ethical Angling

Many of our most popular recreationally targeted species are regulated and sometimes must be returned to the water. Most anglers would agree that anything we can do to minimize harm to fish being released will benefit the resource in the long term. However, we don't want to discourage the fun and excitement of catching fish and documenting the experience, whether for records or the personal satisfaction that comes from sharing the experience with friends and family. That's why FWC wants to inform the public about safe fish handling practices and the harm that can be caused to fish that are handled roughly or held out of the water too long.

As the number of anglers continues to grow, it becomes more important than ever to release, in the best condition possible, those fish that cannot be harvested. The next angler will thank you for it.

To learn more about proper fish handling methods, visit [MyFWC.com/Fishing](https://myfwc.com/fishing) and click on "Saltwater," "Recreational Regulations" and "Fish Handling."



Jerry McBride