BENEFITS AND USE OF DEHOOKING TOOLS

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Increased fishing pressure on coastal and pelagic fish species has prompted more stringent state and federal fishing regulations, which have lead to more undersized fish being released by recreational anglers. Catch-and-release fishing has proven to be a valuable conservation practice in marine fisheries, but its effectiveness is diminished if fish do not survive after being released.

Simply releasing a fish back in the water after it is caught does not guarantee a fish's survival. Therefore, you must consider how your actions will affect the health and well-being of each fish you catch if you do not plan to keep it. Where a fish is hooked, how it is handled before and during hook removal, and how long it is kept out of the water all play significant roles in the survivability of a fish once it is released.

A dehooking tool, or dehooker, is a simple device that fishermen of all ages can use to greatly increase the chances that released fish survive. It should become part of every fisherman's gear.

Why Do Released Fish Die?

A fish that is caught and landed has just been in a battle for its life. It is usually exhausted, especially if it has struggled for a long time during capture, and will suffer from a number of physical and chemical stresses, including a buildup of excessive amounts of lactic acid in its blood and muscle tissue.

Dehooking tools come in a variety of shapes and sizes, and can be found in any store that sells fishing gear. Here is just a small sample of the kinds available today. Use the appropriate size for the hook you are removing and the fish you have caught.

The stress of capture may be great enough to cause death -- even if the fish appears unharmed when released, it may later die. Released fish mortality is usually associated with two factors:

Using a dehooking tool minimizes the need to handle fish or take them out of water while removing the hook, leading to less stress on the fish and better post-release survival.

- Mortality associated with hooking, including the location and depth of the hook, or excessive bleeding.
- Mortality associated with physiological stress caused by capture and landing, subsequent handling by the fisherman, hook removal, time out of water, barotrauma, or release.

Dehooking tools can help minimize the trauma and stress that fish suffer from many of these factors.

Dehooking Tools are Better for the Fish… and the Fisherman

The use of a dehooking tool to removed embedded hooks can help alleviate some of the stresses and physical damage associated with catching and handling a fish. They are also used to remove hooks from sea turtles and other marine life. In addition, they help protect the angler from sharp hooks, spines, and teeth.

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There are several types, styles and manufacturers of dehooking tools, or dehookers, available on the market today. Although costs vary, an angler can expect to pay on average between $8 and $20. Some tools have been more extensively field tested by researchers and industry than others and meet NOAA fisheries minimal design standards. Pliers and forceps are often used as dehooking devices, but dehookers that can grab and slide down the fishing line to remove the hook quickly are recommended because they require minimal to no handling of fish and better secure the hook during removal.

You can practice using a dehooking tool with a corrugated shipping tube before trying it out on a live fish.

Excess handling of fish especially with dry hands or towel can negatively impact fish by removing their protective slime layers, which protects them from disease and aides in movement. Dehooking tools allow anglers to remove terminal tackle with minimal to no handling.

Furthermore, anglers using dehookers are generally able to keep a fish in the water when removing terminal tackle, thus minimizing the amount of time the fish is exposed to air. Even short periods of air exposure can cause elevated stress levels in fish. Studies on rainbow trout (Ferguson and Tufts, 1992) and rock bass (Cooke, et al. 2001) indicated 30 seconds of air exposure resulted in 2 full hours of cardiac recovery for their perspective fish.

Another benefit of dehooking tools is they help minimize injury and excess bleeding by quickly and safely removing hooks. Most devices are also designed to reduce the risks of hooks re-engaging once they are removed, thus preventing further injury to the fish.

Some dehooking tools are specifically designed to remove deeply swallowed hooks in addition to external lip or foul hooks. Instructions for removing deeply swallowed hooks may differ slightly from tools that only remove external hooks. Consult with the manufacturer and/or salesperson for instructions.

If you gut hook a fish and do not have a dehooking device that can properly remove deeply swallowed hooks, or are not comfortable using one, cut the leader as close to the hook as possible. The hook will eventually rust out, or the fish will be able to expel it. A general rule of thumb is if you cannot see the hook in the fish's mouth, you should cut the leader.

Using a Dehooking Tool

Using a dehooking tool is a relatively simple process even for novice anglers including children, but may require some practice to ensure it is done correctly. If you are not familiar with using a dehooker, here are some ideas for items you can practice with before using it on a real fish. A triangular-shaped, corrugated cardboard shipping tube like those available from the post office or other shipping companies is ideal. You can also try a high-density rubber stress ball, one that is soft enough to hook, yet heavy enough to provide a bit of dangling weight.

While there are variations on the use of different brands of dehooking tools, here's a general description of how to remove an external (lip or foul) hook from a fish using a long-handled dehooker.

- Hold the leader in one hand and the dehooking tool in the other.
- Place the rod of the dehooker on the leader like a bow and arrow and slide it toward yourself until the leader encounters the end of the dehooking tool.
- Next, slide the dehooker down the leader until it engages the hook.
- Pull the leader and dehooker apart with constant pressure.

- While keeping pressure on the leader and dehooker, lower the leader while raising the tool. A slight twist of the tool may be needed to release the fish (The weight of the fish will help remove the hook).

New Gulf of Mexico Reef Gear Regulations

Effective June 1, 2008, state and federal regulations in the Gulf of Mexico require commercial and recreational fishermen to have onboard and use a dehooking device when targeting reef fish. Dehooking devices must be:

- Constructed to allow the hook to be secured and the barb shielded without re-engaging during the removal process.

- Blunt-tipped, with all edges rounded.

- Appropriate to secure the range of hook sizes and styles used in the reef fish fishery.

The Florida Fish and Wildlife Conservation Commission considers that reef fish species include all snappers, groupers, sea bass, amberjacks, gray triggerfish, hogfish, red porgy and golden tilefish.

Keep in Mind

Regardless if you fish from land or boat, a dehooking tool will prove useful to quickly and efficiently release fish.

Boat or wade fishing will make it easier for an angler to keep a fish in or near the water while removing the hook.

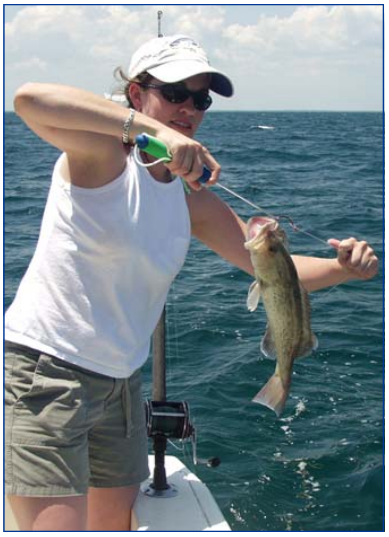
Never dehook a fish in the boat or on dry land as this can increase the likelihood of injury when the fish is released.

Fishing from a pier, bridge, seawall, or other high structure presents a special challenge due to the distance between the angler and water, and the potential impact of releasing a fish from such a distance. Be sure to dehook the fish over the water to avoid the fish hitting any rocks, pilings, or other obstructions below.

In either situation, the less time the fish is kept out of the water, the less stress it will endure.

Remember -- quicker and safer hook removal and release of fish = increased chance of survival!

Visit Catch-and-Release Fishing to watch an online video and animation about the use of dehooking tools, and for more information about other fishing techniques that will help sustain our saltwater fish populations.



The key to successfully using a dehooker is to pull the leader and dehooker apart with constant pressure, then lower the leader while raising the tool. Give the tool a slight twist if necessary, and let the weight of the fish do the rest.

Source:

- *Cooke, S.J.; Philipp, D.P.; Dunmall, K.M.; Schreer, J.F., 2001. The influence of terminal tackle on injury, handling time, and cardiac disturbance of rock bass. North American Journal of Fisheries Management. Vol. 21, no. 2, pp. 333-342.*
- *Ferguson, R.A and B.L. Tufts. 1992. Physiological effects of brief air exposure in exhaustively exercised rainbow trout. Canadian Journal of Fisheries and Aquatic Sciences. Vol. 49, no. 6, pp. 1157-1162.*

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