Recreational fishermen know a lot about coastal waters.

We know about tides and currents. We know about bottom characteristics. And we know about fish and the best tide and bottom conditions for catching them.

We also know there are fewer fish than there used to be.

We know that pollution and loss of habitat reduce the numbers of fish. We know that overfishing sometimes occurs. Each of these problems must be addressed with the support of anglers. But the very first thing all of us must do is account for our own impact on fish.

Coastal anglers need to learn how to be good caretakers of our fisheries.

We need to know how much our actions harm fish. We need to learn what tools and techniques reduce harm. And we must appreciate how tomorrow's fishing depends on what we do today. In short, we must learn to be careful with our catch.

This brochure was produced by the Chesapeake Bay Foundation in cooperation with:

Coastal Conservation Association of Maryland Maryland Saltwater Sportfishermen Association

Maryland Charterboat Association

Maryland Department of Natural Resources

University of Maryland Center for Environmental and **Estuarine Studies**

Coastal Conservation Association of Virginia

Virginia Marine Resources Commission

Virginia Department of Game and Inland Fisheries

Virginia Institute of Marine Science, College of William and Mary



Careful Catch

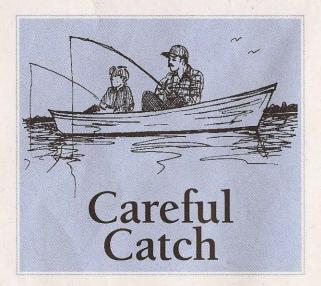


CHESAPEAKE BAY FOUNDATION Save the Bay

> savethebay.cbf.org 410/268-8816

How Anglers Can Save Fish for the Future





CAREFUL ANGLERS THINK ABOUT THE FISH THEY KEEP AND THE FISH THEY RELEASE.

Angling is a recreational activity done for fun and sport. One key to maintaining healthy fish populations is making sure angling is done carefully, legally, and in a way that helps them thrive.

Size limits allow fish to grow to spawning age, and creel limits make sure they aren't killed as soon as they get there. Honoring fishing regulations and handling released fish carefully help conserve fish populations.

While releasing any fish helps, it is usually the biggest fish that are the most valuable spawners and the hope of future anglers. A 30-pound striper can produce 1.5 million more eggs than a 10-pounder. Being careful about your catch includes sometimes releasing the larger fish you catch to preserve their spawning ability. Smaller fish usually taste better anyway.

ANGLERS CAN ALSO PLAY AN IMPORTANT ROLE IN FISHERIES MANAGEMENT BY GETTING INVOLVED IN TAGGING PROGRAMS.

If a tagged fish is caught, clip off the tag and follow the instructions to return it. The information gained helps biologists estimate abundance, migration and mortality rates. Rewards are offered for returned tags by the U.S. Fish and Wildlife Service (1-800-448-8322) and by other agencies and organizations. Programs in which anglers can tag the fish they release include the Virginia Game Fish Tagging Program, 757/491-5160; the American Littoral Society, 732/291-0055; and the BOAT/US Clean Water Trust, 800/262-8872.

Anglers should realize that they don't have to keep all the fish allowed by law in order to have a good time. Releasing a beautiful fish is often more enjoyable than keeping one. It preserves fish for the future and is a good conservation lesson for children.

The key to careful angling is planning ahead. Before putting a line in the water, decide what to keep for trophy or dinner. And have all the tools and tackle necessary for properly releasing fish.

Finally, instead of taking trophies, take a photograph of your fish or take length and girth measurements from which a fiberglass replica can be made. Many states have citation programs to honor anglers who release trophy-sized fish. Anglers should be just as proud of the fish they release as the fish they keep.



Creed of the Careful Angler

As a good steward of the resource trying to conserve fishing for tomorrow, I will:



Commit to keeping only the fish I need.



Strive for 100% survival of all released fish.

Catch-and-Release

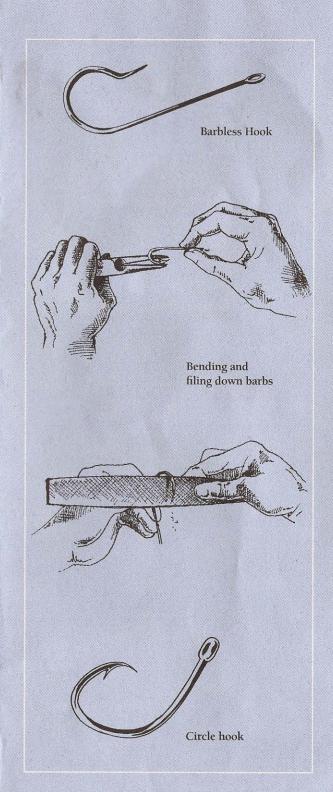
Catch-and-release fishing can be an effective way to conserve fish if certain precautions are taken. Studies with striped bass have shown that mortality of released fish goes up substantially when the water temperature is higher and when salinity is low. If possible, you should try to avoid these situations.

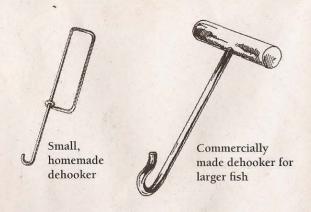
Whether fishermen choose to release fish or are required to do so by law, all released fish must be handled carefully to have a good chance for survival. The angler controls four factors that affect a fish's chance of survival:

- Exhaustion The fight is tough on the fish. It can upset the fish's chemical balance if it lasts too long.
- Loss of Slime Fish have a slime coating that seals out infection. Rough handling can destroy this protective layer.
- Time out of the Water As long as it is out of the water, a fish can't breathe or restore its chemical balance.
- Wounds Anglers can do a lot to minimize the damage of hook wounds both before and after the fish is hooked.

Planning ahead:

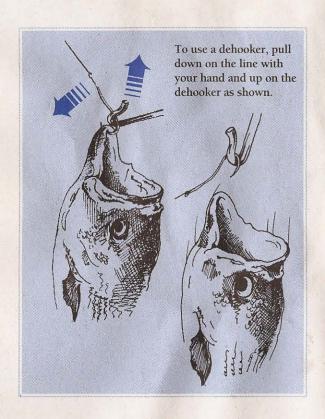
- Use strong enough tackle. Many fisherman like to use light tackle to be more sporting, but any fish you plan to release should be brought to the boat quickly to minimize exhaustion.
- Use artificial baits whenever possible. Fish tend to swallow natural baits, while they are usually hooked in the lip or mouth with artificial baits. A lip wound is much less severe than a gut wound.
- Use barbless hooks. They are much easier to remove from a fish than barbed hooks, meaning less wounding and time out of water. Barbs can easily be bent or filed down on bait hooks or artificial lures.
- Set the hook quickly when using natural bait so the fish does not have time to swallow; or
- Use circle hooks when fishing with bait to minimize gut wounds. Studies have shown that circle hooks rarely gut-hook fish. It is important to let a fish take the bait and hook itself with circle hooks.
- Reduce the use of treble hooks to minimize wounding and time out of water. Often, single hooks can replace trebles or tines can be clipped without ruining the lure. Experiment!
- Have catch-and-release gear ready (including camera and ruler) to shorten time out of water.





Ideal release:

• Use a dehooker to remove a hook quickly, keeping the fish in or over the water. There will be little or no slime loss or time out of water. You can make or buy a dehooker.



If you must remove the fish from the water:

- Remove the fish carefully by supporting its weight in an upright position with your hands and lifting straight up; or
- *Use a shallow landing net*, preferably of rubber or knotless nylon. These nets will remove less slime and will reduce wounding and time out of water.
- **Keep control of the fish** so that it cannot flop around and cause further *wounds* or loss of *slime*.

Handling and releasing the fish:

- Handle fish carefully using wet cotton gloves or a wet towel to minimize slime loss. If you must use your hands, be sure to wet them first.
- Cradle the fish on its back and cover its eyes. This will calm the fish, reducing wounding and slime loss.
- Always avoid touching the gills. This is where the fish takes in oxygen and salts from the water when recovering from the exhaustion of the fight. Gills are very delicate.
- Carefully return the fish to the water after removing the hook. Hold it in or close to the water and release it upright and head first.
- Revive an unresponsive fish by moving it gently forward in the water to relieve its exhaustion.

Difficult hooks:

- Carefully remove hooks inside the fish's mouth, gill, or gullet with tools like forceps or needlenose pliers that can grasp a hook.
- When the hook is in the stomach, use a disgorger or deep throat-type tool to remove the hook quickly with minimal stress, or cut the line and leave the hook.
- If a fish is obviously injured, make this fish part of your creel, and adjust your fishing to avoid the problem.

