

FishSmart Workshop Likely to Change the Way to Manage Release of Saltwater Fish

Over a three day period in March, recreational anglers, charter operators, representatives of the sportfishing industry, management entities, and environmental groups met with leading scientific experts in the field of release mortality in marine recreational fisheries. The purpose of this FishSmart Barotrauma Workshop was to evaluate the current state of knowledge related to improving the survival of angler caught-and-released fish and explore ways that both release and fisheries management techniques could be improved.

A major conclusion of the workshop, based on evidence provided by Pacific coast rockfish scientists, was that recompression is more effective for many of these west coast species than traditional “venting” (releasing gases from a fish’s body cavity by inserting a small hollow needle into the fish’s body). Recompression has been shown to offer several benefits over venting for some Pacific rockfish. Additionally, some recompression gear (e.g., release baskets) provides protection from predators on the way back down and reduces the potential for additional physical injury to fish. However, recompression may not be possible in all cases, at which time venting would become the best alternative.

In the Gulf of Mexico and South Atlantic, additional research is needed to determine if rapid recompression may be a preferred alternative to venting. Currently, federal law requires venting bloated reef fishes before release in the Gulf of Mexico. Rapid recompression techniques may currently be used in conjunction with venting, but the use of recompression devices also requires research into whether their use promotes human/dolphin/marine mammal interactions that may conflict with provisions of the Marine Mammal Protection Act. Some rapid release devices such as release baskets may be effective for releasing fish and may not cause harm to dolphins and other marine mammal, whereas release devices with hooks and weights may not be appropriate in cases where marine mammals are prevalent.

During the workshop, participants discussed current research findings and developed [guidelines for the release of saltwater fish](#) (focusing on [those caught at deep depths](#)), recommendations for [improving management](#) of fisheries with high release mortality, and identified crucial [gaps in research](#) that are impeding managers’ ability to make improvements in the way that these fisheries are managed.

These findings also could provide the basis for reforming the way that some areas closed to recreational fishing are managed. Data are needed from closed areas in order to adequately manage the fish stocks; anglers that are trained and certified in maximizing the survival of released fish using recompression could potentially provide these data by collecting it during specially permitted fishing trips while maximizing the survival of released fish.

Workshop results clearly indicated that development of species-specific advice on release techniques and management needs to be developed through regional workshops similar to the national workshop. General findings from the workshop are included below, but will be refined and included in messages to anglers.

The workshop was part of the larger FishSmart effort, a program lead by the sport fishing community to work with anglers and industry to improve the survival of caught and release fish. The initial phases of FishSmart are being funded by NOAA Fisheries through a grant to the Atlantic States Marine Fisheries Commission. Complete findings of the workshop are in the process of being prepared and will be available in April.

General Guidelines for Releasing Marine Recreational Fish

Note: These guidelines are generally acceptable practices available on state, federal, and nonprofit websites. They will be refined in the future and links provided to sources of additional information.

1. Plan Ahead – decide whether you might release fish on any given trip and prepare the equipment necessary to do so.
2. Avoid encountering fish that you are required to release. If catching fish that you cannot, or do not want to keep, changing the depth that you are fishing, moving to a different area, or using different bait are just a few techniques for avoiding unwanted catch.
3. Use gear suited to the size of fish that you are trying to catch. Consider using “weak hooks” that allow you to catch fish of the size that you want but break if you catch fish too big. Use circle hooks where recommended and be aware that circle hook fishing techniques are different from normal “J” style hook techniques.
4. When landing fish, don’t play them to exhaustion; use line strength to minimize playing time.
5. Land the fish as quickly as possible. If possible, leave them in the water rather than bringing them on board. If you must handle them, use knotless rubberized landing nets, rubberized gloves, or wet towels to avoid removing the slime layer from their body. Support the body when lifting large fish.
6. When releasing fish, determine whether you need a release tool (dehookers, venting tools, recompression tools) to successfully release your catch.
7. Time is of the essence! – release fish as soon as practical and do not keep them out of the water longer than necessary.
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Guidelines Specific for Saltwater Fish Caught in Deep Water

Some saltwater fish that are caught in deep water may be suffering from “barotrauma,” an expansion of swim bladder gases that makes it difficult or impossible for them to swim back down. Generally, fish caught deeper than 30 feet will suffer some effects. Starting in mid 2011, more specific guidance will be available at www.takemefishing.org and www.fishsmart.org. Until then, follow these tips:

IMPORTANT: The use of venting tools and dehooking devices is required when participating in the recreational reef fish fisheries in the Gulf of Mexico.

1. When anglers are not required by law to use venting tools, recompression is generally the first choice for returning fish to the depth from which they are caught. A variety of recompression tools are on the market, including descender devices, release weights, release baskets, and others. A complete inventory of such devices will be available at a later date from www.takemefishing.org and www.fishsmart.org.
2. Return fish to the depth of capture. If catching fish at very deep depths, returning them to at least 60 - 100 feet will dramatically improve survival.
3. If recompression is not possible, venting is a second option (use established guidelines for venting such as found at <http://catchandrelease.org/>). Note that the fish’s stomach may protrude from its mouth. Do NOT puncture the stomach.

Guidance to Regulatory Bodies

The FishSmart Barotrauma Workshop developed recommendations for regulatory bodies (agencies and fisheries management councils/commissions) including:

1. Workshops should be held in each region similar to the national workshop to develop region specific guidance on species-specific handling and management techniques available in each region.
2. Incorporate metrics into the FishSmart efforts, including
 - a. Measure the success of outreach efforts to the angler – who is being reached and how is it changing behavior.
 - b. Measure impact of different release mortalities on stock assessments
 - c. Measure impact of reduced release mortality on harvestable surplus
3. Exempted fishing permit studies –explore certifying anglers in release techniques for fishing in an MPA or other closed area for the purposes of collecting fisheries data in the closed area and enhancing angler involvement in the management of these areas.
4. Begin evaluating changes to the legal framework (particularly related to the Marine Mammal Protection Act and venting tool requirements) that *might* be needed if recompression tools are proven to be a preferred alternative in the Gulf of Mexico.

Additional management recommendations will be detailed in the full report of the workshop.

Gaps in the Current State of Knowledge

1. Research is needed on the effectiveness of recompression techniques for specific areas/fisheries where information is not currently available (e.g., red snapper in the Gulf of Mexico and South Atlantic)
2. Additional research is needed on how far down to release fish
3. Priority research is needed to quantify the impact of different release mortalities for fisheries assessments/catch estimation within season as a tool to use in management process.
4. Species specific effects of barotraumas, predation and hook mortality.

Additional research priorities will be detailed in the full report of the workshop.