

# Snapper Grouper Best Fishing Practices Webpage: Design & Content



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# Road Map

Background

Goal of webpage

Examples

- Pacific
- South Atlantic

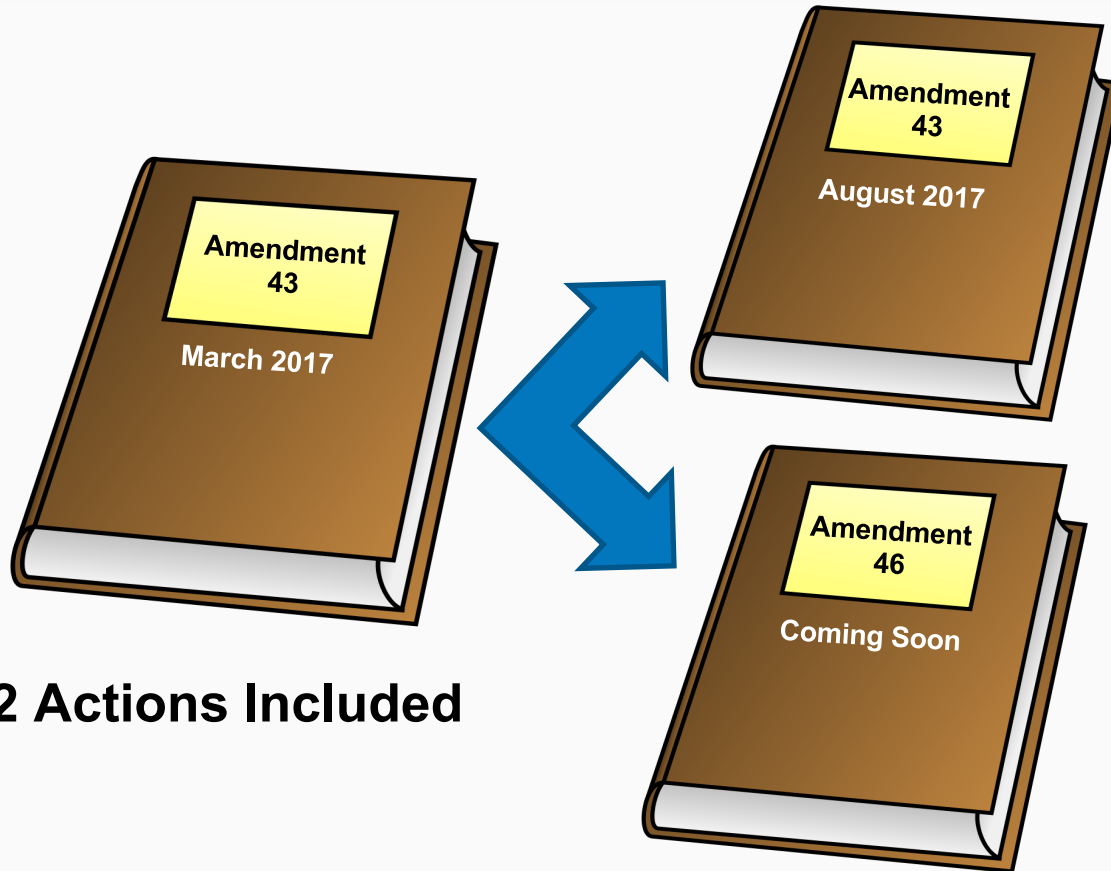
Design

Content





# Background



**12 Actions Included**

## **1 Action**

-Revise ACL for 2018

## **Include Previous Actions**

-Improve Recreational Reporting

-Best Fishing Practices



# Goal

Create a webpage where people can access information about best fishing practices for snapper grouper species in the South Atlantic.



# Webpage/Website Characteristics

## Design

Presentation

Navigational features

## Content

Information to be included

Type of information



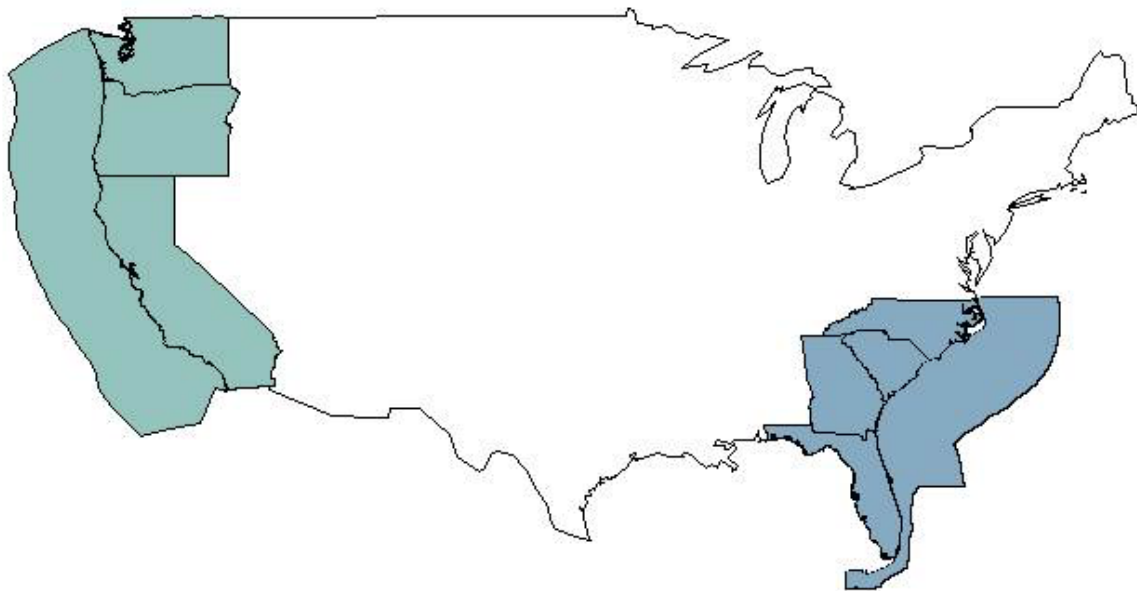
## Examples

### Pacific States

- 2013 accounted for voluntary use of descending devices
- Outreach push

### Atlantic States

- Initiating outreach



# Pacific Outreach - Oregon

## Recompression is good for fish...and for fishermen

### Conservation benefits

Research conducted by ODFW, Oregon State University, and others has shown that even fish with severe signs of barotrauma can recover when safely returned to at least 66 feet deep. [Watch this 1 ½ minute video](#) to see a "blown-out" yelloweye rockfish as it descends from the surface to >70 feet before being released and swimming off.

### Fishery benefits

Rockfish are managed under federal and state harvest (or bycatch, in the case of yelloweye rockfish) limits. All dead fish count against these limits—including estimated mortality of released fish. Compared to releasing at the surface, fish released at depth with a descending device have a higher survival rate, and fewer of some species released with a descending device count against the limit as dead. (Currently, fishery managers apply "survival credits" when estimating mortality for only yelloweye and canary rockfish, because these species have been the subject of research documenting increased survival after release. Additional research is underway.) Using descending devices stretches the yelloweye and canary rockfish quotas for the sport fishery further, keeping fishing opportunities for target species such as lingcod and black rockfish open longer.

### Handle with care

In addition to barotrauma, exposure to the air also stresses the fish. Keep the air time and handling to a minimum. Have your release device ready, and be as gentle and quick as possible. Hold a rockfish by the lower lip and use wet hands, wet gloves, or a wet towel to avoid removing the protective slime. Try not to drop fish on the deck. Not every rockfish needs to be released at depth. If a rockfish has no obvious signs of barotrauma, carefully release it over the side of the boat.

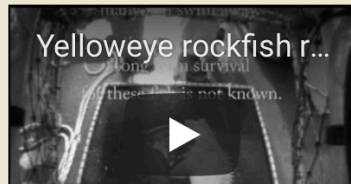
### Don't vent

Some anglers may have heard about "venting" for the protruding esophagus to allow gas to escape and the fish to swim down on its own. This is not recommended as it can cause serious injury and septic infection. Keeping the fish intact and sending it down below 66 feet gives it the best chance of survival.

Structured  
content



Video of  
recompression



Descended Yelloweye Rockfish Have Higher Survival			
(Below are the survival rates used in management)			
Fathoms	Surface Release	Descended	Savings
0-10	78%	78%	0%
10-20	61%	74%	13%
20-30	44%	74%	30%
30-50	0%	73%	73%
50-100	0%	43%	43%



## Rockfish Conservation and Deepwater Release

### Overview

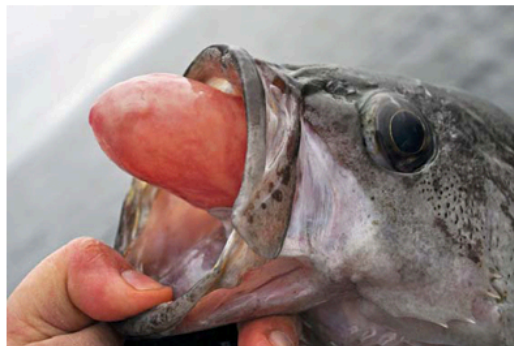
#### Rockfish Conservation: Overview



#### Fishery Concerns and Solutions.

Rockfish caught in deep water often sustain injuries — referred to as barotrauma — caused by rapid decompression and expansion of gases in the swim bladder. Fish that are released with inflated swim bladders cannot resubmerge and will die. Because of high release mortality, intentional catch-and-release fishing is greatly discouraged, particularly in depths of 60 feet or greater. Alaska anglers can best prevent wasteful rockfish mortality by avoiding waters where unwanted catches are likely. When rockfish are caught incidentally despite avoidance efforts, proper deepwater release techniques can reduce mortality. A recent ADF&G study found that survival of yelloweye released at depth was far higher (98 percent) than survival of fish released at the surface (22 percent).

Anglers can help conserve Alaska's valuable rockfish stocks by following some commonsense guidelines and employing deepwater release techniques:



The stomach protrudes from the mouth of a barotrauma-impacted black rockfish. Anglers can reduce mortality in rockfish by employing deepwater release techniques.

Explain Barotrauma

Why it is a concern

Solution

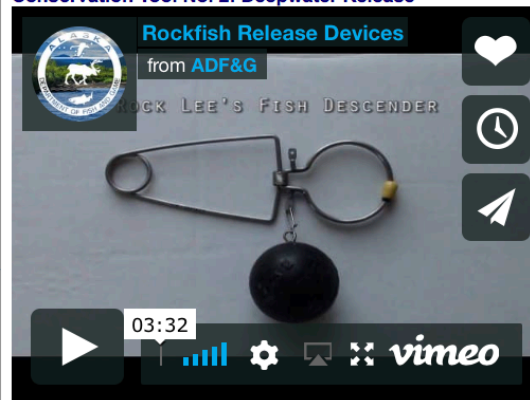
Introduction to  
release techniques

## Conservation Tool No. 1: Prevention

- **Avoid catching unwanted rockfish.** When targeting other species, such as halibut or lingcod, rockfish bycatch can be greatly reduced by keeping jigs and bait 10-15 feet off the bottom. This has little or no effect on halibut and lingcod catch rates. Also, avoid fishing in areas with structure attractive to rockfish, such as boulders, ridges, and pinnacles. Move to a different area if you are catching rockfish unintentionally.
- **Target other species first:** To harvest rockfish as part of a mixed bag, target other species first. This will allow you to retain any incidental rockfish caught as part of your limit, and minimize the number of rockfish released.
- **Avoid excessive rockfish harvests:** Rockfish have a freezer life of about four months, so harvest only what you are likely to eat in the near future.
- **Use release-friendly tackle:** When fishing with bait, use a single circle hook. Circle hooks are less likely to cause injury by being deeply swallowed, increasing the chances of survival for released fish.

Teared approach through “conservation tools”

## Conservation Tool No. 2: Deepwater Release



Video showing various release devices

Although rockfish caught in deep water suffer injuries due to decompression, survival can be improved substantially by releasing rockfish at the depth of capture. Pelagic rockfish caught in less than 60 feet of water are usually able to submerge on their own. If the fish appears to be inflated or otherwise unable to swim, use a deepwater release device to return the fish to the depth of capture.

A variety of deepwater release devices, or recompression tools, are available commercially.

Anglers can also make their own deepwater release devices out of simple leadhead jigs.



Lack of structure

## Descending

NEW VIDEO



Both venting and descending devices should only be used when signs of barotrauma are present.

Recent closures of several Gulf reef fish fisheries like red snapper and grouper have focused attention on the importance of successful release of fish caught in deeper water. These fish are particularly susceptible to mortality from barotrauma, the bloated and internal organ damage caused by pressure change. If discard mortality can be reduced, there is hope that the severity of closures and bag limits can be lessened.

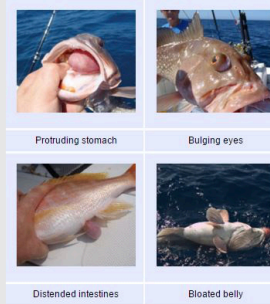
Signs of barotrauma include protrusion of the stomach from the fish's mouth, bulging eyes, bloated belly and distended intestines. Different species react differently. The severity of the problem increases with water depth. Problems can begin to occur in 60-80 feet. At depths over 100 feet, you will probably have to intervene.

### Options of Last Resort

The most important concept of improved catch-and-release practices is to get the fish back in the water with a minimum of handling, and as quickly as possible. If a fish can get back down without intervention from the angler, neither venting nor descending are necessary.

However, 'floaters' are not a pretty sight. Fish caught from

## Venting



Until recently, regulations in the federal waters of the Gulf of Mexico required anglers to have onboard and use venting tools when fishing for reef fish. As of Sept. 3, 2013, that rule was eliminated so anglers would have more flexibility to choose the most appropriate methods for fishing conditions.

Even though the new Gulf regs don't require the use of a venting tool, [venting still has its role](#).

Venting releases gases trapped in the body cavity of deep-water reef fish, allowing the fish to swim back to its normal habitat depth. Fish venting can be a useful method for returning fish back to depth. Evidence has shown that it can be helpful for some species, but the research for many other species is either lacking or inconclusive.

### Why vent?

Reef fish taken from depths of 50 feet or more may undergo expansion of the gases in the swim bladder as they are brought quickly to the surface on hook and line. Swimbladders can expand only so far before they burst. When the swimbladder bursts, the gases escape into the fish's body cavity, where they can continue to expand.

Images of barotrauma



However, 'floaters' are not a pretty sight. Fish caught from deep water experience significant damage when brought quickly to the surface. When intervention is required, venting and descending gear may be helpful, but they also must be considered options of last resort, because they increase handling and time out of water.

Providing anglers with a variety of options that are best suited to local fishing conditions and practices may be the best solution for improving survival of deep-water released fish. Additional research is needed to learn more about improving release and fisheries management techniques.

### Fish Descending

Fish descending devices may prove to be a more effective practice as they result in less injury to the fish. Providing anglers with a variety of options that are best suited to local fishing conditions and practices may be the best solution for improving survival of deep-water released fish.

As of April 2013, the Gulf of Mexico Fishery Management Council is considering changing the regulation that requires anglers to vent reef fish caught in the Gulf of Mexico. Use of all types of venting and descending devices is currently permissible in the Atlantic.

[SLIDESHOW -- What are Fish Descending Devices?](#) -- A brief slideshow of the devices at The Marine Scene Plus!

[Fish Descending Device](#) -- Reviews the kinds of tools and techniques that Florida Sea Grant extension agents and volunteer anglers are using in experimental trials around the state.

[ADDITIONAL VIDEOS](#) -- Rough video cuts of some previous descending field trials, as well as additional photos, can be found at [Florida Sea Grant Flickr](#).

### Deep-water Release Working Group

Scientists and fisheries managers from across the nation have formed a deep-water release working group to evaluate the especially difficult problem of increasing the survival of fish caught from deep water. The working group members are looking at field trials on the U.S. West Coast and the Gulf of Mexico that indicate the survival of some reef species can be significantly increased using rapid descending techniques that quickly return the fish to capture depth while minimizing injury. On the West Coast, research shows high survival rates for rockfish in depths up to 300 feet. ([Watch this dramatic video of the release of a yelloweye rockfish.](#))

Florida Sea Grant has become part of the deep-water release working group, in an effort to generate information on the usability and practicality of these descending tools and techniques in the Gulf of Mexico and on the Atlantic coast.

can continue to expand.

The pressure exerted by the gases on the fish's internal organs is considerable, and can result in serious injury to the fish. Often the pressure is sufficient to push the stomach out of the mouth, and the intestines out of the anus.

Moreover, if the fish is released in this buoyant condition, the fish may float away and die from exposure to the elements, or become an easy target for predators.

### PowerPoint

Watch [Fish Venting: How to Use Venting to Improve Survival of Released Fish](#), a 12-minute PowerPoint-to-Flash tutorial covering the how and why of using venting and deep release rigs to mitigate the effects of barotrauma in reef fish.

Visit the [Florida Sea Grant webpage on Fish Venting](#) for a complete description of venting, tools and regulations.

### Additional Resources

Visit the [FishSmart.org](#) website for a summary of deep-water release workshops since March 2011.

## Videos

### FSG Descending Videos

#### Fish Descending Trials

Florida Sea Grant



#### Seaqualizer Demo

Florida Sea Grant



#### Fish Saver

Florida Sea Grant



## Watch: Handling Tips for Red Drum Catch & Release

E. Weeks

Red drum are Captain J.R. Waits' bread and butter. For over 20 years, he's led fishing charters in Charleston and guided countless first-timers and veterans alike on inshore angling trips. As a conservation-minded angler, he's seen the ups and downs of the red drum population in South Carolina waters and changed his practices toward these popular fish accordingly.

This summer we were excited to team up with Capt. Waits to show you how an experienced captain handles the catch and release of large red drum. If you target big reds, watch on to see how Capt. Waits gives these important fish the best shot at surviving their encounters with anglers.



Here are the takeaways if you target large red drum:

1. Use gear that shortens the fight time (20-lb and higher test line)
2. [Use a rig](#) that minimizes the chance of hook damage (short leader, fixed sinker weighing 3 oz. or more, and barbless, non-offset and non-stainless hook)
3. Keep the fish in the water (we recommend snapping photos of the fish during revival and release!)

Clean  
Structured

Quick and to the point  
Minimal text

Captain providing  
information

# Pro's

## Design:

- Structure

## Content:

- Teared approach
- Describe benefits for fishermen - "Fishery benefits"

## Videos:

- Allow anglers to see benefits of descending.

# Con's

## Design:

- Too much text
- No structure

## Content:

- Limited information on why to follow best fishing practice

## Videos:

- Long



# Approach

## Design

- Clean simple
- Structure

## Content

- Why practice “best fishing practices”
- Teared approach
- Barotrauma information
- Links to additional information

# Design

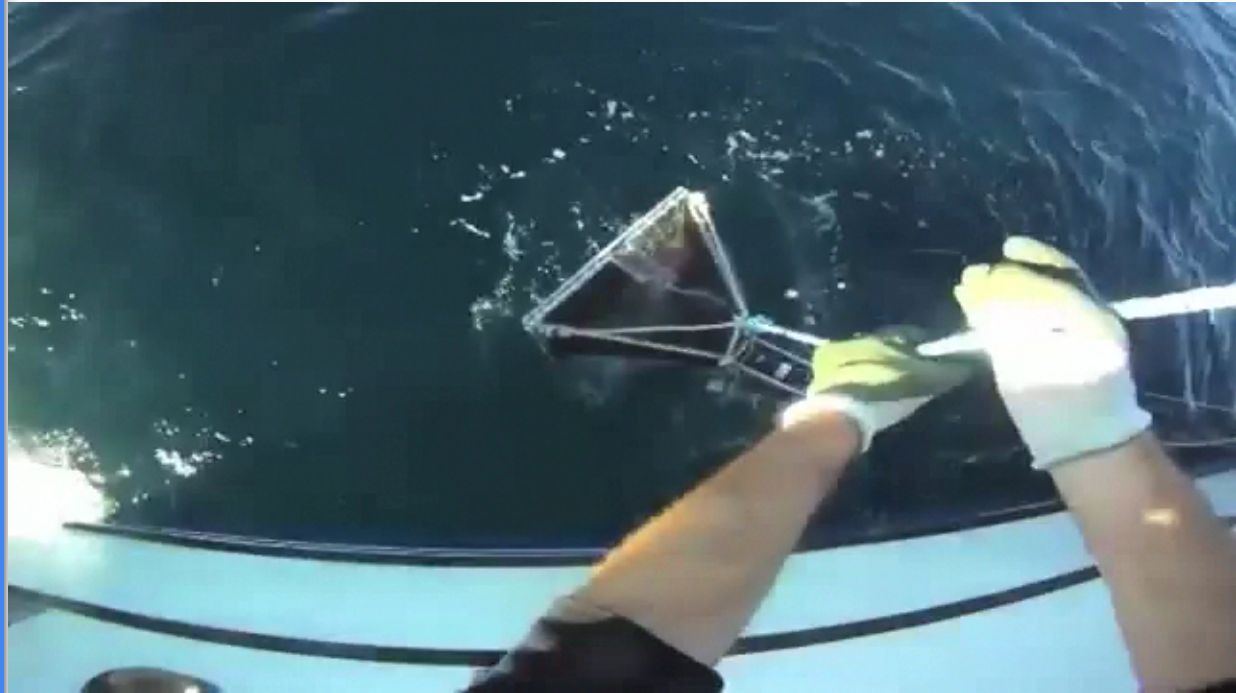
Structured

Straight forward videos

Option to click on specific content for more information.

High quality photos and videos.

Specific to South Atlantic



# Content

Why practice “best fishing practices”

Teared approach “best fishing practices”

Barotrauma information

Links to additional information



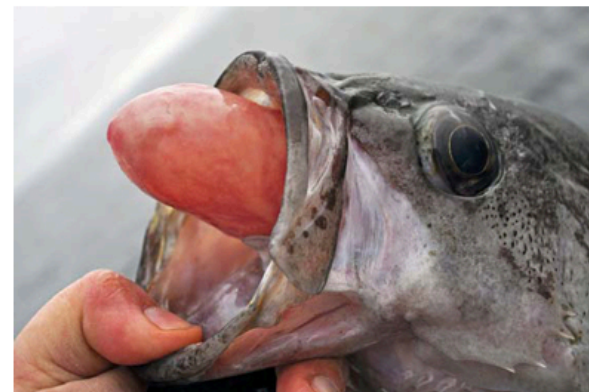
## Overview

### Rockfish Conservation: Overview



#### **Fishery Concerns and Solutions.**

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## Content — Why Practice?

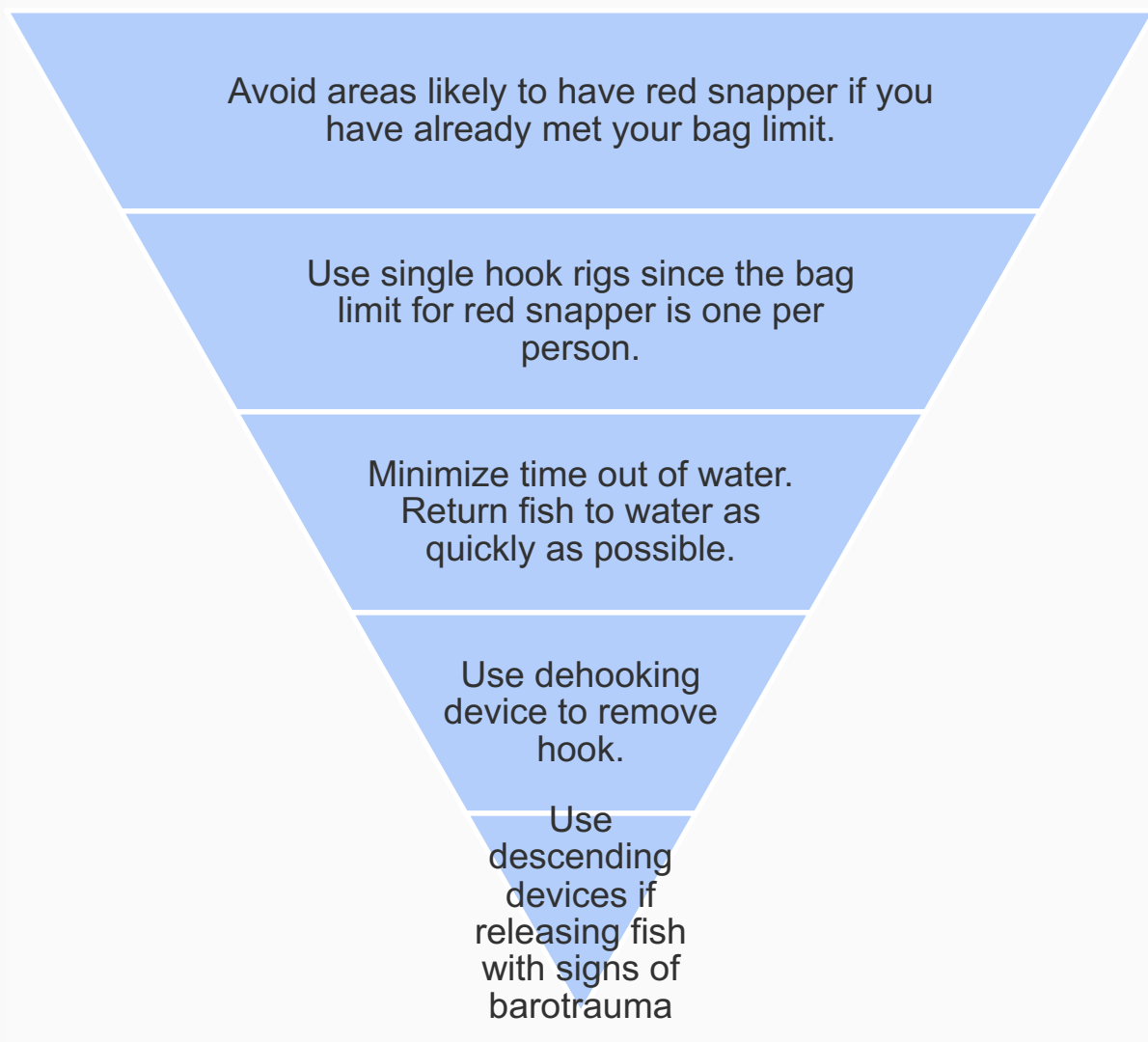
Why practice “best fishing practices”

- High release mortality
- Various reasons for release need to practice for sustainable fisheries
- Increase fishing opportunities (help the stock and help yourself)

# Content

Teared approach “best fishing practices”

”Conservation tools” or steps

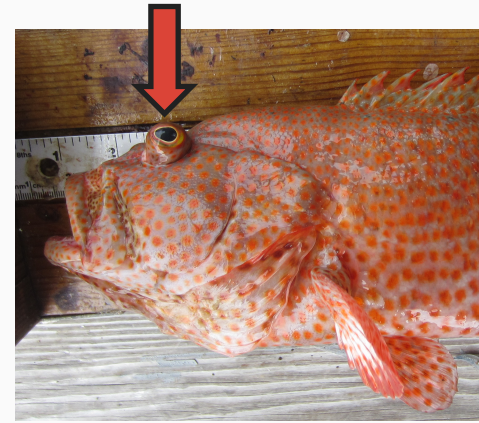


# Content – Barotrauma

Why barotrauma occurs

Recognizing signs of  
barotrauma

Photos showing signs of  
barotrauma



# Content – Descending Devices & Venting

Videos of recompression  
and venting of fish.

Photos of fish being  
descended and vented.

Various descending devices  
available on the market.





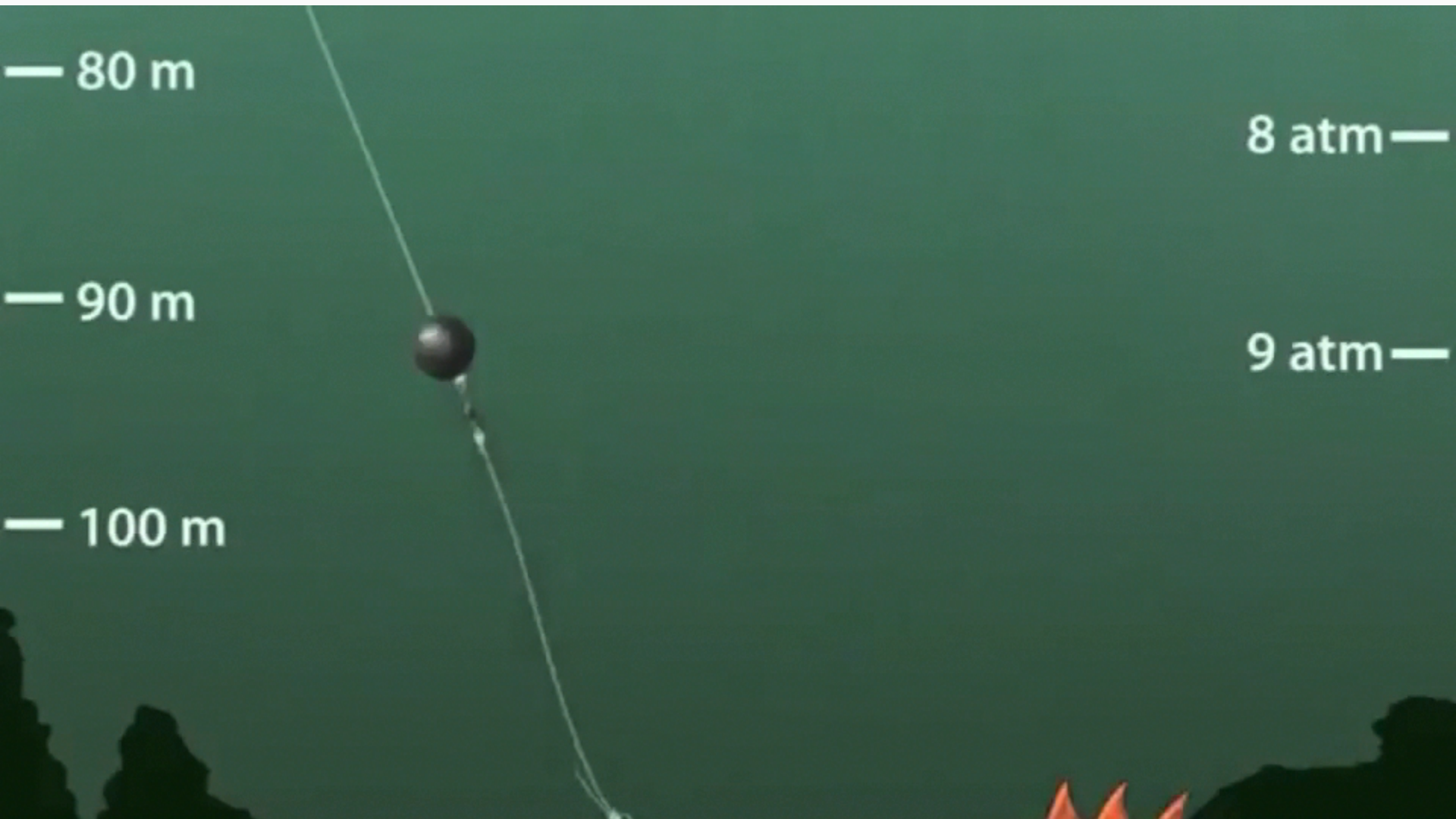
— 80 m

8 atm —

— 90 m

9 atm —

— 100 m



# Thoughts and Feedback

**Goal**

**Overall Approach**

**Design**

**Content**

