



**RETURN 'EM
RIGHT**

Return 'Em Right

*Best Release
Practices Manual*

Gulf States Marine
Fisheries Commission

Gulf of Mexico Fishery
Management Council's
Science & Statistical
Committee

February 27, 2025



Outline

- The Problem
- Initial Efforts & Recommendations
- Background & Support
- Best Practices Workshop
- Manual Contents & Highlights
- Future Use



The Problem

Discard mortality in the Gulf

- Discard mortality is a significant issue in the Gulf
- Millions of reef fish are caught and discarded annually, with high mortality rates
- Key causes: barotrauma, improper handling, and predation
- Consequences: economic and conservation

Why it's matters?

- Rising fishing pressure = rising regulatory discards
- New findings and tools to improve release survival





Initial Efforts

2019 Release Mortality Symposium

- Action plan to reduce discard mortality from rec fishing efforts
- Stakeholder-driven process (scientists, managers, rec and commercial anglers)
- Key Recommendations:
 - Not only barotrauma, release mortality involves many factors requiring flexible solutions
 - Best practices by fleet:
 - **Private anglers** need education on handling and release strategies
 - **Charter captains** prioritize minimizing fight time and using descending devices when feasible
 - **Headboats** mostly prefer venting, so focus on proper technique



Symposium Recommendations

- Anglers allowed the flexibility to choose which mitigation technique to use
- Prepare anglers to make the best decisions in different scenarios
- Consistent monitoring programs: methods and data standards
- Improve existing surveys
- Prioritize data gaps: discards, predation, human dimensions
- Consistent messaging from a central, non-agency voice



Background & Supporting Efforts

Return Em' Right

- DWH Oil Spill Settlement funding
- Provides training and tools for best release practices
- Monitoring and evaluation



RETURN 'EM RIGHT

Building on Existing Programs

- Pacific Coast
- South Atlantic – Fish Smart (2017)
- Gulf partners – state agencies and NGO's
- FL Sea Grant and University of FL (2014-16)



Best Practices for Releasing Fish

Plan Ahead - Expect to release fish on any given trip and prepare the equipment necessary to do so.

Avoidance - Develop skills to target the size and species you desire.

Assess condition while reeling of barotrauma include:

- Sluggish swimming
- Eyes bulging ("pop")
- Stomach protruding mouth.
- Bloated mid section.

Deep Water Release

Saltwater fish caught in deep water may be suffering from "barotrauma," a buildup of swim bladder gases that makes it difficult for them to go back down. Generally, fish caught deeper than 10 feet will suffer some effects. Follow these basic tips:

Anglers can request a free descending device from the non-profit Oregon Coalition for Educating Anglers (OCEAN) at <http://oceaned.org>

Best Practices for the Safe Release of your Fish

It's ok to keep fish that you are allowed under fishing regulations. However, at some point all anglers will be faced with returning fish to the water that they are not allowed to keep – due to size, season, or creel limits – or if they are voluntarily practicing catch-and-release.

Approximate Size - Use gear suited to the size of fish that you are trying to catch. Use circle hooks where recommended and be aware that fishing techniques are different from "J" style hooks.

Handling Fish - Don't play fish to exhaustion.

Handling Fish - Use knotless rubberized landing nets and rubberized gloves, to avoid removing the slime layer from their body.

- Keep the fish horizontal; support the body when lifting large fish.

WHY ARE ROCKFISH PRONE TO PRESSURE-RELATED INJURIES?

Every rockfish has a gas-filled organ called a swim bladder that allows the fish to greatly control its buoyancy. By inflating its bladder, a fish can ascend more easily. By deflating, it can descend. When a fish is caught and reeled in, this mechanism for moving vertically in the water column is thrown out of whack. Depending on the depth at which the fish was caught, a fish's swim bladder may swell so much its stomach is forced out its mouth. The eye may bulge and other organs can be injured as well. Fish suffering from pressure-related injuries are said to be experiencing barotrauma (pressure shock). Without intervention, a fish with barotrauma may die from the expansion of its stomach or succumb to temperature shock or predators.

"Blowups" - overly inflated fish that cannot descend on their own - are especially easy targets for gulls and loons.

ROCKFISH BAROTRAUMA MYTHS

Myth: Holding a fish in a closed plastic bag.

Fact: Rockfish cannot adhere to the pressure drop even when sealed in a bag.

Myth: The rapid gas expansion causes a "popped" fish's stomach to protrude from its mouth.

Fact: It is the stomach! Never use the stomach or try to force it back inside the mouth.

Myth: You can tell by looking whether a fish will survive or die.

Fact: When properly recompressed, even fish with severe barotrauma can survive.

ROCKFISH BAROTRAUMA SCIENCE

According to published results of a Sea Grant study led by researchers at Cal State Long Beach, the degree of barotrauma in a fish is a reliable predictor of its survival. The most significant predictor of post-release survivorship is the time a fish spends at the surface.


In experiments with several species of common Southern California rockfish, 83 percent of fish caught at depths between 217 feet and 356 feet, survived when returned to depth within 2 minutes. The odds of a fish dying following recompression nearly doubled with every 10-minute increase in time at the surface.

Tagging and recapture studies showed some released fish were still alive 0.5 years later.

For current recreational groundfish fishing regulations, call 916-648-2869 for detailed information or visit the California Department of Fish and Wildlife website at www.dfg.ca.gov.

The importance of rockfish recompression and descending devices

The Importance of Recompression



fish...and for anglers

BRING THAT ROCKFISH DOWN




on State University, and severe signs of barotrauma at least 66 feet deep. "Blow-out" yelloweye rockfish are best before being released

and state harvest (or fish) limits. All dead fish estimated mortality of



Best Practices Workshop

- **Purpose:** Develop a set of standard best release practices informed by science and input from recreational anglers to increase release survival. Recommendations developed into a manual for outreach.
- **Panelists:** 18 anglers, managers, scientists, and 27 others interested parties.






Workshop Goals

- Determine the major decision points anglers are likely to encounter during an offshore fishing trip.
- Determine actions anglers can take to improve a fish's chance of survival upon release
- Produce a manual with recommendations
- Living document adapting to new findings and research

Manual Contents

Format & Organization:

- Preparing for a fishing trip
- Choosing a fishing location
- Fighting fish
- Handling & releasing fish
- Dealing with predators
- Wrapping up a trip



BEST RELEASE PRACTICES MANUAL

**FOR REEF FISH &
RELATED SPECIES**



Preparing for a Trip

Generally:

- Define and set expectations
- Know and understand regulations
- Ensure proper gear and training
- Know your target spp. and have a plan for non-target spp.

For-hire:

- Prepare and educate guests/clients
- Providing novices with additional assistance
- Train captains and first mates



Choosing a Location

- Fish shallow waters first
- Things to consider:
 - Target species
 - Duration of trip
 - Depth of fishing
 - Presence of predators
 - Season and water temperature
- Relocate if:
 - Too many require release
 - Predators present
 - Excessive barotrauma



Fighting Fish

A person wearing a dark visor and a light-colored hoodie is fishing from a boat. The person is holding a fishing rod that is bent significantly, indicating a catch. The background shows the ocean and a distant pier or structure on the horizon. The entire image has a dark, blue-tinted overlay.

Generally:

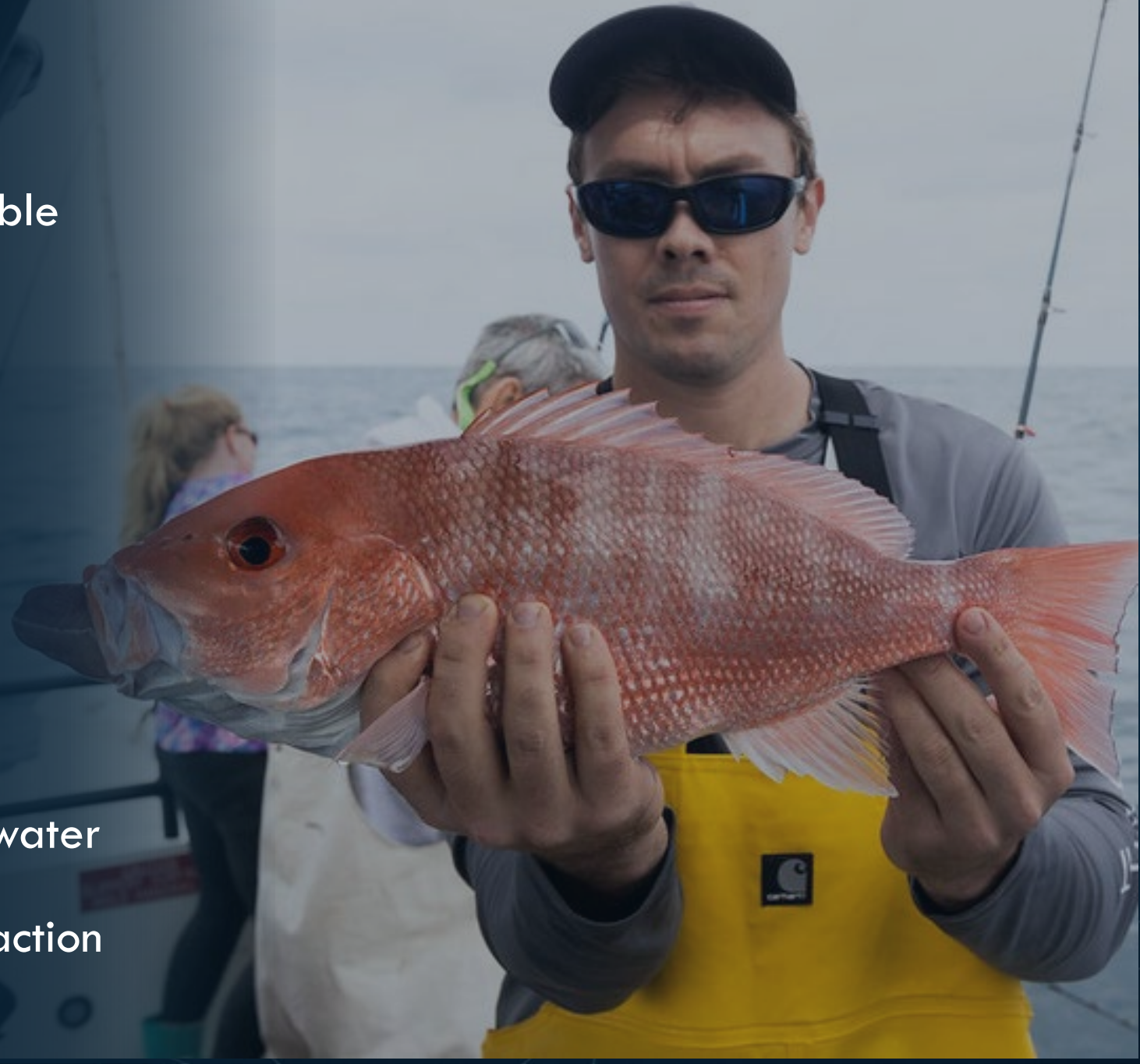
- Use single-hook rigs
- Do not fish from a rod holder
- Plan for a fast fight
- Identify the catch asap to determine its fate

For-hire:

- Avoid entanglements that could prolong fight time
- Provide simple instructions to guests/clients
- Communicate effectively with crew

Handling & Release

- Identify your catch as soon as possible
- Determine harvest or release
- Know signs of barotrauma
- How to properly vent & descend
- Different types of devices
- How to hold the fish
- Minimize handling and time out of water
- Bottom line: if fish need help, take action



Dealing with Predators

Generally:

- Reel fish up quickly
- Relocate if frequent encounters
- Incorporate deterrents

Species-specific:

- Goliath grouper – avoid reefs with large numbers
- Dolphin – relocate



Wrapping Up a Trip

- Clean and maintain your gear
- Note things you needed
- Report catch & discards accurately
- Adopt the best practices that work for you
- Take responsibility



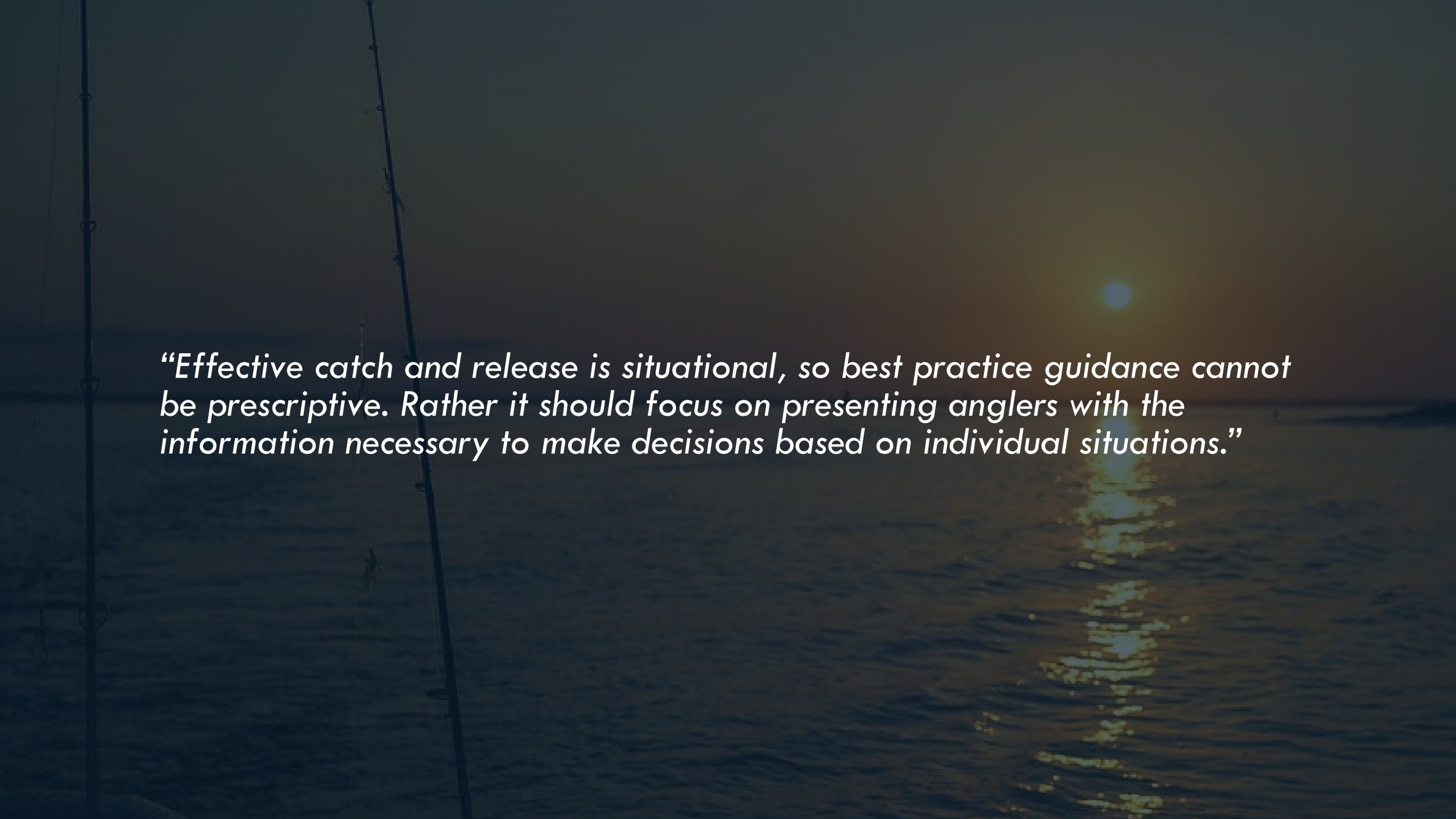
Future Use – Living Document

Ongoing Relevance & Updates

- Updated as new research emerges
- Continues as a central resource for education & management

Long-Term Goals

- Encourage widespread adoption of best practices
- Influence policy and future research
- Consistent Gulf-wide messaging



“Effective catch and release is situational, so best practice guidance cannot be prescriptive. Rather it should focus on presenting anglers with the information necessary to make decisions based on individual situations.”