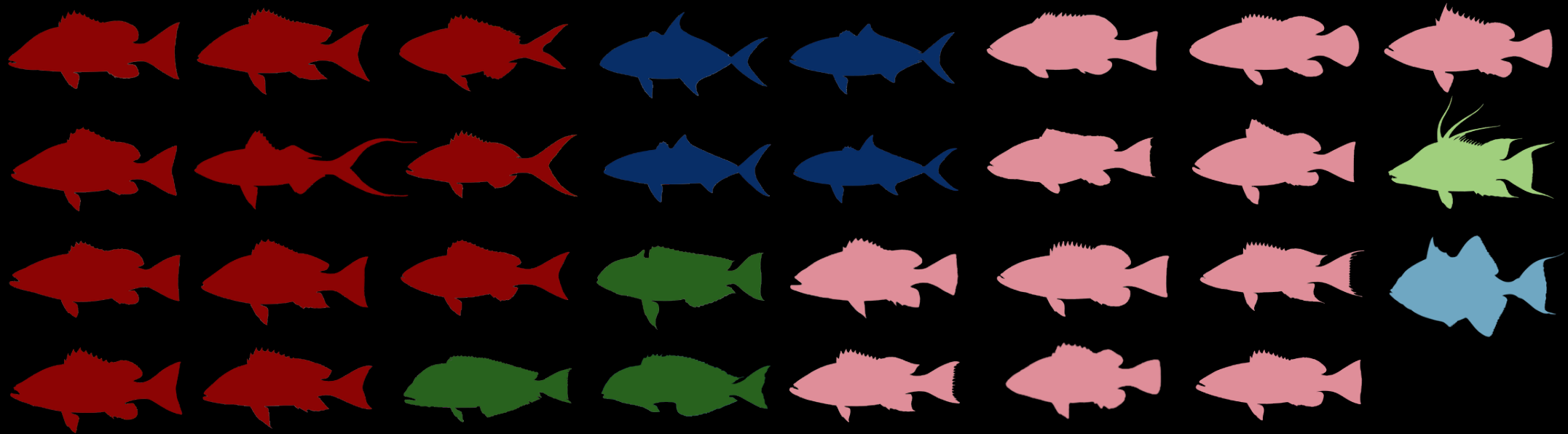


Extending Our Reach

a multi-state collaborative approach to reef fish Extension



JM Drymon^{1,2}, K Alexander, A Anderson, H Antoun, S Baker, S Barry, E Camp, A Collins, J Fifer, B Fluech, S Gibbs, M Gorstein, N Haddad, B Hall-Scharf, M Hanke, S Krueger, A Jargowsky, J Lively, D Martino, E Muehlstein, D McAree, A Oliver, A Ortiz, A Osowski, E Maung-Douglass, L Picariello, P Plotkin, A Sabine, S Scyphers, D Seibert, M Sipos, S Swinea, C Wiegand, A Zangroniz

¹Mississippi State University, ²Mississippi-Alabama Sea Grant

The problem

Results of federal stock assessments for some reef fishes have been at odds with the on-the-water observations of commercial and recreational fishermen

This creates a disconnect that erodes stakeholder faith in the credibility of scientific findings

Significant Congressional funding was allocated to alleviate this disparity, e.g., the Great Red Snapper Count and the Great(er) Amberjack count

Yet funds to effectively disseminate these scientific findings to the appropriate stakeholders were lacking



The goal

Build upon the conventional unidirectional flow of information (i.e., from research to management to stakeholder) by working directly with stakeholders to identify pressing research needs and communicate those needs to the scientific and management community (i.e., from stakeholder to research and management)

Sea Grant fisheries Extension professionals from across the Southeastern US (TX, LA, MS, AL, FL, GA, SC, NC)

Management representatives from the GMFMC, SAFMC, CFMC and an Advisory Panel of commercial and recreational sector stakeholders



Gather, Refine, Communicate



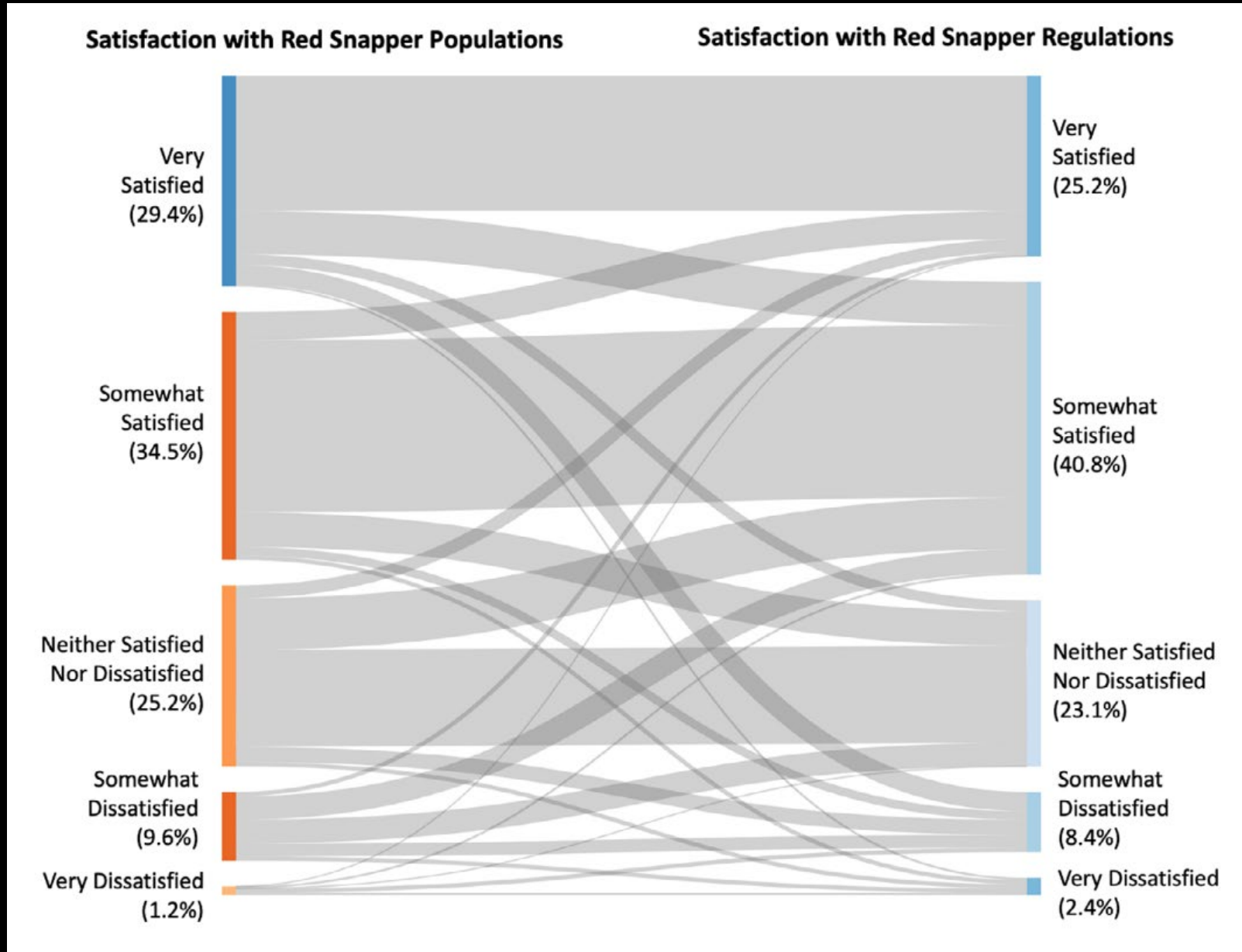
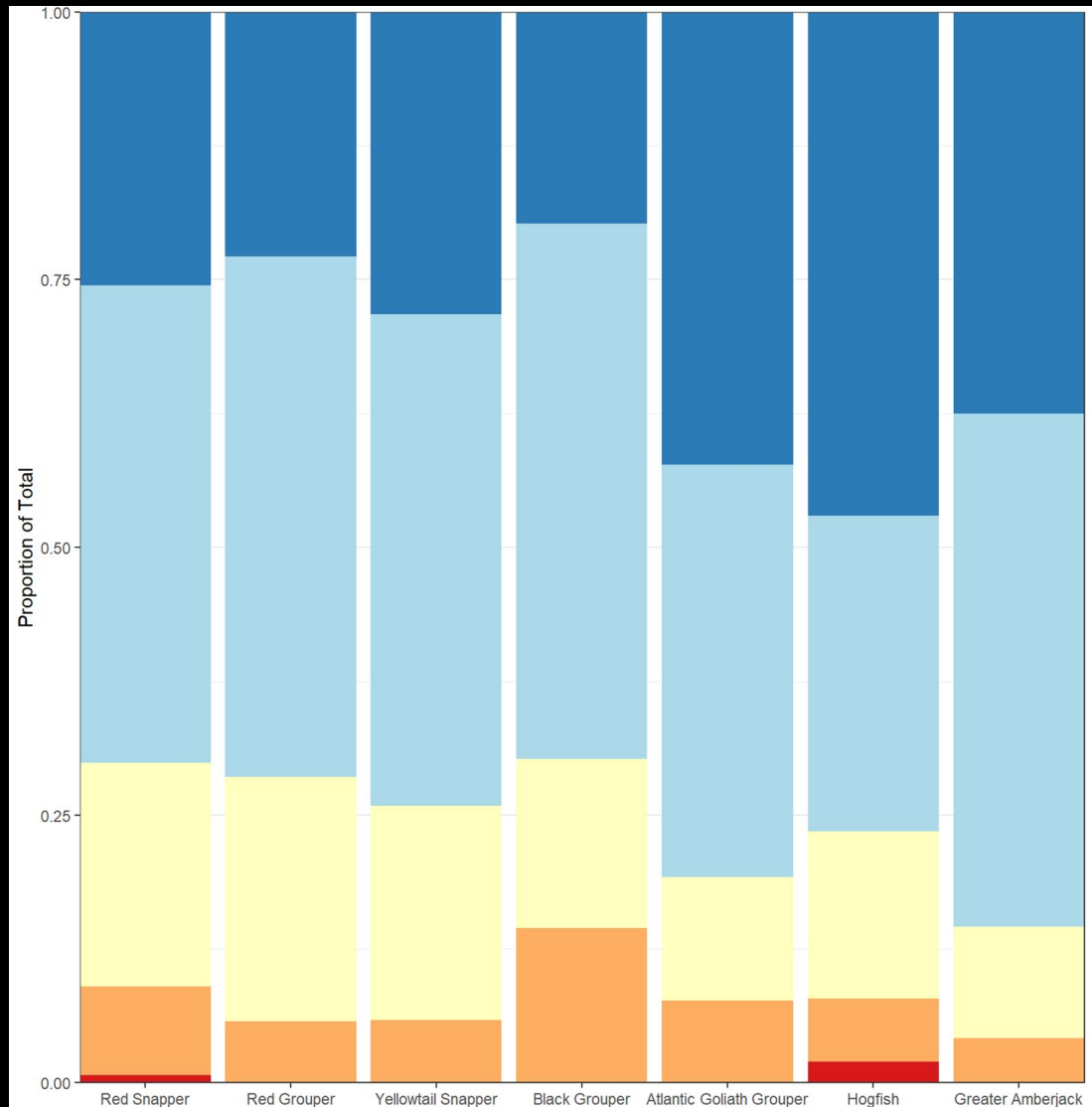
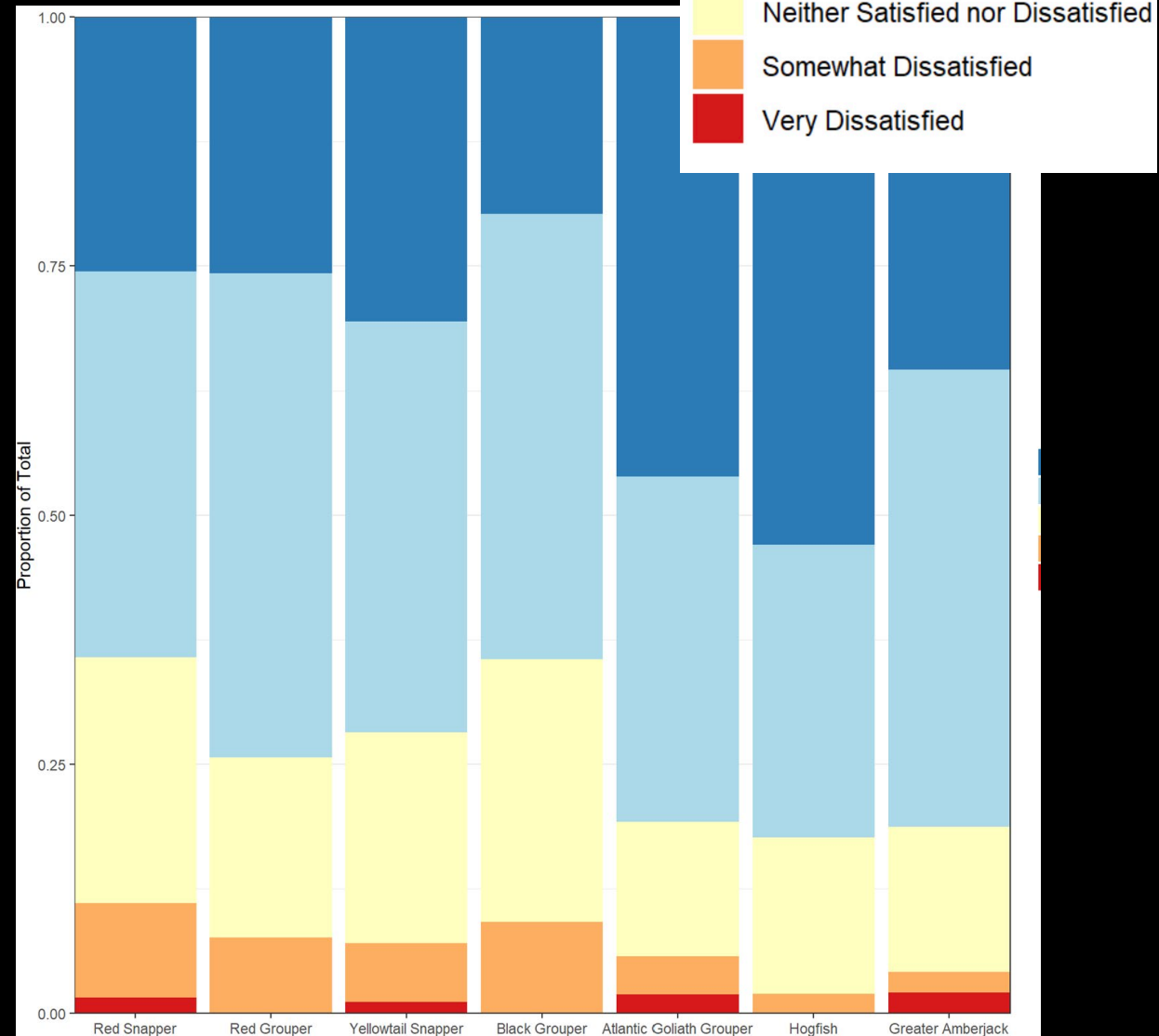


Figure 4, Scyphers et al. 2022

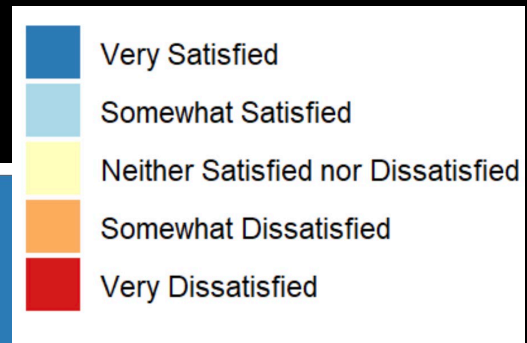
Gather



*Satisfaction with **population levels***



*Satisfaction with **current regulations***



Refine

Gulf States Marine Fisheries Commission meetings



2022: San Antonio, TX



2023: New Orleans, LA



2024: Gulf Shores, AL

Refine



Photo from National Geographic



Photo by Bénédicte Desrus

Communicate



Ethical angling combines respecting our fisheries and natural environment, as well as our fellow anglers, to ensure quality fishing for future generations. (*flatsworthy.com*)

Etiquette refers to the custom of exhibiting polite behavior in society or among members of a particular profession or group such as anglers.

Recreational anglers can follow certain guidelines to ensure that they are fishing and boating with proper etiquette to promote sportsmanship, respect, and environmentally conscious practices.



Sea Grant
Texas
AT TEXAS A&M UNIVERSITY

ANGLER ETHICS & ETIQUETTE

Reel Anglers Show Respect



FLATS WORTHY
NATURAL RESERVE

Thanks to FlatsWorthy, Inc. (<https://flatsworthy.com/>) for contributing to this publication and for promoting the messages of ethics and etiquette to Texas anglers.

Sea Grant
Texas
AT TEXAS A&M UNIVERSITY

texasseagrant.org

All photos by Seth Patterson



Communicate

FISHES

Fishermen Invested in Science, Healthy Ecosystems, and Sustainability

Edited by J. M. Drymon

Contributing authors: M. B. Jargowsky,
A. E. Jefferson, and E. A. Seubert



Chapter 1: The Gulf of Mexico

HIGHLIGHTS

- The Gulf of Mexico contains a bounty of natural resources that includes more than 1,500 different types of fishes.
- Dating back to the mid-1800s, commercial fishing has always been an important industry for residents along the Gulf Coast.
- The diversity and abundance of fishes in the northern Gulf of Mexico makes it a recreational fishing hotspot.

1.1 AN INCREDIBLY FISHY PLACE

- The sixth largest body of water on the planet, the Gulf of Mexico is an excellent location for studying and catching fishes. Simply put, the Gulf (Figure 4) is:
 - large, covering an area in excess of 500,000 square miles,
 - wide, measuring about 500 miles north to south and about 1,000 miles west to east,
 - mostly shallow, with an average depth of less than 1 mile, compared to the average depths of the Atlantic Ocean (2.4 miles) and Pacific Ocean (2.7 miles),
 - occasionally deep, with the deepest Deep Eddy Trench measuring a depth of nearly 2.5 miles.

FIGURE 4. Bathymetric map illustrating the spatial extent of the Gulf of Mexico.

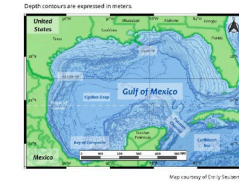


FIGURE 4. BATHYMETRIC MAP ILLUSTRATING THE SPATIAL EXTENT OF THE GULF OF MEXICO. MAP COURTESY OF C. J. SHERMAN.



FIGURE 5. A HISTORICAL PHOTOGRAPH OF A FISHERMAN ON A BOAT. PHOTO COURTESY OF THE NATIONAL ARCHIVES.

1.2 HISTORICAL GULF FISHERIES

Fisheries in the Gulf have existed for thousands of years, as described in rich prose in the 2018 Pulitzer Prize-winning book *The Gulf: The Making of an American Sea* by Jack Davis. Davis described how Native Americans made use of these fisheries by weaving fishing nets out of "Spanish moss and palm fiber" and following the lunar cycles and seasons to predict optimal harvest times for each fishery. The Gulf's abundant fisheries led these natives to be of "robust physical stature and healthy existence," much to the chagrin of the Spanish, who referred to them as "tanned-haired giants." Davis noted that one of the first descriptions of the Gulf's fisheries resulted from an early attempt to map the Gulf, when British surveyor Bernard Ramoan was assigned an oyster reef and stand, "two fish and in such innumerable quantity as exceed even imagination."

A century later, the American poet Sidney Lanier missed, "There seems to be literally no end to the oysters, the fish, the sea-birds, the shells, the turtles, along these waters." Echoing those sentiments, American author Edward Spruyt wrote, "There is such a multitude of oyster, fish and game, that enterprises for supplying the market from the best section should be very successful," "with the widespread availability of ice beginning around 1820, vessels were able to venture farther and further offshore and capture increasingly large quantities of fishes, which prompted a flourishing trade with consumers as far as New England to the north and Cuba to the south. Thus, commercial fishing became the Gulf's first industry of real importance (Figure 5).

However, the Gulf is also considered the birthplace of American saltwater sportfishing, a title that can be traced back to a single species. On March 18, 1885, William Halley Wood landed what is thought to be the first tarpon in the Gulf of Mexico. Measuring 5 feet 9 inches and weighing in at 93 pounds, this fish sparked a recreational fishing frenzy that continues to this day. Sportmen from President Franklin D. Roosevelt to Major League Baseball Hall of Famer Ted Williams have chased the enigmatic species across the Gulf. Entire coasts were named after this fish, like Tarpon Springs, Florida, and Tarpon, Texas, which would later be renamed Fort Fisher. The value of tarpon to the burgeoning recreational fishery in the Gulf is difficult to overstate. For example, in 1926, it was estimated that every tarpon landed was worth about \$500 to local businesses, or approximately \$15,000 (adjusted for inflation).

FIGURE 6. Proper use of the terms "fish" and "fishes."

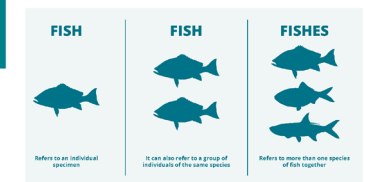


FIGURE 6. PROPER USE OF THE TERMS "FISH" AND "FISHES." GRAPH COURTESY OF CATHERINE COOPER, modified from McIlhenny et al. (2007).

1.3 MODERN GULF FISHERIES

Commercial and recreational fisheries were clearly critical industries for residents in the early Gulf of Mexico. More than 100 years later, that same is true. For example:

- Approximately 18 percent of U.S. commercial landings by weight (17 percent by revenue) are from the Gulf. Menhaden is the Gulf's largest commercial fishery by weight, and shrimp (white, brown, pink) is the largest by value.
- Approximately 40 percent of U.S. recreational landings are from the Gulf. Spotted trout and red drum are the most popular inshore species, while red snapper is the most popular offshore species.

Communicate



BECOME A FLORIDA FRIENDLY FISHING GUIDE

Preserve the Future of Florida's Fisheries

ONLINE CERTIFICATION COURSE

-  Valid for 3 years
-  4 hours to complete
-  \$130 investment



\$145 EST. VALUE

PLUS, YOU'LL RECEIVE FREE ADVERTISING!

- Listing on the FFFG Directory
- Promotional social media post
- Entry into the FFFG Facebook group

FLfriendlyfishingguide.org

South Atlantic Sea Grant Programs: novel approach



Credit: NC Sea Grant / SAFMC

Same species in SA, but different issues/rules than Gulf

Enhance existing efforts or start a new outreach program?

SAFMC ramping up "Best Fishing Practices" + "Citizen Science" programs

Reef Fish Extension & Communication Fellowship



Photo: SAFMC

Tackle Shop Owner
Engagement



© C. Wiegand

“Hands-on” and
virtual seminars



Photo: SAFMC

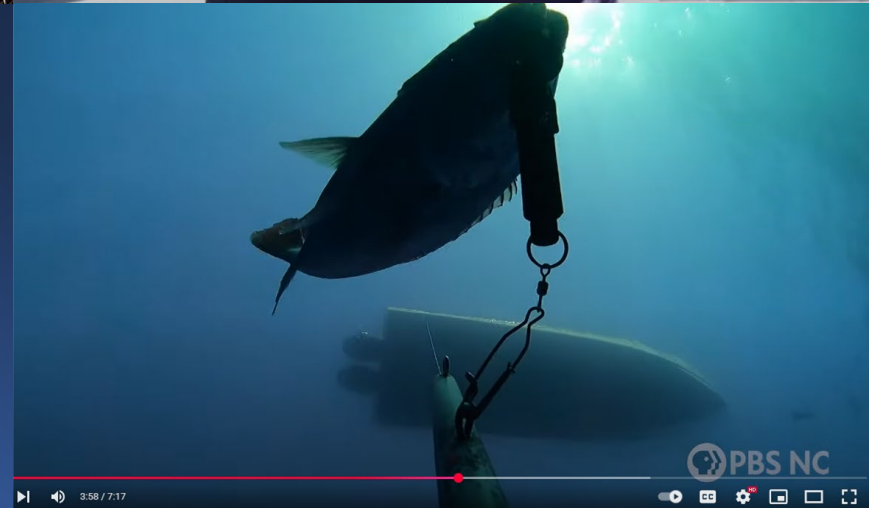
Media Trips
(Ex. PBSNC)



Media Trips



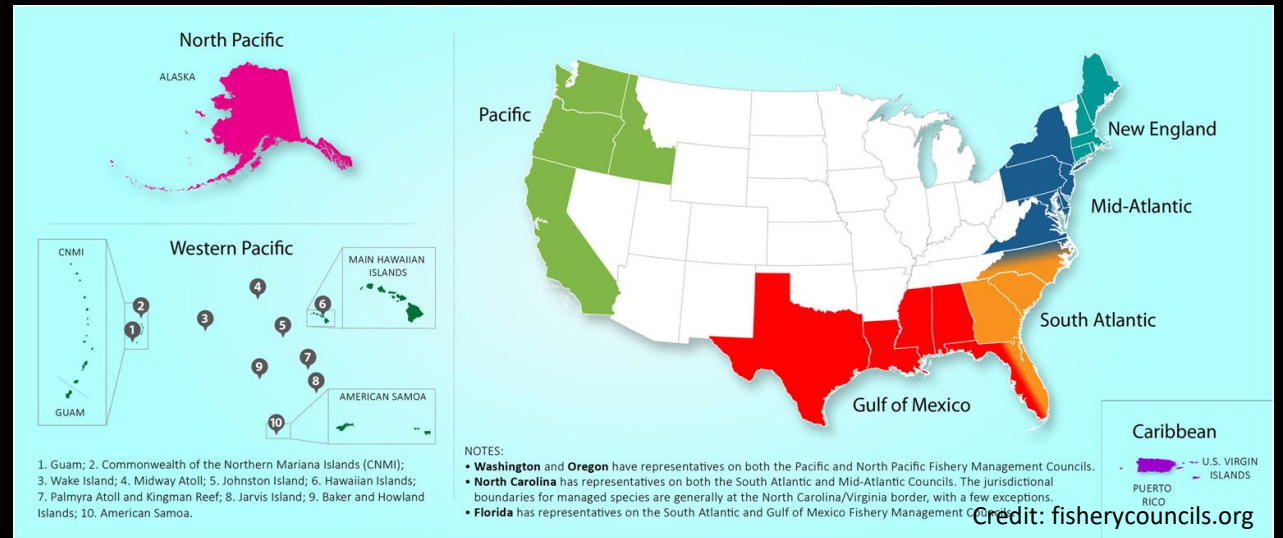
PBSNC video (7 min)



A model for other regions?



Credit: National Sea Grant Office



Acknowledgements



National Sea Grant College Program, award 8006808-01.01-A/O-67 to Mississippi State University

