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Scientists to count Gulf red snapper

Mississippi-Alabama Sea Grant has awarded a team of researchers from 21 universities funding for a project to estimate the number of red snapper currently in the Gulf of Mexico.



Mississippi State leads red snapper Extension

In response to widespread complaints from anglers about the federal stock assessment for red snapper, Congress provided funds for an independent estimate. Mississippi-Alabama Sea Grant has awarded a team of researchers from 21 universities nearly \$10 million for a project to estimate the number of red snapper currently in the Gulf of Mexico (click here for press release).

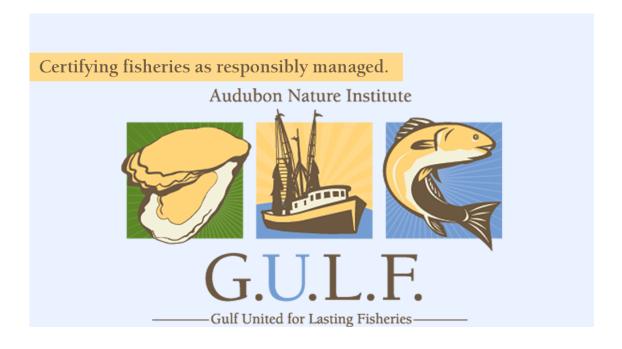
Mississippi State University's role is to ensure that the findings from this research reach the broadest possible audience. To do this, we've developed a three-phase strategy designed to ensure anglers, resource managers, and all interested stakeholders are informed and updated regularly throughout the project.

Phase 1: Introduction to the research approach. A short video will be produced, detailing all components of the research approach. This video will be distributed widely on fishing forums (e.g. The Hull Truth), social media (e.g. Sea Grant College Programs, National and State Coastal Conservation Association, academic and research institutions), and websites. Accompanying this introductory video will be a longer video describing the details of the research.

Phase 2: *Gulf-wide workshops*. Starting in Spring 2018, Mississippi State University will develop and lead in-person workshops in each of the 5 Gulf of Mexico states, in collaboration with regional Sea Grant offices. Following the completion of each workshop, comments and suggestions from the participants will be compiled, and a "FAQ" for that workshop will be developed and posted online.

Phase 3: **Summary of findings**. Findings from the research project will be synthesized in a short video, with more details included in a longer version.

Program promotes G.U.L.F. sustainability

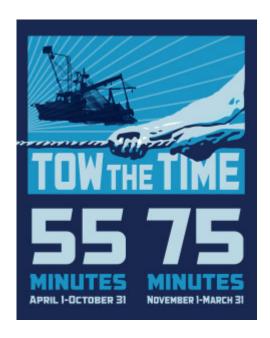


Founded by the Audubon Nature Institute in 2012, Gulf United for Lasting Fisheries (G.U.L.F) is a program that engages commercial fishermen with independent businesses, government agencies, and non-governmental organizations. G.U.L.F. works to promote sustainable practices through fisheries science, foster an engaged and invested fishing community, and create a stable and confident fishing industry. What does "sustainability" look like? A sustainable fishery can be thought of as a fishery that:

- 1. Maintains a resource for available harvest in the future
- 2. Minimizes impacts to habitats and other species
- 3. Ensures that fisherman/processor/industry can make a living

What do sustainable fisheries look like in the northern Gulf of Mexico? Through a partnership between Audubon G.U.L.F. and Mississippi Commercial Fisheries United, the Mississippi Shrimp Fishery Improvement Project (FIP) was initiated in July 2016, with the goal of increasing awareness of the sustainable fishing practices used by the Mississippi commercial shrimping fleet. To date, a work plan consisting of four actions has resulted from this collaboration:

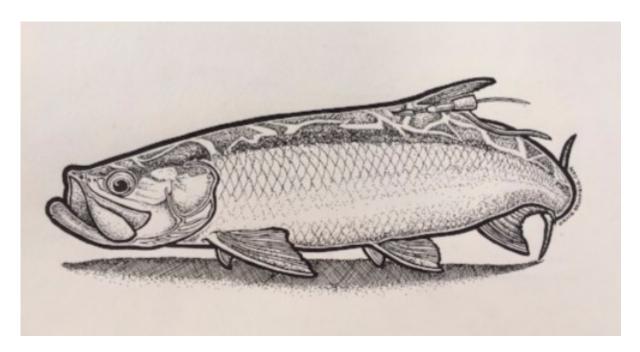
- 1. *Gear tuning*: Participants agree to voluntary gear checks from NOAA Fisheries and/or Texas Sea Grant to ensure turtle excluder devices (TEDs) and bycatch reduction devices (BRDs) are functioning properly.
- 2. *Tow the Time*: A campaign aimed at skimmer trawls, these stickers were developed and distributed to raise awareness about the importance of tow times in reducing incidental catch of sea turtles.



- 3. Bycatch management plan: Bycatch in trawl fisheries is often cited as the main sustainability concern for the fishery. Through this action, participants agree to work with Mississippi Department of Marine Resources to develop a bycatch management plan for state waters and agree to work with vessels to encourage the use of BRDs.
- 4. *Traceability*: The ability to track seafood from the water to the plate (traceability) is an important aspect of a sustainable fishery. Participants are exploring potential mechanisms to incorporate traceability into Mississippi's commercial shrimp fishery.

<u>Click here</u> to read more about the ways Audubon G.U.L.F., local fishermen, and seafood businesses are improving the sustainability of Mississippi's shrimp fishery.

Local brewery supports tarpon tagging



Tarpon Tagging Box: We've recently collaborated with local tarpon fishing guides and <u>Chandeleur Island Brewing Company</u> in Gulfport Mississippi to develop the Tarpon Tagging Box, a variety pack of Chandeleur Brewing's finest products. A portion of the proceeds from the sale of each Tarpon Tagging Box goes to support tarpon satellite tagging projects. Join us in our efforts to ensure Gulf tarpon are here for generations to come. <u>Click here</u> to learn more about this unique collaboration.

Tarpon ecology: Atlantic tarpon (*Megalops atlanticus*) are a highly migratory and prized sport fish throughout the Gulf of Mexico. Unfortunately, this majestic fish has a set of life history traits that makes it particularly susceptible to population declines, including slow growth, large sizes (> 6 feet), old ages (> 50 years) and late onset of sexual maturity (8-12 years). As part of their life history, tarpon make extensive migrations along the Gulf of Mexico. Northern Gulf of Mexico fishermen know tarpon are present in and around Mobile Bay and Mississippi Sound during short and specific times of the year; however, much remains to be learned. For example, *what specific areas are tarpon using within Mobile Bay and Mississippi Sound? How long do tarpon spend in northern Gulf of Mexico waters? Where do they go once they leave our area and begin their westward migration?*

These are among the questions that can be investigated using telemetry.

What is telemetry? Telemetry is the remote tracking of an organism, and is an invaluable tool used to collect data from fish. In the northern Gulf of Mexico, we've used two kinds of telemetry tags to track tarpon. The first type of tag is called a SPOT tag, which stands for Smart Position or Temperature tag. SPOT tags estimate the position of a fish each time the tag breaks the surface of the water and relays that position estimate to a satellite. In addition to SPOT tags, we've used Pop-off Archival Transmitting (PAT) tags, which record temperature, pressure and light-level data for a set period (usually 6 or 9 months). Once that time has passed, the PAT tag releases from the fish, floats to the surface, and transmits chunks of data to a satellite. Data transmitted to the satellite from SPOT and PAT tags can then be downloaded to a computer for analysis.



A Sea of Acronyms

Being an informed angler begins with understanding the terms used in fisheries management. This column helps demystify the concepts hidden beneath *A Sea of Acronyms*.

ABC

Acceptable Biological Catch

A term used by a management agency which refers to the range of allowable catch for a species or species group. It is set by fisheries scientists in a group called the Science and Statistical Committee (SSC). The management agency (e.g. Gulf of Mexico Fishery Management Council) then takes the ABC estimate and sets the Annual Catch Limit (ACL), which is also known as the Total Allowable Catch (TAC). By law, the ACL (or TAC) will always be less than the ABC.



Upcoming events

<u>Biloxi Boat Show</u> (Feb. 2-4) at the Mississippi Coast Coliseum, Biloxi, MS

<u>USA Distinguished Lecture Series</u> (Feb. 22) in Gulf Shores, AL, "Sharks - dispelling myths through research"

<u>Mobile Boat Show</u> (March 2-4) at the Mobile Convention Center, Mobile, AL

<u>Louisiana Fisheries Forward Summit</u> (March 6) in New Orleans, LA





I'm Marcus Drymon, an Assistant Extension Professor at Mississippi State University and a Marine Fisheries Specialist at Mississippi-Alabama Sea Grant. I'd like to hear from you! Please send any comments or questions to marinefisheriesecology@gmail.com, and you can click on the links below for more information on my website and Facebook page.







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