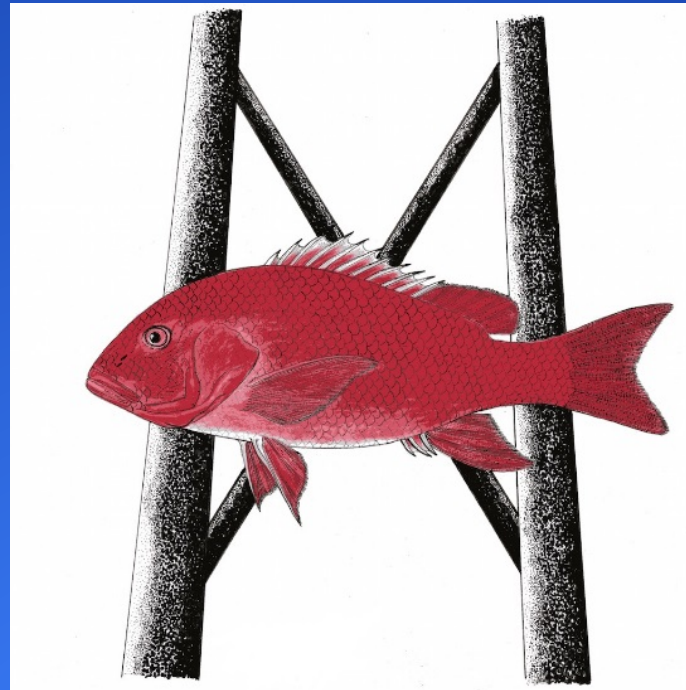




ENHANCE ★ PROTECT ★ CONSERVE

Tails n' Scales: An Innovative Reporting System for Recreational Red Snapper Management in Mississippi



Carly Somerset
Mississippi Department of Marine Resources
Office of Marine Fisheries
December 5, 2017

Recreational Red Snapper Management in Mississippi

- Important species for our coastal fishing economy
- Mississippi has a unique fishery
 - Small For-Hire fleet
 - Habitats are changing on multiple levels
 - Fishing efforts are changing on an annual basis
- Red Snapper management has and will continue to push fisheries management boundaries

MS Recreational Red Snapper Reporting Timeline

Mississippi began voluntary reporting of Red Snapper harvest in 2014



Mississippi's Commission on Marine Resources adopted a regulatory modification in December, 2014 requiring reporting of all Red Snapper landed in Mississippi



MDMR then contracted with a developer to create the electronic reporting system Tails n' Scales



Mandatory reporting with Tails n' Scales began in 2015

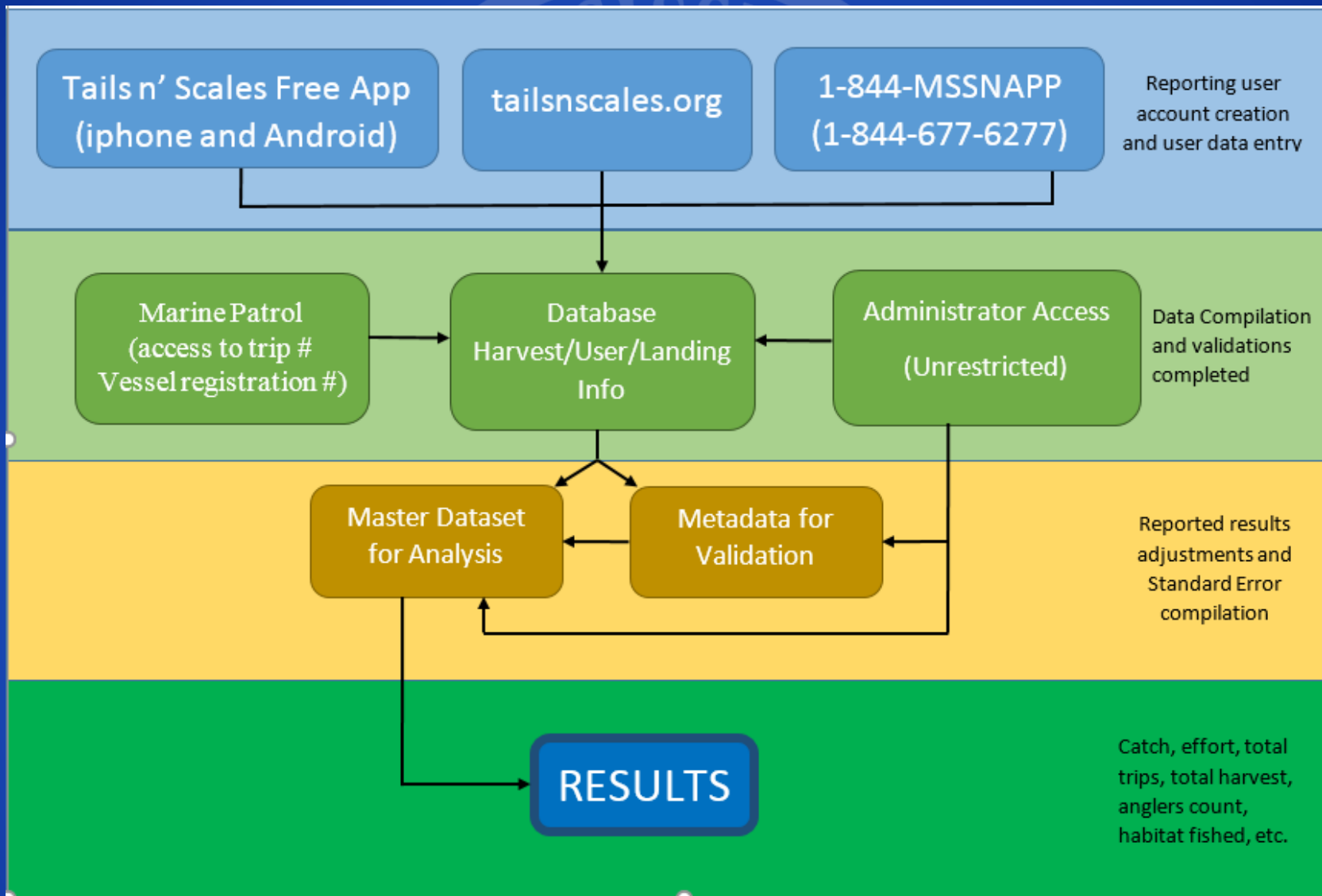


2016 Tails n' Scales: Updated system including addition of email verification, archived data available to anglers and reporting of released catch

Program Priorities

- Allow fishery managers to collect recreational red snapper trip reports in real time, accurately estimate annual harvest and effort
- Provide Mississippi anglers with a user-friendly and efficient way to report red snapper harvest using their smart phones, a web portal or a toll-free number
- Mississippi Department of Marine Resources is responsible for ensuring every angler can acquire a trip number 24 hours a day, 7 days a week
- Develop the system so that:
 - Anglers targeting Red Snapper must acquire a trip authorization number prior to fishing for them
 - Anglers must close their trip prior to opening a new one
 - Anglers are encouraged to report their trip information within 24 hours before it expires

ENHANCE ★ PROTECT ★ CONSERVE





 Email

 Password

☐ Remember Me

LOGIN

Don't have an account? [Create One](#)

[Forgot your password?](#)



ENHANCE ★ PROTECT ★ CONSERVE

ENHANCE ★ PROTECT ★ CONSERVE

User Profile



Trip Close Data

Note: Fields with * are required.

Trip Taken?



Yes



No

Hours Fished *

Choose Hours Fished

Number of
Anglers *

1

Red Snapper
Harvested? *

Fish Harvested

Red Snapper
Released? *

Fish Released

Habitat Fished *

Select Habitat Fished

BACK

END TRIP

- Create New Trip >
- Active Trips >
- Completed Trips >
- Pending Trips >
- Abandoned Trips >
- All Trips >

[SEARCH](#)[EXPORT TO CSV](#)

Choose Year

2017

Completed Trips Details

3,788 Trips

22,757 Fish Harvested

15,063.5 Hours

15,174 Anglers

User List

[SEARCH](#)[ADD USER](#)[EXPORT TO CSV](#)

First Name	Last Name	Vessel No	CGDOC No	Email	Mailing Address	Role	Mobile No	Options
Carly	Renee	MI	N/A	carly.somerset@dm...		Angler		
c	somerset	DMRTEST!	N/A	carlysomerset@gm...		Angler		
Carly	Somerset	DMR1234	N/A	carly.somerset@ea...		MDMR-Admin		

Total Items: 3

Page Size: 5

[RESET](#)[FILTER](#)Vessel Registration Number Expiration Date 09/06/2017 07:27 PM

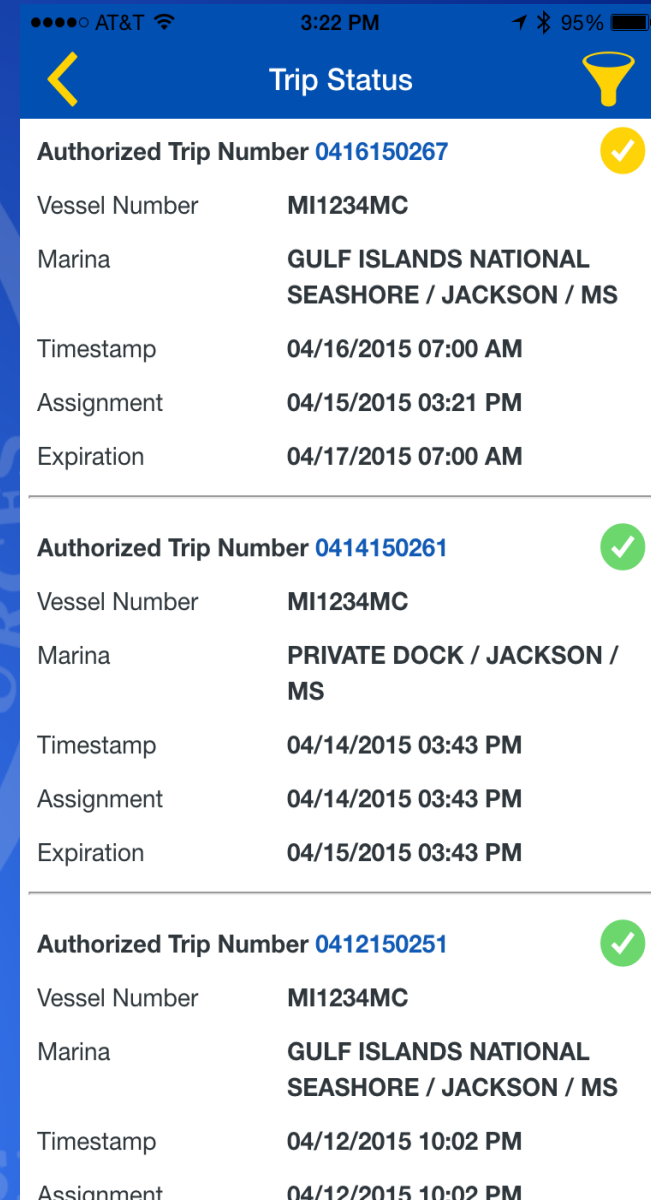
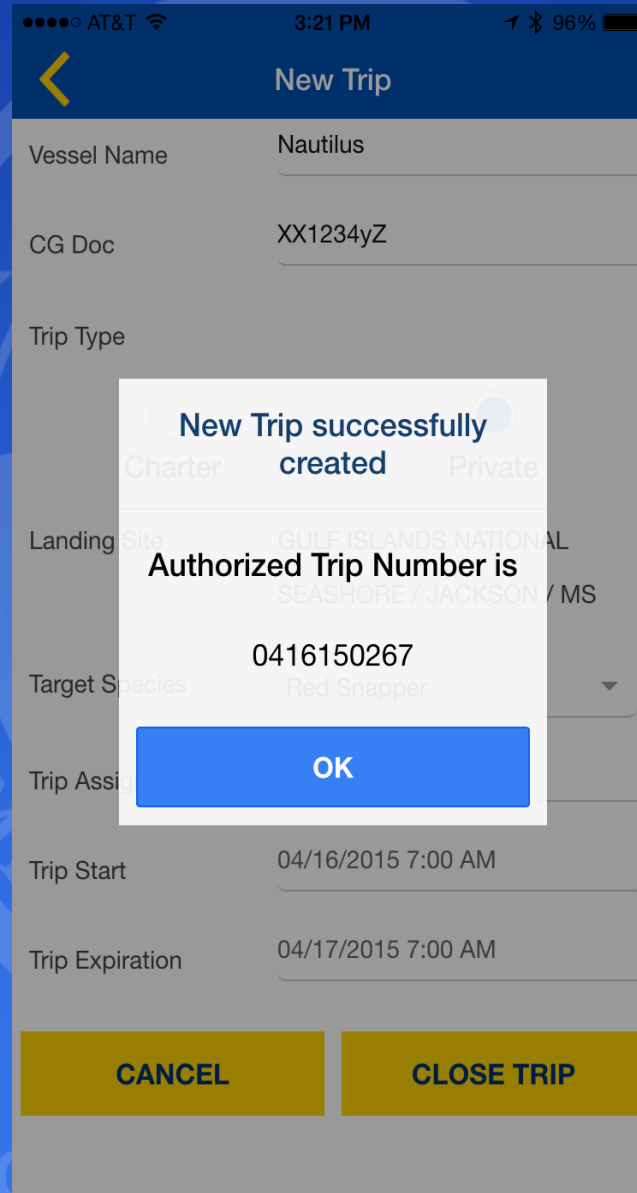
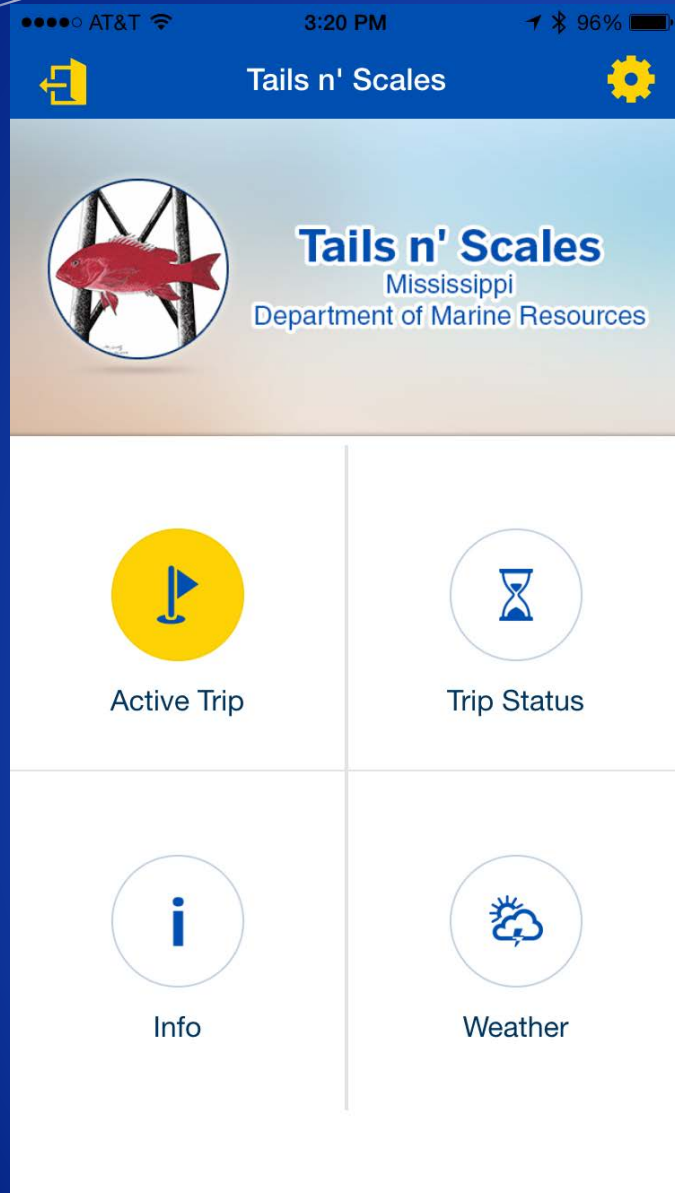
Marina GULFPORT SMALL CRAFT HARBOR Landing County HARRISON

Trip Created Via Android Trip Closed Via Android App Version --

Start 09/05/2017 07:27 PM End 09/08/2017 08:32 AM



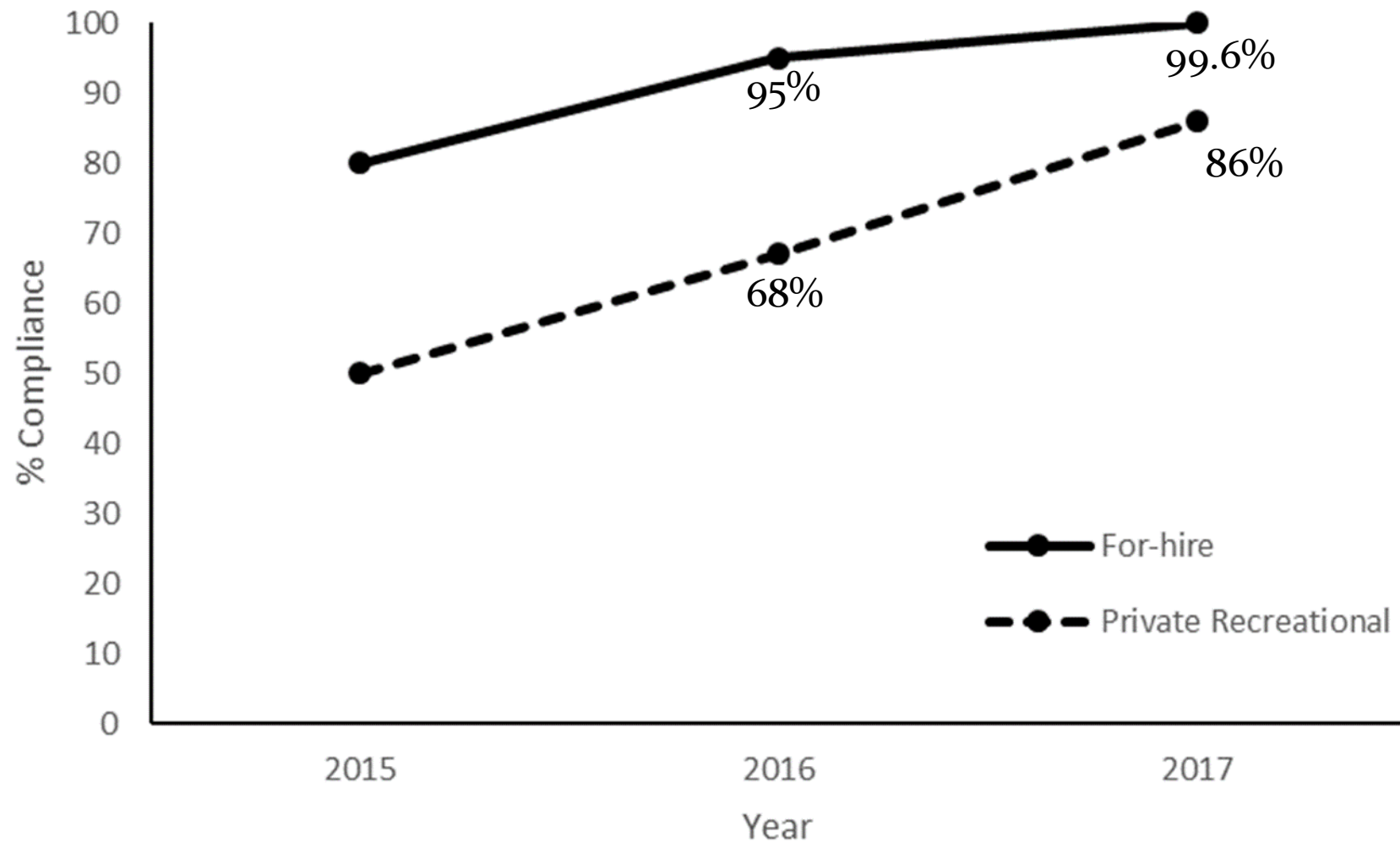
Mobile App



Validation

- Dockside Interviews
- Enforcement reports – method helpful to distinguish between private access and public access anglers
- E-Mail messaging and phone interviews for expired reports not completed by angler
- Optional Validation methods:
 - At-Sea Observations (Vessel and Aircraft)
 - Trailer Counts at Selected Docks

Trip Compliance Rates



What Is The Value Of Mississippi's Recreational Reporting System?

- Seasonal trends
- Effort analyses
- Stock assessment inputs (effort, landings, angler universe changes, biological data, etc.)
- Estimation and projection of harvest in real time
- Can be used as a float plan
- Protects Mississippi's Red Snapper resource by providing accurate and precise estimates of red snapper harvest each year
- Understanding our universe and user groups of anglers better each year

Electronic Reporting System

Pros

- Potentially cost effective
- Real time management – instant access to user information
- Ease of use and easily accessible by a majority of anglers
- App customization
- Saves time, agency resources, personnel
- Prior trip authorization – allows on-the-water enforcement

Cons

- Potentially cost prohibitive
- System problems/malfunctions
- User error – technical abilities
- Time sink – takes personnel time, agency resources away

Electronic Reporting System

Pitfalls

- Initial setup time – well worth the effort put into the project
- Changes/updates to existing structure
- Email validation
- Angler universe
- Season shifts and lengths
- Short-term or long-term reporting?
- Self-reported data - validations

Cost Estimate

- Anywhere from a few thousand to several hundred thousand dollars
- Depends on:
 - Agency time and effort spent
 - Developer process
 - Multi-platform?
 - App customization
 - Expansions/Updates
 - Annual maintenance and hosting fees

Acknowledgements

- Mississippi Department of Marine Resources Staff
- Alabama Marine Resources Division
- Elemental Methods, LLC
- Mississippi Interactive
- Call Experts
- Mississippi For-Hire Captains
- Recreational Red Snapper Anglers