



Geoff White, Director  
Atlantic Coastal Cooperative Statistics Program  
1050 N. Highland Street, Suite 200 A-N  
Arlington, VA 22204

January 16, 2024

Dear Mr. White,

The Mid-Atlantic Fisheries Management Council is pleased to submit the revised proposal titled “Improving Catch and Effort Data Collection from Recreational Tilefish Anglers.” The revised proposal reflects the partial funding amount approved by the ACCSP Coordinating Council in October 2023. Given the partial funding level, we have scaled back the scope of work with a focus on the core components of the project – the Tilefish permit holder outreach and improvements to the metadata collection capabilities within the current eFIN app. We believe the revised proposal provides an important first step toward improved recreational angler reporting of tilefish catch and efforts.

Please reach out with any questions.

Sincerely,  
Hannah Hart and José Montañez

Mid-Atlantic Fisheries Management Council  
800 N. State Street, Suite 201  
Dover, DE 19901  
[hhart@mafmc.org](mailto:hhart@mafmc.org)  
Phone (302) 526-5263

**Enclosures:**

ACCSP Proposal: “Improving Catch and Effort Data Collection from Recreational Tilefish Anglers”  
Appendix A: Principal Investigators’ Curricula Vitae

Proposal for Funding made to:  
Coordinating Council and the Operations Committee  
Atlantic Coastal Cooperative Statistics Program  
1050 N. Highland St., Ste. 200 A-N  
Arlington, VA 22201

**FY24: Improving Catch and Effort Data Collection from Recreational Tilefish Anglers**

Submitted By:

Hannah Hart  
Mid-Atlantic Fisheries Management Council  
800 N. State Street, Suite 201  
Dover, DE 19901  
hhart@mafmc.org  
Phone: (302) 526-5263

José Montañez  
Mid-Atlantic Fisheries Management Council  
800 N. State Street, Suite 201  
Dover, DE 19901  
jmontanez@mafmc.org  
Phone: (302) 526-5258

## **Proposal for FY2024 ACCSP Funding**

**Applicant Name:** Mid-Atlantic Fisheries Management Council  
**Project Title:** **Improving Catch and Effort Data Collection from Recreational Tilefish Anglers**

**Project Type:** New Project

**Requested Award Amount:** \$65,134

**ACCSP Program Priorities:** Recreational Catch and Effort Module

**Principal Investigators:** Hannah Hart  
José Montañez

**Requested Award Period:** One year upon receipt of funds

**Adjusted Submission Date:** January 16, 2024

## Objectives:

This proposal aims to involve private anglers in the recreational fishing community who hold tilefish permits and are required to report their tilefish catch using a mobile application. The goal is to engage them through different outreach initiatives, which will be described in detail later in the proposal, to raise awareness about the tilefish reporting regulations and promote the use of the app.

The specific objectives would include:

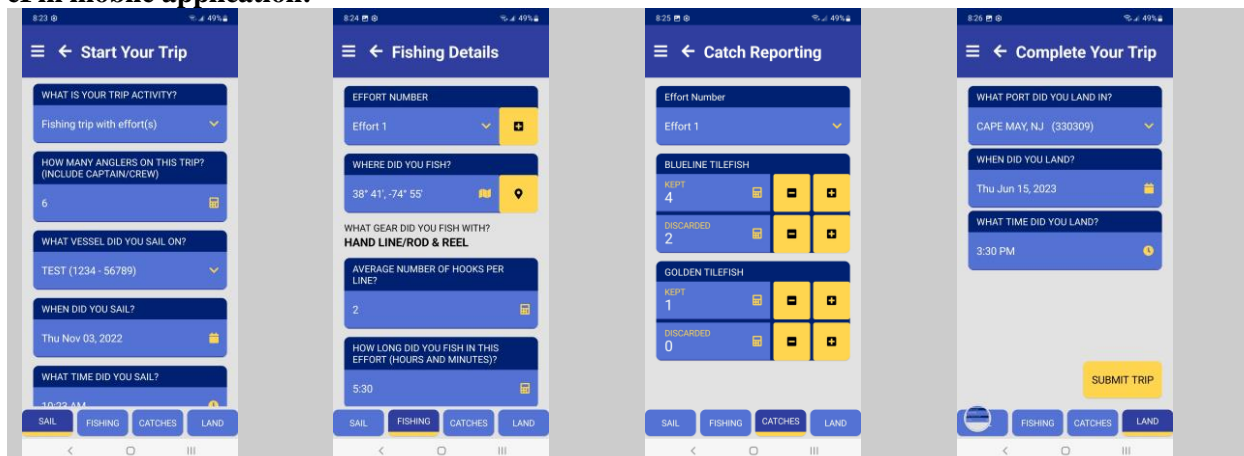
- Improve compliance with recreational tilefish mandatory reporting.
- Conduct outreach activities to the recreational fishing community.
- Improve the collection analytic metadata within eFin such as number and locations of trips, ports landed, number of catches submitted, usage of specific app features, errors encountered during upload, etc.

## Background/Need

The Mid-Atlantic Fishery Management Council (MAFMC) is responsible for developing and implementing fishery management plans (FMPs) that promote the conservation and sustainable use of fishery resources in the Mid-Atlantic region. The Council's management decisions are based on the best available scientific information and are designed to prevent overfishing while achieving optimum yield from each fishery. Tilefish is managed by the MAFMC from Maine through the Virginia/North Carolina border. For most fisheries, recreational catch and effort are estimated by National Oceanic Atmospheric Administration's (NOAA) Marine Recreational Information Program (MRIP) using a suite of surveys to collect data from anglers. However, because tilefish are caught far offshore and relatively few anglers participate in the fishery, MRIP estimates may not accurately capture recreational catch and effort. To address these concerns, in August 2020, mandatory permitting and reporting requirements for private recreational vessels fishing for blueline or golden tilefish were implemented. **Although for-hire and commercial fishermen have been reporting their harvest for many years, mandating private recreational anglers to report tilefish trips electronically was a first for the east coast. Under these regulations, private recreational vessels must obtain a federal private recreational tilefish vessel permit to target or retain golden or blueline tilefish. These vessel operators are also required to submit vessel trip reports electronically within 24 hours of returning to port for trips where tilefish were targeted or retained.** These requirements are intended to improve our understanding of recreational tilefish catch and effort.

In August 2020, the MAFMC and Harbor Light Software Inc., engaged with a community of recreational anglers who actively participated in tilefish fishing and harvesting as part of their seasonal endeavors. The group consisted of six anglers who generously shared their insights on mandatory reporting and provided valuable suggestions for developing a streamlined, dedicated reporting application tailored to the needs of recreational anglers (see image of the eFin mobile application below).

## eFin mobile application:



Since the mandatory permitting and reporting requirements were implemented, angler reporting rate has been very low. Collectively from 2020 through October 2023 about 3,074 permits have been issued to 1,564 unique vessels, but only 146 trips have been reported (about 1,995 tilefish - 1,132 blueline and 783 golden tilefish and 107 tilefish species unknown). This mismatch between the number of permits issued and the number of reported trips highlights the need for outreach to improve the overall awareness of and compliance with the tilefish permitting and reporting requirements. At this time, it is unclear if anglers are simply unaware of the requirements or if there are other hurdles associated with the lack of reporting. **Additional outreach will provide insight into this issue and enable potential solutions to be identified. Successful reporting is critical to improving our understanding of recreational golden and blueline tilefish catch and effort and will ensure that the fisheries are being monitored and managed appropriately. Additionally, given the increasing interest in private recreational reporting requirements for other fisheries, successful tilefish reporting could provide a gold standard for future discussions or actions on this topic.**

## Results and Benefits

This proposal is intended to increase reporting of tilefish by recreational anglers. It is critical that management decisions for the tilefish fishery are based on the best available scientific information and are designed to prevent overfishing while achieving optimum yield from each fishery. The MAFMC's implementation of mandatory reporting for tilefish represents a significant stride towards sustainable fisheries management. This initiative not only serves to enhance the monitoring and conservation of tilefish populations but also offers valuable insights and lessons for other agencies considering mandatory recreational reporting for different species.

We expect the following tasks and approaches to produce results that reflect increased reporting of private recreational caught tilefish and will improve private recreational data on tilefish catch and effort.

## Tasks/Approach:

- I. Create outreach materials including but not limited to, presentations, brochures, and flyers describing the tilefish reporting requirement for audiences at fishing shows, fishing clubs, tackle shops, current permit holders, and other interested groups/individuals.

- II. Prepare outreach article describing the purpose of and need for the tilefish reporting requirement, how to acquire the permit, and options for self-reporting, for publication in *On The Water Magazine* and sharing on *On The Water's* social media pages. Sharing information about the permit on *On The Water's* podcast is also a possibility.
- III. Attend a minimum of four major fishing shows/seminar series in the southern New England and Mid-Atlantic regions and host a booth and/or give brief presentations to describe the tilefish self-reporting requirement. If feasible, provide attendees with an opportunity to acquire the permit on-site. Decisions on which shows to attend will be made based on input from MAFMC staff, state managers, and local stakeholders. Attend each show for a minimum of two days each. Hours are inclusive of travel time.  
*Examples of events that could be of particular interest to tilefish anglers include:*
- Castafari Offshore Fishing Seminar, Quincy, MA (March 2-3, 2024)
  - New England Saltwater Fishing Show, Providence, RI (March 8-10, 2024)
  - Canyon Runner Seminar Series, Atlantic City, NJ (February 2-3, 2024)
  - Saltwater Fishing Expo, Edison, NJ (March 15-17, 2024)
  - Ocean City Boat Show, Ocean City, MD (February 16-18, 2024)
  - Mid-Atlantic Sports and Boat Show, Virginia Beach, VA (TBD)
- IV. Attend and present at a minimum of four local saltwater/offshore fishing club meetings to describe the tilefish self-reporting requirement and, if feasible, provide attendees with an opportunity to acquire the permit-on-site. Decisions on which shows to attend will be made based on input from MAFMC staff, state managers, and local stakeholder. Hours are inclusive of travel time.  
*Examples of clubs that may include a significant number of tilefish anglers include:*
- South Shore Marlin and Tuna Club (NY)
  - Staten Island Tuna Club (NY)
  - Manasquan River Marlin and Tuna Club (NJ)
  - Forked River Tuna Club (NJ)
  - Ocean City Marlin Club (MD)
  - Peninsula Salt Water Sport Fisherman's Association (VA)
  - Virginia Beach Bluewater Fishing Club (VA)
- V. Metadata: Enhance eFin application analytics infrastructure to better understand the effectiveness of outreach efforts to increase the usage of the application and the analysis of any correlations between outreach efforts and increased reporting results. By improving the infrastructure for the collection of analytics, data will be retained on a persistent basis without manually tabulating data periodically, making analysis more convenient and more valuable.
- VI. Pursue opportunities to collaborate with/leverage resources of the NOAA Fisheries Atlantic Highly Migratory Species (HMS) Management Division given the existing overlap of user groups.  
*Specific approaches could include:*
- Use HMS Angling permit-holder contact information for the purposes of direct outreach regarding the need to acquire the tilefish permit and report catch/effort (MAFMC staff have communicated that 2022 HMS Angling permit-holder information has already been shared with the MAFMC by HMS Management Division staff.).
  - Coordinate tilefish outreach with HMS Recreational Coordinator to identify synergies and opportunities for shared engagement with offshore anglers.

- Explore possibility of presenting on the tilefish requirement at the spring meeting of the Atlantic HMS Advisory Panel Meeting (W. Goldsmith is an AP member and the HMS Management Division is currently [exploring options](#) to increase reporting compliance for its own recreational self-reporting requirement).

**Data Delivery Plan**

eFin currently utilizes GARFO’s Fish Online Application Programming Interface (API) to report data to GARFO. No modifications to the data delivery plan are required.

**Geographic location:**

All states north of the North Carolina/Virginia border, with a targeted focus on Mid-Atlantic / New England states with known private recreational tilefish effort. Target states include Virginia, Maryland, Delaware, New Jersey, New York, Rhode Island, and Massachusetts.

**Funding Transition Plan:**

This is a one-year project proposal with a defined end point. No additional funds are anticipated currently.

**Milestone Schedule:**

The milestone schedule is based on the starting month of the project as month “1.”

Task	Month												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Contact fishing shows, clubs, and identify other potentially interested groups	X	X											
Metadata/App Enhancements		X	X	X	X								
Marketing and Outreach			X	X	X	X	X	X	X	X	X	X	
Semi and Annual Report Writing						X	X					X	X

**Project Accomplishments Measurement:**

Outreach	Promote eFin as a tool for submitting recreational Tilefish and educate anglers on reporting.	Increased data submissions. Improved public perception of MAFMC fisheries management efforts.
Analysis of data	Collect analytics data regarding application usage which can be correlated with outreach activities and compared with reporting participation in prior years.	Data availability over the course of the project regarding reporting trends for tilefish application usage.

## Cost Summary

Item	Description	ACCSP Cost	Partner In-Kind
<b>Personnel Costs (a)</b>			<b>\$6,300</b>
Hannah Hart	4% of Hannah Hart Salary		\$3,200
José Montañez	2% of José Montañez Salary		\$3,100
<b>Fringe (b)</b>	28% of Salaries		<b>\$1,764</b>
<b>Travel (c)</b>	<i>Cost estimate for 2 individuals</i>	<b>\$9,632</b>	
Mileage	\$0.655/mile at about 400 miles/person	\$4,192	
Hotels	\$200/night (8 nights/person)	\$3,200	
Per Diem	\$70/day (16 days/person)	\$2,240	
<b>Equipment (d)</b>			
n/a			
<b>Supplies (e)</b>		<b>\$4,500</b>	
Outreach materials, fishing booth cost, other promotional giveaways	Printing outreach materials, promotional giveaways, fishing show booth cost	\$4,500	
<b>Contractors (f)</b>		<b>\$51,002</b>	<b>11,548</b>
Outreach conductions and coordination	377 hours @ \$150/hour	\$45,002	\$11,548
Grant administration	10 hours @ \$150/hour	\$1,500	
Software development	30 hours @ 150/hour	\$4,500	
<b>Total Direct Costs</b>			19,612
<b>Indirect Charges</b>	Applied to Hannah Hart, Jose Montanez salaries		\$2,142
<b>Totals</b>		<b>\$65,134</b>	<b>\$21,754</b>
<b>Total Project Cost</b>	<b>\$86,888</b>		
In-kind versus Direct Percent Contributions	<b>25%</b>		
<b>Requested Amount</b>	<b>\$65,134</b>		

### Budget Narrative:

- a. **Personnel (0 Requested; \$6,300 Match)** MAFMC will provide in-kind support. There is no request for salary from the ACCSP. MAFMC lead staff CVs are attached.
- b. **Fringe (0 Requested; \$1,764 Match)** MAFMC will provide in-kind matching funds to cover fringe expenses associated with match salary.
- c. **Travel (\$9,632 Requested)**  
Travel cost is for two staff/contractors. Travel costs reflect lodging for one night each at four fishing club meetings at the rate of \$200/night, for a total of \$1,600. For each fishing club meeting, one day of meals and incidentals per diem (four days total) are included at the daily rate of \$70, along with estimated roundtrip mileage of 400 miles per person per meeting at the GSA mileage rate of 65.5 cents per mile.



**d. Equipment (0)**

**e. Supplies (\$4,500 Requested; \$0 Match)**

Funds will be used to print outreach, promotional and training materials to inform users of the tilefish reporting requirements. Funds will also be used to cover any fishing show booth cost and promotional items to recruit participants and enhance the fishing community's understanding of the reporting requirements. Estimated fishing show booth cost reflect and estimate \$500-\$1,000 per show.

**f. Contractual (\$51,002 Requested; \$11,548 Match)**

Funds will be used to cover all outreach and software work required to carry out the tasks identified above. We are budgeting 377 hours at \$150/hour for outreach conduction and coordination to design and distribute informational materials, contact fishing organizations, set up and attend fishing shows and club meetings, etc. Additionally, 30 hours at the same rate was budgeted to support improved back-end analytics and an additional 10 hours for grant administrative tasks.

**g. Indirect (\$0 Requested; \$2,142 Match)**

MAFMC will provide in-kind indirect charges of 34% applied to MAFMC staff salaries.

## Appendix A: Curricula vitae for the principal investigators

### Hannah R. Hart

Hhart@mafmc.org | (630) 702-9299

800 North State Street, Suite 201  
Dover, DE

#### EDUCATION

---

**University of North Florida** *Jacksonville, FL*  
*Masters of Science in Biology* Dec 2015  
*Relevant Coursework:* Histology, Physiology, Quantitative Ecology, Ethics in Scientific writing, GIS, Animal Behavior, and Evolution.

**Florida Institute of Technology** *Melbourne, FL*  
*Bachelor of Science in Marine Biology* May 2013  
*Relevant Coursework:* Biochemistry, Organic Chemistry 1 & 2, Genetics, Microbiology, Oceanography, Crustacean Aquaculture, Invertebrate Zoology, Community Ecology, Comparative Vertebrate Anatomy, Marine Ecology, and Biology of Fishes.

#### EXPERIENCE

---

**Mid-Atlantic Fishery Management Council (MAFMC), Fishery Management Specialist** May 2022- Present

- Develop and lead Fishery Management Plan (FMP) activities for scup and blueline tilefish.
- Represent the MAFMC on Highly Migratory Species (HMS) topics.
- Coordinate and facilitate all work associated with the Northeast Trawl Advisory Panel.
- Actively engage and collaborate with stakeholders on fishery management challenges.
- Conduct data analysis to inform management decisions.

**Florida Fish and Wildlife Conservation and Commission (FWC), Regional Fisheries Biologist IV** Jan 2018- May 2022

- Represent the FWC Division of Marine Fisheries Management on several internal and external teams and boards.
- Work with local stakeholders, including recreational and commercial fishermen, other government agencies, non-government agencies, and divers to better understand fishery issues in Florida and the south Atlantic.
- Represent the division at state and federal fishery management meetings.
- Develop fishing regulation through various data analyses to improve long-term sustainability, engage with the public on potential changes, and prepare technical and legal documents.
- Review grant proposals, stock assessments, and prepare comprehensive review papers.

**Florida Fish and Wildlife Conservation and Commission (FWC), Biological Scientist I** May 2014- Jan 2018

- Coordinated weekly sampling trips with commercial blue crabbers.
- Analyzed and recorded catch data for weekly and annual reports.
- Assisted with offshore and inshore sampling efforts using seine nets, trawl nets, rod and reel, and traps.
- Fish and invertebrate identification, dissections, and tissue sampling (otoliths, gonads, stomach content, and other tissue samples).
- Published blue crab research in the Journal of Marine and Coastal Fisheries.

**Jacksonville University, Adjunct Professor** Jan 2017- Dec 2017

- Independently taught Anatomy and Physiology lectures and laboratories.
- Created lesson plans, exams, assignments and prep all biweekly labs.
- Graded all course work and held weekly office hours.

**University of North Florida, Research assistant** Oct 2015- April 2016

- Assisted with offshore data collection using longline, gillnet, and drumline fishing methods.
- Shark and fish dissections and tissue sampling (blood, fin clip, digestive tract, bile, reproductive tract, and others).
- Utilize ultrasound technology on pregnant female sharks.

**University of North Florida, Graduate Teaching assistant** Jan 2015- May 2015

- Independently taught two Biology 1 laboratories.
- Created lesson plans, held weekly office hours, and presented curriculum for weekly classes.
- Maintained lab, prepared laboratory exercises, and graded all course work.

---

## SKILLS

- Microsoft Office (Word, PowerPoint, Excel), SigmaPlot, R statistics, SAS, and GIS.
- Strong communications and writing skills.
- Completed a comprehensive facilitation/conflict management training course.
- Advance open water scuba certification.

---

## PUBLICATIONS AND REFERENCES

- Provided upon request.

### José Montañez

[jmontanez@mafmc.org](mailto:jmontanez@mafmc.org) | (302) 526-5258

800 North State Street, Suite 201  
Dover, DE

---

## EDUCATION

### Mississippi State University

Starkville, MS

*Ph.D. in Agricultural Economics (minor in Aquaculture and Wildlife Fisheries)* 2002

### Mississippi State University

Starkville, MS

*M.A. in Agricultural Economics (minor in Marketing)* 1991

### University of Hawaii

Manoa, HI

Specialized academic study and hatchery and field training in the biology and culture of freshwater prawn,  
*Macrobrachium rosenbergii* May – Aug 1984

### University of Miami

Coral Gables, FL

*B.S. Marine Science Biology (minor in Chemistry)* 1984

---

## EXPERIENCE

**Mid-Atlantic Fishery Management Council (MAFMC), Fishery Management Specialist** Oct 1994- Present

- Develop and lead Fishery Management Plans for various commercial and recreational fisheries.
- Actively engage and collaborate with stakeholders on fishery management challenges.
- Conduct data analysis to inform management decisions.

**Mississippi State University, Research Assistant** Nov 1991- Sep 1994

- Analyzed biological and economic data for diverse aquaculture projects, including development of non-traditional or alternative aquaculture practices.
- Dissemination of marketing, economic, and biological aspects related to different aquaculture practices to the public and private sectors.

**Mississippi State University, Graduate Research Assistant** Jan 1990- Oct 1991

- Data collection and analysis for agricultural projects, concentrating on economic problems and marketing analysis.

---

## SKILLS

- Microsoft Word, PowerPoint, Excel, STATA, and SAS.
- Strong communications and writing skills.
- Scuba certification.
- Completed a comprehensive facilitation/conflict management training course.

---

## PUBLICATIONS AND REFERENCES

- Provided upon request.

## Summary of Proposal for Ranking

**Proposal Type:** New Project

### **Primary Program Priority and Percentage of Effort to ACCSP modules:**

#### **Catch and Effort- 100% (10 points)**

This project will provide catch and effort level data that has been determined to be a long term, high priority need for tilefish estimates, particularly from recreational anglers. The increase in quality and quantity of data collected through this project will help to improve the stock assessment process. Tilefish is on the top 25% of the ACCSP's Biological Priority Matrix and is considered a data poor species.

#### **Metadata: (2 points)**

Metadata will be created utilizing custom-built analytics. Created metadata will be collected and made available to the ACCSP. Page 6.

### **Project Quality Factors:**

- **Multi-partner/Regional impact including broad applications: (5 points)**

The partner in this proposal is the Mid Atlantic Fisheries Management Council targeting Maine to the North Carolina/Virginia border. All ACCSP partners will benefit as the lessons learned, data collected, and application enhancements have a transferability to other ACCSP partners throughout the Atlantic coast who are considering mandatory recreational reporting in the future.

- **Contains funding transition plan: (4 points)**

This is a one-year project proposal with a defined end point. No additional funds are anticipated at this time. Page 8.

- **In-kind contribution (1 point = 1% - 25%)**

MAFMC's in-kind contribution is 25% of the requested amount. Partner contribution is listed on page 8.

- **Improvement in data quality/quantity/timeliness (4 points)**

The proposed project addresses the critical need of the MAFMC to improve upon the quantity, quality and timeliness of recreational catch and effort of tilefish, a data poor species.

- **Potential secondary module as a by-product: (0 points)**

No second module

- **Innovative (5 points)**

The MAFMC is the first ACCSP partner to mandate recreational reporting for anglers. This proposal would be the first such ACCSP funded project to gather information about private recreational reporting initiatives.

- **Impact on stock assessment**

Currently, private recreational data collected through MRIP does not accurately capture recreational catch and effort and is not included in the golden tilefish stock assessment and for the Mid-Atlantic region there is no accepted blueline tilefish stock assessment. Improved recreational data is a high priority for these species and such data collected through eFIN is invaluable and could be used in future stock assessments.

### **Other Factors:**

- **Properly prepared (5 points)**

This proposal follows the guidelines found in the ACCSP Funding Decision Process Documents.