

**Proposal for funding made to the
Atlantic Coastal Cooperative Statistics Program
1050 N. Highland Street, Suite 200A-N
Arlington, VA 22201**

**FY24: Pilot Observer Program for Rhode Island State Waters Gillnet
Fishery**

Total Cost: \$126,721.60

Submitted By:
Nicole Lengyel Costa
Rhode Island Department of Environmental Management
Division of Marine Fisheries
3 Fort Wetherill Road
Jamestown, RI 02835
nicole.lengyel@dem.ri.gov

JA Macfarlan
Rhode Island Department of Environmental Management
Division of Marine Fisheries
3 Fort Wetherill Road
Jamestown, RI 02835
Reuben.Macfarlan@dem.ri.gov

Applicant Name: Rhode Island Department of Environmental Management
Division of Marine Fisheries

Project Title: Pilot Observer Program for Rhode Island State Waters Gillnet Fishery

Project Type: Maintenance Project

Requested Award Amount: \$126,721.60

Requested Award Period: One year after receipt of funds (July 2024 to July 2025)

Program Priority: Primary: bycatch (80%)
Secondary: catch and effort (20%)

Date Submitted: August 16, 2023

Project Supervisor: Julia Livermore, Deputy Chief, Julia.livermore@dem.ri.gov

Principal Investigator: Nicole Lengyel Costa, Principal Biologist, nicole.lengyel@dem.ri.gov

Project Staff: JA Macfarlan, Principal Biologist, Reuben.Macfarlan@dem.ri.gov
Fisheries Specialist
Seasonal Interns

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Atlantic Coastal Cooperative Statistics Program (ACCSP) Proposal for the State of Rhode Island

Objectives:

- Continue year two of a pilot **observer program** within RI state waters for the **gillnet** fishery.
- Collect **discard data on important target species including Atlantic menhaden (*Brevoortia tyrannus*), striped bass (*Morone saxatilis*), bluefish (*Pomatomus saltatrix*), black sea bass (*Centropristis striata*), summer flounder (*Paralichthys dentatus*), winter skate (*Leucoraja ocellata*), little skate (*Leucoraja erinacea*), and spiny dogfish (*Squalus acanthias*)**. Discard data will be collected on additional species as time allows.
- **Collect effort data to characterize the fishing behavior of the Rhode Island gillnet fishery**. Data reported by gillnet fishers on commercial catch and effort logbooks will be validated by collecting effort data while at-sea including gear code, gear quantity, number of hauls, and days fished. Additional effort data currently not reported by commercial fishers will be collected including mesh size, number of panels per string, haul time, depth, and area fished (latitude/longitude).
- Analyze data collected and conduct modeling to investigate the utility of weekly aggregate limits in reducing discards, the potential for increased effort for active gillnet fishers, the size distribution of discarded target species, and the seasonality of pulse fisheries.
- Continue evaluation regarding the feasibility and value of a Rhode Island state waters observer program for all commercial gear types by continuing into year two of a pilot observer program for the Rhode Island state waters gillnet fishery.

Need:

In recent years, the RI Department of Environmental Management (RIDEM) Division of Marine Fisheries (DMF) has seen a dramatic increase in the number of requested regulatory changes submitted by commercial fishers to improve the efficiency and profitability of their fishing operations and decrease bycatch and regulatory discards. Some of these requests include implementing weekly aggregate possession limits for quota-managed species currently managed with daily limits, lifting the gillnet prohibition for the harvest and possession of striped bass in state waters, and increasing our weekly possession limits seasonally for pulse fisheries such as bluefish. While the DMF has worked with the commercial fishing industry to vet proposals such as these through our public rulemaking process, these proposals have not been adopted due to the lack of data available. Before the DMF could consider adopting such proposals, data collection on fishing behavior, effort, bycatch, and regulatory discards in state waters fisheries is necessary. These data would aid the DMF in better characterizing the potential impacts of these proposed regulatory changes, should they be adopted.

Developing a state waters observer program for all commercial fisheries in the state of Rhode Island would be a costly, time-intensive endeavor that would also require hiring several additional staff members. As a result, the DMF submitted a proposal to the FY23 ACCSP RFP proposing to conduct a pilot observer program for the state waters gillnet fleet to test the feasibility of an observer program while also developing sampling protocols and training materials. This proposal was fully funded, and the funds are anticipated on July 1, 2023. As the DMF has yet to receive funds from the FY23 award, this proposal is being submitted as a maintenance project in anticipation that at least two years of data collection will be needed to address the objectives of the proposal. **The DMF is also continuing to explore alternative funding sources should an observer program be fully implemented in Rhode Island state waters for all commercial gear types.**

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Results and Benefits:

The data collected on effort, bycatch and regulatory discards in the Rhode Island state waters gillnet fleet will be used by DMF staff to model the potential impacts of proposed regulatory changes submitted by the commercial fishing industry. By modeling the potential impacts of these proposals, RI stakeholders, the Rhode Island Marine Fisheries Council (RIMFC), and the RIDEM will have a better understanding of any associated risks and will be able to make more informed decisions on which proposals to recommend for adoption. Additionally, conducting this pilot scale observer program on the RI state waters gillnet fleet will provide the DMF with an opportunity to test the feasibility of conducting such a program and allow for the development of sampling protocols and training materials to be used.

Although the geographical scope of this proposal is confined to Rhode Island state waters, the collection of this data will be of great value to many ACCSP partners and species-specific stock assessments. **The Rhode Island gillnet fleet is part of the New England Extra-Large-Mesh Gillnet Fleet and New England Gillnet Fleet, both in the top quartile of the FY24 Bycatch Matrix contained in the ACCSP Request for Proposals (RFP). Several of our target species are also contained in the top quartile of the FY24 Biological Matrix contained in the ACCSP RFP including black sea bass, Atlantic menhaden, and spiny dogfish. Although striped bass and bluefish are not in the top quartile of the Biological Matrix, the following are research needs or recommendations from species-specific management documents that this proposal addresses:**

- **Amendment 7 to the Interstate Management Plan for Atlantic Striped Bass states in section 3.7 – Bycatch Data Collection Program (ASMFC, 2022):**
 - States should collect data from commercial fisheries on the number of fish being discarded from commercial gears that either target or encounter striped bass by implementing at-sea observer coverage.
 - States with commercial fisheries should implement observer coverage in state waters on 2-5% of trips.
- **Amendment 2 to the Bluefish Fishery Management Plan states in section 6.2 – Research and Data Needs (ASMFC, 2021):**
 - The stock assessment assumption of zero discards in the commercial fishery should be investigated.

Data Delivery Plan: Data will be submitted to ACCSP as soon as a platform for submitting bycatch and discard data is made available to state partners. Data will be made available to any state partner upon request and will be submitted for inclusion in individual species stock assessments during the benchmark stock assessment process.

Completed data Delivery to ACCSP: Funds from the FY23 proposal were received on July 1, 2023. As such, no data collection has just started for the FY23 proposal. Data will be made available in the progress report and upon request.

Approach:

The following outlines the approach that DMF staff will take to complete the proposed work regarding personnel, outreach, data collection, and analysis.

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Personnel:

The DMF contracted a full-time Fisheries Specialist I to work out of the DMF offices in Jamestown, RI as part of the FY23 new proposal. This contract position will be maintained throughout this maintenance project to conduct at-sea data collection. The employee has gone through the following:

- Standard DMF onboarding process
- At-sea vessel safety training
- Species identification training
- Fisheries data collection and data entry training
- Training on the RI gillnet fleet participants, frequently landed species, and fishing practices

The employee was provided with foul weather gear, a laptop computer, and supplies necessary to conduct at-sea data collection.

Outreach:

DMF staff will continue to communicate all aspects of this project to gillnet fishers who fish in state waters to inform them of our plans and get their feedback. DMF does not anticipate any challenges in gaining participation and achieving our sampling targets.

The DMF will dedicate a page on our website to the project, discuss the proposed project at our finfish regulatory workshops in 2023 and early 2024, and present an overview of the project to our RIMFC. DMF staff will send a letter to all fishers who reported fishing gillnets in 2023 to inform them that the pilot project will continue in 2024. DMF staff will reach out to each fisher individually to inquire if they plan on fishing in state waters, federal waters, or both. **Any fishers who plan to fish exclusively in federal waters will be removed from the pool of fishers. This will ensure there is no overlap between our pilot observer program and the federal waters observer program.** For reference, 18 commercial fishers reported using gillnets in 2022.

Data Collection:

Data will be collected for this project from July 2024 through October 2024. May – June 2024 sampling will be covered under the previously funded FY23 proposal. A target of **5% sampling coverage per week will be used to determine the number of trips sampled each week, using data from 2023 as a proxy. The value of 5% was chosen as Amendment 7 to the Atlantic Striped Bass Interstate Fishery Management Plan recommended sampling 2 – 5% of trips, the DMF chose the higher threshold. Additionally, the ACCSP Atlantic Coast Fisheries Data Collection Standards (2012) document defines adequate sampling as 2 – 5 % observer coverage (ACCSP, 2012).** Analysis of 2022 data indicates that the number of required trips per week will range from 1 – 3. Each licensed fisher will be assigned a random number and on Friday of each week, DMF staff will use a random draw to select 1 – 3 fishers for the following week. These fishers will be contacted on Friday and notified that they have been selected to have a trip observed for the following week. DMF will remain in close communication with these fishers the following week to coordinate trips and ensure that the required number of trips are completed. Should it be determined that a fisher will not be fishing at all in a selected week, an alternate fisher will be selected.

Sampling protocols will be similar to those utilized by the Northeast Fisheries Observer Program (NEFOP) where detailed information will be collected for each haul and **individual weights and lengths will be collected for all target species to the extent practical and for non-target species as time allows.** Sub-sampling procedures will be used for high-volume catches and notes will be made

regarding the condition of discarded fish (i.e., dead, alive, unknown). Any interaction with endangered or threatened species will be documented as well any marine mammal interactions.

Analysis:

All data collected at-sea will be entered into an MS Access database by DMF staff. The statistical software R, ArcGIS, and MS Excel will be used for all data analysis. The following details the analyses that will be performed to address specific regulatory proposals.

Striped bass gillnet prohibition

Trip and haul data including time of year, depth, mesh size, gear quantity, and area will be explored as factors affecting the catchability of striped bass in gillnets. Length frequency data of striped bass will be used to determine how many legal and sub-legal sized striped bass are encountered on each trip. These data will be used to determine if lifting of the striped bass gillnet prohibition will increase dead discards, increase quota utilization rates, or increase effort. Area, seasonal, and gear restrictions will be explored as potential tools to limit potential impacts.

Possession limits for target species

Regulatory discards of target species on each trip will be analyzed and extrapolated to estimate total landed catch and discards of each target species for each week. Modeling simulations will be performed to test the effect of weekly aggregate limits on effort and discards for species currently managed with daily possession limits (i.e., to determine if weekly aggregate limits would significantly reduce effort and regulatory discards). Simulations will also be performed to determine if increasing weekly possession limits for pulse fisheries such as bluefish would decrease effort and discards.

Geographic Location: This project will be conducted by RIDEM DMF staff out of Jamestown, RI. At-sea sampling will occur on vessels fishing with commercial gillnets in Rhode Island state waters.

Table 1. Milestone Schedule:

| Activity | Month | | | | | | | | | | | |
|-------------------------------|-------|---|---|---|---|---|---|---|---|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Annual vessel safety training | X | X | | | | | | | | | | |
| Conduct at-sea sampling | X | X | X | X | | | | | | | X | X |
| Analyze data | | | | | X | X | X | X | X | X | | |
| Report writing | | | | | | | | X | X | X | | |

Table 2. Project Accomplishments Measurement:

| Goal | Metric |
|-----------------|--------------------------------|
| Safety training | Vessel safety course completed |
| At-sea sampling | 5 % weekly trip coverage |
| Data analysis | Analysis and modeling in R |
| Report writing | Report submitted to ACCSP |

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Table 3. Project History Table:

| Funding Year | Title | Funded Amount | Total Project Cost |
|--------------|--|---------------|--------------------|
| FY2023 - New | FY23: Pilot Observer Program for Rhode Island State Waters Gillnet Fishery | \$118,519.58 | \$136,652.04 |

Table 4. Project Accomplishment Metrics and *Achieved Goals*:

| Goal | Metric | Status |
|--------------------|--------------------------------|-------------------|
| Safety training | Vessel safety course completed | Completed |
| Training materials | PDF document of protocols | In Process |
| At-sea sampling | 5 % weekly trip coverage | In Process |
| Data analysis | Analysis and modeling in R | Not Yet Started |
| Report writing | Report submitted to ACCSP | Not Yet Started |

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Table 5. Cost Summary (Budget):

| Budget Category | Federal ACCSP | In-Kind | Total |
|-----------------------------|---------------|--------------|---------------|
| a. Salary | | | \$ - |
| Deputy Chief (5%) | \$ - | \$ 5,122.55 | \$ 5,122.55 |
| Principal Biologist (5%) | \$ - | \$ 4,071.27 | \$ 4,071.27 |
| Principal Biologist (15%) | \$ 14,012.10 | \$ - | \$ 14,012.10 |
| Fisheries Specialist (100%) | \$ 59,960.25 | \$ - | \$ 59,960.25 |
| RIDEM Seasonal Intern (10%) | \$ - | \$ 1,200.00 | \$ 1,200.00 |
| b. Fringe | | | |
| Deputy Chief (5%) | \$ - | \$ 3,376.05 | \$ 3,376.05 |
| Principal Biologist (5%) | \$ - | \$ 2,643.69 | \$ 2,643.69 |
| Principal Biologist (15%) | \$ 6,337.65 | \$ - | \$ 6,337.65 |
| Fisheries Specialist (100%) | \$ 21,737.10 | \$ - | \$ 21,737.10 |
| c. Travel | \$ 1,055.34 | \$ - | \$ 1,055.34 |
| d. Supplies | \$ 6,135.73 | | \$ 6,135.73 |
| e. Training | \$ 1,515.00 | \$ - | \$ 1,515.00 |
| f. Total Direct | \$ 110,753.17 | \$ 16,413.56 | \$ 127,166.73 |
| g. Indirect | | | |
| ASMFC (15%) | \$ 12,254.60 | \$ - | \$ 12,254.60 |
| RIDEM (18.25%) | \$ 3,713.83 | \$ 2,995.47 | \$ 6,709.30 |
| h. Total | \$ 126,721.60 | \$ 19,409.03 | \$ 146,130.64 |
| i. Percentage | 87% | 13% | 100% |

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FY24 COST DETAILS:

Description of budget categories and expenses for this project

Overall match: RIDEM is providing 13% of services as in-kind contribution.

- a. **Salary:** The DMF project team has several staff members working in a collaborative effort to accomplish project objectives. Each staff member will spend a percentage of their time on the project as follows:

From ACCSP:

- i. **Principal Biologist:** 15% funded position to act as the principal investigator and may conduct initial observer trips; 15% of salary (\$93,414) for one year = \$14,012.10.
- ii. **Fisheries Specialist:** 100% funded position (contracted through ASMFC) to serve as the primary fisheries observer; 100% of salary for one year = \$59,960.25.

From RIDEM as In-kind:

- i. **Deputy Chief:** 5% funded to provide project oversight and staff management; 5% salary (\$102,451) for one year = \$5,122.55.
- ii. **Principal Biologist:** 5% funded position to act as support to the principal investigator and provide assistance on field work as needed; 5% salary (\$81,425.40) for one year = \$4,071.27.
- iii. **Intern:** 10% funded seasonal intern to assist with data entry. Approximately 10% of six-month salary = \$1,200.

b. **Fringe:**

Annual fringe benefit rates for employees vary depending upon the employee's pay rate and what the employee chooses for health care. This may include the following:

Retirement 24%
Deferred Compensation 0.4%
FICA 6.2%
Medicare 1.45%
Health care \$21,937/year
Dental \$1,132/year
Vision \$165/year
Assessed Fringe 4.25%
Retiree Health 6.75%

From ACCSP:

- i. **Principal Biologist:** Total annual fringe benefits for the Principal Biologist are \$42,251. Fringe benefits for 15% of their time are \$6,337.65.
- ii. **Fisheries Specialist:** 100% of annual fringe benefits for the Fisheries Specialist for one year = \$21,737.10.

From RIDEM as In-kind:

- i. **Deputy Chief:** Total annual fringe benefits for the Deputy Chief are \$67,521. Fringe benefits for 5% of their time are \$3,376.05.

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- ii. **Principal Biologist:** Total annual fringe benefits for the Principal Biologist are \$52,873.80. Fringe benefits for 5% of their time are \$2,643.69.

c. Travel: Includes for this grant includes mileage to travel roundtrip from the DMF Office located in Jamestown, RI to the Port of Galilee in Narragansett, RI. The ASMFC mileage rate of \$0.585/mile was used to travel 44 miles roundtrip with a total of 41 trips. A total of 41 trips was calculated based on 5% weekly coverage using 2022 data as a proxy.

d. Supplies: Includes for this grant will be for the Fisheries Specialist to conduct at-sea sampling on-board commercial fishing vessels. Supplies include two (2) Rite in the Rain notebooks (\$7.51), twelve (12) pairs of sampling gloves (\$14.98), Rite in the Rain paper (\$113.24), and a Marel scale that compensates for motion (\$6,000).

e. Training: Includes annual at-sea vessel safety training (\$1,515).

g. Indirect: The RIDEM indirect rate for FY24 is 18.25%. The ASMFC indirect rate for the contracted employee is 15%.

From ACCSP:

- i. **Principal Biologist:** 18.25% of the 15% funded position salary (\$14,012.10) and fringe (\$6,337.65) is \$3,713.83 per year.
- ii. **Fisheries Specialist:** 15% of the 100% funded position salary (\$59,960.25) and fringe (\$21,737.10) contracted through ASMFC is \$12,254.60 per year.

From RIDEM as In-kind:

- i. **Deputy Chief:** 18.25% of the 5% funded position salary (\$5,122.55) and fringe (\$3,376.05) is \$8,498.60 per year.
- ii. **Principal Biologist:** 18.25% of the 5% funded position salary (\$4,071.27) and fringe (\$2,643.69) is \$6,714.96 per year.
- iii. **Intern:** 18.25% of the 10% funded seasonal intern (\$1,200) is \$219.00 per year.

FY 23 COST DETAILS:

Description of budget categories and expenses for this project

Overall match: RIDEM is providing 13% of services as in-kind contribution.

1. Personnel: The DMF project team has several staff members working in a collaborative effort to accomplish project objectives. Each staff member will spend a percentage of their time on the project as follows:

From ACCSP:

1. Principal Biologist: 15% funded position to act as the principal investigator and may conduct initial observer trips; 15% of salary (\$89,128) and fringe benefits (\$41,265) for one year = \$19,558.95.
2. Fisheries Specialist: 100% funded position (contracted through ASMFC) to serve as the primary fisheries observer; 100% of salary (\$57,105) and fringe benefits (\$20,702) for one year = \$77,807.

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From RIDEM as In-kind:

1. Deputy Chief: 5% funded to provide project oversight and staff management; 5% salary (\$100,436) and fringe benefits (\$53,693) for one year = \$7,706.45.
2. Principal Biologist: 5% funded position to act as support to the principal investigator and provide assistance on field work as needed; 5% salary (\$77,548) and fringe benefits (\$50,356) for one year = \$6,395.20.
3. Intern: 10% funded seasonal intern to assist with data entry. Approximately 10% of six-month salary = \$1,200.

Fringe benefits

Annual fringe benefits rates for all employees include the following:

Retirement 24%

Deferred Compensation 0.4%

FICA 6.2%

Medicare 1.45%

Health care \$21,937/year

Dental \$1,132/year

Vision \$165/year

Assessed Fringe 4.25%

Retiree Health 6.75%

- Total annual fringe benefits for the Deputy Chief are \$53,693. Fringe benefits for 5% of their time are \$2,684.65
- Total annual fringe benefits for the Principal Biologist (project PI) are \$41,265. Fringe benefits for 15% of their time are \$6,189.75.
- Total annual fringe benefits for the additional Principal Biologist are \$50,356. Fringe benefits for 5% of their time are \$2,517.80.

Indirect

The RIDEM indirect rate for FY23 is 18.5%. The ASMFC indirect rate for the contracted employee is 15%

From ACCSP:

1. Principal Biologist: 18.5% of the 15% (\$19,558.95) is \$3,618.41 per year.
2. Fisheries Specialist: 15% of the 100% funded position (\$77,807) contracted through ASMFC is \$11,671.05 per year.

From RIDEM as In-kind:

1. Deputy Chief: 18.5% of the 5% funded position (\$7,706.45) is \$1,425.69 per year.
 2. Principal Biologist: 18.5% of the 5% funded position (\$6,395.20) is \$1,183.11 per year.
 3. Intern: 18.5% of the 10% funded seasonal intern (\$1,200) is \$222.00 per year.
2. Equipment & Supply: Equipment and supplies for this grant will be for the Fisheries Specialist to conduct at-sea sampling on-board commercial fishing vessels. Supplies include at-sea vessel

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safety training, a set of foul gear (bibs, pullover, boots, gloves), fish baskets, measuring board, bench scale, Rite in the Rain paper, and a laptop computer.

3. Travel: Travel for this grant includes mileage to travel roundtrip from the DMF Office located in Jamestown, RI to the Port of Galilee in Narragansett, RI. The ASMFC mileage rate of \$0.585/mile was used to travel 44 miles roundtrip with a total of 41 trips. A total of 41 trips was calculated based on 5% weekly coverage using 2021 data as a proxy.

SUMMARY OF PROPOSAL FOR RANKING

Proposal Type: Maintenance

Primary Program Priority: Bycatch/Species Interactions (80%)

- Bycatch and regulatory discard data (number, length, weight) will be collected from the Rhode Island gillnet fleet on important target species including Atlantic menhaden, striped bass, bluefish, black sea bass, summer flounder, winter skate, little skate, and spiny dogfish. Data will be collected on additional species as time allows.
- The Rhode Island gillnet fleet is part of the New England Extra-Large-Mesh Gillnet Fleet and New England Gillnet Fleet, both in the top quartile of the FY24 Bycatch Matrix contained in the ACCSP Request for Proposals (RFP).
- Several of our target species including black sea bass, Atlantic menhaden, winter skate, and spiny dogfish are in the top quartile of the FY24 Biological Matrix contained in the ACCSP RFP.

Data Delivery Plan: Data will be submitted to ACCSP as soon as a platform for submitting bycatch and discard data is made available to state partners. Data will be made available to any state partner upon request and will be submitted for inclusion in individual species stock assessments during the benchmark stock assessment process.

Multi-Partner/Regional Impact: Although the geographical scope of this proposal is confined to Rhode Island state waters, the collection of this data will be of great value to many ACCSP partners and species-specific stock assessments.

- Amendment 7 to the Interstate Management Plan for Atlantic Striped Bass states in section 3.7 – Bycatch Data Collection Program (ASMFC, 2022):
 - States should collect data from commercial fisheries on the number of fish being discarded from commercial gears that either target or encounter striped bass by implementing at-sea observer coverage.
 - States with commercial fisheries should implement observer coverage in state waters on 2-5% of trips.
- Amendment 2 to the Bluefish Fishery Management Plan states in section 6.2 – Research and Data Needs (ASMFC, 2021):
 - The stock assessment assumption of zero discards in the commercial fishery should be investigated.

Contains Funding Transition Plan: This is a pilot project that will be used to test the feasibility of a Rhode Island state waters observer program for all commercial gear types. This pilot project may warrant several years of data collection and therefore Rhode Island anticipates submitting this proposal for funding as a new project for one year, and up to but not exceeding, two additional years as a maintenance project. At the completion of this pilot project, Rhode Island will evaluate the feasibility of a full-scale state waters observer program and plans to apply for funding from an alternate source to fund the project moving forward.

In-Kind Contribution: In-kind contribution for this project is 13% as stated in the budget table.

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Improvement in Data Quality/Quantity/Timeliness: This project will collect data that addresses priorities in the FY24 Bycatch and Biological Matrices. Additionally, data collected will address several research recommendations identified in species-specific management documents.

Potential Secondary Module: Catch and Effort (20%)

- Effort data will be collected to characterize the fishing behavior of the Rhode Island gillnet fishery.
- Data reported by gillnet fishers on commercial catch and effort logbooks will be validated by collecting effort data including gear code, gear quantity, number of hauls, and days fished.
- Additional effort data currently not reported by commercial fishers will be collected including mesh size, number of panels per string, haul time, depth, and area fished (latitude/longitude).

Impact on Stock Assessment: Data collected as part of this project will address questions regarding the quantity and size distribution of commercial discards occurring the New England gillnet fleet. Information on commercial discards remains limited for many stock assessments and in some cases is assumed to be zero but has not been validated in state waters.

Properly Prepared: This proposal meets the requirements as specified in the Funding Decision Document.

Merit: This project will sample from a fleet in the FY24 Bycatch Matrix, will collect data from several species in the FY24 Biological matrix, and will satisfy several species-specific research recommendations. This project is innovative in that it is attempting to test the feasibility of a state waters observer program. In federal waters, NEFOP collects essential data on bycatch and regulatory discards but fishing operations occurring in state waters are not part of this effort. This project will not only test the feasibility of having such a program in state waters, but it will fill large data gaps identified in several stock assessments and lay the groundwork for other ACCSP partners who may wish to implement a similar program.

LITERATURE CITED:

Atlantic Coastal Cooperative Statistics Program. (2012). *Atlantic Coast Fisheries Data Collection Standards*.

Atlantic States Marine Fisheries Commission. (2021). *Amendment 2 to the Interstate Fishery Management Plan for Bluefish*.

https://www.asmfc.org/uploads/file/61b39d5aBluefishAmendment2_Aug2021.pdf

Atlantic States Marine Fisheries Commission. (2022). *Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass*.

Appendix A: Curriculum Vitae for Principal Investigator

Nicole Lengyel Costa

nicole.lengyel@dem.ri.gov

401-423-1940

PROFESSIONAL EXPERIENCE

RI Department of Environmental Management, Jamestown, RI, 05/10/09 – Present

Principal Biologist (Marine)

Duties:

- Principal Investigator (PI) for the finfish age and growth study responsible for overseeing the program and staff including a principal biologist, a fisheries technician, and seasonal interns
- PI for the Narragansett Bay Atlantic Menhaden monitoring survey responsible for management of the commercial menhaden fishery within RI state waters
- Write grant narratives and create grant budgets for marine fisheries projects and programs
- Review grant proposals and rank proposals to receive federal funding through Atlantic Coastal Cooperative Statistics Program (ACCSP) and NOAA Fisheries
- Former lead on offshore renewable energy projects. Played a vital role in all aspects of the RI Ocean SAMP and the permitting and construction of the Block Island Wind Farm
- Support Deputy Chief on matters pertaining to the New England Fishery Management Council (NEFMC) small mesh multispecies (whiting) plan
- Current Membership on various technical committees/panels: Atlantic States Marine Fisheries Commission (ASMFC) Striped Bass Technical Committee (TC) (former chair), ASMFC Striped Bass Plan Development Team (PDT), ASMFC Striped Bass Plan Review Team (PRT), ASMFC Menhaden PRT, ASMFC Menhaden PDT, ASMFC Ageing committee, ASMFC Northeast Area Monitoring and Assessment Program (NEAMAP) Operations committee (chair), ASMFC Bluefish TC, ASMFC Bluefish PRT, Mid-Atlantic Fishery Management Council (MAFMC) Bluefish monitoring committee (MC), ACCSP Operations committee (chair), ACCSP Biological Review Panel (former chair), ACCSP Bycatch Prioritization committee (former chair), NEFMC Whiting PDT
- Previous Membership on various technical committees/panels: ASMFC Weakfish TC, ASMFC Bluefish Benchmark Stock Assessment Working Group, ASMFC Artificial Reefs committee, NOAA Fisheries Red hake Stock Structure Working Group
- Participate in benchmark stock assessments and stock assessment updates including complex analysis and/or modeling, and writing of technical/scientific reports for peer-review
- Previously in charge of RI quota monitoring tracking via SAFIS dealer reports and RI seafood dealer compliance tracking including creation of an automated process through the statistical software R
- Prepare and submit annual fishery compliance reports
- Present annual reports including fisheries data and analytical results to Rhode Island stakeholders (RIDEM public workshops) and Board members at ASMFC Board Meetings
- Marine Fisheries information management team leader in charge of promulgation of RI marine fisheries regulations and all storage/IT related issues including running public meetings in-person and virtually
- Serve as professional reviewer for peer-reviewed journal articles as requested

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Skills developed: 15 years of Marine Fisheries experience working for the state of Rhode Island, Strong teamwork and leadership skills as chair of many committees; Experience in giving public presentations and fielding questions; Supervisory experience though overseeing age and growth project staff and seasonal interns as well as training new staff; Fisheries Management experience by attending and participating in ASMFC Board meetings, ASMFC and ACCSP technical committees and panels, RI promulgation of regulations process, and Rhode Island Marine Fisheries Council (RIMFC) meetings; Computer and statistical skills (R, SPSS, Microsoft software, ASAP, NOAA Fisheries Toolbox); Field work experience on a variety of fisheries surveys.

University of Rhode Island Graduate School of Oceanography, Narragansett, RI, Feb. 2004 – 05/09/09
Laboratory Technician/Marine Research Assistant I

Duties:

- Managed all aspects of the benthic ecology laboratory including analyzing Naturalist dredge samples and bottom photos taken on annual benthic habitat surveys
- Managed study database using MS Excel and Access; Performed statistical analysis of Naturalist dredge data
- Supervised, trained, and delegated tasks to undergraduate student help
- Performed genetic analyses on colonial ascidian tissue samples including DNA extraction, primer design, polymerase chain reaction (PCR), PCR clean-up, gel electrophoresis, and DNA sequence analysis

Scientist: Georges Bank Benthic Habitat Survey

Duties:

- Participated in and helped organize four benthic habitat research cruises spanning 10-14 days on board NOAA fisheries research vessels (R/V Delaware II and FSV Henry B. Bigelow).

RI Department of Environmental Management, Providence, RI, June 2005 -August 2005

Seasonal Policy Intern

Duties:

- Participated in many aspects of the Greenwich Bay restoration project; Daily tasks included: gathered tax parcel data for restoration sites; managed data in MS excel; created project maps in Arcmap; performed field site investigations

EDUCATION

University of Rhode Island, Kingston, RI

PhD candidate, Marine Affairs

University of Rhode Island, Graduate School of Oceanography, Narragansett, RI

Master of Science Degree, Biological Oceanography - May 2013

University of Rhode Island, Kingston, RI

Bachelor of Science Degree, Biological Sciences - December 2005

The School for Field Studies (Boston University), Queensland, Australia

Rainforest Studies – September 2004 – December 2004

Bold comments intended to help with ranking
Highlighted text reflects changes from the original submission