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Division of Marine Fisheries

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August 8, 2025

Atlantic Coastal Cooperative Statistics Program
1050 N. Highland St. Ste. 200 A-N
Arlington, VA 22201

Dear ACCSP,

The Rhode Island Department of Environmental Management is pleased to submit the following proposal for the FY26 ACCSP Request for Proposals titled “Black Sea Bass (*Centropristis striata*) Age and Growth Data Collection to Address Stock Assessment Needs”.

Please note that the highlighted text in the budget table and budget narrative addresses reviewer feedback that requested to provide what each staff member is going to be doing and provide percentages of salary.

Thank you for your consideration of this proposal.

Regards,

Nicole Lengyel Costa

Nicole Lengyel Costa

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

**FY26: Black Sea Bass (*Centropristis striata*) Age and Growth Data Collection to Address Stock
Assessment Needs**

Total Cost: \$64,993.65

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Applicant Name: Rhode Island Department of Environmental Management (RIDEM), the Commercial Fisheries Research Foundation (CFRF), and the National Oceanic and Atmospheric Administration (NOAA)

Project Title: Black Sea Bass (*Centropristis striata*) Age and Growth Data Collection to Address Stock Assessment Needs

Project Type: New Project

Requested Award Amount: \$64,993.65

Requested Award Period: One year upon receipt of funds.

Program Priority: Biological (100%)

Date Submitted: August 8, 2025

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

Project Staff: Julia Livermore, RIDEM
Alex Denisevich, RIDEM/ASMFC
Rich Balouskus, RIDEM
Hannah Verkamp, CFRF
Elizabeth Soranno, CFRF
Dr. David Bethoney, CFRF

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

Objective:

The goal of this proposed project is to collect biological (age and growth) data on black sea bass from Rhode Island to contribute to the stock assessment to improve age-structured models for northern black sea bass.

This project will address a recognized research need to expand biological data collection programs to support estimation of fishery length and age composition for black sea bass (ASMFC, 2023). The project will leverage and unite existing fishery-dependent and -independent studies to collect black sea bass specimens across broad spatial and temporal ranges throughout Rhode Island.

Specific objectives of the project include:

- Improve the quantity of age and growth data collected on northern stock black sea bass, thereby supporting the stock assessment and sustainable management of the stock.
- Establish a biological sampling program that will lay the foundation for improved assessment of black sea bass that leverages existing studies using a combination of fishery-independent (Rhode Island Department of Environmental Management (RIDEM) Fish Pot Survey) and -dependent (Commercial Fisheries Research Foundation (CFRF) Black Sea Bass Research Fleet) sampling sources.
- Transmit black sea bass biological data to ACCSP and communicate results with stock assessment scientists and other relevant stakeholders.

Need:

Black sea bass is an important fishery species targeted commercially and recreationally along the east coast of the United States. As asserted in the Atlantic Coastal Cooperative Statistics Program (ACCSP) Biological Review Panel's biological sampling priority matrix, black sea bass is identified as a top priority species for data collection, receiving the highest total priority ranking for inadequate biological sampling (ACCSP, 2025). In recent decades, the distribution and center of biomass of black sea bass has experienced a northward shift, likely due to climate change (Bell et al. 2014). As a result, there has been a lack of adequate biological data collection for northern Atlantic black sea bass in particular, which is an issue of regional importance as this highly valuable stock supports an increasingly important fishery in these regions (ASMFC, 2023).

The black sea bass stock is divided into two subunits north and south of Hudson Canyon, and the majority of landings for the northern subunit occur in Rhode Island (ASMFC, 2023). However, only 20% of the portside sampling lengths used in the stock assessment come from this state. Consequently, there is a critical need to increase biological data collection for black sea bass not only across its northern extent, but also specifically in undersampled states, and to supplement traditional data sources through other means. Recognizing this need, the most recent black sea bass Research Track stock assessment report

included “Enhanced port sampling or similar programs to bolster the data that support estimation of fishery length and age compositions” as a high priority research recommendation (ASMFC, 2023).

Fishery-dependent data has become an important source of information that is used for many stock assessments and is a cost-effective approach to collect large amounts of information. To increase the fishery-dependent data collection on black sea bass in the Mid-Atlantic and Southern New England regions, and with support from the ACCSP, the CFRF and the RIDEM established the Black Sea Bass Research Fleet in 2016 (Heimann et al., 2023). The goal of the Black Sea Bass Research Fleet (hereafter ‘Research Fleet’) is to advance fishery-dependent data for black sea bass to help improve stock assessments using modern technology and a fishing vessel Research Fleet approach. The Research Fleet comprises citizen scientist fishermen representing multiple gear types (fish pot, lobster-crab traps, rod-and-reel, gillnet, trawl, and aquaculture gear) who collect fishery, size composition, and disposition data on their black sea bass catch using a custom data collection application (Heimann et al., 2023). Historically, the Research Fleet was leveraged to collect whole fish specimens that were used for biological data collection (e.g. diet, sex and maturity, and age and growth data) by the RIDEM and Virginia Institute of Marine Sciences. However, specimen and associated data collection were opportunistic and periodic, as there was no long-term, dedicated funding to support these efforts.

The Research Fleet has become a vetted source of fishery dependent data for the black sea bass stock assessment, contributing to age-length keys (ALKs) and discards-at-length estimations in the most recent Research Track stock assessment (ASMFC, 2023). Upon receiving the maximum allowed years of funding through ACCSP, the CFRF has received alternative funding to continue the Research Fleet’s fishery, size composition, and disposition data collection through at least 2029. However, there is still no dedicated funding to support biological data collection, such as age and growth information, on whole fish specimens. Age and growth data are essential to stock assessments and improve understanding of recruitment, age-specific exploitation, population age distribution, cohort tracking, and more. Ensuring that such data are collected with appropriate spatial and temporal coverage is also of utmost importance to ensure results are reflective of both the fishery and population at large.

Despite their advantages, fishery-dependent data sources, such as the Research Fleet, can result in spatial and temporal biases, as fishermen fish in areas and at times where they believe they are most likely to encounter fish of a certain size (Howard et al., 2023). Fishery-independent data sources are able to overcome such limitations through systematic sampling and, when used together, the two types of data can provide a more comprehensive view of a population’s dynamics. One source of fishery-independent data on black sea bass in Rhode Island is the annual RIDEM ventless fish pot survey in Narragansett Bay and Rhode Island Sound, RI, which could also be leveraged to collect targeted age and growth data.

This project seeks to leverage and unite fishery-dependent and -independent data sources to collect age and growth data on black sea bass specimens collected by the CFRF Research Fleet and RIDEM Fish Pot Survey to contribute to the stock assessment and ultimately improve age-structured models for black sea bass. Ultimately, the proposed project will help fulfill ACCSP’s mission of collecting timely, dependable, and accessible marine fisheries data and will directly address a high priority research recommendation for

black sea bass to enhance sampling programs to bolster data that support fishery length and age composition (ASMFC, 2023).

Results and Benefits:

This project will result in improved quality and quantity of age-at-length data for black sea bass in the northern region. These data will be used to inform the stock assessment and management of this data-poor species. Coordination with the NOAA stock assessment scientists for black sea bass will help address current gaps and sampling deficiencies in ALKs used in the stock assessment for the northern region.

This project also demonstrates a feasible and cost-effective approach for collaborating with the commercial fishery to collect commercial samples, and working with a state agency to collect fishery-independent data. Improved collaboration helps build trust between fishermen, scientists, and managers while improving the accuracy and credibility of the stock assessment and management plan for the black sea bass stock.

This project addresses a species in the upper quartile of the FY26 Biological Review Panel's biological sampling priority matrix, highlighting the need for additional biological data. It also addresses the following research priorities for black sea bass (ASMFC, 2023):

- Development of a reliable index beyond existing surveys
- Use of industry study fleet data
- Sex change, sex ratios, and spawning
- Spatial patterns in growth, recruitment, and mortality

Data Delivery Plan: Biological data will be transmitted to ACCSP via RIDEM. RIDEM is currently working with ACCSP to establish a direct data feed for biological data to the data warehouse.

Approach:

Commercial Sampling Effort

The PIs for this project are working in close cooperation with the lead fisheries stock assessment scientist for black sea bass at NOAA, Dr. Emily Liljestrand. Over the time series used in the black sea bass stock assessment, the only two commercial sources of age-at-length data for the northern region are from the NOAA portside sampling programs and the CFRF Research Fleet. The Research Fleet collected biological samples under alternate funding from 2016 to 2021. Dr. Liljestrand has stated that the CFRF data were useful for filling in gaps in the ALKs developed solely with data from the NOAA portside sampling programs and in some years comprised ~30% of the total commercial sample size in the northern region. It is expected that in future years, the number of samples coming from the NOAA portside sampling programs, and aged by NOAA fisheries will be reduced. With this expected reduction in sampling effort by NOAA, Dr. Liljestrand's analysis of assessment data has identified a target number of 400 commercial samples per year from the Research Fleet as being sufficient for still achieving the minimum number of age-at-length samples needed for the northern region commercial for the black sea bass assessment.

CFRF Commercial Specimen Collection and Delivery

Participant Research Fleet fishermen opportunistically collect fishery (e.g. gear, location, effort, etc.), size, and disposition data on black sea bass at sea using a Samsung Tab A tablet equipped with the On Deck Data application (app), a custom app designed by the CFRF. The app records and stores data at sea and uploads it to an online database owned and managed by the CFRF via Wi-Fi. For the purposes of this project, Rhode Island-based participants will still use the app to collect typical data associated with the Research Fleet on their catch, including fish that will be brought in as laboratory specimens. These fish will be tagged externally using a plastic ziptag with a unique identification number. The app will be updated to include the option to designate a sampled fish as a laboratory specimen and to prompt participants to enter the unique identifier associated with that fish. Fish will be kept on ice until they return to port, at which time specimens will either be picked up at the dock by CFRF staff or delivered to the CFRF office. Research Fleet participants will be asked to complete sampling sessions that include up to 25 additional tagged specimens for age and growth data collection at a time. Over the course of one year, the Research Fleet will aim to complete 16 sessions that include specimen collection for a total of 400 fish collected (25 fish/session * 16 sessions = 400 fish). Participants will be provided with an additional sampling stipend each month they collect laboratory specimens to acknowledge the additional workload for this effort beyond typical Research Fleet data collection. Tagged fish will be kept in the CFRF freezer, and once per month CFRF staff will deliver all specimens to the RI DEM office for processing. CFRF will share all metadata collected by On Deck Data associated with the laboratory specimens with RI DEM at the time of specimen delivery.

Fishery Independent Sampling Effort

Dr. Liljestrand also analyzed fishery-independent data used in the black sea bass assessment to identify the need for additional sampling. In the northern region, fishery-independent age-at-length data is supplied by the NOAAABTS, NEAMAP survey, Massachusetts Division of Marine Fisheries (MADMF), and RIDEM. Over 90% of the data used in the stock assessment is from the NOAAABTS, NEAMAP survey, and MADMF. RIDEM does currently contribute a limited amount of FI samples collected opportunistically from the RIDEM trawl survey, but has the ability to collect additional FI samples from the RIDEM fish pot survey. The [RIDEM ventless fish pot survey](#) began in 2021 and is designed to capture scup, tautog, and black sea bass. A target number of 100 samples per year has been determined as adequate for ensuring comprehensive spatial and temporal sample coverage in future years for the northern region.

RIDEM FI Specimen Collection and Delivery

The RIDEM ventless fish pot survey operates in Rhode Island Sound and Narragansett Bay, RI from May through October annually. Unvented Black Sea Bass Pots (43.5" L, 23" W, and 16" H) are set in five pot trawls at eight randomly selected stations and four fixed stations each month. All trawls target structured bottom. These traps are baited with clam bellies and fished for a one-night soak. Black sea bass samples will be collected from the survey and put on ice until returning to the RIDEM laboratory for either immediate processing or freezing. Sample collection will be distributed both spatially and temporally.

RIDEM will coordinate with Dr. Liljestrand to prioritize length bins to sample in an effort to fill any existing ALK gaps.

Sample Processing

All commercial and FI samples will be processed at the RIDEM laboratory. Each sample will have length, weight (from CFRF samples only), sex, and maturity recorded. Otoliths will be removed, cleaned, dried, and stored for further processing. When processed, otoliths will be mounted in epoxy resin and sectioned using an Isomet low speed saw. Sectioned otoliths will be mounted to microscope slides with mounting media and aged using a Leica stereomicroscope with transmitted light.

All agers contributing data to the black sea bass assessment attend the same quality control and quality assurance ageing workshop annually. This will provide Dr. Liljestrand with precision and bias estimates across labs to inform the stock assessment.

Geographic Location: This project will be conducted by RIDEM DMF staff out of Jamestown, RI and CFRF staff out of Kingston, RI. Samples will be collected at sea on board a RIDEM research vessel or dockside from CFRF research fleet vessels.

Milestone Schedule:

Activity	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
RIDEM Sample Collection	X	X	X	X	X	X						
CFRF Research Fleet Sample Collection	X	X	X	X	X	X						
Sample work-up	X	X	X	X	X	X	X	X				
Ageing Structure Processing				X	X	X	X	X	X	X	X	
Ageing									X	X	X	
Data Submission												X

Project Accomplishments Measurement:

Goal	Metric
RIDEM Sample Collection	RIDEM staff collect samples from the fishery-independent fish pot survey
CFRF Research Fleet Sample Collection	CFRF staff collect samples from the black sea bass Research Fleet
Sample work-up	Length, weight, sex, maturity, and ageing structures collected
Ageing Structure Processing	Otoliths mounted and sectioned
Ageing	Otoliths aged
Data Submission	Age data submitted to ACCSP and NOAA

Cost Summary (Budget):

Budget Category	Federal ACCSP	In-Kind	Total
a. Salary			
Deputy Chief J. Livermore (2.5%)	\$ -	\$ 2,860.09	\$ 2,860.09
Principal Biologist R. Balouskus (6%/1%)	\$ 5,568.68	\$ 928.11	\$ 6,496.79
Principal Biologist N. Lengyel Costa (2.5%)	\$ 2,505.43	\$ -	\$ 2,505.43
RIDEM Seasonal Intern (10%)	\$ -	\$ 1,410.50	\$ 1,410.50
b. Fringe			
Deputy Chief J. Livermore (2.5%)	\$ -	\$ 2,069.18	\$ 2,069.18
Principal Biologist R. Balouskus (6%/1%)	\$ 2,646.81	\$ 441.14	\$ 3,087.95
Principal Biologist N. Lengyel Costa (2.5%)	\$ 1,185.45	\$ -	\$ 1,185.45
c. Travel	\$ -	\$ -	\$ -
d. Equipment	\$ -	\$ -	\$ -
e. Supplies	\$ 600.00	\$ 500.00	\$ 1,100.00
f. Contractual	\$ -	\$ -	\$ -
<i>ASMFC</i>			
Fisheries Specialist Salary (18%)	\$ 13,963.14	\$ -	\$ 13,963.14
Fisheries Specialist Fringe (18%)	\$ 5,186.88	\$ -	\$ 5,186.88
Indirect (12%)	\$ 2,298.00	\$ -	\$ 2,298.00
<i>CFRF</i>			
Executive Director Salary	\$ 1,600.00	\$ 1,600.00	\$ 3,200.00
Research Biologists Salary	\$ 7,090.00	\$ -	\$ 7,090.00
Business Manager Salary	\$ 604.00	\$ -	\$ 604.00
Fringe	\$ 929.00	\$ 160.00	\$ 1,089.00
Travel	\$ 900.00	\$ -	\$ 900.00
Supplies	\$ 1,000.00	\$ -	\$ 1,000.00
Research Fleet Stipends	\$ 4,000.00	\$ -	\$ 4,000.00
Indirect (20.23%)	\$ 3,261.68	\$ 356.05	\$ 3,617.73
g. Construction	\$ -	\$ -	\$ -
h. Other	\$ -	\$ -	\$ -
i. Total Direct	\$ 53,339.07	\$ 10,325.06	\$ 63,664.13
j. RIDEM Indirect Charges (21.85%)	\$ 11,654.59	\$ 2,256.03	\$ 13,910.61
k. Total	\$ 64,993.65	\$ 12,581.08	\$ 77,574.74
l. Percentage	84%	16%	

Budget Narrative:

Description of budget categories and expenses for this project

Overall in-kind: 16% of the overall budget is being provided as in-kind contribution.

a. Salary:**From ACCSP:**

- i. **RIDEM Principal Biologist Rich Balouskus:** 6% funded position to aid in the dissection of 500 fish. Approximately five fish can be dissected per hour requiring a total of 100 hours or 14.2 working days of staff time; 6% of salary (\$92,811.26) for one year = \$5,568.68.
- ii. **RIDEM Principal Biologist Nicole Lengyel Costa:** 2.5% funded position to age 500 fish. It will take approximately 6 working days of staff time; 2.5% of salary (\$100,217.21) for one year = \$2,505.43.

In-Kind:

- i. **RIDEM Deputy Chief:** 2.5% funded to provide project oversight and staff management; 2.5% salary (\$114,403.40) for one year = \$2,860.09.
- ii. **RIDEM Principal Biologist Rich Balouskus:** 1% to provide shipboard processing of black sea bass during fish pot survey; 1% of salary (\$92,811.26) for one year = \$928.11.
- iii. **Intern:** 10% funded seasonal intern to assist on the project. Approximately 10% of six-month salary (\$14,105) = \$1,410.50.

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. **RIDEM Principal Biologist Rich Balouskus:** Total annual fringe benefits for the Principal Biologist are \$44,113.52. Fringe benefits for 6% of their time are \$2,646.81.

- ii. **RIDEM Principal Biologist Nicole Lengyel Costa:** Total annual fringe benefits for the Principal Biologist are \$47,417.92. Fringe benefits for 2.5% of their time are \$1,185.45.

In-Kind:

- i. **RIDEM Deputy Chief:** Total annual fringe benefits for the Deputy Chief are \$82,767.05. Fringe benefits for 2.5% of their time are \$2,069.18.
- ii. **RIDEM Principal Biologist Rich Balouskus:** Total annual fringe benefits for the Principal Biologist are \$ 44,113.52. Fringe benefits for 1% of their time are \$441.14.

c. **Travel:** Travel is not being requested by RIDEM but is being requested by CFRF. Therefore, the only travel requested is included under the Contractual category of this budget.

d. **Equipment:** No equipment is included in this budget.

e. **Supplies:**

From ACCSP: Supplies for RIDEM include two diamond wafering blades at \$300 each for sectioning otoliths, total = \$600. Supplies requested by CFRF are included under the Contractual category of this budget.

In-Kind: Supplies from RIDEM include glass vials for storing otoliths, epoxy/resin for mounting otoliths, cutting fluid used in the low speed saw for otolith sectioning, microscope slides used for mounting sectioned otoliths, flotex used for mounting sectioned otoliths, and slide boxes for storing sectioned otoliths. Total = \$500.

f. **Contractual:**

From ACCSP:

- i. **ASMFC Fisheries Specialist Salary:** 18% funded position to aid in the dissection of 500 fish and sectioning of 500 otoliths. Approximately five fish can be dissected per hour requiring a total of 100 hours or 14.2 working days of staff time. Approximately 20 otoliths can be sectioned per day requiring 25 days to process 500 otoliths; 18% of salary (\$77,573) for one year = \$13,963.14.
- ii. **ASMFC Fisheries Specialist Fringe:** Total annual fringe benefits for the ASMFC Fisheries Specialist are \$28,816. Fringe benefits for 18% of their time are \$5,186.88.
- iii. **ASMFC Indirect:** ASMFC charges an indirect rate of 12% for their contractual role for the Fisheries Specialist. The 12% indirect cost for 18% of the Fisheries Specialist salary and fringe is \$2,298.
- iv. **CFRF Executive Director Salary:** D. Bethoney, CFRF Executive Director, will oversee the project's administration, team communication/coordination, field

- research, and outreach aspects. He will also directly assist with reports, outreach material development, and communication of project progress and results to the team and fishing industry. 1.0% of salary (\$160,000) for one year = \$1,600.
- v. **CFRF Research Biologists Salary:** The CFRF Research Scientists will be the primary individuals responsible for the fleet organization, maintenance, and support, as well as data management, communication, and analysis. They will also support the Executive Director in project oversight tasks. 10% of salary (\$70,900) for one year = \$7,090.
 - vi. **CFRF Business Manager Salary:** T. Winneg, CFRF Business Manager, will carry out all the finance-related aspects of the project, including research budget tracking, invoice processing, administrative support tasks, and purchasing supplies. 1% of their salary (\$60,400) for one year = \$604.
 - vii. **CFRF Fringe:** Includes a percentage of personnel costs for payroll taxes and worker's compensation insurance prorated in accordance with the percentage of salary paid from the program. 10% of personnel costs (\$9,294) based on 2023 benefits and historical analysis for one year = \$929.
 - viii. **CFRF Travel:** Travel costs for project staff to travel to RI DEM to deliver fish (proposed 12 trips between Kingston, RI (CFRF) and Jamestown, RI (RI DEM) * ~31 miles * \$0.70/mile = \$260) and to meet fishermen at docks for sample pickup and technical support (proposed 20 trips between Kingston, RI and Pt. Judith docks * ~18.3 miles * \$0.70/mile = \$256). Additional travel costs for project staff to travel to NOAA management track stock assessment meetings (proposed at 1 trip between Kingston, RI and Woods Hole, MA (NOAA): mileage ~176 miles * \$0.70/mile = \$123, per diem = 1.5 days x \$86 = \$129, lodging = \$132, Total = \$384). Total requested for all travel for one year = \$900.
 - ix. **CFRF Supplies:** Includes \$750 for the costs of at-sea research supplies, including fish tags, sharpies, bags, coolers, and ice for transporting fish. Includes \$250 for supplies for meetings and outreach materials, including mailings, binders, and posters. Total requested for all supplies for one year = \$1,000.
 - x. **Research Fleet Stipends:** Research Fleet vessels will be asked to complete data and sample collection beyond what is currently completed for the Black Sea Bass Research Fleet project. Specimen collection sessions will include sampling, tagging, and bringing in 25 additional individual black sea bass for ageing purposes. Research Fleet vessels will be provided a \$250 stipend each time 25 specimens are processed and brought in, for a total of up to 400 fish over 12 months. Collecting 25 fish/session will require 16 sessions to achieve 400 total fish. Stipends of \$250/session for 16 sessions = a total of \$4,000.
 - xi. **CFRF Indirect:** CFRF charges an indirect rate of 20.23% to cover costs associated with the general operations of the CFRF, including accounting services, legal services, maintenance of office space, liability insurance, payroll fees, phone/fax lines, internet service, board member participation, etc. 20.23% of total CFRF direct costs (\$16,123) is \$3,261.68.

In-Kind:

- i. **CFRF Executive Director Salary:** This project will overlap the FY24 Earmark Black Sea Bass Research Fleet funding. One goal of that funding is to investigate the long-term feasibility of including additional data parameters in Research Fleet sampling. Time spent on the BSB Research Fleet, including evaluating how long-term age and growth data collection can be incorporated, will contribute to the goals on this project. 1.0% of salary (\$160,000) for one year = \$1,600.
- ii. **CFRF Fringe:** Includes a percentage of personnel costs for payroll taxes and worker's compensation insurance prorated in accordance with the percentage of salary paid from the program. 10% of in-kind personnel costs (\$1,600) based on 2023 benefits and historical analysis for one year = \$160.
- iii. **CFRF Indirect:** CFRF charges an indirect rate of 20.23% to cover costs associated with the general operations of the CFRF, including accounting services, legal services, maintenance of office space, liability insurance, payroll fees, phone/fax lines, internet service, board member participation, etc. 20.23% of total CFRF in-kind costs (\$1,760) is \$356.05.

g. **Construction:** No construction is included in this budget.

h. **Other:** No other costs are included in this budget.

i. **Total Direct:** Includes \$12,506.37 to RIDEM, \$21,448.02 to ASMFC, and \$19,384.68 to CFRF. Total direct costs requested from ACCSP are \$53,339.07.

j. **RIDEM Indirect:** RIDEM charges an indirect rate of 21.85% to all salary, fringe, supplies, and contractual costs. 21.85% of total direct costs (\$53,339.07) is \$11,654.59.

k. Total:

- i. The total requested amount from ACCSP includes \$53,339.07 in direct costs and \$11,654.59 for RIDEM indirect. Total requested amount = \$64,993.65.
- ii. The total amount of in-kind is \$12,581.08.
- iii. Total project costs = \$64,993.65 requested + \$12,581.08 in-kind = \$77,574.74.

l. Percentage:

- i. The total requested amount from ACCSP (\$64,993.65) divided by the total project cost (\$77,574.74) = 84% requested from ACCSP.
- ii. The total amount of in-kind (\$12,581.08) divided by the total project cost (\$77,574.74) = 16% in-kind.

SUMMARY OF PROPOSAL FOR RANKING

Proposal Type: New

Primary Program Priority: Biological (100%). This project will be collecting data identified as a stock assessment research need for black sea bass, a species in the top quartile of the FY26 Biological Matrix.

Data Delivery Plan: Data will be submitted to ACCSP annually. RIDEM and ACCSP are currently working on upgrading the data load process between both agencies.

Multi-Partner/Regional Impact: This project is a collaboration between RIDEM, CFRF and NOAA. The project will collect biological data critical for the northern region in the black sea bass stock assessment. Therefore, all the state in the northern region, and the stock assessment as a whole, will benefit from this data.

Contains Funding Transition Plan: This is a one-year project. If alternate funds cannot be identified by the FY27 ACCSP RFP, this project may be submitted as a maintenance project.

In-Kind Contribution: In-kind contribution for this project is 16% as stated in the budget table.

Improvement in Data Quality/Quantity/Timeliness: This project will be improving data quantity and quality by collecting age-at-length data for the northern region of the black sea bass stock assessment. This data will be even more critical as NOAA port-side sampling and NOAA bottom trawl survey efforts decrease in subsequent years.

Impact on Stock Assessment: This project is collecting data for the black sea bass stock assessment and addressing stock assessment research needs.

Impact on Management: The data collected in the project will increase our knowledge about the age-at-length composition of black sea bass in the northern region. It may allow for different modeling approaches (e.g., sex-based modeling) that could impact overall commercial quotas for all states in the stock unit.

Innovative: This project is collaborative and cost-effective effort to address a multitude of research needs for a species that is inadequately sampled. Our approach is combining fisheries-dependent and fisheries-independent data to satisfy multiple needs. We are also working directly with the NOAA stock assessment scientist to ensure gaps and needs for age-at-length data are addressed.

Properly Prepared: This proposal followed the guidelines of the FY26 Request for Proposals and Funding Decision document.

Merit: This project is addressing a critical stock assessment need for and undersampled species, black sea bass.

References:

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- Bell RJ, Richardson DE, Hare JA, Lynch PD, Fratantoni PS. Disentangling the effects of climate, abundance, and size on the distribution of marine fish: an example based on four stocks from the Northeast US shelf. ICES J Mar Sci. 2014; fsu217. doi: 10.1093/icesjms/fsu217
- Heimann, T., Verkamp, H., McNamee, J., Bethoney, N.D. Mobilizing the fishing industry to address data gaps created by shifting species distribution. Front. Mar. Sci. 2023; 10, 1043676. doi: [10.3389/fmars.2023.1043676](https://doi.org/10.3389/fmars.2023.1043676)
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Appendix A: Abbreviated Curriculum Vitae for Principal Investigators

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)

University of Rhode Island Graduate School of Oceanography, Narragansett, RI, Feb. 2004 – 05/09/09

Laboratory Technician/Marine Research Assistant I

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

Seasonal Policy Intern

EDUCATION

University of Rhode Island, Kingston, RI

PhD, Marine Affairs – September 2022 - Present

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

PROFESSIONAL PUBLICATIONS AND PRESENTATIONS

- Fishery Management Plans and Stock Assessments:
 - ASMFC Addendum II to Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass (2024), ASMFC Addendum I to Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass (2023), ASMFC Amendment 7 to the Interstate Fishery Management Plan for Atlantic Striped Bass (2022), ASMFC Atlantic Striped Bass Stock Assessment Update (2024), ASMFC Atlantic Striped Bass Stock Assessment Update (2022), ASMFC Atlantic Striped Bass Benchmark Stock Assessment (2018), ASMFC Addendum I to Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden (2022), ASMFC Amendment 3 to the Interstate Fishery Management Plan for Atlantic Menhaden (2017), NEFSC Bluefish Benchmark Stock Assessment (2015), ASMFC Atlantic Striped Bass Benchmark Stock Assessment (2013).
- Age and Growth:
 - 2024 Report of the Quality Assurance/Quality Control Fish Ageing Workshop (March 2024), 2023 Report of the Quality Assurance/Quality Control Fish Ageing Workshop (March 2023), Summary of the 2020-2021 Tautog Ageing Sample Exchange (September 2021), A Practical

Handbook for Determining the Ages of Gulf of Mexico and Atlantic Coast Fishes (November 2020), 2019 Report of the Quality Assurance/Quality Control Fish Ageing Workshop (March 2019), 2018 Report of the Quality Assurance/Quality Control Fish Ageing Workshop (March 2018), 2017 Report of the Quality Assurance/Quality Control Fish Ageing Workshop (May 2017), Report of the Quality Assurance/Quality Control Fish Ageing Workshop (March 2016), Atlantic Menhaden Ageing Workshop Report (June 2015), Proceedings of the 2013 Black Sea Bass Ageing Workshop (December 2013), Tautog Ageing Workshop Report (May 2012)

- Schiano, S., Nessler, G., Collie, J., **Lengyel Costa, N.L.**, Drew, K., Latour, R.J., McNamee, J., Schueller, A., & Wilberg M.J. (2025). Trends in Atlantic Striped Bass Growth in the Mid-Atlantic, U.S.A. *Transactions of the American Fisheries Society*, 154:3, 262 – 277.
- Remick, A., & **Lengyel Costa, N.** (2024, January 9). Pilot observer program for Rhode Island State Waters Gillnet Fishery [Poster Presentation]. American Fisheries Society Southern New England Chapter, Storrs, CT.
- Smith, B. E., Collie, J. S., & **Lengyel, N. L.** (2014). Fish trophic engineering: Ecological effects of the invasive ascidian *Didemnum vexillum* (Georges Bank, northwestern Atlantic). *Journal of Experimental Marine Biology and Ecology*, 461, 489–498.
<https://doi.org/10.1016/j.jembe.2014.09.009>
- Smith, B., Collie, J., & **Lengyel, N.** (2013). Effects of chronic bottom fishing on the benthic epifauna and diets of demersal fishes on northern Georges Bank. *Marine Ecology Progress Series*, 472, 199–217. <https://doi.org/10.3354/meps10031>
- **Lengyel, N.**, Collie, J. S., & Valentine, P. C. (2009). The invasive colonial ascidian *Didemnum vexillum* on Georges Bank — Ecological effects and genetic identification. *Aquatic Invasions*, 4(1), 143–152. <https://doi.org/10.3391/ai.2009.4.1.15>

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Education:

University of New England
M.S. Marine Science 2017-2019
Thesis: The nonlethal assessment of reproductive parameters in sharks: Case studies on blacktip (*Carcharhinus limbatus*) and white (*Carcharodon carcharias*) sharks.

Relevant Work Experience:

Commercial Fisheries Research Foundation
Senior Research Associate February 2024 - Present
Research Biologist February 2021 - February 2024

Research project management position working collaboratively with the Rhode Island fishing industry as well as state and federal fisheries management bodies. Responsible for management of the Black Sea Bass Research Fleet and associated extension projects, bay scallop research projects, and supervising assistant research biologist. Also responsible for managing outreach activities for all of the organization's funded research projects, including tracking deliverables and reporting to funding agencies

Relevant Publications:

Verkamp, H.J., Soranno, E., and Bethoney, N.D. (In review). Characterizing the composition of commercial black sea bass (*Centropristis striata*) catch and discards in the Mid-Atlantic and Southern New England regions. In Revision: *Frontiers in Marine Science*.

Verkamp, H.J., Heimann, T., McNamee, J., Jones, A. and Bethoney, N.D. 2023. An overview of the Commercial Fisheries Research Foundation and Rhode Island Department of Environmental Management Black Sea Bass Research Fleet. 2023 Black Sea Bass Research Track Stock Assessment Working Paper. Available at: <https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php>.

Heimann, T., **Verkamp, H.J.**, McNamee, J., and Bethoney, N.D. 2023 Mobilizing the fishing industry to address data gaps created by shifting species distribution. *Frontiers in Marine Science*. 10:1043676.

Verkamp, H.J., Nooj, J., Helt, W., Ruddick, K., Gerber-Williams, A., McManus, M.C., and Bethoney, N.D. 2022. Scoping bay scallop restoration in Rhode Island: a synthesis of knowledge and recommendations for future efforts. *Journal of Shellfish Research* 41(2):153–171

Relevant Presentations:

Verkamp, H.J., McNamee, J., and Bethoney, N.D. 2024. Empowering fishermen to fill data gaps for a rapidly changing fishery: The Black Sea Bass Research Fleet. World Fisheries Congress. Seattle, WA. Poster.

Verkamp, H.J., Huntsberger, C., and Bethoney, N.D. 2023. Augmenting an offshore wind farm monitoring survey to incorporate biological condition monitoring. Annual Meeting of the American Fisheries Society. Grand Rapids, MI. Poster.

Verkamp, H.J., Heimann, T., McNamee, J., and Bethoney, N.D. 2021. Using a fishery-dependent research fleet approach to characterize the composition of black sea bass (*Centropristis striata*) discards in the Southern New England and Mid-Atlantic fishery. Annual Meeting of the American Fisheries Society. Baltimore, MD. Oral.