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DEPARTMENT OF COMMERCE
RESEARCH PERFORMANCE PROGRESS REPORT (RPPR)

For instructions, please visit
http://www.osec.doc.gov/oam/grants_management/policy/documents/RPPR%20Instructions%20and%20Privacy%20Statement.pdf

AWARD INFORMATION	
1. Federal Agency: Department of Commerce / NOAA	2. Federal Award Number: NA21SEC4810005
3. Project Title: NOAA Cooperative Science Center for Living Marine Resources-II	
4. Award Period of Performance Start Date: 09/01/2021	5. Award Period of Performance End Date: 08/31/2026
PRINCIPAL INVESTIGATOR/PROJECT DIRECTOR	
6. Last Name and Suffix: Sexton , null	7. First and Middle Name: Margaret , A
8. Title: Assistant Director LMRCSC	
9. Email: masexton@umes.edu	10. Phone Number: 410-621-1049
AUTHORIZING OFFICIAL	
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13. Title: Director of Research	
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REPORTING INFORMATION	
Signature of Submitting Official: Joshua Shockley	
16. Submission Date and Time Stamp: 09/30/2022	17. Reporting Period End Date: 08/31/2022
18. Reporting Frequency: ○ Annual ◉ Semi-Annual ○ Quarterly	19. Report Type: ◉ Not Final ○ Final
RECIPIENT ORGANIZATION	
20. Recipient Name: UNIVERSITY OF MARYLAND EASTERN SHORE	
21. Recipient Address: 11868 ACADEMIC OVAL, PRINCESS ANNE, MD 21853-1295 USA	
22. Recipient UEI: LNUBJQ26R2M5	23. Recipient EIN: 526002033

ACCOMPLISHMENTS

24. What were the major goals and objectives of this project?

Education Goals:
1. Prepare the future workforce for marine and fisheries sciences.
2. Strengthen collaborations across universities and professional networks to enhance academic programs in marine and fisheries sciences

Research Goal:
1. Develop an exemplary capacity for scientific collaborations among partner institutions in the NOAA relevant fields of marine and fisheries sciences

Administration Goals:
1. Organizational excellence for effective and efficient management of the programs and activities of the Center
2. Effectively communicate the activities and accomplishments of the Center
3. Assess and evaluate the Center's goals and objectives

25. What was accomplished under these goals?

25. What was accomplished under these goals?

During this reporting period, we received approval of the Center's Education and Training, Science, Strategic, Student Recruitment, and Implementation Plans. We have begun building materials and planning activities to improve the quality of training in the LMRCSC research areas by making it more continuous process. It will begin with the Annual Fellow Assembly in Fall when new cohort students will be introduced to the research areas, and will continue through synchronous and asynchronous engagement throughout the year.

The Center engaged in recruitment events to recruit students for Fall 2022. Additionally, we have submitted the names and details of 16 students we are requesting to transfer from the FY16 award to the new award. We are awaiting a decision.

The Center continues to hold monthly Executive Committee meetings during which plans to execute student development and professional activities were discussed.

Center scientists submitted proposals to agencies to leverage funds for research and training of students. Center Director (P. Chigbu) engaged in discussions with Dr. Ellen Keane (NOAA Greater Atlantic Regional Fisheries Office) on a sea turtle project that could serve as a graduate student's project. Thereafter, a meeting was held with a new Ph.D. student, Ms. Kayland Huckaby, who has shown interest in working on the project to fulfill the requirements of NERTO and dissertation.

Center Director (Chigbu), Dr. Ali Ishaque (UMES), Mark Wuenschel (NOAA NEFSC, Woods Hole, MA) and Dr. Ashok Deshpande (NOAA NEFSC, Sandy Hook, NJ) developed and submitted a proposal to NOAA for funding. The project, focused on forage fish trophic ecology in the northwest Atlantic, will be used to train a new master's student at UMES, Ms. Tebyan Ahmed.

Center leadership began to plan for the Board of Visitors (BOV) meeting that will be held in spring 2023.

Further details can be found in the attached document.

ACCOMPLISHMENTS *(cont'd)*

26. What opportunities for training and professional development has the project provided?

During this period, the Center began to plan for activities including the Annual Fellow Assembly, seminars, workshops, and asynchronous training for the first cohort of fellows who will begin receiving support from this award in Sept. 2022.

27. How were the results disseminated to communities of interest?

Nothing to report at this time.

ACCOMPLISHMENTS *(cont'd)*

28. What do you plan to do during the next reporting period to accomplish the goals and objectives?

Education Goals: As examples, the Center will:
• Continue efforts to recruit students to the Center
• Continue planning for educational activities that will be delivered in Fall 2022 and spring 2023.
• Continue to engage NOAA Scientists in order to enhance research collaborations and identify scientists to serve on graduate student thesis and dissertation committees; work with students to identify sites for NERTO.
Research Goals: As examples the Center will:
• Continue to seek leveraged funds to support students
• Continue efforts to publish results from prior awards and present at scientific meetings.
• Continue planning to begin work on the Joint Collaborative Research Project (JCRP).
Administrative Goals: As examples, the Center will:
• Continue Executive Committee and Education Committee meetings monthly.
• Hold Board of Visitors meeting
• Hold LMRCSC Annual Science meeting in spring 2023
• Call for proposals from LMRCSC students and scientists for review by the Technical Advisory Board.

PRODUCTS

29. Publications, conference papers, and presentations

Nothing to Report

PRODUCTS *(cont'd)*

30. Technologies or techniques

Nothing to Report

31. Inventions, patent applications, and/or licenses

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

PRODUCTS *(cont'd)*

32. Other products

Nothing to Report

PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

33. What individuals have worked on this project?

Fifteen (15) individuals have worked on the project, including scientists (12) and professional staff (4). Their details can be found in Table 33.1 of the attached document.

PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS *(cont'd)*

34. Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

Nothing to Report

35. What other organizations have been involved as partners?

Nothing to Report

PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS *(cont'd)*

36. Have other collaborators or contacts been involved?

Ten (10) NOAA Scientists and eight (8) scientists from other institutions have been involved in the project as collaborators during this period. Their names and involvement are listed in tables 36.1 and 36.2 in the attached document.

IMPACT

37. What was the impact on the development of the principal discipline(s) of the project?

Nothing to Report

IMPACT *(cont'd)*

38. What was the impact on other disciplines?

Nothing to Report

39. What was the impact on the development of human resources?

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

IMPACT *(cont'd)*

40. What was the impact on teaching and educational experiences?

Students across the Center have access to courses at other Center institutions. This access broadens the diversity of courses available to our students. During this period, we have begun building materials and planning activities to improve the quality of training in the LMRCSC research areas by making it more continuous process. It will begin with the Annual Fellow Assembly in Fall when new cohort students will be introduced to the research areas, and will continue through synchronous and asynchronous engagement throughout the year. These activities will make the experience of LMRCSC Fellows more relevant to future NOAA mission careers.

41. What was the impact on physical, institutional, and information resources that form infrastructure?

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

IMPACT *(cont'd)*

42. What was the impact on technology transfer?

Nothing to Report

43. What was the impact on society beyond science and technology?

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

IMPACT *(cont'd)*

44. What percentage of the award's budget was spent in foreign country(ies)?

0 , None

CHANGES/PROBLEMS

45. Changes in approach and reasons for change

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

CHANGES/PROBLEMS *(cont'd)*

46. Actual or anticipated problems or delays and actions or plans to resolve them

Nothing to Report

47. Changes that had a significant impact on expenditures

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

CHANGES/PROBLEMS *(cont'd)*

48. Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Nothing to Report

49. Change of primary performance site location from that originally proposed

Nothing to Report

Attach a separate document if more space is needed for #6-10, or #24-50.

PROJECT OUTCOMES

50. What were the outcomes of the award?

Nothing to report at this time.

DEMOGRAPHIC INFORMATION FOR SIGNIFICANT CONTRIBUTORS (VOLUNTARY)

Gender:

- ◯ Male
- ◯ Female
- ◯ Do not wish to provide

Ethnicity:

- ◯ Hispanic or Latina/o Not
- ◯ Hispanic or Latina/o Do not
- ◯ wish to provide

Race:

- ◯ American Indian or Alaska Native Asian
- ◯ Black or African American
- ◯ Native Hawaiian or other Pacific Islander
- ◯ White
- ◯ Do not wish to provide

Disability Status:

- ◯ Yes
  - [ ] Deaf or serious difficulty hearing
  - [ ] Blind or serious difficulty seeing even when wearing glasses
  - [ ] Serious difficulty walking or climbing stairs
  - [ ] Other serious disability related to a physical, mental, or emotional condition
- ◯ No
- ◯ Do not wish to provide

Attach a separate document if more space is needed for #6-10, or #24-50.

Supplemental Text to the LMRCSC Semiannual Report

Text and tables are arranged using the same numbering system in the RPPR form:

25. What was accomplished under these goals?

a. **Major Activities**:

i. Education Activities:

Student Recruitment Activities: During this period, the Center worked to recruit new students for this award. Activities included an exhibit at the American Fisheries Society meeting held in Spokane, Washington in August 2022 as well as targeted to undergraduate students at minority serving institutions through relevant program offices; and institutional recruitment by Program Directors. A selection of activities that took place during this period include:

We have recruited 9 new students to the Center including 4 Ph.D. and 5 M.S. students to start on September 1, 2022. Additionally, the Center has requested to transfer 16 students currently supported with FY16 funds to FY21 funding. They include 5 Ph.D., 7 M.S., and 4 B.S. students.

Names, institutional affiliations and degree programs of new students recruited to the LMRCSC

First	Last	URM	Partner	Degree
Jamon	Jordan	Yes	OSU	M.S.
Michelle	Fernandez	Yes	RSMAS	Ph.D.
Kayland	Huckabee	Yes	UMES	Ph.D.
Jennifer	Herrara	Yes	UMCES	Ph.D.
Tebyan	Ahmed	Yes	UMES	M.S.
Lucia	Ramirez-Joseph	Yes	HU	M.S.
Amira	Layeni	Yes	HU	M.S.
Daenen	Jones	Yes	RSMAS	Ph.D.
Savannah	Clax	Yes	OSU	M.S.

ii. Administrative activities:

1. The Center conducted its monthly Executive Committee, and Education Committee meetings.
2. The Center has begun planning its annual BOV meeting which will take place in the Spring 2023.

b. **Specific Objectives**

i. **Education Goal 1.** Prepare the future workforce for marine and fisheries sciences

1. Objective 1.1: Recruit students from under-represented groups into marine and fisheries science disciplines
2. Objective 1.2: Increase retention and degree completion rates for students in marine and fisheries sciences programs
3. Objective 1.3: Assess the value-added outcomes of degree programs in marine and fisheries sciences at the partner institutions

ii. **Education Goal 2.** Strengthen collaborations across universities and professional networks to enhance academic programs in marine and fisheries

sciences

1. Objective 2.1: Use relevant research-based curricula to provide students with the highest quality education in marine and fisheries sciences
2. Objective 2.2: Use Virtual Campus technology to provide students with the opportunity to learn from some of the nation's leading scholars in marine and fisheries sciences
3. Objective 2.3: Ensure that curricula of degree programs at partner institutions address current challenges and emergent needs within the profession
4. Objective 2.4: Link students to professional networks and employment opportunities in marine and fisheries sciences

iii. **Scientific Research Goal 3.** Develop an exemplary capacity for scientific collaborations among partner institutions in the NOAA relevant fields of marine and fisheries sciences

1. Objective 3.1: Integrate the Center's research agenda with NOAA Fisheries research priorities in four key thematic areas: ecosystem change and prediction, stock assessment support, habitat research and protection, and safe seafood and aquaculture
2. Objective 3.2: Foster collaborative research programs to strengthen the research capacities of partner institutions by leveraging the significant strengths and resources of research universities as infrastructure for capacity building
3. Objective 3.3: Develop faculty recruitment and retention practices that ensure that the collective capacity of scholars affiliated with the Center represents significant concentrations of strength in the four key research thematic areas

iv. **Administration Goal 4.** Organizational excellence for effective and efficient management of the programs and activities of the Center

1. Objective 4.1: Establish an Administrative Structure to enhance center operations and provide supportive environment for training and mentoring of students, and for research in marine and fisheries sciences
2. Objective 4.2: Monitor and ensure compliance with Center Award Conditions

v. **Administration Goal 5.** Effectively communicate the activities and accomplishments of the center

1. Objective 5.1: Develop infrastructure for effective and efficient internal and external communication
2. Objective 5.2: Develop an effective strategy for communication with students, faculty and administrators within the center, and increase visibility of the center through enhanced communication of its accomplishments to external stakeholders

vi. **Administration Goal 6.** Assess and evaluate the center's goals and objectives

1. Objective 6.1: Assess and evaluate center educational programs
2. Objective 6.2: Assess and evaluate center research
3. Objective 6.3: Assess and evaluate center administration

c. **Significant results:**

i. We have begun building materials and planning activities to improve the quality of training in the LMRCSC research areas by making it more

continuous process. It will begin with the Annual Fellow Assembly in Fall when new cohort students will be introduced to the research areas, and will continue through synchronous and asynchronous engagement throughout the year.

33. What individuals worked on this project?

Last name	First Name	Total number of months worked during this time period	Project Role	Contribution to project (briefly describe)	State, U.S. territory, and/or country of residence	Collaborated with individual in a foreign country	Country(ies) of foreign collaborator	Travelled to foreign country	if traveled to foreign country(ies), duration of stay
Smith	Stacy	6	PD/PI	Worked with students/did research	Dover, DE	no		no	
Gibson	Deidre	6	PD/PI	Project director at HU; advised Sierra Hildebrand, Derrick Richardson, Jonathan Nash, and co-advised Amani Tolin	Virginia	no		no	
Babcock	Elizabeth	0.6	PD/PI	Project Director at UM-RSMAS	Florida, USA	yes	Belize, Brazil, Canada, Guatemala	no	NA
Die	David	0.3	Co PD/PI	Co-PI at UM-RSMAS	Florida, USA	yes	Australia, Spain, France, Brazil	no	NA
Hoskins-Brown	Dionne	6	PD/PI	Performed research on oyster habitat, blue crabs, SLR, and LEK	Georgia, USA	no		no	
Young	Victoria	6	Faculty	Led student development, taught courses, and led education program development and assessment	Georgia, USA	no		no	
Miller	Jessica	1.5	PD/PI	Project Director at OSU, facilitated student progress, recruitment and retention activities	Oregon, USA				

Jagus	Rosemary	1.5	PD/PI	Supervised students and staff, wrote proposals, performed research	Maryland, USA			no	
Schott	Eric	1	Faculty	Mentored Olivia Pares, conducted research & outreach	Maryland, USA	Yes	Brazil	no	
Chigbu	Paulinus	3	PD/PI	Center Director, wrote proposals, trained students	Maryland, USA			no	
Sexton	Margaret	6	Faculty	Center Deputy Director, supervised student development activities	Maryland, USA	no		no	
Hankerson	Tanesha	2	Other Professional	Communications activities	Maryland, USA	no		no	
Kessie	Alex	6	Other Professional	Budget and data management	Maryland, USA	no		no	
Tilghman	Ida	6	Other Professional	Administrative activities	Maryland, USA	no		no	
Wasike	Norrah	1	Other Professional	Administrative activities	Maryland, USA	no		no	

36. Have other collaborators or contacts been involved?

Table 36.1: NOAA scientists who have collaborated with the Center during this reporting period.

Last name	First name	Title/Affiliation	Description of involvement
Zapfe	Glenn	NOAA SEFSC Pascagoula	Involved in the planning of, or who will be involved, the JCRP
Hoffmayer	Eric	NOAA SEFSC Pascagoula	Involved in the planning of, or who will be involved, the JCRP
Barnett	Beverly	NOAA SEFSC Panama City	Involved in the planning of, or who will be involved, the JCRP
Osborne	Emily	NOAA AOML	Involved in the planning of, or who will be involved, the JCRP
Wells	Brian	NOAA SWFSC	Involved in the planning of, or who will be involved, the JCRP
Davis	Jeanette	NOAA Headquarters	Involved in the planning of, or who will be involved, the JCRP
Chasco	Brandon	NOAA NWFSC	Involved in the planning of, or who will be involved, the JCRP

Jacobs	John	NOAA NOS, Cooperative Oxford Lab, MD	Involved in the planning of, or who will be involved, the JCRP
Gonsalves	Lonnie	NOAA NCCOS, NOS, Program Office & Headquarters	Involved in the planning of, or who will be involved, the JCRP
Deshpande	Ashok	NOAA J.J. Howard Lab, Sandy Hook, NJ	Collaborator in a proposal submitted to NOAA
Wuenschel	Mark	NOAA NEFSC, Woods Hole, MA	Collaborator in a proposal submitted to NOAA; provided fish samples collected from the northwest Atlantic for a new graduate student's research
Keane	Ellen	NOAA Greater Atlantic Regional Office	Collaborator in development of a sea turtle project for a new LMRCSC Ph.D. student
Allman	Robert	NOAA SEFSC, Panama City, FL	JCRC objective 1.2

Table 36.2: Other collaborators involved in Center activities during this reporting period.

Last name	First name	Title/Affiliation	Description of involvement
Martinez-Colon	Michael	CCME-FAMU	JCRP Objective 1.1, 1.2
Stunz	Greg	CCME-TAMUCC	JCRP Objective 1.2, 3
Cintra-Buenrostro	Carlos	CCME_UTRGV	JCRP Objective 1.2, 2
Morey	Steve	CCME_FAMU	Involved in the planning of, or will be involved, the JCRP
Thoma	Brent	CCME-JSU	JCRP Objective 2.1
Jue	Nathaniel	CCME_CSUMB	JCRP Objective 2
Long	Richard	CCME-FAMU	JCRP Objective 3
Sawicky	Thomas	CCME-FAMU	JCRP Objective 3