DFO-NOAA Ocean Acidification Collaborative Funding Initiative FY27

BACKGROUND:

Canada and the US share transboundary resources and remits on Pacific, Arctic and Atlantic coasts, each with a federal need for science-informed decision making. Despite this common requirement, there are few coordinated research and monitoring efforts between Canada and the United States. Leadership in both countries, while drafting the 2008 Memorandum of Understanding to collaborate on ocean research and exchange scientific and technical knowledge, acknowledged the potentially significant impacts of ocean acidification (OA) on the management of coastal resources, with a need for enhanced scientific transboundary cooperation on this topic. This need led to the development of a joint partnership between the Canadian Department of Fisheries and Oceans (DFO) and the U.S. National Oceanic and Atmospheric Administration (NOAA) under the governance of the *Collaborative Framework for Joint DFO/NOAA OA Research and Monitoring* in 2017.

The goals of the DFO-NOAA OA Coordination Committee are to enhance scientific exchange and knowledge mobilization related to the impacts of OA on shared marine resources, share and develop consistent research methodologies related to the effects, monitoring, and mitigation of OA, and identify opportunities for collaborative synergies between Canada and the United States while encouraging support of early career scientists (ECS). Two working groups were established to further refine these goals.

The objectives of the Ocean *Monitoring & Modeling (OMM) Working Group* are
(1) to identify regional hotspots or other high-priority areas of mutual concern,
(2) to design and execute process studies via coordinated cruises in areas of mutual concern, &
(3) to identify and fill infrastructure gaps that hinder geochemical understanding of OA.

The objectives of the *Research, Experimentation & Modeling (REM) Working Group* are
(1) to identify the vulnerability of mutually-exploited or ecologically important marine species,
(2) to determine the appropriate actions necessary for protecting species of concern, &
(3) to identify and fill infrastructure gaps that hinder biological understanding of OA.

The OMM Working Group has made substantial progress in improving monitoring and analysis practices, as well as identifying key areas of joint concern for consistent annual monitoring. The REM Working Group has also contributed significantly to advancing experimental design and the production of scientific information regarding the impacts of ocean acidification on species of mutual concern. Improved collaboration has proven to benefit both countries through increased capacity and shared knowledge, conducting joint monitoring activities and research projects, developing synthesis products

(e.g. overlapping model domains, species vulnerability assessments, and publications) and linking to other OA initiatives (e.g. GOA-ON North American Hub).

This partnership is ongoing, building from individual country and bilateral research to support federal science OA information needs. Since 2020, DFO and NOAA have each committed to allocating financial resources and technical expertise to this partnership to help support bilateral research and monitoring projects, involving Working Group members from both countries, to advance the priorities and goals of the Collaboration.

UPCOMING PRIORITY & RESEARCH AREAS

The DFO-NOAA OA Coordination Committee may award up to five projects, depending on the proposed budgets. However, the Committee will remain flexible and fund the proposals that best fit the scope of this initiative, including those that combine elements of both working groups.

For this upcoming fiscal year (DFO FY: April 2027-March 2028; NOAA FY: October 2026-September 2027) the Collaboration is emphasizing proposals and projects that support and/or contribute to the planned **North American Ocean Acidification Synthesis Report**, led by the GOA-ON North American Hub**.** The intent is to support the development of a synthesis product that could be used by management, decision-makers, researchers, and the general public to increase understanding of the impact of OA across the continent, while highlighting international scientific collaborations, regional differences in OA processes, vulnerabilities, societal impacts, and adaptation responses. Such contributions may include synthesis activities, analyses, information products, communications materials, and knowledge exchange activities or other outputs that support the development of the report. *Note: The Synthesis Report is a trinational initiative. With this specific funding opportunity, DFO and NOAA can only provide domestic investments within their respective countries.*

The Collaboration will also consider proposals that address DFO-NOAA OA topics of relevance beyond the Synthesis Report. Research Areas include the following:

- *Projects that align with the NOAA OAP Research Plan 2020-2029, the priorities of DFO's Aquatic Climate Change Adaptation Services Program, and/or the United Nations Sustainable Development Goal 14.3.*
- *Projects that align with the DFO-NOAA OA Collaboration goals and objectives (including but not limited to those identified below):*
    - ***Measurement standards & validation:** Developing ocean carbon reference materials and conducting lab, sensor, and method intercomparisons to benchmark regional data.*
    - ***Environmental monitoring & modeling:** Analyzing ocean and Great Lakes acidification data to establish water quality thresholds and meet regional monitoring goals.*
    - ***Ecological vulnerability & spatial impact:** Assessing benthic, transboundary, and multi-stressor ecosystem risks across geographical regions.*
    - ***Climate mitigation & mCDR:** Evaluating the ocean acidification impacts of blue carbon ecosystems and marine carbon dioxide removal strategies.*
    - ***Community collaboration:** Advancing Indigenous engagement and local community best practices.*

This award prioritizes initiatives that expand capacity through matched funding, shared field work, and cross-agency knowledge exchange between NOAA and DFO. Successful efforts should advance joint ocean acidification goals while directly supporting bilateral priorities and/or research areas.

Please note, for all travel, you are required to follow the international engagement and travel approval processes in place at your institution

WHO CAN APPLY:

The project team must be bilateral, i.e., have members of the project team on both sides of the border. While proposals are not required to have a Working Group member listed as a PI, collaboration with Working Group members is encouraged; please see list of Working Group members on pages 5-6. While early career participation is encouraged, it is not a requirement for this funding opportunity. If the lead PIs are early career researchers, an associated senior PI must be listed in the proposal to assist with logistical details (e.g. funding transfer, support, etc.).

SIZE AND DURATION OF AWARDS:

The award funds will be available for DFO's fiscal year : April 2027-March 2028 and NOAA's fiscal Year : October 2026 - September 2027. Subject to final appropriations, applicants may request up to $20,000 USD/CAD per project for a one-year period. Applicants should also be aware that NOAA and DFO can only supply funding to PIs within their respective institutions and countries. Therefore, applicants should clearly indicate in their budgets how much of the requested award should be awarded to which institution. NOAA resources associated with this award must be fully obligated by the end of USA FY 2027 (September 30, 2027), either expended at the NOAA facility and/or obligated through a cooperative agreement or contract. Likewise, funds received from DFO must be obligated by the end of CAN FY 2027-28 (March 31, 2028).

FUNDING ELIGIBILITY/EXCLUSIONS:

This funding opportunity is only available to DFO and/or NOAA employees and/or NOAA affiliates (with a NOAA.gov email address) as the lead PI(s). If outside collaborators are included, project PIs are responsible for transferring any funds to the outside partners via subcontracts. If you are requesting DFO funding for a student, please explain how you plan to use the funding to support the student (e.g. hiring through the Federal Student Work Experience Program (FSWEP), a co-op placement, a casual contract, etc.).

REVIEW CRITERIA:

The following criteria will be utilized to review and rank proposals:

1. Is the proposed project bilateral and does it advance transboundary collaboration?
2. Does the proposal have a well-articulated justification, clear objectives, and sound methods?
3. Does the proposal list reasonable metrics for success? What deliverables will be produced from the project?
4. Does the proposal clearly demonstrate how the project addresses the objectives of the working group(s)?
5. Does the proposal clearly demonstrate how the project would benefit / contribute to the goals of the DFO-NOAA OA Collaboration and/or the GOA-ON North American Hub OA Synthesis Report?
6. How well does the proposal incorporate any of the stated priorities and advance partnership goals?

7. Is the proposed budget justifiable and enough to get the work done?

The PIs of selected projects will be requested to attend (either virtually or in-person) the annual DFO-NOAA collaboration meeting to present on their project activities and results. The cohort of fund recipients are encouraged to collaboratively engage via existing communication networks and to share best practices.

TIMELINE:
Submission deadline: January 8, 2027
Review period: Month of January 2027
Awards announced: Early February
Projects start: April 1, 2027
Projects end: March 31, 2028
DFO funding fully obligated: March 31, 2027
NOAA funding fully obligated: September 30, 2027

DELIVERABLES:
Recipients will be required submit/provide:

- Semi-annual updates on progress made towards project milestones/deliverables
- Information on leverage, outreach, etc.
- End of project report, minimum 2 pages, outlining the outcomes of the project
- A presentation at the following year's annual DFO-NOAA OA meeting.

SUBMISSION:
Email all proposals to Jie Yuen Ong (JieYuen.Ong@dfo-mpo.gc.ca) AND Maddie Wood (Madison.Wood@noaa.gov) by 23:59 EDT on January 8, 2027.

QUESTIONS:
Please email any questions to Jie Yuen Ong (JieYuen.Ong@dfo-mpo.gc.ca) AND Maddie Wood (Madison.Wood@noaa.gov).

PROPOSAL GUIDANCE:
All proposals are to follow the template below (see page 8) regarding content and length. All margins are to be 2.5 cm (1 inch) and text font in 12-point.

In addition to the template below, please include a "Milestone and Deliverables Table" (refer to provided template here). It should outline key milestones and deliverables, including important intermediate and final products, and the expected timelines. Milestones should be quantifiable with anticipated dates of completion. Address potential time or operational constraints, especially with regard to field operations. Proposals should have at least one milestone and one deliverable. If selected, this information will be used for project semi-annual progress updates.

WORKING GROUP MEMBERS:

DFO Representatives:

Name	Email	Expertise
Azetsu-Scott, Kumiko	Kumiko.Azetsu-Scott@dfo-mpo.gc.ca	Atlantic: Nearshore, coastal and open ocean biogeochemistry. Observations
Belanger, David	David.Belanger@dfo-mpo.gc.ca	Atlantic: coastal and open ocean biogeochemistry
Capelle, David	David.Capelle@dfo-mpo.gc.ca	Arctic: Nearshore, coastal and open ocean biogeochemistry, greenhouse gas flux. Observations
Christian, James	James.Christian@dfo-mpo.gc.ca	Pacific: Coastal and open ocean biogeochemistry. Numerical models.
Clements, Jeff	Jeffery.Clements@dfo-mpo.gc.ca	Atlantic: Benthic invertebrates. Experimental.
Covert, Paul	Paul.Covert@dfo-mpo.gc.ca	Pacific: Nearshore and coastal biogeochemistry. Observations.
Currie, Warren	Warren.Currie@dfo-mpo.gc.ca	Great Lakes: Lower-trophic food web dynamics. Biophysical modeling.
Maillet, Gary	Gary.Maillet@dfo-mpo.gc.ca	Atlantic: coastal and open ocean biogeochemistry. Observations.
Doka, Susan	Susan.Doka@dfo-mpo.gc.ca	Great Lakes: Fish and habitat science. Modeling.
Gurney-Smith, Helen	Helen.Gurney-Smith@dfo-mpo.gc.ca	Atlantic: Vulnerability and species modeling. Experimental.
Lavoie, Diane	Diane.Lavoie@dfo-mpo.gc.ca	Atlantic: coastal and open ocean biogeochemistry. Numerical Models.
Miller, Lisa	Lisa.Miller@dfo-mpo.gc.ca	Arctic: Coastal and open ocean biogeochemistry. Observations.
Niemi, Andrea	Andrea.Niemi@dfo-mpo.gc.ca	Arctic: Microbial ecology. Heterotrophic carbon cycling. Experimental
Oldford, Greig	Greig.Oldford@dfo-mpo.gc.ca	Pacific: Integrative ecology. Data Analysis. Ecosystem modeling
Pearce, Chris	Chris.Pearce@dfo-mpo.gc.ca	Pacific: Shellfish aquaculture. Experimental
Pucko, Monika	Monika.Pucko@dfo-mpo.gc.ca	Great Lakes: Biogeochemistry, toxins, food-web dynamics. Experimental
Quinn, Brady	Brady.Quinn@dfo-mpo.gc.ca	Atlantic: Fisheries and aquaculture. Larval

		development. Modeling & Experimental.
Small, Daniel	Daniel.Small@dfo-mpo.gc.ca	Atlantic (Quebec): Ecophysiology. Experimental
Steiner, Nadja	Nadja.Steiner@dfo-mpo.gc.ca	Arctic: Coastal and open ocean biogeochemistry. Numerical modeling.

NOAA & NOAA-Affiliate Representatives:

Name	**Email**	**Expertise**
Bjorkstedt, Eric	eric.bjorkstedt@humboldt.edu	Pacific: Experimental and field sampling
Cai, Wei-Jun	wcai@udel.edu	Atlantic (Gulf of Mexico): Coastal and open ocean biogeochemistry. Observations.
Errera, Reagan	reagan.errera@noaa.gov	Great Lakes: Phytoplankton ecology & Harmful Algal Blooms. Observations, Experimental, Modeling.
Gomez, Fabian	Fabian.Gomez@noaa.gov	Atlantic (Gulf of Mexico, South Atlantic, Caribbean Sea): Carbonate system variability. Biogeochemical modeling.
Horodysky, Andrij	andrij.horodysky@noaa.gov	Atlantic: Experimental ecology and ecophysiology
Hunt, Chris	chunt@unh.edu	Atlantic: Gulf of Maine, nearshore, coastal, and estuarine biogeochemistry, Monitoring, Observations, Laboratory measurements
Hurst, Thomas	thomas.hurst@noaa.gov	Arctic (Alaska): Fisheries ecology. Experimental
McElhany, Paul	paul.mcelhany@noaa.gov	Pacific: Species response. Experimental. Ecosystem modeling.
Melrose, Chris	chris.melrose@noaa.gov	Atlantic, Northeast U.S. continental shelf. Hydrographic, biogeochemical and plankton observations.
Meseck, Shannon	shannon.meseck@noaa.gov	Atlantic: Aquaculture. Biogeochemistry. Species response. Experimental.
Pilcher, Darren	darren.j.pilcher@noaa.gov	Pacific: coastal and open ocean biogeochemistry. Numerical models.
Salisbury, Joseph	joe.salisbury@unh.edu	Atlantic: Coastal and open ocean

		biogeochemistry. Observations.
Siedlecki, Samantha	samantha.siedlecki@uconn.edu	Atlantic: Coastal and open ocean biogeochemistry. Numerical Models.

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Project Title: Please give your project a clear, descriptive title.		
Geographic Region: Arctic, Atlantic, Pacific, and/or Great Lakes		
Keywords: List 3-5 keywords that describe your project		
Amount of requested funding: Enter the total cost of the project. Note that NOAA and DFO can only supply funding within their institutions	**USD (from NOAA)**	**CAD (from DFO)**
Principal Investigators (PIs): Please include your name, NOAA/DFO affiliation, email address and a brief description of how this project would benefit / contribute to your career goals/advancement. Add more rows as required.		
Senior PI support: *Applicable only for proposals led by early career researchers* Please provide the name, NOAA/DFO affiliation, and email address of an associated senior PI (member of NOAA DFO WG) to assist with logistical details		
Project Description (300 words max): Provide a brief overview of the project outlining how it is aligned with the objectives of the OMM or REM Working Group, or the DFO-NOAA OA Collaboration as a whole.		

Project Objectives (200 words max):
Please provide clear and specific objectives for your project.

Methodology (300 words max):
Outline the methods you will use to achieve the objective(s) of the project. Please be explicit about how this project leverages other NOAA or DFO investments.

Workplan and Timeline (200 words max):
Please use bullets to provide a clear and concise plan and timeline for accomplishing your proposed work. This may include activities related to your proposal but occur shortly before or after the funding period. However, be sure to identify which activities will and will not be covered by this funding.

Deliverables (200 words max): Briefly describe the main project deliverables expected. These may include, but are not limited to, oceanographic and biological data, model outputs, knowledge and skill transfer between American and Canadian researchers, joint workshops, publications, and outreach and education materials. These deliverables should also be listed in your Milestones & Deliverables chart (linked here).
Budget: Please provide a budget and a brief justification for each major expense category (e.g. personnel, materials/supplies, travel, publishing, other direct costs, and indirect costs). Explicitly note which institution, DFO or NOAA, should supply the funds for each budget item and report the value of each item in either CAD or USD, respectively. Additionally, please note the total amount requested from each institution. If you are requesting funding from DFO to support an ECS/student, please explain how you plan to get the funds to them.

Funding Requirements	**USD** (from NOAA)	**CAN** (from DFO)	**Justification**
Student Salary			
Contract(s)			
Materials & Supplies			
Equipment			
IT costs			
Publication / printing			

Translation expenses			
Travel			
Other			
Total Ask			
Other sources of funding:			
1. 2.			
References Cited: Provide a list of citations referenced elsewhere in your proposal.			