

Massachusetts Sea Grant Graduate Research Fellowship

The purpose of the Massachusetts Sea Grant Graduate Research Fellowship is to support exceptional prospective graduate students who are engaged in coastal and marine research that furthers the goals of the Woods Hole Sea Grant and Massachusetts Institute of Technology Sea Grant programs. The Fellowship is geared towards providing funding and support for students who have not yet matriculated into a graduate program, but are applying and intend to enroll in a thesis-granting graduate program in Massachusetts during Fall 2022. The focus of this Fellowship is both to support cutting-edge research and the professional growth of the student through mentorship, professional development training, participation in conferences in their field, and more.

It is anticipated that two (2) two-year Graduate Student Fellowships will be awarded, with a maximum Sea Grant support of \$40,000/year for a total of \$80,000 for stipend and tuition costs for each Fellow over the two year period. **Fellowships will require a match of \$1 of non-federal funds for every \$2 of federal Sea Grant funds requested.** Awarding of this Fellowship is dependent on Federal appropriations and funding availability.

Once awarded, Fellows will be eligible to apply for up to \$2,000 in additional support for costs associated with professional development such as conference travel or attendance fees, trainings, and/or workshops.

Fellowship period:

September 1, 2022–August 31, 2024

Fellowship applications must be received by:

4:30 pm Eastern Time, Friday, October 1, 2021
Application instructions can be found on page 5

Other important dates and deadlines:

General informational webinars:

- Wednesday, August 25, 2021 at 9:00am Eastern Time. Webinar will be held via Zoom. [Click here to register.](#)
- Thursday, September 9, 2021 at 12:00pm Eastern Time. Webinar will be held via Zoom. [Click here to register.](#)

Office Hours for Application Assistance:

- Monday, September 13, 2021 from 2:00pm-4:00pm Eastern Time. [Click here to register.](#)
- Tuesday, September 21, 2021 from 11:00am-1:00pm Eastern Time. [Click here to register.](#)
- Monday, September 27, 2021 from 10:00am-12:00pm Eastern Time. [Click here to register.](#)

August 3, 2021: Release Massachusetts Sea Grant Graduate Research Fellowship RFP

Friday, October 1, 2021: Proposals due to Woods Hole Sea Grant office by 4:30 p.m. Please submit the Fellowship application in pdf format to seagrant-research@whoi.edu. Late applications will be returned without review.

Applicants will be notified in early January of Fellowship review decisions.

Early January, 2022 - March 15, 2022: Awardees will be required to submit additional paperwork to WHSG/MITSG upon acceptance. Refer to the Post-Notification Information Document for details.

March 15, 2022: Awardees must accept or decline Fellowship awards by March 15th, 2022. Acceptance is contingent on the awardee and advisor first obtaining cost share commitments from their institution.

In the event that an awardee is unable to accept the fellowship, deadlines for alternate awardees and secondary alternate awardees can be found in the Post-Notification Information Document.

September 1, 2022: Fellowship begins

Should the awardees, alternate awardees, or secondary alternate awardees run into challenges with submitting this additional documentation within this timeframe, please reach out to Jennie Rheuban (Research Coordinator, WHSG) as early as possible via seagrant-research@whoi.edu to seek an extension.

Eligibility: Eligible applicants include students that a) are currently enrolled in an undergraduate or joint bachelor's/master's program, or b) are not currently enrolled in any graduate program and plan to attend a graduate program in Fall 2022 in Massachusetts. Applicants do not need to reside in Massachusetts and may be either US citizens or international students. The applicant's undergraduate or previous graduate degree must be from an accredited institution of higher education in the United States or U.S. territories. Applicants must propose to enroll in an accredited thesis-granting masters or doctoral program in Massachusetts and the research undertaken by the students must address issues faced by the United States. For international applicants, it is the responsibility of the student and Massachusetts-based Institution to obtain all the necessary visas and documentation to study in the United States.

Applicants enrolling in non-thesis-granting master's programs are ineligible. Applicants are eligible to submit only one application, must be enrolled in a graduate program in Massachusetts no later than Fall 2022, and must be enrolled throughout the Fellowship. An individual may not accept the Massachusetts Sea Grant Graduate Research Fellowship if the individual accepts or is supported by a **federal** graduate fellowship. However, supplementing the Massachusetts Sea Grant Graduate Research Fellowship with funds from research contracts is allowed.

Contact information: Questions should be directed to Jennie Rheuban (Research Coordinator, WHSG) via seagrant-research@whoi.edu.

Introduction

Woods Hole Sea Grant (WHSG) and Massachusetts Institute of Technology Sea Grant (MITSG) are pleased to jointly request applications for two (2) two-year Fellowships from prospective

graduate students proposing to attend an accredited thesis-granting masters or doctoral degree program in the Commonwealth of Massachusetts.

WHSG and MITSG are part of the National Sea Grant College Program (NSGCP) of the National Oceanic and Atmospheric Administration (NOAA), a network of 34 individual programs located in each of the coastal and Great Lakes states. For this 2022-2024 Graduate Research Fellowship competition, WHSG and MITSG jointly seek applicants interested in pursuing a marine- or coastal-processes focused degree that falls under one or more of the NSGCP research theme areas (i.e., Healthy Coastal Ecosystems, Sustainable Fisheries and Aquaculture, Resilient Communities and Economies, and/or Environmental Literacy and Workforce Development). For more details on the focus areas, please see [WHSG's 2018-2023 Strategic Plan](#) and/or [MITSG's 2018-2023 Strategic Plan](#).

The purpose of the Massachusetts Sea Grant Graduate Research Fellowship is to support exceptional prospective graduate students who are engaged in research that furthers the goals of the WHSG and MITSG programs. The Fellowship provides funding and support for students who have not yet matriculated into a graduate program, but are applying and intend to enroll in a thesis-granting graduate program in Massachusetts during Fall 2022. The focus of this Fellowship is both to support cutting-edge research and professional growth of the applicant through mentorship, professional development training, participation in conferences in their field, and more. Fellows will hone their communication, collaboration, project management, research, and other critical skills needed to be effective in their field.

Massachusetts Sea Grant Graduate Research Fellows will pursue a course of study that will fill information gaps or provide innovative solutions to pressing coastal issues in Massachusetts that are important to coastal and marine resources in a broad range of fields (e.g., natural or social sciences, engineering and design, policy and legal analysis, architecture, business, education, economics, etc.). Research undertaken by Fellows is expected to align with WHSG's and MITSG's 2018-2023 Strategic Plans.

In addition to their primary faculty advisor, Fellows will be expected to work with a Professional Development Mentor who will help translate research results to coastal and marine communities through outreach and engagement. Through these interactions, Fellows will ensure their research results are useful to and used by coastal communities and the general public, and gain access to experienced professionals who can provide career advice. WHSG and MITSG will assist the Fellows in identifying Professional Development Mentors.

Diversity, Equity and Inclusion Priority

WHSG and MITSG are committed to building inclusive research, extension, communication and education programs that serve people with unique backgrounds, circumstances, needs, perspectives and ways of thinking. As such, we strongly encourage applicants of all ages, races, ethnicities, national origins, gender identities, sexual orientations, disabilities, cultures, religions, citizenship types, marital statuses, education levels, job classifications, veteran status types, and socioeconomic status types to apply for this competitive Fellowship program. We recognize that many of these groups have been historically underrepresented in STEM, and one of the goals of this Fellowship is to bring new and diverse talent into the marine sciences.

Further, WHSG and MITSG encourages applicants to engage with people from underrepresented racial and ethnic groups, individuals with disabilities and individuals from economically or

educationally disadvantaged backgrounds. Applicants should articulate how their research will have broader societal impacts on coastal communities, including people from underrepresented or underserved communities.

Fellowship Responsibilities and Expectations

After notification and acceptance, but prior to being awarded a Fellowship, the applicant must provide additional documentation as outlined below. WHSG and MITSG staff will be available to help the Fellow with any of these additional documents.

Provide Additional Documentation: Provide a cost-share authorization letter from their graduate institution, a Fellowship budget and budget justification, a faculty advisor letter of commitment, and a letter of acceptance from their institution. The Fellowship will not be awarded until these items have been received. These items are further explained in the Post-Notification Information document.

As a Massachusetts Sea Grant Graduate Research Fellow, awardees will be expected to:

Engage in Hypothesis-Driven Research: Research must be coastal- or marine-related and in keeping with WHSG's and MITSG's 2018-2023 strategic plans and focus areas. The strategic plans can be found online.

Share Research Results: A key focus of all Sea Grant programs is public outreach and community engagement. As part of their research, Fellows will be expected to share their results with relevant communities, individuals, and/or the general public in partnership with their Sea Grant Liaisons and a Professional Development Mentor (see below).

Work with WHSG and MITSG Liaisons: Fellows will be paired with one staff member at both WHSG and MITSG who will be their two Sea Grant Liaisons. Fellows will be encouraged to maintain an informal line of communication with the staff members. Liaisons can help in identifying and contacting Professional Development Mentors as well as provide ideas for communities, individuals and organizations that will benefit from Fellowship outcomes. Fellows will be expected to update Liaisons at least every 6 months throughout their Fellowship.

Find and Collaborate with a Professional Development Mentor (by end of Year 1, after the award has been made): A Professional Development Mentor outside of the Fellow's graduate institution can be a critical asset in career development. Fellows should identify, reach out to, and begin a collaboration with a Professional Development Mentor by the end of Year 1. The Professional Development Mentor could work for a management, non-profit, academic, or other organization that is relevant to the goals of the Fellow's graduate research. Once identified, the Fellow and their Professional Development Mentor should design a mentorship and outreach plan that details the scope and aspirations of the Fellow-mentor relationship, and outlines outreach activities associated with the research. The faculty advisor(s) as well as Liaisons can help identify a Mentor and aid the Fellow and their Mentor in developing a mentorship and outreach plan. This plan should be signed by both the Fellow and the Professional Development Mentor and emailed to seagrant-research@whoi.edu no later than August 31, 2023. For additional information, please see the [Guidance on Fellow-Mentor Relationships](#).

Work with WHSG's and MITSG's Communications Staff: Fellows will also assist WHSG's and MITSG's communication staffs' efforts to publicize their research and Fellowship activities.

Expected activities include assisting with newsletter articles, social media posts, or press releases related to the funded research, or any other communications products.

Attend WHSG and MITSG Events: Fellows will be expected to participate in annual meetings for the duration of the Fellowship program, along with other researchers supported through WHSG and/or MITSG's research programs and the Sea Grant staff, to summarize findings to date. Fellows will present a short 10-12 minute presentation introducing their proposed research or preliminary findings and have a chance to learn about other research undertaken and supported by WHSG and MITSG.

Have Access to Additional Professional Development Funds: Once awarded, Fellows will be eligible to apply for up to \$2,000 in additional support for costs associated with professional development such as conference travel or attendance fees, trainings, and/or workshops. Fellows can apply for these funds through [WHSG's Program Development Funding Opportunity](#).

Fellowship Application Preparation Instructions

WHSG and MITSG staff will be holding office hours to provide potential applicants with opportunities to ask any questions that arise. Office Hours will be held via Zoom. If you would like to attend an Office Hours session, please register using one of Zoom links below.

- Monday, September 13, 2021 from 2:00pm-4:00pm Eastern Time. [Click here to register.](#)
- Tuesday, September 21, 2021 from 11:00am-1:00pm Eastern Time. [Click here to register.](#)
- Monday, September 27, 2021 from 10:00am-12:00pm Eastern Time. [Click here to register.](#)

It is strongly suggested the applicant contact their proposed graduate faculty advisor(s) to work together on all aspects of preparing the application package.

Applications that do not adhere to the guidelines below may be returned without further consideration by the program.

Application Checklist:

To be submitted as a single pdf in the following order:

- 1. Cover Page (1 page maximum)**
- 2. Personal and Career Goals Statement (2 pages maximum)**
- 3. CV/Resume (2 pages maximum)**
- 4. Research Plan (2 pages maximum)**
- 5. Undergraduate and Graduate (if applicable) Transcripts**
- 6. Two Letters of Recommendation - to be submitted separately via email to seagrant-research@whoi.edu**

REQUIRED APPLICATION ELEMENTS

All documents should be single spaced, Times New Roman, and no smaller than 11 point font, with one-inch margins all around.

- 1 Cover page (1 page maximum)** - The cover page must list (a cover page template can be found [here](#)):
 - a. Application Title
 - b. Contact information including name, current affiliation or school, and email address.
 - c. Proposed graduate program and prospective faculty advisor(s) - if you are applying to multiple programs in Massachusetts, please list all of the programs and prospective faculty advisors.

- 2 Personal and Career Goals Statement (2 pages maximum)** - The statement should describe your educational and professional growth, goals, and ambitions. Include how these goals relate to broader societal needs in the coastal and marine environment. The statement should emphasize how your past experiences and competencies contribute toward your short (1-5yr) and long-term (>5yr) career goals and in particular, how this Fellowship would help you to achieve those goals. Speak to your leadership potential, communication ability, public outreach interests or experience, and include any pertinent information that provides insights into your past choices and future interests. Describe any barriers or challenges you have had to overcome to get to where you are today in STEM. Include information about activities and professional competencies you hope to achieve over the duration of the Fellowship. This information will form the initial outline of an individualized professional development plan that will be expanded on with your future Professional Development Mentor.

- 3 CV/Resume (2 page maximum)** – Include a brief CV/resume that summarizes your relevant academic, work, and/or outreach experience. An example CV/resume can be found [here](#).

- 4 Research Plan (2 pages maximum)** - The Research Plan should be a brief summary of your research interests and demonstrate your ability to develop a research proposal. The Research Plan should include sufficient detail to showcase your critical thinking skills, your development of hypothesis-driven research questions, methods to address those research questions, and the potential broader societal impacts of your work. Describe the background for your Research Plan and demonstrate how related work, past and present, supports your proposed research. State the specific research question(s) or hypothesis(es) you would address. Briefly discuss your overall approach, including experimental design, feasibility, and the procedures that will be used to achieve the specific aims of your proposed research. State the broader benefits that individuals, organizations, or society in general will attain from your research results and describe how your Research Plan furthers the WHSG’s and/or MITSG’s strategic plans. Briefly describe how you would improve Diversity, Equity, and Inclusion in the marine sciences in your Research Plan if you were to receive this Fellowship. References should be included but are not counted in the two-page limit.

Please note you are not expected to adhere to this Research Plan as the basis for your graduate research, as long as your eventual graduate research addresses the goals in the WHSG and/or MITSG Strategic Plans.

- 5 Undergraduate and Graduate (if applicable) Transcripts** - Unofficial copies of transcripts are acceptable, but must clearly indicate the name of institution, degree program, courses taken, and GPAs. Transcripts should be included in reverse chronological order (i.e., newest

transcripts first). All personal identification numbers (social security, student ID, etc.), personal email addresses, mailing addresses, etc. should be redacted prior to submission.

- 6 Letters of Recommendation (to be submitted separately)** – Two letters of recommendation should be submitted in support of the prospective Fellow. Recommendation letter writers should know the applicant well. It is suggested that one recommender be someone who knows you well from an academic perspective (e.g. your current undergraduate advisor, faculty from a course you took, research mentor, potential future faculty advisor, etc.), and one recommender who might know you from a different perspective (e.g., former employer, mentor from a previous internship or volunteer program, someone you worked with on an outreach or policy project, etc.). It is most important to select recommenders who will write a strong letter for you, but an “outside” perspective helps to demonstrate your breadth and will likely highlight different strengths and experiences.

To maintain confidentiality, letters of recommendation should NOT be submitted with the application package. Recommendation letters **must** be submitted separately via email to seagrant-research@whoi.edu. There is no page limit for letters, but we recommend that letters not exceed two pages and not include attachments. Please address letters to Dr. Matthew Charette, Director, Woods Hole Sea Grant and Dr. Michael Triantafyllou, Director, MIT Sea Grant.

Recommenders are encouraged to consider the applicant’s:

- Academic and professional performance, including record and relevant experience;
- Academic and professional potential for future success, including research and professional activities, and participation on integrated, trans-disciplinary projects;
- Teamwork and leadership skills;
- Ability to identify and understand the *big picture*, and connections among perspectives;
- Interest and competencies in the science-to-management process, technical communication to non-experts, issues of relevance to their professional mentor, and outreach activities
- Responsibility, motivation, integrity, and creativity.
- Observed growth over the time period the recommender has known the applicant

Applicants are strongly encouraged to share and discuss this bulleted list with referees well in advance of the deadline for letters of recommendations.

Note: If your application is selected for funding, you and your graduate program will also be required to submit a cost share authorization form, faculty advisor letter of commitment, acceptance letter from the graduate program, a budget, budget justification, and provide details for a 90-2 Project Summary Short Form. See [Post-Notification Information section](#) for more details.

Fellowship Proposal Review and Selection Process

The application solicitation and review process complies with the guidance set forth by the National Sea Grant Office. Selected reviewers are free of conflict of interest, based on the

National Science Foundation (NSF)-style standards for Conflict of Interest with respect to recent co-authorship, collaboration, and other professional relationships. Each reviewer will be required to sign a COI form indicating that they have no conflicts with their assigned applications. Applications will be evaluated by WHSG and MITSG staff for completeness based on the required application elements, and applications that are incomplete may be returned to the applicant without further review.

A panel of external experts will be convened to formally evaluate the full application package. WHSG and MITSG will assemble a review panel composed of coastal and marine science scholars, educators, and/or Fellowship managers, or other relevant experts to review the Fellowship application. Each application will be reviewed by three panelists and the panel will assess the Research Plan's relevancy, the applicant's academic/professional performance, potential for growth, and proposed engagement of communities typically underrepresented in the marine sciences based on the below review criteria. The NOAA Sea Grant program officer for WHSG and MITSG will also attend the panel as an observer.

Relevancy to WHSG and/or MITSG's strategic plans (10%): Relevancy is assessed by a review of the applicant's *Research Plan*. Reviewers will consider whether the proposed Research Plan helps to further achieve the goals and objectives outlined in [WHSG's](#) and [MITSG's](#) 2018-2023 Strategic Plans. Reviewers should focus on whether the proposed Research Plan helps further support the NSGCP Goals under any of the four Strategic Focus Areas of Healthy Coastal Ecosystems, Resilient Communities and Economies, Sustainable Fisheries and Aquaculture, and Environmental Literacy and Workforce Development.

Diversity, Equity and Inclusion (10%): This metric is assessed by a review of the applicant's *Personal and Career Goals Statement* and *Research Plan*. MITSG and WHSG programs are committed to supporting diversity, equity, and inclusion (DEI) by proactively engaging and serving the diverse populations of coastal communities. Reviewers will consider how the applicant proposes to improve DEI in the marine sciences.

Past Academic and Professional Performance (40%): Performance is assessed primarily by review of the applicant's *Personal and Career Goals Statement*, *CV*, *transcripts*, and *letters of recommendations*; applicants are evaluated on their suite of academic/professional accomplishments including GPA, honors, awards, breadth of coursework, publications, presentations, and breadth of relevant professional and extracurricular experiences. Reviewers should consider the career stage of the applicant when evaluating this metric and any challenges they may have faced throughout their academic journey and/or career.

This metric considers the strength of academic and professional performance to date, with a particular focus on academic performance toward recent academic years and coursework relevant to the applicant's major and career interests. A high GPA is important and indicates that the applicant likely is organized and understands their field of study. However, it is also critically important to evaluate the full transcript of the applicant, as lower cumulative GPAs are acceptable if the applicant shows recent improving trends in grades, indicating personal growth throughout their academic career.

Reviewers will also consider the applicant's responsibility, motivation, integrity, creativity, teamwork and leadership skills, experiences at or interests in the science-to-management interface, and with end-user engagement. Applicants can convey this to the review panel through

their extracurricular activities, especially in natural and social sciences, communication, policy and outreach - applicants who have sought out extracurricular opportunities likely are motivated and have experience with time management. Extracurricular activities can include participation in clubs, work experience, research, teaching, volunteer experience, etc., and are all relevant. These activities do not necessarily need to be focused on research or natural sciences.

Academic and Career Potential (40%): Potential is assessed by the applicant's interest in a relevant career path, as well as demonstrated success in past academic and career goals. Potential is assessed primarily by review of the *Personal and Career Goals Statement*, *letters of recommendations*, *CV*, *Research Plan*, and the potential impact on broader societal needs from the applicant's work, future interests and potential.

Reviewers will consider the applicant's critical thinking and research project development skills, evaluated through the ability to develop clear research questions, hypotheses, appropriate methods to address the proposed research questions, and the broader societal impacts of their work. Reviewers will evaluate applicants on their interests and understanding of science-to-management and end-user engagement. Applicants should demonstrate academic, professional, research, and outreach potential (e.g., professional engagement, initiative, participation in previous research and outreach projects); evidence of vision and past professional growth, work ethic, and strong interpersonal and communication skills; and strength and breadth of relevant academic, professional, and extracurricular experiences.

Reviewers will consider the applicant's potential as a collaborative leader, particularly in integrated, trans-disciplinary settings, their ability to see the big picture and connections between different perspectives. Reviewers will apply a holistic perspective – considering the applicant's academic/professional experiences, growth, attributes, competencies, and achievements as a demonstration of future impacts both academically and professionally. The applicant should clearly articulate the benefits derived from this Fellowship and how this Fellowship will help the applicant to reach their short- and long-term career goals.

Selection Criteria

During the review, the panel will provide WHSG and MITSG with a rank order list of applicants based on the scoring criteria outlined above. WHSG's and MITSG's directors, research coordinators, and educators, who may also consult other relevant, non-conflicted WHSG and MITSG staff, will make the final recommendations for awards and secondary awardees based on the application rankings and the initial completeness review, unless Fellows are recommended for funding outside of rank order based on the following selection factors:

- 1) Availability of funding
- 2) Strategic priority
- 3) Diversity of institutions, geography, research topics, and end user groups

These recommendations are submitted by WHSG's and MITSG's directors to the National Sea Grant Office for final approval prior to award notifications.