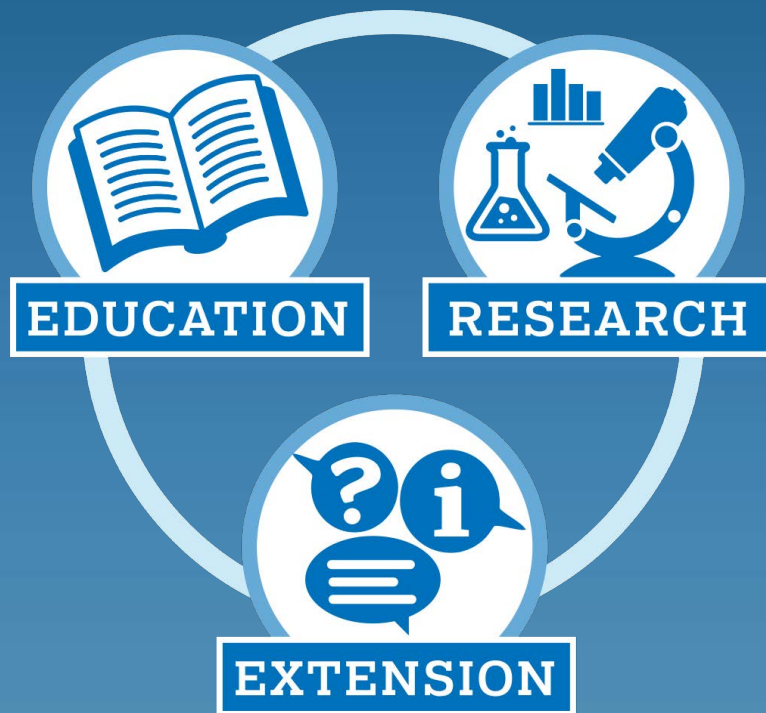


Announcing our 2020 – 2022 Biennial Call for Research Projects & Bringing Together Researchers & Marine Extension Associates




Sea Grant
Maine

at the University of Maine



Marine Science for Maine People

Outline

- ❖ Mission statement and strategic plan
- ❖ RFP and online proposal submission tool
- ❖ Communication and extension
- ❖ Marine Extension Team
- ❖ Q & A



at the University of Maine



Marine Science for Maine People

Mission of Maine Sea Grant

- ❖ **Play a leadership role in marine science and education**
- ❖ **Promote sustainable development, management, and stewardship of marine and coastal resources**
- ❖ **Sponsor diverse research that links the scientific capacity of Maine with the needs of coastal stakeholders**

Maine Sea Grant Strategic Plan

Maine Sea Grant Strategic Plan 2018–2021
**21st Century Marine Science
for Maine People**



Sustainable Fisheries &
Aquaculture



Environment Literacy &
Workforce Development



Preparing for a
Changing Climate



Healthy Coastal
Ecosystems



Resilient Communities &
Economies

Maine Sea Grant Biennial RFP 2020 - 2022

We accept proposals aligned with any
part of our strategic plan

We strongly encourage projects that will advance
Maine's capacity for adaptive coastal resource
management and public policy in response to
climate-driven ecosystem change



Preparing for a
Changing Climate

Funding Announcement

<https://www.seagrants.umaine.edu/funding/research>



Marine Science for Maine People

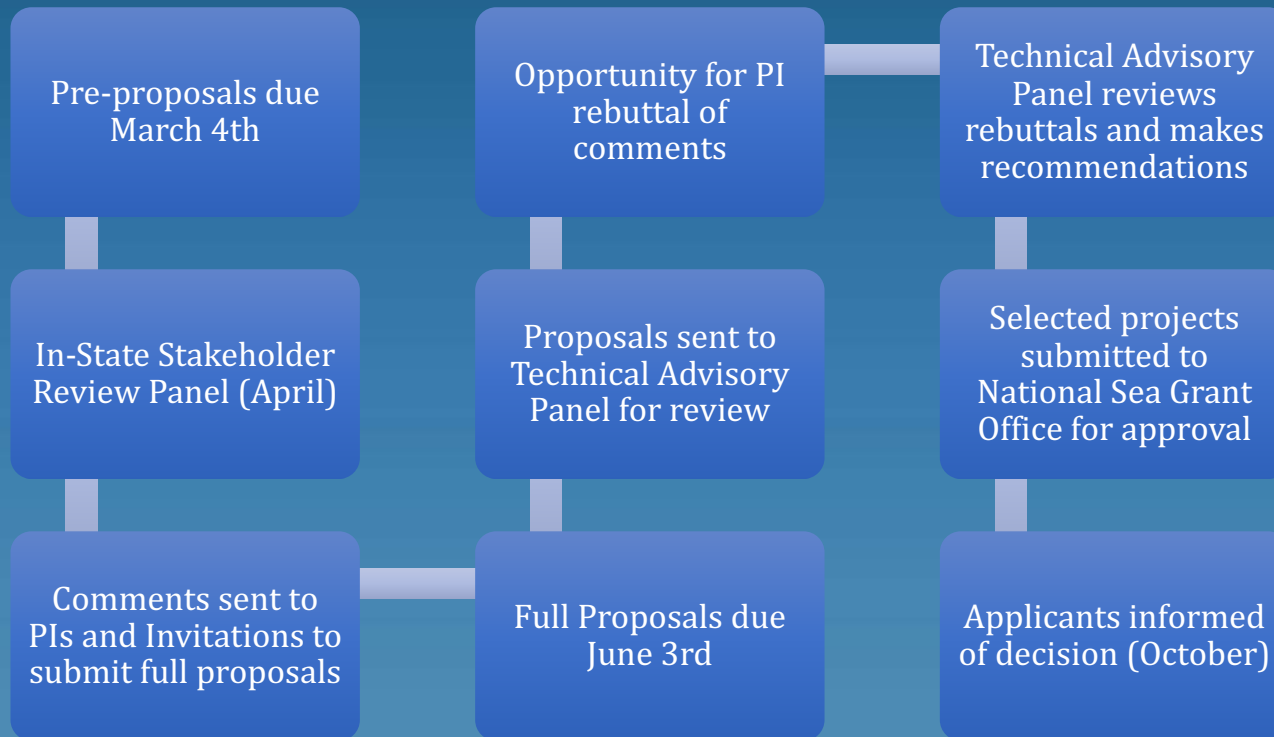
Maine Sea Grant Biennial RFP

Considerations for strong proposals

- ❖ Does the work apply to Maine Sea Grant's strategic focus areas?
- ❖ How will stakeholders benefit from the research?
- ❖ What are the anticipated societal impacts?
- ❖ Does the proposed work complement Maine Sea Grant's ongoing research or extension efforts?
- ❖ Is the outreach strategy well conceived and appropriate?

Maine Sea Grant Biennial RFP

RFP Evaluation and Timeline



Maine Sea Grant Biennial RFP

New Online proposal submission through eSeaGrant:
esg.umaine.edu

Tutorial on proposal submission:

<http://seagrant.umaine.edu/files/funding/2019-eseagrant-instructions.pdf>

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What does Sea Grant do?

Communicate research results and marine topics

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Maine Sea Grant
 September 24, 2018 9:24/18, 7:49 AM

Today at 3 p.m. in Orono
 107 Norman Smith Hall

Rockweed Food Commercial Harvest

UMAINE.EDU
 Talk - Connecting Science with Stakeholder Food Webs & Commercial Harvesting

Marine RESEARCH in focus

Counteracting the Myth of Dry Feet in Dutch Planning for Flood Defense: Lessons for New England

Kristen Grant, Maine Sea Grant and University of Maine Cooperative Extension

Introduction

Roughly one third of the Netherlands falls somewhere in the range of 0 to 22 feet below sea level, an area also home to the majority of the population and economic activity.

Based on these facts, we might think that planning for flooding is part of every Dutch citizen's DNA. Certainly, the Dutch have become experts in the science and art of water management. For example, the Dutch government has developed sophisticated safety standards that account for location-specific flood risks, protection of human life, and property value. Within these standards, current defenses are designed to withstand flooding that has a probability of occurring every one hundred years, or even extreme flooding that occurs every 30,000 years!

Engineered flood protection in combination with other safety measures, such as beach nourishment and dune re-enforcement, have protected the Dutch people so effectively that a "Myth of Dry Feet" has prevailed for generations in the minds of most Dutch. The Myth is the cultural assumption that awareness of flood risk and flood defense are not necessary because the Dutch government holds all responsibility and have won the war against water, guaranteeing the Dutch dry feet!

Climate change projections suggest that the level of certainty the Dutch government has provided in the past can no longer be guaranteed and going forward the Dutch people will need to share in the responsibility for flood protection. Consequently, efforts are underway in the Netherlands to counteract the Myth of Dry Feet and engage the Dutch people in planning for flood defense.

Here in New England, events closer to home such as Superstorm Sandy have raised similar concerns about the need to increase community and individual responsibility for flood defense. "Be prepared to act locally — don't wait for the Fed's" is a quote often heard in New England in the aftermath of sandy. But how to do this?

Understanding the approaches used by the Dutch to confront the Myth of Dry Feet may provide New Englanders with models. How are the Dutch effectively engaged in planning for flood defense? How are communities in New England engaging stakeholders in these same conversations as we become aware of our own vulnerabilities? Are there lessons from the Dutch that we can apply here at home?

UMAINE.EDU
 Talk - Connecting Science with Stakeholder Food Webs & Commercial Harvesting

The Netherlands' latest storm surge barrier was the first component of the extensive system of Dutch flood protection measures called the Delta Works. The barrier was built in 1963, just five years after the devastating flood of 1953 that inspired the Dutch government's efforts to take full responsibility for flood protection in the country. Photo: Kristen Grant

The Nature Conservancy

Marine Research in focus provides updates on marine research for coastal communities. This fact sheet was produced by Maine Sea Grant with programming support provided by University of Maine Cooperative Extension.

Sea-Run Fishes of Maine

Illustrations by Karen Talbot

Maine is home to twelve native species of sea-run, or diadromous, fish that migrate between fresh and salt water. Most are anadromous, being primarily salt water and moving upstream into freshwater to reproduce; eggs hatch in freshwater and juveniles spend some length of time in rivers or lakes before migrating to the sea. One species, the American eel, is catadromous and does the reverse, being mostly in freshwater and migrating to the ocean to spawn. Some—salmon, shad, herring—return to the very same waters where they hatched.

All year long, fish young and old move back and forth between salt and fresh water, converting land and sea to a continual exchange of energy and life. All of these fish provided sustenance to the ancestors of the Wabanaki people, and remain important to their culture today. Many species supported commercial and recreational fisheries in the past; a few continue to be fished while others face extinction risk, making sea-run fish a focus of restoration efforts throughout the Gulf of Maine.

| | | |
|---|--|---|
| <p>Rainbow Smelt (<i>Osmerus mordax</i>)</p> <p>Small steel is a subspecies of Atlantic smelt that shows they spend most of their lives in freshwater, fish and hatch in freshwater and juveniles spend some length of time in rivers or lakes before migrating to the sea. One species, the American eel, is catadromous and does the reverse, being mostly in freshwater and migrating to the ocean to spawn. Some—salmon, shad, herring—return to the very same waters where they hatched.</p> <p>See us in action! Range: Northern Labrador to Nova Scotia</p> | <p>Alewife (<i>Alosa pseudoharengus</i>)</p> <p>The most abundant of the sea-run fish, alewife settles up coastal waters from spring and fall and they sometimes are taken in large numbers by many different subsistence-style fish, mammals, birds, even humans. Migrating water temperatures.</p> <p>See us in action! Range: Florida to Nova Scotia Nova Scotia</p> | <p>Blackback Herring (<i>Clupea harengus</i>)</p> <p>Blackback is critical to the spawning cycle to distinguish from alewife, which are often taken together in the spring. Blackback herring are taken in large numbers by many different subsistence-style fish, mammals, birds, even humans. Migrating water temperatures.</p> <p>See us in action! Range: Florida to Nova Scotia Nova Scotia</p> |
| <p>Atlantic Salmon (<i>Salmo salar</i>)</p> <p>Atlantic salmon, a valuable seafood. Young salmon are raised from eggs in a freshwater hatchery and moved to the pens to grow into adults (4-5 kilograms or 9-11 pounds), which takes about 18 months. Framed with netting, each pen can hold tens of thousands of fish. The harvested fish are processed locally and shipped to restaurants and markets here and abroad.</p> <p>New Brunswick's salmon aquaculture industry began in 1978, and today it is an important part of the regional economy.</p> <p>See us in action! Range: Florida to Nova Scotia Nova Scotia</p> | <p>Eastern Brook Trout (<i>Catlocheilus commersoni</i>)</p> <p>Some brook trout engage into coastal waters to take advantage of the cooler, rich food source and cooler temperatures. "Silver" brook trout from the sea to salt, becoming back up the Merrimack River.</p> <p>See us in action! Range: Florida to Nova Scotia Nova Scotia</p> | <p>Sea Lamprey (<i>Petromyzon marinus</i>)</p> <p>Using their sucker-like mouth, lampreys hold their nests in rocky crevices to protect them from predators. They are a parasitic species that feeds on the blood of other fish.</p> <p>See us in action! Range: Florida to Nova Scotia Nova Scotia</p> |

Marine Aquaculture in Maine:

How the public can participate in the leasing process

Salmon aquaculture

The black circles on the water are floating cages, or net pens, for raising Atlantic salmon, a valuable seafood. Young salmon are raised from eggs in a freshwater hatchery and moved to the pens to grow into adults (4-5 kilograms or 9-11 pounds), which takes about 18 months. Framed with netting, each pen can hold tens of thousands of fish. The harvested fish are processed locally and shipped to restaurants and markets here and abroad.

New Brunswick's salmon aquaculture industry began in 1978, and today it is an important part of the regional economy.

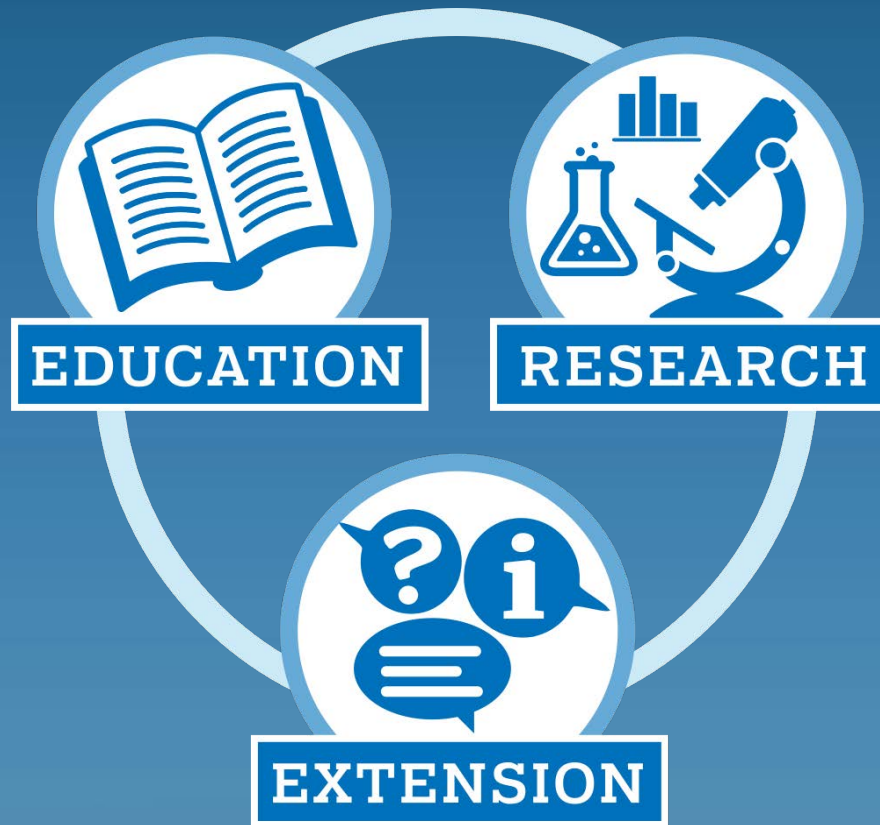
Wid Atlantic salmon (the same species, *Salmo salar*) are endangered in the U.S. and closely managed in Canada. They swim past the island on their spring and fall migrations between the sub-Arctic waters of Greenland and spawning rivers of northeastern North America.

Les cercles noirs que vous voyez dans l'eau sont des cages flottantes, ou parcs en filet, qui servent à l'élevage du saumon atlantique, un produit de la mer très prisé. Une fois les œufs éclos, les jeunes saumons grossissent dans une écloserie d'eau douce avant d'être déplacés dans ces parcs en filet, où ils demeureront pendant environ 18 mois, jusqu'à ce qu'ils atteignent la taille adulte (de 4 à 5 kg). Chaque cage est entourée d'un filet et peut contenir des dizaines de milliers de poissons. Les saumons capturés sont transformés dans une usine locale, puis expédiés à des restaurants et à des marchés au pays et à l'étranger.

L'industrie salmonicole du Nouveau-Brunswick a vu le jour en 1978. Elle occupe aujourd'hui une place importante dans l'économie régionale.

Le saumon atlantique sauvage (la même espèce, *Salmo salar*) a été inscrit sur la liste des espèces en voie de disparition aux États-Unis et fait l'objet d'une gestion stricte au Canada. Au printemps et à l'automne, il passe près de l'île pendant sa migration entre les eaux subarctiques du Groenland et les rivières du Nord-Est de l'Amérique du Nord, où il revient frayer.

Bringing Together Researchers & Marine Extension Associates





OUTREACH

Activities and products that increase understanding of science and research. A one-way communication to deliver information to an audience.

Examples: presentations, fact sheets, websites



PARTICIPATION

Involving stakeholders in decisions that will affect them. A two-way communication to encourage feedback.

Examples: public hearing, citizen committee



ENGAGEMENT

A collaboration involving an exchange of information & resources between partners. A two-way communication that enables stakeholders to directly influence decision making.

Examples: collaborative learning, participatory budgeting

INFORM

CONSULT

INVOLVE

COLLABORATE

EMPOWER

SCALE OF PUBLIC PARTICIPATION

Marine Extension Team (MET)

The map shows the Maine coastline from Wells in the west to Eastport in the east. Red lines connect the following MET members to their locations:

- Kristen Grant** (Wells)
- Gayle Zydlewski** (Augusta)
- Beth Bisson** (Orono)
- Dana Morse** (Waldoboro)
- Jaclyn Robidoux** (Portland)
- Keri Kaczor** (Bar Harbor)
- Esperanza Stancioff** (Bar Harbor)
- Natalie Springuel** (Eastport)
- Chris Bartlett** (Eastport)

Based all along the coast from Wells to Eastport, MET members conduct informal education and extension programs, bringing science to users in the community and relaying their scientific needs back to the University.