Developing usable science to help managers advance climate-ready fisheries

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About the Lenfest Ocean Program

- A philanthropic program focused on supporting useful and usable science via a two-pronged approach:
- 1.co-designing research questions and projects among scientists, managers,
- policymakers, stakeholders and more; and
- 2. sustaining outreach and engagement between different communities throughout the life of projects.

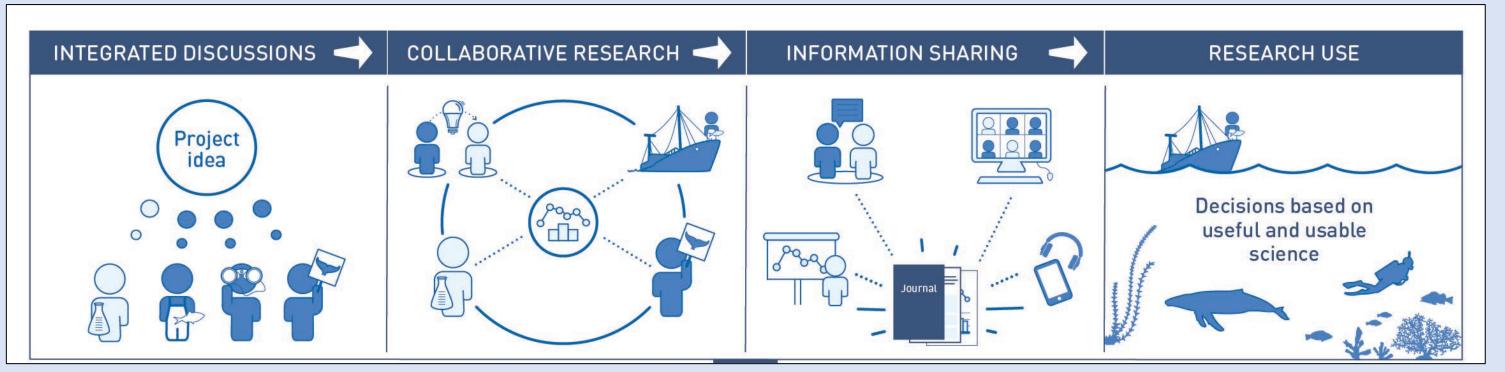


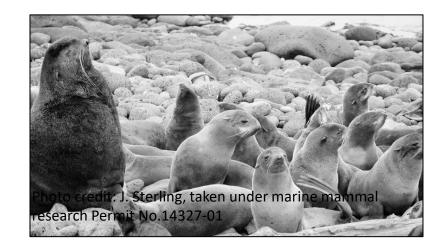
Figure adapted from Hudson et al, 2022, ICES JMS

Examples of Lenfest-funded projects

Climate vulnerability assessments for West Coast fishing communities Leads: Phil Levin and Alison Cullen, UW



Quantifying relationships of northern fur seals, pollock, and climate change in the Bering Sea Lead: Jeremy Sterling, NOAA



Predicting near-term fisheries shifts under climate change Lead: Malin Pinsky, Rutgers University



Our work on climate impacts and adaptation in U.S. fisheries

As oceans warm, many marine species are moving to new locations to keep pace with their preferred habitats. The challenges these climate-driven changes pose for managers, stakeholders, and scientists are cross-cutting, crossdisciplinary, and often contentious. The ability to move beyond this complexity to manage fisheries as species' distributions shift requires information that is tailored to the decision-making context and developed with the input of fisheries managers, stakeholders, and other community leaders. Recognizing such needs, the Lenfest Ocean Program has been funding projects since 2016.

Our goals:

- Help fisheries managers , policymakers, and stakeholders incorporate information about climate change impacts into management plans and processes.
- Normalize conversations between scientists, managers, and stakeholders around challenges and solutions to fostering climate-resilient fisheries.
- Foster learning and dialogue across the U.S. between state and federal managers, and the regional fisheries management councils.
- Build a robust knowledge base upon which the next generation of research questions and projects can be articulated and established.

Convening an Ideas Lab

Over time, the issue of shifting fish stocks emerged as a particularly salient and challenging research need. In 2019, the Program trialed an Ideas Lab, a participatory process for identifying paths forward on pressing research needs.

Over the course of three days, an interdisciplinary group of fisheries managers, scientists, and stakeholders from the U.S. East and West Coasts brainstormed research questions, grappled with critical issues surrounding shifting fish stocks, and formed groups around diverse topics with which they developed initial ideas for research projects. Ultimately, the Program supported four research projects out of these ideas, each addressing different aspects of the challenge of shifting stocks and adding to our overall portfolio.



Insights from funded work

The 12 projects we have supported on this topic range from understanding changing ecosystems and what that means for target species, assessing the vulnerability of fishing communities, applying climate information to managed species, and evaluating different management and policy options to foster adaptation.



Our work going forward

- Foster uptake of data and information from projects in management plans.
- Develop communication products aligned with management and policy processes.

These projects lend themselves to many different insights, including furthering our understanding of how to enhance the usability of project processes and outcomes:

- Maintain and strengthen relationships between scientists, managers, and stakeholders
- Align with management processes
- Integrate social and natural sciences
- Foster dialogue about policies first

• Convene briefings and conversations with managers, stakeholders and more.

- Create a learning network among grantees to share results and insights.
- Organize a symposium to draw high level insights and ideas from across the body of projects.

To hold a useful symposium, we welcome your input on themes, topics of discussion, next generation research needs, and emerging solutions in the dynamic field of climate-resilient fisheries.