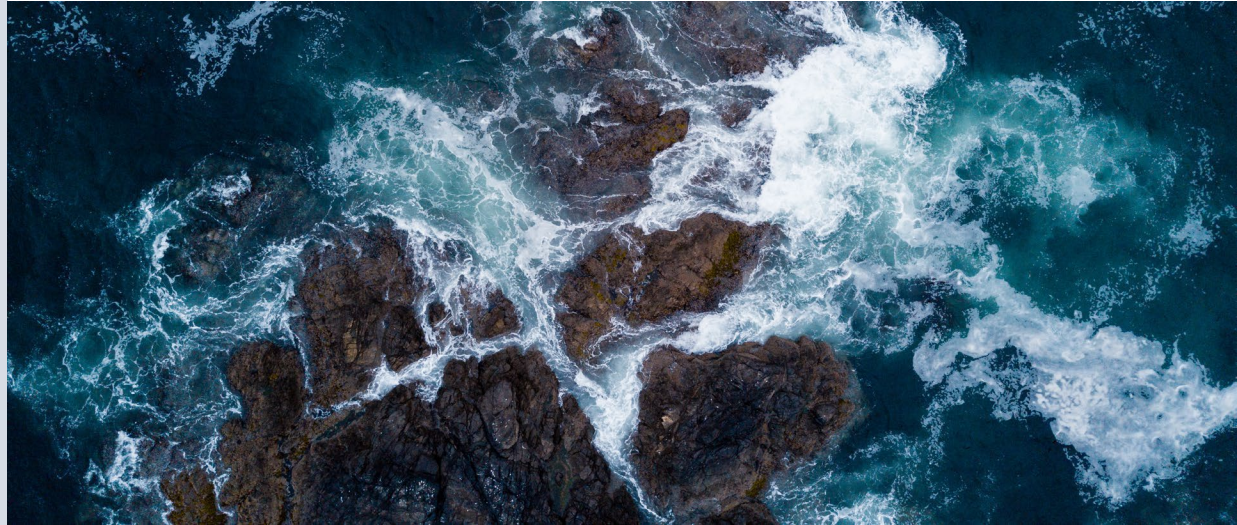




Basin Scale Events and Coastal Impacts

A North Pacific Ocean where interdisciplinary science, collaborative partnerships, and advanced analytics support sustainable fisheries, effective conservation, and ecosystem resilience in a changing climate.



PROJECT COMPONENTS

International Collaboration and Knowledge Exchange

Information Integration and Analytics

Predictive Modeling and Forecasting

Decision Science

Environmental Monitoring and Research



MORE INFORMATION



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Project Overview

The Basin-Scale Events and Coastal Impacts (BECI) project leverages international partnerships to develop interdisciplinary science initiatives that include ecological modelling, decision science, information integration, environmental monitoring and research. Our initiatives will focus on climate-driven changes in the North Pacific, which are affecting ecosystems and necessitating innovative management strategies for both national and transboundary resources.

Our mission is to provide researchers, resource managers, and policymakers with comprehensive, actionable information and tools to support climate-informed decision-making.

Major Initiatives

North Pacific Ocean Marine Ecosystem Model Ensemble (NOMEME):

- Assess biological and economic impacts of climate-driven changes to future marine resources, particularly for transboundary species and common fishery resources.
- Develop marine ecosystem model ensembles at multiple scales to inform regional fisheries management under climate change across the Northeast Pacific, and outline protocol to expand to the Northwest Pacific.

North Pacific Ocean Integrated Information System (NPO IIS):

- A federated data system framework for integrating diverse environmental, climate, and fisheries data.
- Improve accessibility, enabling more efficient analytics, synthesis, and predictions of climate change impacts.
- Support regional and large-scale ecosystem status assessment and resource management.

Key Objectives

- Coordinate international efforts to assess climate-driven impacts on transboundary and common fishery resources across the North Pacific
- Enhance integration and advanced analytics of North Pacific ocean data to support synthesized insights
- Improve predictions of climate-driven changes at regional and basin scales
- Support sustainable resource management, protect marine biodiversity, and enhance ecosystem resilience

**Case studies will initially focus on Pacific salmon, however halibut, forage fish and tuna will be included.*



CONTACTS

Kathryn Berry
Science Director
Kathryn.Berry@pices.int