



Strategic Plan

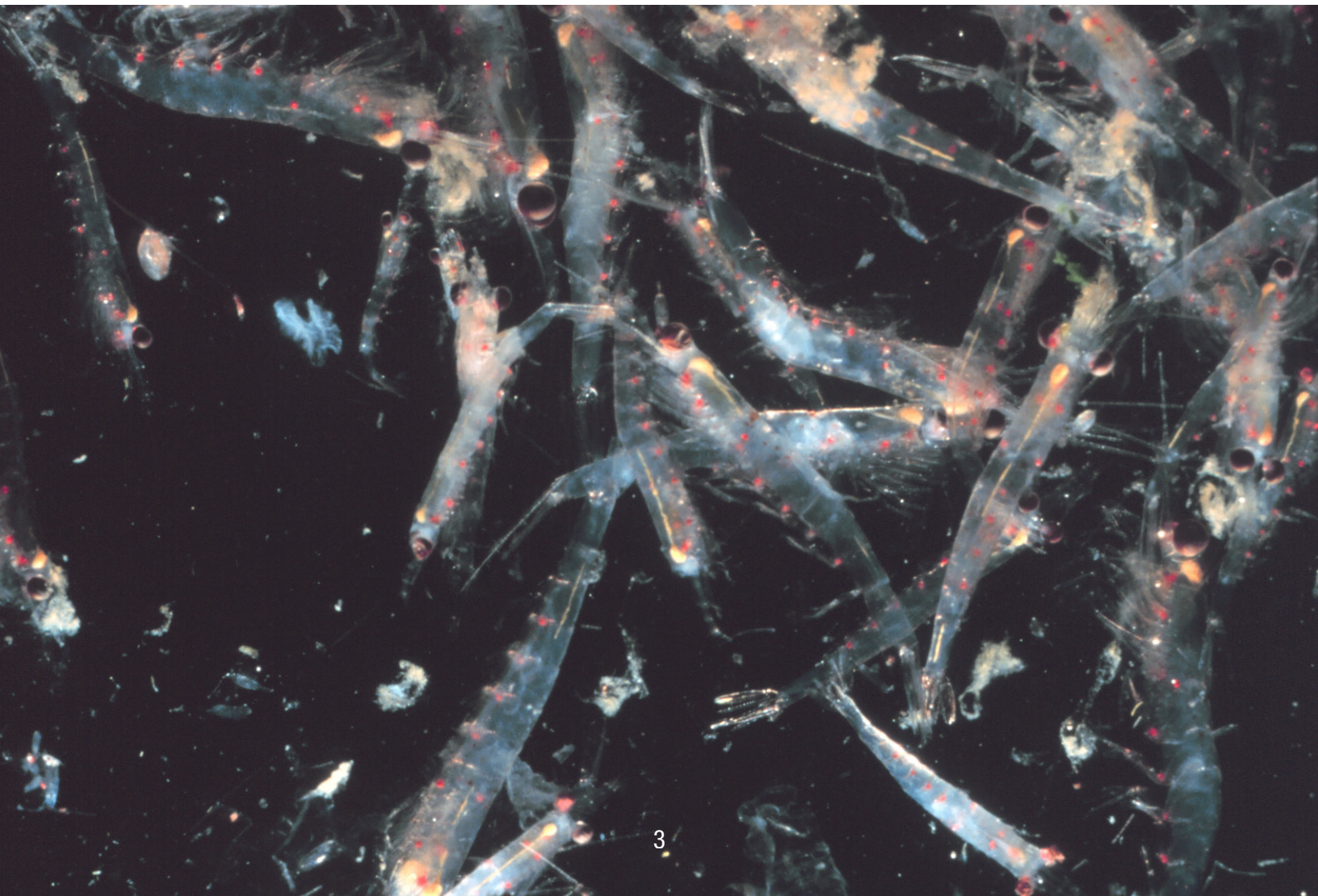
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The North Pacific Marine Science Organization (PICES) engages scientists in trans-disciplinary multi-national collaborations to further our collective understanding of the North Pacific's natural systems and enhance ecological and social resilience of our coasts and oceans.



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PICES AT 25 YEARS

The founders of the North Pacific Marine Science Organization (PICES) saw the vastness of the North Pacific Ocean not as something that separates us, but rather as a feature that unites us. They knew that to unravel the inner workings of the North Pacific, PICES member countries would need to work together. In 2016 we celebrate 25 years of successful international cooperation that has led to dramatic advances in our understanding of the North Pacific's natural and socioeconomic systems and has provided tools and knowledge to inform solutions to current and future problems. Dedicated and tireless efforts of countless talented scientists from PICES member countries have enabled us to understand basin-scale phenomena that were unknown 25 years ago. We did this by coordinating integrated research from the physical and biological foundations of the system, i.e., biogeochemistry and phytoplankton production, to the dynamics of highest trophic levels including fisheries and human communities.

We now embark on the coming decades by building on these foundational achievements.

Looking forward our challenges include basin- and regional-scale issues such as coastal ecosystem stressors (e.g., eutrophication, hypoxia, pollution, ocean acidification), loss of or changes in marine biodiversity, and changing productivity and species distributions in response to climate change. Challenges remain in developing outlooks or forecasts of future ocean ecosystem conditions and examining climate change impacts on ocean ecosystems and human society. Our work will need to refine observations, improve understanding of mechanisms of change, and continuously improve predictions of status and trends in North Pacific ecosystems. Forecasting the effects of natural and anthropogenic change, especially climate change, will inform adaptation strategies of member countries based on the ecological, societal, and economic resilience of our coasts and oceans. Increasing resilience is a key societal challenge and will only be possible with greater scientific knowledge of the North Pacific and multi-national science driven collaborations like those made possible by PICES.

OUR VISION

To address the basin- and regional-scale issues anticipated in the coming decades, and to build on the accomplishments and strength of PICES today:

- We will be comprehensive in our coverage of North Pacific marine ecosystems.
- We will foster and encourage the blending of government and academic scientists from diverse scientific discipline and all member countries.
- We will encourage innovation by fostering rich scientific, technical, and cultural diversity.
- We will be a leading contributor to global marine science and sought as a valued collaborator to solve current and future management issues as they emerge.
- We aspire to be recognized as the premier organization for current research and understanding of North Pacific marine ecosystems.

Vision Statement

To engage scientists in trans-disciplinary multi-national collaborations to further our collective understanding of the North Pacific's natural systems and enhance ecological and social resilience of our coasts and oceans.

MISSION

PICES promotes and coordinates marine research to advance scientific knowledge through the collection and exchange of information and data on the North Pacific Ocean and ecosystems by conducting research on the status and trends of the ocean environment and its interactions with human activities and atmospheric processes. PICES coordinates science to assess the future state of ecosystems as influenced by climate variability and change and human activities.

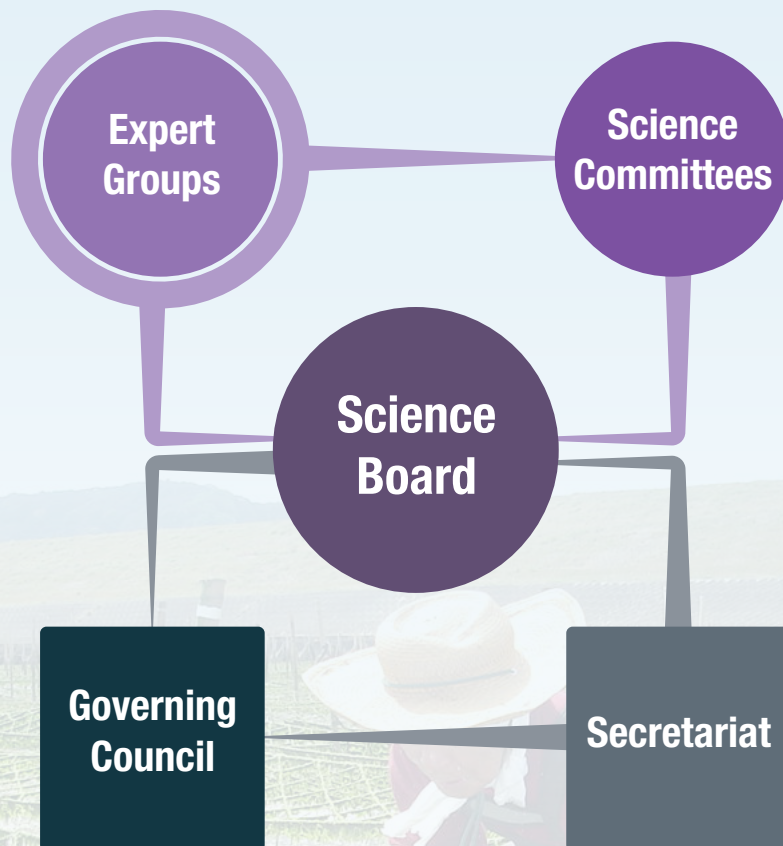
How We Do It

PICES

- Provides vision and leadership on scientific issues and identifies research priorities and appropriate approaches for their solution;
- Plans, coordinates, and implements integrated, interdisciplinary research programs and related activities to be undertaken through the national efforts of the member countries;
- Promotes the collection and exchange of data and information related to marine scientific research;
- Assesses ecosystem status and trends and projects future changes;
- Synthesizes scientific information and makes it available to a broad user community and the public;
- Responds to requests from the member countries and other organizations to provide advice on scientific issues;
- Develops capacity within the scientific communities of the member countries; and
- Fosters partnerships with other organizations and programs that share a common interest.

STRATEGY

To implement this mission and vision, PICES has developed a strategy to advance and apply scientific knowledge through a set of six specific goals.



PICES is a multi-national and trans-disciplinary intergovernmental organization that advances scientific knowledge on the North Pacific Ocean, through its Governing Council and Science Board. PICES synthesizes and disseminates knowledge and designs multi-national research programs that respond to identified needs.

ADVANCE SCIENTIFIC KNOWLEDGE

Goal 1: Foster collaboration among scientists within PICES and with other multinational organizations

Collaboration, coordination, and communication lies at the heart of creating scientific knowledge and using it effectively. PICES facilitates multi-national collaborative networks of scientific organizations and programs that have shared goals by carrying out joint activities and exchanges. PICES also provides venues, organizes activities and develops procedures that facilitate the formation of new collaborations and maintenance of existing productive partnerships.

Goal 2: Understand the status and trends, vulnerability and resilience, of marine ecosystems

PICES periodically assesses the status and trends in North Pacific marine ecosystems and improves assessment of the vulnerability and resilience of ecosystems to pressures from climate and human activities. Scientific activities of PICES are dedicated to understanding and quantifying the physical, chemical, and biological processes of North Pacific ecosystems, which underlie these assessment capabilities.

Goal 3: Understand and quantify how marine ecosystems respond to natural forcing and human activities

The North Pacific is dynamic and produces surprising climatic and biological events. PICES is prepared to respond to such events (e.g., El Nino/La Nina, Pacific Decadal Oscillation) and adapt its research strategy to gain insights from regional and global events. Natural processes, such as climate variability and extreme weather, also affect people and where they live, and in turn human activities impact marine ecosystems. PICES improves our understanding of how climate variability and change, catastrophic events, and anthropogenic stressors impact coastal and offshore regions.



Goal 4: Advance methods and tools

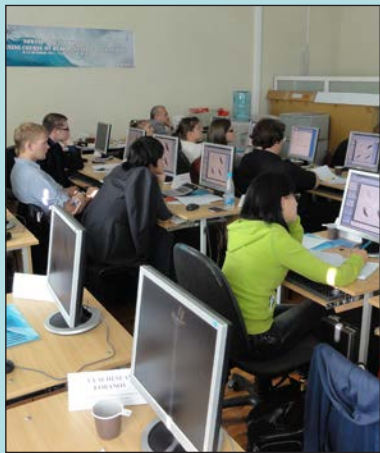
Marine ecosystem predictability associated with climate-driven processes is the foundation for providing improved advice for science-driven ecosystem based management. PICES builds on the knowledge of the mechanisms of Pacific climate, regional modeling advances, and ecosystem indicators development to improve climate and ecosystem predictions focusing on seasonal to decadal predictions and to identify and quantify the prediction skill.

Goal 5: Provide relevant scientific information pertinent to North Pacific ecosystems that is timely and broadly accessible

PICES provides periodic products on the current and future state of North Pacific ecosystems, develops reports addressing critical and emerging issues and communicates the results of its scientific activities. PICES science is disseminated broadly, through high quality publications, the PICES web page and other electronic media, and through production of outreach materials. PICES engages user communities from the early stage of product development through to dissemination of the final product to increase their effectiveness.

Goal 6: Engage with early career scientists to sustain a vibrant and cutting edge PICES scientific community

PICES actively encourages the involvement of young scientists in PICES activities and supports opportunities to engage early- and mid-career scientists from other international organizations and non-member countries to foster collaboration. Cooperative programs that are developed by PICES also facilitate capacity building and make it possible for scientists and institutions from all member countries to benefit from the exchange of information and methods and provide education and training opportunities.







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