



BASIN-SCALE EVENTS & COASTAL IMPACTS

BUILDING THE NORTH PACIFIC OCEAN KNOWLEDGE NETWORK



Fish don't have borders and neither does BECI



A Knowledge Network to Integrate North Pacific Information

The **Basin-Scale Events & Coastal Impacts Project (BECI)** is developing the **North Pacific Ocean Knowledge Network**. This interactive platform will support climate-informed decision-making across the North Pacific, with an emphasis on transboundary species.

Why a Knowledge Network? Climate change is reshaping North Pacific ecosystems faster than management systems can respond. Marine heatwaves have cost fisheries hundreds of millions of dollars, while species are shifting across borders faster than management can coordinate. Critical information exists across the region but remains scattered, limiting our ability to detect regional and basin-wide patterns, coordinate across borders, and adapt proactively to rapid change.

The Knowledge Network will:

Monitor changing conditions through integrated ocean and fisheries information showing historical trends, current status, and future outlooks

Compare cross-regional ecosystem conditions, species trends, and management approaches

Connect users with experts and tools through searchable directories and curated catalogues of resources



Our Approach: Federated + Centralized + Interoperable

The network is being designed as a **hybrid knowledge system**:

- **Federated discovery:** Making scattered information discoverable while respecting ownership
- **Strategic synthesis:** Creating new synthesis products for cross-regional comparisons and assessments, with data sharing agreements when primary data is required
- **Interoperable and AI-enhanced:** Using international data standards and machine learning to connect regional systems, automate content discovery, and help users find relevant insights



Network Tools & Products

The network will integrate information across five core themes: **Ocean Conditions | Fish Dynamics | Ecosystem Status | Human Dimensions | Management & Conservation Approaches**

Explore changing conditions through **interactive maps** • Compare trends across regions with **dynamic dashboards** • Discover tools and research via **searchable catalogues** • Access synthesized insights through **comparative reports** • Connect with experts via **collaboration platforms**



Join Us in Building Climate Resilience

Co-developed by **PICES** and **NPAFC** with **UN Decade of Ocean Science** endorsement, BECI unites scientists, managers, and partners across the North Pacific.

Get involved and stay connected: Contact us at beci@pices.int or visit www.beci.info for project updates.



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