Monday July 14ᵗʰ Afternoon Break Side Event
Basin-scale Events and Coastal Impacts (BECI) Project

Presented by Dr. Kathryn Berry
BECI Science Director

I am pleased to present the Basin-scale Events & Coastal Impacts (BECI) project, an innovative ocean knowledge network initiative that addresses the urgent need for coordinated climate and marine ecosystem information across the North Pacific. As climate change drives rapid transformations in our shared ocean—with marine heatwaves causing hundreds of millions in fisheries losses—the fragmented nature of existing research and information represents a critical barrier to timely adaptive management and conservation efforts. Despite substantial research capabilities across the region, critical information often remains scattered across institutions, countries, and databases, making it difficult for decision-makers to access what they need when they need it.

To address this challenge, BECI aims to create the first comprehensive, AI-enhanced North Pacific Ocean Knowledge Network that will organize and synthesize existing information across six key information categories: ocean state data, migratory fish information, ecosystem health and biodiversity indicators, dynamic management tools, climate-adaptive management strategies, and socioeconomic information. We are going to use AI to enhance data discovery and integration across diverse sources, while our hybrid federated approach will both show where information exists and bring key knowledge together for cross-regional synthesis that no single organization could develop alone.

Supporting Regional Fisheries Management Organizations: BECI will directly address the growing recognition among North Pacific RFMOs of the need for enhanced climate-informed fisheries management. As regional fisheries bodies develop climate change workplans and seek to integrate environmental data into their decision-making processes, BECI will provide organized access to environmental and climate information from across the North Pacific to support ecosystem and climate indicator development. The platform will facilitate cross-RFMO coordination by supporting climate initiatives with multiple organizations, while offering comprehensive environmental context for climate change impacts on transboundary species and predator-prey interactions that cross jurisdictional boundaries.

Hosted by the North Pacific Marine Science Organization (PICES) and proudly endorsed by the United Nations Decade of Ocean Science for Sustainable Development, BECI represents an unprecedented opportunity to enhance climate-informed fisheries management across the North Pacific and provide the organized environmental intelligence needed to successfully implement regional climate change workplans.