

An aerial photograph of the ocean with white, frothy waves crashing against a dark, deep blue-green background. The waves are concentrated in the upper right and center of the frame, creating a dynamic, textured pattern of white foam and dark water.

NATIONAL  
ACADEMIES

*Sciences  
Engineering  
Medicine*

# Decadal Survey of Ocean Sciences for the National Science Foundation

Polar Research Board Discussion

AUGUST 29, 2023

# Statement of Task – Full Report

1. Identify **novel opportunities** regarding **ocean-related, use-inspired, solutions-oriented** research and innovation.
2. Identify **opportunities and strategies** to promote innovative **multidisciplinary and multi-sectoral approaches** to address **complex science challenges** arising from the intersection of **natural processes, societal needs, and human-driven environmental change**.
3. Develop a **portfolio of high-priority, scientific questions** that have the potential to transform scientific knowledge of the ocean and the critical role of the ocean in the Earth system.
4. Identify the **research infrastructure needed** to advance the high-priority ocean science research questions
5. Develop a **framework** that OCE can apply to **leverage and complement the capabilities, expertise, and strategic plans of its partners**



# Statement of Task - Interim

1. Based on previous reports, assess progress on addressing **high priority science questions** that require scientific ocean drilling and identify new, if any, equally compelling science questions that would also require scientific ocean drilling.
2. Of the unanswered scientific questions, **which could be addressed through the use of existing scientific drilling assets** including sediment or rock core archives and existing platforms, and which questions would require new infrastructure or sampling investments?

# NASEM Decadal Survey of Ocean Sciences Committee Membership

Tuba Ozkan-Haller, Oregon State University (Co-Chair)

James (Jim) Yoder, Woods Hole Oceanographic Institute & University of Rhode Island (Co-Chair)

Lihini Aluwihare, University of California, San Diego's Scripps Institution of Oceanography

Mona Behl, University of Georgia

Mark Behn, Boston College

Brad DeYoung, Canadian Integrated Ocean Observing System & Memorial University

Carlos Garcia-Quijano, University of Rhode Island

Peter Girguis, Harvard University

Leila Hamdan, University of Southern Mississippi

Marcia Isakson, University of Texas at Austin

Jason Link, National Oceanic and Atmospheric Administration

Allison Miller, Schmidt Ocean Institute

Bradley Moran, University of Alaska Fairbanks

Richard Murray, Woods Hole Oceanographic Institution

Stephen Palumbi, Stanford University

Ella (Josie) Quintrell, Integrated Ocean Observing System Association

Yoshimi (Shimi) Rii, Hawai'i Institute of Marine Biology

Kristen St. John, James Madison University

Kersey Sturdivant, INSPIRE Environmental & Duke University

Ajit Subramaniam, Columbia University

Maya Tolstoy, University of Washington

Shannon Valley, U.S. Agency for International Development, AAAS Fellow

James (JZ) Zachos, University of California, Santa Cruz



# Project Timeline

Date	Event / Milestone
February 2023	Contract Received
June 21-22, 2023	Committee Meeting 1 (Washington, DC)
August 2-3, 2023	Committee Meeting 2 (Washington, DC)
October 24-25, 2023	Committee Meeting 3 (Portland, OR)
December 2023	Town Hall at AGU
January 2024	Release Interim Report
February 15-16, 2024	Committee Meeting 4 (Hattiesburg, MS)
February 2024	Ocean Science Town Hall
May 15-16, 2024	Committee Meeting 5 (Irvine, CA)
January 2025	Release Final Report