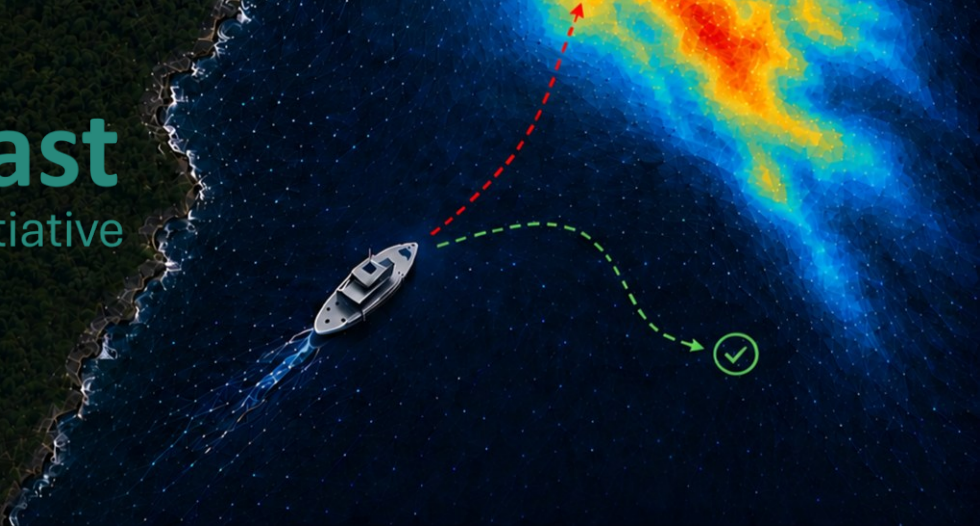




Building the future of
predictive whale avoidance



Initiative Overview

The [WhaleCast Initiative](#) is a strategic six-month effort to help build the future of predictive whale avoidance. Led by Fathom Science in partnership with SAS Institute and researchers at Duke University, the initiative will convene leaders from conservation and industry through two Leadership Sessions. Together, participants will define the standards and frameworks needed to responsibly operationalize predictive whale avoidance across the maritime industry.

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The Challenge

Human activity at sea is rapidly expanding, increasing the risk of collisions between whales and vessels. At the same time, advances in ocean forecasting, AI, and advanced sensors are creating new opportunities to proactively reduce these risks. A key challenge now remains: How can predictive whale avoidance technologies be scientifically validated, operationally integrated, and responsibly deployed?

About Fathom Science

[Fathom Science](#) is an ocean forecasting and marine analytics company built on more than a decade of research and over \$20M in R&D grant funding at North Carolina State University. As an early application of our technology, the [WhaleCast Prototype](#) combines real-time ocean forecasting with AI-based habitat modeling to identify high-risk areas for vessel strikes.

The WhaleCast Prototype demonstrated the concept of predictive whale avoidance. Now, with support from the National Fish and Wildlife Foundation (NFWF) and support from strategic partners, the WhaleCast Initiative expands the conversation beyond a single solution to explore how predictive whale avoidance technologies can be validated, integrated with other avoidance technologies, and responsibly operationalized.



Leadership Sessions

SESSION 01

FALL 2026

Technology Landscape & Validation Standards

- Review the current state-of-the-art in whale avoidance technologies and their role in predictive whale avoidance
- Review existing approaches used to evaluate whale avoidance systems and model efficacy
- Define validation standards for predictive whale avoidance technologies

SESSION 02

FALL 2027

Regulatory & Operational Pathways

- Review regulatory and industry perspectives on responsible deployment
- Evaluate how predictive technologies can integrate into maritime workflows and operational decision-making
- Discuss trusted AI considerations, moral hazard, and social license requirements

Program Outputs

SCIENTIFIC OUTPUTS

- Consensus framework defining the emerging field of predictive whale avoidance
- Scientific recommendations for evaluating, validating, and communicating predictive whale avoidance systems
- Best practices for integrating predictive analytics with existing whale detection and monitoring technologies

OPERATIONAL OUTPUTS

- Stakeholder-informed roadmap for the responsible adoption of predictive whale avoidance
- Operational guidance for uncertainty communication, governance, and trusted AI
- Recommendations for integrating predictive whale avoidance into maritime operations and regulatory decision-making

Strategic Partners



Anchor corporate partner providing the venue for both program sessions and guiding enterprise analytics infrastructure for WhaleCast.



Academic partner and applied science leader in whale density modeling, marine acoustics as well as ocean policy, and processes on community engagement.

Join the Conversation! Help shape the future of predictive whale avoidance by contributing your expertise alongside scientists, regulators, conservation leaders, and maritime operators.



Shape Standards

Help define how predictive whale avoidance systems should be evaluated, validated, and communicated for conservation and maritime operations.



Enable Integration

Explore how your technology, data, expertise, or operational perspective can contribute to a broader predictive whale avoidance framework.



Facilitate Adoption

Help identify the pathways, partnerships, and practices needed to responsibly move predictive whale avoidance from concept to implementation.

Contact:

Taylor Shropshire, Ph.D.
WhaleCast Initiative Lead

tshropshire@fathomsience.com

<https://fathomsience.com/>