

*The National Academies of*  
SCIENCES • ENGINEERING • MEDICINE

**DRAFT AGENDA**

November 9-10, 2021

**97th**

Meeting of the  
**OCEAN STUDIES BOARD**  
The National Academies of Sciences, Engineering and Medicine

**Virtual Meeting**

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**Meeting Highlights:**

- Updates from the House and Senate Ocean Caucuses
- Briefings on new fisheries reports
- Scoping sessions on Digital Twins and Ocean Deoxygenation
- Annual Meeting of the US National Committee for the Decade of Ocean Science for Sustainable Development

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**Tuesday, November 9, 2021**

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**OPEN SESSION**

**1:00 pm      Briefing on Next Generation Earth Systems Science at the National Science Foundation**  
Ruth DeFries, *Columbia University* and George Hornberger, *Vanderbilt University*,  
*Committee Co-Chairs*  
Terry Quinn, *Director Ocean Sciences Division, NSF*

**2:00 pm      Legislative Updates**  
House Committee on Science, Space, and Technology: Lauren Linsmayer, *Professional Staff Member, Environment Subcommittee*  
House Ocean Caucus: Jenna Marinstein, *Legislative Assistant for Congresswoman Suzanne Bonamici*  
Senate Ocean Caucus: Maya Becker, *Knauss Sea Grant Fellow, Senator Lisa Murkowski*

**2:30 pm      Discussion**

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| 3:00 pm | <b>Briefing on <i>The Use of Limited Access Privilege Programs in Mixed-Use Fisheries (2021)</i></b> — Bonnie McCay, <i>Rutgers University, Committee Chair</i> and Marty Smith, <i>Duke University, Committee Member</i>   |
| 3:30 pm | <b>Briefing on <i>Data and Management Strategies for Recreational Fisheries with Annual Catch Limits (2021)</i></b> — Michelle Duval, <i>Mellivora Consulting</i> and Kai Lorenzen, <i>University of Florida, Committee Members</i>   |
| 4:00 pm | <b>Panel Discussion</b><br><b>Moderator</b> Thomas Miller, <i>University of Maryland, OSB member</i> <ul style="list-style-type: none"><li>• Tom Frazer, <i>University of South Florida; past-Chair, Gulf of Mexico Fisheries Management Council</i></li><li>• Lindsay Fullenkamp, Richard Cody, Lindsey Kraatz, Cisco Werner, <i>NOAA Fisheries</i></li><li>• Sean Powers, <i>University of South Alabama and the Dauphin Island Sea Lab, Committee Member</i></li></ul> |
| 5:00 pm | <b>Adjourn</b>  |

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Wednesday, November 10, 2021

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### OPEN SESSION

#### SCOPING NEW STUDY TOPICS

##### 12:30 pm     **Introduction to scoping session goals—**

**Objective:** explore the issue of digital twin(s) and ocean deoxygenation to determine whether these topics would benefit from a focused NASEM study. If so, participants will be asked to help frame a study to best meet the needs of potential sponsors.

##### **Digital Twin(s) of the Ocean or Earth**

**What are they, what will they enable, and what will be needed for success?**

##### 12:45 pm     **Introduction**

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**1:00 pm** **Panel Discussion** (each panelist will give a 10 min presentation with 5 min for follow-up Q&A)

**Moderator** Patrick Heimbach, *UT Austin*

- Karen Willcox, *UT Austin*
- Peter Bauer, *ECMWF*
- Martin Visbeck, *GEOMAR Helmholtz Center for Ocean Research and Kiel University*
- Melissa Kenney, *University of Minnesota*
- Lisa Campbell, *Duke University*
- Grace Young, *X, Alphabet's Moonshot Factory (formerly GoogleX)*

**2:30 p.m.** **Discussion of concepts for study on digital twins and next steps**

**2:50 p.m.** ***Short break***

### Declining Oxygen in Ocean Waters

**Objective:** explore the issue of ocean deoxygenation to determine whether this is a topic that would benefit from a focused NASEM study. If so, participants will be asked to help frame the study to best meet the needs of potential sponsors. This scoping session is intended to be a conversation with stakeholders to help us design a potential study.

**3:00 pm** **Introduction**

**3:15 pm** **Keynote**—Denise Breitburg, *Smithsonian Environmental Research Center*

**3:45 p.m.** **Panel Discussion**

**Moderator** Julie Pullen, *Jupiter*

- Matt Long, *Woods Hole Oceanographic Institution*
- Dimitri Gutiérrez, *Instituto del Mar del Perú*
- Curtis Deutsch, *Princeton University*
- Others, *TBD*

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**4:30 p.m.      Discussion of concepts for study on ocean deoxygenation and next steps**

**5:30 pm      Adjourn**

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