Fisheries and Offshore Wind Energy: Synthesis of the Science

Workshop Agenda

The Fisheries and Offshore Wind Energy: Synthesis of the Science project consists of two integrated components, a virtual workshop and a published report, which together have the overarching purpose of enhancing regional and national understanding of existing science and data gaps related to offshore wind energy interactions with fish and fisheries.

This joint effort brings together the National Oceanic and Atmospheric Administration (NOAA) Fisheries, the Bureau of Ocean Energy Management (BOEM), and the Responsible Offshore Development Alliance (RODA).

Through a collaborative process co-designed by fishermen, wind developers, and state, academic, and federal partners, this effort will advance the Responsible Offshore Science Alliance’s (ROSA) regional science efforts, by describing the current state of science, existing research and monitoring programs, and data gaps and soliciting input regarding priority research questions.

**Overarching Project Objectives**

1. Introduce fisheries science, management, and industry experts to the topic of offshore wind energy and fisheries interactions in order to inform their work, leverage existing knowledge, create networks among interested professionals, and develop effective approaches to short and long term cross-disciplinary challenges;
2. Model best-practices to successfully engage the fishing industry in scientific processes and setting research and monitoring agendas;
3. Integrate offshore wind energy development into existing science and research efforts in the field of fisheries science and management;
4. Begin to establish a shared body of understanding and knowledge on offshore wind energy and fisheries interactions;
5. Identify data and knowledge gaps relevant to the study of marine fisheries biology and behavior, ecosystem function, and fisheries operations for use in future scientific and policy decisions;
6. Provide fora for open discussion to set relevant research and monitoring priorities for impacts to fish and fisheries; and
7. Promote future collaborative work across disciplines and sectors.

**Workshop Goals**

- Present the report framework and high-level overview of key topics by section
• Initiate dialogue between authors and among participants to frame issues and foster research collaboration
• Identify important constituents and groups to work with the authors during the drafting process to ensure inclusive representation in the report and for recommendations of future research priorities
• Inform and advance ROSA’s regional science efforts through the synthesis of information across expert networks

**Code of Conduct**
The workshop will be hosted entirely on the Zoom platform (webinar and breakout tools). Participants in the Synthesis of the Science workshop are expected to:
• Stay on track with the agenda
• Focus on scientific and technical matters -- politics and decision-making are outside the purview of this effort
• Use the electronic tools offered to provide input and comment
• Keep written comments in the webinar chat, Q&A, and other means constructive, substantive, and focused on the workshop content without disparaging remarks toward any organizations or individuals

**Communication Guidelines**
The convening parties of the workshop maintain responsibility for all press communications about the project. This event is a *workshop* and is not intended for the media. We respectfully request that participants contact the project planning team regarding distribution of information related to the project.

**October 14, 2020: Welcome and Virtual Social Hour**

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<tr>
<th>TIME (ET)</th>
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<tbody>
<tr>
<td>3:45</td>
<td>“Room” Opens for Attendance (please sign-on as early as 15 minutes prior to start time to check sound and video)</td>
<td>Consensus Building Institute (CBI)</td>
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| 4:00     | Orientation and Overview  
CBI provides orientation to the Zoom webinar features and overview of today’s agenda | Consensus Building Institute (CBI) |
| 4:05     | Opening Remarks | Cisco Werner & Jon Hare, NOAA Fisheries |
| 4:20     | Opening Remarks | Rodney Cluck, BOEM Environmental Sciences |
| 4:30     | Opening Remarks | Annie Hawkins, RODA |
| 4:40     | Opening Remarks | Lyndie Hice-Dunton, ROSA |
### October 15, 2020: Ecosystem Effects

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<tr>
<th>TIME (ET)</th>
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<tr>
<td>9:15</td>
<td><strong>“Room” Opens for Attendance</strong> (please sign-on as early as 15 minutes prior to start time to check sound and video)</td>
<td>CBI &amp; RODA</td>
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<td>9:30</td>
<td>Agenda, Process and Code of Conduct for the Day</td>
<td>CBI &amp; RODA</td>
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<tr>
<td>9:40</td>
<td>Welcome Keynotes</td>
<td>Chris Oliver, NOAA Fisheries</td>
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<td>Walter Cruickshank, BOEM</td>
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<tr>
<td>10:00</td>
<td>Keynote: Offshore Wind Energy and Ecosystem Effects</td>
<td>Andrew Gill, Centre for Environment, Fisheries and Aquaculture Science (CEFAS)</td>
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<td>10:15</td>
<td>Benthic Habitat Modification</td>
<td>Panelists:</td>
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<td>● Michelle Bachman, NEFMC</td>
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<td>● Drew Carey, Inspire Environmental</td>
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<td>● Steven Degraer, Royal Belgian Institute of Natural Sciences</td>
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<td><strong>Moderator:</strong> Brian Hooker, BOEM</td>
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<td>10:50</td>
<td>Break</td>
<td>CBI &amp; RODA</td>
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<tr>
<td>10:55</td>
<td>Physical Habitat Modification</td>
<td>Panelists:</td>
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<tr>
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<td>● Andrew Gill, CEFAS</td>
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<td>● Zoe Hutchison, URI</td>
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<td>● Erica Staaterman, BOEM</td>
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<td><strong>Moderator:</strong> Brian Hooker, BOEM</td>
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<tr>
<td>11:30</td>
<td>Physical Process Modification</td>
<td>Panelists:</td>
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<td>● Hans Burchard, DHI</td>
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<td>● Josh Kohut, Rutgers</td>
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<td>● Ruth Perry, Mayflower</td>
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<td>● Ole Svenstrup Petersen, DHI</td>
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**Meet and Greet**  
Participants are “sent” to breakout rooms for informal introductions to one another

**Adjourn**
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<tbody>
<tr>
<td>12:15</td>
<td>Lunch</td>
<td>Moderator: Brian Hooker, BOEM</td>
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| 1:15      | **Finfish, Squid, Shellfish and Community Interactions**  
|           | ● Panel, 50 minutes  
|           | ● Questions, 40 minutes | Panelists:  
|           | ● Drew Carey, Inspire Environmental  
|           | ● Zoe Hutchison, URI  
|           | ● Cami McCandless, NOAA Fisheries  
|           | ● Dara Wilber, Inspire Environmental  
|           | Moderator: Elizabeth Methratta, NOAA Fisheries |
| 2:45      | Break | |
| 3:00      | **Breakout Sessions** - Attendees choose preferred session  
|           | ● **Benthic Habitat: Fisheries Approaches and Opportunities**  
|           | ● **Of Hammers and Hammerheads: Effects of EMF and Sound on Marine Life**  
|           | ● **Not to Mix It Up, But Let’s Talk about the Cold Pool**  
|           | ● **Living in a New Material World: Assessing Changes with Presence of Structures**  
|           | ● **The Matter of Migration: HMS, Small Pelagics, Anadromous Fish, and Others Who Roam** |
| 3:55      | Return to plenary room | |
| 4:00      | **Breakout Sessions** - Attendees choose preferred session  
|           | ● **Interim Report of ROSA’s Monitoring Working Group**  
|           | ● **Getting Physical (Oceanography) with Fishermen: Incorporating Traditional Knowledge in Research**  
|           | ● **Case Study in Cumulative Stressors: Squid**  
|           | ● **From the Turbine to the Region: Scaling Up to Population Level Effects** |
| 5:00      | Adjourn | |

**October 16, 2020: Socio-Economics**

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<td>9:00</td>
<td><strong>Agenda, Process and Code of Conduct for the Day</strong></td>
<td>CBI &amp; RODA</td>
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| 9:15      | **Phytoplankton & Zooplankton**  
<p>|           | ● Presentation, 15 min | Presenter: Kevin Friedland, NOAA Fisheries |</p>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Panelists</th>
<th>Moderator</th>
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<tr>
<td>9:45</td>
<td><strong>Keynote: Socio-Economics, Fishing, and Offshore Wind Energy</strong></td>
<td>Merlin Jackson, Thanet Fishermen’s Association</td>
<td>Elizabeth Methratta, NOAA Fisheries</td>
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<td>10:00</td>
<td><strong>Fishing Operation Effects</strong></td>
<td>Panelists:&lt;br&gt;- Mike Conroy, Pacific Coast Federation of Fishermen’s Associations&lt;br&gt;- Fred Mattera, Commercial Fisheries Research Foundation&lt;br&gt;- Tom Sproul, URI&lt;br&gt;- Talya Tenbrink, NOAA Fisheries</td>
<td>Angela Silva, NOAA Fisheries</td>
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<td>10:50</td>
<td><strong>Break</strong></td>
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<td>11:00</td>
<td><strong>Economic Effects</strong></td>
<td>Panelists:&lt;br&gt;- Ben Galuardi, NOAA Fisheries&lt;br&gt;- Daphne Munroe, Rutgers University&lt;br&gt;- Guy Simmons, Sea Watch International&lt;br&gt;- Eric Thunberg, NOAA Fisheries</td>
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<td>12:00</td>
<td><strong>Lunch</strong></td>
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<td>1:00</td>
<td><strong>Breakout Sessions</strong> - Attendees choose preferred session</td>
<td><strong>Sharing the Ports: Evaluating Challenges and Opportunities</strong>&lt;br&gt;<strong>Focus on Floating: Different Structures, Different Conditions</strong>&lt;br&gt;<strong>Integrating Fisheries and Wildlife, RWSE, and ROSA</strong>&lt;br&gt;<strong>Dock to Plate: Market Considerations</strong>&lt;br&gt;<strong>Safety at Sea</strong></td>
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<td>2:00</td>
<td><strong>Social &amp; Cultural Effects</strong></td>
<td>Panelists:&lt;br&gt;- Monique Coombs, Maine Coast Fishermen's Association&lt;br&gt;- Madeleine Hall-Arber, Fisheries Anthropologist&lt;br&gt;- Talya Tenbrink, NOAA Fisheries</td>
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<td>3:00</td>
<td><strong>Cumulative Impacts, Resilience &amp; Adaptation</strong></td>
<td>Panelists:&lt;br&gt;- Teresa Johnson, UMaine&lt;br&gt;- Tim Novotny, Oregon Dungeness Crab Commission</td>
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- Carrie Pomeroy, University of California Santa Cruz
- Ron Smolowitz, Fisheries Survival Fund
Moderator: Fiona Hogan, RODA

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<td>3:45</td>
<td><strong>Breakout Sessions</strong> - Attendees choose preferred session</td>
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<td>- <em>New Fisheries, New Entrants, New Gear? The Realities of Adaptation</em></td>
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<td>- <em>Perspectives from Small Communities</em></td>
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<td>- <em>Perspectives from Vertically Integrated Businesses</em></td>
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<td>- <em>What’s Perception Got to Do With It? Socioeconomic Research, “Stakeholder &amp; Rightsholder Engagement,” and Participatory Governance</em></td>
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<td>- <em>Case Study: Cumulative Socioeconomic Approaches to Understanding Effort Displacement</em></td>
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<td>4:45</td>
<td>Adjourn</td>
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**October 30, 2020: Monitoring, Cumulative and Regional Issues, Fisheries Management and Synthesis**

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<td>9:00</td>
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<td>9:10</td>
<td><strong>Sampling Design and Methods</strong></td>
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<td>- Presentation, 20 minutes</td>
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<td>- Questions, 20 minutes</td>
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<td>- Mike Jech, NOAA Fisheries</td>
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<td>- Kevin Stokesbury, UMass Dartmouth</td>
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<td>- Sofie Van Parijs, NOAA Fisheries</td>
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<td>Moderator: Elizabeth Methratta, NOAA Fisheries</td>
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<td>9:50</td>
<td><strong>Cumulative Impacts</strong></td>
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<td>- Presentation, 20 minutes</td>
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<td>- Questions, 10 minutes</td>
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<td>- Silvana Birchenough, CEFAS</td>
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<td>- Ian Slayton, BOEM</td>
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<td>Moderator: Elizabeth Methratta, NOAA Fisheries</td>
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<td>10:20</td>
<td><strong>Integrated Ecosystem Assessment</strong></td>
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<td>Presenter: Sean Lucey, NOAA</td>
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<td>10:50</td>
<td>Break</td>
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| 11:00 | **Fisheries Dependent Data**                     | * Presentation, 20 minutes*  
* Questions, 20 minutes*  
Panelists:  
* Ben Galuardi, NOAA Fisheries  
* Anna Mercer, NOAA Fisheries  
* Mike Palmer, NOAA Fisheries  
* Kevin Wark, F/V Dana Christine  
Moderator: Doug Christel, NOAA Fisheries |                                                                           |
| 11:40 | **Fisheries Independent Data**                    | * Panel, 45 minutes*  
* Questions, 15 minutes*  
Panelists:  
* Wendy Gabriel, NOAA Fisheries  
* Capt. David Goethel, F/V Ellen Diane  
* Dave Rudders, VIMS  
Moderator: Andy Lipsky, NOAA Fisheries |                                                                           |
| 12:40 | Lunch                                             |                                                                                                           |                                                                           |
| 1:30  | **Impacts on Fisheries Management**               | * Presentation, 40 minutes*  
* Questions, 30 minutes*  
Panelists:  
* Julia Beaty, MAFMC  
* Jason McNamee, RI DEM  
* Chris Orphandies, NOAA Fisheries  
* Dave Secor, University of Maryland  
* Mary Beth Tooley, O’Hara Corporation |                                                                           |
| 2:40  | Break                                             |                                                                                                           |                                                                           |
| 2:45  | Breakout Sessions - Attendees choose preferred session  
1. Fishery Independent Surveys: Impacts and Solutions  
3. Other Fish in the Sea: How to Improve OSW Planning in the Context of Data-Limited Fisheries?  
4. Fisheries Information Modernization: Big Data or Big Brother?  
5. Beyond Data Collection: Best Practices in Interpretation through Cooperative Research  
6. How to Prioritize Research? |                                                                                                           |                                                                           |
| 3:45  | **Next Steps, Co-Authors and Working Groups, Expected Process and Products** |                                                                                                           | Annie Hawkins, RODA  
Lyndie Hice-Dunton, ROSA |                                                                           |
| 4:00  | Adjourn                                           |                                                                                                           |                                                                           |