



Stakeholder Engagement and Ongoing Research Efforts to Inform our Understanding of the Effects of Offshore Wind Energy Development on Marine Birds

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Acknowledgments

Avian Displacement Guidance Committee

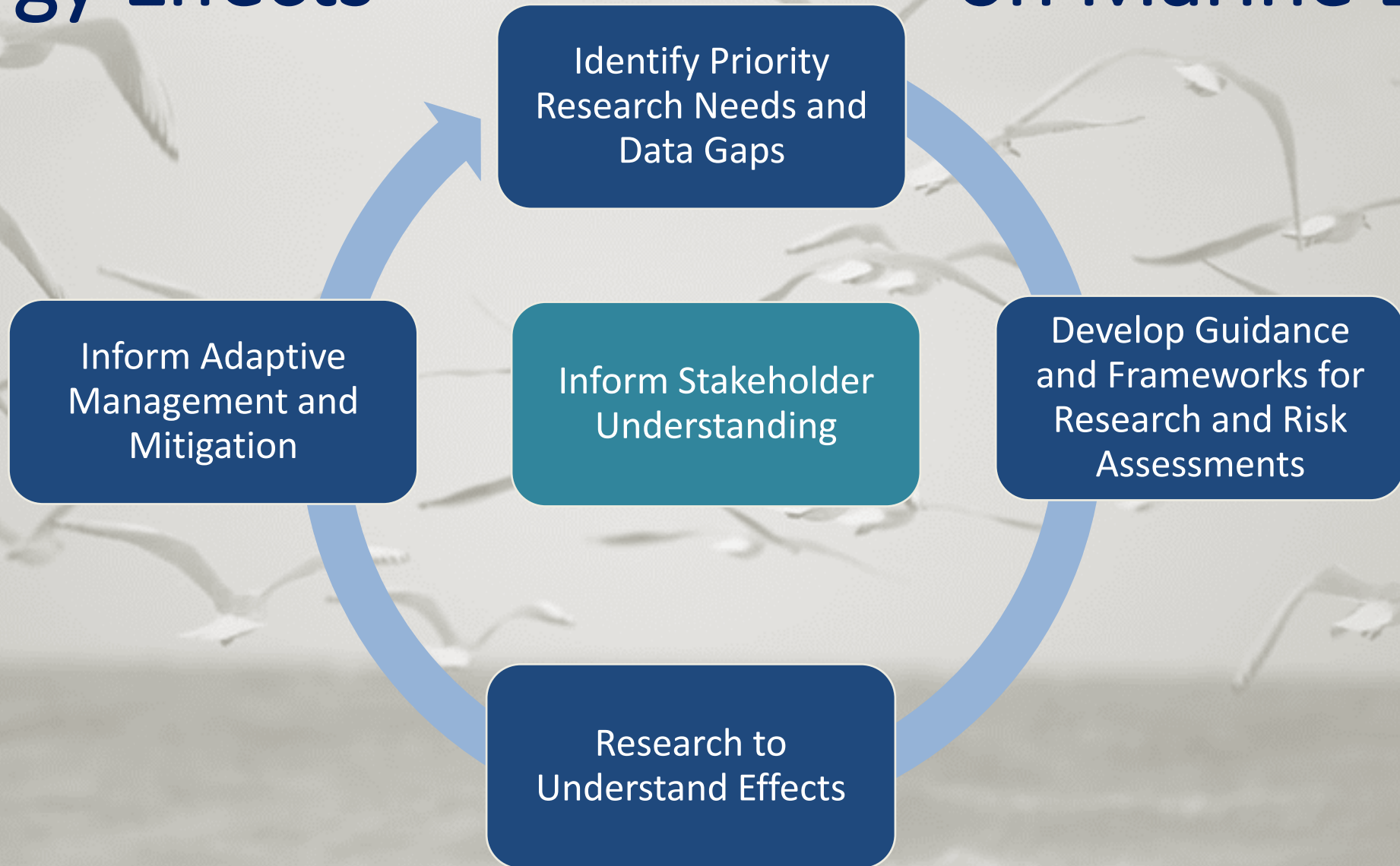
Aonghais Cook, Shilo Felton, Carina Gjerdrum, Chris Haney, Juliet Lamb, Jeff Leirness, Pamela Loring, David Mizrahi, David Pereksta, Kim Peters, Brad Pickens, Martin Scott, Emily Shumchenia, Emily Silverman, Jennifer Stucker, Ally Sullivan, Julia Wilmott, Arliss Winship, Brita Woeck

Project WOW PIs and Collaborators

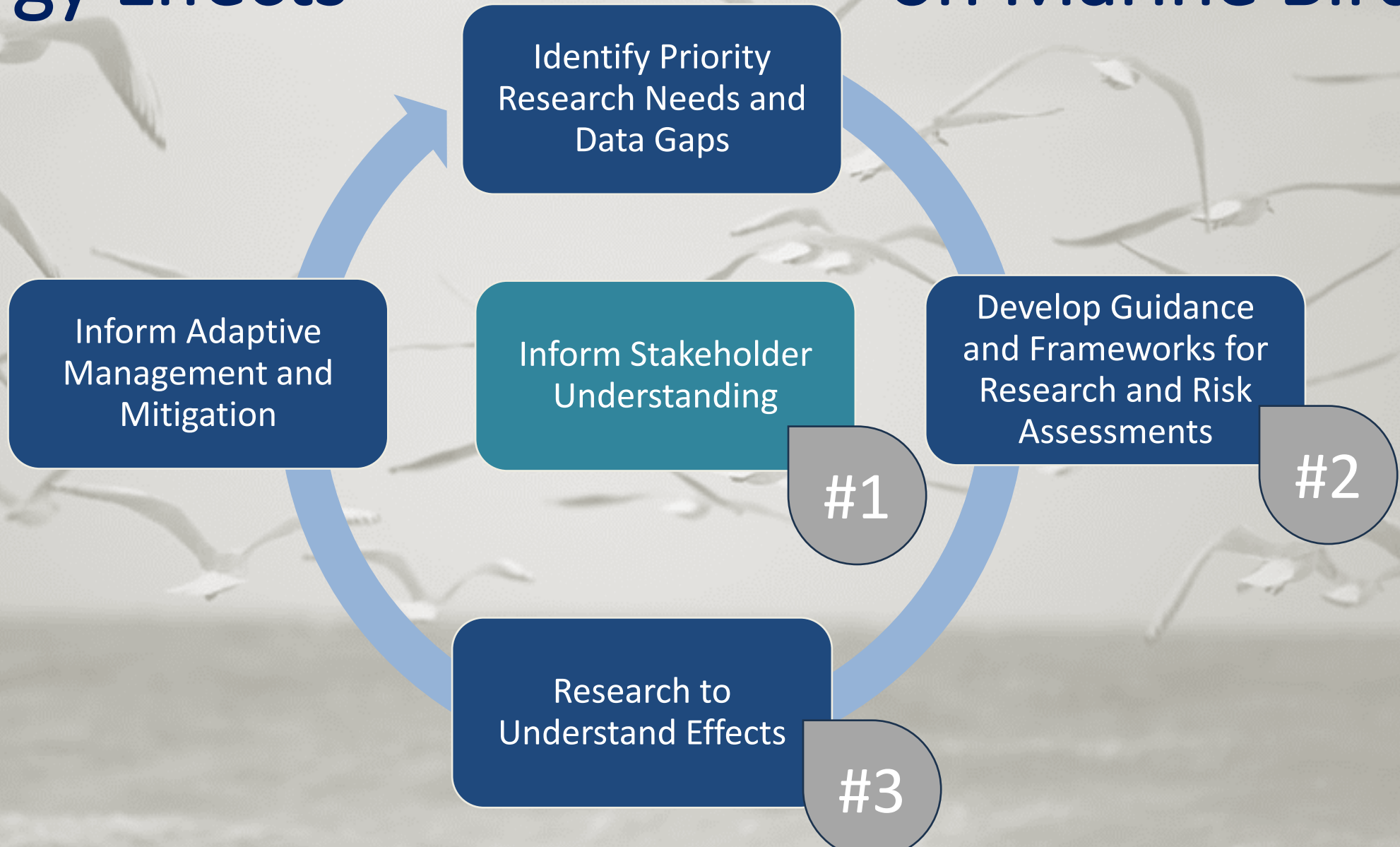
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Informing our Understanding of Offshore Wind Energy Effects on Marine Birds



Informing our Understanding of Offshore Wind Energy Effects on Marine Birds



Birds & Offshore Wind FAQ

- Specialist Committee of the **E-TWG**
- Goal: develop communications materials to aid in the dissemination of current, accurate, and readily understandable science-based information around the potential impacts to birds from offshore wind energy development activities
- Audience: stakeholders interacting with the general public
- Products: FAQ document with multiple levels of response detail; press packet to facilitate sharing of FAQ materials
- First committee meeting Dec. 17



nyetwg.com/specialist-committees

Committee Process for Publishing FAQ Rounds

1. Inform Stakeholders

nyetwg.com/specialist-committees



Committee Process for Publishing FAQ Rounds

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Email Kate.Williams@briwildlife.org if you are interested in joining the committee or serving as an external reviewer.

Survey on topics to include in FAQ:
<https://forms.office.com/r/9z78a5246X>



Avian Displacement Guidance Committee

Chaired by USFWS and made up of subject
matter experts



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NYSERDA



2. Develop
guidance

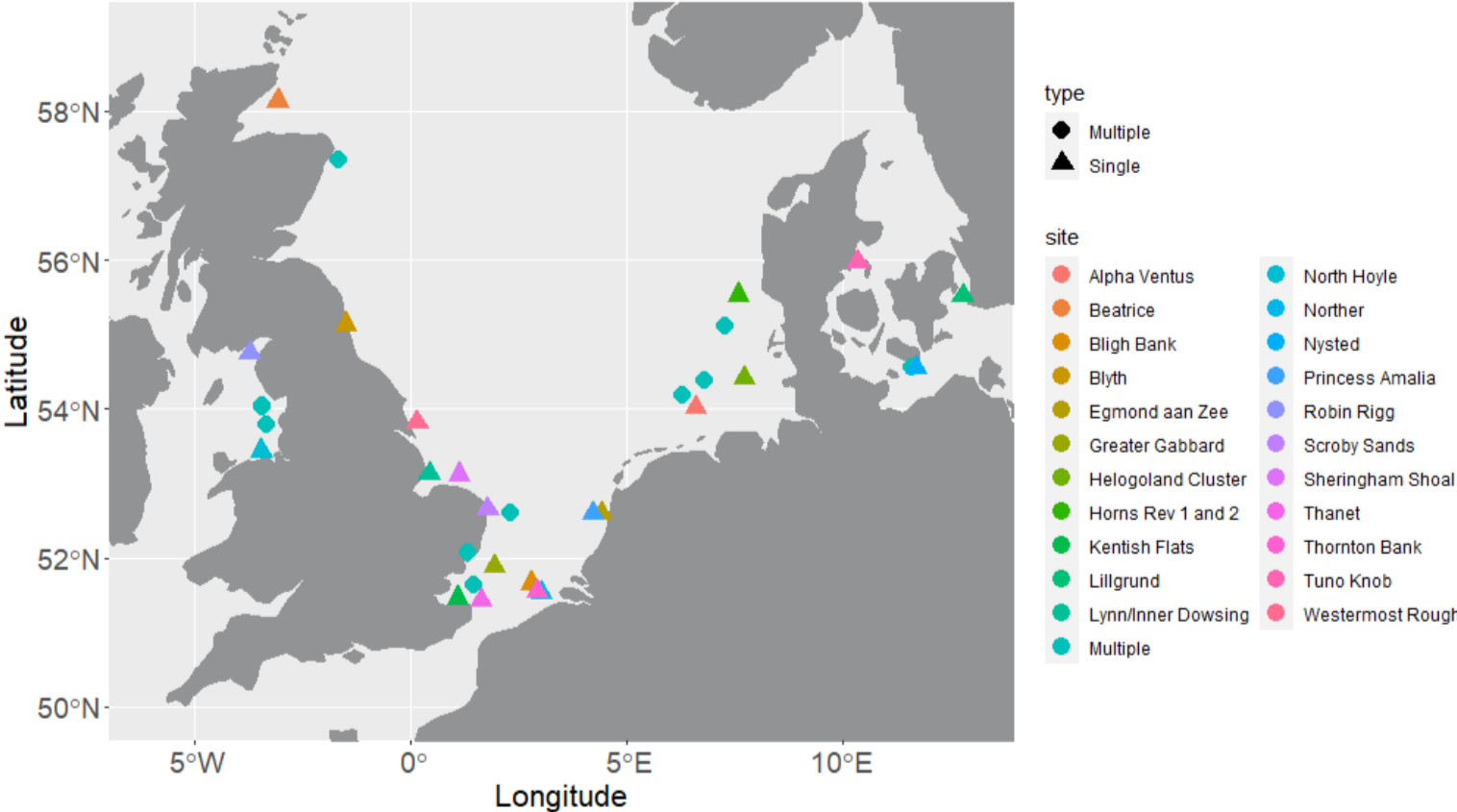
Goal: Inform pre- and post-construction monitoring and research approaches for detecting and characterizing displacement, attraction, and macro- to meso-avoidance of marine birds at OSW facilities in U.S. waters

Use of guidance:

- Supplement existing BOEM guidance for site characterization at OSW farms
- Referenced and/or incorporated into future national OSW-wildlife guidance developed by regulatory agencies
- Used by OSW developers for site-specific monitoring plans

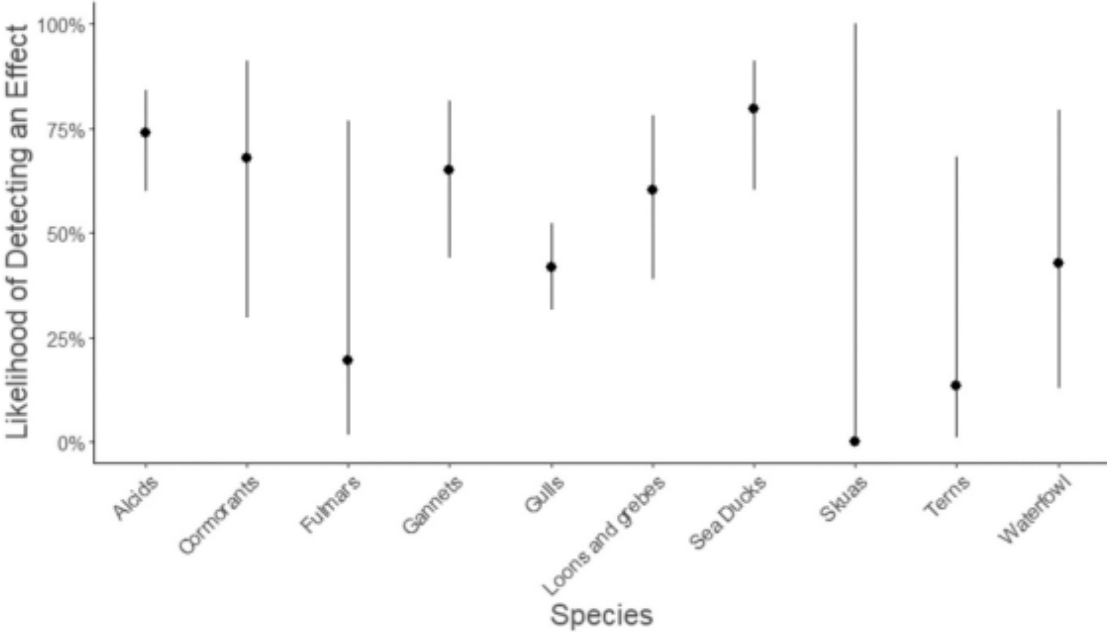
Literature Review to Inform Recommendations

- Displacement/ avoidance/attraction at European wind farms
- Potential sources of variation in bird responses
- Aspects of study design that may influence statistical power
- Results summarized in appendix to guidance document

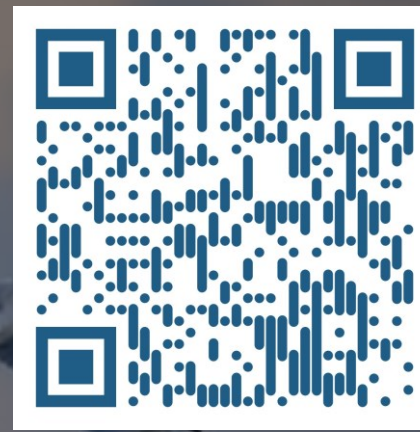


Literature Review to Inform Recommendations

- Lamb et al. 2024 *Environ. Impact Assess. Review*. A synthetic analysis of post-construction displacement and attraction of marine birds at offshore wind energy installations



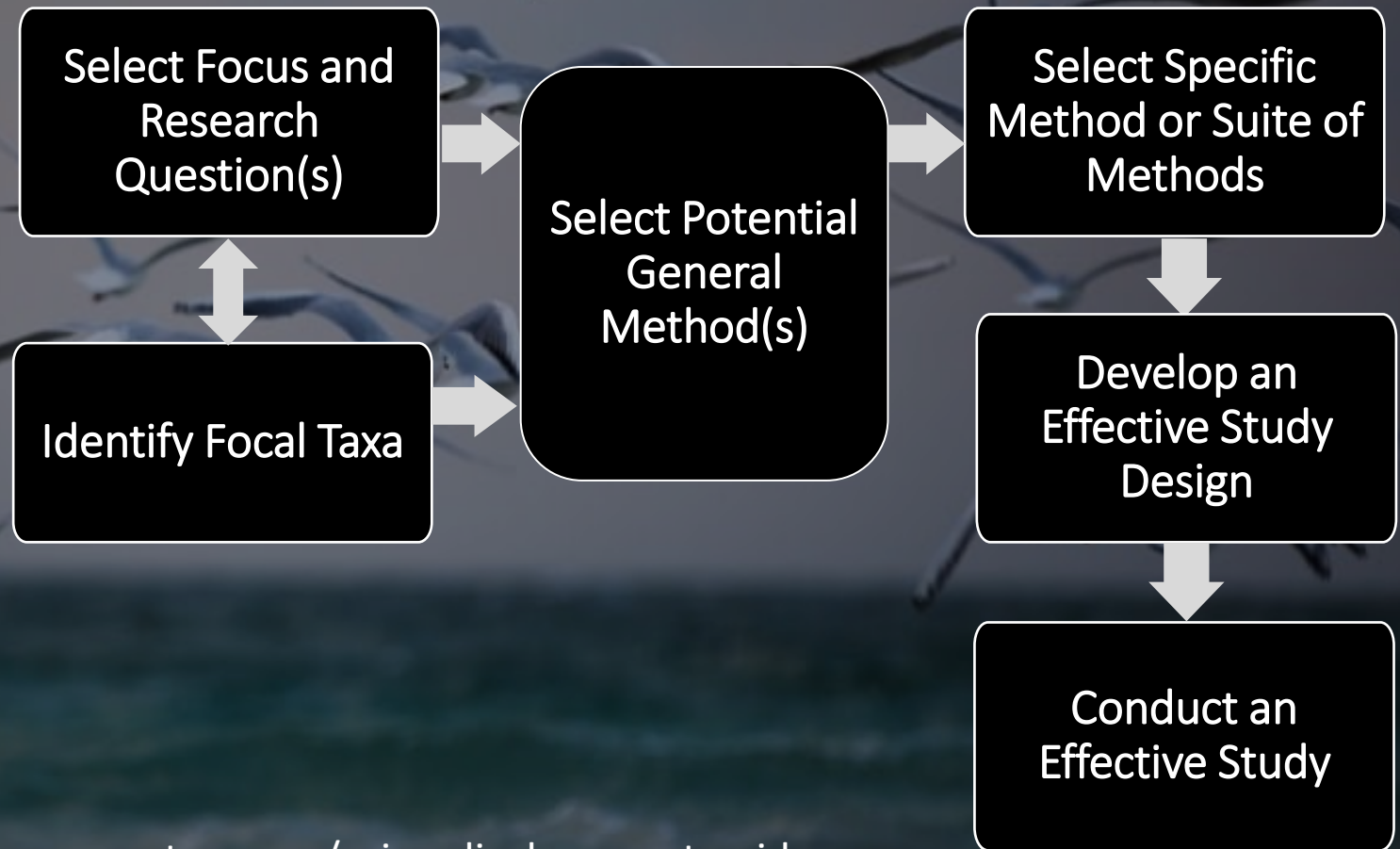
Guidance for Pre- and Post-Construction Monitoring to Detect Changes in Marine Bird Distributions and Habitat Use Related to Offshore Wind Development



2. Develop guidance

Table of Contents

- 1-3. Rationale, purpose of guidance, definitions of key terminology
- 4. Key research questions
- 5. Selecting focal taxa
- 6. Selecting appropriate methodologies
- 7. Study design recommendations
- 8. Reporting, data consistency and transparency
- 9. Recommendations specific to conducting surveys
- 10. Recommendations for future guidance and analysis
- 11. Appendices



WILDLIFE AND OFFSHORE WIND

WOW

A Systems Approach to Research and Risk Assessment for Offshore Wind Development



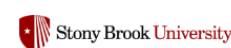
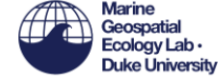
Marine Bird Research Questions



- How does avian habitat use change during the construction and operational periods when compared to pre-construction?
- What patterns of avian flight behavior may contribute to collision risk in the offshore environment, and what are the environmental drivers of these patterns?

Wildlife and Offshore Wind (WOW) Project

5-year project (2022-2027)

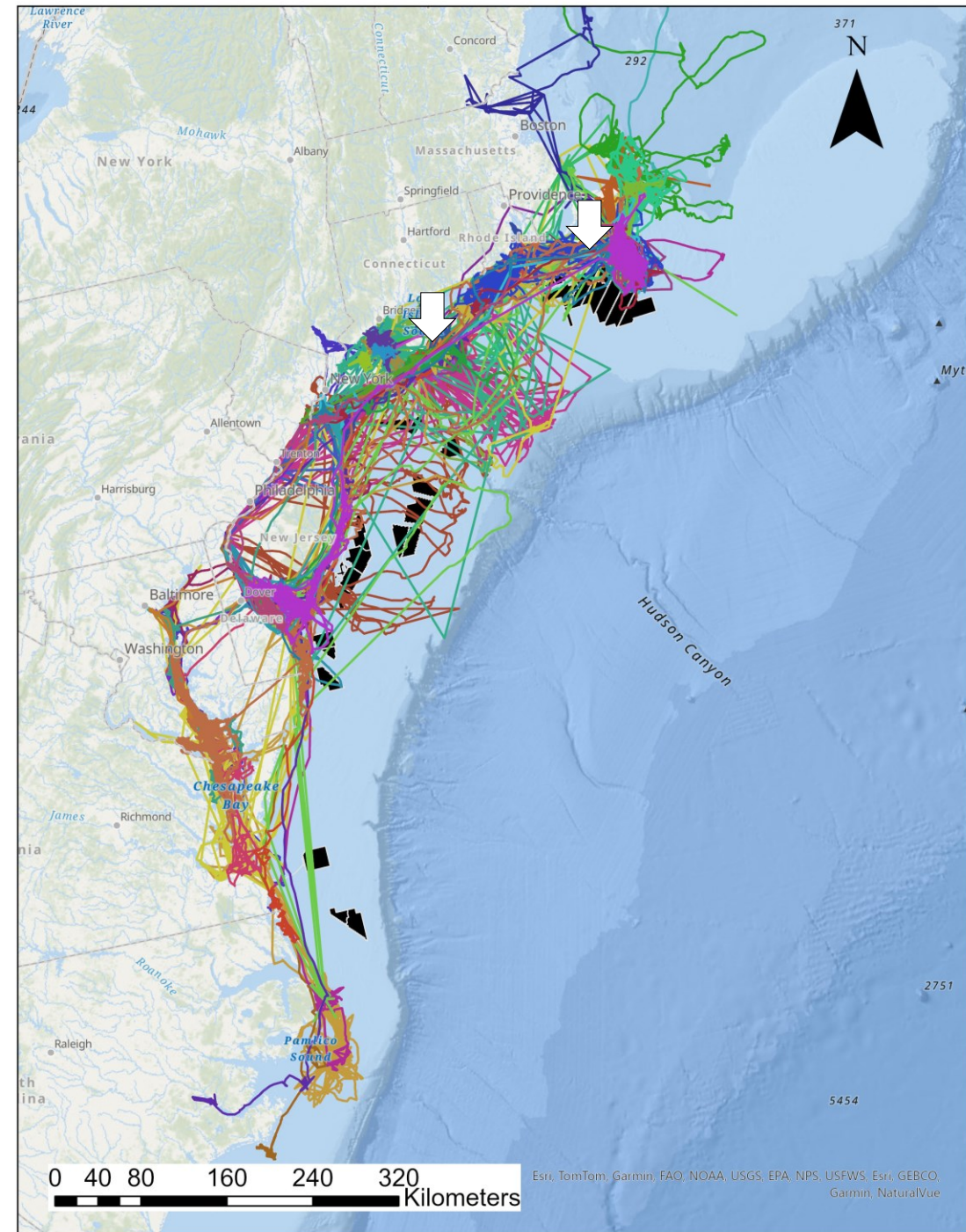


<https://offshorewind.env.duke.edu/>

Seabird tracking: Great Black-backed Gulls

3. Research on effects

- GPS tags deployed on 57 birds during 2023-24 field activities
- Variation in individual and interannual movement patterns



Seabird tracking: Northern Gannets



3. Research on effects

- 60 GPS/GSM tags to be deployed to assess movement behaviors and flight heights
- Tags deployed at sea in nonbreeding season
- Captures off Long Island and Cape Cod in Nov-Dec. 2023 (n=15); tails still actively being molted
- Capture efforts continue in January 2025
- Opportunistic sampling for diet, AI, contaminants, and other data

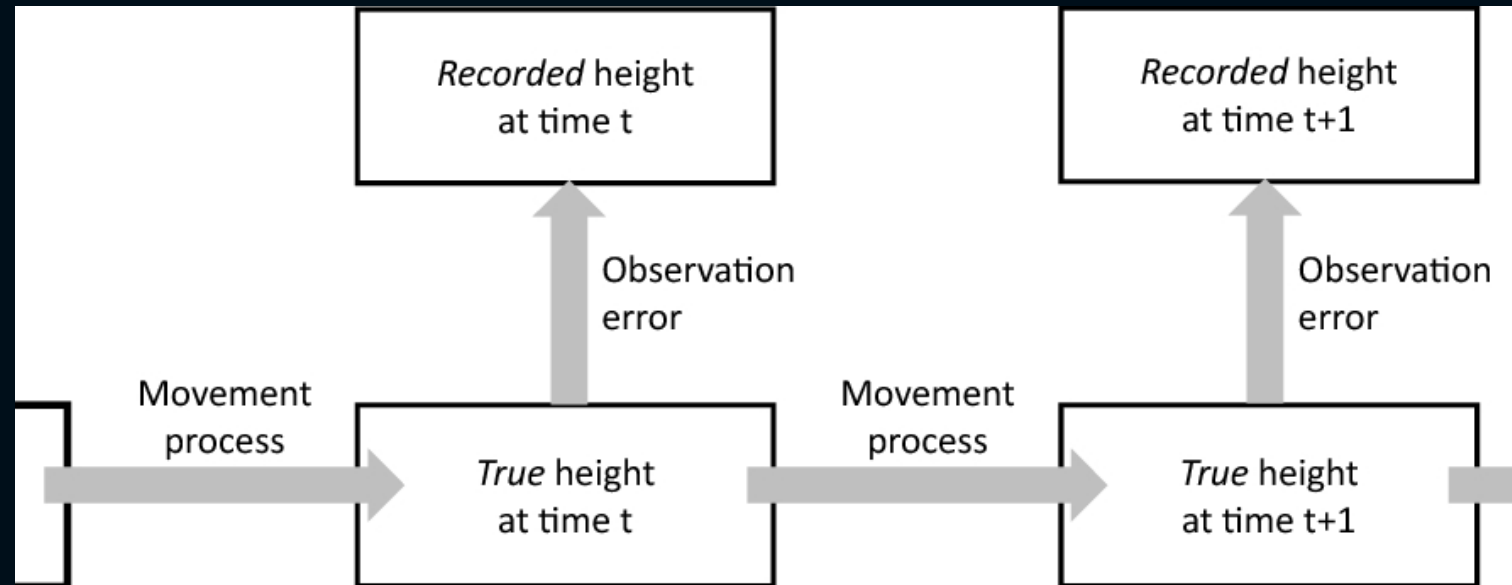


Photo credits: K. Williams

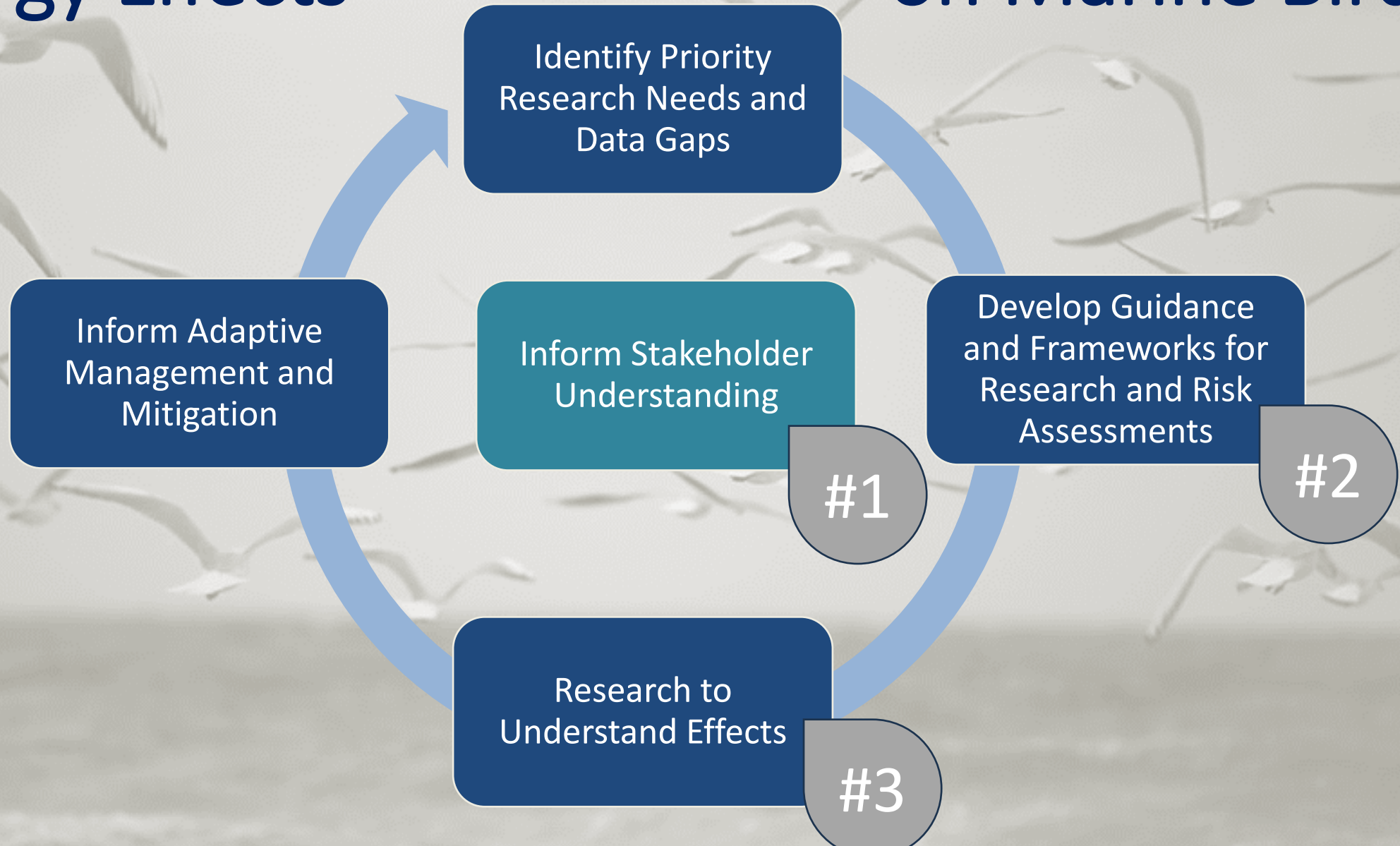
Flight Height Working Group

- Includes researchers from British Trust for Ornith., Stony Brook U., USFWS, BRI
- Sharing methods for addressing bias and uncertainty in altitude data from GPS transmitters
- Contact evan.adams@briwildlife.org for more information

Perón et al 2020: The challenges of estimating the distribution of flight heights from telemetry or altimetry data



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Thanks! Questions?

Kate Williams

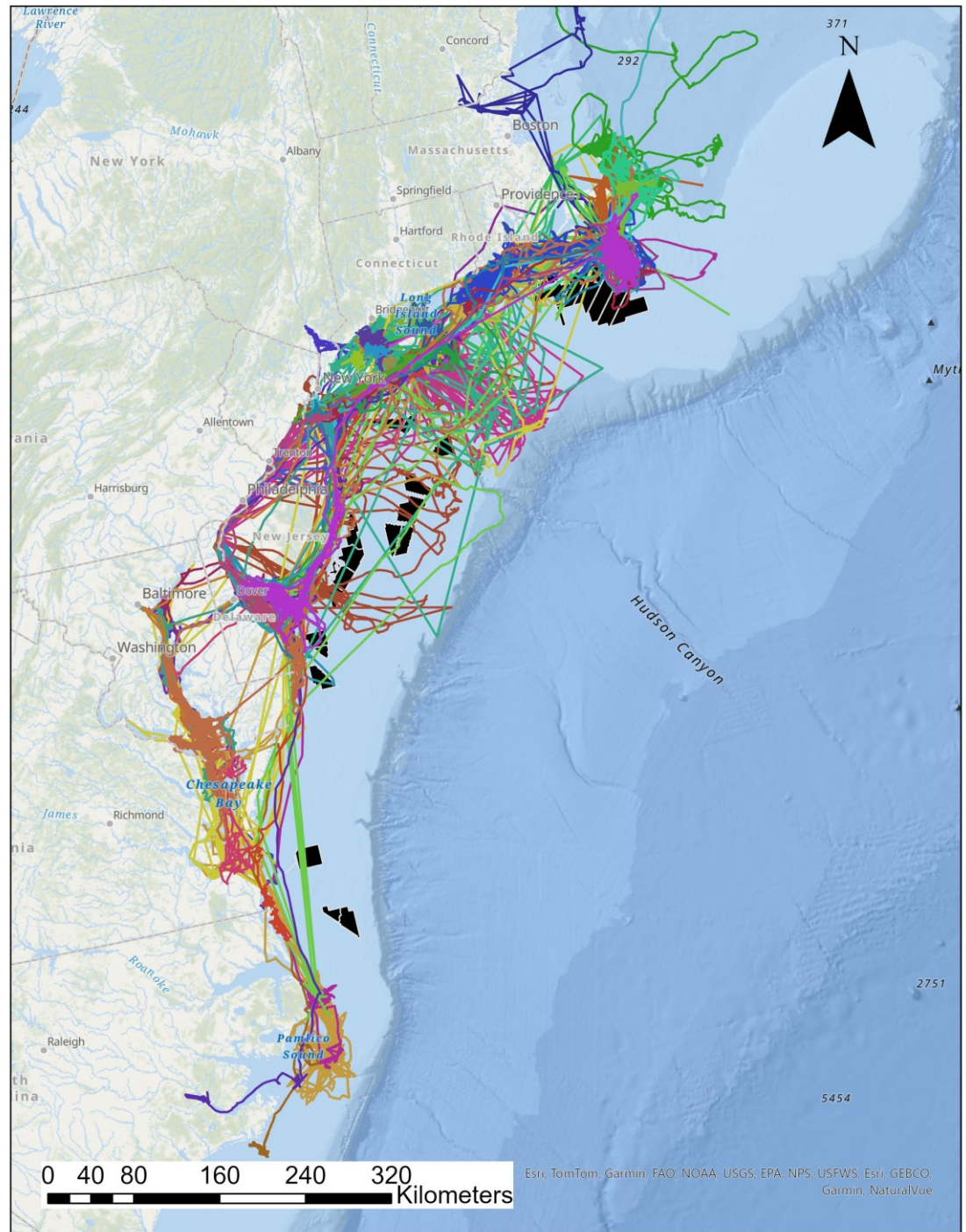
Biodiversity Research Institute

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If you see big aggregations of gannets in the next 1-2 months, we'd appreciate a quick email letting us know where and when!

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GBBG – 2021-2024,
all tags