

Appendix K: References Cited

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Chapter 1: Introduction

- BOEM (Bureau of Ocean Energy Management). 2012. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia Final Environmental Assessment, OCS EIS/EA BOEM 2012-003. https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/Renewable_Energy_Program/Smart_from_the_Start/Mid-Atlantic_Final_EA_012012.pdf.
- MMS (Minerals Management Service). 2007. Final Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf, OCS EIS/ EA MMS 2007-046. <https://www.boem.gov/renewable-energy/guide-ocs-alternative-energy-final-programmatic-environmental-impact-statement-eis>.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 2: Alternatives

- BOEM (Bureau of Ocean Energy Management). 2022. Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act (NEPA). June 22, 2022. <https://www.boem.gov/sites/default/files/documents/renewable-energy/BOEM%20COP%20EIS%20Alternatives-2022-06-22.pdf>.
- Maryland Geological Survey. 2022. Earthquakes and Maryland. Accessed July 2022. Available online at: http://www.mgs.md.gov/geology/geohazards/earthquakes_and_maryland.html.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 3.4.1: Air Quality

- Barthelmie, R.J., and S.C. Pryor. 2021. Climate Change Mitigation Potential of Wind Energy. *Climate* 9(9):136. Accessed: October 22, 2022. Available online at: <https://www.mdpi.com/2225-1154/9/9/136>.
- BOEM (Bureau of Ocean Energy Management). 2021. BOEM Offshore Wind Energy Facilities Emission Estimating Tool, User's Guide – Version 2.0. Accessed: October 22, 2022. Available online at: <https://www.boem.gov/Wind-Power-User-Guide/>.
- Buonocore, J.J., P. Luckow, J. Fisher, W. Kempton, and J.I. Levy. 2016. Health and Climate Benefits of Offshore Wind Facilities in the Mid-Atlantic United States, *Environmental Research Letters* 11 (2016) 074019. Accessed: October 22, 2022. Available online at: <https://iopscience.iop.org/article/10.1088/1748-9326/11/7/074019>.

- CEQ (Council on Environmental Quality). 2016. Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews Environmental Science and Technology. Accessed: April 25, 2023. Available online at: https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf.
- Interagency Working Group. 2021. Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990. Accessed: April 25, 2023. Available online at: https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.
- Katzenstein, W. and J. Apt. 2009. Air Emissions Due to Wind and Solar Power. Environmental Science and Technology 43(2):253–258. Accessed: October 22, 2022. Available online at: <https://pubs.acs.org/doi/abs/10.1021/es801437t>.
- Kempton, W., J. Firestone, J. Lilley, T. Rouleau, and P. Whitaker. 2005. The Offshore Wind Power Debate: Views from Cape Cod. Coastal Management Journal 33(2):119–149. DOI: 10.1080/08920750590917530.
- MDE (Maryland Department of the Environment). 2016a. Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06). Accessed February 22, 2023. Available online at: <https://mde.maryland.gov/programs/Permits/AirManagementPermits/Documents/TAP%20Compliance%20Demonstration%20Guidance%2003-21-2016.pdf>.
- Maryland Energy Administration. 2022. Energy Plan for 2022. Accessed: October 22, 2022. Available online at: <https://energy.maryland.gov/Reports/MEA%20Energy%20Plan%202022.pdf>.
- U.S. Energy Information Administration. 2014. Oil Tanker Sizes Range from General Purpose to Ultra-Large Crude Carriers on AFRA Scale. September 16, 2014. Accessed: October 22, 2022. Available online at: <https://www.eia.gov/todayinenergy/detail.php?id=17991>.
- USEPA (U.S. Environmental Protection Agency). 2019. NAAQS Table. Accessed: April 25, 2023. Available online at: <https://www.epa.gov/criteria-air-pollutants/naaqs-table>.
- USEPA (U.S. Environmental Protection Agency). 2020a. Co-Benefits Risk Assessment (COBRA) Health Impacts Screening and Mapping Tool. Accessed: October 22, 2022. Available online at: <https://cobra.epa.gov/>.
- USEPA (U.S. Environmental Protection Agency). 2020b. User’s Manual for the CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA). Accessed: October 22, 2022. Available online at: https://www.epa.gov/system/files/documents/2021-11/cobra-user-manual-nov-2021_4.1_0.pdf.

- USEPA (U.S. Environmental Protection Agency). 2020c. Greenhouse Gases Equivalencies Calculator — Calculations and References. Accessed: October 22, 2022. Available online at: <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>.
- USEPA (U.S. Environmental Protection Agency). 2022. Nonattainment Areas for Criteria Pollutants (Green Book). Accessed: October 22, 2022. Available online at: <https://www.epa.gov/green-book>.
- US Wind. 2022. Notice of Intent (NOI) to Submit an Application for an Outer Continental Shelf Air Permit, Maryland Offshore Wind Project- US Wind, Inc. August 2022.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 3.4.2: Water Quality

- Barthelmie, R.J., and S.C. Pryor. 2021. Climate Change Mitigation Potential of Wind Energy. *Climate* 9(9):136. Accessed: October 22, 2022. Available online at: <https://www.mdpi.com/2225-1154/9/9/136>.
- BOEM (Bureau of Ocean Energy Management). 2021. BOEM Offshore Wind Energy Facilities Emission Estimating Tool, User's Guide – Version 2.0. Accessed: October 22, 2022. Available online at: <https://www.boem.gov/Wind-Power-User-Guide/>.
- Buonocore, J.J., P. Luckow, J. Fisher, W. Kempton, and J. I. Levy. 2016. Health and Climate Benefits of Offshore Wind Facilities in the Mid-Atlantic United States, *Environmental Research Letters* 11 (2016) 074019. Accessed: October 22, 2022. Available online at: <https://iopscience.iop.org/article/10.1088/1748-9326/11/7/074019>.
- Carpenter, J.R., L. Merckelbach, U. Callies, S. Clark, L. Gaslikova, and B. Baschek. 2016. Potential Impacts of Offshore Wind Farms on North Sea Stratification. *PLoS ONE* 11(8): e0160830. Available: <https://doi.org/10.1371/journal.pone.0160830>.
- Cazenave, P.W., R. Torres, and J.I. Alen. 2016. Unstructured Grid Modelling of Offshore Wind Farm Impacts on Seasonally Stratified Shelf Seas. *Progress in Oceanography* 145(2016) 25–41. Available: <https://www.sciencedirect.com/science/article/pii/S0079661115300379>.
- Floeter, J., J.E.E. van Beusekom, D. Auch, U. Callies, J. Carpenter, T. Dudeck, et al. 2017. Pelagic Effects of Offshore Wind Farm Foundations in the Stratified North Sea. *Prog. Oceanography* 156:154–173. Doi: 10.1016/j.pocean.2017.07.003.
- Katzenstein, W. and J. Apt. 2009. Air Emissions Due to Wind and Solar Power. *Environmental Science and Technology* 43(2):253–258. Accessed: October 22, 2022. Available online at: <https://pubs.acs.org/doi/abs/10.1021/es801437t>.

- Kempton, W., J. Firestone, J. Lilley, T. Rouleau, and P. Whitaker. 2005. The Offshore Wind Power Debate: Views from Cape Cod. *Coastal Management Journal* 33(2):119–149. DOI: 10.1080/08920750590917530.
- Li, X., L. Chi, X. Chen, Y. Ren, and S. Lehner. 2014. SAR Observation and Numerical Modeling of Tidal Current Wakes at the East China Sea Offshore Wind Farm. *Journal of Geophysical Research: Oceans* 119(8):4958–4971.
- MDE (Maryland Department of the Environment). 2016a. Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06). Accessed February 22, 2023. Available online at: <https://mde.maryland.gov/programs/Permits/AirManagementPermits/Documents/TAP%20Compliance%20Demonstration%20Guidance%2003-21-2016.pdf>.
- Maryland Energy Administration. 2022. Energy Plan for 2022. Accessed: October 22, 2022. Available online at: <https://energy.maryland.gov/Reports/MEA%20Energy%20Plan%202022.pdf>.
- Schultze, L.K.P., L.M. Merckelbach, J. Horstmann, S. Raasch, and J.R. Carpenter. 2020. Increased Mixing and Turbulence in the Wake of Offshore Wind Farm Foundations. *J. Geophys. Res. Oceans* 125, e2019JC015858. doi: 10.1029/2019JC015858.
- Segtnan, O.H., and K. Christakos. 2015. Effect of Offshore Wind Farm Design on the Vertical Motion of the Ocean. 12th Deep Sea Offshore Wind R&D Conference, EERA DeepWind 2015. *Energy Procedia* 80 (2015) 213–222.
- U.S. Energy Information Administration. 2014. Oil Tanker Sizes Range from General Purpose to Ultra-Large Crude Carriers on AFRA Scale. September 16, 2014. Accessed: October 22, 2022. Available online at: <https://www.eia.gov/todayinenergy/detail.php?id=17991>.
- USEPA (U.S. Environmental Protection Agency). 2020a. Co-Benefits Risk Assessment (COBRA) Health Impacts Screening and Mapping Tool. Accessed: October 22, 2022. Available online at: <https://cobra.epa.gov/>.
- USEPA (U.S. Environmental Protection Agency). 2020b. User’s Manual for the CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA). Accessed: October 22, 2022. Available online at: https://www.epa.gov/system/files/documents/2021-11/cobra-user-manual-nov-2021_4.1_0.pdf.
- USEPA (U.S. Environmental Protection Agency). 2020c. Greenhouse Gases Equivalencies Calculator — Calculations and References. Accessed: October 22, 2022. Available online at: <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#vehicles>.
- USEPA (U.S. Environmental Protection Agency). 2022. Nonattainment Areas for Criteria Pollutants (Green Book). Accessed: October 22, 2022. Available online at: <https://www.epa.gov/green-book>.

- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Van Berkel, J., H. Burchard, A. Christensen, L.O. Mortensen, O. Svenstrup Petersen, and F. Thomsen. 2020. The Effects of Offshore Wind Farms on Hydrodynamics and Implications for Fishes. *Oceanography*. 33(4):108–117.
- Vanhellemont, Q., and K. Ruddick. 2014. Turbid Wakes Associated with Offshore Wind Turbines Observed with Landsat 8. *Remote Sensing of Environment* 145:105–115.

Chapter 3.5.1: Bats

- Arnett, E.B., W.K. Brown, W.P. Erickson, J.K. Fiedler, B.L. Hamilton, T.H. Henry, A. Jain, G.D. Johnson, J. Kerns, R.R. Kolford, C.P. Nicholson, T.J. O’Connell, M.D. Piorkowski, and R.D. Tankersley, Jr. 2008. Patterns of Bat Fatalities at Wind Energy Facilities in North America. *The Journal of Wildlife Management*, Vol. 72, No. 1: 61–78.
- Baerwald, E.F., and R.M.R. Barclay. 2009. Geographic Variation in Activity and Fatality of Migratory Bats at Wind Energy Facilities. *Journal of Mammalogy*, Vol. 90, No. 6: 1341–1349. Available online at: <https://academic.oup.com/jmammal/article/90/6/1341/898849>. Accessed: March 16, 2022.
- Brabant, R, Y. Laurent, B.J. Poerink, and S. Degraer. 2021. The Relation between Migratory Activity of *Pipistrellus* Bats at Sea and Weather Conditions Offers Possibilities to Reduce Offshore Wind Farm Effects. *Animals* 2021, 11, 3457. Doi.org/10.3390/ani11123457. Available online at: <https://www.mdpi.com/2076-2615/11/12/3457>. Accessed: June 22, 2022.
- BOEM (Bureau of Ocean Energy Management). 2015. Virginia Offshore Wind Technology Advancement Project on the Atlantic Outer Continental Shelf Offshore Virginia: Revised Environmental Assessment. Office of Renewable Energy Programs. OCS EIS/EA BOEM 2015-031. Accessed: March 16, 2022. Retrieved from: <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/VA/VO WTAP-EA.pdf>
- BOEM (Bureau of Ocean Energy Management). 2019. National Environmental Policy Act Documentation for Impact-Producing Factors in the Offshore Wind Cumulative Impacts Scenario on the North Atlantic Continental Shelf. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Sterling, VA. OCS Study BOEM 2019-036. May 2019. Available online at: <https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/IPFs-in-the-Offshore-Wind-Cumulative-Impacts-Scenario-on-the-N-OCS.pdf>. Accessed: November 2022.
- BOEM (Bureau of Ocean Energy Management). 2023. Maryland Offshore Wind Project Biological Assessment. Prepared for U.S. Fish and Wildlife Service. In Progress.

- Choi, D.Y., T.W. Wittig, and B.M. Kluever. 2020. An evaluation of bird and bat mortality at wind turbines in the Northeastern United States. *PLoS ONE*, Vol. 15, No. 8: e0238034. August 28, 2020. Available online at: <https://doi.org/10.1371/journal.pone.0238034>. Accessed: December 2022.
- Cryan, P.M. 2008. Mating Behavior as a Possible Cause of Bat Fatalities at Wind Turbines. *The Journal of Wildlife Management*, Vol. 72, No. 3: 845–849. DOI: 10.2193/2007-37. April 2008.
- Cryan, P.M., and A.C. Brown. 2007. Migration of bats past a remote island offers clues toward the problem of bat fatalities at wind turbines. *Biological Conservation*, Vol. 139, Iss. 1–2: 1–11. September 2007.
- Cryan, P.M., and R.M.R. Barclay. 2009. Causes of Bat Fatalities at Wind Turbines: Hypotheses and Predictions. *Journal of Mammalogy*, Vol. 90, No. 6: 1330–1340.
- Cryan P.M., M. Gorresen, C.D. Hein, M.R. Schirmacher, R.H. Diehd, M.M. Husoe, D.T.S. Hayman, P.D. Fricker, F.J. Bonaccorso, D.H. Johnson, K. Heist, and D.C. Dalton. 2014. Behavior of Bats at Wind Turbine. *Proceedings of the National Academy of Sciences* 11(42): 15126–15131.
- DNREC (Delaware Department of Natural Resources and Environmental Control). 2022. Delaware’s Endangered Species. Available online at: <https://dnrec.alpha.delaware.gov/fish-wildlife/conservation/endangered-species/>. Accessed: February 2023.
- Dominion Energy. 2022. Postconstruction Bird and Bat Monitoring at the Coastal Virginia Offshore Wind Pilot Project. First Annual Report. Prepared by Normandeau Associates, Inc. December.
- Dowling, Z., P.R. Sievert, E. Baldwin, L. Johnson, S. von Oettingen, and J. Reichard. 2017. Flight Activity and Offshore Movements of Nano-Tagged Bats on Martha’s Vineyard, MA. U.S. Department of the Interior, Bureau of Energy Management, Office of Renewable Energy Programs, Sterling, VA. OCS Study BOEM 2017-054. June 2017. Available online at: <https://www.boem.gov/sites/default/files/environmental-stewardship/Environmental-Studies/Renewable-Energy/Flight-Activity-and-Offshore-Movements-of-Nano-Tagged-Bats-on-Martha%27s-Vineyard%2C-MA.pdf>. Accessed: October 30, 2018.
- Erickson, W., G. Johnson, D. Young, D. Strickland, R. Good, M. Bourassa, K. Bay, and K. Sernka. 2002. Synthesis and Comparison of Baseline Avian and Bat Use, Raptor Nesting and Mortality Information from Proposed and Existing Wind Developments. Bonneville Power Administration, Portland, Oregon, USA.
- Fiedler, J.K. 2004. Assessment of Bat Mortality and Activity at Buffalo Mountain Windfarm, Eastern Tennessee. Master’s Thesis, University of Tennessee – Knoxville. August 2004. Available online at: https://trace.tennessee.edu/cgi/viewcontent.cgi?article=3488&context=utk_gradthes. Accessed: March 16, 2022.
- GMI (Geo-Marine, Inc). 2010. New Jersey Department of Environmental Protection Baseline Studies. Final Report, Volume 1: Overview, Summary, and Application. July 2010. Available online at: <https://dep.nj.gov/wp-content/uploads/offshorewind/docs/baseline/osw-baseline-volume-one.pdf>. Accessed: November 19, 2022.

- Hamilton, R.M. 2012. Spatial and Temporal Activity of Migratory Bats at Landscape Features. Western Graduate & Postdoctoral Studies, Electronic Thesis and Dissertation Repository. 886. 24 September 2012.
- Hann, Z.A., M.J. Hosler, and P.R. Mooseman, Jr. 2017. Roosting Habits of Two *Lasiurus borealis* (Eastern Red Bat) in the Blue Ridge Mountains of Virginia. *Northeastern Naturalist*, Iss. 24/2: N15–N18. June 2017.
- Hatch, S.K., E.E. Connelly, T.J. Divoll, I.J. Stenhouse, and K.A. Williams. 2013. Offshore Observations of Eastern Red Bats (*Lasiurus borealis*) in the Mid-Atlantic United States Using Multiple Survey Methods. *PLoS ONE*, Vol. 8, Iss. 12: e83803. Biodiversity Research Institute, Gorham, Maine, United States of America. December 2013.
- Hein, C., K. A. Williams, and E. Jenkins. 2021. Bat Workgroup Report for the State of the Science Workshop on Wildlife and Offshore Wind Energy 2020: Cumulative Impacts. Report to the New York State Energy Research and Development Authority (NYSERDA). Albany, NY. 21 pp. Available online at: <https://www.nyetwg.com/2020-workgroups>. Accessed: December 2022.
- Johnson, J.B., J.E. Gates, and N.P. Zégre. 2010. Monitoring seasonal bat activity on a coastal barrier island in Maryland, USA. *Environmental Monitoring and Assessment*, Vol. 173: 685–699. 25 March 2010.
- Kerns, J., W.P. Erickson, and E.B. Arnett. 2005. Bat and Bird Fatality at Wind Energy Facilities in Pennsylvania and West Virginia. In *Relationships Between Bats and Wind Turbines in Pennsylvania and West Virginia: An Assessment of Bat Fatality Search Protocols, Patterns of Fatality, and Behavioral Interactions with Wind Turbines*, pp. 24–95. A final report submitted to the Bats and Wind Energy Cooperative. Bat Conservation International, Austin, Texas, USA. June 2005. Available online at: https://tethys.pnnl.gov/sites/default/files/publications/Arnett_et_al_2005.pdf. Accessed: March 16, 2022.
- Kunz, T.H., E.B. Arnett, W.P. Erickson, A.R. Hoar, G.D. Johnson, R.P. Larkin, M.D. Strickland, R.W. Thresher, and M.D. Tuttle. 2007. Ecological Impacts of wind energy development on bats: questions, research needs, and hypotheses. *Frontiers in Ecology and the Environment*, Vol. 5, Iss. 6: 315–324. The Ecological Society of America.
- MDNR (Maryland Department of Natural Resources). 2021. List of rare, threatened, and endangered animals of Maryland. Available online at: https://dnr.maryland.gov/wildlife/Documents/rte_Animal_List.pdf Accessed: November 2022.
- Pelletier, S.K., K.S. Omland, K.S. Watrous, and T.S. Peterson. 2013. Information Synthesis on the Potential for Bat Interactions with Offshore Wind Facilities—Final Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM No. 2013-01163. June 2013. Available online at: https://tethys.pnnl.gov/sites/default/files/publications/BOEM_Bat_Wind_2013.pdf. Accessed: September 1, 2020.

- Peterson, T. S., S. K. Pelletier, S. A. Boyden, and K. S. Watrous. 2014. Offshore acoustic monitoring of bats in the Gulf of Maine. *Northeastern Naturalist* 21:154–163.
- Schaub, A., J. Ostwald, and B.M. Siemers. 2008. Foraging bats avoid noise. *The Journal of Experimental Biology*, Vol. 211: 3147–3180. 14 August 2008.
- Simmons, A.M., K.N. Horn, M. Warnecke, and J.A. Simmons. 2016. Broadband noise exposure does not affect hearing sensitivity in big brown bats (*Eptesicus fuscus*). *The Journal of Experimental Biology*, Vol. 219: 1031–1040. 18 January 2016.
- Sjollema, A.L., J.E. Gates, R.H. Hilderbrand, and J. Sherwell. 2014. Offshore Activity of Bats Along the Mid-Atlantic Coast. *Northeastern Naturalist*, Vol. 21, Iss. 2: 154–163. June 2014.
- Smith, A.D., and S.R. McWilliams. 2016. Bat activity during autumn relates to atmospheric conditions: implications for coastal wind energy development. *Journal of Mammalogy*, Vol. 97, Iss. 6: 1565–1577. 22 August 2016.
- Stantec (Stantec Consulting Services). 2016. Long-term Bat Monitoring on Islands, Offshore Structures, and Coastal Sites in the Gulf of Maine, mid-Atlantic, and Great Lakes—Final Report. Prepared for the U.S. Department of Energy. 15 January 2016. Available online at:<https://tethys.pnnl.gov/sites/default/files/publications/Stantec-2016-Bat-Monitoring.pdf>. Accessed: March 16, 2022.
- Stantec (Stantec Consulting Services). 2018. Avian and Bat Risk Assessment: South Fork Wind Farm and South Fork Export Cable. Final report to Deepwater Wind South Fork, LLC.
- USFWS. (U.S. Fish and Wildlife Service) 2022. Information for Planning and Consultation (iPaC). Species list for Project Action Areas. Available: <https://ecos.fws.gov/ipac/>. Accessed May 24, 2022.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Whitaker, J.O., Jr. 1998. Life History and Roost Switching in Six Summer Colonies of Eastern Pipistrelles in Buildings. *Journal of Mammalogy* Vol. 79, No. 2: 651–659.

Chapter 3.5.2: Benthic Resources

- Agius, B.P. 2007. Spatial and temporal effects of pre-seeding plates with invasive ascidians: growth, recruitment and community composition. *Journal of Experimental Marine Biology and Ecology*, 342(1), pp.30-39.
- Albert, L., F. Deschamps, A. Jolivet, F. Olivier, L. Chauvaud, and S. Chauvaud. 2020. A current synthesis on the effects of electric and magnetic fields emitted by submarine power cables on invertebrates. *Marine Environmental Research* 159:104958. DOI: [10.1016/j.marenvres.2020.104958](https://doi.org/10.1016/j.marenvres.2020.104958).

- Albert L., O. Maire, F. Olivier, C. Lambert, A. Romero-Ramirez, A. Jolivet, L. Chauvaud, and S. Chauvaud. 2022. Can artificial magnetic fields alter the functional role of the blue mussel, *Mytilus edulis*? *Marine Biology* 169(6):75.
- Anderson, C. M., M. Mayes, and R. LaBelle. 2012. Update of occurrence rates for offshore oil spills. Report No. OCS Report BOEM 2012-069 BSEE 2012-069. 87 p.
https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/Environmental_Stewardship/Environmental_Assessment/Oil_Spill_Modeling/AndersonMayesLabelle2012.pdf.
- Arveson, P., and D. Vendittis. 2000. Radiated noise characteristics of a modern cargo ship. *Journal of the Acoustical Society of America* 2000(107):118–129.
- Avanti Corporation and Industrial Economics Inc. 2019. National Environmental Policy Act documentation for impact-producing factors in the offshore wind cumulative impacts scenario on the North Atlantic continental shelf. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. Report No. OCS Study BOEM 2019-036. 201 p.
- Bakker, P., A. Schmittner, J. T. M. Lenaerts, A. Abe-Ouchi, D. Bi, M. R. van den Broeke, W.-L. Chan, A. Hu, R. L. Beadling, S. J. Marsland, S. H. Mernild, O. A. Saenko, D. Swingedouw, A. Sullivan, and J. Yin. 2016. Fate of the Atlantic meridional overturning circulation: Strong decline under continued warming and Greenland melting. *Geophysical Research Letters*. 43, 12,252–12,260, DOI: [10.1002/2016GL070457](https://doi.org/10.1002/2016GL070457)
- Bilinski, J. 2021. Review of the Impacts to Marine Fauna from Electromagnetic Frequencies (EMF) Generated by Energy Transmitted through Undersea Electric Transmission Cables. NJDEP – Division of Science and Research. Available:
<https://www.nj.gov/dep/offshorewind/docs/njdep-marine-fauna-review-impacts-from-emf.pdf>. Accessed November 15, 2022.
- BOEM (Bureau of Ocean Energy Management). 2011. Commercial wind lease issuance and site characterization activities on the Atlantic outer continental shelf offshore New Jersey, Delaware, Maryland and Virginia: Final environmental assessment. Edited by Office of Renewable Energy Programs.
- BOEM (Bureau of Ocean Energy Management). 2012. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia, Final Environmental Assessment. 366 p. Report No.: OCS EIS/EA BOEM 2012-003.
- BOEM (Bureau of Ocean Energy Management). 2019. Guidelines for Providing Benthic Habitat Survey Information for Renewable Energy Development on the Atlantic Outer Continental Shelf Pursuant to 30 CFR Part 585. June 2019. <https://www.boem.gov/sites/default/files/renewable-energy-program/Regulatory-Information/BOEM-Renewable-Benthic-Habitat-Guidelines.pdf>. Accessed November 21, 2022.

- BOEM (Bureau of Ocean Energy Management). 2021. Vineyard Wind 1 Offshore Wind Energy Project Final Environmental Impact Statement. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS EIS/EA BOEM 2021-0012. 4 vols. Accessed: November 2022. Available online at: <https://www.boem.gov/vineyard-wind>.
- Bott M., R. Wong. 2012. Hard clam (*Mercenaria mercenaria*) population density and distribution in Rehoboth Bay and Indian River Bay, Delaware. Available: https://www.inlandbays.org/wp-content/documents/hard_clam_final_copy.pdf. Accessed July 27, 2023.
- Boyd, S. E., D. S. Limpenny, H. L. Rees, and K. M. Cooper. 2005. The Effects of Marine Sand and Gravel Extraction on the Macrobenthos at a Commercial Dredging Site (Results 6 Years Post-dredging). ICES Journal of Marine Science 62: 145–162.
- Brooks, R. A., C. N. Purdy, S. S. Bell, and K. J. Sulak. 2006. The benthic community of the eastern US continental shelf: a literature synopsis of benthic faunal resources. Continental Shelf Research: 804-818.
- Brothers, C.J., J. Harianto, J.B. McClintock, and M. Byrne. 2016. Sea Urchins in a High-CO₂ World: The Influence of Acclimation on the Immune Response to Ocean Warming and Acidification. Proceedings of the Royal Society B 283: 20161501. Retrieved from: <http://dx.doi.org/10.1098/rspb.2016.1501>
- Bruggeman G., P. Middleton, B. Barnhart. 2023. U.S. Department of the Interior Bureau of Ocean Energy Management Office of Renewable Energy Programs Supporting National Environmental Policy Act Documentation for Offshore Wind Energy Development Related to Glauconite Sand. Washington (DC). Report No. BOEM 2023-011. 16 p.
- Callender, G., D. Ellis, K. F. Goddard, J. K. Dix, J. A. Pilgrim and M. Erdmann. 2021. Low Computational Cost Model for Convective Heat Transfer From Submarine Cables, in IEEE Transactions on Power Delivery, vol. 36, no. 2, pp. 760-768, April 2021, doi: 10.1109/TPWRD.2020.2991783.
- Cargill, J. G. and D. Pratt. 2020. Indian River Dredging Project Analysis of Chemical Contaminants in Sediments. Delaware Department of Natural Resources and Environmental Control Watershed Assessment & Management Section Remediation Section. January 2020.
- Carroll, A. G., R. Prezeslawski, A. Duncan, M. Gunning, and B. Bruce. 2017. A critical review of the potential impacts of marine seismic surveys on fish and invertebrates. Marine Pollution Bulletin, 114: 9-24.
- Celi, M., F. Filiciotto, G. Maricchiolo, L. Genovese, E.M. Quinci, V. Maccarrone, S. Mazzola, M. Vazzana, and G. Buscaino. 2016. Vessel noise pollution as a human threat to fish: assessment of the stress response in gilthead sea bream (*Sparus aurata*, Linnaeus 1758). Fish Physiology and biochemistry 42 (2016): 631-641.
- Coates, D.A., Y. Deschutter, M. Vincx, and J. Vanaverbeke. 2014. Enrichment and shifts in macrobenthic assemblages in an offshore wind farm area in the Belgian part of the North Sea. Marine Environmental Research 95:1–12.

- Colden, A. M. and R. N. Lipcius. 2015. Lethal and sublethal effects of sediment burial on the eastern oyster *Crassostrea virginica*. *Marine Ecology Progress Series* 527:105-117.
<https://doi.org/10.3354/meps11244>
- Commander Naval Air Force Atlantic [AIRLAT]. 2022. FACSAC VACAPES. Online website:
<https://www.airlant.usff.navy.mil/facsfacvacapes/>. Accessed November 15, 2022.
- Coolen J., J. Vanaverbeke, J. Dannheim, C. Garcia, S. Birchenough, R. Krone, and J. Beermann. 2022. Generalized changes of benthic communities after construction of wind farms in the southern North Sea. *Journal of Environmental Management* 315:115173.
- Copping, A., N. Sather, L. Hanna, J. Whiting, G. Zydlewski, G. Staines, A. Gill, I. Hutchison, A. O'Hagan, T. Simas, J. Bald, C. Sparling, J. Wood, and E. Masden. 2016. Annex IV 2016 State of the Science Report: Environmental Effects of Marine Renewable Energy Development Around the World. Available online at: https://tethys.pnnl.gov/sites/default/files/publications/Annex-IV-2016-State-of-the-Science-Report_LR.pdf. Accessed December 3, 2021.
- CSA Ocean Sciences Inc. and Exponent 2019. Evaluation of Potential EMF Effects on Fish Species of Commercial or Recreational Fishing Importance in Southern New England. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Headquarters, Sterling, VA. OCS Study BOEM 2019-049. 59 pp. https://espis.boem.gov/final%20reports/BOEM_2019-049.pdf.
- Cutter, G. R. Jr., R. J. Diaz, J. A. Musick, J. Sr. Olney, D. M. Bilkovic, J. P.-Y. Maa, S.-C. Kim, C. S. Jr. Hardaway, D. A. Milligan, R. Brindley, and C. H. III Hobbs. 2000. Environmental Survey of Potential Sand resource Sites Offshore Delaware and Maryland. Virginia Institute of Marine Science College of William and Mary. Available: <https://www.boem.gov/sites/default/files/mm-research/2022-03/2000-055.pdf>. Accessed January 31, 2023.
- Dannheim J., L. Bergström, S.N.R. Birchenough, R. Brzana, A.R. Boon, J.W.P. Coolen, J. Dauvin, I. De Mesel, J. Derweduw, A.B. Gill, Z.L. Hutchison, A.C. Jackson, U. Janas, G. Martin, A. Raoux, J. Reubens, L. Rostin, J. Vanaverbeke, T.A. Wilding, D. Wilhelmsson, and S. Degraer. 2020. Benthic effects of offshore renewables: Identification of knowledge gaps and urgently needed research. *ICES Journal of Marine Science* 77(3):1092–1108.
- DNREC (Delaware Department of Natural Resources and Environmental Controls). 2020. State of Delaware 2020 Combined Watershed Assessment Report (305(b)) and Determination for the Clean Water Act Section 303(d) List of Waters Needing TMDLs. October 2020. Available: <https://documents.dnrec.delaware.gov/swc/wa/Documents/2020-Delaware-Final-IR-with-appendices.pdf>. Accessed July 27, 2023.
- DNREC (Delaware Department of Natural Resources and Environmental Controls). 2021. 2020 Delaware Inland Bays Shellfish Aquaculture Report Planting, harvest, and survey of participants Available: <https://documents.dnrec.delaware.gov/fw/Fisheries/Shellfish-Aquaculture/2020-Inland-Bays-Shellfish-Aquaculture-Report.pdf>. Accessed July 27, 2023.

- DNREC (Delaware Department of Natural Resources and Environmental Controls). 2022. Delaware Bivalve Shellfish Harvest. Available: <https://experience.arcgis.com/experience/9e12d44e8c0d4170b596a46148f647a6>. Accessed August 8, 2022.
- DNREC (Delaware Department of Natural Resources and Environmental Controls). 2023. Delaware Water Quality Portal. Center for Environmental Monitoring and Analysis, University of Delaware. Available: <https://cema.udel.edu/applications/waterquality/>. Accessed July 27, 2023.
- Degraer, S., R. Brabant, B. Rumes, and L. Vigin. (eds). 2018. Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea: Assessing and Managing Effect Spheres of Influence. Brussels: Royal Belgian Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management. 136 p.
- Degraer, S., D. A. Carey, J. W. P. Coolen, Z. L. Hutchison, F. Kerckhof, B. Rumes, and J. Vanaverbeke. 2020. Offshore Wind Farm Artificial Reefs Effect Ecosystem Structure and Functioning a Synthesis. *Oceanography*. 33:4(48-57).
- Dernie, K. M., M. J. Kaiser, and R. M. Warwick. 2003. Recovery rates of benthic communities following physical disturbance. *Journal of Animals Ecology*, 72:1043-1056.
- Dima, M. D. Nichita, G. Lohmann, M. Ionita, and M. Voiculescu. 2021. Early-onset of Atlantic meridional overturning circulation weakening in response to atmospheric CO₂ concentration. *Npj Climate and Atmospheric Science*, 4:27.
- Dybas C. L. 2019. New Lifeblood for Atlantic Horseshoe Crabs. *Oceanography* 32:12-14.
- English, P. A., T. I. Mason, J. T. Backstrom, B. J. Tibbles, A. A. Mackay, M. J. Smith, and T. Mitchell. 2017. Improving Efficiencies of National Environmental Policy Act Documentation for Offshore Wind Facilities Case Studies Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2017-026.
- Essink, K. 1999. Ecological effects of dumping of dredged sediments; options for management. *J Coast Conserv* 5, 69–80 (1999). <https://doi.org/10.1007/BF02802741>
- Ewart J. W. 2013. Shellfish Aquaculture in Delaware's Inland Bays: Status Opportunities, and Constraints. University of Delaware College of Earth, Ocean, and Environment (CEOE). 45 p.
- Fautin, D., P. Dalton, L. S. Incze, J.-A. C. Leong, C. Pautzke, A. Rosenberg, P. Sandifer, G. Sedberry, J. W. Tunnell, Jr., I. Abbott, R. E. Brainard, M. Brodeur, L. G. Eldredge, M. Feldman, F. Moretzsohn, P. S. Vroom, M. Wainstein, and N. Wolff. 2010. An Overview of Marine Biodiversity in United States Waters. *PloS ONE* 5(8): e11914. Doi:10.1371/journal.pone.0011914
- Filiciotto F, M. Vazzana, M. Celi, V. Maccarrone, M. Ceraulo, G. Buffa, D. Di Stefano, S. Mazzola, and G. Buscaino. 2014. Behavioural and biochemical stress responses of *Palinurus elephas* after exposure to boat noise pollution in tank. *Marine Pollution Bulletin*. 84(1-2):104-114. doi:10.1016/j.marpolbul.2014.05.029.

- Findlay, H. S., H.L. Wood, M. A. Kendall, J. I. Spicer, R. J. Twichett, and S. Widdicombe. 2011. Comparing the impact of high CO₂ on calcium carbonate structures in different marine organisms. *Marine Biology Research*. Pp. 565-575. <https://doi.org/10.1080/17451000.2010.547200>.
- Forrest B. M., L. M. Fletcher, J. Atalah, R. F. Piola, and G. A. Hopkins. 2013. Predation Limits Spread of *Didemnum vexillum* into Natural Habitats from Refuges on Anthropogenic Structures. *PLOS ONE* 8(12):e82229.
- Friedland K. D., E. T. Methratta, A. B. Gill, S. K. Gaichas, T. H. Curtis, E. M. Adams, J. L. Morano, D. P. Crear, M. C. McManus, and D. C. Brady. 2022. Resource Occurrence and Productivity in Existing and Proposed Wind Energy Lease Areas on the Northeast US Shelf. *Frontiers in Marine Science* 8.
- Gill, A.B. and M. Desender. 2020. Risk to Animals from Electro-magnetic Fields Emitted by Electric Cables and Marine Renewable Energy Devices. In A.E. Copping and L.G. Hemery (eds.), OES-Environmental 2020 State of the Science Report: Environmental Effects of Marine Renewable Energy Development Around the World. Report for Ocean Energy Systems (OES). (pp. 86-10). DOI: 10.2172/1633088.
- Good, P., J. Bamber, K. Halladay, A. B. Harper, L. C. Jackson, G. Kay, B. Kruijt, J. A. Lowe, O. L. Phillips, J. Ridley, M. Srokosz, C. Turley, and P. Williamson. 2018. Recent progress in understanding climate thresholds: Ice sheets, the Atlantic meridional overturning circulation, tropical forests and responses to ocean acidification. *Progress in Physical Geography: Earth and Environment*, 42(1), 24–60. <https://doi.org/10.1177/0309133317751843>
- Greene, J. K., M. G. Anderson, J. Odell, and N. Steinberg, eds. 2010. The Northwest Atlantic Marine Ecoregional Assessment: Species, Habitats and Ecosystems. Phase One. The Nature Conservancy, Eastern U.S. Division, Boston, MA
- Guarinello, M., and D. Carey 2020. Multi-modal Approach for Benthic Impact Assessments in Moraine Habitats: a Case Study at the Block Island Wind Farm. *Estuaries and Coasts*. 45(4), 1107-1122.
- Guida, V., A. Drohan, H. Welch, J. McHenry, D. Johnson, V. Kentner, J. Brink, D. Timmons, and E. Estela-Gomez. 2017. Habitat Mapping and Assessment of Northeast Wind Energy Areas. Sterling, VA: US Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2017-088. 312 p.
- Hale, S., H. Buffman, J. Kiddon, and M. Hughes. 2017. Subtidal benthic invertebrates shifting northward along the US Atlantic coast. *Estuaries and Coasts*. 40:1744-1756.
- Harding H. R., T. A. C. Gordon, K. Wong, M. I. McCormicl, S. D. Simpson, and A. N. Radfor. 2020. Condition-dependent responses of fish to motorboats. *Biol Lett*. 16(11):20200401. doi:10.1098/rsbl.2020.0401.
- Hawkins, A., and A. Popper. 2014. Assessing the impact of underwater sounds on the fishes and other forms of marine life. *Acoustics Today*. Spring 2014. Pp. 30-41.

- HDR. 2018. Field Observations during Wind Turbine Foundation Installation at the Block Island Wind Farm, Rhode Island. Final Report to the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2018-029. 175 pp.
- HDR. 2019. Field Observations during Wind Turbine Foundation Installation at the Block Island Wind Farm, Rhode Island. (U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Program).
- HDR. 2020. Seafloor Disturbance and Recovery Monitoring at the Block Island Wind Farm, Rhode Island – Summary Report. OCS Study BOEM 2020-019. Final report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. Available at: https://espis.boem.gov/final%20reports/BOEM_2020-019.pdf. Accessed November 20, 2022.
- Henderson, D., B. Hu, and E. Bielefeld. 2008. Patterns and mechanisms of noise-induced cochlear pathology. Auditory Trauma, Protection, and Repair. A. N. Popper and R. R. Fay. New York, Springer: 195-217.
- Hendrick, V. J., Z. L. Hutchison, and K.S. Last. 2016. Sediment Burial Intolerance of Marine Macroinvertebrates. *PloS ONE* 11(2): e0149114. Doi:10.1371/journal.pone.0149114
- Hoegh-Guldberg, O., and J.F. Bruno. 2010. The Impact of Climate Change on the World’s Marine Ecosystems. *Science* 328, no. 5985: 1523–1528. Doi: 10.1126/science.1189930. June 18, 2010.
- Hogan F., B. Hooker, B. Jensen, L. Johnston, A. Lipsky, E. Methratta, A. Silva, and A. Hawkins. 2023. Fisheries and Offshore Wind Interactions: Synthesis of Science. Woods Hole, MA. NOAA Technical Memorandum NMFS-NE-291. 388 p.
- Hudson D. M., J. S. Krumholz, D. L. Pochtar, N. C. Dickenson, G. Dossot, G. Phillips, E. P. Baker, and T. E. Moll. 2022. Potential impacts from simulated vessel noise and sonar on commercially important invertebrates. *PeerJ* 10:e12841.
- Hutchison, Z. L., P. Sigray, H. He, A. B. Gill, J. King, and C. Gibson. 2018. Electromagnetic Field (EMF) Impacts on Elasmobranch (shark, rays, and skates) and American Lobster Movement and Migration from Direct Current Cables. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2018-003
- Hutchison Z. L., D. H. Secor, and A. B. Gill. 2020. The interaction between resource species and electromagnetic fields associated with electricity production by offshore wind farms. *Oceanography* 33(4):96–107.
- Hutchison, Z. L., P. Sigray, A. B. Gill, T. Michelot, and J. King, 2021. Electromagnetic Field Impacts on American Eel Movement and Migration from Direct Current Cables. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2021-83. Accessed November 17, 2022. https://espis.boem.gov/final%20reports/BOEM_2021-083.pdf.

- Independent Technical Review Team 2009. Sediment in Baltimore Harbor: Quality and Suitability for Innovative Reuse. An Independent Technical Review. Jonathan G. Kramer, Jessica Smits, and Kevin G. Sellner (eds.). Maryland Sea Grant Publication UM-SG-TS-2009-04. CRC Publ. No. 09-169. https://www.mdsg.umd.edu/sites/default/files/2019-12/_Dredge_Report_and_Appendices_Web.pdf
- Inger R., M. J. Attrill, S. Bearhop, A. C. Broderick, W. James Grecian, D. J. Hodgson, C. Mills, E. Sheehan, S. C. Votier, and M. J. Witt. 2009. Marine renewable energy: potential benefits to biodiversity? An urgent call for research. *Journal of applied ecology* 46(6):1145-1153.
- Jakubowska-Lehrmann M., M. Białowas, Z. Otremba, A. Hallmann, S. Śliwińska-Wilczewska, and B. Urban-Malinga. 2022. Do magnetic fields related to submarine power cables affect the functioning of a common bivalve? *Marine Environmental Research* 179:105700.
- Johnson T. L., J. J. v. Berkel, L. O. Mortensen, M. A. Bell, I. Tiong, B. Hernandez, D. B. Snyder, F. Thomsen, and O. S. Peterson. 2021. Hydrodynamic Modeling, Particle Tracking and Agent-Based Modeling of Larvae in the U.S. Mid-Atlantic Bight. Report No. OCS Study BOEM 2021-049. p.
- Jumars, P. A., K. M. Dorgan, and S. M. Lindsay. 2015. An Update of Polychaete Feeding Guilds. *Annu. Rev. Mar. Sci.* 2015. 7:497-520.
- Kerckhof, F., B. Rumes, and S. Degraer. 2019. About “mytilisation” and “slimeification”: A decade of succession of the fouling assemblages on wind turbines off the Belgian coast. Chapter 7 in *Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea: Marking a Decade of Monitoring, Research and Innovation*, edited by S. Degraer, R. Brabant, B. Rumes, and L. Vigin, pp. 73–84. Brussels: Royal Belgian Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management.
- Kraeuter J. N., G. Flimlin, M. J. Kennish, R. Macaluso, and J. Viggiano. 2009. Sustainability of northern quahogs (= hard clams) *Mercenaria mercenaria*, Linnaeus in Raritan Bay, New Jersey: assessment of size specific growth and mortality. *Journal of Shellfish Research* 28(2):273-287.
- Lefaible, N., L. Colson, U. Braeckman, and T. Moens. 2019. Evaluation of Turbine-Related Impacts on Macrobenthic Communities Within Two Offshore Wind Farms During the Operational Phase. In *Memoirs on the Marine Environment: Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea*. S. Degraer, R. Brabant, B. Rumes, and L. Vigin, eds. 73–84. Brussels: Royal Belgian Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management. Available: <https://tethys.pnnl.gov/sites/default/files/publications/Degraer-2019-Offshore-Wind-Impacts.pdf>. Accessed: October 11, 2021.
- Lengyel, N. L., J. S. Collie, and P. C. Valentine. 2009. The invasive colonial ascidian *Didemnum vexillum* on Georges Bank-Ecological effects and genetic identification. *Aquatic Invasions* 4(1): 143-152.
- Lentz S. 2017. Seasonal warming of the Middle Atlantic Bight Cold Pool. *Journal of Geophysical Research: Oceans* 122. DOI:[10.1002/2016JC012201](https://doi.org/10.1002/2016JC012201).

- Love, M. S., M. M. Nishimoto, S. Clark, and A. S. Bull. 2016. Renewable Energy in situ Power Cable Observation. U.S. Department of the Interior, Bureau of Ocean Energy Management, Pacific OCS Region, Camarillo, CA.
- MacArthur, R. 2022. Lewes-Reheboth Canal dredging gets funding. January 21, 2022. Cape Gazette. <https://www.capegazette.com/article/lewes-reheboth-canal-dredging-gets-funding/233800>. Accessed November 21, 2022.
- Mardiana, R. 2011. Parameters affecting the ampacity of HVDC submarine power cables, 2011 2nd International Conference on Electric Power and Energy Conversion Systems (EPECS), 2011, pp. 1-6, doi: 10.1109/EPECS.2011.6126847. Marine Conservation Institute. 2019. Atlas of Marine Protection. Accessed November 21, 2022. <http://www.mpatlas.org/mpa/sites/8591/>.
- Mass.gov. 2022. Marine Invasive Species Identification Cards. Available: <https://www.mass.gov/service-details/marine-invasive-species-identification-cards>. Accessed: December 20, 2022.
- Mavraki, N., S. Degraer, and J. Vanaverbeke. 2021. Offshore wind farms and the attraction–production hypothesis: insights from a combination of stomach content and stable isotope analyses. *Hydrobiologia* (2021) 848:1639–1657.
- McCormick, M., T. Manley, D. Beletsky, A. Foley III, and G. Fahnenstiel. 2008. Tracking the Surface Flow in Lake Champlain. Available online: <http://www.glerl.noaa.gov/pubs/fulltext/2008/20080053.pdf>. Accessed December 4, 2022.
- Middleton P., B. Barnhart, J. Salerno. 2021. Supporting National Environmental Policy Act Documentation for Offshore Wind Energy Development Related to Munitions and Explosives of Concern and Unexploded Ordinances. Washington (DC). Report No. OCS Study BOEM 2022-012. 13 p.
- Miles T., S. Murphy, J. Kohut, S. Borsetti, and D. Munroe. 2021. Offshore Wind Energy and the Mid-Atlantic Cold Pool: A Review of Potential Interactions. *Marine Technology Society Journal* 55:72-87.
- MMS (Minerals Management Service). 1999. Use of Federal Offshore Sand Resources for Beach and Coastal Restoration in New Jersey, Maryland, Delaware, and Virginia. MMS 99-0036. p.372
- Morris, J. A., and M. R. Carman. 2012. Fragment Reattachment, Reproductive Status, and Health Indicators of the Invasive Colonial Tunicate *Didemnum vexillum* with Implications for Dispersal. *Biological Invasions* 14. Available: Impacts of fragmentation on propagation and dispersal of the invasive tunicate *Didemnum vexillum* (core.ac.uk).
- NOS (National Ocean Service). 2015. NOAA/NOS and USCGS Seabed Descriptions from Hydrographic Surveys. Available online: <https://www.ncei.noaa.gov/products/nos-hydrographic-survey>. Accessed November 15, 2022.
- NJDEP (New Jersey Department of Environmental Protection) Division of Information Technology Bureau of GIS. 2023. Prime Fishing Grounds of New Jersey. Available: <https://gisdata-njdep.opendata.arcgis.com/datasets/prime-fishing-grounds-of-new-jersey/explore?location=38.874754%2C-73.970958%2C8.75>. Accessed April 24, 2023.

- Nichols, T.A., T.W. Anderson, and A. Širović. 2015. Intermittent noise induces physiological stress in a coastal marine fish. *PLoS One* 10(9) p. e0139157.
- Nilsson, H. and R. Rosenberg. 2003. Effects on marine sedimentary habitats of experimental trawling analysed by sediment profile imagery. *Journal of Experimental Marine Biology and Ecology*. 285--286:453–463.
- Pezy, J-P., A. Raoux, S. Marmin, P. Balay, and J-C. Dauvin. 2018. What are the most suitable indices to detect the structural and functional changes of benthic community after a local and short-term disturbance? *Ecological Indicators*. 91:232-240. <https://doi.org/10.1016/j.ecolind.2018.04.009>.
- Pohle, G. and M. Thomas. 2001. Marine biodiversity Monitoring. Monitoring protocol for marine benthos: Intertidal and subtidal macrofauna. A Report by The Marine Biodiversity Monitoring Committee (Atlantic Maritime Ecological Science Cooperative, Huntsman Marine Science Centre) to the Ecological Monitoring and Assessment Network of Environment Canada.
- Poloczanska E., B. J. Christopher, W. J. Sydeman, W. Kiessling, D. S. Schoeman, P. J. Moore, K. Brander, J. F. Bruno, L. B. Buckley, M. T. Burrows, C. M. Duarte, B. S. Halpern, J. Holding, C. V. Kappel, M. I. O'Connor, J. M. Pandolfi, C. Parmesan, F. Schwing, S. A. Thompson and A. J. Richardson. 2013. Global imprint of climate change on marine life. *Nature Climate Change*. 3:919-925.
- Powell, E.N., A.M. Ewing, and K.M. Kuykendall. 2020. Ocean Quahogs (*Arctica islandica*) and Atlantic Surfclams (*Spisula solidissima*) on the Mid-Atlantic Bight continental shelf and Georges Bank: the death assemblage as a recorder of climate change and the reorganization of the continental shelf benthos. *Palaeogeography, Palaeoclimatology, Palaeoecology* 537. Doi: 10.1016/j.palaeo.2019.05.027.
- Raoux, A., S. Tecchio, J.P. Pezy, G. Lassalle, S. Degraer, D. Wilhelmsson, M. Cachera, B. Ernande, C. Le Guen, M. Haraldsson, K. Grangeré, F. Le Loc'h, J.C. Dauvin, and N. Niquil. 2017. Benthic and fish aggregation inside an offshore wind farm: Which effects on the trophic web functioning? *Ecological Indicators* 72:33–46
- Robinson, S.P., P. A. Lepper, and J. Ablitt. 2007. The measurement of the underwater radiated noise from marine piling including Characterization of a “soft start” period. *Proceedings of Oceans 2007*, 1-6.
- Roegner C. G. and R. Mann. 1990. Habitat Requirements for the Hard Clam, *Mercenaria mercenaria* in Chesapeake Bay. School of Marine Science Virginia Institute of Marine Science. Report No. 126. 37 p.
- Rogers P., E. Debusschere, D. de Haan, B. Martin, and H. Slabbekoorn. 2021. North Sea soundscapes from a fish perspective: Directional patterns in particle motion and masking potential from anthropogenic noise. *The Journal of the Acoustical Society of America* 150:2174-2188.

- Rutecki, D., T. Dellapenna, E. Nestler, F. Scharf, J. Rooker, C. Glass, and A. Pembroke. 2014. Understanding the Habitat Value and Function of Shoals and Shoal Complexes to Fish and Fisheries on the Atlantic and Gulf of Mexico Outer Continental Shelf. Literature Synthesis and Gap Analysis. Prepared for the U.S. Dept. of the Interior, Bureau of Ocean Energy Management. Contract # M12PS00009. BOEM 2015-012. 176 pp.
- Schmittner, A. 2005. Decline of the marine ecosystem caused by a reduction in the Atlantic overturning circulation. *Letters to nature*. 434:628-633.
- Sciberras M., R. Parker, C. Powell, C. Robertson, S. Kröger, S. Bolam, and J.G. Hiddink. 2016. Impacts of bottom fishing on the sediment infaunal community and biogeochemistry of cohesive and non-cohesive sediments. *Limnology and Oceanography*. 61:2076-2089.
- Sharples, M. 2011. Offshore Electrical Burial for Wind Farms: State of the Art, Standards and Guidance & Acceptable Burial Depths, Separation Distances and Sand Wave Effect. <https://www.bsee.gov/sites/bsee.gov/files/tap-technical-assessment-program/final-report-offshore-electrical-cable-burial-for-wind-farms.pdf>.
- Slacum, H. W., W. H. Burton, E. T. Methratte, E. D. Weber, R. J. Llanso, and J. Drew-Baxter. 2001. Assemblage structure in shoal and flat-bottom habitats on the inner continental shelf of the Middle Atlantic Bight, USA. U.S. Minerals Management Services. Ecological Sciences and Applications. Grant Number: MMS 1435-01-00-CT-85060. January 9, 2011. <https://doi.org/10.1577/C09-012.1>.
- Smit, M. G., K. I. Holhaus, H. C. Trannum, J. M. Neff, G. Kjeilen-Eilersten, R.G. Jak, I Singsass, M.A. Huijbregts, and A. J. Hendriks. 2008. Species sensitivity distributions for suspended clays, sediment burial, and grain size change in the marine environment. *Environ Toxicol Chem*. 2008 Apr;27(4):1006-12. Doi: 10.1897/07-339.1. PMID: 18333685.
- Smith, D. H. Brockmann, M. Beekley, T. King, M. Millard, and J. Zaldívar-Rae. 2017. Conservation status of the American horseshoe crab, (*Limulus polyphemus*): a regional assessment. *Reviews in fish Biology and Fisheries*. DOI:10.1007/s11160-016-9461-y.
- Staaterman E, A. J. Gallagher, P. E. Holder, C. H.Reid, A. H. Altieri, M.B. Ogburn, J. L. Rummer, and S. J. Cooke. 2020. Exposure to boat noise in the field yields minimal stress response in wild reef fish. *Aquatic Biology*. 29:93-103. doi:10.3354/ab00728.
- Stanley, J.A., S.M. Van Parijs, and L.T. Hatch. 2017. Underwater sound from vessel traffic reduces the effective communication range in Atlantic cod and haddock. *Scientific Reports* 7(1): 14633.
- Taormina B., J. Bald, A. Want, G. Thouzeau, M. Lejart, N. Desroy, and A. Carlier. 2018. A review of potential impacts of submarine power cables on the marine environment: Knowledge gaps, recommendations and future directions. *Renewable and Sustainable Energy Reviews* 96:380-391.

- Thomsen, F., A. B. Gill, M. Kosecka, M. Andersson, M. André, S. Degraer, T. Folegot, J. Gabriel, A. Judd, T. Neumann, A. Norro, D. Risch, P. Sigray, D. Wood, and B. Wilson. 2016. MaRVEN – Environmental Impacts of Noise, Vibrations and Electromagnetic Emissions from Marine Renewable Energy. DOI:10.2777/272281.
- Tranum, H.C., H.C. Nilsson, M.T. Schaanning, and S. Øxnevad. 2010. Effects of sedimentation from water-based drill cuttings and natural sediment on benthic macrofaunal community structure and ecosystem processes. *Journal of Experimental Marine Biology and Ecology* 383:111-121.
- USACE (U.S. Army Corps of Engineers). 2013. Environmental Assessment with FONSI for Flood Control & Coastal Emergency Repair Indian River Inlet North Shore, Sussex County, Delaware Flood Control and Coastal Emergency Act (PL 84–99). USACE Philadelphia District, Philadelphia (PA). 77 p. Available: <https://www.nap.usace.army.mil/Portals/39/docs/Civil/IRI%20Beach%20Final%20EA%20with%20Signatures%20and%20Appendices%20Compressed.pdf?ver=2013-04-26-150523-923>. Accessed July 17, 2023.
- USACE (United States Army Corps of Engineers). 2016. Environmental Assessment (EA): Sand Borrow Area B Delaware Atlantic Coast From Cape Henlopen to Fenwick Island Storm Damage Reduction Project. (Philadelphia District). Available: https://www.nap.usace.army.mil/Portals/39/docs/Civil/Public%20Notice/Area%20B_Final_EA_May_2016.pdf?ver=2016-09-12-165525-350. Accessed February 2023.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Wale, M. A., S. D. Simpson, and A. N. Radford. 2013. Size-dependent physiological responses of shore crabs to single and repeated playback of ship noise. *Biology Letters*. 9(2):20121194. doi:10.1098/rsbl.2012.1194.
- Wysocki L. E., J. P. Dittami, and F. Ladich. 2006. Ship noise and cortisol secretion in European freshwater fishes. *Biological Conservation*. 128(4):501-508. doi:10.1016/j.biocon.2005.10.020.
- Xu, L., DiToro, D., and Kirby, J.T., 2006. Numerical Study in Delaware Inland Bays. Center for Applied Coastal Research, Ocean Engineering Laboratory, University of Delaware. Newark, Delaware. August, 2006.
- Xu, R., H. Huang, G. Xu, X. Meng, B. Liu, X. Gu, and J. Brown. 2022. Proceedings Volume 12169, Eighth Symposium on Novel Photoelectronic Detection Technology and Applications; 121696R (2022) <https://doi.org/10.1117/12.2624822>. Event: Eighth Symposium on Novel Photoelectronic Detection Technology and Applications, 2021, Kunming, China. <https://www.spiedigitallibrary.org/conference-proceedings-of-spie/12169/121696R/A-new-generation-based-on-SDM-of-repeated-trans-oceanic/10.1117/12.2624822.short?SSO=1>.
- Zhang Z., C. Capinha, D. N. Karger, X. Turon, H. J. Maclsaac, and A. Zhan. 2020. Impacts of climate change on geographical distributions of invasive ascidians. *Marine Environmental Research* 159:104993. <https://doi.org/10.1016/j.marenvres.2020.104993>.

Chapter 3.5.3: Birds

- Abdulle, S. A., and K. C. Fraser. 2018. Does wind speed and direction influence timing and route of a trans-hemispheric migratory songbird (purple martin) at a migration barrier? *Animal Migration* 5(1):49–58. Available online at: <https://doi.org/10.1515/ami-2018-0005>
- Ainley, D.G., E. Porzig, D. Zajanc, and L.B. Spear. 2015. Seabird flight behavior in response to altered wind strength and direction. *Marine Ornithology* 43:25–36.
- Avian Power Line Interaction Committee. 2012. Reducing Avian Collisions with Power Lines. The State of the Art in 2012. Accessed: November 2022. Available online at: https://www.aplic.org/uploads/files/11218/Reducing_Avian_Collisions_2012watermarkLR.pdf.
- Bayne, E. M., L. Habib, and S. Boutin. 2008. Impacts of Chronic Anthropogenic Noise from Energy-sector Activity on Abundance of Songbirds in the Boreal Forest. *Conservation Biology* 22(5):1186–1193.
- Bloch, R., and B. Bruderer. 1982. The Air Speed of Migrating Birds and Its Relationship to the Wind. *Behavioral Ecology and Sociobiology* 11:19–24.
- BOEM (Bureau of Ocean Energy Management). 2012. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore Massachusetts: Environmental Assessment. OCS EIS/EA BOEM 2012-087. Accessed: November 2022. Available online at: https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/BOEM_Newsroom/Library/Publications/2012/BOEM-2012-087.pdf.
- BOEM (Bureau of Ocean Energy Management). 2014. Atlantic OCS Proposed Geological and Geophysical Activities: Final Programmatic Environmental Impact Statement. Mid-Atlantic and South Atlantic Planning Areas. Office of Renewable Energy Programs. OCS EIS/EA BOEM 2014-001. February 2014. Accessed: November 2022. Available online at: <https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/GOMR/BOEM-2014-001-v1.pdf>.
- BOEM (Bureau of Ocean Energy Management). 2015. Virginia Offshore Wind Technology Advancement Project on the Atlantic Outer Continental Shelf Offshore Virginia: Revised Environmental Assessment. Office of Renewable Energy Programs. OCS EIS/EA BOEM 2015 031. Accessed: November 2022. Available online at: <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/VA/VOWTAP-EA.pdf>.
- BOEM (Bureau of Ocean Energy Management). 2016. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New York: Environmental Assessment. Office of Renewable Energy Programs. OCS EIS/EA BOEM 2016-042. June 2016. Accessed: November 2022. Available online at: <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/NY/NY-Public-EA-June-2016.pdf>.
- BOEM (Bureau of Ocean Energy Management). 2019. Vineyard Wind Offshore Wind Energy Project Biological Assessment. For the U.S. Fish and Wildlife Service.

- BOEM (Bureau of Ocean Energy Management). 2021a. Guidelines for Providing Information on Lighting and Marking of Structures Supporting Renewable Energy Development. Accessed: November 2022. Available online at: <https://www.boem.gov/sites/default/files/documents/renewable-energy/2021-Lighting-and-Marking-Guidelines.pdf>.
- BOEM (Bureau of Ocean Energy Management). 2021b. Vineyard Wind 1 Offshore Wind Energy Project Final Environmental Impact Statement. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS EIS/EA BOEM 2021-0012. 4 vols. Accessed: November 2022. Available online at: <https://www.boem.gov/vineyard-wind>.
- BOEM (Bureau of Ocean Energy Management). 2023. Maryland Offshore Wind Project Biological Assessment. Prepared for US Fish and Wildlife Service. In progress.
- Briggs, K.T., M.E. Gershwin, and D.W. Anderson. 1997. Consequences of petrochemical ingestion and stress on the immune system of seabirds. *ICES Journal of Marine Science* 54:718-725.
- Bruderer, B., and A. Boldt. 2001. Flight characteristics of birds. *International Journal of Avian Science* 143:178–204.
- Capitol Airspace Group. 2023. US Wind Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. March 31, 2023.
- Chapman, J.W., C. Nilsson, K.S. Lim, J. Backman, D.R. Reynolds, and T. Alerstam. 2016. Adaptive Strategies in nocturnally migrating insects and songbirds: contrasting responses to wind. *Journal of Animal Ecology* 85(1):115–124. DOI: 10.1111/1365-2656.12420. Epub 2015 Aug 17. PMID: 26147535.
- Causon, P.D., and A.B. Gill. 2018. Linking Ecosystem Services with Epibenthic Biodiversity Change Following Installation of Offshore Wind Farms. *Environmental Science and Policy* 89: 340-347.
- Choi, D. Y., T. W. Wittig, and B. M. Kluever. 2020. An Evaluation of Bird and Bat Mortality at Wind Turbines in the Northeastern United States. *PLOS ONE* 15(8): e0238034. Available: <https://doi.org/10.1371/journal.pone.0238034>.
- Cook, A.S.C.P., and N.H.K. Burton. 2010. A Review of Potential Impacts of Marine Aggregate Extraction on Seabirds. Marine Environment Protection Fund Project 09/P130. Accessed: April 15, 2022. Available online at: https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/2010/rr563.pdf.
- Cornell University. 2019. Golden Eagle Identification. Accessed: November 2022. Available online at: https://www.allaboutbirds.org/guide/Golden_Eagle/id.
- DCIB (Delaware Center for Inland Bays). 2017. Habitats in the Watershed. Accessed: November 2022. Available online at: <http://www.inlandbays.org/about-the-bays/habitats/>.
- Delaware River Basin Commission. 2021. Living Resources: Bald Eagles. Accessed: November 2022. Available online at: <https://www.nj.gov/drbc/basin/living/bald-eagle.html>.

- Desholm, M., and J. Kahlert. 2005. Avian Collision Risk at an Offshore Wind Farm. *Biology Letters* 1, no. 3: 296–298. doi:10.1098/rsbl.2005.0336.
- Dierschke, V., R.W. Furness, and S. Garthe. 2016. Seabirds and Offshore Wind Farms in European Waters: Avoidance and Attraction. *Biological Conservation* 202:59–68.
- DNREC (Delaware Department of Natural Resources and Environmental Control). 2015. Delaware Wildlife Action Plan. Accessed: November 2022. Available online at: <https://dnrec.alpha.delaware.gov/fish-wildlife/conservation/wildlife-action-plan/>.
- DNREC (Delaware Department of Natural Resources and Environmental Control). 2017. Maryland Offshore Wind Energy Project: Ratepayer Relief, New Jobs, New Industry. US Wind Presentation to Delaware Offshore Wind Working Group. Accessed: November 2022. Available online at: <https://documents.dnrec.delaware.gov/energy/offshore-wind/comments/US%20Wind%20presentation%20DE%20OSW%20Working%20Group%20Nov%2027%202017.pdf>.
- Dolbeer, R.A., M.J. Begier, P.R. Miller, J.R. Weller, and A.L. Anderson. 2019. Wildlife Strikes to Civil Aircraft in the United States, 1990–2018. Federal Aviation Administration National Wildlife Strike Database Serial Report Number 25. 95 pp. + Appendices.
- Drewitt, A.L., and R.H.W. Langston. 2006. Assessing the Impacts of Wind Farms on Birds. *Ibis* 148: 29–42.
- English, P.A., T.I. Mason, J.T. Backstrom, B.J. Tibbles, A.A. Mackay, M.J. Smith, and T. Mitchell. 2017. Improving Efficiencies of National Environmental Policy Act Documentation for Offshore Wind Facilities Case Studies Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2017 026.
- Fox, A.D., M. Desholm, J. Kahlert, T. Kjaer Christensen, and I.K. Peterson. 2006. Information Needs to Support Environmental Impact Assessment of the Effects of European Marine Offshore Wind Farms on Birds. *Ibis* 148: 129–144.
- Furness, B., and H. Wade. 2012. Vulnerability of Scottish Seabirds to Offshore Wind Turbines. Marine Scotland Report. Accessed: November 2022. Available online at: <https://tethys.pnnl.gov/sites/default/files/publications/Furness%20and%20Wade%202012.pdf>.
- Furness, R. W., H. M. Wade, and E. Masden. 2013. Assessing Vulnerability of Marine Bird Populations to Offshore Wind Farms. *Journal of Environmental Management* 119:56–66.
- Garthe, S., and O. Hüppop. 2004. Scaling Possible Adverse Effects of Marine Wind Farms on Seabirds: Developing and Applying a Vulnerability Index. *Journal of Applied Ecology* 41:724–734.
- Gauthreaux, S. A., Jr. 1991. The Flight Behavior of Migrating Birds in Changing Wind Fields: Radar and Visual Analyses. *American Zoologist* 31(1):187–204.
- Goodwin, S. E., and W. G. Shriver. 2010. Effects of Traffic Noise on Occupancy Patterns of Forest Birds. *Conservation Biology* 25(2):406–411.

- Haney, J.C., P.G.R. Jodice, W.A. Montevecchi, and D.C. Evers. 2017. Challenges to oil spill assessments for seabirds in the deep ocean. *Archives of Environmental Contamination and Toxicology* 73:33-39.
- Hatch, S.A. 2017. Comprehensive estimates of seabird fishery interaction for the US Northeast Atlantic and mid-Atlantic. *Aquatic Conservation: Marine and Freshwater Ecosystems* 28(1): 182-193.
- Hodos, W. 2003. Minimization of Motion Smear: Reducing Avian Collisions with Wind Turbines. Prepared for the National Renewable Energy Laboratory. NREL/SR-500-33249. Golden, CO.
- Hüppop, O., J. Dierschke, K. Exo, E. Frerich, and R. Hill. 2006. Bird Migration and Potential Collision Risk with Offshore Wind Turbines. *Ibis* 148: 90-109.
- Johnston, A., A.S.C.P. Cook, L.J. Wright, E.M. Humphreys, and N.H.K. Burton. 2014. Modeling Flight Heights of Marine Birds to More Accurately Assess Collision Risk with Offshore Wind Turbines. *Journal of Applied Ecology* 51, 31-41.
- Kerlinger, P. 1985. Water-crossing behavior of raptors during migration. *Wilson Bulletin* 97:109-113.
- Kerlinger, P., J.L. Gehring, W.P. Erickson, R. Curry, A. Jain, and J. Guarnaccia. 2010. Night Migrant Fatalities and Obstruction Lighting at Wind Turbines in North America. *The Wilson Journal of Ornithology* 122 (4): 744-754.
- Leopold, M.F., E.M. Dijkman, and L. Teal. 2011. Local Birds in and around the Offshore Wind Farm Egmond aan Zee (OWEZ) (T 0 & T 1, 2002-2010). Report C187/11. IMARES Wageningen UR, Texel, the Netherlands. Appendices.
- Leopold, M.F., R.S.A. van Bemmelen, and A.F. Zuur. 2013. Responses of Local Birds to the Offshore Wind Farms PAWP and OWEZ off the Dutch mainland coast. Report C151/12. IMARES Wageningen UR, Texel, the Netherlands.
- Lindeboom, H.J., H.J. Kouwenhoven, M.J.N. Bergman, S. Bouma, S. Brasseur, R. Daan, R.C. Fijn, D. de Haan, S. Dirksen, R. van Hal, R. Hille Ris Lambers, R. ter Hofstede, K.L. Krijgsveld, M. Leopold, and M. Scheidat. 2011. Short term Ecological Effects of an Offshore Wind Farm in the Dutch Coastal Zone; a compilation. *Environmental Research Letters* 6: 1-13.
- Madsen, A. M., R. Reeve, M. Desholm, A. D. Fox, R. W. Furness, and D. T. Haydon. Assessing the Impact of Marine Wind Farms on Birds Through Movement Modelling. *Journal of the Royal Society Interface*. May 2.
- Maggini, I., L.V. Kennedy, A. Macmillan, K.H. Elliot, K. Dean, and C.G. Guglielmo. 2017. Light oiling of feathers increases flight energy expenditure in a migratory shorebird. *Journal of Experimental Biology* 220: 2372-2379
- McLaughlin, K.E., and H.P. Kunc. 2013. Experimentally Increased Noise Levels Change Spatial and Singing Behavior. *Biology Letters* 9:20120771.
- NABCI (North American Bird Conservation Initiative, U.S. Committee). 2016. The State of the Birds 2016: Report on Public Lands and Waters. U.S. Department of the Interior. Washington, DC. Accessed: November 2022. Available online at: <https://www.stateofthebirds.org/2016/>.

- Orr, T.L., S.M. Herz, and D.L. Oakley. 2013. Evaluation of Lighting Schemes for Offshore Wind Facilities and Impacts to Local Environments. Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Herndon, VA. OCS Study BOEM 2013 0116. Accessed: April 15, 2022. Available online at: <https://espis.boem.gov/final%20reports/5298.pdf>
- Paleczny, M., E. Hammill, V. Karpouzi, and D. Pauly. 2015. Population Trend of the World's Monitored Seabirds, 1950–2010. *PLOS ONE* 10(6): e0129342. Accessed: November 2022. Available online at: <https://doi.org/10.1371/journal.pone.0129342>.
- Panuccio, M., G. Dell'Omo, G. Bogliani, C. Catoni, and N. Sapir. 2019. Migrating Birds Avoid Flying Through Fog and Low Clouds. *International Journal of Biometeorology* 63, 231–239. January 28, 2019.
- Paruk, J.D., E.M. Adams, H. Uher Koch, K.A. Kovach, D. Long, IV, C. Perkins, N. Schoch, and D.C. Evers. 2016. Polycyclic aromatic hydrocarbons in blood related to lower body mass in common loons. *Science of the Total Environment* 565: 360–368.
- Roberts, A.J. 2019. Atlantic Flyway Harvest and Population Survey Data Book. U.S. Fish and Wildlife Service, Laurel, MD.
- Percival, S. 2010. Kentish Flats Offshore Wind Farm: Diver Surveys 2009–2010. Ecology Consulting Report to Vattenfall Wind Energy.
- Petersen, I.K., T. Kjær Christensen, J. Kahlert, M. Desholm, and A. D. Fox. 2006. Final Results of Bird Studies at the Offshore Wind Farms at Nysted and Horns Rev, Denmark. National Environmental Research Institute, Ministry of the Environment, Denmark. Accessed: April 15, 2022. Available online at: https://tethys.pnnl.gov/sites/default/files/publications/NERI_Bird_Studies.pdf
- Pettersson, J. 2005. The Impact of Offshore Wind Farms on Bird Life in Southern Kalmar Sound, Sweden: a Final Report Based on Studies 1999–2003. Report for the Swedish Energy Agency, Lund University, Lund, Sweden.
- Pezy, J.P., A. Raoux, J.C. Dauvin, and S. Degraer. 2018. An Ecosystem Approach for Studying the Impact of Offshore Wind Farms: A French Case Study. *ICES Journal of Marine Science*, fsy125, September 12, 2018.
- Plonczkier, P., and I.C. Simms. 2012. Radar Monitoring of Migrating Pink footed Geese: Behavioral Responses to Offshore Wind Farm Development. *Journal of Applied Ecology* 49: 1187–1194.
- Raoux, A., S. Tecchio, J.P. Pezy, G. Lassalle, S. Degraer, S. Wilhelmsson, M. Cachera, B. Ernande, C. Le Guen, M. Haraldsson, K. Grangere, F. Le Loc'h, J.C. Dauvin, and N. Niquil. 2017. Benthic and Fish Aggregation Inside an Offshore Wind Farm: Which Effects on the Trophic Web Functioning? *Ecological Indicators* 72: 33–46.
- Regular, P., W. Montevecchi, A. Hedd, G. Roberson, and S. Wilhelm. 2013. Canadian Fisheries Closure Provides a Large-scale Test of the Impact of Gillnet Bycatch on Seabird Populations. *Biology Letters* 9(4): 20130088. Accessed: September 1, 2020. Available online at: <https://royalsocietypublishing.org/doi/pdf/10.1098/rsbl.2013.0088>.

- Robinson Willmott, J., and G. Forcey. 2014. Acoustic Monitoring of Temporal and Spatial Abundance of Birds near Outer Continental Shelf Structures: Synthesis Report. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Herndon, VA. BOEM 2014 004. 172 pp. Accessed: April 15, 2022. Available online at: <https://espis.boem.gov/final%20reports/5349.pdf>.
- Robinson Willmott, J., G. Forcey, and A. Kent. 2013. The Relative Vulnerability of Migratory Bird Species to Offshore Wind Energy Projects on the Atlantic Outer Continental Shelf: An Assessment Method Database. Final report to the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2013-207. Accessed: September 7, 2020. Available online at: <https://espis.boem.gov/final%20reports/5319.pdf>.
- Roman, L., B.D. Hardesty, M.A. Hindell, and C. Wilcox. 2019. A quantitative analysis linking seabird mortality and marine debris ingestion. *Scientific Reports* 9(1): 1 7.
- Skov, H., S. Heinanen, T. Norman, R.M. Ward, S. Mendez Roldan, and I. Ellis. 2018. ORJIP Bird Collision and Avoidance Study. Final report. The Carbon Trust. United Kingdom. April 2018.
- Sigourney, D.B., C.D. Orphanides, and J.M. Hatch. 2019. Estimates of Seabird Bycatch in Commercial Fisheries off the East Coast of the United States from 2015 2016. NOAA Technical Memorandum NMFS NE 252. Woods Hole, Massachusetts. 27 pp.
- Stabile, F.A., G.J. Watkins Colwell, J.A. Moore, M. Vecchione, and E.H. Burt Jr. 2017. Observations of Passerines and a Falcon from a Research Vessel in the Western North Atlantic Ocean. *The Wilson Journal of Ornithology* 129, no. 2: 349 353. Accessed: September 6, 2022. Available online at: <https://www.jstor.org/stable/pdf/26429799.pdf>.
- USFWS (U.S. Fish and Wildlife Service). 2018. Wind Turbines. Accessed: November 2022. Available online at: <https://www.fws.gov/node/266177>.
- USFWS (U.S. Fish and Wildlife Service). 2021. Threats to Birds: Migratory Bird Mortality – Questions and Answers. Accessed: August 20, 2021. Available online at: <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.
- USFWS (U.S. Fish and Wildlife Service). 2022. Information for Planning and Consultation (iPaC). Species list for Project Action Areas. Available: <https://ecos.fws.gov/ipac/>. Accessed May 24, 2022.
- Vattenfall. 2023. AOWFL-Resolving Key Uncertainties of Seabird Flight and Avoidance Behaviours at Offshore Wind Farms. Final report for the study period 2020-2021. Prepared by RPS. February 20.
- Vilela, R., C. Burger, A. Diederichs, F. E. Bachl, L. Szostek, A. Freund, A. Braasch, J. Bellebaum, B. Beckers, W. Piper, and G. Nehls. 2021. Use of an INLA Latent Gaussian Modeling Approach to Assess Bird Population Changes Due to the Development of Offshore Wind Farms. *Front. Mar. Sci.* 8:701332. doi: 10.3389/fmars.2021.701332.
- Wang, J., X. Zou, W. Yu, D. Zhang, and T. Wang. 2019. Effects of Established Offshore Wind Farms on Energy Flow of Coastal Ecosystems: A Case Study of the Rudong Offshore Wind Farms in China. *Ocean and Coastal Management*, 171: 111 118. Accessed: September 6, 2022. Available online at: <https://kd.nsf.gov.cn/paperDownload/ZD25281935.pdf>

- Watts, B.D. 2010. Wind and Waterbirds: Establishing Sustainable Mortality Limits within the Atlantic Flyway. Center for Conservation Biology Technical Report Series, CCBTR-10-15. College of William and Mary/Virginia Commonwealth University, Williamsburg, VA. 43 pp. Accessed: September 1, 2020. Available online at: https://www.ccbirds.org/wp-content/uploads/2013/12/ccbtr-10-05_Watts-Wind-and-waterbirds-Establishing-sustainable-mortality-limits-within-the-Atlantic-Flyway.pdf.
- Williams, K.A., E.E. Connelly, S.M. Johnson, and I.J. Stenhouse. 2015a. Wildlife densities and habitat use across temporal and spatial scales on the Mid-Atlantic Outer Continental Shelf: Final Report to the Department of Energy EERE Wind & Water Power Technologies Office. Portland, Maine, USA: Biodiversity Research Institute.
- Williams, K.A., E.E. Connelly, S.M. Johnson, and I.J. Stenhouse, eds. 2015b. Baseline Wildlife Studies in Atlantic Waters Offshore of Maryland. Biodiversity Research Institute (Portland, ME).
- Winship, A. J., B.P. Kinlan, T.P. White, J.B. Leirness, and J. Christensen. 2018. Modeling At-Sea Density of Marine Birds to Support Atlantic Marine Renewable Energy Planning: Final Report. OCS Study BOEM 2018-010. Sterling, VA. 67 pp. Accessed: September 7, 2020. Available online at: https://coastalscience.noaa.gov/data_reports/modeling-at-sea-density-of-marine-birds-to-support-atlantic-marine-renewable-energy-planning-final-report/.

Chapter 3.5.4: Coastal Habitat and Fauna

- Bilkovic, D.M., M.M. Mitchell, K.J. Havens, and C.H. Hershner. 2019. Chesapeake Bay. Pages 379–404 in World Seas: An Environmental Evaluation, Volume I: Europe, The Americas and West Africa, Second Edition. Academic Press, Elsevier Limited.
- BOEM (Bureau of Ocean Energy Management). 2012. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia: Final Environmental Assessment. OCS EIS/EA BOEM 2012-003.
- BOEM (Bureau of Ocean Energy Management). 2021. Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development. April 28, 2021. 9 pl.
- Cassotta, S., Derkesen, C., Ekaykin, A., Hollowed, A., Kofinas, G., Mackintosh, A., Melbourne-Thomas, J., Muelbert, M.M.C., Ottersen, G., Pritchard, H., and Schuur, E.A.G. 2019. Polar Regions. Chapter 3 in H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, M. Nicolai, A. Okem, J. Petzold, B. Rama, and N. Weyer (eds.), IPCC Special Report on the Ocean and Cryosphere in a Changing Climate. Available: https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/SROCC_FinalDraft_Chapter3.pdf.
- DCIB (Delaware Center for the Inland Bays). 2017. Habitats in the Watershed. Delaware Center for the Inland Bays. Accessed November 8, 2022. <http://www.inlandbays.org/about-the-bays/habitats/>.
- DCIB (Delaware Center for the Inland Bays). 2021. Diamondback Terrapins. Delaware Center for the Inland Bays. <https://www.inlandbays.org/about-the-bays/diamondback-terrapin/>.

- DNREC (Delaware Department of Natural Resources and Environmental Control). 2015. Delaware Wildlife Action Plan. Accessed: November 2022. Available online at: <https://dnrec.alpha.delaware.gov/fish-wildlife/conservation/wildlife-action-plan/>.
- Dove, L.E., R.M. Nyman, eds. 1995. Living Resources of the Delaware Estuary. A Product of the Delaware Estuary Program.
- DPM (Delaware Public Media). 2018. Sea turtle nest in Delaware and places north pique interest. Accessed November 8, 2022. <https://www.delawarepublic.org/science-health-tech/2018-10-30/sea-turtle-nest-in-delaware-and-places-north-pique-interest>.
- Dybas, C.L. 2019. New Lifeblood for Atlantic Horseshoe Crabs. *Oceanography* 32:12-14.
- Friggens, M.M., M.I. Williams, K.E. Bagne, T.T. Wixom, and S.A. Cushman. 2018. Chapter 9: Effects of Climate Change on Terrestrial Animals. In *Climate change vulnerability and adaptation in the Intermountain Region [Part 2]*. Gen. Tech. Rep. RMRS-GTR-375. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. P. 264-315. Available online at: <https://www.fs.usda.gov/research/treesearch/56119>. Accessed November 2022.
- Glick, P., Staudt, A., Nunley, B. 2008. Sea-Level Rise and Coastal Habitats of the Chesapeake Bay: A Summary. National Wildlife Federation. 11 pp.
- Heckscher, C. M., and C. R. Bartlett. 2004. Rediscovery and Habitat Associations of *Photuris Bethaniensis* McDermott (*Coleoptera: Lampyridae*). *The Coleopterists Bulletin* 58 (3).
- Kight, C.R. and Swaddle, J.P. 2011. How and Why Environmental Noise Impacts Animals: An Integrative, Mechanistic Review. *Ecology Letters*, 14, 1052-1061. <https://doi.org/10.1111/j.1461-0248.2011.01664.x>.
- Kraus, C., and L. Carter. 2018. Seabed Recovery Following Protective Burial of Subsea Cables – Observations from the Continental Margin. *Ocean Engineering* 4:251–261.
- McGowan, A.T. 2022. Seagrass Mapping in the Delaware Inland Bays. Delaware Center for the Inland Bays, Rehoboth Beach, DE. 24 pp.
- Mitsch, W.J., and J.G. Gosselink. 2007. *Wetlands*. Hoboken: John Wiley & Sons, Inc.
- MMS (Minerals Management Service). 2007. Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternative Use of Facilities on the Outer Continental Shelf. Final Environmental Impact Statement. October 2007. Volume II: Chapter 5. OCS EIS/EA, MMS 2007-046. 342pp.
- Native Plant Trust. 2021. *Morella caroliniensis* (small bayberry). <https://gobotany.nativeplanttrust.org/species/morella/caroliniensis/>
- NOAA (National Oceanic and Atmospheric Administration). 2022. U.S. Coast Pilot 3, Chapter 8. Delaware-Maryland-Virginia Coast. November 13, 2022. Accessed November 8, 2022. From: https://nauticalcharts.noaa.gov/publications/coast-pilot/files/cp3/CPB3_C08_WEB.pdf.

- NPS (National Park Service). 2017. First Confirmed Sea Turtle Nest Hatch on Assateague Island National Seashore. Accessed November 8, 2022. <https://www.nps.gov/asis/learn/news/first-confirmed-sea-turtle-nest-hatch.htm>.
- PMEL (Pacific Marine Environmental Laboratory). 2020. Ocean Acidification: The Other Carbon Dioxide Problem. Accessed November 8, 2022. Retrieved from: <https://www.pmel.noaa.gov/co2/story/Ocean+Acidification>
- Roberts, C., M. Palmer, and D. McNeill. 2015. Quantifying the Likelihood of a Continued Hiatus in Global Warming. *Nature Climate Change* 5:337–342. Available: <https://www.nature.com/articles/nclimate2531>.
- Sacatelli, R., R. Lathrop, and M.B. Kaplan. 2020. Impacts of Climate Change on Coastal Forests in the Northeast US. Rutgers University. Available: <https://doi.org/10.7282/t3-n4tn-ah53>.
- Steimle, F., and C. Zetlin. 2000. Reef Habitats in the Middle Atlantic Bight: Abundance, Distribution, Associated Biological Communities, and Fishery Resource Use. *Marine Fisheries Review* 62:24-42.
- USACE (U.S. Army Corps of Engineers). 2013. Finding of no Significant Impact Flood Control & Coastal Emergency Repair Indian River Inlet North Shore, Sussex County, Delaware Flood Control and Coastal Emergency Act (pl 84-99).
- USACE (U.S. Army Corps of Engineers). Indian River Inlet and Bay. 2021. USACE Philadelphia District. Accessed: November 8, 2022. <https://www.nap.usace.army.mil/Missions/Factsheets/Fact-Sheet-Article-View/Article/490811/indian-river-inlet-bay/>.
- USDOI (U.S. Department of the Interior) and USFWS (U.S. Fish and Wildlife Service). 2018b. National Wetlands Inventory Online Data Mapper. Accessed November 8, 2022. <https://www.fws.gov/wetlands/data/Mapper.html>.
- USFWS (U.S. Fish and Wildlife Service). 2021a. Environmental Conservation Online System. Species Reports and Information for Planning and Consultation (iPaC) System. Available: <https://ecos.fws.gov/ecp/>. Accessed November 8, 2022.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Wilber, D.H., and Clarke, D.G. 2007. Defining and Assessing Benthic Recovery Following Dredging and Dredged Material Disposal. Presentation from the 2007 WODCON XVIII Conference in Lake Buena Vista, FL.
- Woods, A.J., J.M. Omernik, and D.D. Brown. 1999. Level III and IV Ecoregions of Delaware, Maryland, Pennsylvania, Virginia, and West Virginia. U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory. Available online at: <https://www.epa.gov/eco-research/ecoregion-download-files-state-region-3#pane-36>. Accessed November 2022.

Chapter 3.5.5: Finfish, Invertebrates, and Essential Fish Habitat

- Able, K.W., and M.P. Fahay. 2010. Ecology of Estuarine Fishes: Temperate Waters of the Western North Atlantic. John Hopkins University Press.
- Aimon, C., S. D. Simpson, R. A. Hazelwood, R. Brintjes, and M. A. Urbina. 2021. Anthropogenic underwater vibrations are sensed and stressful for the shore crab *Carcinus maenas*. Environmental Pollution 285:117148
- Andres, M. 2016. On the recent destabilization of the Gulf Stream path downstream of Cape Hatteras. Geophysical Research Letters, 43(18):9836-9842. Available: <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016GL069966>. Accessed November 22, 2022.
- Baker, K. and U. Howsen. 2021. Data Collection and Site Survey Activities for Renewable Energy on the Atlantic Outer Continental Shelf. Biological Assessment. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. October 2018, Revised February 2021.
- Bartholomew, A. and Bohnsack, J.A. 2005. A review of catch-and-release angling mortality with implications for no-take reserves. Reviews in Fish Biology and Fisheries 15: 129-154.
- Baudron, A.R., T. Brunel, M.-A. Blanchet, M. Hidalgo, G. Chust, E.J. Brown, K.M. Kleisner, C. Millar, B.R. MacKenzie, N. Nikolioudakis, J.A. Fernandes, and P.G. Fernandes. 2020. Changing fish distributions challenge the effective management of European fisheries. Ecography, 43: 494-505. <https://doi.org/10.1111/ecog.04864>.
- Beardsall, J.W., McLean, M.F., Cooke, S.J., Wilson, B.C., Dadswell, M.J., Redden, A.M. and Stokesbury, M.J. 2013. Consequences of incidental otter trawl capture on survival and physiological condition of threatened Atlantic sturgeon. Transactions of the American Fisheries Society 142(5): 1202-1214.
- Bejarano, A., J. Michel, J. Rowe, Z. Li, D. French McCay, and D. Schmidt Etkin. 2013. Environmental Risks, Fate, and Effects of Chemicals Associated with Wind Turbines on the Atlantic Outer Continental Shelf. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Herndon, VA. OCS Study BOEM 2013-213. Accessed: 24 November 2021. <https://tethys.pnnl.gov/sites/default/files/publications/Benjarano-et-al-2013.pdf>
- Bellmann, M.A., J. Brinkmann, A. May, T. Wendt, S. Gerlach, and P. Remmers. 2020. Underwater noise during the impulse pile-driving procedure: Influencing factors on pile-driving noise and technical possibilities to comply with noise mitigation values. Supported by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit [BMU]), FKZ UM16 881500. Commissioned and managed by the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie [BSH]). Order No. 10036866. Edited by the itap GmbH. 137 p.

- Boyd, S.E., D.S. Limpenny, H.L. Rees, and K.M. Cooper. 2005. The Effects of Marine Sand and Gravel Extraction on the Macrobenthos at a Commercial Dredging Site (Results 6 Years Post-dredging). *ICES Journal of Marine Science* 62:145–162.
- BOEM (Bureau of Ocean Energy Management). 2012. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia, Final Environmental Assessment. 366 p. Report No.: OCS EIS/EA BOEM 2012-003.
- BOEM (Bureau of Ocean Energy Management). 2014. Programmatic Environmental Impact Statement for Atlantic OCS Proposed Geological and Geophysical Activities in the Mid-Atlantic and South Atlantic Planning Areas. Office of Renewable Energy Programs. OCS EIS/EA BOEM 2014-001.
- BOEM (Bureau of Ocean Energy Management). 2021a. Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development. April 28, 2021. 9 pp.
- BOEM (Bureau of Ocean Energy Management). 2021b. Vineyard Wind 1 Offshore Wind Energy Project Final Environmental Impact Statement Volume I. Available: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Vineyard-Wind-1-FEIS-Volume-1.pdf>. Accessed November 22, 2021.
- BOEM (Bureau of Ocean Energy Management). 2023a. Maryland Offshore Wind Project Essential Fish Habitat Assessment. Prepared for the National Marine Fisheries Service. In progress.
- BOEM (Bureau of Ocean Energy Management). 2023b. Maryland Offshore Wind Project Biological Assessment. Prepared for the National Marine Fisheries Service. In progress.
- Carlton J, Reid DM, van Leeuwen H. 1995. The role of shipping in the introduction of nonindigenous aquatic organisms to the coastal waters of the United States (other than the Great Lakes) and an analysis of control options. Report to U.S. Coast Guard, Washington DC.
- Casper, B.M., P.S. Lobel, and H.Y. Yan. 2003. The Hearing Sensitivity of the Little Skate, *Raja erinacea*: A Comparison of Two Methods. *Environmental Biology of Fishes* 68(4):371-379.
- Chaillou, J. C., S. B. Weisberg, F. W. Kuts, T. E. DeMoss, L. Mangiaracia, R. Magnien, R. Eskin, J. Maxted, K. Price, and J. K. Summers. 1996. Assessment of the Ecological Condition of the Delaware and Maryland Coastal Bays.
- Claisse, J.T., D.J. Pondella II, M. Love, L.A. Zahn, C.M. Williams, J.P. Williams, and A.S. Bull. 2014. Oil Platforms Off California are among the Most Productive Marine Fish Habitats Globally. *Proceedings of the National Academy of Sciences of the United States of America* 111 (43) 15462-15467. October 28, 2014. First published October 13, 2014. Accessed: 28 November 2021: <https://www.pnas.org/content/pnas/111/43/15462.full.pdf>.
- Collins M.R., T.I. Smith, W.C. Post, and O. Pashuk. 2000. Habitat utilization and biological characteristics of adult Atlantic sturgeon in two South Carolina rivers. *Transactions of the American Fisheries Society* 129(4): 982-988.

- Connell, S.D., 1997. The relationship between large predatory fish and recruitment and mortality of juvenile coral reef-fish on artificial reefs. *Journal of Experimental Marine Biology and Ecology*, 209(1-2), pp.261-278.
- Coolen J., J. Vanaverbeke, J. Dannheim, C. Garcia, S. Birchenough, R. Krone, J. Beermann. 2022. Generalized changes of benthic communities after construction of wind farms in the southern North Sea. *Journal of Environmental Management* 315:115173.
- Crocker, S.E. and F.D. Fratantonio. 2016. Characteristics of Sounds Emitted During High-Resolution Marine Geophysical Surveys. Naval Undersea Warfare Center Division, Newport, RI. For U.S. Department of the Interior, Bureau of Ocean Energy Management, Environmental Assessment Division and U.S. Geological Survey. OCS Study BOEM 2016-044. NUWC-NPT Technical Report 12,203, 24 March 2016. 266 pp.
- Crocker, S.E., F.D. Fratantonio, P.E. Hart, D.S. Foster, T.F. O'Brien, and S. Labak. 2019. Measurements of sounds emitted by certain high-resolution geophysical survey systems. *IEEE Journal of Oceanic Engineering* 4(3): 796-813.
- CSA Ocean Sciences Inc. and Exponent. 2019. Evaluation of Potential EMF Effects on Fish Species of Commercial or Recreational Fishing Importance in Southern New England. U.S. Department of the Interior, Bureau of Ocean Energy Management, Headquarters, Sterling, VA. OCS Study BOEM 2019-049.
- Dannheim J., L. Bergström, S.N.R. Birchenough, R. Brzana, A.R. Boon, J.W.P. Coolen, J. Dauvin, I. De Mesel, J. Derweduwen, A.B. Gill, Z.L. Hutchison, A.C. Jackson, U. Janas, G. Martin, A. Raoux, J. Reubens, L. Rostin, J. Vanaverbeke, T.A. Wilding, D. Wilhelmsson, and S. Degraer. 2020. Benthic effects of offshore renewables: Identification of knowledge gaps and urgently needed research. *ICES Journal of Marine Science*. 77(3):1092–1108.
- Degraer, S., D, A. Carey, J. W. P. Coolen, Z. L. Hutchison, F. Kerckhof, B. Rumes, and J. Vanaverbeke. 2020. Offshore Wind Farm Artificial Reefs Effect Ecosystem Structure and Functioning a Synthesis. *Oceanography*. 33:4(48-57).
- Dernie, K. M., M. J. Kaiser, and R. M. Warwick. 2003. Recovery rates of benthic communities following physical disturbance. *Journal of Animals Ecology* 72:1043-1056. <https://doi.org/10.1046/j.1365-2656.2003.00775.x>.
- DNREC (Department of Natural Resources and Environmental Control). 2017b. Delaware River Atlantic Sturgeon Research. Available: <https://documents.dnrec.delaware.gov/fw/Fisheries/research/Atlantic-Sturgeon-Flyer.pdf>. Accessed May 31, 2023.
- DNREC (Department of Natural Resources and Environmental Control). 2021. 2020 Delaware Inland Bays Shellfish Aquaculture Report Planting, harvest, and survey of participants Accessed: 20 July 2023. Retrieved from: <https://documents.dnrec.delaware.gov/fw/Fisheries/Shellfish-Aquaculture/2020-Inland-Bays-Shellfish-Aquaculture-Report.pdf>.

- DIBEP (Delaware Inland Bays Estuary Program Scientific and Technical Advisory Committee). 1993. Delaware Inland Bays Estuary Program Characterization Summary. Available: <https://www.inlandbays.org/wp-content/uploads/2011/01/IB-CHAR-RPT-PT-2.pdf>. <https://www.inlandbays.org/wp-content/uploads/2011/01/IB-CHAR-RPT-PT-3.pdf>. <https://www.inlandbays.org/wp-content/uploads/2011/01/IB-CHAR-RPT-PT-4.pdf>. Accessed February 1, 2023.
- Drake, L.A. 2015. Review of Global maritime transport and ballast water management by M. David and S. Gollasch, eds. *Biological Invasions* 17: 3063-3065.
- Eklund, A.-M. and T.E. Targett. 1991. Seasonality of fish catch rates and species composition from the hard bottom trap fishery in the Middle Atlantic Bight (US east coast). *Fish. Res.*, 12: 1-22.
- Elliot J, Khan AA, Lin YT, Mason T, Miller JH, Newhall AE, Potty GR, Vigness-Raposa K. 2019. Field observations during wind turbine operations at the Block Island Wind Farm, Rhode Island. Sterling (VA): 281 p. Report No.: OCS Study 2019-028.
- English, P.A., T.I. Mason, J.T. Backstrom, B.J. Tibbles, A.A. Mackay, M.J. Smith, and T. Mitchell. 2017. Improving Efficiencies of National Environmental Policy Act Documentation for Offshore Wind Facilities Case Studies Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2017-026. Accessed: November 28, 2021. Retrieved from: <https://tethys.pnnl.gov/sites/default/files/publications/English-et-al-2017-BOEM.pdf>
- Epifanio, C.E. 2013. Invasion biology of the Asian shore crab *Hemigrapsus sanguineus*: A review. *Journal of Experimental Marine Biology and Ecology* 441 (2013) 33–49. Accessed 24 November 2021.
- Ewart, J. W. 2013. Shellfish Aquaculture in Delaware's Inland Bays: Status, Opportunities, and Constraints. Lewes, DE: Delaware Sea Grant Program, College of earth, Ocean and Environment (CEOE), University of Delaware. Available: <https://repository.library.noaa.gov/view/noaa/38095>. Accessed February 1, 2023.
- Exponent. 2023. US Wind Maryland Offshore Wind Project Offshore Electric- and Magnetic-Field Assessment.
- Fabrizio, M.C., J.P. Manderson, J.P. Pessutti. 2014. Home Range and Seasonal Movements of Black Sea Bass (*Centropristis striata*) During their Inshore Residency at a Reef in the Mid-Atlantic Bight. *Fishery Bulletin* 112:82–97.
- Fisheries Hydroacoustic Working Group (FHWG). 2008. Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities. Memorandum to Applicable Agency Staff. 12 June 2008. 4 pp.
- Forrest B. M., L. M. Fletcher, J. Atalah, R. F. Piola, and G. A. Hopkins. 2013. Predation Limits Spread of *Didemnum vexillum* into Natural Habitats from Refuges on Anthropogenic Structures. *PLOS ONE* 8(12):e82229.

- GARFO (Greater Atlantic Region Fisheries Office). 2021. Section 7: Consultation Technical Guidance in the Greater Atlantic Region: List of resources to help action agencies draft their biological assessments. Available: <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-consultation-technical-guidance-greater-atlantic>. Accessed 10 December 2021.
- Geneva International Centre for Humanitarian Demining, 2016. A guide to survey and clearance of underwater explosive ordnance, Geneva: GICHD. Available at: <https://www.gichd.org/fileadmin/GICHD-resources/rec-documents/Guide-Underwater-Clearance-June2016.pdf>. Accessed: 26 February 2023.
- Glasby, T.M., Connell, S.D., Holloway, M.G. and Hewitt, C.L., 2007. Nonindigenous biota on artificial structures: could habitat creation facilitate biological invasions? *Marine biology*, 151(3), pp. 887-895.
- Guida, V., A. Drohan, H. Welch, J. McHenry, D. Johnson, V. Kentner, J. Brink, D. Timmons, and E. Estlea-Gomez. 2017. Habitat Mapping and Assessment of Northeast Wind Energy Areas. December 2017. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2017-088. Available online at: <https://espis.boem.gov/final%20reports/5647.pdf>. Accessed November 22, 2021.
- Hawkins, A.D., and A.D.F. Johnstone. 1978. The hearing of the Atlantic Salmon, *Salmo salar*. *Journal of Fish Biology* 13(6):655-673.
- Hixon, M.A. and Beets, J.P., 1989. Shelter characteristics and Caribbean fish assemblages: experiments with artificial reefs. *Bulletin of Marine Science*, 44(2), pp.666-680.
- Hobbs CHI. 2002. An investigation of potential consequences of marine mining in shallow water: An example from the mid-Atlantic coast of the United States. *Journal of Coastal Research* 18: 94-101.
- Hobbs CH, III. 2006. Field Testing of a Physical/Biological Monitoring Methodology for Offshore Dredging and Mining Operations. Marine Minerals Branch, Herndon, VA. Report No. MMS 2005-056. p. Available: <https://scholarworks.wm.edu/reports/563/>. Accessed January 24, 2023.
- Hopkins, T.E. and J.J. Cech. 2003. The Influence of Environmental Variables on the Distribution and Abundance of Three Elasmobranchs in Tomales Bay, California. *Environmental Biology of Fishes* 66(3):279–291.
- Inger R., M. J. Attrill, S. Bearhop, A. C. Broderick, W. James Grecian, D. J. Hodgson, C. Mills, E. Sheehan, S. C. Votier, and M. J. Witt. 2009. Marine renewable energy: potential benefits to biodiversity? An urgent call for research. *Journal of applied ecology* 46(6):1145-1153.
- Jézéquel, Y., I.T. Jones, J. Bonnel, L. Chauvaud, J. Atema, and T.A. Mooney. 2021. Sound detection by the American lobster (*Homarus americanus*). *Journal of Experimental Biology* 224, jeb240747. Doi:10.1242/jeb.240747.

- Kohut, J. and Brodie, J., 2019. Offshore Wind and the Mid-Atlantic Cold Pool. Workshop Proceedings and White Paper. Accessed March 7, 2022 from: https://rucool.marine.rutgers.edu/wp-content/uploads/2020/10/PartnersWorkshop_WhitePaper_Final.pdf.
- Kraus, C. and Carter, L., 2018. Seabed recovery following protective burial of subsea cables-Observations from the continental margin. *Ocean Engineering*, 157, pp.251-261.
- Kritzer, J.P., M. DeLucia, E. Greene, C. Shumway, M.F. Topolski, J. Thomas-Blate, L.A. Chiarella, K.B. Davy, and K. Smith. 2016. The Importance of Benthic Habitats for Coastal Fisheries. *BioScience*, Volume 66, Issue 4, 01 April 2016, Pages 274–284, Accessed 8 December 2021. <https://doi.org/10.1093/biosci/biw014>.
- Lefaible, N., L. Colson, U. Braeckman, and T. Moens. 2019. Evaluation of Turbine-Related Impacts on Macrobenthic Communities Within Two Offshore Wind Farms During the Operational Phase. In *Memoirs on the Marine Environment: Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea*. S. Degraer, R. Brabant, B. Rumes, and L. Vigin, eds. 73–84. Brussels: Royal Belgian Institute of Natural Sciences, OD Natural Environment, Marine Ecology and Management. Available: <https://tethys.pnnl.gov/sites/default/files/publications/Degraer-2019-Offshore-Wind-Impacts.pdf>. Accessed: October 11, 2021
- Leitao, F., Santos, M.N., Erzini, K. and Monteiro, C.C., 2008. The effect of predation on artificial reef juvenile demersal fish species. *Marine Biology*, 153, pp.1233-1244.
- Lovell, J.M., M.M. Findlay, R.M. Moate, J.R. Nedwell, and M.A. Pegg. 2005. The inner ear morphology and hearing abilities of the Paddlefish (*Polyodon spathula*) and the Lake Sturgeon (*Acipenser fulvescens*). *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology* 142(3):286-296.
- Mahanty, M., G. Latha, M. C. Sanjana, and A. Thirunavukarasu. 2017. Passive acoustic observations in the shallow waters of Northwest Bay of Bengal to study the effects of impact pile driving on fish chorus. *Marine Technology Society Journal*, 51(1), pp.23-31.
- Malatesta, R.J. and Auster, P.J., 1999. The importance of habitat features in low-relief continental shelf environments. *Oceanologica Acta*, 22(6), pp.623-626.
- MARCO (Mid-Atlantic Regional Council on the Ocean). N.d. Mid-Atlantic Ocean Data Portal. Accessed March 8, 2022 from: <https://portal.midatlanticocean.org/>.
- Mavraki, N., S. Degraer, and J. Vanaverbeke. 2021. Offshore wind farms and the attraction–production hypothesis: insights from a combination of stomach content and stable isotope analyses. *Hydrobiologia* (2021) 848:1639–1657.
- McCormick, M., T. Manley, D. Beletsky, A. Foley III, and G. Fahnenstiel. 2008. Tracking the Surface Flow in Lake Champlain. Available online: <http://www.glerl.noaa.gov/pubs/fulltext/2008/20080053.pdf>. Accessed December 4, 2022

- Middleton, P, Barnhart, B, Salerno, J. 2021. Supporting National Environmental Policy Act Documentation for Offshore Wind Energy Development Related to Munitions and Explosives of Concern and Unexploded Ordinances. Washington (DC): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2022-012. 13 p. Accessed: July , 2023. Retrieved from: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/MEC-UXO%20White%20Paper.pdf>
- Miller, M. H., J. K. Carlson, P. Cooper, D. Kobayashi, M. Nammack, and J. Wilson. 2014. Status review report: scalloped hammerhead shark (*Sphyrna lewini*). Final Report to National Marine Fisheries Service, Office of Protected Resources. March 2014.133 pp. <https://repository.library.noaa.gov/view/noaa/17835>
- Miller T, and G. Shepherd. 2011. Summary of discard estimates for Atlantic sturgeon, August 19, 2011. Northeast Fisheries Science Center, Population Dynamics Branch.
- MMS (Minerals Management Service). 2007. Programmatic Environmental Impact Statement for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf, Final Environmental Impact Statement. 4 vols. Report No.: OCS EIS/EA MMS 2007-046.
- Mooney, T., R. Hanlon, J. Christensen-Dalsgaard, P. Madsen, D. Ketten, and P. Nachtigall. 2010. Sound detection by the longfin squid (*Loligo pealeii*) studied with auditory evoked potentials: sensitivity to low-frequency particle motion and not pressure. The Journal of Experimental Biology, 213:3748-3759. Available online at: <https://doi.org/10.1242/jeb.048348>. Accessed December 10, 2021.
- Mooney T. A., M. H. Andersson, and J. Stanley. 2020. Acoustic impacts of offshore wind energy on fishery resources. An evolving source and varied effects across a wind farm’s lifetime. Oceanography 33:82–95. Available: <https://doi.org/10.5670/oceanog.2020.408>.
- Moser ML, Ross SW. 1995. Habitat use and movements of shortnose and Atlantic sturgeons in the lower Cape Fear River, North Carolina. Transactions of the American Fisheries Society. 124:225-234.
- Moser ML, Bain M, Collins MR, Haley N, Kynard B, J.C. O’Herron II, Rogers G, Squiers TS. 2000. A protocol for use of shortnose and Atlantic sturgeons. Report No.: NOAA Technical Memorandum-NMFS-PR-18.
- Nelson, D. M., and M.E. Monaco. 2000. National Overview and Evolution of NOAA's Estuarine Living Marine Resources (ELMR) Program. NOAA, NOS, Center for Coastal Monitoring and Assessment (Silver Spring, MD).
- NMFS (National Marine Fisheries Service). 2006. Final Consolidated Atlantic Highly Migratory Species Fishery Management Plan. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Sustainable Fisheries, Highly Migratory Species Management Division, Silver Spring, MD. Public Document. Pp. 1600.

- NMFS (National Marine Fisheries Service). 2017. FINAL Amendment 10 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan: Essential Fish Habitat and Environmental Assessment. Silver Spring, MD. 442 p.
- NMFS (National Marine Fisheries Service). 2022. National Marine Fisheries Service Endangered Species Act Biological Opinion. USACE Permit for the New Jersey Wind Port (NAP-2019-01084-39). GARFO-2021-02227. Retrieved from: <https://repository.library.noaa.gov/view/noaa/37549>. Accessed 20 July 2023.
- National Marine Sanctuary Foundation. 2018. Scalloped hammerhead sharks- facts and conservation. July 27, 2018. Internet website: <https://marinesanctuary.org/blog/scalloped-hammerhead-shark/>. Accessed November 21, 2022.
- NOAA (National Oceanic and Atmospheric Administration). 2020. Ocean Acidification: The Other Carbon Dioxide Problem. Pacific Marine Environmental Laboratory Carbon Program. Accessed: February 11, 2020. Retrieved from: <https://www.pmel.noaa.gov/co2/story/Ocean+Acidification>
- NOAA (National Oceanic and Atmospheric Administration). 2021. Status of Stocks 2020. Annual Report to Congress on the Status of U.S. Fisheries. 11 pp. Accessed here: https://media.fisheries.noaa.gov/2021-05/2020%20Status%20of%20Stocks%20RtC_5-18-21_FINAL.pdf?null.
- NOAA (National Oceanic and Atmospheric Administration). 2022a. Oceanic Whitetip Shark. Internet website: <https://www.fisheries.noaa.gov/species/oceanic-whitetip-shark#overview>. Accessed November 21, 2022.
- NOAA (National Oceanic and Atmospheric Administration). 2022b. State of the Ecosystem Mid-Atlantic. Available: <https://repository.library.noaa.gov/view/noaa/38949>. Accessed February 2, 2023.
- NOAA (National Oceanic and Atmospheric Administration). 2022c. U.S. Coast Pilot 3, Chapter 8. Delaware-Maryland-Virginia Coast. November 13, 2022. Available: https://nauticalcharts.noaa.gov/publications/coast-pilot/files/cp3/CP3_C08_WEB.pdf. Accessed November 17, 2022
- NJDEP (New Jersey Department of Environmental Protection) Division of Information Technology Bureau of GIS. 2023. Prime Fishing Grounds of New Jersey. Available: <https://gisdata-njdep.opendata.arcgis.com/datasets/prime-fishing-grounds-of-new-jersey/explore?location=38.874754%2C-73.970958%2C8.75>. Accessed 24 April 2023.
- Normandeau Associates, Inc., Exponent, Inc., T. Tricas, and A. Gill. 2011. Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species. Final Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation and Enforcement, Pacific OCS Region, Camarillo, CA. OCS Study BOEMRE 2011-09. Accessed: November 9, 2021. Retrieved from: <https://espis.boem.gov/final%20reports/5115.pdf>.

- Pederson, J., Bullock, R., Carlton, J., Dijkstra, J., Dobroski, N., Dyrinda, P., Fisher, R., Harris, L.G., Hobbs, N., Lambert, G. and Lazo-Wasem, E. 2005. Marine invaders in the northeast: Rapid assessment survey of non-native and native marine species of floating dock communities, August 2003. MIT Sea Grant Technical Reports.
- Pinsky, M., B. Worm, M. Fogarty, J. Sarmiento, and S. Levin. 2013. Marine Taxa Track Local Climate Velocities. *Science*, 341(6151):1239-1242. <https://doi.org/10.1126/science.1239352>.
- Popper, A.N., A.D. Hawkins, R.R. Fay, D.A. Mann, S. Bartol, T.J. Carlson, S. Coombs, W.T. Ellison, R.L. Gentry, M.B. Halvorsen, S. Løkkeborg, P.H. Rogers, B.L. Southall, D.G. Zeddies, and W.N. Tavolga. 2014. Sound Exposure Guidelines. In: (Eds.), ASA S3/SC1.4 TR-2014 Sound Exposure Guidelines for Fishes and Sea Turtles: A Technical Report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI. Pp. 33-51.
- Popper, A.N., and M.C. Hastings. 2009. The effects of anthropogenic sources of sound on fishes. *Journal of Fish Biology* 75(3):455-489.
- Rutecki, D., T. Dellapenna, E. Nestler, F. Scharf, J. Rooker, C. Glass, and A. Pembroke. 2014. Understanding the Habitat Value and Function of Shoals and Shoal Complexes to Fish and Fisheries on the Atlantic and Gulf of Mexico Outer Continental Shelf. Literature Synthesis and Gap Analysis. Prepared for the U.S. Dept. of the Interior, Bureau of Ocean Energy Management. Contract # M12PS00009. BOEM 2015-012. 176 pp.
- Secor, D.H., F. Zhang, M.H.P. O'Brien, and M. Li. 2018. Ocean Destratification and Fish Evacuation Caused by a Mid-Atlantic Tropical Storm. *ICES Journal of Marine Science* 76(2):573–584. Available: <http://dx.doi.org/10.1093/icesjms/fsx241>. Accessed February 10, 2023.
- Secor, D., M. O'Brien, E. Rothermel, C. Wiernicki, and H. Bailey. 2020. Movement and habitat selection by migratory fishes within the Maryland Wind Energy Area and adjacent reference sites. Sterling (VA): US Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 30:109.
- Sims, D.W., M.J. Genner, A.J. Southward, and S.J. Hawkins, 2001. Timing of Squid Migration Reflects North Atlantic Climate Variability. *Proceedings of the Royal Society of London. Series B: Biological Sciences* 268(1485):2607–2611.
- Slacum, H.W., W.H. Burton, E.T. Methratte, E.D. Weber, R.J. Llanso, and J. Drew-Baxter. 2011. Assemblage structure in shoal and flat-bottom habitats on the inner continental shelf of the Middle Atlantic Bight, USA. U.S. Minerals Management Services. Ecological Sciences and Applications. Grant Number: MMS 1435-01-00-CT-85060. January 9, 2011. <https://doi.org/10.1577/C09-012.1>.
- Solé, M., M. Lenoir, M. Durfort, M. Lopez-Bejar, A. Lombarte, and M. Adré. 2013. Ultrastructural damage of *Loligo vulgaris* and *Illex coindetii* statocysts after Low Frequency Sound Exposure. *PLOS ONE*, 8(10):e78825. Available online at: <https://doi.org/10.1371/journal.pone.0078825>. Accessed December 10, 2020.

- Stevenson, D., L. Chiarella, D. Stephan, R. Reid, K. Wilhelm, J. McCarthy, and M. Penton. 2004. Characterization of the fishing practices and marine benthic ecosystems of the northeast US shelf, and an evaluation of the potential effects of fishing on essential fish habitat. NOAA Technical Memorandum NMFS-NE-181.
- Taormina, B., J. Bald, A. Want, G. Thouzeau, M. Lejart, N. Desroy, and A. Carlier. 2018. A review of potential impacts of submarine power cables on the marine environment: Knowledge gaps, recommendations and future directions. *Renewable and Sustainable Energy Reviews*, Elsevier, 2018, 96, pp. 380–391. 10.1016/j.rser.2018.07.026. hal-02405630.
- Thomsen, F., A.B. Gill, M. Kosecka, M. Andersson, M. André, S. Degraer, T. Folegot, J. Gabriel, A. Judd, T. Neumann, A. Norro, D. Risch, P. Sigray, D. Wood, and B. Wilson. 2015. *MaRVEN—Environmental Impacts of Noise, Vibrations and Electromagnetic Emissions from Marine Renewable Energy*. Doi:10.2777/272281. Luxembourg: Publications Office of the European Union, 2015. Accessed: 24 November 2021. https://www.researchgate.net/publication/301296662_MaRVEN_-_Environmental_Impacts_of_Noise_Vibrations_and_Electromagnetic_Emissions_from_Marine_Renewable_Energy
- TRC (TRC Companies). 2023. Application for Letter of Authorization under the Marine Mammal Protection Act for the Maryland Offshore Wind Project. Submitted to the National Marine Fisheries Service, Office of Protected Resources by US Wind, Inc. Submitted August 31, 2022, revised March 31, 2023. 52 p. Not available to the public online. Will add link and save PDF once published.
- USACE (United States Army Corps of Engineers). 2021. Indian River Inlet and Bay. USACE Philadelphia District. Accessed November 17, 2022. <https://www.nap.usace.army.mil/Missions/Factsheets/Fact-Sheet-Article-View/Article/490811/indian-river-inlet-bay/>.
- USCG (United States Coast Guard). 2011. Table 386: oil spills in U.S. water-number and volume. Pollution incidents in and around U.S. waters, a spill/release compendium: 1969–2004 and 2004–2009. U.S. Coast Guard Marine Information for Safety and Law Enforcement (MISLE) System. <https://www2.census.gov/library/publications/2011/compendia/statab/131ed/tables/12s0386.xls>. Accessed November 18, 2022.
- USGS (United States Geological Survey). 2014. East-Coast Sediment Texture Database. Available: <http://woodshole.er.usgs.gov/project-pages/sediment/> Accessed March 8, 2022.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Weilgart, L. 2018. The impact of ocean noise pollution on fish and invertebrates. *Oceancare and Dalhousie University*. 1 May 2018. 32 p.

- Wilber, D. H., and D. G. Clarke. 2007. Defining and Assessing Benthic Recovery Following Dredging and Dredged Material Disposal. Presentation from the 2007 WODCON XVIII Conference in Lake Buena Vista, FL. Available: https://www.westerndredging.org/phocadownload/ConferencePresentations/2007_WODA_Florida/Session3D-EnvironmentalAspectsOfDredging/3%20-%20Wilber%20-%20Defining%20Assessing%20Benthic%20Recovery%20Following%20Dredged%20Material%20Disposal.pdf.
- Young, C., and J. Carlson. 2020. The biology and conservation status of the oceanic whitetip shark (*Carcharhinus longimanus*) and future directions for recovery. *Reviews in Fish Biology and Fisheries* 30, 293–312.

Chapter 3.5.6: Marine Mammals

- Atlantic Shores (Atlantic Shores Offshore Wind). 2021. Construction and Operations Plan, Atlantic Shores Offshore Wind. Volumes I–II. December 2021. Available: <https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-construction-and-operations-plan>.
- Austin, M.E., D.E. Hannay, and K.C. Bröker. 2018. Acoustic characterization of exploration drilling in the Chukchi and Beaufort seas. *The Journal of the Acoustical Society of America* 144:115-123.
- Azzara, A.J., von Zharen, W.M., and Newcomb, J.J. 2013. Mixed-methods analytical approach for determining potential impacts of vessel noise on sperm whale click behavior. *The Journal of the Acoustical Society of America* 134: 4566. Doi: 10.1121/1/4828819.
- Bailey H., A. Rice, J.E. Wingfield, K.B. Hodge, B.J. Estabrook, D. Hawthorne, A. Garrod, A.D. Fandel, L. Fouda, E. McDonald, E. Grzyb, W. Fletcher, A.L. Hoover. 2018. Determining Habitat Use by Marine Mammals and Ambient Noise Levels Using Passive Acoustic Monitoring Offshore of Maryland. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. Report No. OCS Study BOEM 2019-018. 229 p. https://epis.boem.gov/final%20reports/BOEM_2019-018.pdf.
- Barco S., L. Burt, A. DePerte, R. Jr. Digiovanni. 2015. Marine Mammal and Sea Turtle Sightings in the Vicinity of the Maryland Wind Energy Area July 2013–June 2015. Virginia Aquarium & Marine Science Center Foundation (VAQF) Scientific Report # 2015-06. 93 p. <https://energy.maryland.gov/Documents/Marine%20Mammal%20and%20Sea%20Turtle%20Sightings%20in%20the%20Vicinity%20of%20the%20Maryland%20Wind%20Energy%20Area.pdf>
- Barkaszi M.J., and C.J. Kelly. 2019. Seismic survey mitigation measures and protected species observer reports: synthesis report. U.S. Department of the Interior, Bureau Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. Contract No.: M17PD00004. OCS Study BOEM 2019-012.
- Baulch S. and C. Perry. 2014. Evaluating the impacts of marine debris on cetaceans. *Marine Pollution Bulletin* 80:210–221.

- Bejarano A J, Michel, J, Rowe, Z, Li, D.F, McCay, and D.S. Etkin. 2013. Environmental Risks, Fate, and Effects of Chemicals Associated with Wind Turbines on the Atlantic Outer Continental Shelf. OCS Study BOEM 2013-213.
- Bejder L, Samuels A, Whitehead H, Finn H, Allen S. 2009. Impact assessment research: use and misuse of habituation, sensitisation and tolerance in describing wildlife responses to anthropogenic stimuli. *Marine Ecology Progress Series*. 395:177-185. doi:10.3354/meps07979.
- Bellmann, M.A., J. Brinkmann, A. May, T. Wendt, S. Gerlach, and P. Remmers. 2020. Underwater noise during the impulse pile-driving procedure: Influencing factors on pile-driving noise and technical possibilities to comply with noise mitigation values. Supported by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit [BMU]), FKZ UM16 881500. Commissioned and managed by the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie [BSH]). Order No. 10036866. Edited by the itap GmbH. 137 p.
- Benhemma-Le Gall, A., Graham, I.M., Merchant, N.D., and Thompson, P.M. 2021. Broad-scale responses of harbor porpoises to pile-driving and vessel activities during offshore windfarm construction. *Frontiers in Marine Science* 8. Doi: 10.3389/fmars.2021.664724.
- Bilinski J. 2021. Review of the Impacts to Marine Fauna from Electromagnetic Frequencies (EMF) Generated by Energy Transmitted through Undersea Electric Transmission Cables. NJDEP Division of Science and Research. Available: <https://www.nj.gov/dep/offshorewind/docs/njdep-marine-fauna-review-impacts-from-emf.pdf>.
- Blackwell SB, Nations CS, McDonald TL, Greene CR, Thode AM, Guerra M, Macrander AM. 2013. Effects of airgun sounds on bowhead whale calling rates in the Alaskan Beaufort Sea. *Marine Mammal Science*. 29(4):E342-E365. doi:10.1111/mms.12001.
- BOEM (Bureau of Ocean Energy Management). 2021. South Fork Wind Farm and South Fork Export Cable Project Final Environmental Impact Statement. OCS EIS/EA BOEM 2020-057. Available: <https://www.boem.gov/renewable-energy/state-activities/sfwf-feis>.
- BOEM (Bureau of Ocean Energy Management). 2023. Maryland Offshore Wind Project Biological Assessment. Prepared for the National Marine Fisheries Service. In progress.
- Bradbury J.W. and S.L. Vehrencamp. 2011. Principles of animal communication, 2nd edition. Sinauer Associates.
- Brandt MJ, Diederichs A, Betke K, Nehls G. 2011. Responses of harbour porpoises to pile driving at the Horns Rev II offshore wind farm in the Danish North Sea. *Marine Ecology Progress Series*. 421:205-216.
- Brandt, M.J., Diederichs, A., Schubert, Kosarev, V., Nehls, G. Wahl, V., Michalik, A., Braasch, A., Hinz, C., Ketzer, C., Todeskino, D., Gauger, M., Laczny, M., Piper, W. 2016. Effects of offshore pile driving on harbour porpoise abundance in the German Bight: Assessment of Noise effects. Final report. IBL Umweltplanung GmbH, Institut für Angewandte Ökosystemforschung & BioConsult SH.

- Branstetter, B.K., Bowman, V.F., Houser, D.S., Tormey, M., Banks, P., Finneran, J., Jenkins, K. 2018. Effects of vibratory pile driver noise on echolocation and vigilance in bottlenose dolphin (*Tursiops truncatus*). *The Journal of the Acoustical Society of America* 143(1): 429. Doi: 10.1121/1.5021555.
- Broström, G. 2008. On the influence of large wind farms on the upper ocean circulation. *J. Mar. Syst.* 74:585–591. doi: 10.1016/j.jmarsys.2008.05.001.
- Brown D.M., P.L. Sieswerda, E.C.M. Parsons. 2019. Potential encounters between humpback whales (*Megaptera novaeangliae*) and vessels in the New York Bight apex, USA. *Marine Policy*. 106:103527.
- Browne M. A, A.J. Underwood, M.G. Chapman, R. Williams, R.C. Thompson, J.A. van Franeker. 2015. Linking Effects of Anthropogenic Debris to Ecological Impacts. *Proceedings of the Royal Society B* 282:20142929.
- Buckstaff, K.C. 2006. Effects of watercraft noise on the acoustic behavior of bottlenose dolphins, *Tursiops Truncatus* in Sarasota Bay, Florida. *Marine Mammal Science* 20(4): 709-725. Doi: 10.1111/j.1748-7692.2004.tb01189.x.
- Burek, K.A., F.M. Gulland, and T.M. O'Hara. 2008. Effects of climate change on Arctic marine mammal health. *Ecological Applications* 18(sp2):S126-S134.
- Burge, C.A., Mark Eakin, C., Friedman, C.S., Froelich, B., Hershberger, P.K., Hofmann, E.E., Petes, L.E., Prager, K.C., Weil, E., Willis, B.L. and Ford, S.E. 2014. Climate change influences on marine infectious diseases: implications for management and society. *Annual Review of Marine Science* 6:249-277.
- Carpenter J.R., L. Merckelbach, U. Callies, S. Clark, L. Gaslikova, B. Baschek. 2016. Potential Impacts of Offshore Wind Farms on North Sea Stratification. *PLOS ONE*. 11:e0160830. doi: 10.1371/journal.pone.016 0830.
- Cazenave P.W., R. Torres, and J.I. Allen. 2016. Unstructured grid modelling of offshore wind farm impacts on seasonally stratified shelf seas. *Progress in Oceanography* 145: 25-41.
- Cerchio S, Strindberg S, Collins T, Bennett C, Rosenbaum H. 2014. Seismic surveys negatively affect humpback whale singing activity off northern Angola. *PLoS One*. 9(3):e86464. doi:10.1371/journal.pone.0086464.
- Christiansen N., U. Daewel, B. Djath, C. Schrum. 2022. Emergence of Large-Scale Hydrodynamic Structures Due to Atmospheric Offshore Wind Farm Wakes. *Front. Mar. Sci.* 9:818501. doi: 10.3389/fmars.2022.818501.
- Clark, C.W., Ellison, W.T., Southall, B.L., Hatch, L. Van Parijijis, S.M., Frankel, A., and Ponirakis, D. 2009. Acoustic masking in marine ecosystems: intuitions, analysis, and implications. *Marine Ecology Progress Series* 395: 201-222. Doi: 10.3354/meps08402.
- Clark C.W. and G.J. Gagnon. 2002. Low-frequency vocal behaviors of baleen whales in the north Atlantic: insights from integrated undersea surveillance system detections, locations, and tracking from 1992 to 1996. *Journal of Underwater Acoustics*. 52:609-640.

- Conn P.B. and G.K. Silber. 2013. Vessel speed restrictions reduce risk of collision mortality for North Atlantic right whales. *Ecosphere*. 4.4 (2013):1–16.
- Cooke J.G. 2020. *Eubalaena glacialis* (errata version published in 2020). The IUCN Red List of Threatened Species 2020: e.T41712A178589687. Accessed 19 November 2022.
<https://dx.doi.org/10.2305/IUCN.UK.2020-2.RLTS.T41712A178589687.en>.
- Cranford T.W. and P. Krysl. 2015. Fin whale sound reception mechanisms: Skull vibration enables low-frequency hearing. *PLoS ONE*, 10(1): e0116222. Doi: 10.1371/journal.pone.0116222
- Cremer M.J., A.S. Barreto , F.A.S. Hardt, A.J.T. Júnior, R. Mounayer. 2009. Cetacean occurrence near an offshore oil platform in southern Brazil. *Biotemas*. 23(3):247-251.
- CSA Ocean Sciences, Inc. 2021. Assessment of Impacts to Marine Mammals, Sea Turtles, and Sturgeon. Appendix P1 in Construction and Operations Plan South Fork Wind Farm. Stuart, Florida.
- Curtice C., J. Cleary, E. Shumchenia, P.N. Halpin. 2019. Marine-life Data and Analysis Team (MDAT) Technical Report on the Methods and Development of Marine-life Data to Support Regional Ocean Planning and Management. Prepared on behalf of the Marine-life Data and Analysis Team (MDAT). 81 p. <http://seamap.env.duke.edu/models/mdat/MDAT-Technical-Report.pdf>.
- Daewel U., N. Akhtar, N. Christiansen, and C. Schrum. 2022. Offshore wind farms are projected to impact primary production and bottom water deoxygenation in the North Sea. *Communications Earth & Environment* 3(1): 292.
- Dahne, M., Gilles, A., Lucke, K., Peschko, V., Adler, S., Krugel, K., Sundermeyer, J., and Siebert U. 2013. Effects of pile-driving on harbour porpoises (*Phocoena phocoena*) at the first offshore wind farm in Germany. *Environmental Research Letters* 8. Doi: 10.1088/1748-9326/8/2/025002.
- Dam M. and D. Bloch. 2000. Screening of mercury and persistent organochlorine pollutants in long-finned pilot whale (*Globicephala melas*) in the Faroe Islands. *Marine Pollution Bulletin*. 40(12):1090 – 1099.
- Danil, K. and J.A. St. Leger 2011. Seabird and dolphin mortality associated with underwater detonation exercises. *Marine Technology Society Journal*. 45:6: 89-95.
- Davis G.E., M.F. Baumgartner, J.M. Bonnell, J. Bell, C. Berchok, J.B. Thornton, S. Brault, G. Buchanan, R.A. Charif, D. Cholewiak, C.W. Clark. 2017. Long-term passive acoustic recordings track the changing distribution of North Atlantic right whales (*Eubalaena glacialis*) from 2004 to 2014. *Scientific Reports* 7:13460.
- Davis G.E., M.F. Baumgartner, P.J. Corkeron. 2020. Exploring movement patterns and changing distributions of baleen whales in the western North Atlantic using a decade of passive acoustic data. *Global Change Biology* 26:4812–4840.
- Degraer S., D. Carey, J. Coolen, Z. Hutchison, F. Kerckhof, B. Rumes, J. Vanaverbeke. 2020. Offshore Wind Farm Artificial Reefs Affect Ecosystem Structure and Functioning: A Synthesis. *Oceanography*. 33(4):48–57.

- Delefosse, M., M.L. Rahbek, L. Roesen, and K.T. Clausen. 2018. Marine mammal sightings around oil and gas installations in the central North Sea. *Journal of the Marine Biological Association of the United Kingdom* 98(5):993-1001.
- Di Iorio L, Clark CW. 2010. Exposure to seismic survey alters blue whale acoustic communication. *Biology Letters*. 6(1):51-54.
- DNV. 2021. Ocean Wind Navigation and Safety Risk Assessment. Document No. 10205448-HOU-R-01. 3 February 2021. COP Vol. 3, Appendix M2.
- Dolman S.J., E. Pinna, R.J. Reid, J.P. Barleya, R. Deaville, P.D. Jepson, M. O’Connell, S. Berrow, R.S. Penrose, P.T. Stevick, S. Calderan, K.P. Robinson, R.A. Brownell Jr., M.P. Simmonds. 2010. A note on the unprecedented strandings of 56 deep-diving whales along the UK and Irish coast. *Marine Biodiversity Records*. 3:e16.
- DoN (Department of the Navy). 2017. Technical Report: Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III). San Diego, California: SSC Pacific.
- Dorrell, R. M., C. J. Lloyd, B. J. Lincoln, T. P. Rippeth, J. R. Taylor, C. C. P. Caulfield, J. Sharples, J. A. Polton, B. D. Scannell, D. M. Greaves, R. A. Hall, and J. H. Simpson. 2022. Anthropogenic Mixing in Seasonally Stratified Shelf Seas by Offshore Wind Farm Infrastructure. *Front. Mar. Sci.* 9:830927. DOI: 10.3389/fmars.2022.830927
- Dunlop, R.A., Noad, M.J., McCauley, R.D., Kniest, E. 2017. The behavioural response of migrating humpback whales to a full seismic airgun array. *Proceedings of the Royal Society B: Biological Sciences* 284(1869): 20171901. Doi: 10.1098/rspb.2017.1901.
- Elliot, J., K. Smith, D. R. Gallien, and A. Khan. 2017. Observing Cable Laying and Particle Settlement During the Construction of the Block Island Wind Farm. Final Report to the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2017-027. 225 pp. Available: <https://tethys.pnnl.gov/sites/default/files/publications/Elliot-et-al-2017.pdf>.
- Emeana, C. J., Hughes, T. J., Dix, J. K., Gernon, T. M., Henstock, T. J., Thompson, C. E. L., and Pilgrim, J. A. 2016. The thermal regime around buried submarine high-voltage cables. *Geophysical Journal International*, 206(2), 1051-1064.
- Erbe, C., Reichmuth, C., Cunningham, K. Lucke, K., Dooling, R. 2016. Communication masking in marine mammals: a review and research strategy. *Marine Pollution Bulletin* 103(1-2): 15-38. Doi: 10.1016/j.marpolbul.2015.12.007.
- Erbe, C., Marley, S.A., Schoeman, R.P., Smith, J.N., Trigg, L.E., and Embling, C.B. 2019. The Effects of Ship Noise on Marine Mammals – A Review. *Frontiers in Marine Science* 6:606. Doi: 10.3389/fmars.2019.00606.
- Exponent Engineering, P.C. 2018. Deepwater Wind South Fork Wind Farm Onshore Electric and Magnetic Field Assessment. Appendix K2 in Construction and Operations Plan South Fork Wind Farm. New York, New York: Exponent Engineering, P.C.

- Finley, K.J., Miller, G.W., Davis, R.A., and Greene, C.R. 1990. Reactions of Belugas, *Delphinapterus leucas*, and Narwhals, *Monodon monoceros*, to Ice-Breaking Ships in the Canadian high Arctic In: Advances in research on the Beluga Whale, *Delphinapterus leucas*. Eds. Smith, T.G., St. Aubin, D.J., and Geraci, J.R. Canadian Bulletin of Fisheries and Aquatic Sciences. 224.
- Finneran J.J. 2015a. Auditory weighting functions and TTS/PTS exposure functions for 39 cetaceans and marine carnivores. San Diego CA: SSC Pacific.
- Finneran J.J. 2015b. Noise-induced hearing loss in marine mammals: a review of temporary threshold shift studies from 1996 to 2015. *Journal of the Acoustical Society of America*. 138(3):1702-1726. doi:10.1121/1.4927418.
- Finneran, J.J. 2016. Auditory Weighting Functions and TTS/PTS Exposure Functions for Marine Mammals Exposed to Underwater Noise. Marine Mammal Scientific and Vet Support Branch of the Biosciences Division, Space and Naval Warfare Systems Center, San Diego, CA. Technical Report 3026. 134 p.
- Frankel A. 2002. Sound Production In: *Encyclopedia of Marine Mammals* 1056-1071.
- Gerstein, E., J. Blue, and S. Forsythe. 2006. Ship strike acoustics: A paradox and parametric solution. *Journal of the Acoustical Society of America*. 119(5):3289–3289.
- Gill, A. B., I. Gloyne-Phillips, K. J. Neal, and J. A. Kimber. 2005. The Potential Effects of Electromagnetic Fields Generated by Sub-Sea Power Cables Associated with Offshore Wind Farm Developments on Electrically and Magnetically Sensitive Marine Organisms – A Review. Report No. COWRIE-EM FIELD 2-06-2004. Final report. Prepared for Collaborative Offshore Wind Energy Research Into the Environment. Cranfield University and the Centre for Marine and Coastal Studies Ltd.
- Goertner, J.F. 1982. Prediction of underwater explosion safe ranges for sea mammals. Naval Surface Weapons Center TR 82-188.
- Graham, I.M., Pirotta, E., Merchant, N.D., Farcas, A., Barton, T.R., Cheney, B., Hastie, G.D. and Thompson, P.M. 2017. Responses of bottlenose dolphins and harbor porpoises to impact and vibration piling noise during harbor construction. *Ecosphere* 8(5): e01793. Doi: 10.1002/ecs2.1793
- Grashorn, S., and E. V. Stanev. 2016. Kármán vortex and turbulent wake generation by wind park piles. *Ocean Dyn*. 66:1543–1557. doi: 10.1007/s10236-016-0995-2.
- Guerra, M., Dawson, S.M., Brough, T.E., and Rayment, W.J. 2014. Effects of boats on the surface and acoustic behaviour of an endangered population of bottlenose dolphins. *Endangered Species Research* 24: 221-236. Doi: 10.3354/esr00598
- Gulland, F.M.D., J.D. Baker, M. Howe, E. LaBrecque, L. Leach, S.E. Moore, R.R. Reeves, and P.O. Thomas. 2022. A review of climate change effects on marine mammals in United States waters: Past predictions, observed impacts, current research and conservation imperatives. *Climate Change Ecology* 3.

- Hall, A. J., B. J. McConnell, L. H. Schwacke, G. M. Ylitalo, R. Williams, and T. K. Rowles. 2018. Predicting the effects of polychlorinated biphenyls on cetacean populations through impacts on immunity and calf survival. *Environmental Pollution* 233:407–418.
- Hamilton, P.K., A.R. Knowlton, M.N. Hagbloom, K.R. Howe, H.M. Pettis, M.K. Marx, M.A. Zani, and S.D. Kraus. 2019. Maintenance of the North Atlantic right whale catalog, whale scarring and visual health databases, anthropogenic injury case studies, and near real-time matching for biopsy effort entangled, injured, sick, or dead right whales. New England Aquarium, Boston, MA. Report No. Contract No. 1305M2-18-P-NFFM-0108.
- Hannay, D.E. and M. Zykov. 2022. Underwater Acoustic Modeling of Detonations of Unexploded Ordnance (UXO) for Orsted Wind Farm Construction, US East Coast. Document 02604, Version 3.0. Report by JASCO Applied Sciences for Ørsted.
- Hastie, G.D., Wilson, B., Tufft, L.H., and Thompson, P.M. 2003. Bottlenose dolphins increase breathing synchrony in response to boat traffic. *Marine Mammal Science* 19(1): 74-084. Doi: 10.1111/j.1748-7692.2003.tb01093.x
- Hatch, L.T., C.W. Clark, S.M. Van Parijs, A.S. Frankel, and D.W. Ponirakis. 2012. Quantifying Loss of Acoustic Communication Space for Right Whales in and around a U.S. National Marine Sanctuary. *Conservation Biology* 26(6):983-994.
- Hayes S.A., E. Josephson, K. Maze-Foley, P.E. Rosel. 2019. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2018. Woods Hole (MA): U.S. Department of Commerce, National Fisheries Science Center. NOAA Technical Memorandum NMFS-NE-258. 298 p. <https://repository.library.noaa.gov/view/noaa/20611>.
- Hayes S.A., E. Josephson, K. Maze-Foley, P.E. Rosel. 2020. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2019. Woods Hole (MA): U.S. Department of Commerce, National Fisheries Science Center. NOAA Technical Memorandum NMFS-NE 264. 479 p. https://media.fisheries.noaa.gov/dam-migration/2019_sars_atlantic_508.pdf.
- Hayes S.A., E. Josephson, K. Maze-Foley, P.E. Rosel, J. Turek. 2021. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2020. Woods Hole (MA): U.S. Department of Commerce, National Fisheries Science Center. NOAA Technical Memorandum NMFS-NE 271. <https://repository.library.noaa.gov/view/noaa/32072>.
- Hayes S.A., E. Josephson, K. Maze-Foley, P.E. Rosel, J. Wallace. 2022. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2021. 386 p. <https://media.fisheries.noaa.gov/2022-08/U.S.%20Atlantic%20and%20Gulf%20of%20Mexico%202021%20Stock%20Assessment%20Report.pdf>.
- Hayes, S.A. 2022. Letter of Memorandum to the Bureau of Ocean Energy Management regarding North Atlantic right whale effects from Offshore Wind Development in New England. Prepared by the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northeast Fisheries Science Center for Brian R. Hooker, Lead Biologist, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. May 13, 2022. 4 pp.

- Heinis, F., de Jong, C., Ainslie, M., Borst, W., and Vellinga, T. 2013. Monitoring programme for the Maasvlakte –, Part III - The effects of underwater sound. *Terra et Aqua* 132: 21- 32.
- Henderson D., Hu B, Bielefeld E. 2008. Patterns and mechanisms of noise-induced cochlear pathology. In: Popper AN, Fay RR, editors. *Auditory Trauma, Protection, and Repair*. New York: Springer. p. 195-217.
- Henry, A.G., M. Garron, D. Morin, A. Reid, W. Ledwell, TVN Cole. 2020. Serious Injury and Mortality Determinations for Baleen Whale Stocks along the Gulf of Mexico, United States East Coast, and Atlantic Canadian Provinces, 2013-2017. Woods Hole, MA: U.S. Department of Commerce, Northeast Fisheries Science Center Reference Document 20-06. Accessed: February 20, 2022. Retrieved from: <https://repository.library.noaa.gov/view/noaa/25359>
- Hoffman, C. 2012. Mitigating impacts of underwater noise from dredging on beluga whales in Cook Inlet, Alaska. In 2nd International Conference on the Effects of Noise on Aquatic Marine Life, Cork, Ireland.
- Holt, M.M., Noren, D.P., Veirs, Val, Emmons, C., and Veirs, S. 2009. Speaking up: Killer whales (*Orcinus orca*) increase their call amplitude in response to vessel noise. *The Journal of the Acoustical Society of America* 125: EL27. Doi: 10.1121/1.3040028
- Holt, M.M., Noren, D.P., Dunkin, R.C. and Williams, T.M. 2015. Vocal performance affects metabolic rate in dolphins: implications for animals communicating in noisy environments. *The Journal of Experimental Biology* 218(11): 1647-1654. Doi: 10.1242/jeb.122424
- Holt, M.M., Tennessen, J.B., Hanson, M.B., Emmons, C.K., Giles, D.A., Hogan, J.T., and Ford, M.J. 2021. Vessels and their sounds reduce prey capture effort by endangered killer whales (*Orcinus orca*). *Marine Environmental Research* 170:105429. Doi: 10.1016/j.marenvres.2021.105429
- Houser D.S., Yost W, Burkard R, Finneran JJ, Reichmuth C, Mulsow J. 2017. A review of the history, development and application of auditory weighting functions in humans and marine mammals. *Journal of the Acoustical Society of America*. 141(3):1371. doi:10.1121/1.4976086.
- Hunt K.E., Stimmelmayer R, George C, Hanns C, Suydam R, Brower H, Jr., Rolland RM. 2014. Baleen hormones: a novel tool for retrospective assessment of stress and reproduction in bowhead whales (*Balaena mysticetus*). *Conservation Physiology*. 2(1):1-12. doi:10.1093/conphys/cou030.
- Inspire Environmental. 2019. Sediment Profile and Plan View Imaging Benthic Assessment Survey in Support of the South Fork Wind Farm Site Assessment. Appendix N in Construction and Operations Plan South Fork Wind Farm. Newport, Rhode Island: Inspire Environmental.
- Jansen, H.W. and de Jong, C. 2016. Underwater noise measurements in the North Sea in and near the Princess Amalia Wind Farm in operation. The Hague (NL), TNO.
- Jensen, A. S., G. K. Silber, and J. Calambokidis. 2003. Large whale ship strike database. U.S. Department of Commerce (p. 37). NOAA Technical Memorandum. NMFS-ORP. Available: https://repository.library.noaa.gov/view/noaa/23127/noaa_23127_DS1.pdf.

- Jepson, P. D., M. Arbelo, R. Deaville, I. A. P. Patterson, P. Castro, J. R. Baker, E. Degollada, H. M. Ross, P. Herraez, A. M. Pocknell, F. Rodriguez, F. E. Howie, A. Espinosa, R. J. Reid, J. R. Jaber, V. Martin, A. A. Cunningham, and A. Fernández. 2003. Gas-bubble lesions in stranded cetaceans. *Nature* 425:575–576.
- Johansson A.T., and M.H. Andersson. 2012. Ambient underwater noise levels at Norra Midsjöbanken during construction of the Nord Stream pipeline. Prepared for the Swedish Environment Protection Agency. FOI-R-3469-SE.
- Johnson, S.R. 2002. Marine mammal mitigation and monitoring program for the 2001 Odoptu 3-D seismic survey, Sakhalin Island, Russia: Executive summary. Report by LGL Limited, Sidney, BC, Canada, for Exxon Neftegas Limited, Yuzhno-Sakhalinsk, Russia. 49 pp.
- Johnson, A., G. Salvador, J. Kenney, J. Robbins, S. Kraus, S. Landry, and P. Clapham. 2005. Fishing Gear Involved in Entanglement of Right and Humpback Whales. *Marine Mammal Science* 21:635–645.
- Joy, R., Tollit, D., Wood, J., MacGillivray, A. Li, Z., Trounce, K., and Robinson, O. 2019. Potential benefits of vessel slowdowns on endangered Southern Resident Killer Whales. *Frontiers in Marine Science* Doi: 10.3389/fmars.2019.00344
- Kastelein, R.A, Huijser, L.A.E., Cornelisse, S., Helder-Hoek, L., Jennings, N., and DeJong, C.A.F. 2019. Effect of pile-driving playback sound level on fish-catching efficiency in harbor porpoises (*Phocoena phocoena*). *Aquatic Mammals* 45(4). Doi: 10.1578/AM/45.4.2019.398
- Kates Varghese, H., Miksis-Olds, J., DiMarzio, N., Lowell, K., Linder, E., Mayer, L., Moretti, D. 2020. The effect of two 12 kHz multibeam mapping surveys on the foraging behavior of Cuvier's beaked whales off of southern California. *The Journal of the Acoustical Society of America*. 147: 3849. Doi: 10.1121/10.0001385
- Kates Varghese, H., Lowell, K., Miksis-Olds, J., DiMarzio, N., Moretti, D., and Mayer, L. 2021. Spatial analysis of beaked whale foraging during two 12 kHz multibeam echosounder surveys. *Frontiers in Marine Science*. Doi: 10.3389/fmars.2021.65418
- Kellar, N. M., T. R. Speakman, C. R. Smith, S. M. Lane, B. C. Balmer, M. L. Trego, K. N. Catelani, M.N. Robbins, C. D. Allen, R. S. Wells, E. S. Zolman, T. K. Rowles, and L. H. Schwacke. 2017. Low Reproductive Success Rates of Common Bottlenose Dolphin *Tusiops truncatus* in the Northern Gulf of Mexico Following the Deepwater Horizon Disaster (2010–2015). *Endangered Species Research*. 33:143–158.
- Ketten, D.R. 1994. Functional Analyses of Whale Ears: Adaptations for Underwater Hearing, *Proceedings of OCEANS'94* 1. Doi: 10.1109/OCEANS.1994.363871
- Ketten, D.R. 2004. Marine mammal auditory systems: a summary of audiometric and anatomical data and implications for underwater acoustic impacts. *Polarforschung* 72 (2/3) 79-92.
- Kight CR, Swaddle JP. 2011. How and why environmental noise impacts animals: an integrative, mechanistic review. *Ecology Letters*. 14(10):1052-1061. doi:10.1111/j.1461-0248.2011.01664.x.
- Kilfoyle, A. K., R. F. Jermain, M. R. Dhanak, J. P. Huston, and R. E. Speiler. 2018. Effects of EMF emissions from undersea electric cables on coral reef fish. *Bioelectromagnetics* 39:35–52.

- King, K., M. Joblon, K. McNally, L. Clayton, H. Pettis, P. Corkeron, and F. Nutter. 2021. Assessing North Atlantic Right Whale (*Eubalaena glacialis*) Welfare. *Journal of Zoological and Botanical Gardens* 2(4):728-739.
- Kite-Powell, H.L., A. Knowlton, and M. Brown. 2007. Modeling the Effect of Vessel Speed on Right Whale Ship Strike Risk. Unpublished Report for NOAA/NMFS Project NA04NMF47202394. Available: <https://tethys.pnnl.gov/publications/modeling-effect-vessel-speed-right-whale-ship-strike-risk#:~:text=Vesselspeedrestrictionshavethree,theeventofacollision>
- Knowlton, A. R., P. K. Hamilton, M. K. Marx, H. P. Pettis, and S. D. Kraus. 2012. Monitoring North Atlantic right whale *Eubalaena glacialis* entanglement rates: A 30 year retrospective. *Marine Ecology Progress Series* 466:293–302.
- Kraus, S. D., R. D. Kenney, and L. Thomas. 2019. A Framework for Studying the Effects of Offshore Wind Development on Marine Mammals and Turtles. Prepared for the Massachusetts Clean Energy Center and the Bureau of Ocean Energy Management.
- Kraus, S.D. and Hatch, J.J. 2001. Mating strategies in the North Atlantic right whale (*Eubalaena glacialis*). *Journal of Cetacean Research and Management* 2 Special Issue: 237-244.
- LaBrecque E, Curtice C, Harrison J, Van Parijs SM, Halpin PN. 2015. 2. Biologically important areas for cetaceans within U.S. waters – east coast region. *Aquatic Mammals* 41(1):17–29.
- Laist D. W., A. R. Knowlton, and D. Pendleton. 2014. Effectiveness of mandatory vessel speed limits for protecting North Atlantic Right whales. *Endangered Species Research*. V–I. 23, 133-147.
- Lesage V, Barrette C, Kingsley MCS, Sjare B. 1999. The effect of vessel noise on the vocal behavior of belugas in the St. Lawrence River estuary, Canada. *Marine Mammal Science*. 15(1):65-84. doi:10.1111/j.1748-7692.1999.tb00782.x.
- Lesage V, Gavrilchuk K, Andrews RD, Sears R. 2017. Foraging areas, migratory movements and winter destinations of blue whales from the western North Atlantic. *Endangered Species Research*. 34:27-43.
- Lesage V, Gosselin J-F, Lawson JW, McQuinn I, Moors-Murphy H, Pourde S, Sears R, Simard Y. 2018. Habits Important to Blue Whales (*Balaenoptera musculus*) in the western North Atlantic. DFO Can. Sci. Advis. Sec. Res. Doc. 2016/080. Iv + 50 p.
- Li X., L. Chi, X. Chen, Y. Ren, and S. Lehner. 2014. SAR observation and numerical modeling of tidal current wakes at the East China Sea offshore wind farm. *Journal of Geophysical Research: Oceans* 119(8): 4958-4971.
- Long, C. 2017. Analysis of the Possible Displacement of Bird and Marine Mammal Species Related to the Installation and Operation of Marine Energy Conversion Systems. Scottish Natural Heritage Commissioned Report No. 947. 319 pp. Available: <https://tethys.pnnl.gov/sites/default/files/publications/Long-2017-SNH-947.pdf>. Accessed April 7, 2023

- Love, M., A. Baldera, C. Young, and C. Robbins. 2013. The GoM Ecosystem: A Coastal and Marine Atlas. New Orleans, LA: Ocean Conservancy, Gulf Restoration Center. 232 pp. Available: [gulf-atlas.pdf \(oceanconservancy.org\)](#). Accessed January 27, 2023.
- Lucke, K., Lepper, P.A., Hoeve, B., Everaarts, E., van Elk, N., and Siebert, U. 2007. Perception of low-frequency acoustic signals by a harbour porpoise (*Phocoena phocoena*) in the presence of simulated offshore wind turbine noise. *Aquatic Mammals* 33(1): 55-68. Doi: 10.1578/AM.33.1.2007.55
- Ludewig, E. 2015. On the Effect of Offshore Wind Farms on the Atmosphere and Ocean Dynamics. Cham: Springer International Publishing.
- Lyssikatos, M. C. 2015. Estimates of cetacean and pinniped bycatch in Northeast and Mid-Atlantic bottom Trawl Fisheries, 2008–2013. Woods Hole, Massachusetts, U.S. Department of Commerce. Northeast Fisheries Science Center Reference Document 15-19.
- Madsen, P.T. and Surlykke, A. 2013. Functional convergence in bat and toothed whale biosonars. *Physiology* 28(5): 276-283. Doi: 10.1152/physiol.00008.2013.
- Malme, C.I., Wuersig, B., Bird, J.E., Tyack, P. 1986. Behavioral responses of gray whales to industrial noise: feeding observations and predictive modeling. Technical Report. Report number PB-88-249057/XAB
- Malme, C.I., Wursig, B., Bird, J.E., and Tyack, P. 1988. Observations of feeding gray whale responses to controlled industrial noise exposure. In: Port and Ocean Engineering Under Arctic Conditions. Vol. II, ed. by W.M. Sackinger, pp. 55-73. Fairbanks, AK: University of Alaska.
- Malme, C.I., Miles, P.R., Miller, G.S., Richardson, W.J. and Roseneau, D.G., 1989. Analysis and ranking of the acoustic disturbance potential of petroleum-industry activities and other sources of noise in the environment of marine mammals in Alaska. Final report (No. PB-90-188673/XAB; REPT-6945). Bolt, Beranek and Newman, Inc., Cambridge, MA (USA).
- Martin, J., Q. Sabatier, T. A. Gowan, C. Giraud, E. Gurarie, C. S. Calleson, J. G. Ortega-Ortiz, C. J. Deutsch, A. Rycyk, and S. M. Koslovsky. 2016. A quantitative framework for investigating risk of deadly collisions between marine wildlife and boats. *Methods in Ecology and Evolution* 7(1):42–50.
- Mazet, J. A. K., I. A. Gardner, D. A. Jessup, and L. J. Lowenstine. 2001. Effects of Petroleum on Mink Applied as a Model for Reproductive Success in Sea Otters. *Journal of Wildlife Diseases* 37(4):686– 692.
- McCauley, R.D., Jenner, M.N., Jenner, C., McCabe, K.A., and Murdoch, J. 1998. The response of humpback whales (*Megaptera novaengliae*) to offshore seismic survey noise: preliminary results of observations about a working seismic vessel and experimental exposures. *APPEA Journal* 38(1), 692-707.
- Methratta, E. T., and W. R. Dardick. 2019. Meta-Analysis of Finfish Abundance at Offshore Wind Farms. *Reviews in Fisheries Science & Aquaculture* 27:2:242–260.

- Meyer-Gutbrod, E.L., C.H. Greene, P.J. Sullivan, and A.J. Pershing. 2015. Climate-associated changes in prey availability drive reproductive dynamics of the North Atlantic right whale population. *Marine Ecology Progress Series* 535:243-258.
- Meyer-Gutbrod, E.L., C.H. Greene, K.T.A. Davies, and D.G. Johns. 2021. Ocean regime shift is driving collapse of the North Atlantic right whale population. *Oceanography* 34(3):22-31.
- Miles T., S. Murphy, J. Kohut, S. Borsetti, and D. Munroe. 2021. Offshore wind energy and the Mid-Atlantic Cold Pool: A review of potential interactions. *Marine Technology Society Journal*. 55(4): 72-87.
- Mohr, F. C., B. Lasely, and S. Bursian. 2008. Chronic Oral Exposure to Bunker C Fuel Oil Causes Adrenal Insufficiency in Ranch Mink. *Archive of Environmental Contamination and Toxicology*. 54:337-347.
- Mooney TA, Yamato M, Branstetter BK. 2012. Hearing in cetaceans: from natural history to experimental biology. *Advances in Marine Biology*. 63:197-246.
- Moore, M. J., and J. M. van der Hoop. 2012. The Painful Side of Trap and Fixed Net Fisheries: Chronic Entanglement of Large Whales. *Journal of Marine Biology*. 2012. Article 230653, 4 pp.
- Moore, S. E., and J. T. Clarke. 2002. Potential Impact of Offshore Human Activities on Gray Whales (*Eschrichtius robustus*). *Journal of Cetacean Resource Management* 4(1):19–25.
- Moreno, P.T., DeMaster, D.P., Punt, A.E. and J.R. Brandon. 2020. Estimates of human-caused removals of gray seals in the northeastern U.S. Atlantic and adjacent Canadian waters: Preliminary implications for PBR-based management. Independent Advisory Team (IAT) for Marine Mammal Assessments, 32p.
- Muir, D. C. G., R. Wagemann, N. P. Grift, R. J. Norstrom, M. A. Simon, and J. Lien. 1988. Organochlorine chemical and heavy metal contaminants in white-beaked dolphins (*Lagenorhynchus albirostris*) and pilot whales (*Globicephala melaena*) from the coast of Newfoundland, Canada. *Archives of Environmental Contamination and Toxicology* 17(5):613–629.
- Murphy, S., R. J. Law, R. Deaville, J. Barnett, M. W. Perkins, A. Brownlow, R. Penrose, N. J. Davison, J. L. Barber, and P. D. Jepson. 2018. Organochlorine contaminants and reproductive implication in cetaceans: a case study of the common dolphin. *Marine Mammal Ecotoxicology*. 3-38.
- NASA (National Aeronautics and Space Administration). 2023. The Effects of Climate Change. Available at: <https://climate.nasa.gov/effects/>. Accessed April 5, 2023.
- Nedwell J., J. Langworthy, and D. Howell. 2003. Assessment of sub-sea acoustic noise and vibration from offshore wind turbines and its impact on marine wildlife; initial measurements of underwater noise during construction of offshore windfarms, and comparison with background noise. Prepared for The Crown Estates Office, London. Report No. 544 R 0424.
- NEFSC and SEFSC (Northeast Fisheries Science Center and Southeast Fisheries Science Center). 2021. Annual Report of a Comprehensive Assessment of Marine Mammal, Marine Turtle, and Seabird Abundance and Spatial Distribution in US waters of the Western North Atlantic Ocean – AMAPPS III.

- Nielsen, J. B., F. Nielsen, P. J. Jørgensen, and P. Grandjean. 2000. Toxic metals and selenium in blood from pilot whales (*Globicephala melas*) and sperm whales (*Physeter catodon*). *Marine Pollution Bulletin* 40(4):348–351.
- NMFS (National Marine Fisheries Service). 2018. 2018 Revisions to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. NOAA Technical Memorandum NMFS-OPR-59. 167 p.
- NMFS (National Marine Fisheries Service). 2020. North Atlantic Right Whale (*Eubalaena glacialis*) Vessel Speed Rule Assessment. National Marine Fisheries Service, Office of Protected Resources, Silver Spring, MD.
- NMFS (National Marine Fisheries Service). 2021. Endangered Species Act Section 7 Consultation Biological Opinion for the Construction, Operation, Maintenance, and Decommissioning of the South Fork Offshore Energy Project (Lease OCS-A 0517) GARFO-2021-00353 – [Corrected]. Available: https://media.fisheries.noaa.gov/2021-12/SFW_BiOp_OPR1.pdf.
- NMFS (National Marine Fisheries Service). 2022. Pinniped Unusual Mortality Event Along the Northeast Coast. Assessed 20 February 2023. <https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/2018-2020-pinniped-unusual-mortality-event-along>.
- NMFS (National Marine Fisheries Service). 2022e. Summary of Marine Mammal Protection Act Acoustic Thresholds. Retrieved on 8/10/2022. Available: https://media.fisheries.noaa.gov/2022-05/MM%20Acoustic%20Thresholds%20%28508%29_secure%20%28May%202022%29.pdf
- NMFS (National Marine Fisheries Service). 2023a. Draft U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessment Reports 2022. Woods Hole, MA: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. June 2022. 147 p.
- NMFS (National Marine Fisheries Service). 2023b. 2017–2023 North Atlantic Right Whale Unusual Mortality Event. Accessed 20 February 2023. <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2023-north-atlantic-right-whale-unusual-mortality-event#interactive-map>.
- NMFS (National Marine Fisheries Service). 2023c. 2016–2023 Humpback Whale Unusual Mortality Event along the Atlantic coast. Accessed 20 February 2023. <https://www.fisheries.noaa.gov/national/marine-life-distress/2016-2023-humpback-whale-unusual-mortality-event-along-atlantic-coast>.
- NMFS (National Marine Fisheries Service). 2023d. 2017–2023 Minke Whale Unusual Mortality Event along the Atlantic coast. Accessed 20 February 2023. <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2023-minke-whale-unusual-mortality-event-along-atlantic-coast>.
- NMFS (National Marine Fisheries Service). 2023e. 2022–2023 Pinniped Unusual Mortality Event along the Maine Coast. Accessed 20 July 2023. <https://www.fisheries.noaa.gov/marine-life-distress/2022-2023-pinniped-unusual-mortality-event-along-maine-coast>

- NOAA (National Oceanic and Atmospheric Administration). 2020. North Atlantic Right Whale (*Eubalaena glacialis*) Vessel Speed Rule Assessment. June. NOAA Fisheries, Office of Protected Resources. Available: https://media.fisheries.noaa.gov/2021-01/FINAL_NARW_Vessel_Speed_Rule_Report_Jun_2020.pdf?null
- NOAA (National Oceanic and Atmospheric Administration). 2022. Rule to Amend the North Atlantic Right Whale Vessel Speed Regulations Closed for Comment. National Oceanic and Atmospheric Administration. Updated November 7, 2022. Available: <https://www.fisheries.noaa.gov/feature-story/rule-amend-north-atlantic-right-whale-vessel-speed-regulations-closed-comment>. Accessed: July 21, 2023.
- Normandeau, Exponent, T. Tricas, and A. Gill. 2011. Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species. OCS Study BOEMRE 2011-09. Camarillo, California: U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Pacific OCS Region.
- Nowacek, D.P., Johnson, M.P., and Tyack, P.L. 2004. North Atlantic right whales (*Eubalaena glacialis*) ignore ships but respond to alerting stimuli. *Proceedings of the Royal Society B* 271(1536). Doi: 10.1098/rspb.2003.2570
- Nowacek, S.M., Wells, R.S., and Solow, A.R. 2006. Short-term effects of boat traffic on bottlenose dolphins, *Tursiops Truncatus*, in Sarasota Bay, Florida. *Marine Mammal Science* 17(4): 673-688. Doi: 10.1111/j.1748-7692.2001.tb01292.x
- NRC (National Research Council). 2003. Ocean noise and marine mammals. Washington (DC): National Academies Press. 192 p.
- O'Brien, O., D.E. Pendleton, L.C. Ganley, K.R. McKenna, R.D. Kenney, E. Quintana-Rizzo, C.A. Mayo, S.D. Kraus, and J.V. Redfern. 2022. Repatriation of a historical North Atlantic right whale habitat during an era of rapid climate change. *Scientific Reports* 12(1):1-10.
- Olsen E, Budgell WP, Head E, Kleivane L, Nottestad L, Prieto R, Silva MA, Skov H, Vikingsson GA, Waring G, Oien N. 2009. First Satellite-Tracked Long-Distance Movement of a Sei Whale (*Balaenoptera Borealis*) in the North Atlantic. *Aquatic Mammals*. 35(3):313-318.
- Olson, J. K., D. M. Lambourn, J. L. Huggins, S. Raverty, A. A. Scott, and J. K. Gaydos. 2021. Trends in propeller strike-induced mortality in harbor seals (*Phoca vitulina*) of the Salish Sea. *Journal of Wildlife Diseases*. 57(3):689–693.
- Orphanides, C. D. 2020. Estimates of Cetacean and Pinniped Bycatch in the 2017 New England Sink and Mid-Atlantic Gillnet Fisheries. Northeast Fisheries Science Center Reference Document 20-03. Available: <https://repository.library.noaa.gov/view/noaa/23650>.
- Orr, T., Herz, S., and Oakley, D. 2013. Evaluation of Lighting Schemes for Offshore Wind Facilities and Impacts to Local Environments. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Herndon, VA. OCS Study BOEM 2013-0116. 429pp.
- OSPAR Commission. 2009. Overview of the impacts of anthropogenic underwater sound in the marine environment. London UK: OSPAR Commission. 133 p.

- Pace R.M., and G.K. Silber. 2005. Simple Analysis of Ship and Large Whale Collisions: Does Speed Kill? Presentation at the Sixteenth Biennial Conference on the Biology of Marine Mammals, San Diego, CA, December 2005.
- Pace R.M. 2021. Revisions and Further Evaluations of the Right Whale Abundance Model: Improvements for Hypothesis Testing. Woods Hole (MA): U.S. Department of Commerce, Northeast Fisheries Science Center. NOAA Technical Memorandum NMFS-NE-269. 54 pp.
- Palka D.L., S. Chavez-Rosales, E. Josephson, D. Cholewiak, H.L. Haas, L. Garrison, M. Jones, D. Sigourney, G. Waring, M. Jech, E. Broughton, M. Soldevilla, G. Davis, A. DeAngelis, C.R. Sasso, M.V. Winton, R.J. Smolowitz, G. Fay, E. LaBrecque, J.B. Leiness, K. Dettloff, M. Warden, K. Murray, C. Orphanides. 2017. Atlantic Marine Assessment Program for Protected Species: 2010–2014. Washington (DC): U.S. Department of the Interior, Bureau of Ocean Energy Management. Report No. OCS Study BOEM 2017-071. 230 p.
- Palka D., L. Aichinger Dias, E. Broughton, S. Chavez-Rosales, D. Cholewiak, G. Davis, A. DeAngelis, L. Garrison, H. Haas, J. Hatch, K. Hyde, M. Jech, E. Josephson, L. Mueller-Brennan, C. Orphanides, N. Pegg, C. Sasso, D. Sigourney, M. Soldevilla, H. Walsh. 2021. Atlantic Marine Assessment Program for Protected Species: FY15–FY19. Washington (DC): U.S. Department of the Interior, Bureau of Ocean Energy Management. Report No. OCS Study BOEM. 2021-051. 330 p.
https://espis.boem.gov/Final%20reports/BOEM_2021-051.pdf
- Parks SE, Clark CW, Tyack PL. 2007. Short- and long-term changes in right whale calling behavior: the potential effects of noise on acoustic communication. *Journal of the Acoustical Society of America*. 122(6):3725-3731. doi:10.1121/1.2799904.
- Paskyabi, M.B. and I. Fer. 2012. Upper Ocean Response to Large Wind Farm Effect in the Presence of Surface Gravity Waves, in Selected papers from Deep Sea Offshore Wind R&D Conference, Vol. 24, (Trondheim):45–254. doi: 10. 1016/j.egypro.2012.06.106.
- Patenaude, N.J., Richardson W.J., Smultea, M.A., Koski, W.R., Miller, G.W., Würsig, B. and Greene, C.R., Jr. 2002. Aircraft sound and disturbance to bowhead and beluga whales during spring migration in the Alaskan Beaufort Sea. *Marine Mammal Science* 18: 309-335.
- Pettis H.M, R.M. Pace III, P.K. Hamilton. 2021. North Atlantic Right Whale Consortium 2020 Annual Report Card. Report to the North Atlantic Right Whale Consortium. 22 p.
https://www.narwc.org/uploads/1/1/6/6/116623219/2020narwcreport_cardfinal.pdf.
- Pettis H.M., R.M.Pace III, P.K. Hamilton. 2022. North Atlantic Right Whale Consortium 2021 Annual Report Card. Report to the North Atlantic Right Whale Consortium. 25 p.
https://www.narwc.org/uploads/1/1/6/6/116623219/2021report_cardfinal.pdf
- Pfleger, M., P. Mustain, M. Valentine, E. Gee, W. Webber, and B. Fenty. 2021. Vessel Strikes Threaten North Atlantic Right Whales. *Oceana*. DOI: 10.5281/zenodo.5120727.

- Pierce, G. J., M. B. Santos, S. Murphy, J. A. Learmonth, A. F. Zuur, E. Rogan, P. Bustamante, F. Caurant, V. Lahaye, V. Ridoux, and B. N. Zegers. 2008. Bioaccumulation of persistent organic pollutants in female common dolphins (*Delphinus delphis*) and harbour porpoises (*Phocoena phocoena*) from western European seas: Geographical trends, causal factors and effects on reproduction and mortality. *Environmental Pollution* 153(2):401–415.
- Pike D.G., G.A. Víkingsson, T. Gunnlaugsson, N. Øien. 2009. A note on the distribution and abundance of blue whales (*Balaenoptera musculus*) in the Central and Northeast North Atlantic. NAMMCO Scientific Publications, 7:19-29.
- Pirotta, E., Laesser, B.E., Hardaker, A., Riddoch, N., Marcoux, M., and Lusseau, D. 2013. Dredging displaces bottlenose dolphins from an urbanised foraging patch. *Marine Pollution Bulletin* 74: 396–402.
- PMEL (Pacific Marine Environmental Laboratory). 2020. Ocean Acidification: The Other Carbon Dioxide Problem. Available: http://oceans.mit.edu/wp-content/uploads/doney_ann_rev_proof.pdf. Accessed: November 20, 2022.
- Precoda, K. and C.D. Orphanides. 2022. Estimates of cetacean and pinniped bycatch in the 2019 New England sink and Mid-Atlantic gillnet fisheries. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 22-05; 21 p.
- Putland, R.L., Merchant, N.D., Farcas, A., and Radford, C.A. 2017. Vessel noise cuts down communication space for vocalizing fish and marine mammals. *Global Change Biology*. Doi: 10.1111/gcb.13996
- Quintana-Rizzo, E., Leiter, S., Cole, T.V.N., Hagbloom, M.N., Knowlton, A.R., Nagelkirk, P., Brien, O.O., Khan, C.B., Henry, A.G., Duley, P.A. and Crowe, L.M., 2021. Residency, demographics, and movement patterns of North Atlantic right whales *Eubalaena glacialis* in an offshore wind energy development area in southern New England, USA. *Endangered Species Research*, 45 pp. 251-268.
- Raoux, A., S. Tecchio, J.-P. Pezy, G. Lassalle, S. Degraer, D. Wilhelmsson, M. Cachera, B. Ernande, C. Le Guen, M. Haraldsson, K. Grangeré, F. Le Loc’h, J.-C. Dauvin, and N. Niquil. 2017. Benthic and fish aggregation inside an offshore wind farm: Which effects on the trophic web functioning? *Ecological Indicators* 72:33–46.
- Read A. J., P. Drinker, and S. Northridge. 2006. Bycatch of Marine Mammals in U.S. and Global Fisheries. *Conservation Biology* 20(1):163–169. Available: <https://conbio.onlinelibrary.wiley.com/doi/abs/10.1111/j.1523-1739.2006.00338.x?sid=nlm%3Apubmed>.
- Reygondeau G, and G. Beaugrand. 2011. Future climate-driven shifts in distribution of *Calanus finmarchicus*. *Global Change Biology* 17:756–766.
- Richardson, W.J., Wursig, B., and Greene, C.R. 1986. Reactions of bowhead whales, *Balaena mysticetus*, to seismic exploration in the Canadian Beaufort Sea. *The Journal of the Acoustical Society of America* 79 (1117). Doi: 10.1121/1.393384
- Richardson, W.J., C.R. Greene, Jr., C.I. Malme, and D.H. Thomson. 1995. *Marine Mammals and Noise*. San Diego, CA: Academy Press.

- Richardson, W.J., Miller, G.W., and Green, C.R. 1999. Displacement of migrating bowhead whales by sounds from seismic surveys in shallow waters of the Beaufort Sea. *The Journal of the Acoustical Society of America*. Doi: 10.1121/1.427801
- Richter, C., Dawson, S. and Slooten, E. 2006. Impacts of commercial whale watching on male sperm whales at Kaikoura, New Zealand. *Marine Mammal Science* 22: 46-63.
- Roberts J.J., Best B.D., Mannocci L., Fujioka E., Halpin P.N., Palka D.L., Garrison L.P., Mullin K.D., Cole T.V., Khan C.B., McLellan W.A., Pabst D.A., Lockhart G. 2016. Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico. *Scientific Reports* 6:22615.
<https://www.nature.com/articles/srep22615>.
- Roberts J.J., L. Mannocci, P.N. Halpin. 2017. Final Project Report: Marine Species Density Data Gap Assessments and Update for the AFTT Study Area, 2016–2017 (Opt. Year 1). Document version 1.4. Report prepared for Naval Facilities Engineering Command, Atlantic by the Duke University Marine Geospatial Ecology Lab, Durham, NC. 76 p. https://seamap.env.duke.edu/seamap-models-files/Duke/Reports/AFTT_Update_2016_2017_Final_Report_v1.4_excerpt.pdf
- Roberts J.J., L. Mannocci, R.S. Schick, P.N. Halpin. 2018. Final Project Report: Marine Species Density Data Gap Assessments and Update for the AFTT Study Area, 2017–2018 (Opt. Year 2). Document – Version 1.2 - 2018-09-21. Report prepared for Naval Facilities Engineering Command, Atlantic by the Duke University Marine Geospatial Ecology Lab, Durham, NC. 113 p. https://seamap.env.duke.edu/seamap-models-files/Duke/Reports/AFTT_Update_2017_2018_Final_Report_v1.2_excerpt.pdf.
- Roberts J.J., R.S. Schick, P.N. Halpin. 2020. Final Project Report: Marine Species Density Data Gap Assessments and Update for the AFTT Study Area, 2018–2020 (Option Year 3). Document version 1.4. Report prepared for Naval Facilities Engineering Command, Atlantic by the Duke University Marine Geospatial Ecology Lab, Durham, NC. 142 p. https://seamap.env.duke.edu/seamap-models-files/Duke/Reports/AFTT_Update_2018_2020_Final_Report_v1.4.pdf.
- Roberts J.J. 2022. Habitat-based Marine Mammal Density Models for the U.S. Atlantic: Latest Versions. <https://seamap.env.duke.edu/models/Duke/EC/>. Accessed 18 November 2022.
- Robinson, S.P., Wang, L., Cheong, S-H. Lepper, P.A., Marubini, F., Harley, J.P. 2020. Underwater acoustic characterization of unexploded ordnance disposal using deflagration. *Marine Pollution Bulletin* 160. Doi: 10.1016/j.marpolbul.2020.111646
- Rolland, R. M., Hunt, K. E., Kraus, S. D. and Wasser, S. K. 2005 Assessing reproductive status of right whales (*Eubalaena glacialis*) using fecal hormone metabolites. *Gen. Comp. Endocrinol.* 142, 308-317. (doi:10.1016/j.ygcen.2005.02.002)
- Rolland R.M., S.E. Parks, K.E. Hunt, M. Castellote, P.J. Corkeron, D.P. Nowacek, S.K. Wasser, and S.D. Kraus. 2012. Evidence that Ship Noise Increases Stress in Right Whales. *Proceedings of the Royal Society B*. 279:2363–2368. DOI: 10.1098/rspb.2011.2429.

- Ruppel, C. D., Weber, T. C., Staaterman, E., Labak, S. J., and Hart, P. E. 2022. Categorizing active marine acoustic sources based on their potential to affect marine animals. *Journal of Marine Science and Engineering*.
- Russel D.J.F., S.M.J.M. Brasseur, D. Thompson, G.D. Hastie, V.M. Janik, G. Aarts, B.T. McClintock, J. Matthiopoulos, S.E.W. Moss, and B. McConnell. 2014. Marine mammals trace anthropogenic structures at sea. *Current Biology*. 24(14):R638–R639.
- Russel, D.J.F., Hastie, G.D., Thompson, D., Janik, V.M., Hammond, P.S., Scott-Hayward, L.A.S., Matthiopoulos, J., Jones, E.L., McConnell, B.J. 2016. Avoidance of wind farms by harbour seals is limited to pile driving activities. *Journal of Applied Ecology* 53(6): 1642-1652.
Doi: 10.1111/1365-2664.12678
- Saunders JC, Dear SP, Schneider ME. 1985. The anatomical consequences of acoustic injury: a review and tutorial. *Journal of the Acoustical Society of America*. 78:833-860.
- Schakner, Z.A. and Blumstein, D.T. 2013. Behavioral biology of marine mammal deterrents: a review and prospectus. *Biological Conservation* 167: 380-389. Doi: 10.1016/j.biocon.2013.08.024.
- Scheidat, M., Tougaard, J., Brasseur, S., Carstensen, J., van Polanen Petel, T., Teilmann, J., Reijnders, P., 2011. Harbour porpoises (*Phocoena phocoena*) and wind farms: a case study in the Dutch North Sea. *Environmental Research Letters* 6(2): 025102. Doi: 10.1088/1748-9326/6/2/025102
- Scheifele PM, Andrew S, Cooper RA, Darre M, Musiek FE, Max L. 2004. Indication of a Lombard vocal response in the St. Lawrence River beluga. *Journal of the Acoustical Society of America*. 117:1486-1492. doi:10.1121/1.1835508
- Schultze L.K.P., L.M. Merckelbach, J. Horstmann, S. Raasch, and J.R. Carpenter. 2020. Increased Mixing and Turbulence in the Wake of Offshore Wind Farm Foundations. *Journal of Geophysical Research: Oceans*. 125:e2019JC015858. doi: 10.1029/2019JC015858.
- Segtnan O.H., and K. Christakos. 2015. Effect of offshore wind farm design on the vertical motion of the ocean. *Energy Procedia* 80: 213-222.
- Siebert U, Stürznickel J, Schaffeld T, Oheim R, Rolvien T, Prenger-Berninghoff E, Wohlsein P, Lakemeyer J, Rohner S, Aroha Schick L, Gross S, Nachtsheim D, Ewers C, Becher P, Amling M, Morell M. Blast injury on harbour porpoises (*Phocoena phocoena*) from the Baltic Sea after explosions of deposits of World War II ammunition. *Environ Int*. 2022 Jan 15;159:107014. doi: 10.1016/j.envint.2021.107014. Epub 2021 Dec 6. PMID: 34883460.
- Smith C.R., T.K. Rowles, L.B. Hart, F.I. Townsend, R.S. Wells, E.S. Zolman, B.C. Balmer, B. Quigley, M. Lvnacic, W. McKercher, M.C. Tumlin, K.D. Mullin, J.D. Adams, Q. Wu, W. McFee, T.K. Collier, and L.H. Schwacke. 2017. Slow Recovery of Barataria Bay Dolphin Health Following the Deepwater Horizon Oil Spill (2013–2014) with Evidence of Persistent Lung Disease and Impaired Stress Response. *Endangered Species Research*. 33:127–142.
- Smultea, M.A., Mobley, J.R. Jr., Fertl, D. and Fulling, G.L. 2008. An unusual reaction and other observations of sperm whales near fixed-wing aircraft. *Gulf and Caribbean Research* 20: 75-80.

- Southall BL, Bowles AE, Ellison WT, Finneran JJ, Gentry RL, Greene CR, Jr., Kastak D, Ketten DR, Miller JH, Natchigall PE, et al. 2007. Marine mammal noise exposure criteria: initial scientific recommendations. *Aquatic Mammals*. 33(4):411-521. doi:10.1578/AM.33.4.2007.411.
- Southall BL, Finneran JJ, Reichmuth C, Nachtigall PE, Ketten DR, Bowles AE, Ellison WT, Nowacek DP, Tyack PL. 2019. Marine mammal noise exposure criteria: updated scientific recommendations for residual hearing effects. *Aquatic Mammals*. 45(2):125-232. doi:10.1578/am.45.2.2019.125.
- Southall, B., Ellison, W., Clark, C., Tollit, D. and Amaral, J. 2021a. Marine mammal risk assessment for New England offshore windfarm construction and operational scenarios. Southall Environmental Associates. BOEM report # 2021-080
- Southall, B., Ellison, W., Clark, C., Tollit, D. and Amaral, J. 2021b. Marine mammal risk assessment for Gulf of Mexico G&G activities. Southall Environmental Associates. BOEM report # 2021-022
- Sprogis, K.R., Videsen, S., and Madsen, P.T. 2020. Vessel noise levels drive behavioral response of humpback whales with implications for whale-watching. *Ecology* 9: e56760. Doi: 10.7554/eLife.56760
- Sullivan L., T. Brosnan, T.K. Rowles, L. Schwacke, C. Simeone, and T.K. Collier. 2019. Guidelines for Assessing Exposure and Impacts of Oil Spills on Marine Mammals. NOAA Tech. Memo. NMFS- OPR62, 82 pp.
- Takeshita R., L. Sullivan, C. Smith, T. Collier, A. Hall, T. Brosnan, T. Rowles, and L. Schwacke. 2017. The Deepwater Horizon Oil Spill Marine Mammal Injury Assessment. *Endangered Species Research* 33:96–106.
- Taormina B., J. Bald, A. Want, G. Thouzeau, M. Lejart, N. Desroy, and A. Carlier. 2018. A review of potential impacts of submarine power cables on the marine environment: Knowledge gaps, recommendations and future directions. *Renewable and Sustainable Energy Reviews*, Elsevier, 2018, 96, pp. 380–391. 10.1016/j.rser.2018.07.026. hal-02405630.
- Taruski A.G., C.E. Olney, and H.E. Winn. 1975. Chlorinated hydrocarbons in cetaceans. *Journal of the Fisheries Board of Canada* 32(11):2205–2209.
- Teilmann J., and J. Cartensen. 2012. Negative Long-term Effects on Harbour Porpoises from a Large Scale Offshore Wind Farm in the Baltic—Evidence of Slow Recovery. *Environmental Resource Letters*. 7(4):045101.
- Thomsen, F. and Stober, U. 2022. Operational underwater sound from future offshore wind turbines can affect the behavior of marine mammals. *The Journal of the Acoustical Society of America* 151(4). Doi: 10.1121/10.0011186
- Todd V.L.G., I.B. Todd, J.C. Gardiner, E.C.N. Morrin, N.A. MacPherson, N.A. DiMarzio, and F. Thomsen. 2015. A review of direct and indirect impacts of marine dredging activities on marine mammals. *ICES Journal of Marine Science* 72(2):328–340.
- Todd V.L.G., L. Lazar, L.D. Williamson, I.T. Peters, A.L. Hoover, S.E. Cox, I.B. Todd, P.I. Macreadie, and D.L. McLean. 2020. Underwater Visual Records of Marine Megafauna Around Offshore Anthropogenic Structures. *Frontiers in Marine Science* 7(230): 1-16.

- Todd, S., Stevick, P., Lien, J., Marques, F., and Ketten, D. 1996. Behavioral effects of exposure to underwater explosions in humpback whales (*Megaptera novaeangliae*). *Canadian journal of Zoology* 74: 1661-1672.
- Tougaard, J., Carstensen, J., Teilmann, J., and Bech, N. I. 2005. Effects of the Nysted Offshore Wind Farm on harbour porpoises- annual status report for the T-POD monitoring program. Technical Report to Energi E2 A/S.
- Tougaard, J., Hermannsen, L., Madsen, P.T. 2020. How loud is the underwater noise from operating offshore wind turbines. *The Journal of the Acoustical Society of America* 148, 2885. Doi: 10.1121/10.0002453
- TRC (TRC Companies). 2023a. Application for Letter of Authorization under the Marine Mammal Protection Act for the Maryland Offshore Wind Project. Submitted to the National Marine Fisheries Service, Office of Protected Resources by US Wind, Inc. Submitted August 31, 2022, revised March 31, 2023. 52 p. Not available to the public online. Will add link and save PDF once published.
- Tricas T., and A. Gill. 2011. Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species. Normandeau Associates, Inc. and Exponent Inc., Final Report submitted to the U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Pacific OCS Region, Camarillo, CA. OCS Study BOEMRE 2011-09. 426 pp.
- Trumble SJ, Norman SA, Crain DD, Mansouri F, Winfield ZC, Sabin R, Potter CW, Gabriele CM, Usenko S. 2018. Baleen whale cortisol levels reveal a physiological response to 20th century whaling. *Nat Commun.* 9(1):4587. doi:10.1038/s41467-018-07044-w.
- Tsuji, K. Akamatsu, T. Okamoto, R., Mori, K., Mitani, Y., and Umeda N. 2018. Change in singing behavior of humpback whales caused by shipping noise.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- USACE (U.S. Army Corps of Engineers). 2021. Newark Bay, New Jersey Federal Navigation Project Maintenance Dredging. Public Notice No. Newark Bay, NJ FY21. May.
- USEPA (U.S. Environmental Protection Agency). 2022. Climate Change Indicators: Oceans. Available at: <https://www.epa.gov/climate-indicators/oceans>. Accessed April 5, 2023.
- USFWS (U.S. Fish and Wildlife Service). 2014. West Indian Manatee *Trichechus manatus* Florida Stock (Florida subspecies, *Trichechus manatus latirostris*) Stock Assessment Report. Accessed: February 20, 2022. Retrieved from: <https://www.fws.gov/sites/default/files/documents/west-indian-manatee-florida-stock-assessment-report.pdf>
- USFWS (U.S. Fish and Wildlife Service). 2023. Stock Assessment Report (SAR) West Indian Manatee (*Trichechus manatus*) Florida Stock (Florida subspecies, *Trichechus manatus latirostris*). U.S. Fish and Wildlife Service, Florida Ecological Services Office Jacksonville, Florida. 27 pp.

- van Berkel J., H. Burchard, A. Christensen, L.O. Mortensen, O.S. Petersen, and F. Thomsen. 2020. The effects of offshore wind farms on hydrodynamics and implications for fishes. *Oceanography* 33(4):108–117.
- Van Waerebeek K., A. Baker, F. Felix, J. Gedamke, M. Iniguez, G.P. Sanino, E.D. Secchi, D. Sutaria, A.N. van Helden, and Y. Wang. 2007. Vessel Collisions with Small Cetaceans Worldwide and with Large Whales in the Southern Hemisphere, an Initial Assessment. *LAJAM* 6(1):43–49.
- Vanderlaan A.S.M., and C.T. Taggart. 2007. Vessel Collisions with Whales: The Probability of Lethal Injury Based on Vessel Speed. *Marine Mammal Science* 23(1):144–156.
- Vanhellemont Q., and K. Ruddick. 2014. Turbid wakes associated with offshore wind turbines observed with Landsat 8. *Remote Sensing of Environment* 145:105-115.
- Waring G.T., E. Josephson, K. Maze-Foley, P.E. Rosel. 2015. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2014. Woods Hole (MA): U.S. Department of Commerce, National Fisheries Science Center. NOAA Technical Memorandum NMFS-NE-258. 370 p. <https://repository.library.noaa.gov/view/noaa/5043>.
- Weisbrod A.V., D. Shea, M.J. Moore, and J.J. Stegeman. 2000. Bioaccumulation patterns of polychlorinated biphenyls and chlorinated pesticides in northwest Atlantic pilot whales. *Environmental Toxicology and Chemistry: An International Journal* 19(3):667–677.
- Wells R.S., and M.D. Scott. 1997. Seasonal Incidence of Boat Strikes on Bottlenose Dolphins Near Sarasota, Florida. *Marine Mammal Science* 3:475–480.
- Werner S., A. Budziak, J. van Franeker, F. Galgani, G. Hanke, T. Maes, M. Matiddi, P. Nilsson, L. Oosterbaan, E. Priestland, R. Thompson, J. Veiga, and T. Vlachogianni. 2016. Harm Caused by Marine Litter. MSFD GES TG Marine Litter - Thematic Report; JRC Technical report; EUR 28317 EN. doi:10.2788/690366.
- Wilber D.H., and D.G. Clarke. 2001. Biological effects of suspended sediments: A review of suspended sediment impacts on fish and shellfish with relation to dredging activities in estuaries. *North American Journal of Fisheries Management* 21:855–875.
- Williams K.A., E.E. Connelly, S.M. Johnson, I.J. Stenhouse. 2015a. Wildlife Densities and Habitat Use Across Temporal and Spatial Scales on the Mid-Atlantic Outer Continental Shelf (2012–2014). Final Report to the Department of Energy, Office of Energy Efficiency and Renewable Energy Wind and Water Power Technologies Office. Biodiversity Research Institute, Portland, Maine. Report No. BRI 2015-11. 715 p. <https://tethys.pnnl.gov/sites/default/files/publications/MABS-Project-2015.pdf>.
- Williams K.A., E.E. Connelly, S.M. Johnson, I.J. Stenhouse. 2015b. Baseline Wildlife Studies in Atlantic Waters Offshore of Maryland (2013–2014). Final Report to the Maryland Department of Natural Resources and the Maryland Energy Administration. Biodiversity Research Institute, Portland, Maine). Report No. BRI 2015-17. 437 p. https://www.researchgate.net/publication/291958262_Baseline_Wildlife_Studies_in_Atlantic_Waters_Offshore_of_Maryland.

- Williams, T.M, Blackwell, S.B., Tervo, O., Garde, E., Sinding, M-H.S., Richter, B., Heide-Jorgensen, M.P. 2022. Physiological responses of narwhals to anthropogenic noise: A case study with seismic airguns and vessel traffic in the Arctic. *Functional Ecology*.
- Williams, T.M., Kendall, T.L., Richter, B.P., Ribeiro-French, C.R., John, J.S., Odell, K.L., Losch, B.A., Feuerback, D.A., Stamper, M.A. 2017. Swimming and diving energetics in dolphins: a stroke-by-stroke analysis for predicting the cost of flight responses in wild odontocetes. *Journal of Experimental Biology* 15(220): 1135-1145. Doi: 10.1242/jeb.154245
- Wisniewska, D.M., Johnson, M., Teilmann, J., Siebert, U., Galatius, A., Dietz, R., Madsen, P.T., 2018. High rates of vessel noise disrupt foraging in wild harbour porpoises (*Phocoena phocoena*). *Proceedings of The Royal Society B* 285: 20172314. Doi: 10.1098/rspb.2017.2314
- Wright AJ, Aguilar de Soto N, Baldwin AL, Bateson M, Beale CM, Clark C, Deak T, Edwards EF, Fernandez A, Godinho A, et al. 2007. Do marine mammals experience stress related to anthropogenic noise? *International Journal of Comparative Psychology*. 20(2):274-316.
- Würsig, B., Jefferson, T.A., Schmidly, D.J. 2000. *The marine mammals of the Gulf of Mexico*. Texas A&M University Press, College Station.
- Würsig, B., Lynn, S.K., Jefferson, T.A. and Mullin, K.D. 1998. Behaviour of cetaceans in the northern Gulf of Mexico relative to survey ships and aircraft. *Aquatic Mammals* 24: 41-50.
- Yost WA. 2000. *Fundamentals of hearing: an introduction*. San Diego (CA): Academic Press. 349-349 p.
- ZoBell V.M., K.E. Frasier, J.A. Morten, S.P. Hastings, L.E. Peavey Reeves, S.M. Wiggins, J.A. Hildebrand. 2021. Underwater noise mitigation in the Santa Barbara Channel through incentive-based vessel speed reduction. *Scientific Reports*. 11(1):18391.

Chapter 3.5.7: Sea Turtles

- Alpine Ocean Seismic Survey Inc. 2015. *Marine Geophysical and Geotechnical Survey Report*. Maryland Wind Energy Area, June - July 2015. 1751-2. Accessed November 17, 2022. Retrieved from: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/A5%20Alpine%20GandG%20Report%201751%20June-Jul%202015.pdf>.
- Alpine Ocean Seismic Survey Inc. 2017. *High Resolution Geophysical, Geotechnical, and Environmental Survey Report*. US Wind Export Cable Route Survey Offshore Maryland and Indian River Bay, Delaware, August - November 2016, September - October 2017. Accessed November 17, 2022. Retrieved from: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/App%20II-A6%20Alpine%20Export%20Cable%20Report%20Aug-Nov%202016.pdf>.
- Bailey H., K.L. Brookes, and P.M. Thompson. 2014. Assessing environmental impacts of offshore wind farms: lessons learned and recommendations for the future. *Aquatic Biosystems* 10(8):1-13.

- Baker K., and U. Howsen. 2021. Data Collection and Site Survey Activities for Renewable Energy on the Atlantic Outer Continental Shelf. Biological Assessment. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. October 2018, Revised February 2021. 152 p.
- Barco S., L. Burt, A. DePerte, and R. Digiovanni Jr. 2015. Marine Mammal and Sea Turtle Sightings in the Vicinity of the Maryland Wind Energy Area July 2013 - June 2015. Prepared for the Maryland Department of Natural Resources. VAQF Scientific Report # 2015-06. 93 p.
- Barco S., M. Law, B. Drummond, H. Koopman, C. Trapani, S. Reinheimer, S. Rose, W.M. Swingle, and A. Williard. 2016. Loggerhead turtles killed by vessel and fishery interaction in Virginia, USA, are healthy prior to death. *Marine Ecology Progress Series* 555:221-234.
- Barkaszi M.J., M. Fonseca, T. Foster, A. Malhotra, and K. Olsen. 2021. Risk Assessment to Model Encounter Rates Between Large Whales and Vessel Traffic from Offshore Wind Energy on the Atlantic OCS. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2021-034. 54 p + Appendices.
- Barnette M.C. 2017. Potential Impacts of Artificial Reef Development on Sea Turtle Conservation in Florida. National Oceanic and Atmospheric Administration, Technical Memorandum NMFS-SER-5. 36 p.
- Bartol S.M., and I.K. Bartol. 2012. Hearing Capabilities of Loggerhead Sea Turtles (*Caretta caretta*) throughout Ontogeny: An Integrative Approach involving Behavioral and Electrophysiological Techniques: Final Report E&P & Marine Life Programme. Prepared by Virginia Wesleyan College and Old Dominion University. JIP Grant No. 22 07-14. 37 p.
- Bejarano, A. C., J. Michel, J. Rowe, Z. Li, D. French McCay, L. McStay and D. S. Etkin. 2013. Environmental Risks, Fate and Effects of Chemicals Associated with Wind Turbines on the Atlantic Outer Continental Shelf. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2013-213.
- Berreiros J. P., and V. S. Raykov. 2014. Lethal Lesions and Amputation Caused by Plastic Debris and Fishing Gear on the Loggerhead Turtle *Caretta caretta* (Linnaeus, 1758). Three case reports from Terceira Island, Azores (NE Atlantic). *Marine Pollution Bulletin* 86:518–522.
- Bevan E., S. Whiting, T. Tucker, M. Guinea, A. Raith, and R. Douglas. 2018. Measuring behavioral responses of sea turtles, saltwater crocodiles, and crested terns to drone disturbance to define ethical operating thresholds. *PLOS ONE* 13(3):e0194460.
- Bies, J. 2018. Rare Delaware sea turtle nest has DNREC, marine biologists intrigued. Accessed July 25, 2023. Retrieved from: <https://www.delawareonline.com/story/news/2018/10/26/rare-delaware-sea-turtle-nest-could-sign-climate-changed/1759869002/>.

- Bolten A. B., L. B. Crowder, M. G. Dodd, A. M. Lauritsen, J. A. Musick, B. A. Schroeder, and B. E. Witherington. 2019. Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*). Second Revision. Assessment of Progress Towards Recovery. 21 p. Accessed: November 17, 2022. Retrieved from: https://media.fisheries.noaa.gov/dam-migration/final_nw_atl_cc_recovery_team_progress_review_report_508.pdf.
- Brazner J. C., and J. McMillan. 2008. Loggerhead turtle (*Caretta caretta*) bycatch in Canadian pelagic longline fisheries: relative importance in the western North Atlantic and opportunities for mitigation. *Fisheries Research* 91(2–3):310–324.
- Bugoni L., L. Krause, and M. V. Petry. 2001. Marine debris and human impacts on sea turtles in southern Brazil. *Marine Pollution Bulletin* 42(12):1330–1334.
- BOEM (Bureau of Ocean Energy Management). 2012. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia. Final Environmental Assessment. U.S. Department of the Interior, BOEM Office of Renewable Energy Programs. OCS EIS/EA BOEM 2012-003. 366 p.
- BOEM (Bureau of Ocean Energy Management). 2014. Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore Massachusetts, Revised Environmental Assessment. U.S. Department of the Interior, BOEM Office of Renewable Energy Programs. OCS EIS/EA BOEM 2014-603. 674 p.
- BOEM (Bureau of Ocean Energy Management). 2019. National Environmental Policy Act Documentation for Impact-Producing Factors in the Offshore Wind Cumulative Impacts Scenario on the North Atlantic Continental Shelf. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Sterling, VA. OCS Study 2019- 036. 231 p. Accessed: November 17, 2022. Retrieved from: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Impact-Producing-Factors-in-the-Offshore-Wind-Cumulative-Impacts-Scenario-on-the-South-Atlantic.pdf>.
- Burke V., S. Morreale, and E. Standora. 1994. Diet of the Kemp's ridley sea turtle, *Lepidochelys kempii*, in New York waters. *Fishery Bulletin* 92:26–32.
- Caillouet Jr, C.W. and Gallaway, B.J., 2020. Kemp's Ridley Sea Turtle Emigration and Immigration Between The Gulf Of Mexico And North Atlantic Ocean Should Not Be Ignored In Age-Structured Population Modeling. *Marine Turtle Newsletter*, (161), pp.9-14.
- Carpenter J., L. Merckelbach, U. Callies, S. Clark, L. Gaslikova, and B. Baschek. 2016. Potential Impacts of Offshore Wind Farms on North Sea Stratification. *PLoS One* 11(8):e0160830.
- Causon P., and A.B. Gill. 2018. Linking Ecosystem Services with Epibenthic Biodiversity Change Following Installation of Offshore Wind Farms. *Environmental Science and Policy* 89:340-347.
- Ceriani S. A., J. D. Roth, C. R. Sasso, C. M. McClellan, M. C. James, H. L. Haas, R. J. Smolowitz, D. R. Evans, D. S. Addison, D. A. Bagley, and L. M. Ehrhart. 2014. Modeling and mapping isotopic patterns in the Northwest Atlantic derived from loggerhead sea turtles. *Ecosphere* 5(9)1–24.

- Croatan Civic League. 2021. Turtles nesting on Croatan Beach. Retrieved from: <https://www.croatanbeach.org/turtles-nesting-on-croatan-beach/>. Accessed 1 November 2022.
- Crocker S.E., and F.D. Fratantonio. 2016. Characteristics of Sounds Emitted During High-Resolution Marine Geophysical Surveys. Naval Undersea Warfare Center Division, Newport, RI. For U.S. Department of the Interior, Bureau of Ocean Energy Management, Environmental Assessment Division and U.S. Geological Survey. OCS Study BOEM 2016-044. NUWC-NPT Technical Report 12,203, 24 March 2016. 266 p.
- Crocker S.E., F.D. Fratantonio, P.E. Hart, D.S. Foster, T.S. O'Brien, and S. Labak. 2019. Measurement of Sounds Emitted by Certain High-Resolution Geophysical Survey Systems. IEEE Journal of Oceanic Engineering 00(00):1-53.
- Dickerson D., M. S. Wolters, C. Theriot, and C. Slay. 2004. September. Dredging impacts on sea turtles in the Southeastern USA: a historical review of protection. In Proceedings of World Dredging Congress XVII, Dredging in a Sensitive Environment (Vol. 27).
- Dodge K.L., B. Galuardi, T.J. Miller, and M.E. Lutcavage. 2014. Leatherback turtle movements, dive behavior, and habitat characteristics in ecoregions of the Northwest Atlantic Ocean. PLoS One 9(3):e91726.
- Eastman C. B., J. A. Farrell, L. Whitmore, D. R. Rollinson Ramia, R. S. Thomas, J. Prine, S. F. Eastman, T. Z. Osborne, M. Q. Martindale, and D. J. Duffy. 2020. Plastic ingestion in post-hatchling sea turtles: Assessing a major threat in Florida near shore waters. *Frontiers in Marine Science* 25, August 2020.
- English P.A., T.I. Mason, J.T. Backstrom, B.J. Tibbles, A.A. Mackay, M.J. Smith, and T. Mitchell. 2017. Improving Efficiencies of National Environmental Policy Act Documentation for Offshore Wind Facilities Case Studies Report. Sterling, Virginia: OCS Study BOEM 2017-026. 217 p.
- Evans D.R., Carthy, R.R. and Ceriani, S.A., 2019. Migration routes, foraging behavior, and site fidelity of loggerhead sea turtles (*Caretta caretta*) satellite tracked from a globally important rookery. *Marine Biology*, 166(10), p.134.
- Finkbeiner E. M., B. P. Wallace, J. E. Moore, R. L. Lewison, L. B. Crowder, and A. J. Read. 2011. Cumulative estimates of sea turtle bycatch and mortality in USA fisheries between 1990 and 2007. *Biological Conservation* 144(11):2719–2727.
- Finneran J.J. 2016. Auditory Weighting Functions and TTS/PTS Exposure Functions for Marine Mammals Exposed to Underwater Noise. Marine Mammal Scientific and Vet Support Branch of the Biosciences Division, Space and Naval Warfare Systems Center, San Diego, CA. Technical Report 3026. 134 p.
- Finneran J.J., E.E. Henderson, D.S. Houser, K. Jenkins, S. Kotecki, and J. Mulsow. 2017. Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III). Technical report by Space and Naval Warfare Systems Center Pacific (SSC Pacific). 183 p.

- Foley A.M., B.A. Stacy, R.F. Hardy, C.P. Shea, K.E. Minch, and B.A. Schroeder. 2019. Characterizing watercraft-related mortality of sea turtles in Florida. *The Journal of Wildlife Management* 83(5):1057-1072.
- Freitas C., R. Caldeira, and T. Dellinger. 2019. Surface behavior of pelagic juvenile loggerhead sea turtles in the eastern North Atlantic. *Journal of experimental marine biology and ecology* 510:73-80.
- Funk W.H. 2020. If you see a sea turtle in the Chesapeake, consider yourself very lucky. Accessed: November 17, 2022. Retrieved from: https://www.bayjournal.com/news/wildlife_habitat/if-you-see-a-sea-turtle-in-the-chesapeake-consider-yourself-very-lucky/article_9656a622-73cb-5228-a7e7-07751a4dc049.html.
- Gall S.C., and R.C. Thompson. 2015. The impact of debris on marine life. *Marine Pollution Bulletin* 92(1-2):170-179.
- Gibbons M.J., and A.J. Richardson. 2009. Patterns of jellyfish abundance in the North Atlantic. In: *Jellyfish Blooms: Causes, Consequences, and Recent Advances: Proceedings of the Second International Jellyfish Blooms Symposium, held at the Gold Coast, Queensland, Australia, 24–27 June, 2007*. pp. 51-65.
- Gregory M.R. 2009. Environmental implications of plastic debris in marine settings--entanglement, ingestion, smothering, hangers-on, hitch-hiking and alien invasions. *Philosophical Transactions of the Royal B Society* 364(1526):2013-25.
- Hazel J., I.R. Lawler, H. Marsh, and S. Robson. 2007. Vessel speed increases collision risk for the green turtle *Chelonia mydas*. *Endangered Species Research* 3(2):105-113.
- HDR. 2019. Field Observations during Wind Turbine Operations at the Block Island Wind Farm, Rhode Island. Final Report to the U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2019-028. 281 p.
- Heinis F., C. de Jong, M. Ainslie, W. Borst, and T. Vellinga. 2013. Monitoring programme for the Maasvlakte 2, Part III - The effects of underwater sound. *Terra et Aqua* 132(II):21-32.
- Helf K. 2017. Creature Feature: Maryland's first sea turtles. Accessed November 17, 2022. Retrieved from: <https://www.oceancity.com/marylands-first-sea-turtles/>.
- Hoarau L., L. Ainley, C. Jean, and S. Ciccione. 2014. Ingestion and defecation of marine debris by loggerhead sea turtles, from by-catches in the south-west Indian Ocean. *Marine Pollution Bulletin* 84:90–96.
- Hutchison Z.L., M.L. Bartley, S. Degraer, P. English, A. Khan, J. Livermore, B. Rumes, and J. W. King. 2020. Offshore wind energy and benthic habitat changes: Lessons from Block Island Wind Farm. *Oceanography* 33(4):58–69.
- Illingworth & Rodkin, Inc. 2017. Pile-driving noise measurements at Atlantic Fleet Naval installations: 28 May 2013 - 28 April 2016. Prepared for Naval Facilities Engineering Command Atlantic under HDR Environmental, Operations and Construction, Inc. Contract No. N62470-10-D-3011, Task Order CTO33. 152 p.

- Janßen, H., C. B. Augustin, H. H. Hinrichsen, and S. Kube. 2013. Impact of secondary hard substrate on the distribution and abundance of *Aurelia aurita* in the western Baltic Sea. *Marine Pollution Bulletin* 75: 224–234
- Johnson A. 2018. The Effects of Turbidity and Suspended Sediments on ESA-Listed Species from Projects Occurring in the Greater Atlantic Region. NOAA Fisheries Greater Atlantic Regional Fisheries Office. Greater Atlantic Region Policy Series 18-02. 107 p.
- Klima E.F., G.R. Gitschlag, and M.L. Renaud. 1988. Impacts of the Explosive Removal of Offshore Petroleum Platforms on Sea Turtles and Dolphins *Marine Fisheries Review* 50(3): 33-42.
- Klimley A.P., N.F. Putman, B.A. Keller, and D. Noakes. 2020. A call to assess the impacts of electromagnetic fields from subsea cables on the movement ecology of marine migrants. *Conservation Science and Practice* (2021)3: e436.
- Kraus S.D., S. Leiter, K. Stone, B. Wikgren, C. Mayo, P. Hughes, R.D. Kenney, C.W. Clark, A.N. Rice, B. Estabrook, and J. Tielens. 2016. Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles. Sterling, Virginia: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2016-054. 117 p.
- Laloë J.-O., and G.C. Hays. 2023. Can a present-day thermal niche be preserved in a warming climate by a shift in phenology? A case study with sea turtles. *Royal Society Open Science* 10(2):221002.
- Lindeboom H.J., H.J. Kouwenhoven, M.J.N. Bergman, S. Bouma, S. Brasseur, R. Daan, R.C. Fijn, D. de Haan, S. Dirksen, R. van Hal, R. Hille Ris Lambers, R. ter Hofstede, K.L. Krijgsveld, M. Leopold, and M. Scheidat. 2011. Short-term ecological effects of an offshore wind farm in the Dutch coastal zone; a compilation. *Environmental Research Letters* 6(3):035101.
- Lohoefer R., W. Hoggard, K. Mullin, C. Roden, and C. Rogers. 1990. Association of sea turtles with petroleum platforms in the north-central Gulf of Mexico. National Marine Fisheries Service, Pascagoula, MS (USA). Mississippi Labs.
- Mansfield K.L., Wyneken, J. and Luo, J., 2021. First Atlantic satellite tracks of ‘lost years’ green turtles support the importance of the Sargasso Sea as a sea turtle nursery. *Proceedings of the Royal Society B*, 288(1950), p.20210057.
- Marine Ventures International, Inc. 2022. Protected Species Observe Technical Report. Kitty Hawk North BOEM Lease OCS-A 0508 (M/V Deep Helder). Prepared for MMT Sweden AB, submitted to Avangrid. February 2022. 78 p.
- Mavraki, N., S. Degraer, and J. Vanaverbeke. 2021. Offshore wind farms and the attraction–production hypothesis: insights from a combination of stomach content and stable isotope analyses. *Hydrobiologia* (2021) 848:1639–1657.
- MDNR (Maryland Department of Natural Resources). 2021. List of Rare, Threatened, and Endangered Animals of Maryland. November 2021. Accessed: November 17, 2022. Retrieved from: https://dnr.maryland.gov/wildlife/Documents/rte_Animal_List.pdf.

- MDNR (Maryland Department of Natural Resources). 2022. Field Guide to Maryland's Turtles (Order Testudines). Accessed: November 17, 2022. Retrieved from: [https://dnr.maryland.gov/wildlife/Pages/plants_wildlife/herps/Testudines.aspx?TurtlesName=Hawksbill+Sea+Turtle%E2%80%8B+\(Eretmochelys+imbricata%E2%80%8B%E2%80%8B\)](https://dnr.maryland.gov/wildlife/Pages/plants_wildlife/herps/Testudines.aspx?TurtlesName=Hawksbill+Sea+Turtle%E2%80%8B+(Eretmochelys+imbricata%E2%80%8B%E2%80%8B)).
- Michel J. A., C. Bejarano, C. H. Peterson, and C. Voss. 2013. Review of biological and biophysical impacts from dredging and handling of offshore sand. U.S. Department of the Interior, Bureau of Ocean Energy Management, Herndon, VA. OCS Study BOEM 2013-0119. 258 p.
- Miller J.H., and G.R. Potty. 2017. Measurements of underwater sound radiated from an offshore wind turbine. The Journal of the Acoustical Society of America 142(4):2699.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 1991. Recovery Plan for the U.S. Population of the Atlantic Green Turtle. Washington, D.C.: U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, National Marine Fisheries Service, and U.S. Department of the Interior, U.S. Fish and Wildlife Service. 59 p.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 1992. Recovery plan for leatherback turtles in the U.S. Caribbean, Atlantic, and Gulf of Mexico. Washington, D.C.: U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, National Marine Fisheries Service, and U.S. Department of the Interior, U.S. Fish and Wildlife Service. 69 p.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 2007. Green sea turtle (*Chelonia mydas*) 5-year review: Summary and evaluation. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service and U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C 105 p.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 2013. Leatherback Sea Turtle (*Dermochelys coriacea*), 5-Year Review: Summary and Evaluation. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Silver Spring, MD, and U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 93 p.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 2015a. Green Turtle (*Chelonia mydas*) Status Review under the U.S. Endangered Species Act. Report of the Green Turtle Status Review Team. NOAA-TM-NMFS-SWFSC-539. March 2015. Accessed: November 17, 2022. Retrieved from: <https://repository.library.noaa.gov/view/noaa/4922>.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 2015b. Kemp's Ridley Sea Turtle (*Lepidochelys kempii*) 5-Year Review: Summary and Evaluation. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service Office of Protected Resources and U.S. Department of the Interior, U.S. Fish and Wildlife Service Southwest Region. July 2015. 63 p.
- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service). 2020. Endangered Species Act status review of the leatherback turtle (*Dermochelys coriacea*) 2020. U.S. National Marine Fisheries Service and U.S. Fish and Wildlife Service. August 2020. 396 p.

- NMFS (National Marine Fisheries Service) and USFWS (U.S. Fish and Wildlife Service) and SEMARNAT. 2011. Bi-National Recovery Plan for the Kemp's Ridley Sea Turtle (*Lepidochelys kempii*), Second Revision. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Silver Spring, MD. 156 p + app.
- NMFS (National Marine Fisheries Service). 2016. Biological Opinion for the Virginia Offshore Wind Technology Advancement Project. Conducted by the National Marine Fisheries Service, Greater Atlantic Regional Fisheries Office, NER-2015-12128, GARFO-2015-00030. Issues March 16, 2016. 256 p.
- NMFS (National Marine Fisheries Service). 2018. 2018 Revisions to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. NOAA Technical Memorandum NMFS-OPR-59. 167 p.
- NMFS (National Marine Fisheries Service). 2020. 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States. NOAA NMFS Southeast Regional Office. SERO-2019-03111. 653 p. Accessed: November 16, 2022. Retrieved from: https://media.fisheries.noaa.gov/dam-migration/sarbo_acoustic_revision_6-2020-opinion_final.pdf.
- NMFS (National Marine Fisheries Service). 2022a. Kemp's ridley turtle (*Lepidochelys kempii*) Conservation & Management. Accessed November 17, 2022. Retrieved from: <https://www.fisheries.noaa.gov/species/kemps-ridley-turtle#conservation-management>.
- NMFS (National Marine Fisheries Service). 2022b. Loggerhead turtle (*Caretta caretta*) Conservation & Management. Accessed November 17, 2022. Retrieved from: <https://www.fisheries.noaa.gov/species/loggerhead-turtle#conservation-management>.
- NMFS (National Marine Fisheries Service). 2022c. Green turtle (*Chelonia mydas*) Conservation & Management. Accessed November 17, 2022. Retrieved from: <https://www.fisheries.noaa.gov/species/green-turtle#conservation-management>.
- NMFS (National Marine Fisheries Service). 2022d. Leatherback turtle (*Dermochelys coriacea*) Conservation & Management. Accessed November 17, 2022. Retrieved from: <https://www.fisheries.noaa.gov/species/leatherback-turtle#conservation-management>.
- NMFS (National Marine Fisheries Service). 2022e. Section 7 Effect Analysis: Turbidity in the Greater Atlantic Region. Accessed: November 15, 2022. Retrieved from: <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-effect-analysis-turbidity-greater-atlantic-region>.
- NMFS (National Marine Fisheries Service). 2023. Turtle Excluder Device Regulations. Accessed: 22 March 2023. Retrieved from: <https://www.fisheries.noaa.gov/southeast/bycatch/turtle-excluder-device-regulations>.

- National Ocean Service. 2023. What causes a sea turtle to be born male or female? Accessed: April 28, 2023. Retrieved from: <https://oceanservice.noaa.gov/facts/temperature-dependent.html#:~:text=This%20is%20called%20temperature%2Ddependent,the%20hatchlings%20will%20be%20female.>
- National Research Council. 1990. Decline of the Sea Turtles: Causes and Prevention. Washington, D.C.: National Academy Press.
- NEFSC and SEFSC (Northeast Fisheries Science Center and Southeast Fisheries Science Center). 2011. Preliminary Summer 2010 Regional Abundance Estimate of Loggerhead Turtles (*Caretta caretta*) in Northwestern Atlantic Ocean Continental Shelf Waters. Northeast Fisheries Science Center Reference Document 11-03. On file, National Marine Fisheries Service, Woods Hole, Massachusetts. April. Accessed: November 17, 2022. Retrieved from: <https://repository.library.noaa.gov/view/noaa/3879>.
- Nelms S.E., E.M. Duncan, A.C. Broderick, T.S. Galloway, M.H. Godfrey, M. Hamann, P.K. Lindeque, and B.J. Godley. 2016. Plastic and marine turtles: a review and call for research. *ICES Journal of Marine Science: Journal du Conseil* 73(2):165-181.
- Normandeau (Normandeau Associates Inc.). 2011. Effects of EMFs from Undersea Power Cables on Elasmobranch and Other Marine Species. Camarillo, CA: U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, Pacific OCS Region. OCS Study BOEMRE 2011-09. p.
- NROC (Northeast Regional Ocean Council). 2022. Northeast Ocean Data Portal. Log density of tagged loggerhead sea turtles – monthly. Accessed: November 17, 2022. Retrieved from: <https://www.northeastoceandata.org/data-explorer/>.
- NSF (National Science Foundation) and USGS (U.S. Geological Survey). 2011. Final Programmatic Environmental Impact Statement/Overseas Environmental Impact Statement for Marine Seismic Research Funded by the National Science Foundation or conducted by the U.S. Geological Survey. Prepared for National Science Foundation and U.S. Geological Survey. June 2011. 514 p.
- OBIS (Ocean Biodiversity Information System). 2022. OBIS. Accessed: November 17, 2022. Retrieved from: <https://obis.org/>.
- Palka D., L. Aichinger Dias, E. Broughton, S. Chavez-Rosales, D. Cholewiak, G. Davis, A. DeAngelis, L. Garrison, H. Haas, J. Hatch, M. Jech, E. Josephson, L. Mueller-Brennan, C. Orphanides, N. Pegg, C. Sasso, D. Sigourney, M. Soldevilla, and H. Walsh. 2021. Atlantic Marine Assessment Program for Protected Species: FY15 – FY19. U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2021-051. 330 p.
- Palka D.L., S. Chavez-Rosales, E. Josephson, D. Cholewiak, H.L. Haas, L. Garrison, M. Jones, D. Sigourney, G. Waring, M. Jech, E. Broughton, M. Soldevilla, G. Davis, A. DeAngelis, C.R. Sasso, M.V. Winton, R.J. Smolowitz, G. Fay, E. LaBrecque, J.B. Leiness, Dettloff, M. Warden, K. Murray, and C. Orphanides. 2017. Atlantic Marine Assessment Program for Protected Species: 2010-2014. Washington, DC: U.S. Department of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-071. 211 p.

- Pallin L., E. Adams, H.F. Goyert, A.S. Friedlaender, and D.W. Johnston. 2015. Density modeling for marine mammals and sea turtles with environmental covariates. Final report to the Maryland Department of Natural Resources and the Maryland Energy Administration from the Biodiversity Research Institute. BRI 2015-17. 37 p.
- Patel S. H., M. V. Winton, J. M. Hatch, H. L. Haas, V. S. Saba, G. Fay, and R. J. Smolowitz. 2021. Projected shifts in loggerhead sea turtle thermal habitat in the Northwest Atlantic Ocean due to climate change. *Scientific Reports* 11:8850.
- Patrício A.R., L.A. Hawkes, J.R. Monsinjon, B.J. Godley, and M.M.P.B. Fuentes. 2021. Climate change and marine turtles: recent advances and future directions. *Endangered Species Research* 44:363-395.
- Pezy J. P., A. Raoux, and J. C. Dauvin. 2018. An ecosystem approach for studying the impact of offshore wind farms: A French case study. *ICES Journal of Marine Science* 77(3):1238–1246.
- Ramirez A, C. Y. Kot, and D. Piatkowski. 2017. Review of sea turtle entrainment risk by trailing suction hopper dredges in the US Atlantic and Gulf of Mexico and the development of the ASTER decision support tool. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2017-084. 275 p.
- Raoux A., S. Tecchio, J. P. Pezy, G. Lassalle, S. Degraer, S. Wilhelmsson, M. Cachera, B. Ernande, C. Le Guen, M. Haraldsson, K. Grangere, F. Le Loc’h, J. C. Dauvin, and N. Niquil. 2017. Benthic and fish aggregation inside an offshore wind farm: Which effects on the trophic web functioning? *Ecological Indicators* 72:33–46.
- RPS. 2021. Dominion Energy Geophysical Survey 2020-2021 IHA Protected Species Observer Report. Prepared for Dominion Energy by RPS. 18 November 2021. 802 p.
- Ruppel C.D., T.C. Weber, E.R. Staaterman, S.J. Labak, and P.E. Hart. 2022. Categorizing Active Marine Acoustic Sources Based on Their Potential to Affect Marine Animals. *Journal of Marine Science and Engineering* 10(9):1-46.
- Samuel Y., S.J. Morreale, C.W. Clark, C.H. Greene, and M.E. Richmond. 2005. Underwater, low-frequency noise in a coastal sea turtle habitat. *The Journal of the Acoustical Society of America* 117(3):1465-1472.
- Schoeman R.P., C. Patterson-Abrolat, and S. Plön. 2020. A global review of vessel collisions with marine animals. *Frontiers in Marine Science* 7: 292.
- Schultze L., L. Merckelbach, S. Raasch, N. Christiansen, U. Daewel, C. Schrum, and J. Carpenter. 2020. Turbulence in the Wake of Offshore Wind Farm Foundations and Its Potential Effects on Mixing of Stratified Tidal Shelf Seas [Presentation]. In: Presented at Ocean Sciences Meeting 2020. San Diego, CA, USA. pp.
- Schuyler Q.A., C. Wilcox, K. Townsend, B.D. Hardesty, and N.J. Marshall. 2014. Mistaken identity? Visual similarities of marine debris to natural prey items of sea turtles. *BMC Ecology* 14(14). doi:10.1186/1472-6785-14-14.

- Sea Turtle Conservancy. 2022. Information About Sea Turtles: Leatherback Sea Turtle. Accessed: November 17, 2022. Retrieved from: <https://conserveturtles.org/information-about-sea-turtles-leatherback-sea-turtle/>.
- Shigenaka G., S. Milton, P. Lutz, R.Z. Hoff, R.A. Yender, and A.J. Mearns. 2010. Oil and Sea Turtles: Biology, Planning, and Response. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Office of Response and Restoration. July 2010. 116 p.
- Shoop C.R., and R.D. Kenney. 1992. Seasonal distributions and abundances of loggerhead and leatherback sea turtles in waters of the northeastern United States. *Herpetological Monographs* 6(1992):43-67.
- Slavik K., C. Lemmen, W. Zhang, O. Kerimoglu, K. Klingbell, and K. Wirtz. 2019. The Large-Scale Impact of Offshore Wind Farm Structures on Pelagic Primary Productivity in the Southern North Sea. *Hydrobiologia* 845(2019):35-53.
- Snoek R., R. de Swart, K. Didderen, W. Lengkeek, and M. Teunis. 2016. Potential effects of electromagnetic fields in the Dutch North Sea. Final report submitted to Rijkswaterstaat Water, Verkeer en Leefomgeving. 95 p. Accessed: November 17, 2022. Retrieved from: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjy1YCTicX7AhWzSTABHYokAooQFnoECBkQAQ&url=https%3A%2F%2Fwww.noordzeeloket.nl%2Fpublish%2Fpages%2F122296%2Fpotential_effects_of_electromagnetic_fields_in_the_dutch_north_sea_-_phase_1_desk_study_rws_wvl.pdf&usg=AOvVaw1_5LQ7sbKGZXAsivHdBB4z.
- Steele, M. 2011. First-ever sea turtle nest found at cape. Accessed July 25, 2023. Retrieved from: <https://www.capegazette.com/article/first-ever-sea-turtle-nest-found-cape/15670>
- Taormina B., J. Bald, A. Want, G. Thouzeau, M. Lejart, N. Desroy, and A. Carlier. 2018. A review of potential impacts of submarine power cables on the marine environment: Knowledge gaps, recommendations and future directions. *Renewable and Sustainable Energy Reviews* 96:380-391.
- Thomás J., R. Guitart, R. Mateo, and J. A. Raga. 2002. Marine debris ingestion in loggerhead turtles, *Caretta caretta*, from the Western Mediterranean. *Marine Pollution Bulletin* 44:211–216.
- Thomsen F., A. Gill, M. Kosecka, M. Andersson, M. Andre, S. Degraer, T. Folegot, J. Gabriel, A. Judd, T. Neumann, A. Norro, D. Risch, P. Sigray, D. Wood, and B. Wilson. 2015. MaRVEN – Environmental impacts of noise, vibrations and electromagnetic emissions from marine renewable energy. Final study report prepared for the European Commission, Directorate General for Research and Innovation. September 2015. 82 p.
- Tougaard J., O.D. Henriksen, and L.A. Miller. 2009. Underwater noise from three types of offshore wind turbines: Estimation of impact zones for harbor porpoises and harbor seals. *The Journal of the Acoustical Society of America* 125(6):8.

- TEWG (Turtle Expert Working Group). 2007. An Assessment of the Leatherback Turtles Population in the Atlantic Ocean. NOAA Technical Memorandum NMFS-SEFSC-555. A Report of the Turtle Expert Working Group. U.S. Department of Commerce. April 2007. Accessed: November 17, 2022. Retrieved from: <https://repository.library.noaa.gov/view/noaa/8608>.
- TEWG (Turtle Expert Working Group). 2009. An Assessment of the Loggerhead Turtle Population in the Western North Atlantic Ocean. NOAA Technical Memorandum NMFS-SEFSC-575. U.S. Department of Commerce. Accessed: November 17, 2022. Retrieved from: <https://repository.library.noaa.gov/view/noaa/3714>.
- TRC Companies (TRC). 2023a. Application for Letter of Authorization under the Marine Mammal Protection Act for the Maryland Offshore Wind Project. Submitted to the National Marine Fisheries Service, Office of Protected Resources by US Wind, Inc. Submitted August 31, 2022, revised January 24, 2023. 52 p.
- U.S. Department of the Navy. 2018. Final Environmental Impact Statement/Overseas Environmental Impact Statement Atlantic Fleet Training and Testing, Volume I. Prepared for U.S. Department of Commerce, National Marine Fisheries Service by U.S. Department of the Navy, Naval Facilities Engineering Command Atlantic. September 2018. 1020 p.
- USFWS (U.S. Fish and Wildlife Service). 2022a. ECOS, Hawksbill sea turtle (*Eretmochelys imbricata*). Accessed: November 17, 2022. Retrieved from: <https://ecos.fws.gov/ecp/species/3656>.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Valverde, R.A. and K.R. Holzworth. 2017. Sea turtles of the Gulf of Mexico. In: Habitats and biota of the Gulf of Mexico: before the Deepwater Horizon oil spill. Springer, New York, NY. pp. 1189-1351.
- Vegter A.C., M. Barletta, C. Beck, J. Borrero, H. Burton, M.L. Campbell, M.F. Costa, M. Eriksen, C. Eriksson, A. Estrades, K.V.K. Gilardi, B.D. Hardesty, J.A. Ivar do Sul, J.L. Lavers, B. Lazar, L. Lebreton, W.J. Nichols, C.A. Ribic, P.G. Ryan, Q.A. Schuyler, S.D.A. Smith, H. Takada, K.A. Townsend, C.C.C. Wabnitz, C. Wilcox, L.C. Young, and M. Hamann. 2014. Global research priorities to mitigate plastic pollution impacts on marine wildlife. *Endangered Species Research* 25(3):225-247.
- Viada S.T., R.M. Hammer, R. Racca, D. Hannay, M.J. Thompson, B.J. Balcom, and N.W. Phillips. 2008. Review of potential impacts to sea turtles from underwater explosive removal of offshore structures. *Environmental Impact Assessment Review* 28(4): 267-285.
- Wang J., X. Zou, W. Yu, D. Zhang, and T. Wang. 2019. Effects of established offshore wind farms on energy flow of coastal ecosystems: A case study of the Rudong offshore wind farms in China. *Ocean & Coastal Management* 171:111–118.
- Williams K., I.J. Stenhouse, E.E. Connelly, and S. Johnson. 2015. Mid-Atlantic Wildlife Studies: Distribution and Abundance of Wildlife along the Eastern Seaboard 2012-2014. Biodiversity Research Institute, Portland, ME. Science Communications Series BRI 2015-19. 32 p.

Winton M., G. Fay, H.L. Haas, M. Arendt, S. Barco, M.C. James, C. Sasso, and S. R. 2018. Estimating the distribution and relative density of satellite-tagged loggerhead sea turtles in the western North Atlantic using geostatistical mixed effects models. *Marine Ecology Progress Series* 586:217-232.

Chapter 3.5.8: Wetlands and Other Waters of the United States

US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 3.6.1: Commercial Fisheries and For-Hire Recreational Fishing

Claisse, J.T., D.J. Pondella, M. Love, L.A. Zahn, C.M. Williams, J.P. Williams, and A.S. Bull. 2014. Oil Platforms off California Are Among the Most Productive Marine Fish Habitats Globally. *Proceedings of the National Academy of Sciences* 111(43):15462–15467.

Colburn, L.L., M. Jepson, C. Weng, T. Seara, J. Weiss, and J.A. Hare, J.A. 2016. Indicators of Climate Change and Social Vulnerability in Fishing Dependent Communities Along the Eastern and Gulf Coasts of the United States. *Marine Policy*, 74:323–333.

Delaware Division of Fish and Wildlife. 2015. Delaware Reef Guide 2015-2016. Available: <https://documents.dnrec.delaware.gov/fw/Fisheries/Documents/2015-16DELAWAREREEFGUIDE.pdf>. Accessed November 14, 2022.

Eigaard, O.R., F. Bastardie, M. Breen, G.E. Dinesen, N.T. Hintzen, P. Laffargue, L.O. Mortensen, J.R. Nielsen, H.C. Nilsson, F.G. O’Neill, and H. Polet. 2016. Estimating seabed pressure from demersal trawls, seines, and dredges based on gear design and dimensions. *ICES Journal of Marine Science* 73(suppl_1):i27–i43.

English, P.A., T.I. Mason, J.T. Backstrom, B.J. Tibbles, A.A. Mackay, M.J. Smith, and T. Mitchell. 2017. Improving Efficiencies of National Environmental Policy Act Documentation for Offshore Wind Facilities Case Studies Report. U.S. Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, Sterling. OCS Study BOEM 2017-026. Available: <https://tethys.pnnl.gov/sites/default/files/publications/English-et-al-2017-BOEM.pdf>.

Fabrizio, M.C., J.P. Manderson, and J.P. Pessutti. 2014. Home range and seasonal movements of Black Sea Bass (*Centropristis striata*) during their inshore residency at a reef in the Mid-Atlantic Bight. *Fishery Bulletin* 112:82–97 (2014). doi: 10.7755/FB.112.1.5.

Fayram, A.H. and A. De Risi. 2007. The potential compatibility of offshore wind power and fisheries: An example using bluefin tuna in the Adriatic Sea. *Ocean & Coastal Management* 50(8):597–605.

Hare, J.A., W.E. Morrison, M.W. Nelson, M. Stachura, E.J. Teeters, R.B. Griffis, M.A. Alexander, J.D. Scott, L. Alade, R.J. Bell, and A.S. Chute. 2016. A vulnerability assessment of fish and invertebrates to climate change on the Northeast US Continental Shelf. *PLOS One* 11(2):e0146756.

- Hopkins, T.E. and J.J. Cech. 2003. The influence of environmental variables on the distribution and abundance of three elasmobranchs in Tomales Bay, California. *Environmental Biology of Fishes* 66(3):279–291.
- Keppel, E.A., R.A. Scrosati, and S.C. Courtenay. 2012. Ocean acidification decreases growth and development in American lobster (*Homarus americanus*) larvae. *Journal of Northwest Atlantic Fishery Science* 44:61–66.
- King, D.M. 2017. Economics of Mid-Atlantic Fisheries in the Year 2030 (Discussion Paper). Available: <https://www.monmouth.edu/uci/documents/2019/11/economics-of-mid-atlantic-fisheries-in-the-year-2030.pdf/>. Accessed November 1, 2022.
- Langhamer, O. 2012. Artificial reef effect in relation to offshore renewable energy conversion: State of the art. *The Scientific World Journal* 2012, Article ID 386713.
- Linley, E.A.S., T.A. Wilding, K. Black, A.J.S. Hawkins, and S. Mangi. 2007. Review of the Reef Effects of Offshore Wind Farm Structures and Their Potential for Enhancement and Mitigation. Report PML Applications Ltd. and Scottish Association for Marine Science to BERR. Available: https://tethys.pnnl.gov/sites/default/files/publications/Potential_for_Enhancement_and_Mitigation.pdf.
- NMFS (National Marine Fisheries Service). 2021a. Commercial Fisheries Landings Statistics. <https://www.fisheries.noaa.gov/national/sustainable-fisheries/commercial-fisheries-landings>. Accessed November 15, 2022.
- NMFS (National Marine Fisheries Service). 2021b. Socioeconomic Impacts of Atlantic Offshore Wind Development. <https://www.fisheries.noaa.gov/resource/data/socioeconomic-impacts-atlantic-offshore-wind-development>. Accessed November 15, 2022.
- NMFS (National Marine Fisheries Service). 2021c. Top US Ports. Query for 2021 landings by port. Available: <https://www.fisheries.noaa.gov/foss/f?p=215:11:12731197432119>. Accessed November 15, 2022.
- NMFS (National Marine Fisheries Service). 2021d. Descriptions of Selected Fishery Landings and Estimates of Vessel Revenue from Areas: A Planning-level Assessment. US Wind 2. Available: https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/WIND_AREA_REPORTS/US_Wind_2.html. Accessed November 15, 2022.
- NMFS (National Marine Fisheries Service). 2021e. Descriptions of Selected Fishery Landings and Estimates of Vessel Revenue from Areas: A Planning-level Assessment. US Wind 1. Available: https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/WIND_AREA_REPORTS/US_Wind_1.html. Accessed November 15, 2022.
- NMFS (National Marine Fisheries Service). 2021f. Landings and Revenue Data for Wind Energy Areas, 2008-2019. Available: https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/ALL_WEA_BY_AREA_DATA.html. Accessed November 15, 2022.

- NMFS (National Marine Fisheries Service). 2022a. Recreational Fisheries Statistics Queries. Personal Communication from the National Marine Fisheries Service, Fisheries Statistics Division. Available: <https://www.fisheries.noaa.gov/data-tools/recreational-fisheries-statistics-queries>. November 15, 2022.
- NMFS (National Marine Fisheries Service). 2022b. Recreational Fisheries Statistics Queries. Personal Communication from the National Marine Fisheries Service, Fisheries Statistics Division. Available: <https://www.fisheries.noaa.gov/data-tools/recreational-fisheries-statistics-queries>. November 15, 2022.
- NMFS (National Marine Fisheries Service). 2022c. Descriptions of Selected Fishery Landings and Estimates of Recreational Party and Charter Vessel Revenue Areas: A Planning-level Assessment. US Wind, OCS-A 0490. Available: https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/WIND_AREA_REPORTS/rec/OCS_A_0490_US_Wind_rec.html. Accessed 2 February 2023
- NMFS (National Marine Fisheries Service). 2022d. Vessel Trip Reporting in the Greater Atlantic Region. Available: <https://www.fisheries.noaa.gov/new-england-mid-atlantic/resources-fishing/vessel-trip-reporting-greater-atlantic-region>. February 15, 2023.
- NMFS (National Marine Fisheries Service). 2023. Descriptions of Selected Fishery Landings and Estimates of Vessel Revenue from Areas: A Planning-level Assessment. US Wind, OCS-A 0490. https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/WIND/WIND_AREA_REPORTS/com/OCS_A_0490_US_Wind_com.html. Accessed July 17, 2023.
- Ocean City Reef Foundation. N.d. Ocean-Artificial Reef Locations. Available: https://dnr.maryland.gov/fisheries/documents/mari_ocean_reefs_2013.pdf. Accessed November 14, 2022.
- PMEL (Pacific Marine Environmental Laboratory). nd. What is Ocean Acidification? Available: <https://www.pmel.noaa.gov/co2/story/What+is+Ocean+Acidification%3F>. Accessed: November 14, 2022.
- Papaioannou, E.A., R.L. Selden, J. Olson, B.J. McCay, M.L. Pinsky, and K. St. Martin. 2021. Not All Those Who Wander Are Lost – Responses of Fishers’ Communities to Shifts in the Distribution and Abundance of Fish. *Frontiers in Marine Science* 8 (July):1–25.
- Popper, A.N. and M.C. Hastings. 2009. The effects of human-generated sound on fish. *Integrative Zoology* 4(1):43–52.
- Popper, A., A. Hawkins, R. Fay, D. Mann, and D. Bartol. 2014. Sound Exposure Guidelines. Pages 33–51 in *ASA S3/SC14 TR-2014 Sound Exposure Guidelines for Fish and Sea Turtles: A Technical Report prepared by ANSI Accredited Standards Committee S3/SC1 and registered with ANSI*.
- Rogers, L.A., R. Griffin, T. Young, E. Fuller, K.S. Martin, and M.L. Pinsky. 2019. Shifting habitats expose fishing communities to risk under climate change. *Nature Climate Change*. 9(7):512–516.
- Secor, D.H., F. Zhang, M.H.P. O’Brien, and M. Li. 2019. Ocean destratification and fish evacuation caused by a mid-Atlantic Tropical Storm. *ICES Journal of Marine Science* 76(2):573–584.

- Secor, D., M. O'Brien, E. Rothermel, C. Wiernicki, and H. Bailey. 2020. Movement and habitat selection by migratory fishes within the Maryland Wind Energy Area and adjacent reference sites. Sterling (VA): US Department of the Interior, Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2020-030: 109.
- Sims, D.W., M.J. Genner, A.J. Southward, and S.J. Hawkins. 2002. Timing of squid migration reflects north Atlantic climate variability. *Proceedings of the Royal Society of London. Series B: Biological Sciences*. 268(1485):2607–2611.
- Smith, J., M. Lowry, C. Champion, and I. Suthers. 2016. A designed artificial reef is among the most productive marine fish habitats: New metrics to address 'production versus attraction.' *Marine Biology*163(18).
- Stevens, B.G., C. Schweitzer, and A. Price. 2019. Hab in the MAB: Characterizing Black Sea Bass Habitat in the Mid-Atlantic Bight. Available: <https://www.atlanticfishhabitat.org/wp-content/uploads/2019/12/ACFHP-Final-Report.pdf>.
- Talmage, S.C., and C.J. Gobler. 2010. Effects of past, present, and future ocean carbon dioxide concentrations on the growth and survival of larval shellfish. *Proceedings of the National Academy of Sciences* 107(40):17246–17251.
- The Fisherman. 2018. The Old Grounds. Available online at: <https://www.thefisherman.com/article/the-old-grounds/>. Accessed 21 July 2023.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 3.6.2: Cultural Resources

- BOEM (Bureau of Ocean and Energy Management). 2020. Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585. May 27. Accessed: November 7, 2021. Available online at: <https://www.boem.gov/sites/default/files/documents/about-boem/Archaeology%20and%20Historic%20Property%20Guidelines.pdf>
- Capitol Airspace Group. 2023. US Wind Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. March 31, 2023.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 3.6.3: Demographics, Employment, and Economics

- Accomack County Virginia. 2021a. Location Accomack County, 2020. Available online at: <https://www.co.accomack.va.us/about-us/location>. Accessed October 2022.

- Accomack County Virginia. 2021b. Accomack County, Visitors. Available online at: <https://www.co.accomack.va.us/visitors>. Accessed October 2022.
- AWEA (American Wind Energy Association). 2020. U.S. Offshore Wind Power Economic Impact Assessment. Available online at: https://supportoffshorewind.org/wp-content/uploads/sites/6/2020/03/AWEA_Offshore-Wind-Economic-ImpactsV3.pdf. Accessed November 2022.
- BOEM (Bureau of Ocean Energy Management). 2017. Socio-Economic Impact of Outer Continental Shelf Wind Energy Development on Fisheries in the U.S. Atlantic. Volume I—Report Narrative. Available online at: <https://espis.boem.gov/final%20reports/5580.pdf>. Accessed November 2022.
- BVG Associates. 2017. Future renewable energy costs: Offshore wind. 57 technology innovations that will have a greater impact on reducing the cost of electricity from European offshore wind farms. Available online at: https://bvgassociates.com/wp-content/uploads/2017/11/InnoEnergy-Offshore-Wind-anticipated-innovations-impact-2017_A4.pdf. Accessed October 2022.
- Capitol Airspace Group. 2023. US Wind Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. March 31, 2023.
- CBS Baltimore. 2021. US Wind Announces Major Progress in Maryland Offshore Wind Energy Project, Including Bringing Steel Back to Sparrows Point. Available online at: <https://www.cbsnews.com/baltimore/news/us-wind-announces-major-progress-in-maryland-offshore-wind-energy-project-including-bringing-steel-back-to-sparrows-point/>. Accessed November 2022.
- City of Portsmouth. 2023a. Official Coast Guard City. Available online at: <https://www.portsmouthva.gov/603/Official-Coast-Guard-City>. Accessed April 2023.
- City of Portsmouth. 2023b. Things to do in Portsmouth. Available online at: <https://portsvacation.com/things-to-do/>. Accessed April 2023.
- County of Northampton. 2023a. Our Towns. Available online at: <https://www.co.northampton.va.us/cms/one.aspx?portalId=14877226&pageId=16787704>. Accessed April 2023.
- County of Northampton. 2023b. Tourism. Available online at: <https://www.co.northampton.va.us/visitors/tourism>. Accessed April 2023.
- Cumberland County. 2023a. *Tourism and Recreation*. Available online at: <https://www.cumberlandcountynj.gov/Tourism>. Accessed April 2023.
- Cumberland County. 2023b. Agriculture in New Jersey and Cumberland County. Available online at: <https://www.cumberlandcountynj.gov/content/23751/23826/23842/default.aspx>. Accessed April 2023.

- Georgetown Economic Services, LLC. 2020. Potential Employment Impact from Offshore Wind in the United States-The Mid-Atlantic and New England Region. Available online at: https://rodafisheries.org/wp-content/uploads/2020/09/RODA-Paper_Final-Version-7.27.2020.pdf. Accessed November 2022.
- Gould, R. and E. Cresswell. 2017. *New York State and the Jobs of Offshore Wind Energy*. Workforce Development Institute, New York. Available online at https://wdiny.org/Portals/0/New%20York%20State%20and%20The%20Jobs%20Of%20Offshore%20Wind%20Energy_%20WDI2017.pdf?ver=2017-05-03-150746-023. Accessed November 2022.
- Hoagland, P., T.M. Dalton, D. Jin, and J.B. Dwyer. 2015. An Approach for Analyzing the Spatial Welfare and Distributional Effects of Ocean Wind Power Siting: The Rhode Island/Massachusetts Area of Mutual Interest. *Marine Policy* (58):51–59. ISSN 0308-597X. Available online at: <https://doi.org/10.1016/j.marpol.2015.04.010>.
- MacArthur, R. 2017. Sussex Officials Seek Accurate Population Projection. Cape Gazette. June 27, 2017. Available online at <https://www.capegazette.com/article/sussex-officials-seek-accurate-population-projection/136010>. Accessed October 2022.
- Maryland Public Service Commission. 2017. Maryland PSC Awards ORECS to Two Offshore Wind Developers Projects to Create Jobs, Economic Development in New Industry. Available online at: <https://www.psc.state.md.us/wp-content/uploads/PSC-Awards-ORECs-to-US-Wind-Skipjack.pdf>. Accessed October 2022.
- MdoC (Maryland Department of Commerce). 2022. Brief Economic Facts: Worcester County, Maryland. Available online at: <https://commerce.maryland.gov/Documents/ResearchDocument/WorcesterBef.pdf>. Accessed October 2022.
- MDP (Maryland Department of Planning). 2010. Population Density by County Maryland, 2010. Population Density by Jurisdiction, 2010 & 2000. Accessed October 2022. Available online at: https://planning.maryland.gov/MSDC/Documents/population_density/density_mdstcnty_2000-10.pdf.
- Moser, S.C., M.A. Davidson, P. Kirshen, P. Mulvaney, J.F. Murley, J.E. Neumann, L. Petes, and D. Reed. 2014. Ch. 25: Coastal Zone Development and Ecosystems. *Climate Change Impacts in the United States: The Third National Climate Assessment*. J.M. Melillo, T.C. Richmond, and G.W. Yohe, Eds., U.S. Global Change Research Program, 579–618. doi:10.7930/J0MS3QNW. Accessed November 2022. Available online at: https://nca2014.globalchange.gov/downloads/low/NCA3_Full_Report_25_Coasts_LowRes.pdf.
- NOAA (National Oceanic and Atmospheric Administration). 2021. NOAA—Report on the U.S. Marine Economy. Accessed October 2022. Available online at: <https://coast.noaa.gov/data/digitalcoast/pdf/econ-report.pdf>.
- NOAA (National Oceanic and Atmospheric Administration). 2023. ENOW Explorer. Accessed April 2023. Available online at: <https://coast.noaa.gov/digitalcoast/tools/enow.html>

- NREL (National Renewable Energy Laboratory). 2023. A Supply Chain Road Map for Offshore Wind Energy in the United States. Available online at: <https://www.nrel.gov/docs/fy23osti/84710.pdf>. Accessed April 2023.
- OCNJ Daily. 2019. Cape May County Enjoys Banner Summer Tourism Season. Accessed October 2022. Available online at: <https://ocnjdaily.com/cape-may-county-enjoys-banner-summer-tourism-season/>.
- Open Data Network. 2018. The Population Density of Baltimore County, MD. Accessed October 2022. Available online at: https://www.opendatane트워크.com/entity/0500000US24005/Baltimore_County_MD/geographic.population.density?year=2018.
- Ørsted. 2019. U.S. Offshore Wind, Tradepoint Atlantic Partner on Maryland’s First Offshore Wind Energy Center. Accessed November 2022. Available online at: <https://us.ored.com/news-archive/2019/07/tradepoint-atlantic-partnership>.
- Parsons, G. and J. Firestone. 2018. Atlantic Offshore Wind Energy Development: Values and Implications for Recreation and Tourism. OCS Study BOEM 2018-013. University of Delaware, Newark, DE 19716-0099.
- Parsons, G., J. Firestone, L. Yan, and J. Toussaint. 2020. The Effect of Offshore Wind Power Projects on Recreational Beach Use on the East Coast of the United States: Evidence from Contingent-Behavior Data. Energy Policy. 144:111659.
- Stefek, J., C. Constant, C. Clark, H. Tinneland, C. Christol, and R. Baranowski. 2022. U.S. Offshore Wind Workforce Assessment. National Renewable Energy Lab Technical Report NREL/TP-5000-81798, October 2022. Accessed April 2023. Available online at: <https://www.nrel.gov/docs/fy23osti/81798.pdf>
- Sussex County Land Trust. 2022. About Us, Our History. Accessed October 2022. Available online at: <https://www.sclandtrust.org/about-us/our-history/>.
- Sussex County Government. 2022. About Sussex County. Accessed October 2022. Available online at: <https://sussexcountyde.gov/about-sussex-county>.
- University of Delaware. 2021. Supply Chain Contracting Forecast for U.S. Offshore Wind Power. Special Initiative on Offshore Wind. Accessed November 2022. Available online at: <https://nationaloffshorewind.org/wp-content/uploads/SIOW-supply-chain-report-2021-update-FINAL.pdf>.
- U.S. Bureau of Economic Analysis. 2021. Current-Dollar Gross Domestic Product (GDP) by State and Region, 2020. Accessed: November 2022. Available online at: <https://apps.bea.gov/itable/itable.cfm?ReqID=70&step=1&acrdn=1>.
- U.S. Census Bureau. 2020. 2020 American Community Survey 5-Year Estimates. Selected Housing Characteristics (Table DP04), Vacancy Status (Table B25004), Industry by Sex (S2404), County Business Patterns (Table CB2000CBP). Accessed: October 2022. Available online at: <https://data.census.gov/cedsci/advanced>

- U.S. Census Bureau. 2022a. Quick Facts, Baltimore County, Maryland; Worcester County, Maryland; Delaware; Sussex County, Delaware. Accessed October 2022. Available online at: <https://www.census.gov/quickfacts/fact/table/baltimorecountymaryland,MD,worcestercountymaryland,DE,sussexcountydelaaware/POP060220>.
- U.S. Census Bureau. 2022b. Quick Facts, Cape May County, New Jersey; Cumberland County, New Jersey. Accessed October 2022. Available online at: <https://www.census.gov/quickfacts/fact/table/capemaycountynewjersey/PST045221>.
- U.S. Census Bureau. 2022c. Quick Facts, Wicomico County, Maryland. Accessed October 2022. Available online at: <https://www.census.gov/quickfacts/fact/table/wicomicocountymaryland,US/PST045221>.
- U.S. Census Bureau. 2022d. Quick Facts, Northampton County, Virginia; City of Portsmouth, Virginia. Accessed October 2022. Available online at: <https://www.census.gov/quickfacts/fact/table/accomackcountyvirginia/POP010210#POP010210>.
- U.S. Travel Association. 2019. *Virginia Tourism Authority Doing Business as Virginia Tourism Corporation*. Accessed October 2022. Available online at: <https://www.vatc.org/wp-content/uploads/2019/09/2018-Economic-Impact-of-Domestic-Travel-on-Virginia-and-Localities.pdf>.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Visit Southern Delaware. 2022. *Bethany Beach*. Accessed October 2022. Available online at: <https://visitsoutherndelaware.com/area-info/bethany-beach>.

Chapter 3.6.4: Environmental Justice

- Buonocore, J., P. Luckow, J. Fisher, W. Kempton, and J.L. Levy. 2016. Health and Climate Benefits of Offshore Wind Facilities in the Mid-Atlantic United States. *Environmental Research Letters* 11 074019. July 14, 2016. Accessed: May 17, 2022. Retrieved from: <https://iopscience.iop.org/article/10.1088/1748-9326/11/7/074019/pdf>.
- CBS Baltimore. 2021. US Wind announces major progress in Maryland offshore wind energy project, including bringing steel back to Sparrows Point. Accessed on November 28, 2022. <https://www.cbsnews.com/baltimore/news/us-wind-announces-major-progress-in-maryland-offshore-wind-energy-project-including-bringing-steel-back-to-sparrows-point/>
- Commonwealth of Virginia. n.d. State Recognized Tribes. Available online at: <https://www.commonwealth.virginia.gov/virginia-indians/state-recognized-tribes/>. Accessed November 2022.

- CEQ (Council on Environmental Quality). 1981. Memorandum to Agencies: Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulation. Amended 1986. Available: <https://www.energy.gov/sites/prod/files/2018/06/f53/G-CEQ-40Questions.pdf>. Accessed: August 2021.
- CEQ (Council on Environmental Quality). 1997. Environmental Justice Guidance Under the National Environmental Policy Act. Washington, D.C. December 10, 1997. https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf. Accessed November 2022.
- CEQ (Council on Environmental Quality). 2002. Memorandum for the Heads of Federal Agencies: Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act. Available: <https://www.energy.gov/nepa/articles/cooperating-agencies-implementing-procedural-requirements-national-environmental>. Accessed November 15, 2022.
- CEQ (Council on Environmental Quality). 2022. Climate and Economic Justice Screening Tool. Available: <https://screeningtool.geoplatform.gov/en/>. Accessed April 2023.
- Johnson, Stephanie J. 2023. Equity Mapping and Transportation. Available: https://deldot.gov/Business/drc/pdfs/winter_workshop/2023/5StephanieJohnson&JohnSisson-EquityofMapping&Transportation.pdf. Accessed April 2023.
- NEJAC (National Environmental Justice Advisory Council). 2002. Fish Consumption and Environmental Justice. Available: https://www.epa.gov/sites/default/files/2015-02/documents/fish-consump-report_1102.pdf. Accessed February 2023.
- NJDEP (New Jersey Department of Environmental Protection). 2021. Environmental Justice. Available online at: <https://dep.nj.gov/ej/>. Accessed November 2022.
- NOAA (National Oceanic and Atmospheric Administration). 2023a. Social Indicators Tool. Available online at: <https://www.st.nmfs.noaa.gov/data-and-tools/social-indicators/>. Accessed: February 24, 2023.
- NOAA (National Oceanic and Atmospheric Administration). 2023b. MRIP Survey Directories. Available online at: <https://www.st.nmfs.noaa.gov/msd/html/siteRegister.jsp>. Accessed: February 24, 2023.
- Ocean Wind (Ocean Wind, LLC.). 2022. Construction and Operations Plan, Ocean Wind Offshore Wind Farm. Volumes I–III. May. Available: <https://www.boem.gov/ocean-wind-construction-and-operations-plan/>.
- Salem County. 2022. Native Americans in Salem County. Available online at: <https://culture.salemcountynj.gov/project/native-americans-in-salem-county/>. Accessed November 2022.

- Thind, M.P.S., C.W. Tessum, I.L. Azevedo, and J.D. Marshall. 2019. Fine Particulate Air Pollution from Electricity Generation in the US: Health Impacts by Race, Income, and Geography: Abstract. *Environ. Sci. Technol.* 2019, 53, 23, 14010-14019. November 20, 2019. Accessed: May 13, 2022. Retrieved from: <https://pubs.acs.org/doi/abs/10.1021/acs.est.9b02527>.
- USACE (U.S. Army Corps of Engineers).. 2021. Principal Ports of the United States, Waterborne tonnage for principal U.S. ports and all 50 states and U.S. territories Available: <https://www.iwr.usace.army.mil/About/Technical-Centers/WCSC-Waterborne-Commerce-Statistics-Center-2/WCSC-Waterborne-Commerce/>. Accessed December 30, 2021.
- US Census Bureau. 2000. 2000 Decennial Census Race/Ethnicity (P004); Profile of Selected Economic Characteristics: 2000 (DP3). Accessed: February 17, 2023. Retrieved from: <https://data.census.gov/advanced>.
- U.S. Census Bureau. 2010a. 2010 Decennial Census Redistricting Data (PL 94-171) Hispanic or Latino, and Not Hispanic or Latino by Race (P2). Accessed: February 17, 2023. Retrieved from: <https://data.census.gov/advanced>.
- U.S. Census Bureau. 2010b. 2016-2020 American Community Survey 5-Year Estimates. Poverty Status in the Past 12 Months by Sex by Age (B17001). Accessed: February 17, 2023. Retrieved from: <https://data.census.gov/advanced>.
- U.S. Census Bureau. 2020a. 2020 Decennial Census Redistricting Data (PL 94-171) Hispanic or Latino, and Not Hispanic or Latino by Race (P2). Accessed: February 17, 2023. Retrieved from: <https://data.census.gov/advanced>.
- U.S. Census Bureau. 2020b. 2016-2020 American Community Survey 5-Year Estimates. Poverty Status in the Past 12 Months (S1701). Accessed: February 17, 2023. Retrieved from: <https://data.census.gov/advanced>.
- US Census Bureau. 2020c. 2020 Census Participant Statistical Areas Program (PSAP). Quick Reference: State Designated Tribal Statistical Areas. [Participant Statistical Areas Program \(PSAP\) \(census.gov\)](https://www.census.gov/psap/)
- USEPA (U.S. Environmental Protection Agency). 1994. Summary of Executive Order 1298 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. February 1994. Available: <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>.
- USEPA (Environmental Protection Agency). 2016. Environmental Justice. Available: <https://www.epa.gov/environmentaljustice>.
- USEPA (U.S. Environmental Protection Agency). 2016. Promising Practices for EJ Methodologies in NEPA Reviews: Report for the Federal Interagency Working Group on Environmental Justice & NEPA Committee. Available online at: https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf. Accessed: November 2022.

- USEPA (U.S. Environmental Protection Agency). 2022. Federally-Recognized Tribes in EPA's Mid-Atlantic Region. Available online at: <https://www.epa.gov/tribal/federally-recognized-tribes-epas-mid-atlantic-region>. Accessed November 2022.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- Wang, Y., I. Kloog, B.A. Coull, A. Kosheleva, A. Zanobetti, and J.D. Schwartz. 2016. Estimating causal effects of long-term PM_{2.5} exposure on mortality in New Jersey. *Environ Health Perspect.* 124:1182–1188. Available: <https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.1409671>. Accessed: November 2021.

Chapter 3.6.5: Land Use and Coastal Infrastructure

- Arrington, B. 2021. Waypoint: Cape Charles, Virginia. *Power and Motor Yacht Magazine*. Available at: <https://www.powerandmotoryacht.com/voyaging/cape-charles-virginia-as-a-cruising-destination>. Accessed February 2023.
- Capitol Airspace Group. 2023. US Wind Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. March 31, 2023.
- DNREC (Delaware Department of Natural Resources and Environmental Control). 2014. Brochure: Delaware Seashore State Park. Available at: <https://destateparks.com/wwwroot/maps/delaware-seashore/delaware-seashore-map.pdf>. Accessed October 2022.
- MRLC (Multi-Resolution Land Characteristics Consortium). 2021. National Land Cover Database EVA (Enhanced Visualization and Analysis). Available online at: <https://www.mrlc.gov/eva/>. Accessed: January 14, 2022.
- Ørsted. 2020. Fact Sheet: Skipjack. Available at: <https://orstedcdn.azureedge.net/-/media/www/docs/corp/us/factsheets/sjwf-factsheet-jan-2020.ashx?la=en&rev=1ca76353e77b4657aee24f8d901531b1&hash=e020d7c251eb85a0b134bc4e53c84eaf>. Accessed October 2022.
- Ørsted. 2021. News: Ørsted to Build Maryland's First Emissions-Free Offshore Wind Operations & Maintenance Facility in West Ocean City. 06.10.2021. Available online at: <https://skipjackwind.com/news/2021/10/news-article>. Accessed November 2022.
- Parsons, G. and J. Firestone. 2018. *Atlantic Offshore Wind Energy Development: Values and Implications for Recreation and Tourism*. OCS Study BOEM 2018-013. University of Delaware, Newark, DE 19716-0099. Retrieved from: <https://epis.boem.gov/final%20reports/5662.pdf>. Accessed: March 17, 2022.
- State of Delaware. 2021. FirstMap: 2012 Land Use Land Cover. Updated September 16, 2021. Available at: <https://opendata.firstmap.delaware.gov/datasets/delaware::2012-land-use-land-cover/explore?location=38.592055%2C-75.064959%2C16.00>. Accessed October 2022.

- Sussex County. 2022. Sussex County Delaware Map Viewer. Available at: <https://maps.sussexcountyde.gov/OnlineMap/Map.html>. Accessed October 2022.
- Town of Ocean City. 2018. Town of Ocean City Maryland 2017 Comprehensive Plan Update. Available at: <https://oceancitymd.gov/oc/wp-content/uploads/PZCAppealed.pdf>. Accessed February 2023.
- Town of Ocean City. 2023. Department of Engineering Pages: Beach Replenishment. Available at: <https://oceancitymd.gov/oc/departments/engineering/beach-replenishment/>. Accessed April 2023.
- TPA (Tradeport Atlantic). 2020. Tradeport Atlantic: Industry in Motion. Available at: <https://www.tradeportatlantic.com/wp-content/uploads/2020/09/FINAL-TPA-Coffee-Table-Book-2020-FINALv2082020.pdf>. Accessed November 2022.
- TPA (Tradeport Atlantic). 2021. Tradeport Marine: Offshore Wind. Available at: <https://www.tradeportatlantic.com/wp-content/uploads/2021/08/Offshore-Wind-2021v2.pdf>. Accessed November 2022.
- TRC (TRC Companies). 2023b. Construction Noise Management Plan: Maryland Offshore Wind Project. Prepared for US Wind, February 2023.
- US Wind. 2021. Introducing Momentum Wind – US Wind’s ambitious new offshore wind project. Available at: <https://uswindinc.com/momentumwind/>. Accessed November 2022.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- US Wind. 2023. Response to Supplemental Request for Information US Wind Draft Alternatives RFI, January 12, 2023; also 2023-02-05 Vessel summary RFI construction by port.
- Virginia Port Authority. 2022. Final Piece of Federal Dredging Investment OK’d; Deepening Project Fully-Funded, On Schedule. Available online at: <https://www.portofvirginia.com/who-we-are/newsroom/final-piece-of-federal-dredging-investment-okd-deepening-project-fully-funded-on-schedule/>. Accessed November 2022.
- Virginia Port Authority. 2023. The Port of Virginia Facilities. Available at [Facilities | Port of Virginia](#). Accessed January 2023.
- Worcester County. 2006. The Comprehensive Development Plan Worcester County, Maryland. March 14, 2006. Available online at: <https://www.co.worcester.md.us/departments/drpf/maps>. Accessed November 2022.
- World Port Source. N.d. Port Cape Charles. Available at WPS - Port Cape Charles port commerce (worldportsource.com). Accessed (January 2023)

Chapter 3.6.6: Navigation and Vessel Traffic

- CBS Baltimore. 2021. US Wind Announces Major Progress In Maryland Offshore Wind Energy Project, Including Bringing Steel Back To Sparrows Point. Available online at: <https://www.cbsnews.com/baltimore/news/us-wind-announces-major-progress-in-maryland-offshore-wind-energy-project-including-bringing-steel-back-to-sparrows-point/>
- Hasager, C.B., N.G. Nygaard, P.J.H. Volker, I. Karagali, S.J. Andersen, and J. Badger. 2017. Wind Farm Wake: The 2016 Horns Rev Photo Case. *Energies*, Vol. 10, Issue 3. March 7.
- Ling, H., M.F. Hamilton, R. Bhalla, W.E. Brown, T.A. Hay, N.J. Whitlonis, S. Yang, and A.R. Naqvi. 2013. Final Report DE-EE0005380 Assessment of Offshore Wind Farm Effects on Sea Surface, Subsurface and Airborne Electronic Systems. University of Texas at Austin.
- MARCO (Mid-Atlantic Ocean Data Portal). 2022. Map. Accessed February 2023. Available online: <https://portal.midatlanticocean.org/visualize/#x=-74.00&y=39.00&z=7&logo=true&controls=true&basemap=ocean&tab=data&legends=false&layers=true>.
- NAS (National Academies of Sciences), Engineering, and Medicine. 2022. Wind Turbine Generator Impacts to Marine Vessel Radar. Washington, DC: The National Academies Press. Accessed: June 27, 2022. Available online at: <https://doi.org/10.17226/26430>.
- Sharples, M. 2011. Offshore Electrical Burial for Wind Farms: State of the Art, Standards and Guidance & Acceptable Burial Depths, Separation Distances and Sand Wave Effect. Accessed November 2022. Available online at: <https://www.bsee.gov/research-record/tap-671-offshore-electrical-cable-burial-wind-farms-state-art-standards-and-guidance>.
- State of New Jersey. 2022. *New Jersey Wind Port*. Accessed November 2022. Available online at: <https://nj.gov/windport/>.
- USACE (U.S. Army Corps of Engineers). 2023. Indian River Inlet & Bay. Available at: <https://www.nap.usace.army.mil/Missions/Factsheets/Fact-Sheet-Article-View/Article/490811/indian-river-inlet-bay/>. Accessed July 13, 2023.
- USCG (U.S. Coast Guard). 2016. Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay, Delaware. Final Report. Docket Number USCG-2011-0351. Accessed: November 2022. Available online at: <https://www.regulations.gov/document/USCG-2011-0351-0144>.
- USCG (U.S. Coast Guard). 2019. Navigation and Vessel Inspection Circular No. 01-19, Guidance on the Coast Guard's Roles and Responsibilities for Offshore Renewable Energy Installations (OREI), COMTPUB P16700.4, 1 August 2019.
- USCG (U.S. Coast Guard). 2020. The Areas Offshore of Massachusetts and Rhode Island Port Access Route Study. Final Report. Docket Number USCG-2019-0131. Accessed: January 29, 2022. Available online at: <https://www.regulations.gov/document/USCG-2019-0131-0101>.

- USCG (U.S. Coast Guard). 2021. Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to the Delaware Bay, Delaware. Final Report. Docket Number USCG2020-0172. Accessed: November 2022. Available online at: <https://www.regulations.gov/document/USCG-2020-0172-0001>.
- USCG (U.S. Coast Guard). 2022. Consolidated Port Approaches and International Entry and Departure Transit Areas Port Access Route Studies (PARS) Integral to Efficiency of Possible Atlantic Coast Fairways. 87 FR 55449. Accessed: April 2023. Notice of Availability. Docket Number USCG USCG-2011-0351. Accessed: April 2023. Available online at: <https://www.regulations.gov/docket/USCG-2011-0351>.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.

Chapter 3.6.7: Other Uses (Marine Minerals, Military Use, Aviation, Scientific Research, and Surveys)

- BOEM (Bureau of Ocean Energy Management). 2012. Commercial wind lease issuance and site characterization activities on the Atlantic outer continental shelf offshore New Jersey, Delaware, Maryland and Virginia: Final environmental assessment. edited by Office of Renewable Energy Programs.
- BOEM (Bureau of Ocean Energy Management). 2021. Vineyard Wind Final Environmental Impact Statement. Available: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Vineyard-Wind-1-FEIS-Volume-1.pdf>. Accessed February 20, 2023.
- Crist, J. 2021. Dare awards \$26M bid for Avon, Buxton nourishment. Accessed: 2 March 2022. Retrieved from: <https://coastalreview.org/2021/12/dare-awards-26m-bid-for-avon-buxton-nourishment/>.
- De la Vega, David, James C. G. Matthews, Lars Norin, and Itziar Angulo. 2013. Mitigation Techniques to Reduce the Impact of Wind Turbines on Radar Services Energies 6, no. 6: 2859-2873. <https://doi.org/10.3390/en6062859>
- Hare J.A., Blyth B.J., Ford K.H., Hooker B.R., Jensen B.M., Lipsky A., Nachman C., Pfeiffer L., Rasser M., Renshaw K. 2022. NOAA Fisheries and BOEM Federal Survey Mitigation Implementation Strategy -Northeast U.S. Region. NOAA Technical Memorandum 292. Woods Hole, MA. 33 pp.
- Louis Berger Group Inc. 1999. Environmental Report: Use of Federal Offshore Sand Resources for Beach and Coastal Restoration in New Jersey, Maryland, Delaware, and Virginia. Prepared for the U.S. Department of the Interior– Minerals Management Service – Office of International Activities and Marine Minerals (INTERMAR) under Contract No. 1435- 01-98-RC-30820.
- JASON. 2008. Wind Farms and Radar. McLean: The MITRE Corporation. Accessed February 1, 2023. http://users.ece.utexas.edu/~ling/US1_Wind_Farms_and_Radar_Brenner_USA.pdf

- NOAA (National Oceanic and Atmospheric Administration). 2019. 2019 Fall Bottom Trawl Survey Completed in Northeast. Available: <https://www.fisheries.noaa.gov/feature-story/2019-fall-bottom-trawl-survey-completed-northeast>. Accessed November 8, 2022.
- NOAA (National Oceanic and Atmospheric Administration). 2020a. Marine Recreational Information Program. Available: <https://www.fisheries.noaa.gov/recreational-fishing-data/about-marine-recreational-information-program>. Accessed November 8, 2022.
- NOAA (National Oceanic and Atmospheric Administration). 2020b. Types of Recreational Fishing Surveys: Large Pelagics Survey. Available: <https://www.fisheries.noaa.gov/recreational-fishing-data/types-recreational-fishing-surveys#large-pelagics-survey>. Accessed November 8, 2022.
- Ramsey, Kelvin W.; Mattheus, C. Robin; Wehmiller, John F.; Tomlinson, Jaime L.; Metz, Trevor. 2019. Federal Sand-Resource Assessment of the Delaware Shelf. Available: <https://www.boem.gov/sites/default/files/mm-research/2021-05/RamseyEtAl2019M14AC00003TechnicalReport.pdf>. Accessed February 20, 2023.
- Sandia National Laboratories, MIT Lincoln Laboratory. 2014. IFT&E Industry Report: Wind Turbine-Radar Interference Test Summary. Albuquerque and Livermore: Sandia National Laboratories. Accessed February 1, 2023. https://www.energy.gov/sites/prod/files/2014/10/f18/IFTE%20Industry%20Report_FINAL.pdf
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- US Fleet Forces. 2009. Virginia Capes Range Complex Final Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS).
- Xu, R., H. Huang, G. Xu, X. Meng, B. Liu, X. Gu, and J. Brown. 2022. Proceedings Volume 12169, Eighth Symposium on Novel Photoelectronic Detection Technology and Applications; 121696R (2022) <https://doi.org/10.1117/12.2624822>. Event: Eighth Symposium on Novel Photoelectronic Detection Technology and Applications, 2021, Kunming, China.

Chapter 3.6.8: Recreation and Tourism

- Annapolis Bermuda Ocean Race. 2022. *Mustang Survival Annapolis to Bermuda Ocean Race, June 7, 2024*. Accessed: November 2022. Available online at: <https://www.bermudaoceanrace.com/>.
- Baltimore County. 2022a. Webpage: Parks Directory – Edgemere-Sparrows Point. Accessed: October 2022. Available online at: <https://www.baltimorecountymd.gov/departments/recreation/parks-directory?recordsperpage=10&communities=edgemere-sparrows-point+>.
- Baltimore County. 2022b. Webpage: Sparrows Point Park. Accessed: October 2022. Available online at: <https://www.baltimorecountymd.gov/departments/recreation/parks-directory/sparrows-point-park>.

- Capitol Airspace Group. 2023. US Wind Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. March 31, 2023.
- CSA Ocean Sciences Inc. and Exponent. 2019. Evaluation of Potential EMF Effects on Fish Species of Commercial or Recreational Fishing Importance in Southern New England. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management, Headquarters. OCS Study BOEM 2019-049. Accessed: November 2022. Available online at: https://espis.boem.gov/final%20reports/BOEM_2019-049.pdf.
- DNREC (Delaware Department of Natural Resources and Environmental Control. 2014. Delaware Seashore State Park (brochure). Accessed: October 2022. Available online at: <https://destateparks.com/wwwroot/maps/delaware-seashore/DelawareSeashore.pdf>.
- DNREC (Delaware Department of Natural Resources and Environmental Control. 2022. Delaware Seashore State Park (webpage). Accessed: October 2022. Available online at: <https://destateparks.com/Beaches/DelawareSeashore>.
- DNREC (Delaware Department of Natural Resources and Environmental Control). N.d. Delaware State Parks: Find a Park or Attraction. Accessed: October 2022. Available online at: <https://destateparks.com/FindPark>.
- Ferguson, M.D., L.A. Ferguson, C.R. Mitchell, and T.L. Dooley, M.S. 2020. Assessing Recreationists' Perceptions of Offshore Wind Energy Development in New Hampshire: Final Report. Department of Recreation Management and Policy, The University of New Hampshire. February 5, 2020. Accessed: November 2022.
- Hutt, C. and G. Silva. 2019. Economic Contributions of Atlantic Highly Migratory Anglers and Tournaments, 2016. U.S. Department of Commerce, NOAA Tech. Memo. NMFS OSF 8, 44 p.
- IEEE (Institute of Electrical and Electronics Engineers). 2006. International Committee on Electromagnetic Safety (ICES). IEEE Standard for Safety Levels with Respect to Human Exposure to Electromagnetic Fields 0 to 3 kHz. Accessed: November 2022. Available online at: <https://ieeexplore.ieee.org/document/1626482>.
- ICNIRP (International Commission on Non-ionizing Radiation Protection). 2010. ICNIRP Guidelines for limiting exposure to time-varying electric and magnetic fields (1 Hz to 100 kHz). Accessed: November 2022. Available online at: <https://www.icnirp.org/cms/upload/publications/ICNIRPLFgdl.pdf>.
- Kirkpatrick, A.J., S. Benjamin, G. DePiper, T. Murphy, S. Steinback, and C. Demarest. 2017. Socio-Economic Impact of Outer Continental Shelf Wind Energy Development on Fisheries in the U.S. Atlantic. Volume 1-Report Narrative. Washington, D.C.: U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-012.
- Lutzeyer, S., D. J. Phaneuf, and L. O. Taylor. 2017. The Amenity Costs of Offshore Windfarms: Evidence from a Choice Experiment. (CEnREP Working Paper No. 17-017). Raleigh, NC: Center for Environmental and Resource Economic Policy. August 2017.

- MDNR (Maryland Department of Natural Resources). 2022. Assateague State Park. Available online at: <https://dnr.maryland.gov/publiclands/pages/eastern/assateague.aspx>.
- MSA (Maryland State Archives). 2022. Maryland at a Glance: Sports: Sailing. Accessed: November 2022. Available online at: <https://msa.maryland.gov/msa/mdmanual/01glance/sports/html/sailing.html>.
- NOAA (National Oceanic and Atmospheric Administration). 2022. Fisheries Economics of the United States, 2019. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-229A, 236 p. Accessed: November 2022. Available online at: https://media.fisheries.noaa.gov/2022-07/FEUS-2019-final-v3_0.pdf.
- NPS (National Park Service). 2022. Assateague Island: Things to do. Accessed: October 2022. Available at: <https://www.nps.gov/asis/planyourvisit/things2do.htm>.
- NROC (Northeast Regional Ocean Council). 2022. Northeast Ocean Data Portal. Accessed: November 2022. Available online at: www.northeastoceandata.org.
- Ocean City Tourism Department. 2022. Ocean City Facts. Accessed: November 2022. Available online at: <https://www.ococean.com/media>.
- Orr, T.L., S.M. Herz, and D.L. Oakley. 2013. Evaluation of Lighting Schemes for Offshore Wind Facilities and Impacts to Local Environments. Herndon, VA: Bureau of Ocean Energy Management, Office of Renewable Energy Programs. OCS Study BOEM 2013-0116. Accessed: February 2022. Available online at: <https://espis.boem.gov/final%20reports/5298.pdf>
- Parsons, G. and J. Firestone. 2018. Atlantic Offshore Wind Energy Development: Values and Implications for Recreation and Tourism. Sterling VA: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2018-013. 52 p.
- RTI International. 2020. National Recreational Boating Safety Survey: Participation Survey Final Report. Prepared for USCG Boating Safety Division. Accessed: January 2022. Available online at: <https://uscgboating.org/library/recreational-boating-survey/NRBSS-Participation-Survey-Final-Report-11302020.pdf>
- Smythe, T., H. Smith, A. Moore, D. Bidwell, and J. McCann. 2018. Analysis of the Effects of Block Island Wind Farm (BIWF) on Rhode Island Recreation and Tourism Activities. Sterling, VA: U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2018-068. Available online at: https://espis.boem.gov/final%20reports/BOEM_2018-068.pdf.
- Starbuck, K., and Andrew Lipsky. 2013. 2012 Northeast Recreational Boater Survey: A Socioeconomic and Spatial Characterization of Recreational Boating in Coastal and Ocean Waters of the Northeast United States. Technical Report Dec 2013. Doc #121.13.10. Boston, MA: SeaPlan. Doc #121.13.10. https://espis.boem.gov/final%20reports/BOEM_2018-068.pdf
- Town of Ocean City. 2023. Department of Engineering Pages: Beach Replenishment. Available at: <https://oceancitymd.gov/oc/departments/engineering/beach-replenishment/>. Accessed April 2023.

- UCI (Monmouth University Urban Coast Institute). 2016. The Mid-Atlantic Recreational Boater Survey, April 2016. Accessed: November 2022. Available online at: <https://www.monmouth.edu/uci/documents/2018/10/mid-atlantic-regional-boater-survey-april-2016.pdf/>.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.
- US Wind. 2023. Response to Supplemental Request for Information US Wind Draft Alternatives RFI, January 12, 2023; also 2023-02-05 Vessel summary RFI construction by port.
- Worcester County. 2006. The Comprehensive Development Plan, Worcester County, Maryland, March 14, 2006. Accessed: October 2022. Available online at: <https://www.co.worcester.md.us/newworcester/sites/default/files/departments/drp/finalcomp31406.pdf>.
- Worcester County Recreation and Parks. 2022. Parks and Facilities. Accessed: November 2022. Available online at: <https://worcesterrecandparks.org/parks>.

Chapter 3.6.9: Visual Resources

- Atlantic Shores. 2021. Atlantic Shores Offshore Wind Construction and Operations Plan Lease Area OCS-A 0499. Accessed: November 2022. Available online at: <https://www.boem.gov/renewable-energy/state-activities/atlantic-shores-offshore-wind-construction-and-operations-plan>.
- Capitol Airspace Group. 2023. US Wind Offshore Wind Project Aircraft Detection Lighting System (ADLS) Efficacy Analysis. March 31, 2023.
- FAA (Federal Aviation Administration). 2020. Obstruction Marking and Lighting. Advisory Circular AC 70/7460 1M. Effective 11/16/2020. Accessed: November 2022. Available online at: https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.current/documentnumber/70_7460_1.
- HDR. 2019. Field Observations during Wind Turbine Operations at the Block Island Wind Farm, Rhode Island. OCS Study BOEM 2019-028. Accessed: November 2022. Available online at: https://espis.boem.gov/final%20reports/BOEM_2019-028.pdf.
- Landscape Institute and Institute of Environmental Management & Assessment. 2016. Guidelines for Landscape and Visual Assessment. 3rd Edition. Spon Press. Accessed: November 2022. Available online at: <https://www.n-somerset.gov.uk/sites/default/files/2022-05/E1%20-%20GLVIA%203rd%20Edition.pdf>.

- Sullivan, R.G. 2021. Assessment of Seascape, Landscape, and Visual Impacts of Offshore Wind Energy Developments on the Outer Continental Shelf of the United States. Washington (DC): U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2021-032. 78 p. Accessed: November 2022. Available online at: <https://www.boem.gov/sites/default/files/documents/environment/environmental-studies/BOEM-2021-032.pdf>.
- US Wind. 2023. Construction and Operations Plan: Maryland Offshore Wind Project. July 2023. TRC Companies. Waltham (MA). 2 vols + appendices. <https://www.boem.gov/renewable-energy/state-activities/us-wind-construction-and-operations-plan>.