

HELEN R. BAILEY

Research Professor

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A. Education

- 2001 University of Oxford, St. Hilda's College, U.K. B.A. Hons. (Biological Sciences).
First class.
- 2002 University of Southampton, U.K. M.Sc. (Oceanography).
- 2006 University of Aberdeen, U.K. Ph.D. (Biological Sciences).
- 2006 University of Aberdeen, U.K. Postdoctoral Research Assistant.
- 2007-10 National Research Council Postdoctoral Research Associate, NOAA/NMFS
Southwest Fisheries Science Center, Environmental Research Division, U.S.A.

B. Appointments

- 2021 – present Research Professor, Chesapeake Biological Laboratory, University of Maryland
Center for Environmental Science (UMCES), U.S.A.
- 2016-2021 Research Associate Professor, Chesapeake Biological Laboratory, UMCES.
- 2010-16 Research Assistant Professor, Chesapeake Biological Laboratory, UMCES.
- 2009-10 Visiting Scientist, Chesapeake Biological Laboratory, UMCES.

C. Relevant Publications

H-index=28 (Publons: <https://publons.com/researcher/2728696/helen-bailey>)

1. Rodriguez, L. K., Fandel, A.D., Colbert, B.R., Testa, J.C. and Bailey, H. (2021) Spatial and temporal variation in the occurrence of bottlenose dolphins in the Chesapeake Bay, USA, using citizen science sighting data. *PLoS ONE* 16: e0251637.
2. Fandel, A. D., Garrod, A., Hoover, A. L., Wingfield, J. E., Lyubchich, V., Secor, D. H., Hodge, K. B., Rice, A. N. and Bailey, H. (2020) Effects of intense storm events on dolphin occurrence and foraging behavior. *Scientific Reports*, 10: 19247.
3. Wiernicki, C. J., Liang, D., Bailey, H. and Secor, D. H. (2020) The effect of swim bladder presence and morphology on sound frequency detection for fishes. *Reviews in Fisheries Science & Aquaculture*, 28: 459-477.
4. Bailey, H., Lyubchich, V., Wingfield, J., Fandel, A., Garrod, A., and Rice, A.N. (2019) Empirical evidence that large marine predator foraging behavior is consistent with area-restricted search theory. *Ecology*, 100: e02743.
5. Palacios, D.M., Bailey, H., Becker, E.A., Bograd, S.J., DeAngelis, M.L., Forney, K.A., Hazen, E.L., Irvine, L.M. and Mate, B.R., 2019. Ecological correlates of blue whale movement behavior and its predictability in the California Current Ecosystem during the summer-fall feeding season. *Movement ecology*, 7: 26.
6. Bailey, H., Hazen, E., Mate, B., Bograd, S.J., Irvine, L., Palacios, D.M., Forney, K.A., Howell, E., Hoover, A., DeWitt, L., Wingfield, J. and DeAngelis, M. (2018) Lessons learned from WhaleWatch: A tool using satellite data to provide near-real-time predictions of whale

- occurrence. Pages 229-273 in A.K. Leidner and G.M. Buchanan, editors. *Satellite Remote Sensing for Conservation Action*, Cambridge University Press, Cambridge, U.K.
7. Fouda, L., Wingfield, J. E., Fandel, A. D., Garrod, A., Hodge, K. B., Rice, A. N., and Bailey, H. (2018) Dolphins simplify their vocal calls in response to increased ambient noise. *Biology letters*, 14: 20180484.
 8. Garrod, A., Fandel, A. D., Wingfield, J. E., Fouda, L., Rice, A. N., and Bailey, H. (2018) Validating automated click detector dolphin detection rates and investigating factors affecting performance. *The Journal of the Acoustical Society of America*, 144: 931-939.
 9. Hazen, E. L., Scales, K. L., Maxwell, S. M., Briscoe, D. K., Welch, H., Bograd, S. J., Bailey, H., Benson, S. R., Eguchi, T., Dewar, H., Kohin, S., Costa, D. P., Crowder, L. B. and Lewison, R. L. (2018) A dynamic ocean management tool to reduce bycatch and support sustainable fisheries. *Science Advances*, 4: eaar3001.
 10. Hazen, E. L., D. Palacios, K. A. Forney, E. A. Howell, E. A. Becker, A. Hoover, L. Irvine, M. DeAngelis, S. J. Bograd, B. R. Mate, and H. Bailey (2017) WhaleWatch: a dynamic management tool for predicting blue whale density in the California Current. *Journal of Applied Ecology*, 54: 1415-1428.
 11. Wingfield, J.E., O'Brien, M., Lyubchich, V., Roberts, J.J., Halpin, P.N., Rice, A.N. and Bailey, H. (2017) Year-round spatiotemporal distribution of harbour porpoises within and around the Maryland wind energy area. *PLoS ONE*, 12: e0176653.
 12. Bailey, H. and Secor, D.H. (2016) Coastal evacuations by fish during extreme weather events. *Scientific Reports*, 6: 30280.
 13. Lewison, R., Hobday, A.J., Maxwell, S., Hazen, E. Hartog, J.R., Dunn, D.C., Briscoe, D., Fossette, S., O'Keefe, C.E., Barnes-Mauthe, M., Abecassi M., Bograd, S., Bethoney, N.D., Bailey, H., Wiley, D., Andrews S., Hazen, L. and Crowder L.B. (2015) Dynamic Ocean Management: Identifying the critical ingredients of dynamic approaches to ocean resource management. *BioScience*, 65: 486-498.
 14. Bailey, H., Brookes, K.L. and Thompson, P.M. (2014) Assessing environmental impacts of offshore wind farms: Lessons learned and recommendations for the future. *Aquatic Biosystems*, 10: 8. DOI:10.1186/2046-9063-10-8.
 15. Bailey, H., Hammond, P.S., Thompson, P.M. (2014) Modelling harbour seal habitat by combining data from multiple tracking systems. *Journal of Experimental Marine Biology and Ecology*, 450: 30-39.
 16. Bailey, H., Corkrey, R., Cheney B. and Thompson, P.M. (2013) Analyzing temporally correlated dolphin sightings data using generalized estimating equations. *Marine Mammal Science*, 29: 123-141.

D. Synergistic Activities

1. Received the President's Award for Excellence in Application of Science, May 2018.
2. Member of the U.S. National Academies of Sciences, Engineering and Medicine Committee on the Assessment of the Cumulative Effects of Anthropogenic Stressors on Marine Mammals, 2015-2016.
3. Member of the Strategic Advisory Panel of the Steering Committee for the Migratory Connectivity in the Ocean (MiCO) project.
4. Editor for the Ecological Society of America (ESA) journals *Ecology* and *Ecological Monographs*.