

Casey O'Hara

Bren School of Environmental Science & Management

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Education

PhD Environmental Science and Management (2022 expected) Bren School of Environmental Science & Management, University of California, Santa Barbara *Advisor: Dr. Benjamin Halpern*

Master of Environmental Science and Management (2014) Bren School of Environmental Science & Management, University of California, Santa Barbara *UCSB University Award of Distinction; Bren School Academic Achievement Award*

Single Subject Teaching Credential in Science, Physics (2004) Graduate School of Education, San Francisco State University

Master of Science in Mechanical Engineering Design (1994) Department of Mechanical Engineering, Design Division, Stanford University

Bachelor of Science in Mechanical Engineering (1993) Department of Mechanical Engineering, Stanford University

Experience

Project scientist, Ocean Health Index (January 2015 – present) National Center for Ecological Analysis and Synthesis - Santa Barbara, CA

AAAS Mass Media Science Fellowship (June 2014 - August 2014) *The Oregonian* - Portland, OR

Program Consultant (June 2013 - August 2013) The School for Examining Essential Questions of Sustainability (SEEQS) Charter School - Honolulu, HI

Masters Thesis Group Project (April 2013 - June 2014) UCSB Bren School - Santa Barbara, CA
“Offshore wind energy in the context of multiple ocean uses on the Bermuda platform.” Client: Department of Environmental Protection, Bermuda

See also *STEM Education and Engineering*

Working Groups

- **Species Vulnerability Working Group (OceanKind)** (February 2020) Matadradra Serua, Fiji
- **Coastal Outcomes Working Group (SNAPP)** (April 2019) National Center for Ecological Analysis and Synthesis - Santa Barbara, CA
- **Ocean Futures Working Group (SNAPP)** (July 2018) National Center for Ecological Analysis and Synthesis - Santa Barbara, CA

Relevant Technical Skills

- R/R Studio including spatial analysis, data visualization, package development, ShinyApps
- Git/GitHub
- MATLAB, Stata, C/C++, HTML, JavaScript, LaTeX
- ArcGIS, QGIS

Publications

- **O’Hara, Casey C.**, Courtney Scarborough, Karen L. Hunter, Jamie C. Afflerbach, Karin Bodtker, Melanie Frazier, Julia S. Stewart Lowndes, R. Ian Perry, and Benjamin S. Halpern. 2020. “Changes in Ocean Health in British Columbia from 2001 to 2016.” PLOS ONE 15 (1): e0227502. <https://doi.org/10.1371/journal.pone.0227502>.
- Friedman, Whitney R., Benjamin S. Halpern, Elizabeth McLeod, Michael W. Beck, Carlos M. Duarte, Carrie V. Kappel, Arielle Levine, ... **Casey O’Hara**, et al. 2020. “Research Priorities for Achieving Healthy Marine Ecosystems and Human Communities in a Changing Climate.” Frontiers in Marine Science 7. <https://doi.org/10.3389/fmars.2020.00005>.
- Halpern, Benjamin S., Melanie Frazier, Jamie Afflerbach, Julia S. Lowndes, Fiorenza Micheli, **Casey O’Hara**, Courtney Scarborough, and Kimberly A. Selkoe. 2019. “Recent Pace of Change in Human Impact on the World’s Ocean.” Scientific Reports 9 (1): 1–8. <https://doi.org/10.1038/s41598-019-47201-9>.
- Burgass, Michael J., E. J. Milner-Gulland, Julia S. Stewart Lowndes, **Casey O’Hara**, Jamie C. Afflerbach, and Benjamin S. Halpern. 2018. “A Pan-Arctic Assessment of the Status of Marine Social-Ecological Systems.” Regional Environmental Change, August. <https://doi.org/10.1007/s10113-018-1395-6>.
- Halpern, Benjamin S., Melanie Frazier, Jamie Afflerbach, **Casey O’Hara**, Steven Katona, Julia S. Stewart Lowndes, Ning Jiang, Erich Pacheco, Courtney Scarborough, and Johanna Polsenberg. 2017. “Drivers and Implications of Change in Global Ocean Health over the Past Five Years.” Edited by Athanassios C. Tsikliras. PLOS ONE 12 (7): e0178267. <https://doi.org/10.1371/journal.pone.0178267>.
- Lowndes, Julia S. Stewart, Benjamin D. Best, Courtney Scarborough, Jamie C. Afflerbach, Melanie R. Frazier, **Casey C. O’Hara**, Ning Jiang, and Benjamin S. Halpern. 2017. “Our Path to Better Science in Less Time Using Open Data Science Tools.” Nature Ecology & Evolution 1 (6): 0160. <https://doi.org/10.1038/s41559-017-0160>.
- **O’Hara, Casey C.**, Jamie C. Afflerbach, Courtney Scarborough, Kristin Kaschner, and Benjamin S. Halpern. 2017. “Aligning Marine Species Range Data to Better Serve Science and Conservation.” Edited by Robert Guralnick. PLOS ONE 12 (5): e0175739. <https://doi.org/10.1371/journal.pone.0175739>.

STEM Education and Engineering

Science Education Experience

- Program Consultant (June 2013 - August 2013) The School for Examining Essential Questions of Sustainability (SEEQS) Charter School - Honolulu, HI
- Science Teacher: Physics, Integrated Science, Engineering & Green Tech (August 2004 - June 2012) Carlmont High School - Belmont, CA
- Education Liaison (November 2009 - December 2009) Amundsen-Scott South Pole Station, Antarctica

Science Education Leadership and Honors

- “Where the Wonder Went” documentary short film, Santa Barbara International Film Festival (January 2014) Santa Barbara, CA
- Senior Fellow, Knowles Science Teaching Foundation (2009 - present) - Moorestown, NJ
- Teaching Fellow, Knowles Science Teaching Foundation (2004 - 2009) - Moorestown, NJ
- Exploratorium Teacher Institute (2004 - 2013) - San Francisco, CA
- Innovative Teacher of the Year (2011) Carlmont High School - Belmont, CA
- Amgen Award for Science Teaching Excellence (2011) Amgen Corporation
- National Board Certification (Science - Adolescent/Young Adult) (2009) National Board for Professional Teaching Standards

Engineering Experience

- Mechanical Engineer (May 2000 - December 2003) St. Jude Medical, Inc. - Sunnyvale, CA
- Mechanical Engineer (May 1997 - May 2000) Asyst Technologies (Hine Design) - Sunnyvale, CA
- Mechanical Engineer (August 1995 - April 1997) Applied Materials, Inc. - Santa Clara, CA
- Maintenance Engineer (August 1994 - August 1995) ATMEL Inc. - San Jose, CA