Dr. Melanie R. Fewings

Curriculum Vitae
November 2, 2023

College of Earth, Ocean, and Atmospheric Sciences (CEOAS), Oregon State University
104 CEOAS Administration Building, Corvallis, OR 97331-5503
melanie.fewings@oregonstate.edu

EDUCATION

Ph.D., Physical Oceanography, GPA 5.0/5.0 — 2007
Massachusetts Institute of Technology/Woods Hole Oceanographic Institution

M.S., Applied Physics, GPA 3.9/4.0 — 1999
Cornell University

B.S., Physics with Honors, *magna cum laude*, GPA 3.9/4.0 — 1996
Western Washington University

Intensive Courses and Study Institutes

Estuarine and Coastal Fluid Dynamics, Friday Harbor Laboratories	2003
NATO Advanced Study Institute: The Ocean Carbon Cycle and Climate, Ankara	2002
Biophysics of Cellular Machinery, Simon Fraser University	1998
Metal Machining, Cornell University	1997

PROFESSIONAL EXPERIENCE

Associate Professor — 2018–present
Oregon State University, College of Earth, Ocean, and Atmospheric Sciences

Associate Professor with Tenure — 2018
University of Connecticut, Department of Marine Sciences

Assistant Professor — 2012–2018
University of Connecticut, Department of Marine Sciences

Assistant Research Oceanographer III (Principal Investigator) — 2010–2012
University of California, Santa Barbara, Marine Science Institute

Lecturer — 2009
University of California, Santa Barbara, Department of Geography

Assistant Specialist III (Postdoctoral Researcher) — 2007–2010
University of California, Santa Barbara, Marine Science Institute

Research Associate II — 2000–2001
Woods Hole Oceanographic Institution, Department of Physical Oceanography

Visiting Instructor of Physics (full-time sabbatical leave replacement) — 1999–2000
Wells College, Department of Mathematical and Physical Sciences

AWARDS AND HONORS

Invited Speaker, David Chapman Lecture Series on Coastal Ocean Processes, Woods Hole Oceanographic Institution	2023
Keynote Speaker, Gordon Research Seminar on Coastal Ocean Dynamics	2019
Editors' Citation for Excellence in Refereeing, *Geophysical Research Letters*	2016
Provost's Commendation for Excellence in Teaching	2016
MPOWIR Speaker Series, NASA Jet Propulsion Laboratory	2011
Ruth and Paul Fye Award for Excellence in Oceanographic Research (WHOI award: Best Student Paper in Physical Oceanography in 2006–2010)	2010
NASA Earth System Science Graduate Student Fellowship	2004–2007
Outstanding Student Paper Award, Ocean Sciences Meeting	2006
Clare Boothe Luce Graduate Fellowship	2001–2002
National Science Foundation Graduate Fellowship	1996–1999
Western Washington University (WWU) Honor Roll and President's List	1992–1996
WWU Physics and Astronomy Departmental Scholarship	1995–1996
WWU Summer Stock Scholarship	1993
WWU Presidential Scholar Award	1992–1993
Jeld-Wen Scholarship	1992–1993
WWU Mathematics Memorial Scholarship	1992–1993
Robert C. Byrd Honors Scholarship	1992–1993

PUBLICATIONS

(Symbols indicate a ***student, **postdoc, or *other Fewings Lab member, or a ††student or †postdoc collaborator from another lab.)

Submitted, Under Review, or In Revision

*Cervantes, B. T., **Fewings, M. R.**, and *Risien, C. M. Subsurface temperature anomalies off central Oregon during 2014-2021. Under review at *Journal of Geophysical Research: Oceans*. — *under review*

***Fogarty, M. C., **Fewings, M. R.**, Tobias, C., and Edson, J. B. Vertical air-marsh carbon dioxide fluxes in a temperate mesotidal salt marsh. In revision for *Estuaries and Coasts*. — *in revision*

Published, In Press, or Accepted

Amaya, D., Jacox, M., **Fewings, M. R.**, Saba, V., Stuecker, M., Rykaczewski, R., Ross, A., Stock, C., Capotondi, A., Petrik, C., Bograd, S., Alexander, M., Cheng, W., Hermann, A., Kearney, K., and Powell, B. Marine heatwaves need clear definitions so coastal communities can adapt. *Nature*, **616**, 29-32, doi:10.1038/d41586-023-00924-2. — 2023

2023 ††Lane, M. K., Fehrenbacher, J. S., Fisher, J. L., **Fewings, M. R.**, Crump, B. C., *Risien, C. M., ††Meyer, G. M. L, and ††Schell, F. Planktonic foraminiferal assemblages reflect warming during two recent mid-latitude marine heatwaves. *Frontiers in Marine Science*, 10:1155761, doi:10.3389/fmars.2023.1155761.

2023 *Risien, C. M., *Cervantes, B. T., **Fewings, M. R.**, Barth, J. A., and Kosro, P. M. A stitch in time: Combining more than two decades of mooring data from the central Oregon shelf. *Data in Brief*, 48, 109041, doi:10.1016/j.dib.2023.109041. (Below, note accompanying data set published on Zenodo.)

2023 Moulton, M., Suanda, S. H., Garwood, J. C., Kumar, N., **Fewings, M. R.**, and Pringle, J. Exchange of plankton, pollutants, and particles across the nearshore region. *Annual Review of Marine Science*, 15:1, 167–202, doi:10.1146/annurev-marine-032122-115057.

2022 ***Cooley, K., **Fewings, M. R.**, Lerczak, J., O'Neill, L. W., and Brown, K. S. Dominant contributors to mixed layer temperature changes during summer marine heat waves in the Chile-Peru Current System. *Journal of Geophysical Research: Oceans*, 127, e2021JC018338, doi:10.1029/2021JC018338.

2022 *Risien, C. M., **Fewings, M. R.**, Fisher, J. L., Peterson, J.O., and Morgan, C.A. Spatially gridded cross-shelf hydrographic sections and monthly climatologies from shipboard survey data collected along the Newport Hydrographic Line, 1997–2021. *Data in Brief*, *41*, 107922, doi:10.1016/j.dib.2022.107922. (Below, note accompanying data set published on Zenodo.)

2021 **McSweeney, J. M., **Fewings, M. R.**, Lerczak, J. L., and Barth, J. B. The evolution of a northward-propagating buoyant coastal plume after a wind relaxation event. *Journal of Geophysical Research: Oceans*, *126*, e2021JC017720, doi:10.1029/2021JC017720.

2021 ††Howard, R. A., Ciannelli, L., Wakefield, W. W., and **Fewings, M. R.** The effects of climate, oceanography, and habitat on the distribution and abundance of northern California Current continental shelf groundfishes. *Fisheries Oceanography*, 30(6), 707–725, doi:10.1111/fog.12553.

2019 **Fewings, M. R.** and Brown, K. S. Regional structure in the marine heat wave of summer 2015 off the western United States. *Frontiers in Marine Science*, 6(564), doi:10.3389/fmars.2019.00564.

2019 Bourassa, M.A., Meissner, T., Cerovecki, I., Chang, P.S., Dong, X., De Chiara, G., Donlon, C., Dukhovskoy, D.S., Elya, J., Fore, A., **Fewings, M. R.**, Foster, R.C., Gille, S.T., Haus, B.K., Hristova-Veleva, S., Holbach, H.M., Jelenak, Z., Knaff, J.A., Kranz, S.A., Manaster, A., Mazloff, M., Mears, C., Mouche, A., Portabella, M., Reul, N., Ricciardulli, L., Rodriguez, E., Sampson, C., Solis, D., Stoffelen, A., Stukel, M.R., Stiles, B., Weissman, D., and Wentz, F. Remotely sensed winds and wind stresses for marine forecasting and ocean modeling. *Frontiers in Marine Science*, 6(443), doi:10.3389/fmars.2019.00443.

††Villas Bôas, A.B., Ardhuin, F., Ayet, A., Bourassa, M.A., Brandt, P., Chapron, B., Cornuelle, B.D., Farrar, J.T., **Fewings, M. R.**, Fox-Kemper, B., Gille, S.T., Gommenginger, C., Heimbach, P., Hell, M.C., Li, Q., Mazloff, M.R., Merrifield, S.T., Mouche, A., Rio, M.H., Rodriguez, E., Shutler, J.D., Subramanian, A.C., Terrill, E.J., Tsamados, M., Ubelmann, C., and van Sebille, E. Integrated observations of global surface winds, currents, and waves: requirements and challenges for the next decade. *Frontiers in Marine Science*, 6:425, doi:10.3389/fmars.2019.00425. 2019

***Fogarty, M. C., **Fewings, M. R.**, †Paget, A. C., and Dierssen, H. M. The influence of a sandy substrate, seagrass, or highly turbid water on albedo and surface heat flux. *Journal of Geophysical Research: Oceans*, 123, 53–73, doi:10.1002/2017JC013378. 2018

Aristizábal, M. F., **Fewings, M. R., and Washburn, L. Effects of the relaxation of upwelling-favorable winds on the diurnal and semidiurnal water temperature fluctuations in the Santa Barbara Channel, California. *Journal of Geophysical Research: Oceans*, 122, 7958–7977, doi:10.1002/2017JC013199. 2017

Fewings, M. R. Large-scale structure in wind forcing over the California Current System in summer. *Monthly Weather Review*, 145(10), 4227–4247, doi:10.1175/MWR-D-17-0106.1. 2017

***Flynn, K. R., **Fewings, M. R.**, Gotschalk, C., and Lombardo, K. Large-scale anomalies in sea-surface temperature and air-sea fluxes during wind relaxation events off the United States West Coast in summer. *Journal of Geophysical Research: Oceans*, 122, 2574–2594, doi:10.1002/2016JC012613. 2017

††Manning, C. C., R. Stanley, D. Nicholson, J. Smith, J. T. Pennington, **Fewings, M. R.**, M. Squibb, and F. Chavez. Impact of recently upwelled water on productivity investigated using in situ and incubation-based methods in Monterey Bay. *Journal of Geophysical Research: Oceans*, 122, 1901–1926, doi:10.1002/2016JC012306. 2017

Gentemann, C., **Fewings, M. R.,** and Garcia-Reyes, M. Satellite sea surface temperatures along the West Coast of the United States during the 2014–2016 northeast Pacific marine heat wave. *Geophysical Research Letters*, 43, 312–319, doi:10.1002/2016GL071039. Cover article. 2017

†Suanda, S., †Kumar, N., Miller, A., Di Lorenzo, E., Haas, K., Cai, D., Edwards, C., Washburn, L., **Fewings, M. R.**, Torres, R., and Feddersen, F. Wind relaxation and a coastal buoyant plume north of Pt. Conception, CA: Observations, simulations, and scalings. *Journal of Geophysical Research: Oceans*, 121, 7455-7475, doi:10.1002/2016JC011919. 2016

Fewings, M. R., Washburn, L., Dorman, C. E., Gotschalk, C., and Lombardo, K. Synoptic forcing of wind relaxations at Pt. Conception, California. *Journal of Geophysical Research: Oceans*, 121, 5711–5730, doi:10.1002/2016JC011699. 2016

Aristizábal, M. F., **Fewings, M. R., and Washburn, L. Contrasting spatial patterns in the diurnal and semidiurnal temperature variability in the Santa Barbara Channel, California. *Journal of Geophysical Research: Oceans*, 121, 427–440, doi:10.1002/2015JC011239. 2016

Fewings, M. R., L. Washburn, and J. Carter Ohlmann. Coastal water circulation patterns around the Northern Channel Islands and Point Conception, California. *Progress in Oceanography*, 138, Part A, 283–304, doi:10.1016/j.pocean.2015.10.001. 2015

Leichter, J. J. (following authors are listed alphabetically), Alldredge, A. L, Bernardi, G., Carlson, C. A., Carpenter, R. C., Edmunds, P. J., **Fewings, M. R.**, Hanson, K. M., Holbrook, S. J., Hench, J. L., Nelson, C. E., Schmitt, R. J., Toonen, R. J., Washburn, L., and Wyatt, A. S. J. Investigating transport and retention on a tropical island coral reef. *Oceanography,* 26(3), 52–63, doi:10.5670/oceanog.2013.45. 2013

Ohlmann, J. C., **Fewings, M. R.** and Melton, C. Lagrangian observations of inner-shelf motions in Southern California: Can surface waves decelerate shoreward moving drifters just outside the surf zone? *Journal of Physical Oceanography* 42, 1313–1326, doi:10.1175/JPO-D-11-0142.1. 2012

Lentz, S. J. and **Fewings, M. R.** The wind- and wave-driven inner-shelf circulation. *Annual Review of Marine Science,* 4, 317-43, doi:10.1146/annurev-marine-120709-142745. 2012

Washburn, L., **Fewings, M. R.**, Melton, C. and Gotschalk, C. The propagating response of coastal circulation due to wind relaxations along the central California coast. *Journal of Geophysical Research: Oceans,* 116, C12028, doi:10.1029/2011JC007502. 2011

Fewings, M. R. and Lentz, S. J. Summertime cooling of the shallow continental shelf. *Journal of Geophysical Research: Oceans,* 116, C07015, doi:10.1029/2010JC006744. 2011

Fewings, M. R. and Lentz, S. J. Momentum balances on the inner continental shelf at Martha's Vineyard Coastal Observatory. *Journal of Geophysical Research: Oceans,* 115, C12023, doi:10.1029/2009JC005578. 2010

Fewings, M. R., Lentz, S. J., and Fredericks, J. Observations of cross-shelf flow driven by cross-shelf winds on the inner continental shelf. *Journal of Physical Oceanography,* 38, 2358–2378, doi:10.1175/2008JPO3990.1. 2008

Lentz, S. J., **Fewings, M. R.**, Fredericks, J., Howd, P., and Hathaway, K. K. Observations and a model of undertow over the inner continental shelf. *Journal of Physical Oceanography,* 38, 2341–2357, doi:10.1175/2008JPO3986.1. 2008

Fewings, M. R. and Gaeta, A. L. Compensation of pulse distortions by phase conjugation via difference-frequency generation. *Journal of the Optical Society of America B*, 17, 1522–1525, doi:10.1364/JOSAB.17.001522. 2000

PUBLISHED CODE

Moulton, M., Suanda, S. H., Garwood, J. C., Kumar, N., **Fewings, M. R.**, and Pringle, J. Nearshore-exchange toolbox. On Zenodo. doi:10.5281/zenodo.6816226 (Note accompanying *Annual Review of Marine Science* article above: Moulton et al. 2023.) — 2022

PUBLISHED DATA SETS

(Symbols indicate a ***student, **postdoc, or *other Fewings Lab member, or a ††student or †postdoc collaborator from another lab.)

*Risien, C. M., *Cervantes, B. T., **Fewings, M. R.**, Barth, J. A., and Kosro, P. M. A stitch in time: Combining more than two decades of mooring data from the central Oregon shelf. On Zenodo. doi:10.5281/zenodo.7582475 (Note accompanying *Data in Brief* article above.) — 2022

*Risien, C. M., **Fewings, M. R.**, and Fisher, J. L., Peterson, J.O., Morgan, C.A., and Peterson, W. Spatially gridded cross-shelf hydrographic sections and monthly climatologies from shipboard survey data collected along the Newport Hydrographic Line, 1997–2021. On Zenodo. doi:10.5281/zenodo.5814071 (Note accompanying *Data in Brief* article above.) — 2022

GRANTS AND CONTRACTS

(Symbols indicate a *Faculty Research Assistant or Research Associate in the Fewings Lab)

Active grants and contracts:

NOAA Climate Program Office — 2023–2025
Task Force Co-Lead Supplement to: Variability of Subsurface Water Masses in the Olympic Coast National Marine Sanctuary — $46,104
PI: **M. Fewings**

NASA / Jet Propulsion Laboratory — 3/2023–9/24
Strategy for developing new coastal upwelling and circulation indices using satellite data — $55,000
PI: **M. Fewings**

Murdock Charitable Trust — 2022–2025
Autonomous multibeam mapping system for routine and extreme ocean environments — $517,500
PI: M. Wengrove; other investigators: J. Nash, G. Wilson, M. Haller, J. Lerczak, **M. Fewings**, P. Ruggiero, E. Pettit, C. Parrish, B. Robertson

NOAA Climate Program Office FY2022 Competition 4 COM/MAPP/CSI — 2022–2025
Variability of subsurface water masses in the Olympic Coast National Marine Sanctuary — $524,918
PI: M. Fewings, Co-PIs: *****B. Cervantes, *****C. Risien

NSF Physical Oceanography — 2021–2024
Career-Life Balance Supplemental Funding Request (to support family leave for postdoc; awarded as supplement to existing NSF PO grant on water temperature in estuaries below; new total $872,283) — $72,376
PI: M. Fewings, Co-PI: J. Lerczak

NASA Ocean Surface Topography Science Team — 2021–2025
Altimetric Studies of the "Oceanic Pathways" in the Northeast Pacific Ocean — $863,675
PI: P. T. Strub, **Co-Is: M. Fewings**, R. Matano

NASA Ocean Vector Winds Science Team — 2020–2024
Marine heat waves in the Bering Sea and Gulf of Alaska during 2019–present (awarded as a supplement to existing NASA grant 2018–2022 listed below; new total $963,896) — $227,760
PI: M. Fewings; Co-I: C. Moffat (U. Delaware)

NSF Physical Oceanography — 2020–2024
Water temperature in estuaries: river and ocean influences, effects of surface heat flux, and dynamical role of temperature stratification — $799,907
PI: M. Fewings, Co-PI: J. Lerczak

NASA Ocean Vector Winds Science Team
Marine heat waves in midlatitude regions: Spatial structure, persistence, and the role of the wind dipole mode off eastern ocean boundaries — 2018–2024 $736,136
PI: M. Fewings, Co-I: C. Moffat (U. Delaware)

Previous grants and contracts:

NOAA/UW/OSU/UAF Cooperative Institute for Climate, Ocean, and Ecosystem Studies (CICOES) — 2020–2022 $38,267
North Pacific momentum and heat flux variability: a bridge between ocean and atmosphere
PI: J. Wettstein; **Co-PIs: M. Fewings,** L. O'Neill, N. Bond (CICOES); NOAA partner: M. Litzow.

NOAA Climate Observations and Monitoring Program — 2017–2021
Indices of climate variability and climate change using long-term physical and ecological ocean observations from the northern California Current — $213,448
PI: M. Fewings *(Note: original PI was Michael Banks with Co-PI William Peterson. PI role transferred to Fewings in December 2018.)*

NASA / Jet Propulsion Laboratory — 2019–2020
Wind stress climatology and anomalies along the U.S. East Coast from Coastal QuikSCAT v4.0 — $48,165
PI: M. Fewings

University of Connecticut Research Excellence Program — 2016–2018
Diurnal and Tidal Variations in Heating, Wind Stress, and Carbon Fluxes from a Subtropical Marsh: Does Uptake of Carbon Dioxide by Marshes Depend on the Timing of Low Tide Relative to Local Noon? — $50,000
PI: M. Fewings; Co-PIs C. Tobias, J. Edson

NASA / Jet Propulsion Laboratory — 2016–2018
Using RapidSCAT Ocean Vector Winds to Understand the Origin of Ocean Temperature Extremes off U.S. Coasts — $230,000
PI: M. Fewings, Co-I: K. Brown

NASA Ocean Vector Winds Science Team, — 2010–2017
Satellite and land-based remote sensing of atmospheric wind relaxations and the oceanic response in the California Current Large Marine Ecosystem — $634,694
PI: M. Fewings; Co-Is: L. Washburn, C. Dorman

NSF Physical Oceanography — 2010–2015
The influence of coastal-trapped waves on the inner continental shelf: temperature and circulation patterns — $376,868
PI: M. Fewings; Co-PI: L. Washburn

INVITED PRESENTATIONS

Invited Conference Presentations (Talks) and Webinars

Panelist, National Academy of Sciences, Engineering, and Medicine: Information-Gathering Meeting for National Science Foundation Decadal Survey of Ocean Sciences, Portland, OR — 2023

US CLIVAR Summit, Phenomena, Observations, and Synthesis Panel, Seattle, WA (virtual) — 2023

US Global Change Research Program, Observations Interagency Working Group Webinar Series, Marine Heat Waves (NOAA and NASA) (virtual) — 2021

Keynote Talk, American Meteorological Society Air-Sea Interaction Conference/AMS Annual Meeting (virtual) — 2021

Keynote Talk, Ocean Surface Topography Science Team Workshop, Chicago, IL — 2019

Keynote Talk, Gordon Research Seminar on Coastal Ocean Dynamics Southeastern New Hampshire University, NH — 2019

Coastal Scatterometry Working Group Overview, International Ocean Vector Winds Science Team (IOVWST) Workshop, Barcelona, Spain — 2018

Coastal Scatterometry Working Group Overview, IOVWST Workshop, Scripps Institution of Oceanography, San Diego, CA 2017

Coastal Scatterometry Working Group Overview, IOVWST Workshop, Institute of Low Temperature Science, Hokkaido University, Japan 2016

Coastal Scatterometry Working Group Overview, IOVWST Workshop, Portland, OR 2015

Coastal Scatterometry Working Group Overview, IOVWST Workshop, IFREMER, Brest, France 2014

Gordon Research Conference on Coastal Ocean Circulation, New London, NH 2009

Invited Seminars

David Chapman Lecture Series on Coastal Ocean Processes, Woods Hole Oceanographic Institution, Woods Hole, MA 2023

Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Ocean Ecology and Biogeochemistry Seminar, Corvallis, OR 2019

Hatfield Marine Science Center, Newport, OR 2018

Woods Hole Oceanographic Institution, Dept. of Applied Ocean Physics and Engineering, Woods Hole, MA 2018

University of Delaware, School of Marine Science and Policy, Newark, DE 2018

University of Rhode Island, Graduate School of Oceanography, Kingston, RI 2017

Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Physics of Oceans and Atmospheres Seminar, Corvallis, OR 2017

United States Coast Guard Academy, New London, CT 2017

Mystic Aquarium Ridgway Research Seminar, Mystic, CT 2015

Rutgers University, Institute of Marine and Coastal Science, New Brunswick, NJ 2014

University of Rhode Island, Graduate School of Oceanography, Kingston, RI 2013

University of Massachusetts Dartmouth, Department of Estuarine and Ocean Sciences, Dartmouth, MA 2013

University of Connecticut, Avery Point, Department of Marine Sciences, Groton, CT 2012

Yale University, Department of Geology and Geophysics, New Haven, CT 2012

Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Corvallis, OR 2011

Naval Postgraduate School, Monterey, CA 2011

University of Connecticut, Avery Point, Department of Marine Sciences, Groton, CT 2011

NASA Jet Propulsion Laboratory, Pasadena, CA 2011

Oregon State University, College of Earth, Ocean, and Atmospheric Sciences, Corvallis, OR 2010

University of California, San Diego, Scripps Institution of Oceanography, San Diego, CA 2009

Stanford University, Department of Civil and Environmental Engineering, Palo Alto, CA 2008

University of California, Los Angeles, Department of Atmospheric and Oceanic Sciences, Los Angeles, CA 2008

University of California, Santa Barbara, Marine Science Institute, Santa Barbara, CA 2007
Oregon State University, College of Oceanic and Atmospheric Sciences, Corvallis, OR 2006
University of Connecticut, Avery Point, Department of Marine Sciences, Groton, CT 2005

CONTRIBUTED PRESENTATIONS (only first-author presentations are listed)

Conference Talks

Eastern Pacific Ocean Conference, Stanford Sierra Conference Center, Fallen Leaf Lake, South Lake Tahoe, CA 2023
Eastern Pacific Ocean Conference, Timberline Lodge, OR 2022
Ocean Sciences Meeting (virtual) 2022
NSF Ocean Observatories Initiative Facilities Board Town Hall (Lightning Talk), Ocean Sciences Meeting (virtual) 2022
International Ocean Vector Winds (IOVWST) Workshop, Portland, ME 2019
IOVWST Workshop, Barcelona, Spain 2018
Workshop on Waves and Currents Measurement from Satellite, San Diego, CA 2018
Eastern Pacific Ocean Conference, Stanford Sierra Conference Center, Fallen Leaf Lake, South Lake Tahoe, CA 2017
IOVWST Workshop, Scripps Institution of Oceanography, San Diego, CA 2017
Eastern Pacific Ocean Conference, Timberline Lodge, OR (2 talks) 2016
IOVWST Workshop, Institute of Low Temperature Science, Hokkaido University, Japan 2016
IOVWST Workshop, Portland, OR 2015
ASLO Aquatic Sciences Meeting, Granada, Spain 2015
New England Estuarine Research Society Fall Meeting, Groton, CT 2014
Middle Atlantic Bight Physical Oceanography and Meteorology Meeting, University of Rhode Island, Kingston, RI 2013
Middle Atlantic Bight Physical Oceanography and Meteorology Meeting, Groton, CT 2012
International Ocean Vector Winds Science Team Meeting, Annapolis, MD 2011
American Geophysical Union (AGU) Fall Meeting, San Francisco, CA 2010
Mo'orea Coral Reef LTER All-Investigators' Meeting, Santa Barbara, CA 2010
Eastern Pacific Ocean Conference, Timberline Lodge, OR 2010
Pattullo Conference (MPOWIR), Charleston, SC 2010
Physical Oceanography Dissertation Symposium (PODS), Honolulu, HI 2008
Eastern Pacific Ocean Conference, Stanford Sierra Camp, CA 2008
Eastern Boundary Upwelling Ecosystems Symposium, Las Palmas, Spain 2008
Pattullo Conference (MPOWIR), Charleston, SC 2008
Middle Atlantic Bight Physical Oceanography Meeting, University of North Carolina, Chapel Hill, Chapel Hill, NC 2006
Eastern Pacific Ocean Conference, Timberline Lodge, OR 2006

Physics of Estuaries and Coastal Seas, Astoria, OR 2006
AGU Ocean Sciences Meeting, Honolulu, HI 2006
AGU Fall Meeting, San Francisco, CA 2004
Middle Atlantic Bight Physical Oceanography Meeting, Virginia Inst. Marine Science 2004
AGU Ocean Sciences Meeting, Portland, OR 2004

Conference Posters

Gordon Research Conference on Coastal Ocean Dynamics, Bryant University, Smithfield, RI 2023
NASA / International Ocean Vector Winds (IOVWST) Workshop (virtual) 2021
AGU/ASLO Ocean Sciences Meeting, San Diego, CA 2020
Eastern Pacific Ocean Conference, Stanford Sierra Conference Center, Fallen Leaf Lake, South Lake Tahoe, CA 2019
Gordon Research Conference on Coastal Ocean Dynamics, Southern New Hampshire University, Manchester, NH 2019
IOVWST Workshop, Portland, ME 2019
NASA Coupled Ocean Surface Variables Workshop, Seattle, WA 2018
AGU/ASLO Ocean Sciences Meeting, Portland, OR 2018
Gordon Research Conference on Coastal Ocean Modeling, U. New England, ME 2017
Forum for Arctic Modeling and Observational Synthesis, WHOI, Woods Hole, MA 2016
NASA Coupled Ocean Surface Variables Workshop, Applied Physics Lab, Seattle, WA 2016
AGU/ASLO Ocean Sciences Meeting, New Orleans, LA 2016
Gordon Research Conference on Coastal Ocean Modeling, U. New England, ME 2015
Open Meeting of the Atmospheric Sciences Group, University of Connecticut, Storrs 2014
Greater Long Island Sound Environmental Network Meeting, U. of Connecticut, Groton, CT 2013
Gordon Research Conference on Coastal Ocean Circulation, U. New England, ME 2013
International Ocean Vector Winds Science Team Meeting, Kailua-Kona, HI 2013
ThinkSpatial Forum, University of California, Santa Barbara, CA 2010
AGU Ocean Sciences Meeting, Portland, OR 2010
AGU Fall Meeting, San Francisco, CA 2008
AGU Ocean Sciences Meeting, Orlando, FL 2008
Gordon Research Conference on Coastal Ocean Circulation, New London, NH 2005

Contributed Departmental/College Talks

CEOAS Winter Undergraduate Research Mixer 2019
CEOAS Fall Undergraduate Research Mixer 2018
University of Connecticut, Avery Point, Department of Marine Sciences Seminar 2017
University of California, Santa Barbara, SBC-LTER Seminar Series 2010

Woods Hole Oceanographic Institution, Coastal Ocean Fluid Dynamics Laboratory	2009
University of California, Santa Barbara, Inst. for Computational Earth System Science	2008
Woods Hole Oceanographic Institution, Department of Physical Oceanography	2007
MIT, Dept. of Earth, Atmospheric, Planetary Sciences	2007
Woods Hole Oceanographic Institution, Coastal Ocean Fluid Dynamics Laboratory	2005

FIELD EXPERIENCE

R/V Connecticut, Thames River, Connecticut: Class trips, 1-3/year, ~12-20 students. CTD, ADCP; sediment grab; multi-corer; light samples. **Chief Scientist: M. R. Fewings.**	2012–2017
Richard B. Gump South Pacific Research Station SAFE boat Mo'orea, French Polynesia: conductivity-temperature-depth (CTD) stations	2010
R/V Shearwater, Santa Barbara Channel: CTD stations, Bongo net tows	2008
R/V Cape Henlopen, Cape Hatteras: Scanfish CTD and ADCP tows	2004
R/V Tioga, Martha's Vineyard Coastal Observatory, Middle Atlantic Bight Mooring deployment. **Chief Scientist: M. R. Fewings.**	2004
R/V Connecticut, Middle Atlantic Bight: Mooring recovery	2003
R/V Centennial, Puget Sound: CTD casts; tow-yo; dye, drifter releases; moorings	2003
R/V Pelican, Gulf of Mexico: Water sampling, filtering, mapping of hypoxic area	2002
R/V Gulf Challenger, Massachusetts Bay: Water sampling, zooplankton samples	2001
R/V Melville, Eastern South Pacific: Mooring deployment for STRATUS program	2001
R/V Asterias, Middle Atlantic Bight: CTD, fluorometer, and scatterometer casts	2001

CLASSES TAUGHT

At Oregon State University

OEAS 515X: Scientists As Writers (grad) - 14 students	Winter 2023
OEAS 515X: Scientists As Writers (grad) - 15 students	Spring 2022
OEAS 515X: Scientists As Writers (grad) - 25 students	Spring 2021
OC 682: Data Analysis in the Space and Time Domains (grad) - 21 students	Spring 2020

At University of Connecticut

MARN 2002: Marine Sciences I (undergrad)	Spring 2018
MARN 3001: Marine Sciences II (undergrad)	Fall 2017
MARN 3001: Marine Sciences II (undergrad)	Fall 2016
MARN 2002: Marine Sciences I (undergrad)	Spring 2016
MARN 3001: Coastal Systems Science II (undergrad)	Fall 2015
MARN 5898: Coastal Ocean Physics (grad)	Spring 2015
MARN 3001: Coastal Systems Science II (undergrad)	Fall 2014
MARN 2002: Coastal Systems Science I (undergrad)	Spring 2014
MARN 3001: Coastal Systems Science II (undergrad)	Fall 2013

MARN 2002: Coastal Systems Science I (undergrad) Spring 2013

At University of California, Santa Barbara

GEOG 104: Physical Geography of the World's Oceans (undergrad) Fall 2009

At Wells College, Aurora, NY

Introduction to Modern Physics (undergrad) Spring 2000
Fundamentals of Physics II with laboratory (undergrad) Spring 2000
Fundamentals of Physics I with laboratory (undergrad) Fall 1999
Fundamentals of Physics III with laboratory (undergrad) Fall 1999

STUDENTS AND POSTDOCS ADVISED

At Oregon State University

(OEAS = Ocean, Earth, and Atmospheric Sciences graduate program;
POA = Physics of Oceans and Atmospheres disciplinary group in CEOAS)

Postdocs

Jacqueline (Jack) McSweeney, Research Associate (Postdoc), POA, 2020–2022
now a tenure-track Assistant Professor at Stony Brook University

Graduate students

Current students:

Andrew Scherer (advisor), OEAS/Physical Oceanography 2022–present

Previous students:

Kylene Cooley (co-advisor), OEAS/Physical Oceanography, MS 2021 2019–2021
now Research Associate, Woods Hole Oceanographic Institution, Ocean Observatories Initiative Coastal and Global Scale Nodes Data Team

Emily Hayden (advisor), OEAS/Physical Oceanography, MS 2021 2019–2021
now PhD student at OSU

Sam Greydanus (co-advisor), OEAS/Physical Oceanography, Fall 2019 2019
now Lead Machine Learning Scientist at Windscape AI

Graduate thesis advisory committees

Ian Black, OEAS/OEB, *PhD student* 2023–present
Miranda Mayhall (Imogen Lucciano), Wildlife Science, *MS student* 2022–present
Rachel Kaplan, OEAS/OEB, *PhD student* 2022–present
Cassidy Wagner, OEAS/POA, *PhD student* 2022–present
Rebecca Howard, OEAS/OEB, *PhD student* 2022–present
(Mary) Kelsey Lane, OEAS/OEB, *PhD student* 2021–present
Margaret Conley, OEAS/Physical Oceanography, *PhD student* 2020–present
Jennifer Fisher, Fisheries Science, *PhD student* 2019–present
Rebecca Howard, Marine Resource Management, MS 2020 2019–2020
now PhD student at OSU

(Mary) Kelsey Lane, Marine Resource Management, MS 2020 — 2019–2020
now PhD student at OSU

Anna Ballasiotes, Geography, MS 2020 — 2019–2020
now Geospatial Analyst at Conservation International

Undergraduate researchers

Julian Loesch, via Undergrad Research, Scholarship, and the Arts (URSA) — 2023

Caeli Griffin, OSU Courtesy Student (senior at Gonzaga University) — 2022

Carly Werdel, Earth Sciences major, freshman — 2019

Allison Krein, Earth Sciences major, junior — 2019

At University of Connecticut

Postdocs

Maria Aristizábal, UConn Postdoctoral Fellow, — 2013–2015
now a Hurricane Modeler at NOAA Environmental Modeling Center

Graduate students

Michelle Fogarty, Oceanography, PhD 2018, — 2013–2018
now Environmental Survey Manager at Equinor, CT

Kayla Flynn Tinker, Oceanography, MS 2016, — 2014–2016
now Meteorologist – Sea Ice Specialist at National Weather Service, Anchorage, AK

Thesis advisory committees

Qiang Sun, Oceanography, PhD 2019, — 2015–2018
now a postdoctoral fellow at Tulane University, LA

Tristan Kading, Oceanography, MS 2017 — 2016–2017

SERVICE ACTIVITIES

International Service

Coastal Scatterometry Working Group Leader, NASA / International Ocean Vector Winds Science Team — 2014–present

Invited Member, GOOS Ocean Observations Panel for Climate (OOPC) Boundary Systems Task Team, jointly sponsored by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Global Ocean Observing System (GOOS), Global Climate Observing System (GCOS), and World Climate Research Program (WCRP) — 2017–2020

Session Organizer and Chair, International Ocean Vector Winds Science Team Workshop, IFREMER, Brest, France — 2014

Reviewer for PhD thesis, The University of Western Australia — 2014

Mail Reviewer, Israel Science Foundation — 2010

National Service

Co-Lead, NOAA Climate Science and Information for Sanctuaries Task Force, NOAA Climate Program Office — 2023–present

Member, NOAA Marine Ecosystems Task Force, NOAA Modeling, Analysis, Predictions, and Projections (MAPP) Program — 2020–present

Conference Organizing and Chairing:

Co-Chair Elect, Gordon Conference on Coastal Ocean Dynamics 2025 — 2019–present
Co-Vice-Chair, Gordon Conference on Coastal Ocean Dynamics 2023 — 2019–2023
Session Co-Chair, IOVWST Workshop, Virtual — 2022
Session Co-Organizer, 2 sessions, AGU/ASLO Ocean Sciences Meeting — 2020
Session Co-Organizer, Eastern Pacific Ocean Conference — 2019
Session Organizer, Gordon Research Conference on Coastal Ocean Dynamics — 2019
Town Hall Meeting Organizer and Chair, AGU/ASLO Ocean Sciences — 2017–2018
Session Organizer and Chair, AGU/ASLO Ocean Sciences Meeting — 2017–2018
Session Organizer and Chair, International Ocean Vector Winds Science Team (IOVWST) Workshop, San Diego, CA — 2017
Session Organizer and Chair, AGU/ASLO Ocean Sciences Meeting — 2015–2016
Session Organizer and Chair, IOVWST Workshop, Portland, OR — 2015
Steering Committee, Gordon Research Conference Coastal Ocean Circulation — 2012–2013
Session Organizer and Chair, AGU/ASLO Ocean Sciences Meeting — 2011–2012
Session Organizer and Chair, Eastern Pacific Ocean Conference — 2011
Session Organizer and Chair, AGU/ASLO Ocean Sciences Meeting — 2007–2008
Session Chair, Eastern Pacific Ocean Conference — 2006
Session Chair, AGU/ASLO Ocean Sciences Meeting — 2006
Session Chair, AGU Fall Meeting — 2004

Mentor Group Co-Leader, Mentoring Physical Oceanography Women to Increase Retention (MPOWIR) Program — 2018–2019, 2014–2015

Reviewing:

Mail Reviewer, NSF Physical Oceanography Program — 2009–present
Review Panelist, National Science Foundation Division of Ocean Sciences — 2014, 2019
Review Panelist, National Aeronautics and Space Administration — 2014, 2019
Mail Reviewer, Alaska Sea Grant — 2017
Mail Reviewer, NSF Chemical Oceanography Program — 2013
Journal Manuscript Peer Reviewer: — 2004–present
Journal of Physical Oceanography
Journal of Geophysical Research: Oceans
Journal of Geophysical Research: Atmospheres
Bulletin of the American Meteorological Society
Continental Shelf Research
Scientific Reports
Ocean Dynamics
Oceanography
Geophysical Research Letters
Journal of Marine Research

Deep-Sea Research I
Journal of Experimental Marine Biology & Ecology

Service to other U.S. academic institutions:

External member of PhD committee, Marissa Garcia, Cornell University	2022–present
External member of MS committee, Gwen Larson, University of Delaware	2019–2021
External member of PhD committee, María José Marín Jarrín, U. of Oregon	2019–2021
External member of PhD committee, Caitlin Amos, University of Georgia	2019–2021
External member of PhD committee, Qiang Sun, University of Connecticut	2018–2019

University and College Service

At Oregon State University
(POA = Physics of Oceans and Atmospheres disciplinary group in CEOAS)

Service to the University

OSU Faculty Senate Member	2021–present
OSU representative to CICOES Council	2021–2022
Contributor to successful CIMRS/CIMERS recompete proposal	2020–2021

Service to the College

POA Physical Oceanography Course Coordinator	2019–present
PO Faculty hiring search committee member	2020–2022
OEAS Graduate program recruiting: open house organization	2019, 2022
PO Faculty dual-career hire search committee member	2021
CEOAS Grad Programs Committee: Physical Oceanography representative	2019–2021
CEOAS Faculty hiring search committee member (2 positions)	2018–2019

At University of Connecticut

Graduate Admissions Committee, Department of Marine Sciences	2016–2018
Atmospheric Sciences Group Seminar Committee	2014–2015
Undergraduate Programs Committee, Department of Marine Sciences	2014–2015
Vessel Committee, Department of Marine Sciences	2014–2015
Graduate Program Oversight Committee, Department of Marine Sciences	2013–2015
Committee on Marine Undergraduate Curriculum Synthesis, Marine Sciences	2012–2013

At Massachusetts Institute of Technology

Graduate student body representative to Dept. Graduate Committee	2003–2005
Developer and coordinator, new mentoring program for graduate students	2002–2006

Community Service

Member, 500 Women Scientists – Corvallis pod	2018–present
Scientific Advisory Board Member, Connecticut Audubon Society Roger Tory Peterson Estuary Center, Old Lyme	2016–2018
Educational Outreach Program, Center for Materials Research, Cornell University	1999
MicroWorld Festival, Cornell University Center for Materials Research Dewitt Middle School and Cortland Junior-Senior High School, NY	1997-1998

Expanding Your Horizons Conference in Math, Science, and Engineering, Cornell University (acted as a mentor for junior high school girls) 1997

DIVERSITY, EQUITY, and INCLUSION ACTIVITIES and TRAINING

Participant in:

NOAA Women in Sciences Leadership Workshop, Tucson, AZ 2023

OSU Social Justice Education Initiative Tier II Next Level training: It's Not About Being Good 2022

Mentor training, ARC-Learn program (Fall quarter) 2022

OSU Social Justice Education Initiative Tier II Next Level training: Addressing Microaggressions in Teaching and Learning Environments 2021

CEOAS screening of Picture a Scientist and discussion session 2021

Unlearning Racism in Geosciences (URGE) Program: CEOAS Pod Member 2021

OSU Social Justice Education Initiative Tier II training: Creating Equitable Teaching and Learning Environments 2020

OSU Social Justice Education Initiative Tier II training: Microaggressions 2020

OSU Office of Institutional Diversity facilitated discussion on Racial Justice 2020

OSU Grad School workshop on Advising for Advisors 2019

OSU Social Justice Education Initiative trainings Tier I Sessions 1 and 2 2019

CEOAS Workshop on engaging undergraduates in research 2019

OSU Graduate School training workshop on mentoring and advising 2018

Attendee at:

Fisheries, Wildlife, and Conservations Sciences/CEOAS Panel: Native Perspectives within OSU 2023

National Center for Faculty Diversity and Development Webinar: Efficient and Effective Mentoring 2022

CEOAS Radical Earth Science Equity Transformations (RESET) Seminar 2022

CEOAS Association of Grad Students DEI seminar, Samantha Chisholm Hatfield 2022

UCOP Webinar: Indigenous Land Acknowledgments: Why They Matter and Why They are Not Enough 2021

CEOAS Unpacking Diversity Seminar Series (attended 7 seminars) 2018–2020

PROFESSIONAL MEMBERSHIPS

American Meteorological Society 2020–

The Oceanography Society 2009–

American Geophysical Union 2006–

American Association of University Professors 2012–2018

American Society of Limnology and Oceanography 2014–2015