Vita

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John (Jack) A. Barth

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Education

B.A., Physics (Cum Laude), University of Colorado, 1982.

Ph.D., Oceanography, Massachusetts Institute of Technology and Woods Hole Oceanographic Institution Joint Program in Oceanography, 1988.

Experience

Graduate Research Assistant, Department of Physical Oceanography, Woods Hole Oceanographic Institution, 1982–1987.

Research Associate (Postdoctoral), College of Oceanography, Oregon State University (OSU), 1987–1989.

Assistant Professor (Senior Research), College of Oceanic & Atmospheric Sciences (COAS), OSU, 1989–1995.

Associate Professor (Senior Research), COAS, OSU, 1995–1996.

Associate Professor, COAS, OSU, 1996–2001.

Professor, COAS, OSU, 2001–present.

Associate Dean for Research, College of Earth, Ocean and Atmospheric Sciences (CEOAS), 2011–2016.

Co-Lead, Marine Studies Initiative, OSU, 2014–2016.

Executive Director, Marine Studies Initiative, OSU, 2016–present.

Memberships

American Meteorological Society

American Geophysical Union

The Oceanography Society

The American Association for the Advancement of Science

Sigma Pi Sigma (physics honor society)

Marine Technology Society

Awards/Invited Lectureships

Carl-Gustav Rossby Award, Center for Meteorology and Physical Oceanography, Massachusetts Institute of Technology, 1988.

Best Presentation, Science Board Symposium, North Pacific Marine Science Organization (PICES) Fifteenth Annual Meeting, Yokohama, Japan, October, 2006.

Pattullo Award for Excellence in Teaching, College of Oceanic and Atmospheric Sciences, OSU, 2010.

Keynote Lecture, PICES Nineteenth Annual Meeting, Portland, Oregon, October, 2010.

Keynote Lecture, PICES/ICES Conference for Early Career Scientists, Majorca Island, Spain, April, 2012.

Fellow, The Oceanography Society, 2013.

Best Poster, Science Board Symposium, North Pacific Marine Science Organization (PICES) Twentyfourth Annual Meeting, Qingdao, China, October, 2015.

Fellow, The American Meteorological Society, 2017.

Editorships

Topic Editor, *Ocean Science*, European Geophysical Union (http://www.copernicus.org/EGU/os), 2004-present

Editor, *Journal of Physical Oceanography*, American Meteorological Society, 2007-2011

Associate Editor, *Journal of Physical Oceanography*, American Meteorological Society, 2011-present

Field Research

R/V Wecoma, off northern California, part of the Coastal Ocean Dynamics Experiment (CODE) program, Aug 1982.

R/V Thomas G. Thompson, Yellow Sea, part of a study of the Water Structure and Circulation in the Yellow and East China Seas, Jan–Feb 1986.

R/V Wecoma, off Oregon, testing SeaSoar for the EBC and TOGA-COARE field programs, May and July, 1992.

R/V Wecoma, **Co-Chief Scientist**, off northern California, SeaSoar/ADCP surveys as part of the ONR-sponsored Eastern Boundary Current (EBC) Accelerated Research Initiative, June and August, 1993.

R/V Wecoma, **Chief Scientist**, off central Oregon, SeaSoar/ADCP surveys as part of the NSF-sponsored Separation of a Coastal Jet program, August 1994, May and August, 1995.

R/V Wecoma, **Chief Scientist**, testing of new optical and microstructure (MicroSoar) instruments for use aboard SeaSoar during the upcoming ONR-sponsored Coastal Mixing and Optics Accelerated Research Initiative, August 1995 and May 1996.

R/V Endeavor, **Chief Scientist**, in Middle Atlantic Bight south of Martha's Vineyard, conduct rapid hydrographic, optical and microstructure surveys of the continental shelf and slope using SeaSoar with new optical and microstructure (MicroSoar) instruments aboard, during the ONR Coastal Mixing and Optics Accelerated Research Initiative, August-September 1996 and April-May 1997.

R/V Wecoma, **Co-Chief Scientist**, off central Oregon, testing of deep-capability SeaSoar and optical instruments for use during Southern Ocean JGOFS, July 1997.

R/V Roger Revelle, at the Antarctic Polar Front south of New Zealand, SeaSoar/ADCP surveys as part of SOJGOFS, October-November 1997.

R/V Oceanus, **Co-Chief Scientist**, Georges Bank, SeaSoar/ADCP surveys and subsurface float deployments as part of GLOBEC, March-April and June-July 1999.

R/V Wecoma, **Chief Scientist**, off Oregon coast, SeaSoar/ADCP/turbulence sampling as part of the OSU NOPP project "Prediction of Wind-Driven Coastal Circulation", July 1999.

R/V Wecoma, **Co-Chief Scientist**, off Oregon and northern California, SeaSoar/ADCP/bioacoustics sampling as part of the GLOBEC Northeast Pacific program, May-June 2000.

R/V Wecoma, **Chief Scientist**, off Oregon and northern California, SeaSoar/ADCP/bioacoustics sampling as part of the GLOBEC Northeast Pacific program, July-August 2000.

R/V Wecoma, **Chief Scientist**, off central Oregon, testing of fiber-optic tow cable for SeaSoar for use during COAST, January 2001.

R/V Wecoma, **Chief Scientist**, off central Oregon, SeaSoar/ADCP/bioacoustic surveys and zooplankton net sampling during COAST, May-June and August 2001.

R/V Roger Revelle, **Chief Scientist**, off Oregon and northern California, SeaSoar/ADCP/bioacoustics sampling as part of the GLOBEC Northeast Pacific program, August 2002.

R/V Wecoma, **Chief Scientist**, off central Oregon, SeaSoar/ADCP/bioacoustic surveys and zooplankton net sampling during COAST, January-February 2003.

R/V New Horizon, off northern Oregon, study of cross-shelf circulation using subsurface dye releases tracked by MiniBAT and ADCP, June-July 2003.

R/V Elakha, Oregon shelf, inner-shelf dynamics and hypoxia, July 2004.

R/V Elakha, Oregon shelf, testing and deployment of autonomous underwater vehicle glider, May-August 2005.

R/V Wecoma, **Chief Scientist**, central Oregon shelf, testing of autonomous vertical profiling mooring and deployment of OrCOOS buoy, July 2006, April 2007, October 2010, May 2011, June 2011.

R/V Point Sur, **Chief Scientist**, central Oregon shelf, testing of autonomous vertical profiling mooring, May and September 2007.

R/V Elakha, Oregon shelf, autonomous underwater glider operations, April 2006–present.

C/V Miss Linda, Reedsport, Oregon, baseline monitoring of proposed wave energy site, September 18, 2009.

R/V Oceanus,**Chief Scientist**, Oregon shelf, deploy autonomous vertical profiling mooring for Ocean Observatories Initiative (OOI) test, November 6, 2013.

R/V Oceanus, Oregon shelf, install inshore mooring for Ocean Observatories Initiative (OOI), April 17, 2014.

R/V Oceanus, **Chief Scientist**, NSF Inspection, May 8, 2014.

R/V Oceanus, Ocean Observatories Initiative, October 9-10, 2014.

R/V Oceanus, Ocean Observatories Initiative, October 8, 2015.

R/V Oceanus, **Chief Scientist**, NSF Inspection, August 4, 2016.

R/V Oceanus, ONR Inner Shelf testing, September 23-24, 2016.

R/V Oceanus, **Chief Scientist**, ONR Inner Shelf, Pt. Sal, CA, September 3-18, 2017.

R/V Oceanus, **Chief Scientist**, ONR Inner Shelf, Pt. Sal, CA, October 4-14, 2017.

Past and Present Advisees (chronological order)

B. Diaw (M.S., 1997; Senegal Hydrographic Office), G. May (M.S., 1997), R. K. Shearman (Ph.D., 1999; Postdoc, WHOI; Assoc. Prof., OSU), J. Simeon (M.S., 2000; Geophysical Fluid Dynamics Laboratory, NOAA), R. Castelao (Ph.D., 2006; Postdoc, Rutgers Univ.; Assoc. Prof., U. Georgia), M. J. J. Jorda (M.S., 2006; AZTI Tecnalia, Spain, Simon Fraser University, Canada), A. Kirincich (Ph.D., 2007; Assoc. Scientist, WHOI), T. Peery (M.S., 2008; Fac. Res. Asst., OSU), K. Sherman (M.S., 2012), A. Suanda (M.S., 2009; Ph.D., 2014; Postdoc, SIO), K. Adams (Ph.D., 2014; Postdoc, Plymouth Univ.; Project Scientist, SIO), P. Mazzini (Ph.D., 2014; Postdoc, Rutgers Univ.; Asst. Prof., San Francisco State Univ.)

Postdoctoral Scholars Advised

S. G. Pierce (1995-1998; Res. Assoc., OSU), D. Bogucki (1997-1999; Asst. Prof., Texas A & M Univ. Corpus Christi), A. C. Dale (1997-1999; Lecturer, Scottish Association for Marine Science, Dunstaffnage Marine Laboratory, Oban), J. A. Austin (1998-2000; Assoc. Prof., Univ. of Minnesota), M. W. Ott (2001-2004; Asst. Prof., Paul Smith's College), S. Kim (2009-2011; Research Faculty, Hankuk University of Foreign Studies, Korea), M. Porter (Jan-Mar 2014; Scottish Association for Marine Science), S. Durski (2015-2017), M. Sato (2016-2017; Research Associate, Univ. British Columbia)

Publications

1. Chapman, D.C., J.A. Barth, R.C. Beardsley and R.G. Fairbanks, 1986. On the continuity of mean flow between the Scotian Shelf and the Middle Atlantic Bight. *J. Phys. Oceanogr.*, **16**, 758–772.

2. Barth, J.A. and K.H. Brink, 1987. Shipboard acoustic Doppler profiler velocity observations near Point Conception: Spring 1983. *J. Geophys. Res.*, **92**, 3925–3943.

3. Barth, J.A., 1989. Stability of a coastal upwelling front: Part I. Model development and a stability theorem. *J. Geophys. Res.*, **94**, 10844–10856.

4. Barth, J.A., 1989. Stability of a coastal upwelling front: Part II. Model results and comparison with observations. *J. Geophys. Res.*, **94**, 10857–10883.

5. Allen, J.S., J.A. Barth and P.A. Newberger, 1990. On intermediate models for barotropic continental shelf and slope flow fields: Part I. Formulation and comparison of exact solutions. *J. Phys. Oceanogr.*, **20**, 1017–1042.

6. Barth, J.A., J.S. Allen and P.A. Newberger, 1990. On intermediate models for barotropic continental shelf and slope flow fields: Part II. Comparison of numerical model solutions in doubly-periodic domains. *J. Phys. Oceanogr.*, **20**, 1044–1076.

7. Allen, J.S., J.A. Barth and P.A. Newberger, 1990. On intermediate models for barotropic continental shelf and slope flow fields: Part III. Comparison of numerical model solutions in periodic channels. *J. Phys. Oceanogr.*, **20**, 1949–1973.

8. Strub, P.T., P.M. Kosro, A. Huyer and CTZ Collaborators, 1991. The nature of the cold filaments in the California current system. *J. Geophys. Res.*, **96**, 14743–14768.

9. Barth, J.A., 1994. Short-wavelength instabilities on coastal jets and fronts. *J. Geophys. Res.*, **99**, 16095–16115.

10. Kosro, P. M., J. A. Barth and P. T. Strub, 1997. The coastal jet: Observations of surface currents over the Oregon continental shelf from HF radar. *Oceanography*, **10**, 53–56.

11. Barth, J. A., D. Bogucki, S. D. Pierce and P. M. Kosro, 1998. Secondary circulation associated with a shelfbreak front. *Geophys. Res. Lett.*, **25**, 2761–2764.

12. Barth, J.A. and R. L. Smith, 1998. Separation of a coastal upwelling jet at Cape Blanco, Oregon, USA. In *Benguela Dynamics: Impacts of Variability on Shelf-Sea Environments and their Living Resources*. Pillar, S. C., Moloney, C. L., Payne, A. I. L. and F. A. Shillington (Eds). *S. Afr. J. Mar. Sci.*, **19**, 5–14.

13. Huyer, A., J. A. Barth, P. M. Kosro, R. K. Shearman and R. L. Smith, 1998. Upper-ocean water mass characteristics of the California current, Summer 1993. *Deep-Sea Res. II*, **45**, 1411–1442.

14. Miller, A. J., J. C. McWilliams, N. Schneider, J. S. Allen, J. A. Barth, R. C. Beardsley, T. K. Chereskin, C. A. Edwards, R. L. Haney, K. A. Kelly, J. C. Kindle, L. N. Ly, J. R. Moisan, M. A. Noble, P. P. Niiler, L. Y. Oey, F. B. Schwing, R. K. Shearman and M. S. Swenson, 1999. Observing and modeling the California Current System: Purposes, achievements and aspirations. *Eos, Transactions, American Geophysical Union*, **80(45)**, 533–539.

15. Pierce, S. D., J. A. Barth and R. L. Smith, 1999. Improving acoustic Doppler current profiler accuracy with wide-area differential GPS and adaptive smoothing of ship velocity. *J. Atmos. Oceanic Technol.*, **16**, 591–596.

16. Ryan, J. P., J. A. Yoder, J. A. Barth and P. C. Cornillon, 1999. Chlorophyll enhancement and mixing associated with meanders of the shelfbreak front in the Mid-Atlantic Bight. *J. Geophys. Res.*, **104**, 23,479–23,493.

17. Shearman, R. K., J. A. Barth and P. M. Kosro, 1999. Diagnosis of the three-dimensional circulation associated with mesoscale motion in the California Current. *J. Phys. Oceanogr.*, **29**, 651–670.

18. Barth, J. A. and D. J. Bogucki, 2000. Spectral light absorption and attenuation measurements from a towed undulating vehicle. *Deep-Sea Res.*, **47**, 323–342.

19. Barth, J. A., S. D. Pierce and R. L. Smith, 2000. A separating coastal upwelling jet at Cape Blanco, Oregon and its connection to the California Current System. *Deep-Sea Res. II*, **47**, 783–810.

20. Pierce, S. D., R. L. Smith, P. M. Kosro, J. A. Barth and C. D. Wilson, 2000. Continuity of the poleward undercurrent along the eastern boundary of the mid-latitude north Pacific. *Deep-Sea Res. II*, **47**, 811–829.

21. van Geen, A., R. K. Takesue, J. Goddard, T. Takahashi, J. A. Barth and R. L. Smith , 2000. Carbon and nutrient dynamics during coastal upwelling off Cape Blanco, Oregon. *Deep-Sea Res. II*, **47**, 975–1002.

22. Shearman, R. K., J. A. Barth, J. S. Allen and R. L. Haney, 2000. Diagnosis of the three-dimensional circulation in mesoscale features with large Rossby number. *J. Phys. Oceanogr.*, **30**, 2687–2709.

23. Barth, J. A., T. J. Cowles and S. D. Pierce, 2001. Mesoscale physical and bio-optical structure of the Antarctic Polar Front near 170°W during spring. *J. Geophys. Res.*, **106**, 13,879–13,902.

24. Dale, A. C. and J. A. Barth, 2001. The hydraulics of an upwelling jet flowing around a cape. *J. Phys. Oceanogr.*, **31**, 226–243.

25. Mengelt, C., M. R. Abbott, J. A. Barth, R. M. Letelier, C. I. Measures and S. Vink, 2001. Phytoplankton pigment distribution in relation to silicic acid, iron and the physical structure across the Antarctic Polar Front, 170W, during austral summer. *Deep-Sea Res. II*, **48**, 4081–4100.

26. Austin, J. A. and J. A. Barth, 2002a. Drifter behavior on the Oregon-Washington shelf during downwelling-favorable winds. *J. Phys. Oceanogr.*, **32**, 3132–3144.

27. Austin, J. A. and J. A. Barth, 2002b. Variation in the position of the upwelling front on the Oregon shelf. *J. Geophys. Res.*, **107(C11)**, 3180, doi:10.1029/2001JC000858.

28. Barth, J. A., T. J. Cowles, P. M. Kosro, R. K. Shearman, A. Huyer and R. L. Smith, 2002. Injection of carbon from the shelf to offshore beneath the euphotic zone in the California Current. *J. Geophys. Res.*, **107(C6)**, 3057, doi:10.1029/2001JC000956.

29. Batchelder, H. P., J. A. Barth, P. M. Kosro, P. T. Strub, R. D. Brodeur, W. T. Peterson, C. T. Tynan, M. D. Ohlman, L. W. Botsford, T. M. Powell, F. B. Schwing, D. G. Ainley, D. L. Mackas, B. M. Hickey and S. R. Ramp, 2002. The GLOBEC Northeast Pacific California Current System program. *Oceanography*, **15(2)**, 36–47.

30. Oke, P. R., J. S. Allen, R. N. Miller, G. D. Egbert, J. A. Austin, J. A. Barth, T. J. Boyd, P. M. Kosro, and M. D. Levine, 2002. A modeling study of the three-dimensional continental shelf circulation off Oregon. Part I: Model-data comparisons. *J. Phys. Oceanogr.*, **32**, 1360–1382.

31. Rehder, G., R. W. Collier, K. Heeschen, P. M. Kosro, J. Barth and E. Suess, 2002. Enhanced marine CH4 emissions to the atmosphere off Oregon caused by coastal upwelling. *Global Biogeochemical Cycles*, **16(3)**, 1081, doi:10.1029/2000GB001391.

32. Samelson, R., Barbour, P., Barth, J., Bielli, S., Boyd, T., Chelton, D., Kosro, P., Levine, M., Skyllingstad, E.and J. Wilczak, 2002. Wind stress forcing of the Oregon coastal ocean during the 1999 upwelling season. *J. Geophys. Res.*, **107(C5)**, 3034, doi:10.1029/2001JC000900.

33. Dale, A. C., D. S. Ullman, J. A. Barth and D. Hebert, 2003. The front on the Northern Flank of Georges Bank in spring: 1. Tidal and subtidal variability. *J. Geophys. Res.*, **108(C11)**, 8009, doi:10.1029/2002JC001327.

34. Dillon, T., J. A. Barth, A. Erofeev, G. May and H. Wijesekera, 2003. MicroSoar: A new instrument for measuring microscale turbulence from rapidly moving submerged platforms. *J. Atmos. Oceanic Technol.*, **20**, 1671–1684.

35. Ullman, D. S., A. C. Dale, D. Hebert and J. A. Barth, 2003. The front on the Northern Flank of Georges Bank in spring: 2. Cross-frontal fluxes and mixing. *J. Geophys. Res.*, **108(C11)**, 8010, doi:10.1029/2002JC001328.

36. Barth, J. A., 2003. Anomalous southward advection during 2002 in the northern California Current: Evidence from Lagrangian surface drifters. *Geophys. Res. Lett.*, **30(15)**, 8024, doi:10.1029/2003GL017511.

37. Barth, J. A., D. Hebert, A. C. Dale and D. S. Ullman, 2004. Direct observations of along-isopycnal upwelling and diapycnal velocity at a shelfbreak front. *J. Phys. Oceanogr.*, **34**, 543–565.

38. Grantham, B. A., F. Chan, K. J. Nielsen, D. S. Fox, J. A. Barth, A. Huyer, J. Lubchenco and B. A. Menge, 2004. Upwelling-driven nearshore hypoxia signals ecosystem and oceanographic changes in the northeast Pacific. *Nature*, **429**, 749–754.

39. Ott, M. W., J. A. Barth and A. Y. Erofeev, 2004. Microstructure measurements from a towed undulating platform. *J. Atmos. Oceanic Technol.*, **21**, 1621-1632.

40. Sotka, E. E., J. P. Wares, J. A. Barth, R. K. Grosberg and S. R. Palumbi, 2004. Strong genetic clines and geographical variation in gene flow in the rocky intertidal barnacle *Balanus glandula*. *Molecular Ecology*, **13**, 2143-2156.

41. Bogucki, D. J., L. G. Redekopp and J. Barth, 2005. Internal solitary waves in the Coastal Mixing and Optics experiment 1996: Multimodal structure and resuspension. *J. Geophys. Res.*, **110**, C02024, doi:10.1029/2003JC002253.

42. Ainley, D. G., L. B. Spear, C. T. Tynan, J. A. Barth, S. D. Pierce, R. G. Ford and T. J. Cowles, 2005. Physical and biological variables affecting seabird distributions during the upwelling season of the northern California Current. *Deep-Sea Res. II*, **52**, 123-143.

43. Barth, J. A., S. D. Pierce and T. J. Cowles, 2005. Mesoscale structure and its seasonal evolution in the northern California Current System. *Deep-Sea Res. II*, **52**, 5-28.

44. Ressler, P. H., R. D. Brodeur, W. T. Peterson, S. D. Pierce, P. M. Vance, A. R. Roestad and J. A. Barth, 2005. The spatial distribution of euphausiid aggregations in the northern California Current during August 2000. *Deep-Sea Res. II*, **52**, 89-108.

45. Tynan, C. T., D. G. Ainley, J. A. Barth, T. J. Cowles, S. D. Pierce and L. Spear, 2005. Cetacean distributions relative to ocean processes in the northern California Current System. *Deep-Sea Res. II*, **52**, 145-167.

46. Castelao, R. M. and J. A. Barth, 2005. Coastal ocean response in a region of alongshore bottom topography variations off Oregon during summer upwelling. *J. Geophys. Res.*, **110(C10)**, C10S04, doi:10.1029/2004JC002409.

47. Kirincich, A. R., J. A. Barth, B. A. Grantham, B. A. Menge and J. Lubchenco, 2005. Wind-driven inner-shelf circulation off central Oregon during summer. *J. Geophys. Res.*, **110(C10)**, C10S03, doi:10.1029/2004JC002611.

48. Kurapov, A. L., J. S. Allen, G. D. Egbert, R. N. Miller, P. M. Kosro, M. D. Levine, T. Boyd, J. A. Barth and J. Moum , 2005. Assimilation of moored velocity data in a model of coastal wind-driven circulation off Oregon: Multivariate capabilities. *J. Geophys. Res.*, **110(C10)**, C10S08, doi:10.1029/2004JC002493.

49. Barth, J. A., S. D. Pierce and R. M. Castelao, 2005. Time-dependent, wind-driven flow over a shallow mid-shelf submarine bank. *J. Geophys. Res.*, **110(C10)**, C10S05, doi:10.1029/2004JC002761.

50. Barth, J. A. and P. A. Wheeler, 2005. Introduction to special section: Coastal Advances in Shelf Transport. *J. Geophys. Res.*, **110(C10)**, C10S01, doi:10.1029/2005JC003124.

51. Castelao, R. M., J. A. Barth and T. P. Mavor, 2005. Flow-topography interactions in the northern California Current System observed from geostationary satellite data. *Geophys. Res. Lett.*, **32**, L24612, doi:10.1029/2005GL024401.

52. Castelao, R. M. and J. A. Barth, 2006. Upwelling around Cabo Frio, Brazil: The importance of wind stress curl. *Geophys. Res. Lett.*, **33**, L03602, doi:10.1029/2005GL025182.

53. Dale, A. C., M. D. Levine, J. A. Barth, and J. A. Austin, 2006. A dye tracer reveals cross-shelf dispersion and interleaving on the Oregon shelf. *Geophys. Res. Lett.*, **33**, L03604, doi:10.1029/2005GL024959.

54. Castelao, R. M. and J. A. Barth, 2006. The relative importance of wind strength and along-shelf bathymetric variations on the separation of a coastal upwelling jet. *J. Phys. Oceanogr.*, **36**, 412-425.

55. Castelao, R. M., T. P. Mavor, J. A. Barth and L. C. Breaker, 2006. Sea-surface temperature fronts in the California Current System from geostationary satellite observations. *J. Geophys. Res.*, **111**, C09026, doi:10.1029/2006JC003541.

56. Pierce, S. D., J. A. Barth, R. E. Thomas and G. W. Fleischer, 2006. Anomalously warm July 2005

in the northern California Current: Historical context and the significance of cumulative wind stress. *Geophys. Res. Lett.*, **33**, L22S04, doi:10.1029/2006GL027149.

57. Barth, J. A., B. A. Menge, J. Lubchenco, F. Chan, J. M. Bane, A. R. Kirincich, M. A. McManus, K. J. Nielsen, S. D. Pierce and L. Washburn, 2007. Delayed upwelling alters nearshore coastal ocean ecosystems in the Northern California Current. *Proc. Natl. Acad. Sci., USA*, **104**, 3719-3724.

58. Castelao, R. M. and J. A. Barth, 2007. The role of wind-stress curl in jet separation at a cape. *J. Phys. Oceanogr.*, **37**, 2652-2671.

59. Woodson, C. B., D. I. Eerkes-Medrano, A. Flores-Morales, M. Foley, S. Henkel, M. Hessing-Lewis, D. Jacinto, L. Needles, M. Nishizaki, J. OLeary, C. E. Ostrander, M. Pespeni, K. Schwager, J. A. Tyburczy, K. A. Weersing, A. R. Kirincich, J. A. Barth, M. A. McManus, and L. Washburn, 2007. Diurnal upwelling driven by sea breezes in northern Monterey Bay: A local mechanism for larval delivery to the intertidal? *Cont. Shelf. Res.*, **27**, 2289-2302.

60. Dale, A. C., J. A. Barth, M. D. Levine and J. A. Austin, 2008. Observations of mixed-layer restratification by onshore surface transport following wind reversal in a coastal upwelling region. *J. Geophys. Res.*, **113**, C01010, doi:10.1029/2007JC004128.

61. Chan, F., J. A. Barth, J. Lubchenco, A. Kirincich, H. Weeks, W. T. Peterson, and B. A. Menge, 2008. Novel emergence of anoxia in the California Current System. *Science*, **319**, 920.

62. Kudela, R. M., N. S. Banas, J. A. Barth, E. R. Frame, D. Jay, J. L. Largier, E. J. Lessard, T. D. Peterson and A. J. VanderWoude, 2008. New insights into the controls and mechanisms of plankton productivity in coastal upwelling waters of the northern California Current System. *Oceanography*, **21**, 46-59.

63. Ainley, D. G., K. D. Dugger, R. G. Ford, S. D. Pierce, D. C. Reese, R. D. Brodeur, C. T. Tynan and J. A. Barth, 2009. Association of predators and prey at frontal features in the California Current: Competition, facilitation, and co- occurrence. *Mar. Ecol. Prog. Ser.*, **389**, 271-294.

64. Checkley, D. and J. A. Barth, 2009. Patterns and processes in the California Current System. *Prog. Oceanogr.*, doi:10.1016/j.pocean.2009.07.028.

65. Dudas, S. E., B. A. Grantham, A. R. Kirincich, B. A. Menge, J. Lubchenco and J. A. Barth, 2009. Current reversals as determinants of intertidal recruitment on the central Oregon coast. *ICES J. Mar. Sci.*, **66**, 396- 407.

66. Juan Jorda, M. J., J. A. Barth, M. E. Clarke and W. W. Wakefield, 2009. Groundfish species associations with distinct oceanographic habitats in the northern California Current. *Fisheries Oceanography*, **18**, 1-19.

67. Kirincich, A. R. and J. A. Barth, 2009. Time-varying across-shelf Ekman transport and vertical eddy viscosity on the inner-shelf. *J. Phys. Oceanogr.*, **39**, 602-620.

68. Kirincich, A. R. and J. A. Barth, 2009. Spatial and temporal variability of inner-shelf circulation along the central Oregon coast during summer. *J. Phys. Oceanogr.*, **39**, 1380–1398.

69. Kirincich, A. R., S. J. Lentz and J. A. Barth, 2009. Wave-driven inner-shelf motions on the Oregon coast. *J. Phys. Oceanogr.*, **39**, 2942-2956.

70. Tapia, F. J., S. A. Navarrete, M. Castillo, B. A. Menge, J. C. Castilla, J. Largier, E. A. Wieters, B. Broitman and J. A. Barth, 2009. Thermal indices of upwelling effects on inner-shelf habitats. *Prog. Oceanogr.*, doi:10.1016/j.pocean.2009.07.035.

71. Woodson, C. B., L. Washburn, J. A. Barth, D. J. Hoover, A. R. Kirincich, M. A. McManus, J. P. Ryan and J. Tyburczy, 2009. Northern Monterey Bay upwelling shadow front: Observations of a coastally and surface-trapped buoyant plume. *J. Geophys. Res.*, **114**, C12013, doi:10.1029/2009JC005623.

72. Lester, S. E., K. L. McLeod, H. Tallis, M. Ruckelshaus, B. S. Halpern, P. S. Levin, F. P. Chavez, C. Pomeroy, B. J. McCay, C. Costello, S. D. Gaines, A. J. Mace, J. A. Barth, D. L. Fluharty, and J. K. Parrish, 2010. Science in support of ecosystem-based management for the US West Coast and beyond. *Conservation Biology*, **143**, 576-587.

73. Keller, A., V. Simon, F. Chan, W. W. Wakefield, M. E. Clarke, D. Kamikawa, E. L. Fruh and J. A. Barth, 2010. Demersal fish and invertebrate biomass in relation to an offshore hypoxic zone along the U.S. West Coast. *Fisheries Oceanography*, **19**, 76-87.

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75. Woodson, C. B., J. P. Ryan, M. A. McManus, J. A. Barth, L. Washburn, O. M. Cheriton, and the 2008 Summer Oceanography Group, 2011. Observations of internal wave packets propagating along-shelf in northern Monterey Bay. *Geophys. Res. Lett.*, **38**, L01605, doi:10.1029/2010GL045453.

76. Kim, S. and J. A. Barth, 2011. Connectivity of larval dispersal along the Oregon coast by numerical simulations. *J. Geophys. Res.*, **116**, C06002, doi:10.1029/2010JC006741.

77. Drake, P., T., C. A. Edwards and J. A. Barth, 2011. Dispersion and connectivity estimates along the U.S. west coast from a realistic numerical model. *J. Mar. Res.*, **69**, 1-37.

78. Barshis, D. J., E. E. Sotka, R. P. Kelly, A. Sivasundar, B. A. Menge, J. A. Barth and S. R. Palumbi, 2011. A link between coastal upwelling and temporal genetic variability in the acorn barnacle *Balanus glandula*. *Mar. Ecol. Prog. Ser.*, **439**, 139-150.

79. Suanda, S. H., J. A. Barth and C. B. Woodson, 2011. Diurnal heat balance for the northern Monterey Bay inner shelf. *J. Geophys. Res.*, **116**, C09030, doi:10.1029/2010JC006894.

80. Aguirre, C., O. Pizarro, P. T. Strub, R. Garreaud and J. A. Barth, 2012. Seasonal dynamics of the alongshore flow off central Chile. *J. Geophys. Res.*, **117**, C01006, doi:10.1029/2011JC007379.

81. Pierce, S. D., J. A. Barth, R. K. Shearman and A. Y. Erofeev, 2012. Declining oxygen in the Northeast Pacific. *J. Phys. Oceanogr.*, **42**, 495-501.

82. Woodson, C. B., M. A. McManus, J. A. Tyburczy, J. A. Barth, L. Washburn, P. T. Raimondi, B. A. Menge, and S. R. Palumbi, 2012. Coastal fronts set recruitment and connectivity patterns across multiple taxa. *Limnol. Oceanogr.*, **57(2)**, 582–596.

83. Lester, S. E., C. Costello, B. S. Halpern, S. D. Gaines, C. White and J. A. Barth, 2012. Evaluating tradeoffs among ecosystem services to inform marine spatial planning. *Marine Policy*, http://dx.doi.org/10.1016/j.marpol.2012.05.022.

84. Adams, K. A., J. A. Barth and F. Chan, 2013. Temporal variability of near-bottom dissolved oxygen during upwelling off central Oregon. *J. Geophys. Res.*, **118**, doi:10.1002/jgrc.20361.

85. Mazzini, P. L. F. and J. A. Barth, 2013. A comparison of mechanisms generating vertical velocities in the Brazilian coastal upwelling regions. *J. Geophys. Res.*, **118**, doi:10.1002/2013JC008924.

86. Suanda, S. H., J. A. Barth, R. A. Holman and J. Stanley, 2014. Shore-based video observations of nonlinear internal waves across the inner shelf. *J. Atmos. Oceanic Technol.*, **31**, 714–728. Supplementary movie available at http://dx.doi.org/10.1175/JTECH-D-13-00098.s1.

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88. Mazzini, P. L. F., J. A. Barth, R. K. Shearman and A. Erofeev, 2014. Buoyancy-driven coastal currents off the Oregon coast during fall and winter. *J. Phys. Oceanogr.*, **44**, 2854–2876.

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92. Mazzini, P. L. F., C. M. Risien, J. A. Barth, S. D. Pierce, A. Erofeev, E. P. Dever, P. M. Kosro, M. D. Levine, R. K. Shearman and M. F. Vardaro, 2015. Anomalous near-surface low-salinity pulses off the central Oregon coast. *Nature Scientific Reports*, doi:10.1038/srep17145.

93. Suanda, S. H. and J. A. Barth, 2015. Semidiurnal baroclinic tides on the central Oregon inner shelf. *J. Phys. Oceanogr.*, **45**, 2640-2659, doi: http://dx.doi.org/10.1175/JPO-D-14-0198.1.

94. Saldias, G. S., R. K. Shearman, J. A. Barth, and N. Tufillaro, 2016. Optics of the offshore Columbia River plume from glider observations and satellite imagery. *J. Geophys. Res.*, 10.1002/2015JC011431.

95. Adams, K., J. A. Barth and R. K. Shearman, 2016. Intraseasonal cross-shelf variability of hypoxia along the Newport, Oregon, Hydrographic line. *J. Phys. Oceanogr.*, **46**, 2219-2238, DOI: 10.1175/JPO-D-15-0119.1.

96. Sherman, K., A. Lanier, J. A. Barth, F. Conway, C. Risien and P. M. Kosro, 2016. The Oregon nearshore research inventory project: The importance of science and the scientific community as stakeholders in marine spatial planning. *Ocean and Coastal Management*, **130**, 290-298, doi:http://dx.doi.org/10.1016

97. Porter, M., M. E. Inall, J. Hopkins, M. R. Palmer, A. C. Dale, D. Aleynik, J. A. Barth, C. Mahaffey, and D. A. Smeed, 2016. Glider observations of enhanced deep water upwelling at a shelf break canyon: A mechanism for cross-slope carbon and nutrient exchange. *J. Geophys. Res.*, in press.

98. Keller, A. A., L. Cianelli, W. W. Wakefield, V. Simon, J. A. Barth and S. D. Pierce, 2017. Species-specific responses of demersal fishes to near-bottom oxygen levels within the California Current large marine ecosystem. *Mar. Ecol. Prog. Ser.*, **568**, 151-173, https://doi.org/10.3354/meps12066.

99. Chan, F., Barth, J. A., Blanchette, C. A., Byrne, R. H., Chavez, F., Cheriton, O., Feely, R. A., Friederich, G., Gaylord, B., Gouhier, T., Hacker, S., Hill, T., Hofmann, G., McManus, M. A., Menge, B. A., Nielsen, K. J., Russell, A., Sanford, E., Sevadjian, J., and Washburn, L., 2017. Persistent

spatial structuring of coastal ocean acidification in the California Current System. *Nature Scientific Reports*, **7**, 2526, doi:10.1038/s41598-017-02777-y.

100. Durski, S. M., J. A. Barth, J. C. McWilliams, H. Frenzel and C. Deutsch, 2017. The influence of variable slope-water characteristics on dissolved oxygen levels in the northern California Current System. *J. Geophys. Res.*, **122**, doi:10.1002/2017JC013089.

101. Barth, J. A., J. Fram, E. P. Dever, C. Risien, C. Wingard, R. W. Collier, and T. Kearney, 2018. Warm blobs, low-oxygen events and an eclipse: The Ocean Observatories Initiative Endurance Array captures them all. *Oceanography*, **31(1)**, 90–97, https://doi.org/10.5670/oceanog.2018.114.

102. Smith, L. M., J. A. Barth, D. S. Kelley, A. Plueddemann, I. Rodero, G. A. Ulses, M. F. Vardaro, and R. Weller. 2018. The Ocean Observatories Initiative. *Oceanography*, **31(1)**, 16–35, https://doi.org/10.5670/oceanog.2018.105.

Sato, M., J. A. Barth, K. J. Benoit-Bird, S. D. Pierce, T. J. Cowles, R. D. Brodeur, and W. T. Peterson, 2017. Coastal upwelling fronts as a boundary for planktivorous fish distributions. *Mar. Ecol. Prog. Ser.*, submitted

Matsumoto, H., J. Haxel, A. Turpin, S. Fregosi, D.K. Mellinger, M. J. Fowler, H. Klinck, K. Klinck, A. Erofeev, J. A. Barth, R. K. Shearman, S. Bauman-Pickering, R. P. Dziak and C. Jones, 2018. Simultaneous operation of mobile acoustic recording systems off the Washington coast for cetacean studies: System noise level evaluations. IEEE, Oceans 2015, submitted.

Mazzini, P. L. F., C., J. A. Barth, and R. K. Shearman, 2018. Freshening of the continental shelf offshore of the Oregon Coastal Current. *J. Phys. Oceanogr.*, submitted.

Regional Committees

Eastern Pacific Oceanic Conference (EPOC), Secretary, 1992-1996.

Eastern Pacific Oceanic Conference (EPOC), President, 1998-2001.

Northwest Association of Networked Ocean Observatories (NANOOS), Steering Committee, 2003-2010.

West Coast Ocean Acidification and Hypoxia Science Panel, 2013-2016.

National Committees and Service

National Center for Atmospheric Research (NCAR), Scientific Computing Division Advisory Panel, 1992–1994.

Global Ocean Ecosystems Dynamics (GLOBEC) Eastern Boundary Current Program Implementation Team, 1993-1994.

National Science Foundation Physical Oceanography Panel, November 1995.

National Science Foundation Advances and Primary Research Opportunities in Physical Oceanography Studies (APROPOS) Workshop Steering Committee Member, 1997-1998.

American Geophysical Union 1998 Ocean Sciences Meeting Program Committee Member, 1997-1998.

Ocean Carbon Transport, Exchanges and Transformations (OCTET), Ocean Carbon Working Group. Produced "OCTET Workshop Report", Oct. 2000, 175 pp. available online at http://Alpha1.msrc.sunysb.edu/octet/
1999-2000.

Global Ocean Ecosystems Dynamics (GLOBEC) Northeast Pacific Program Executive Committee, 2000-present.

National Science Foundation Coastal Ocean Processes (CoOP) Steering Committee, 2000-2004.

Reviewer, National Ocean Sciences Bowl Final Competition questions, Consortium for Oceanographic Research and Education, May 2003.

Pacific Ocean Ocean Observing System (PaCOOS) Board of Governors (representing OSU), 2003-2008.

NSF Ocean Research Interactive Observatory Network (ORION) Executive Steering Committee, 2004-2007.

National Science Foundation Coastal Ocean Processes (CoOP) Synthesis Committee, 2005-2008.

Oregon Ocean Policy Advisory Council (OPAC) Science and Technology Advisory Committee (STAC), 2006-present.

California Current Ecosystem-Based Management Initiative, Scientific Steering Committee, 2007–2009.

External Review Committee, Department of Ocean Sciences, University of California, Santa Cruz, January 2008.

Gordon Research Conference on "Coastal Circulation," June, 2009, Program Committee, 2008-2009.

Ocean Observatories Initiative (OOI) Science Workshop, October, 2009, Organizing Committee, 2009.

Ocean Observatories Initiative (OOI) Science Oversight Committee, 2009-present.

Gordon Research Conference on "Coastal Circulation," Vice Chair, 2009–2015.

Gordon Research Conference on "Coastal Ocean Modeling," June, 2011, Program Committee, 2010-2011.

NSF Regional Class Research Vessel Design Scientific Oversight Committee, 2012-present.

Gordon Research Conference on "Coastal Ocean Dynamics," Co-Chair, 2015-2017.

Glider Task Team, Interagency Ocean Observation Committee, 2015-present.

International Committees

International Scientific Organizing Committee, 31st International Liège Colloquium on Ocean Hydrodynamics, Liège, Belgium, 1999.

National Research Foundation, Independent Reviewer, South Africa.

North Pacific Marine Science Organization (PICES) MONITOR Committee, 2004–present.

Future Integrative Scientific Program (FISP) Writing Team, North Pacific Marine Science Organization (PICES), 2007–2008.

International Symposium on Eastern Boundary Upwelling Ecosystems: Integrative and Comparative Approaches, 2-6 June 2008, Las Palmas de Gran Canaria, Canary Islands, Spain, Scientific Steering Committee, 2007–2008.

OceanObs'09, 21-25 September 2009, Venice, Italy, Program Committee, 2009.

One Planet, One Ocean, 17-21 November 2014, Barcelona, Spain, International Scientific Committee, 2013–2014.

North Pacific Marine Science Organization (PICES) Advisory Panel on North Pacific Coastal Ocean Observing Systems, 2015–present.

Eastern Boundary Upwelling Systems, Climate and Ocean - Variability, Predictability, and Change (CLIVAR) Research Foci, 2016–present.

Ocean Network Canada International Science Advisory Board, 2017-present.

Invited Talks

Invited Speaker, "Emerging Science and Technology in Shallow Water" Seminar Series sponsored by the Graduate School of Oceanography, University of Rhode Island and the Naval Underwater Weapons Center, Newport Shallow Water Program Office, October 1994.

Invited Lecturer for the International Association for the Physical Sciences of the Oceans (IAPSO) XXI General Assembly Symposium on the Coastal Ocean: Interaction with the Open Ocean, August 1995.

Invited Speaker for the Gordon Research Conference on Coastal Ocean Circulation, June 1997.

Invited Speaker, "Advances and Primary Research Opportunities in Physical Oceanography Studies (APROPOS) Workshop," National Science Foundation, December 1997.

Invited Speaker, "Electro-Optical Propagation in the Ocean: A Focused Review," Office of Naval Research, January 1998.

"The Coastal Ocean Advances in Shelf Transport (COAST) Program," National Ocean Science Bowl, Salmon Bowl, Corvallis, Oregon, February 2002.

"Coastal Oceanography," The Ocean Dialogues, University of Washington, April 2004.

Invited Speaker for the Gordon Research Conference on Coastal Ocean Circulation, June 2005.

Invited Speaker, "Coastal Ocean Observing and Modeling (NSF STC)," National Science Board Meeting, Corvallis, OR, February 7, 2007.

Invited Speaker, "Into the Rabbit Hole: Strange Summers and Changing Currents," in "Predicting the Unpredictable: Marine Die-offs Along the West Coast," AAAS Annual Meeting, San Francisco, CA, February 17, 2007.

Keynote Speaker, "Severe Hypoxia in Oregon's Coastal Ocean: Mechanisms and Impacts," Oregon Academy of Science, Monmouth, OR, February 2007.

Invited Speaker, "The Changing Rhythms of Oregon's Coastal Ocean," Hatfield Marine Science Center SeaFest, Newport, OR, June 2007.

Invited Speaker, "Scope and Causes of Oregon's Coastal Low-Oxygen Zones (or 'Dead Zones')," Oregon Association of Environmental Professionals Forum, Portland, OR, October 2007.

Invited Speaker, "Changes in Coastal Upwelling Ecosystems Around the World," in "Strange Days on Planet Ocean: New Insights on the Effects of Climate Change," AAAS Annual Meeting, Boston, MA, February 17, 2008.

Invited Speaker, "Coastal Ecosytem Considerations," Working for Healthy Watersheds: Climate Change and Watershed Resilience, Oregon Watershed Enhancement Board's 10th Biennial Conference, Eugene, Oregon, November 5, 2008.

Invited Speaker, "Changes in Coastal Upwelling Ecosystems: The Emergence of Anoxia in the California Current," Symposium "Illuminating Climate-Ocean Linkages: New Science since the Last IPCC," International Marine Conservation Congress, Fairfax, Virginia, May 22, 2009.

Invited Speaker, "Tradeoffs Among Existing and Emerging Services: A Case Study of Wave Energy," Symposium "Start Where You Are: Scientific Approaches to Moving Forward with Ecostem-Based Management Now," International Marine Conservation Congress, Fairfax, Virginia, May 22, 2009.

Invited Speaker, "The Oregon 'Dead Zone'," COAS 50th Anniversary Science Symposium, Oregon State University, July 18, 2009.

Invited Speaker, "Physical processes of shelf-open ocean exchange and their influence on upwelling ecosystems," National Center for Atmospheric Research Advanced Study Program Colloquium on "Marine Ecosystems and Climate: Modeling and Analysis of Observed Variability," Boulder, Colorado, August 6, 2009.

Invited Speaker, "Hypoxia in Oregon Coastal Waters," 5th Annual Heceta Head Coastal Conference, Florence, Oregon, October 24, 2009.

Invited Speaker, "Coastal Ocean Dynamics as Related to Oil Spills," OSU Academy for Lifelong Learning, Corvallis, Oregon, January 11, 2011.

Invited Speaker, "Across the Wide North Pacific," 8th Annual Heceta Head Coastal Conference, Florence, Oregon, October 27, 2012.

Invited Speaker, "Certain and Likely Impacts of Climate Change on Oregon's Ocean," Portland Garden Club, Newport, Oregon, June 25, 2013.

Invited Speaker, "Ocean Exploration with Underwater Gliders," Stories from the Edge of Science, da Vinci Days, Corvallis, Oregon, July 20, 2013.

Invited Speaker, "Coastal Hypoxia off the Pacific Northwest," Ocean Studies Board, Newport, Oregon, November 14, 2013.

Public Policy

Invited Speaker, Oregon Ocean Policy Advisory Council Meeting, Corvallis, Oregon, April 2001.

Invited Speaker, Oregon Ocean Policy Advisory Council's Dialogue with Experts, Newport, Oregon, February 2002.

Participant, Impacts of Climate Change on the Pacific Northwest Workshop, Corvallis, Oregon, June 2004.

Signatory, "Scientific Consensus Statement on the Likely Impacts of Climate Change on the Pacific Northwest,"
http://www.inr.oregonstate.edu/download/climate_change_consensus_statement_final.pdf, June 2004.

Signatory, "Scientific Consensus Statement on Marine Ecosystem-Based Management,"
http://compassonline.org/files/inline/EBM%20Consensus%20Statement_FINAL_July%2012_v12.pdf, March 2005.

Invited Speaker, "Climate Impacts on the California Current Ecosystem," Pacific States Marine Fisheries Commission Annual Meeting, Portland, Oregon, Aug 22, 2006.

Invited Speaker, "Update on the Low-Oxygen Zone in Oregon's Coastal Ocean," Oregon Ocean Policy Advisory Council Meeting, Brookings, Oregon, Aug 25, 2006.

Workshop Leader, "Spatial Mapping of Marine Data and Information," Oregon Ocean Policy Advisory Council's Scientific and Technical Advisory Committee, Newport, OR, March 23, 2007.

Testimony, "Likely Effects of Climate Change on Oregon and the Pacific NW Ocean," Oregon House Interim Committee on Energy and the Environment, Corvallis, OR, April 4, 2008.

Workshop Co-Leader, "Marine Reserve Size and Spacing," Oregon Ocean Policy Advisory Council's Scientific and Technical Advisory Committee, Charleston, OR, April 10-22, 2008.

Presentation about "Science-Policy-Applications Continuum," Ocean Research and Resources Advisory Panel, Washington, DC, April 6, 2009.

Testimony, "Support for House Joint Resolution 16 Regarding the R/V Wecoma and its Eventual Replacement to Enable Long-Term Research on Oregon's Ocean," Oregon Senate Committee on Environment and Natural Resources, Salem, OR, May 5, 2009.

University of Oregon Symposium on "Ocean Impacts of Climate Change: Science, People and Policy," (Co-Organizor, Moderator), Eugene, OR, September 10, 2010, http://waynemorsecenter.uoregon.edu/_pages/events_themes/oceans_conference.html.

COMPASS Legislator Field Trip, Netarts Bay and Pacific City, OR, August 8, 2011.

Briefed Oregon Senator Ron Wyden on "Tsunami debris from the March 11, 2011, great east Japan earthquake," (with Jamie Doyle, Oregon Sea Grant), Hatfield Marine Science Center, Newport, OR, January 8, 2012.

"Demystifying Ocean Acidification and Coastal Hypoxia," A Public Forum at Tillamook Bay Community College, October 23, 2012.

Briefed Oregon Ocean Policy Advisory Council on "Ocean Acidification and Hypoxia in Oregon's Coastal Ocean," Tillamook, Oregon, December 4, 2012

Briefed Oregon Representative Susan Bonamici on "Ocean Observation Systems and Implications for Ocean Science and Climate Change," Hatfield Marine Science Center, Newport, OR, June 22, 2013.

Briefed National Science Foundation's "Decadal Survey of Ocean Science" on the Ocean Observatories Initiative's Endurance Array, Honolulu, Hawaii, March 2014.

Briefed Oregon Ocean Policy Advisory Council on "Ocean Acidification and the West Coast Ocean Acidification and Hypoxia Science Panel," Bandon, OR, May 8, 2015.

Panelist, "Ocean Acidification and Hypoxia Challenge: Preventing the Next Oyster Crash through Science and Research," Oregon Coast Economic Summit, Grand Ronde, OR, August 26, 2015.

Briefed Oregon Ocean Science Trust about "Oregon's Changing Ocean," Salem, OR, January 22, 2016.

Participated in the COMPASS "Science and Policy Roundtable on a Changing Ocean," New Orleans, LA, February 25, 2016.

Oregon Ocean Acidification and Hypoxia Coordinating Council, Co-Chair, 2017-present.

Public Outreach

"Circulation in the Coastal Ocean", Operation Pathfinder Teacher Education Program, OSU Hatfield Marine Science Center, Newport, OR, July 1996 and July 1999.

Invited Speaker, "Oregon's Coastal Ocean," OSU Central Oregon First Monday Lecture Series, Bend, Oregon, April 2001.

Host, R/V Wecoma and R/V Thomas G. Thompson Tours during COAST project, August 2001.

Speaker, SeaFest, Hatfield Marine Science Center, "Oregon's Dynamic Coastal Ocean," Newport, Oregon, June 2002.

Host, R/V Wecoma and R/V Roger Revelle Tours during GLOBEC Northeast Pacfic project, August 2002.

Exhibitor, SeaFest, Hatfield Marine Science Center, Newport, Oregon, June 2004.

Interview, Jefferson Public Radio, "Hypoxia off the Oregon Coast," August 12, 2004.

Interview, All Things Considered, National Public Radio, "New Dead Zone Forms along Oregon's Coast," August 13, 2004.

"Ocean Circulation," Oregon Field Guide, Oregon Public Broadcasting, November 17, 2005, http://www.opb.org/prog

Panelist for screenings of "Common Ground: Oregon's Coastal Ocean," Bend, OR, May 8, 2006, and ODFW Headquarters, Salem, OR, March 8, 2007.

"Oregon's Coastal Ocean Dead Zone," NBC Nightly News, October 22, 2006.

Press Briefing, "Predicting the Unpredictable: Marine Die-offs Along the West Coast," AAAS Annual Meeting, San Francisco, CA, February 16, 2007.

Interview about "Oregon's Dead Zone and Underwater Gliders," National Public Radio's "Technation" with Dr. Moira Gunn, February 28, 2007.

Oregon Coast Aquarium, test of vertical profiling mooring system in the OCA Passages of the Deep shark tank accompaned by an interpretive poster, NSF-sponsored CAPABLE project, May 2-3, 2007.

Interview about "Northwest Dead Zone," National Public Radio's "Living on Earth" with Steve Curwood, March 8, 2008.

Presentation about "Changes in Oregon's Ocean," Oregon Coast Aquarium Rockfish Society luncheon, Portland, Oregon, May 14, 2008.

Interview for HMSC kiosk display "Who Uses Satellite Data," Oregon Sea Grant, June 16, 2009.

"Hypoxia: Dead Zone," PISCO research video, also on display at the Smithsonian's Ocean Hall, 2009, http://www.piscoweb.org/research/science-by-discipline/coastal-oceanography/hypoxia/pisco-hypoxia-research-video

"Dead Zones: Mysteries of Ocean Die-Offs Revealed," NSF Special Report multimedia, 10/8/2009, http://www.nsf.gov/news/special_reports/deadzones/

"Ocean Dead Zones," Canadian Broadcasting Corporation's "As It Happens" radio interview, 10/14/2009, http://www.cbc.ca/radioshows/AS_IT_HAPPENS/20091014.shtml (starts at 19:28 in Part III)

"Dead Zones," Dr. Kiki's Science Hour, This Week in Technology podcast, 11/21/2009, http://wiki.twit.tv/wiki/Dr._Kiki%27s_Science_Hour_24

"Undersea Gliders May Help Oceanographers Understand 'Dead Zones'," NSF Science Nation video, 11/16/09, http://www.nsf.gov/news/special_reports/science_nation/deadzones.jsp

"Community Organizing, Ocean Style: Ocean Observatories Initiative," "Ocean Gazing" podcast, 11/27/2009, http://coseenow.net/2009/11/organizing

"The Nearshore Environment," Department of Environmental Quality Public Meeting regarding the Georgia Pacific Toledo Water Quality Permit, Newport, Oregon, February 10, 2010.

"Oregons Dynamic Coastal Ocean: Upwelling, Hypoxia and Ocean Observing," Oregon Coast Aquatic and Marine Science Partnership Colloquia for K-12 teachers, OSU Hatfield Marine Science Center, Newport, OR, February 20, 2010.

"Dead Zone Update," Oregon Field Guide, Oregon Public Broadcasting, March 18, 2010, http://www.opb.org/prograr

"The Changing Sea," Canadian Broadcasting Corporation documentary "One Ocean," March, 25, 2010, http://oneocean.cbc.ca/series/episodes/4-the-changing-sea and http://oneocean.cbc.ca/series/experts/jack-barth.

"X-Ray Earth," National Geographic Channel,May 15, 2011, http://channel.nationalgeographic.com/episode/x-ray-earth-5102/Overview

"New Eyes on our Changing Ocean: Underwater Robotic Gliders and the Ocean Observatories Initiative," Science on Tap, Hatfield Marine Science Center, Rogue Brewery, Newport, OR, January 24, 2012.

"Suffocating Waters," Science New for Kids, March 29, 2012, http://www.sciencenewsforkids.org/2012/03/suffocating-waters/.

"Tsunami Debris" on "Costing the Earth," British Broadcasting Corporation, October 9,2012, http://www.bbc.co.uk/

"Certain and likely impacts of climate change on Oregons oceans," Portland Garden Club, Newport, OR, June 25, 2013.

"Climate Change and the Health of our Ocean," Douglas County Global Warming Coalition, Roseburg, Oregon, April 22, 2015.

Ocean Acidification video, http://www.oregonocean.info/index.php/ocean-acidification-and-hypoxia.

Selected Research Grants and Contracts

Title	Agency	Start Date	Duration	Amount
The Dynamics of Coastal Fronts and Jets	NSF	May 1, 1990	3 years	$192,093
Separation of a Coastal Jet: A Link Between the Coastal and Adjacent Deep Ocean (J.A. Barth and R.L. Smith)	NSF	Jan 1, 1994	3.5 years	$626,905
Rapid Hydrographic, Optical and Micro-structure Surveys on the Continental Shelf and Slope (J.A. Barth and P.M. Kosro)	ONR	Feb 1, 1995	5 years	$1,180,000
Prediction of Wind-Driven Coastal Circulation (J.S. Allen and J.A. Barth)	NOPP ONR	Jul 1, 1998	2 years	$2,999,581

Title	Agency	Start Date	Duration	Amount
Coastal Ocean Advances in Shelf Transport (COAST) (J.A. Barth, P.A. Wheeler, J.S. Allen)	NSF CoOP	Jan 1, 2000	5 years	$8,423,142
GLOBEC Mesoscale Surveys in the California Current (T.J. Cowles, J.A. Barth and S.D. Pierce)	NSF GLOBEC	Jan 1, 2000	5 years	$1,721,264
Ocean Glider Autonomous Vehicle	OSU RERF	Jan 24, 2004	1 year	$72,000
Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) (J. Lubchenco, B. Menge and J. Barth)	Packard/ Moore Found.	Jan 1, 2005	5 years	$1,016,887
Event-Scale to Interannual Variations in Shelf Water Properties and Dynamics (J. Barth and R. K. Shearman)	NSF	Sep 15, 2005	3 years	$983,386
Baseline Observations and Modeling of the Reedsport Wave Energy Site (H. T. Ozkan-Haller, J. Allan, J. Barth, M. Haller, R. Holman and P. Roggerio)	Oregon Wave Energy Trust	Jan 1, 2009	1 year	$40,000
Development and Testing of a Coastal Autonomous Profiling and Boundary Layer System (CAPABLE) (J. Barth and M. Levine)	NSF	Apr 1, 2009	2 years	$647,486
Upwelling Dynamics from Days to Years Using Underwater Gliders (J. Barth and R. K. Shearman)	NSF	Jan 1, 2010	3 years	$907,827
Ocean Observatories Initiative (OOI) (R. Collier, E. Dever and J. Barth)	NSF MREFC	Aug 1, 2009	7.5 years	$30,700,000
Revolutionizing Our Understanding of Ocean Ecosystems (J. A. Barth, K. Benoit-Bird and G. Hollinger)	Keck Found.	Jan 1, 2015	3 years	$1,000,000
Ship-Based and High-Resolution Array Measurements of the Inner Shelf (J. A. Barth and J. Lerczak)	ONR	Jun 1, 2015	4 years	$999,931
Closing the Gaps in Oregon's Ocean Acidification Seascape: New Partnerships for Science-Informed Decision Making (F. Chan, J. Lubchenco, K. Milligan and J. A. Barth)	Educ. Found. America	Jan 1, 2015	2 years	$160,000

Teaching Profile

Courses taught at Oregon State University

Term	Course	Title	Credits	Students
Fall 1990	OC670	Fluid Dynamics	4	11
	Fundamentals of fluid dynamics; conservation laws of mass, momentum and energy; inviscid and viscous flows; boundary layers; vorticity dynamics; irrotational and potential flow.			
Winter 1991	OC675	Numerical Modeling of Ocean Circulation	4	5
	Review of theoretical models of ocean circulation, including shallow water, barotropic, quasi-geostrophic and primitive equation models; adjustment times, internal length and time scales; the role of advection, bathymetry and coastlines; global models, basin models, regional models and models of jets, eddies and boundary currents. Review of numerical techniques and problems specific to ocean modeling. Local facilities are used to develop models on remote supercomputers (see "Colleges Take Advantage of Cray Time Grants for Students", 1991, *Bull. Amer. Meteor. Soc.*, **72**, 1377–1379.)			
Spring 1992	OC433/533	Coastal and Estuarine Oceanography	3	12
	Circulation of the coastal ocean including continental shelf circulation, upwelling, coastal jets, undercurrents, coastal-trapped waves. Fundamentals of surface waves and tides; tsunamis, wind generation, breaking patterns; shallow-water processes and beach morphology.			
Winter 1997	OC679b	Coastal Circulation	3	8
	Surface, bottom and mixed boundary layers; wind-driven shelf circulation; steady circulation models; coastally-trapped waves and remote forcing; observations of continental shelf and slope circulation with an emphasis on the US west and east coasts. J. Barth created and developed this course.			
Spring 1998	OC433/533	Coastal and Estuarine Oceanography	3	16
Winter 2000	OC679	Coastal Circulation	3	5
Winter 2001	OC332	Coastal Oceanography	3	21
	Physics, geology, biology and hydrology of coastal oceans. How coastal waters respond to forcing by heating, cooling, winds, tides, waves, rain, evaporation, river runoff and freezing. Geography and geology of coastlines: erosion and deposition processes, beach dynamics. Coastal equilibrium cells as sources and sinks of sediment. Rocky shore, beach, mudflat, estuarine and coastal biotic communities; animal migrations. Law of the Sea rights and responsibilities of coastal states. Fisheries and mariculture in coastal seas. Pollution and coastal ocean resources. Using a matrix to define environmental problems; pathways that pollutants take through coastal ecosystems.			
Spring 2002	OC433/533	Coastal and Estuarine Oceanography	3	11
Winter 2003	OC679	Coastal Circulation	3	2
Winter 2004	OC433/533	Coastal and Estuarine Oceanography	3	21

Courses taught at Oregon State University (continued)

Term	Course	Title	Credits	Students
Winter 2005	OC671	Geophysical Fluid Dynamics	4	5
	Dynamics of rotating and stratified fluids, potential vorticity geostrophic motion; inviscid shallow-water theory, Poincare, Kelvin and Rossby waves; geostrophic adjustment, Ekman layers, two-layer and continuously stratified models.			
Spring 2007	OC679	Advanced Coastal Oceanography	3	4
Winter 2008	OC332	Coastal Oceanography	3	20
Winter 2009	OC679	Advanced Coastal Oceanography	3	4
Spring 2010	OC433/533	Coastal and Estuarine Oceanography	3	19
Spring 2011	OC679	Advanced Coastal Oceanography	3	4
Spring 2012	OC433/533	Coastal and Estuarine Oceanography	3	17
Spring 2012	OC/GEO103	Exploring the Deep	4	291
Spring 2013	OC679	Advanced Coastal Oceanography	3	5
Spring 2013	OC/GEO103	Exploring the Deep	4	300
Spring 2014	OC433/533	Coastal and Estuarine Oceanography	3	19
Spring 2014	OC/GEO103	Exploring the Deep	4	300
Spring 2015	OC679	Advanced Coastal Oceanography	3	4
Spring 2016	OC433/533	Coastal and Estuarine Oceanography	3	21