

M. Susan Lozier

Ronie-Richele Garcia-Johnson Professor
Nicholas School of the Environment
Duke University

919.681.8199
susan.lozier@duke.edu
sites.duke.edu/mslozier

Education

1975 – 1979 B.S. Chemical Engineering; Purdue University
1982 – 1984 M.S. Chemical Engineering; University of Washington
1984 – 1989 Ph.D. Physical Oceanography; University of Washington

Research Interests

Large-scale ocean circulation and its impact on climate; meridional overturning circulation and its variability; pathways of ocean flow; and physical constraints on marine primary productivity

Awards, Fellowships and Honors

1979 Flora Roberts Award to the Outstanding Senior Woman, Purdue University
1986 National Center for Atmospheric Research Summer Fellowship
1989 Woods Hole Oceanographic Institution Postdoctoral Fellowship
1996 National Science Foundation Early Career Award
2007 Duke University, University-wide Award for Excellence in Mentoring
2009 Fellow, American Meteorological Society
2010 Association of Women Geoscientists Outstanding Educator Award
2014 Fellow, American Geophysical Union
2015 Fellow, American Association for the Advancement of Science
2016 Ambassador Award, American Geophysical Union
2017 Joanne Simpson Mentoring Award, American Meteorological Society

Employment

1979 - 1982 Chemical Engineer, Engineering Test Center, E.I. DuPont DeNemours and Co., Wilmington, Delaware
1982 - 1989 Research and Teaching Assistant, Department of Chemical Engineering (1982-1984) and School of Oceanography (1984-1989), University of Washington, Seattle, Washington
1989 - 1991 Postdoctoral Scholar and Postdoctoral Investigator, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts
1992 - present Assistant Professor (1992-1999); Associate Professor (1999-2004); Full Professor (2004-2012); Distinguished Professor (2012-present), Division of Earth and Ocean Sciences, Nicholas School of the Environment, Duke University, Durham, North Carolina

- 1992 - 2003 Guest Investigator, Woods Hole Oceanographic Institution, Department of Physical Oceanography, Woods Hole, Massachusetts (summers)
- 2003 - present Adjunct Scientist, Woods Hole Oceanographic Institution, Department of Physical Oceanography, Woods Hole, Massachusetts
- 2015-2017 Vice Provost for Strategic Planning, Duke University

Publications

* Publication with a student or postdoctoral associate as first-author

1. Li, F. and M.S. Lozier, 2018. On the linkage between Labrador Sea Water volume and overturning circulation in the Labrador Sea: a case study on proxies. *Journal of Climate*, doi: 10.1175/JCLI-D-17-0692.1
2. *Li, F., M.S. Lozier and W. Johns, 2017. Calculating the meridional volume, heat and freshwater transports from an observing system in the subpolar North Atlantic: Observing system simulation experiment. *Journal of Atmospheric and Oceanic Technology*, doi: 10.1175/JTECH-D-16-0247.1
3. *Foukal, N.P. and M.S. Lozier, 2017. Assessing variability in the size and strength of the North Atlantic subpolar gyre. *Journal of Geophysical Research: Oceans*, doi: 10.1002/2017JC012798
4. *Zou, S., M.S. Lozier, W. Zenk, A.S. Bower and W.E. Johns, 2017. Observed and Modeled Pathways of the Iceland Scotland Overflow Water in the eastern North Atlantic. *Progress in Oceanography*, doi: 10.1016/j.pocean.2017.10.003
5. Lozier, M.S. et al., 2016. Overturning in the Subpolar North Atlantic Program: a new international ocean observing system. *Bulletin of the American Meteorological Society*, doi: 10.1175/BAMS-D-16-0057.1
6. *Zou, S. and M.S. Lozier, 2016. Breaking the linkage between Labrador Sea Water production and its export to the subtropical gyre. *Journal of Physical Oceanography*, doi: 10.1175/JPO-D-15-0210.1
7. *Brody, S.R., M.S. Lozier and A. Mahadaven, 2016. Quantifying the impact of submesoscale processes on the spring phytoplankton bloom in a turbulent upper ocean using a Lagrangian approach. *Geophysical Research Letters*, doi:10.1002/2016GL068051
8. Rypina, I.I., L.J. Pratt and M.S. Lozier, 2016. Influence of ocean circulation changes on the interannual variability of American eel larval dispersal. *Limnology and Oceanography*, doi:10.1002/lno.10297
9. Brown, P.T., M.S. Lozier, R. Zhang and W. Li, 2016. The necessity of cloud feedback for a basin-scale Atlantic Multidecadal Oscillation. *Geophysical Research Letters*, doi: 10.1002/2016GL068303
10. *Foukal, N.P. and M.S. Lozier, 2016. On the propagation of sea-surface temperature anomalies from the subtropical gyre to the subpolar gyre in the North Atlantic. *Nature Communications*, doi: 10.1038/ncomms11333
11. National Research Council, Sea Change: 2015-2025 Decadal Survey of Ocean Sciences. Washington, DC: The National Academies Press, 2015. doi: 10.17226/21655
12. * Dave, A.C, A.D. Barton, M.S. Lozier and G.A. McKinley, 2015. What drives seasonal change in oligotrophic area in the subtropical North Atlantic? *Journal of Geophysical Research*, doi: 10.1002/2015JC010787

13. *Dave, A.C. and M.S. Lozier, 2015. The impact of advection on marine productivity variability in the equatorial Pacific. *Geophysical Research Letters*, doi:10.1002/2015GL063290
14. Williams, R.G., V. Roussenov, M.S. Lozier and D. Smith, 2015. Mechanisms of heat content and thermocline change in the subtropical and subpolar North Atlantic. *Journal of Climate*, **28**, 9803-9815.
15. Yamamoto, A., J.B. Palter, M.S. Lozier, M.S. Bourqui and S.L. Leadbetter, 2015. Ocean versus atmosphere control on western European temperature variability, *Ocean Dynamics*, doi: 10.1007/s00382-015-2558-5
16. Kwon, Y.O., J.J. Park, S.F. Gary and M.S. Lozier, 2015. Year-to-year re-outcropping of Eighteen Degree Water in an eddy-resolving ocean simulation. *Journal of Physical Oceanography*, **45**, 1189–1204.
17. *Barton, A.D., M.S. Lozier and R.G. Williams, 2015. Physical controls of variability in North Atlantic phytoplankton communities, *Limnology and Oceanography*, **60**, 181-197.
18. Lozier, M.S. and S. Clem, 2015. Mentoring Physical Oceanography Women to Increase Retention, in *Women in the Geosciences: Practical, Positive Practices Toward Parity* (eds. M.A. Holmes, S. O'Connell and K. Dutt), John Wiley & Sons, Inc., Hoboken, NJ. doi: 10.1002/9781119067573.ch12
19. Rypina, I.I., J.K. Llopiz, L.J. Pratt and M.S. Lozier, 2014. Dispersal pathways of American eel larvae from the Sargasso Sea. *Limnology and Oceanography*, **59(5)**, 1704–1714.
20. Abbott, J., J.L. Anderson, L. Campling, R. Hannesson, E. Havice, M.S. Lozier, M.D. Smith, and M.J. Wilberg, 2014. Steering the Global Partnership for the Oceans. *Marine Resource Economics*, **29**, 1-16.
21. *Burkholder, K.C. and M.S. Lozier, 2014. Tracing pathways of the North Atlantic meridional overturning circulation's upper limb. *Geophysical Research Letters*, **41**, 4254-4260.
22. *Brody, S.R. and M.S. Lozier, 2014. Changes in dominant mixing length scales as a driver of subpolar phytoplankton bloom initiation in the North Atlantic. *Geophysical Research Letters*, **41**, 3197-3203.
23. *Gary, S.F., M.S. Lozier, Y.O. Kwon, and J.J. Park, 2014. The fate of North Atlantic subtropical mode water in the FLAME model. *Journal of Physical Oceanography*, **44**, 1354-1371.
24. Williams, R.G., V. Roussenov, D. Smith and M.S. Lozier, 2014. Decadal evolution of ocean thermal anomalies in the North Atlantic: the effect of Ekman, overturning and horizontal transport, *Journal of Climate*, **27**, 698-719.
25. White, J.C., R.B. Alley, D.E. Archer, A.D. Barnosky, J. Foley, R. Fu, M.M. Holland, M.S. Lozier, J. Schmitt, L.C. Smith, G. Sugihara, D.W.J. Thompson, A.J. Weaver and S.C. Wofsy. National Research Council, *Abrupt Impacts of Climate Change: Anticipating Surprises*, Washington, D.C: The National Academies Press, 220 pp, 2013.
26. *Dave, A. and M.S. Lozier, 2013. Examining the global record of interannual variability in stratification and marine productivity in the low-and mid-latitude ocean, *Journal of Geophysical Research*, **118**, 3114–3127.
27. *Brody, S.R., M.S. Lozier and J.P. Dunne, 2013. A comparison of methods to determine phytoplankton bloom initiation, *Journal of Geophysical Research*, **118**, 2345-2357.
28. Riser, S. C. and M.S. Lozier, 2013. Rethinking the Gulf Stream. *Scientific American*, **308**, 50–55.
29. Lozier, M.S., S.F. Gary and A.S. Bower, 2013. Simulated pathways of the overflow waters in the North Atlantic: subpolar to subtropical export. *Deep Sea Research II*, **85**, 147–153.

30. *Gary, S.F., M.S. Lozier, A. Biastoch, C.W. Böning, 2012. Reconciling tracer and float observations of the export pathways of Labrador Sea Water, *Geophysical Research Letters*, **39**, L24606, doi:10.1029/2012GL053978
31. Srokosz, M., M. Baringer, H. Bryden, S. Cunningham, T. Delworth, S. Lozier, J. Marotzke and R. Sutton, 2012. Past, present and future change in the Atlantic meridional overturning circulation, *Bull. Amer. Meteor. Soc.*, **93**, 1663–1676. doi: 10.1175/BAMS-D-11-00151.1
32. Lozier, M.S., 2012. Overturning in the North Atlantic. *Annual Review of Marine Science*, **4**, 291-315.
33. *Ayers, J.M. and M.S. Lozier, 2012. Unraveling dynamical controls on the North Pacific carbon sink. *Journal of Geophysical Research*, **117**, C01017, doi:10.1029/2011JC007368
34. *Burkholder, K.C. and M. S. Lozier, 2011. Mid-depth Lagrangian pathways in the eastern North Atlantic and their impact on the salinity of the eastern subpolar gyre. *Deep Sea Research*, **58**, 1196-1204.
35. Lozier, M. S., A. C. Dave, J. B. Palter, L. M. Gerber, and R. T. Barber, 2011. On the relationship between stratification and primary productivity in the North Atlantic. *Geophysical Research Letters*, **38**, L18609, doi:10.1029/2011GL049414
36. *Palter, J. B., M. S. Lozier, J. L. Sarmiento, and R. G. Williams, 2011. The supply of excess phosphate across the Gulf Stream and the maintenance of subtropical nitrogen fixation. *Global Biogeochemical Cycles*, **25**, GB4007, doi:10.1029/2010GB003955
37. Bozec, A., M.S. Lozier, E.P. Chassignet and G.R. Halliwell, 2011. On the variability of the Mediterranean Outflow Water in the Atlantic Ocean from 1948 to 2006. *Journal of Geophysical Research – Oceans*, **116**, C09033, doi:10.1029/2011JC007191
38. *Robel, A.A., M.S. Lozier, S.F. Gary, G.L. Shillinger, H. Bailey, and S.J. Bograd, 2011. Projecting uncertainty onto marine megafauna trajectories. *Deep Sea Research*, **58** (9), 915-921.
39. *Burkholder, K.C. and M. S. Lozier, 2011. Subtropical to subpolar pathways in the North Atlantic. *Journal of Geophysical Research – Oceans*, **116**, C07017, doi:10.1029/2010JC006697
40. Rypina, I.I., L.J. Pratt and M.S. Lozier, 2011. Near-surface transport pathways in the North Atlantic ocean: looking for throughput from the subtropical to the subpolar gyre, *Journal of Physical Oceanography*, **41** (5), 911-925.
41. Bower, A.S., M.S. Lozier and S.F. Gary, 2011. The export of Labrador Sea Water from the subpolar North Atlantic: a Lagrangian perspective. *Deep Sea Research*, **58**, 1798-1818.
42. *Gary, S.F., M.S. Lozier, C. Böning and A. Biastoch, 2011. Deciphering the pathways for the deep limb of the Meridional Overturning Circulation. *Deep Sea Research*, **58**, 1781-1797.
43. *Dave, A. and M.S. Lozier, 2010. Local stratification control of marine productivity in the subtropical North Pacific. *Journal of Geophysical Research*, **115**, C12032, doi:10.1029/2010JC006507
44. Lozier, M.S., V. Roussenov, Mark S.C. Reed, and R.G. Williams, 2010. Opposing decadal changes for the North Atlantic meridional overturning circulation. *Nature Geosciences*, **3**, 728-734.
45. Lozier, M.S., 2010. Deconstructing the Conveyor Belt. *Science*, **328**, 1507–1511.
46. *Ayers, J.M. and M.S. Lozier, 2010. Physical controls on the seasonal migration of the North Pacific Transition Zone chlorophyll front. *Journal of Geophysical Research*, **115**, C05001, doi:10.1029/2009JC005596

47. The CLIMODE Group, 2009. The CLIMODE field campaign: Observing the cycle of convection and restratification over the Gulf Stream. *Bulletin of the American Meteorological Society*, **90(9)**, 1337–1350.
48. Lozier, M.S. and L. Sindlinger, 2009. On the source of Mediterranean Overflow Water property changes. *Journal of Physical Oceanography*, **39**, 1800-1817.
49. Bower, A.S., M.S. Lozier, S.F. Gary and C. Böning, 2009. Interior pathways of the Atlantic meridional overturning circulation. *Nature*, **458**, 243-247.
50. Lavine, M., G. Hegerl and S. Lozier, 2009. Discussion of reified Bayesian modelling and inference for physical systems by M. Goldstein and J. Rougier. *Journal of Statistical Planning and Inference*, **139**, 1243-1245.
51. Lozier, M.S., 2009. Overturning assumptions. *Nature Geosciences*, **2**, 12 – 13, doi:10.1038/ngeo402
52. Lozier, M.S. and N. M. Stewart, 2008. On the temporally-varying northward penetration of Mediterranean Overflow Waters and eastward penetration of Labrador Sea Waters. *Journal of Physical Oceanography*, **38**, 2097-2103.
53. *Palter, J.B. and M.S. Lozier, 2008. On the source of Gulf Stream nutrients. *Journal of Geophysical Research*, **113**, C06018, doi:10.1029/2007JC004611.
54. *Palter, J.B., M.S. Lozier and K. Lavender, 2008. How does Labrador Sea Water enter the Deep Western Boundary Current? *Journal of Physical Oceanography*, **38**, 968-983.
55. Lozier, M.S., S.J. Leadbetter, R.G. Williams, V. Roussenov, M.S.C. Reed and N.J. Moore, 2008. The spatial pattern and mechanisms of heat content change in the North Atlantic. *Science*, **319**, 800-803.
56. *Hanshaw, M. N., M. S. Lozier, and J. B. Palter, 2008. Integrated impact of tropical cyclones on sea surface chlorophyll in the North Atlantic, *Geophysical Research Letters*, **35**, L01601, doi:10.1029/2007GL031862
57. *Rappold, A.G., M. Lavine and M.S. Lozier, 2007. Subjective likelihood for an assessment of trends in the ocean's mixed layer depth. *Journal of the American Statistical Association*. **102**, no. 479, 771-787.
58. *Palter, J.B., M.S. Lozier, and R.T. Barber, 2005. The effect of advection on the nutrient reservoir in the North Atlantic subtropical gyre. *Nature*, **437**, 687-692.
59. Lozier, M.S. and M.S. Reed, 2005. The influence of topography on the stability of shelfbreak frontal currents. *Journal of Physical Oceanography*, **35**, 1023–1036.
60. Rasmussen, L. L., G. G. Gawarkiewicz, W. B. Owens and M.S. Lozier, 2005. Slope water, Gulf Stream and seasonal influences during the fall-winter transition in the southern Mid-Atlantic Bight. *Journal of Geophysical Research*, **109**, C02009, doi: 10.1029/2004JC002311
61. *Yuan, G., M. S. Lozier, L. Pratt, C. Jones and K. Helfrich, 2004. Estimating the predictability of an oceanic time series using linear and nonlinear methods. *Journal of Geophysical Research*, **109**, C08002, doi:10.1029/2003JC002148
62. *Potter, R. A. and M. S. Lozier, 2004. On the warming of the Mediterranean outflow waters. *Geophysical Research Letters*, **31**, L01202, doi: 10.1029/ 2003GL018161
63. Lozier, M. S., M. S. Reed and G. G. Gawarkiewicz, 2002. Instability of a shelfbreak front. *Journal of Physical Oceanography*, **32**, 924-944.

64. Chao, Y. and M. S. Lozier, 2001. Evaluation of North Atlantic property field simulations at $1/6^\circ$. *Journal of Physical Oceanography*, **31**, 1377-1398.
65. Lozier, M. S. and G. G. Gawarkiewicz, 2001. Cross-frontal exchange in the Middle Atlantic Bight as evidenced by surface drifters. *Journal of Physical Oceanography*, **31**, 2498-2510.
66. McCartney, M. S. and M. S. Lozier, 2001. Ocean Dynamics. *Encyclopedia of Global Change*. Andrew S. Goudie (editor), Oxford University Press, 1424 pp. ISBN13: 978-0-19-510825-5.
67. *Iorga, M. and M. S. Lozier, 1999. Signatures of the Mediterranean outflow from a North Atlantic climatology 2. Diagnostic velocity fields. *Journal of Geophysical Research*, **104**, 26,011-26,029.
68. *Iorga, M. and M. S. Lozier, 1999. Signatures of the Mediterranean outflow from a North Atlantic climatology 1. Salinity and density fields. *Journal of Geophysical Research*, **104**, 25,985-26,009.
69. Lavine, M. and M. S. Lozier, 1999. A Markov random field spatio-temporal analysis of ocean temperature. *Environmental and Ecological Statistics*, **6**, 249-273.
70. Lozier, M. S., 1999. The impact of mid-depth recirculations on the distribution of tracers in the North Atlantic. *Geophysical Research Letters*, **26**, 219-222.
71. Lozier, M. S., 1997. Evidence for large-scale eddy-driven gyres in the North Atlantic. *Science*, **277**, 361-364.
72. Lozier, M. S., L. J. Pratt, A. M. Rogerson and P. D. Miller, 1997. Exchange geometry revealed by float trajectories in the Gulf Stream. *Journal of Physical Oceanography*, **27**, 2327-2341.
73. Lozier, M. S., T. J. Bold and A. S. Bower, 1996. The influence of propagating waves on cross stream excursions. *Journal of Physical Oceanography*, **26**, 1915-1923.
74. *Wang, W. and M. S. Lozier, 1995. An estimate of the climatological mean circulation in the western North Atlantic. *Journal of Marine Research*, **53**, 1059-1080.
75. Lozier, M. S., W. B. Owens and R. G. Curry, 1995. The climatology of the North Atlantic. *Progress in Oceanography*, **36**, 1-44.
76. Pratt, L. J., M. S. Lozier and N. Belakovia, 1995. Parcel trajectories in quasigeostrophic jets: Neutral modes. *Journal of Physical Oceanography*, **25**, 1451-1466.
77. Lozier, M. S., M. S. McCartney and W. B. Owens, 1994. Anomalous anomalies in averaged hydrographic data. *Journal of Physical Oceanography*, **24**, 2624-2638.
78. Bower, A. S. and M. S. Lozier, 1994. A closer look at particle exchange in the Gulf Stream. *Journal of Physical Oceanography*, **24**, 1399-1418.
79. Lozier, M. S. and D. Bercovici, 1992. Particle exchange in an unstable jet. *Journal of Physical Oceanography*, **22**, 1506-1516.
80. Lozier, M. S. and S. C. Riser, 1990. Potential vorticity sources and sinks in a quasigeostrophic ocean: Beyond western boundary currents. *Journal of Physical Oceanography*, **20**, 1608-1627.
81. Lozier, M. S. and S. C. Riser, 1989. Potential vorticity dynamics of boundary currents in a quasigeostrophic ocean. *Journal of Physical Oceanography*, **19**, 1373-1396.

Other Manuscripts

1. Bower, A. S. and M. S. Lozier, 1990. Comment on why there is cross stream motion in the Gulf Stream. *The Synoptician*, **1**(5).
2. Lozier, M. S, 1991. Particle exchange across an unstable jet. *Synoptician*, **2**(3).
3. Lozier, M. S., 1996. The climatology of the North Atlantic. *WOCE Notes*, **8**(2), 12-15.
4. Young, W.R., T. Royer, J. Barth, E. Chassignet, J. Ledwell, M.S. Lozier, S. Monismith, P. Rhines and P. Schlosser, 1999. *The Future of Physical Oceanography: Report of the APROPOS Workshop*. <http://www.joss.ucar.edu/joss-psg/project/oce-workshop/apropos/report.html>.
5. Lozier, M.S., 2005. A community effort toward the retention of women in physical oceanography. *Oceanography*, **18**, 35-38.
6. Lozier, M. S., 2006. MPOWIR: Mentoring Physical Oceanography Women to Increase Retention. *EOS*, **87** (12), 123&126.
7. Lozier, M.S., A. Adcroft, L. Beal, A. Bower, D. Byrne, A. Capotondi, V. Coles, K. Lavender, C.M. Lee, J. MacKinnon, K. Shearman, L. St. Laurent, L. Thompson, and D. Witter. 2006. *MPOWIR: Mentoring physical oceanography to increase retention. Report of a workshop held October 9-12, 2005*. 32 pp. [Online] available at: <http://www.mpowir.org>.
8. U.S. CLIVAR AMOC Planning Team, S. Lozier and K. Kelly (chairs), 2007. *Implementation Strategy for a JSOST Near-Term Priority, Assessing Meridional Overturning Circulation Variability: Implications for Rapid Climate Change*. [Online] available at: <http://www.usclivar.org>.
9. U.S. CLIVAR AMOC Science Team, 2008: Progress Report for a JSOST Near-Term Priority: Assessing Meridional Overturning Circulation Variability: Implications for Rapid Climate Change, J. Miller and S. Lozier, editors. U.S.CLIVAR report 2008-02, U.S. CLIMVAR Office, Washington, D.C., 20006, 22pp.
10. Valvo, L.M., M.S. Lozier, V. Coles, 2008. The Pattullo conference report and update on other MPOWIR activities. Report of a workshop held May 18-21, 2008. 35pp. [Online] available at: <http://www.mpowir.org>.
11. Lozier, M.S., 2009. A successful first Pattullo Conference. *Oceanography* **22**(1), 180-181.
12. Legler, D. and M. S. Lozier, 2009. Understanding Variability and Climate Impacts of Atlantic Meridional Overturning Circulation. *EOS*, 90 (31), 268.
13. U.S. CLIVAR AMOC Science Team, 2008: Progress Report for a JSOST Near-Term Priority: Assessing Meridional Overturning Circulation Variability: Implications for Rapid Climate Change, J. Miller and S. Lozier, editors. U.S.CLIVAR report 2008-02, U.S. CLIVAR Office, Washington, D.C., 20006, 22pp.
14. Lozier, M.S., P. Chang, T. Delworth, T. Lee, D. Legler, and J. Toole, 2009: Second Annual Progress Report for a JSOST Near-Term Priority: Assessing Meridional Overturning Circulation Variability: Implications for Rapid Climate Change. U.S.CLIVAR report 2009-01, U.S. CLIVAR Office, Washington, D.C., 20006, 25pp.
15. Gerber, L. M. and M. S. Lozier, 2010. Mentoring Women in Physical Oceanography. *EOS*, **91** (33), 291.

16. Palmer, M. D., J. Antonov, P. Barker, N. Bindoff, T. Boyer, M. Carson, C. M. Domingues, S. Gille, P. Gleckler, S. Good, V. Gouretski, S. Guinehut, K. Haines, D. E. Harrison, M. Ishii, G. C. Johnson, S. Levitus, M.S. Lozier, J. M. Lyman, A. Meijers, K. von Shuckmann, D. Smith, S. Wijffels, and J. Willis. 2010. Future Observations for Monitoring Global Ocean Heat Content. In Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2) Venice, Italy, 21-25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., *ESA Publication WPP-306*, doi:10.5270/OceanObs09.cwp.68
17. Coles, V., L. Gerber, S. Legg, and M.S. Lozier, 2011. Mentoring Groups: A non-exit strategy for women in Physical Oceanography. *Oceanography*, **24**(2):17–20.
18. *Dave, A. and M.S. Lozier, 2011. The Impact of MOC Variability on Marine Productivity and Carbon Uptake and Storage in the North Atlantic. *Ocean Carbon and Biogeochemistry News*. **4**(2), 8-11.
19. U.S. CLIVAR AMOC Science Team, 2011. Third Annual Progress Report for a JSOST Near-Term Priority Assessing Meridional Overturning Circulation Variability: Implications for Rapid Climate Change. *Report 2011-1, U.S. CLIVAR Office*, Washington, DC. 67pp.
20. U.S. CLIVAR AMOC Science Team, 2013. Fifth Annual Progress Report for a SOST Near-Term Priority Assessing Meridional Overturning Circulation Variability: Implications for Rapid Climate Change. *Report 2013-2, U.S. CLIVAR Office*, Washington, DC. 102 pp.
20. Lozier, M.S., 2012. Review of *Climate and Oceans* by G. Vallis, 2012. *Bulletin of the American Meteorological Society*, **93**.
21. Lozier, M.S., 2015. Oceanographers as Masons. *Oceanography* **25** (2), 7-7.
22. Lozier, M.S., 2015. Ensuring a Healthy Funding Environment in Ocean Sciences. *Oceanography*, **28** (1), 6-6.
23. Lozier, M.S., 2015. Overturning assumptions past, present, and future concerns about the ocean's circulation. *Oceanography*, **28**, 240-251.
24. Lozier, M.S., 2015. From the President: Sharks and Miami lawyers. *Oceanography* **28** (3), 7-7.
25. Lozier, M.S., 2015. A Tribute to John Knauss (1925-2015). *Oceanography*, **28** (4), 7-7.
26. Lozier, M.S., 2016. The Case for a Sea Change in Graduate Education in the Ocean Sciences. *Oceanography*, **29** (1), 6-7.
27. Lozier, M.S., 2016. Oceanographers at the Beach. *Oceanography*, **29** (2), 8-9.
28. Lozier, M.S., 2016. TOS to Pilot a Mentoring Program for Ocean Science Graduate Students. *Oceanography* **29** (3), 7-8.
29. Lozier, M.S., 2016. The New World of Oceanography. *Oceanography*, **29** (4), 7-7.

Professional Societies

American Geophysical Union
 The Oceanography Society
 American Meteorological Society
 American Association for the Advancement of Science

Professional Service

*Denotes service within the last year and/or continuing service

Member, National Science Foundation Physical Oceanography Program Panel (July 1992; July 1994; November 1998; November 2002)

Member, Scientific Steering Committee for the Atlantic Climate Change Program, National and Oceanic Atmospheric Administration (1995-1996)

Member, World Ocean Circulation Experiment Data Synthesis Working Group (1995-1996)

Member, National Defense Science and Engineering Graduate Fellowship Selection Panel (February, 1995)

Chair, National Defense Science and Engineering Graduate Fellowship Selection Panel (February, 1996 and February, 1997)

Member, Steering Committee, National Science Foundation Physical Oceanography Workshop: APROPOS (1997-1998)

Member, National Science Foundation Ocean Sciences Decadal Committee (1998- 2001)

Member, Allocations Committee, North Carolina Supercomputing Center, (1999-2002)

Member of the Corporation, Sea Education Association, Woods Hole, Massachusetts (2000-2011)

Member, Science team for NASA's Aquarius mission (2001-2003)

Member, National Aeronautics and Space Administration Physical Oceanography Program Panel (March 2002)

Member, U.S. CLIVAR Atlantic Implementation Committee (2003-2005)

Member, Visiting Committee, Physical Oceanography Department, Woods Hole Oceanographic Institution (May 2005)

Councilor for Physical Oceanography, The Oceanography Society (2005-2008)

Co-chair, AMOC (Atlantic Meridional Overturning Circulation) Implementation Strategy Team (2007)

Member, National Aeronautics and Space Administration Physical Oceanography Program Panel (October 2007)

Chair, AMOC (Atlantic Meridional Overturning Circulation) Science Team (2008-2010)

Member, Velesten Prize Selection Committee, Columbia University (2008)

Member, Department of Energy Abrupt Climate Change Prediction Program Review (2008)

Member, Joint Program Review Committee, MIT-Woods Hole Oceanographic Institution (2009)

Member, Review Committee for the School of Oceanography, University of Washington (2010)

Member, Education team for NASA's Aquarius mission (2001-2012)

Member, Program Committee for the 2011 Science and Technology Conference for the Commission for the Nuclear-Test-Ban-Treaty Organization, (2010-2011)

Member, AGU Ewing Medal Selection Committee (2011)

Member, Review Committee for the Department of Earth and Environmental Sciences, Columbia University (2011)

Chair, Advisory Committee for the Geosciences Directorate ad hoc committee on ocean drilling, National Science Foundation (2011-2012)

Member, Atlantic Meridional Overturning Circulation (AMOC) Science Team for NSF, NOAA and NASA (2010-2013)

Member, Advisory Committee for Geosciences Directorate, National Science Foundation (2011-2013)

*Member, National Research Council Committee for *Understanding and Monitoring Abrupt Climate Change Study* (2012-2013)*

Chair, Steering Committee for MPOWIR: Mentoring Physical Oceanography Women to Increase Retention (2004-2014)

Member, National Research Council Committee: Decadal Survey for Ocean Sciences (2013-2015)

President, The Oceanography Society (2015-2017)

**Past President, The Oceanography Society (2017-present)*

Member, American Meteorological Society, Ocean Research Awards Committee (2014-2017)

**Chair, American Geophysical Union Fellows Committee on Early-Career Mentoring (2017-present)*

**Member, Steering Committee of American Geophysical Union Fellows (2017-present)*

University Service

**Denotes service within the last year and/or continuing service*

Pre-Major Advisor (1992-2004)

Member, Academic Priorities Committee (1999-2002)

Member, Advisory Board for the Science and Engineering Interdisciplinary Initiatives (2000-2001)

Member, Executive Committee for the Global Change Initiative (2000-present)

Member, Provost Task Force on the Nicholas School of the Environment (2000)

Member, Task Force on Coastal and Marine Science and Policy (1999)

Member, Duke/UNC Oceanographic Consortium Advisory Committee (1992–1997 and 1999-2004)

Member, Committee to Review the Organization and Function of the Pre-Major Advising Center (1994)

Member, Search Committee, Nonlinear Dynamicist, Center for Nonlinear and Complex Systems (1995)

Member, Ad hoc committee for the review and restructure of the Duke University Faculty governance (2002-2003)

Member (2002-present) and Chair (2003-2005), Bass Chair Selection Committee

Member, Baldwin Scholars Curriculum Committee (2004)

Member, Academic Council (1998–1999; 2002-2004; 2005-2009)

Member, Executive Committee of the Academic Council (2006-2008)

Member, Board of Trustees' Committee on Undergraduate Affairs (2006- 2009)

Member, Steering Committee for the Faculty Women's Network (2006-2008)

Chair, Search committee for NSEES Dean, Spring 2007

Participant, Junior Faculty Development Series (2007-2008)

Member, Nominating Committee for Academic Council Chair, 2009

Member, Undergraduate Education Strategic Planning Committee (2009-2010)

Chair, ACCUE: Academic Council Committee on Undergraduate Education (2008-2011)

Chair, Academic Council (2011-2013)

Co-chair, Advisory Committee for Online Education (2012- 2013)

Member, Board of Trustees Academic Affairs Committee (2011-2013)

Member, President's Committee on Investment Responsibility (2011-2013)

Ex officio Member, President's Founders' Day Planning Committee (2011-2013)

Ex officio Member, University Priorities Committee (2011-2013)

Ex officio Member, Academic Programs Committee (2011-2013)

Ex officio Member, Global Priorities Committee (2011-2013)

Member, Board of Trustees Committee on Trusteeship (2011-2014)

Member, Search Committee for Duke University Health System Chancellor (2014-2015)

**Member, Advisory Board, Duke Women in Leadership and Philanthropy (2013-present)*

Member, President's Committee on Honorary Degrees (2014-2017)

Chair, Strategic Planning Steering Committee (2014-2017)

**Member, Advisory Committee on Distinguished Professorships for the University (2017-present)*

**Co-chair, Ad hoc Committee on Graduate Education (2017-present)*

School Service

**Denotes service within the last year and/or continuing service*

Member, Search Committee, Chemical Oceanographer, Marine Laboratory, School of the Environment (1992 and 1993)

Member, School of the Environment Education Committee (1992-1993)

Member, Search Committee, Physical Oceanographer, Marine Sciences Program, University of North Carolina (1992-1993)

Member, Undergraduate Curriculum Committee, Department of Geology, Trinity College of Arts and Sciences (1994 and 1997-1998)

Member, Search Committee, Benthic Boundary Layer Dynamicist, Marine Laboratory, School of the Environment (1994)

Member, Advisory Board for the Environmental Science and Policy B.A., Nicholas School of the Environment (1997-2001)

Member, Committee for the formulation of a B.S. in Environmental Science (1997-1999)

Member, Faculty Council, Nicholas School of the Environment (1998-1999)

Member, Search Committee, Nicholas Chair in Earth and Ocean Sciences (1999 and 1999-2001)

Chair, Earth and Ocean Sciences Curriculum Committee, (1999-2004)

Member, Search Committee, Director of Nicholas Institute for Environmental Policy Solutions (2004-2005)

Director of Undergraduate Studies, Earth and Ocean Sciences (2003-2006)

Chair, Earth and Ocean Sciences (August 2006-July 2011)

Advising

Postdoctoral Research Associate: Dr. Wei Wang (4/92-1/94)

Postdoctoral Research Associate: Dr. Susan Leadbetter (6/07-5/09)

Postdoctoral Research Associate: Dr. Jennifer Ayers (4/11-10/11)

Postdoctoral Research Associate: Dr. Stefan Gary (10/11-9/13)

Postdoctoral Research Associate: Dr. Apurva Dave (4/12-8/14)

Postdoctoral Research Associate: Dr. Andrew Barton (6/12-12/14)

Postdoctoral Research Associate: Dr. Feili Li (10/14-2/2017)

Postdoctoral Research Associate: Dr. Laifang Li (6/16-10/17)

Research Scientist: Dr. Femke de Jong (11/2014-6/2017)

Research Scientist: Dr. Feili Li (2/2017- present)

Research Scientist: Dr. Laifang Li (11/2017- present)

Graduate Students

Kimberly Drouin, Ph.D. student, matriculated 8/17

Ryan Peabody: *The maintenance of high primary production in the absence of Ekman upwelling: The Supply of nutrients to the intergyre North Atlantic*; M.S. May 2018

Nicholas Foukal: *Ocean heat transport from the subtropical gyre to the subpolar gyre in the North Atlantic*; Ph.D. 2018

Sijia Zou: *Exploring the lower limb of the Atlantic Meridional Overturning Circulation*, Ph.D. 2018

Sarah Brody: *Examining physical drivers of phytoplankton bloom phenology in subpolar regions*; Ph.D. May 2015

Apurva Dave: *Environmental factors responsible for changes in marine primary productivity*; Ph.D. February 2012

Stefan Gary: *Export pathways from the subpolar North Atlantic*; Ph.D. October 2011

Kristi Cashman Burkholder: *Subtropical to subpolar pathways*; Ph.D. July 2011

Jennifer M. Ayers: *Physical controls on the Transition Zone Chlorophyll Front and its relationship to marine migratory pathways*; Ph.D. May 2011

Jaime B. Palter: *On the horizontal advection and biogeochemical impacts of North Atlantic mode waters and boundary currents*; Ph.D., July 2007

Nicole T. Mich: *On the temporally-varying penetration of Mediterranean Overflow Waters into the subpolar gyre*; M.S., November 2005

Rachel A. Potter: *Climate variability in the eastern North Atlantic*; M.S., May 2002

Michaela Ciobotaru Iorga: *A climatological analysis and diagnostic model of the Mediterranean outflow in the eastern North Atlantic*; Ph.D., May 1998

Timothy J. Bold: *The influence of propagating waves on particle exchange*; M.S., November 1994