

**Sara M. Lindsay**

Associate Professor, School of Marine Sciences,  
5751 Murray Hall, University of Maine, Orono ME 04469-5751  
slindsay@maine.edu, (207) 581-2739

**Expertise:** >25 years research experience in marine invertebrate biology; >20 years undergraduate teaching experience in ecology, invertebrate zoology, integrative marine science, marine biology, and organismal biology; skilled microscopist (light, fluorescence, confocal, electron microscopy); ecological modeling

**Education & Professional Development:**

2013, Cornell University Faculty Leadership Program, Ithaca NY  
2003, Marine Biological Laboratory, Woods Hole, Analytical & Quantitative Light Microscopy  
1994, University of South Carolina, Ecology, Ph.D.  
1989, University of Washington, Biology of Polychaetes  
1988, Smith College, Biology (Music Minor), A.B. *Cum laude*

**Honors & Awards:**

2010, Outstanding Teaching Award, College of Natural Sciences, Forestry & Agriculture,  
University of Maine  
2010 Graduate Dean's Recognition Award, University of Maine  
2011, 2009, 2006 Ralph and Mildred Buchsbaum Prize for Excellence in Color  
Photomicrography, American Microscopical Society  
2008, 2005, Honorable Mention, Olympus Bioscapes International Digital Imaging Competition,  
2008, Image of Distinction, Nikon Small World Photomicroscopy Competition  
2004, Promoted to full membership Sigma Xi (initially elected 1988)  
1995-1996, NIH Individual National Research Service Award  
1994, Vernberg Award for Outstanding Graduate Student in Biological Sciences, University of  
South Carolina  
1994, University of South Carolina Outstanding Graduate Student Award  
1992, Best Student Paper, Division of Invertebrate Zoology, American Society of Zoologists  
1989-1993, NSF Graduate Research Fellowship  
1987, Woods Hole Oceanographic Institution Summer Student Fellowship

**Professional Appointments:**

Sept. 2010 – Present, Associate Professor of Marine Sciences, University of Maine  
2012-2015, Marine Biology Graduate Program Coordinator, University of Maine  
2004 – 2010, Assistant Professor of Marine Sciences, University of Maine  
1998 – 2004, Assistant Research Professor of Marine Sciences, University of Maine  
2001 – 2003, Undergraduate Coordinator, School of Marine Sciences, University of Maine  
1999 – 2001, Education Coordinator, Maine Sea Grant Program, University of Maine  
1996 – 1998, Postgraduate Research Biologist, Visual Coordination of Bioluminescence,

Scripps Institution of Oceanography  
1994 – 1996, NIH Postdoctoral Fellow (NRSA Award), Molecular Ontogeny of Chemoreception  
in Zebrafish, University of South Carolina

## **Publications**

**i. five most recent:** † Graduate Student co-author, \*Undergraduate co-author

Jumars, P.A., Dorgan, K., **Lindsay, S.M.** 2015. Diet of Worms Emended: An update of Polychaete feeding guilds. *Annual Review of Marine Science* 7:497-520

Perry, E.S., Miller, W.R., **Lindsay, S.** 2015. Looking at tardigrades in a new light: using epifluorescence to interpret structure. *Journal of Microscopy* 257(2): 117-122

Campbell<sup>†</sup>, B.R., **Lindsay, S.M.** 2014. Effects of injury and nutrition on sediment reworking by a marine polychaete, *Clymenella torquata*. *Journal of Marine Research*. 72(5): 307-329

Du Clos<sup>†</sup>, K.T., **S.M. Lindsay**, P.A. Jumars. 2013. Wall effects in mud and sand: Behavior of *Alitta virens* and *Clymenella torquata* near rigid boundaries. *Journal of Marine Research* 71:211-226.

Kesaniemi<sup>†</sup>, J.E., P.D. Rawson, **S.M. Lindsay** and K.E. Knott. 2012. Phylogenetic analysis of cryptic speciation in the polychaete *Pygospio elegans*. *Ecology & Evolution* 2(5): 994-1007

**ii. additional significant publications:** † Graduate Student co-author, \*Undergraduate co-author  
**Lindsay SM.** 2010. Frequency of injury and the ecology of regeneration in marine benthic invertebrates. *Integrative & Comparative Biology*. 50(4): 479-493

**Lindsay, S.M.**, J. Chasse<sup>†</sup>, R.A. Butler, W. Morrill, & R.J. Van Beneden. 2010. Impacts of stage-specific acute pesticide exposure on predicted population structure of the soft-shell clam, *Mya arenaria*. *Aquatic Toxicology* 98(3): 265-274

**Lindsay, S.M.** 2009. Ecology and biology of chemoreception in polychaetes. *Zoosymposia* 2: 339-367

Forest<sup>†</sup>, D.L. and **S.M. Lindsay.** 2008. Observations of serotonin and FMRFamide-like immunoreactivity in palp sensory structures and the anterior nervous system of spionid polychaetes. *Journal of Morphology* 269: 544-551

**Lindsay, S.M.**, J.L. Jackson\*, & D.L. Forest<sup>†</sup>. 2008. Morphology of anterior regeneration in two spionid polychaete species: implications for feeding efficiency. *Invertebrate Biology*. 127: 65-79

Tsie<sup>†</sup>, M.S., P.D. Rawson & **S.M. Lindsay.** 2008. Immunolocalization of a Gαq protein to the chemosensory organs of *Dipolydora quadrilobata* (Polychaeta: Spionidae). *Cell & Tissue Research* 333: 469-480.

**Lindsay, S.M.**, D. S. Wetthey & S. A. Woodin. 1996. Modeling browsing predation, infaunal activity, and recruitment in marine soft-sediment habitats. *American Naturalist*. 148(4):684-699

## **D. Synergistic Activities**

*1. Educational Outreach:* I regularly present workshops on marine science and microscopy to local K-12 students and teachers. Recently, with Dr. Paul Rawson, I began mentoring a service-learning/research project by Old Town High School students to investigate oyster blister-worm infestations at Bagaduce River Oyster Company (2012-present). I organized and presented in a series of webinars introducing ecology of marine benthic habitats in cooperation with Centers for Ocean Sciences Education Excellence Ocean Systems project (2012).

*2. Undergraduate & High School students mentored:* In the last five years, I have **directed** 7 undergraduate research students in my laboratory working on Senior Capstone research projects ranging from studies of polychaete feeding behavior, sensory biology and morphology to a diet analysis of juvenile winter flounder, a literature review of causes of death in captive marine mammals, and a proposal for a children's book demystifying sharks and their ecology. I have served on Honors Thesis Committees for an additional 4 undergraduates and mentored 9 undergraduate and high school research interns. Since joining the University of Maine in 1998, I have worked closely with a total of 28 undergraduate or high school students.

*3. Professional Service & Leadership:* As Program Officer for the American Microscopical Society (2009-12), I organized and obtained funding for society-wide symposia on Animal Regeneration (2010) and Dispersal of Marine Organisms (2012) at Society for Integrative & Comparative Biology meetings. I also served as President of the University of Maine Chapter of Sigma Xi, The Scientific Research Society (2004-10). Within the School of Marine Sciences, I served as Marine Biology Graduate Program Coordinator and member of the Policy Advisory Committee from 2012-2015.

*4. Advisory Committees:* At the University of Maine, I serve on several advisory committees for units and programs that aim to enhance student engagement and participation in scientific research, including the Center for Undergraduate Research Advisory Board, Honors College Advisory Council, and School of Marine Sciences Undergraduate and Graduate Curriculum Committees.