

Sarah O'Malley

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EDUCATION

M. Ed. Science and Environmental Education

2003 University of Maine, College of Education, Orono Maine

B.S. Natural Resources in Natural History and Ecology, *summa cum laude*

1997 University of Maine, College of Forestry and Natural Resources, Orono Maine

Additional undergraduate work includes two interdisciplinary years at Hampshire College in Amherst Massachusetts and a semester abroad at University College in Galway Ireland studying Marine Science.

EXPERIENCE

Instructor (faculty position) 2017---present

Instructor/Technical Assistant (teaching staff position) 2010-2017

Adjunct faculty 2004-2009

Corning School of Ocean Studies, Maine Maritime Academy, Castine Maine

Teaching:

General Biology lecture and lab, Introduction to Ocean Science lecture and lab, Coastal Natural History, Senior Research, Chemical Principles lab, Introduction to Environmental Sustainability

Technician responsibilities:

Chemistry lab preparation-Chemical and materials preps for a variety of chemistry courses. Includes lab safety and chemical disposal/hazardous waste preparation.

Recent Research:

Characterization of muddy intertidal fauna of Bagaduce River as part of investigation of soft shell clam (*Mya arenaria*) fishery, part of University of Maine EPSCoR SEANET (Sustainable Aquaculture Network) project.

Course Coordinator 2015

Maine Master Naturalist Program

Program founded in 2011 to train a corp of natural history educators qualified to lead nature walks and environmental programming throughout the state of Maine. Course coordinators organize all logistics of the course including lining up specialty instructors, liaising with site providers and MMNP board, managing electronic communications and course materials.

Summer Education Program Coordinator 2009, 2010

NaGISA Rocky Intertidal Survey Coordinator 2011, 2012

Marine Environmental Research Institute, Blue Hill Maine

Supervised and mentored college age interns who provided the bulk of MERI's educational programs during the busy summer season.

Developed and led the Junior Internship in Coastal Science, an intensive two week immersion in marine science for high school students. This program was linked regionally through Summer Science in New England, an initiative of GOMEA and the New England Aquarium, using the NaGISA (Natural Geography In Shore Areas) rocky intertidal sampling protocols.

Technical Writer/Book Reviewer 2004-2008
Humboldt Field Research Station, Steuben Maine

Reviewed new natural history and science books on a quarterly basis, and produced short (100 word) summaries and assessments for publication in The Northeast Naturalist and The Southeast Naturalist.

Graduate Teaching Assistant 1999-2001
Outdoor Educator 1994-2004

Maine Bound Outdoor Education Program, the University of Maine, Orono Maine

Worked as course instructor for college outdoor program with a strong academic component. Taught both short non-credit classes and semester long courses for credit. Specialty areas included: rock and ice climbing, challenge course facilitation, winter skills. Long form/international trips included logistics and leadership for two week mountain biking trips in Moab Utah and three week trekking trip in Lesotho, a country in southern Africa.

Lead Environmental Educator 1998-2000

Summer Field Studies for Children, College of the Atlantic, Bar Harbor Maine

Developed and implemented original field natural history content and activities for elementary and middle school aged children in two week long, day camp programs. Supervised and worked with an assistant educator during these sessions.

Program Director 1996-1997

Summer Adventure, Blue Hill Society for Aid to Children, Blue Hill, Maine

Responsible for planning, overseeing and leading weeklong outdoor trips in Maine woods for middle school age children. Supervised and worked with an assistant leader for these trips.

COURSES TAUGHT

Maine Maritime Academy (2004 to present):

Bi101 and 102 General Biology lecture and lab (freshman Ocean Studies majors, required)
Oc101 Introduction to Ocean Science lecture and lab (non-majors, required)
Ch301 General Chemistry lab (engineering majors, required)
Os499 Maine Coastal Natural History (upper level Ocean Studies elective)
Hc364 Honors Seminar: Moby Dick (invitation only interdisciplinary team taught elective)
Os004 Junior Seminar (junior Ocean Studies majors, required)
En202 Introduction to Environmental Sustainability (required core course for sustainability minor)
Os400 Senior Research Preparation (semester long course for rising Ocean Studies seniors)
En402 A Survey of Biofuels (elective course for sustainability minor)

Outdoor Sport Institute/University of Maine Presque Isle (2017)

Env186 Introduction to Sustainability

Maine Master Naturalist Program (2015)

Tier One Associate Naturalist training course (natural history and ecology of wildflowers, trees, birds, insects)

ADVISING AND MENTORING

Academic advising

Maine Maritime Academy

Regular advisor: 12 Marine Science or Marine Science/Small Vessel Operations majors, typically one meeting per semester (2017 to present)

Special PFD advisor: One to two students on academic probation, one meeting per week all semester (2011-2017)

Senior Research Advisor: Serve as advisor for yearlong independent capstone research project for one to three Ocean Studies seniors a year (2013 to present)

Mentorship

Maine Maritime Academy

Field work mentor: Supervised two undergraduate interns in field and lab work in support of SEANET muddy intertidal sampling (2018)

Clam study: Supervised and edited for three undergraduate students in writing results of semester long clam recruitment study. Report went to town of Penobscot clam committee. (2018)

Video production: Guided and oversaw four undergraduate interns in creation of lab safety video for use in undergraduate lab science courses (2016)

Maine Master Naturalist Program

Natural history and capstone mentor: provided direct supervision and support for course work and 40 hour capstone project for three to four MMNP students (2013-14, 2017)

PUBLICATIONS

Sahl, L.; Lemkau, K., Avery, D., **O'Malley, S.** "Oceanographic Instrumentation, Measuring Temperature" Science activity published on the National Association of Geoscience Teachers SERC (Science Education Resource Center) website: <https://serc.carleton.edu/teachearth/activities/178656.html> (2017)

O'Malley, S. *Trees with the Fur On*, *Bangor Daily News Blog network* <http://treeswiththefuron.bangordailynews.com/> (2014-2018) Readership ranges from 100 to 9000 per blog post.

O'Malley, S. "The World Around Us" a weekly 3 – 5 minute science and nature radio feature for WERU FM Blue Hill Maine. Archived programs available at www.weru.org, under "World Around Us", transcripts are available at: www.theworldaroundusradio.blogspot.com (2007 to 2009, 2012 to January 2017)

O'Malley, S. "Stronger Together: Native plants work across biological kingdoms to fulfil their life needs" *Wild Seed* Vol 3, 2017

O'Malley, S. "Rough around the edges: The New England Cotton Tail" *Wild Seed* Vol. 2, 2016

O'Malley, S. "Dear Outside Magazine" *Huffington Post*, January 11, 2016 http://www.huffingtonpost.com/sarah-omalley/dear-outside-magazine-hiking_b_8941866.html

O'Malley, S. "The Legacy of a Sugarloafer" *Bangor Daily News*, March 1-2, 2014

O'Malley, S. "The various fates of local garbage" *Castine Patriot* June, 21, 2005

PRESENTATIONS

2018 Guest lecture for Maine Maritime Academy Hc331 Literature of the Apocalypse "*Mass Extinctions across Earth's history*"

2018 Guest Lecture for Maine Maritime Academy First Year Experience course "*Planetarium introduction*"

2018 "*Horseshoe crabs: A conservation story*" for the Blue Hill Heritage Trust Lectures in Conservation series

2018 "*Aligning Scholarship with Teaching*" for the MMA Center for Teaching Excellence Lunch and Learn Series, co-presented with Lauren Sahl and Karin Lemkau

2016 Guest lecture Maine Master naturalist Tier One Associate Naturalist Training course “*Introductory Ecological principles*”

2016, 2015 “*Natural History in Acadia National Park*” half day field training for climbing guides for Acadia Mountain Guides Inc

2015 “*The Softer Side of Science: Engaging the Public through Writing and Teaching*” Corning School of Ocean Studies Seminar Series

2014 “*Deep History of Place-the geologic and human history of personal landscapes*” Belfast Bay Watershed Coalition public lecture series

2013, “*Deep History of Place-the geologic and human history of personal landscapes*” Witherle Memorial Library, Castine Maine public lecture series

2001 “*Environmental Activities for Outdoor Educators*” Association of Experiential Education, Northeast regional conference

RESEARCH AND SCHOLARSHIP

“Characterization of muddy infaunal community of Northern Bay in the Bagaduce River, Penobscot Maine” Field work, with two undergraduate interns 2018, to continue in 2019. Supported by SEANET (Sustainable Aquaculture Network) an EPSCoR grant.

“Spring Fever: Following phenology in Maine’s most fickle season” Book proposal directly solicited by Down East Books 2017 (*book on hold as of Dec. 2018*)

“Honors Seminar: Reading Moby Dick” Maine Maritime Academy interdisciplinary course proposed and developed by O’Malley, Dr. Christine Skwiot and Capt. Eric Jergenson, selected through competitive process, and taught in 2015.

“En402 Biofuels Use and Development” course development funded by William Wood Foundation 2014

SERVICE

Professional service

Field Biology Volunteer-Maine Center for Coastal Fisheries/Sedgwick Alewife Committee (2017, 2018)
Counted anadromous fish (alewives) as part of effort to estimate local fish stock

Field Biology Volunteer-National Park Service, Northeast Temperate Network (2017, 2018) Worked as field biologist in NPS Rocky Intertidal monitoring program in Acadia National Park

Field Biology Volunteer-Maine Bumblebee Atlas (2016) Surveyed (by photo voucher and specimen collection) bumblebee occurrence at self-selected site in Maine

Field Biology Volunteer-Maine Natural History Observatory (2012, 2013) Surveyed plants for the botanical guide The Plants of Baxter State Park

Chapter reviewer Freeman et al Biological Science 6th ed. (2017)

Textbook review Trujillo and Thurman Essentials of Oceanography 11th ed (2014)

Maine Maritime Academy institutional service

Curriculum Review Committee (2018-present)

Center for Teaching Excellence ad hoc committee (2018--present)

Faculty Union contract negotiation team (2018)

Environmental sustainability minor coordinator, Ocean Studies department (2017—present)

Institutional Review Board (IRB) (2016--present)

Adjunct faculty resolution ad hoc committee (2016-17)

Elected **Alternate representative**, Staff Union (2016)

Faculty chapter committee, NEASC Self Study/Reaccreditation review (2015/16)

Planning committee for **2014 Maritime Education Summit** (2013-14)

Interdepartmental work group for **environmental sustainability minor** (2012—2017)

Co-coordinated **Ocean Movies for an Ocean Campus film series** (with Residential Life staff) 2011

Corning School of Ocean Studies departmental service

Intrdepartmental work group on **marine environmental science program development** (2018)

Intrdepartmental work group on **first year curriculum and academic skills** (2017)

Professor of Oceanography **search committee** (2017/18)

Coordinated participation in **2016 Maine Science Festival**, planned the activity and brought students to lead activities (2016)

Professor of Chemical Oceanography **search committee** (2014/15)

Programming for student recruitment and community outreach including: planetarium programs, remotely operated vehicle (ROV) workshops, wet lab/touch tank visits, harbor tours/sampling cruises. (2012-present)

Pilot project and curriculum development on **marine microplastic sampling techniques** (with Dr. Ann Cleveland and Stacy Knapp) (2013-14)

Intrdepartmental work group on **revision of freshman biology curriculum and laboratory exercises** (2011-12)

Community service

Mentored and hosted local 5/6 grade students in the **MMA wetlab for ocean acidification experiments** (2018)

Led four **watershed exploration classes** with local 1st-4th grades, collaboration with Explore Outdoors and Blue Hill Heritage Trust (2018)

Member **Sedgwick alewife committee** (2017—present)

Leader, natural history field walks for Blue Hill Heritage Trust, horseshoe crabs (2016,17), wildflower identification (2016, 2017), glacial geology (2013)

Board of Trustees, Blue Hill Heritage Trust, Blue Hill Maine, co-chair Stewardship committee, serve on ad hoc science review committee (2015 to present)

Board of Trustees, The Conservation Trust of Brooksville, Castine and Penobscot, Castine Maine (2002 to 2008)

Bagaduce Watershed Association **Board of Directors, recording secretary** 2002-2003

Association of Experiential Education (AEE) Northeast regional conference **Workshop Coordinator**, and **conference planning team** (2001)

PROFESSIONAL DEVELOPMENT

2018 *Advanced Science Writing* ten week online course from Creative Nonfiction Foundation

2018 *The Business of Writing* two day workshop on writing effective query letters, sponsored by Maine Writers and Publishers Alliance

2018 UMaine Rise Center **STEM teaching symposium**, assisted Dr. Lauren Sahl with round table discussion

2018 **Northeast Natural History Conference**, Burlington VT, attendee, identified this conference as good venue for student posters

2017 *Eureka! Science Writing for a General Audience*—five week long online science writing fundamentals course from Creative Nonfiction Foundation

2016 **Scientific Illustration workshop** with David Wheeler at Darling Marine Center in Walpole Maine—five day open studio natural history illustration course

2016 **SENSER** (Science Education for new Civic Engagements and Responsibilities) training at University of Southern Maine <http://sencer.net/>

2016 **Climate Change and Higher Education Conference**, University of New England

2014 **Climate Change Adaptation Conference**, University of Maine Climate Change Institute

2014 American Museum of Natural History *Seminar on Science: Climate Change* --six week online professional development course for strategies of teaching climate change

2013 **Green Crab Summit**, University of Maine

2013 **Master Maine Naturalist certification** (<http://www.mainemasternaturalist.org/MMNP/Home.html>)
–year long natural history class (50+ hours class time, untold hours outside of class completing homework, 20+ final capstone project, 40 hours community service requirements)

2012 American Museum of Natural History *Seminar on Science: Evolution*—six week online professional development course for strategies of teaching evolution

2012 Maine Media Workshop **Intermediate Digital Photography**, weeklong residential course continuing with Adobe Lightroom and introducing Adobe Photoshop

2011 Maine Media Workshop **Introduction to Digital Photography**, weeklong residential course covering basics of Adobe Lightroom software

2011 **Basic laboratory Safety Course**—three day course from the Lab Safety Institute in Boston (<http://labsafetyinstitute.org/>)

2002 **New England Environmental Education Alliance conference**, Meredith New Hampshire. Attendee, workshop proposal: “*Landscape literature and the people’s narrative: An environmental education model*” was accepted for inclusion in conference program.

2001 Completed a Project Adventure **Advanced Facilitation skills** week long workshop, Beverly MA

2000 Outward Bound **Educators Course**, weeklong backpacking course in western Maine, focused creating leadership development opportunities for students