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Education:

2014	PhD	University of North Carolina at Chapel Hill	Environmental Science and Engineering
2008	BS	Hope College (Magna Cum Laude)	Chemistry, Environmental Sciences (minor)
2008	BA	Hope College (Magna Cum Laude)	Biology, Environmental Sciences (minor)

Appointments:

2017-	Postdoctoral Fellow, Smithsonian Environmental Research Center, Edgewater, MD in residence at Oak Ridge National Laboratory, Oak Ridge, TN
2016	Visiting Scientist, Boston University, MA, Fulweiler Lab
2014-2017	Postdoctoral Fellow, University of Auckland, New Zealand, Institute of Marine Science
2014	NSF-REU Research Coordinator, Samford University, AL
2013	Graduate Research Fellow, UNC-CH, NC, IMS
2012	North Carolina Coastal Reserve-North Carolina Sea Grant Fellow, UNC-CH, NC, IMS
2006	Michigan Space Grant Consortium Fellow, Hope College, MI, Geological and Environmental Sciences
2005-2008	Undergraduate Researcher, Hope College, MI, Geological and Environmental Sciences

Honors and Awards:

2016	1 st place, invited presenters, FoS Postdoctoral Society, University of Auckland
2008	Sigma Xi Student Research Award, Hope College (Chemistry Department)
2008	Sigma Xi Student Research Award, Hope College (Biology Department)
2004-2008	Presidential Scholarship, merit based, Hope College

Advising:

2016-	Stefano Schenone PhD (in progress)
2015-2016	Emma Gibbs, MSc (graduated – Environmental Scientist, Cato Bolam Consultants, Ltd.)
2015-2016	Marcus Cameron PhD (on hiatus)
2015	Hazel Maria Canizales Flores, MSc (National Autonomous University of Mexico)
2014	Will McKay (undergraduate summer researcher – PhD in progress, University of Auckland)
2008-2014	Maritza Mendoza (undergraduate mentee – MS Oregon State University)
2008-2014	Audrey Crockett (undergraduate mentee – Hydrogeologist, Tetra Tech)

Grants/Fellowships:

2018	US Department of Energy, Office of Science, Biological and Environmental Research, Environmental Systems Science, <i>co-investigator</i> , <u>PI</u> : Dr. J. Patrick Megonigal
2013	UNC-CH Off Campus Dissertation Fellowship, <u>Advisor</u> : Dr. Michael F. Piehler
2012	North Carolina Coastal Reserve-North Carolina Sea Grant Fellowship <u>Advisor</u> : Dr. Michael F. Piehler
2006	Michigan Space Grant Consortium Fellow, Hope College, Holland, MI, <u>Advisors</u> : Dr. Jonathan W. Peterson and Dr. Michael D. Seymour

Teaching Experience:

Courses

- 2016 Marine Science 302, Dynamics of Marine Systems
module 5 – Coastal ecosystem and nutrient processing in marine sediments
- 2015 Field course at Leigh Marine Laboratory, Leigh, New Zealand for Shanghai Ocean University
on macrofauna and estuarine ecosystem function (Course structure also used in my absence
for Guangdong Ocean University in 2016)
- 2014 Courses on R, Excel, and Research Ethics, Samford University

Guest lecturer

- 2017 MARINE 701 Current Issues in Marine Science “Life and Times of *Macomona*”
- 2017 ENVSCI 733 Biodiversity Management and Conservation “Marine Conservation and
Ecosystem Based Management”
- 2011 Guest Lecturer, UNC-Chapel Hill ENVR 400 Seminar, “Dueling algae: macro- vs micro- algal
dominance in response to a changing climate”

Teaching Assistant

- 2008-2009 Environmental Health, UNC-CH
- Spring 2008 Inorganic Chemistry Lab, Hope College
- Spring 2008 Organismal Biology Lab, Hope College
- Fall 2007 Organic Chemistry Lab, Hope College
- Fall 2006 Ecology and Evolutionary Biology Lab, Hope College
- 2005-2006 General Chemistry, Hope College

Peer-Reviewed Publications:

1. **O'Meara T**, SP Thompson, MF Piehler (*In review*) Integrating anthropogenic stress, tidal range, and denitrification across coastal gradients. *Biogeochemistry*
2. Hillman, JR, **TA O'Meara**, C Lundquist, SF Thrush (*In review*) Habitat heterogeneity influences nutrient processes in a marine intertidal soft-sediment ecosystem. *Ecology*
3. **O'Meara T**, E Gibbs, SF Thrush (2018) Rapid organic matter assay (ROMA) of carbon degradation across depth gradients in marine sediments, *Methods in Ecology and Evolution* 9: 245-253.
4. Ray N, **T O'Meara**, T Williamson, JL Izursa (2018). Carbon dioxide release from shell formation must be included in LCA of bivalves. *International Journal of Life Cycle Assessment* 23:5 1042-1048.
5. **O'Meara T**, JR Hillman, SF Thrush (2017) Rising tides, cumulative impacts and cascading changes to estuarine ecosystem functions, *Scientific Reports* 7, Article number: 10218.
6. **O'Meara T**, SP Thompson, MF Piehler (2015). Effects of shoreline hardening on nitrogen processing in estuarine marshes of the US Mid-Atlantic Coast. *Wetlands Ecology and Management*. 23(3): 385-394
7. Peterson JW, **TA O'Meara**, MD Seymour (2014) Effects of Added Fe⁰, Fe₃O₄ and Fe₂O₃ on Sorption of Cephalosporin Antibiotic in Quartz-rich Sands. *Journal of Environmental Engineering* 140(1): 40-47
8. Keeler A, L Dubbs, **T O'Meara** (2013) Permitting, Risk, and Marine Hydrokinetic Energy Development. *The Electricity Journal* 26(10): 64-74
9. Peterson JW, **TA O'Meara**, MD Seymour, W Wang, B Gu (2009) Sorption mechanisms of cephalixin, a veterinary antibiotic, onto quartz and feldspar minerals as detected by Raman spectroscopy. *Environmental Pollution* 157(6): 1849-1856
10. Peterson JW, **TA O'Meara**, MD Seymour (2008) Experimental Investigation of Cephalixin Adsorption to Quartz Filter Sands and Dune Sands. *Hydrogeology Journal* 16(5): 879-892

Publications (only completed manuscripts listed as *in prep*):

- O'Meara T, J Hewitt, SF Thrush, A Lohrer (*In prep*) Macrofauna trump environmental stress: The importance of macrofauna for ecosystem resilience.
- O'Meara T, SP Thompson, J Fear, MF Piehler (*In prep*) Impacts of shoreline hardening on salt marsh primary producer distribution, diversity, and richness
- O'Meara T and MF Piehler (*In prep*) Vertical migration of primary production in response to environmental

stress

- Schenone S, T O'Meara, SF Thrush (*In prep*) Synergistic effects of macrofauna functional trait interactions on biogeochemical fluxes in marine sediments.
- Crawshaw J, TA O'Meara, C Savage, B Thomson, F Balter, S. Thrush. (*In prep*) Carbon lability influences nitrogen cycling rates in temperate estuary sediment

Final Reports:

- O'Meara, T (2013) Changes in denitrification rate from the maritime forest to the shallow sub-tidal in natural and altered salt marsh systems. 2012 NC Coastal Reserve-NC Sea Grant Coastal Research Fellowship. Final Report.
- Fear JM, Currin CA (2012) Sustainable Estuarine Stabilization: Research, Education and Public policy in North Carolina. Final Report. The NOAA/UNH Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET). Grant Number NA06NOS4190167, *Contributing author on nutrient cycling*

Thesis:

- O'Meara, T (2014) Anthropogenic Effects on Estuarine Shoreline Primary Productivity and Nutrient Cycling, UNC-CH Library, April 2014

Invited Presentations:

- O'Meara T (2018) Rapid assessment of organic matter degradation in marine sediments (ROMA method). Oak Ridge National Laboratory, Oak Ridge, TN February 23, 2018.
- O'Meara T, SF Thrush (2016) Effects of multiple environmental stressors on networked ecosystem functions. University of New South Wales, Sydney, Australia March 14, 2017.
- O'Meara T, SF Thrush (2016) Estuaries and the Anthropocene. Faculty of Science Postdoctoral Society. University of Auckland, Auckland, New Zealand November 15, 2016.
- O'Meara T (2012) Denitrification from the Maritime Forest to the Shallow Subtidal. The 2012 National Estuarine Research Reserve/National Estuarine Research Reserve Association Annual Meeting, Shepherdstown, WV, November 2012
- O'Meara T (2012) Changes in denitrification from the maritime forest to the shallow subtidal in natural and restored systems. National Estuarine Research Reserve Staff Meeting, Pivers Island, NC May 1, 2012
- O'Meara TA (2006), Experimental Investigation of Antibiotic Adsorption in Sand-Iron Systems. Michigan Academy of Science, Arts, and Letters Annual Meeting, Rochester, MI, March 2006
- O'Meara TA, JW Peterson, and MD Seymour (2006) Experimental Investigation of Antibiotic Adsorption in Sand-Iron Systems: Implications for Transport in Groundwater. Michigan Space Grant Consortium Annual Meeting, Ann Arbor, MI, October 2006
- O'Meara TA, JW Peterson, and MD Seymour (2006) Adsorption of antibiotics to sands amended with magnetite, hematite, and zero-valent Fe. Hope College Celebration of Undergraduate Research, Holland, MI, March 2006
- O'Meara TA, JW Peterson, and MD Seymour (2005) Fate and transport of antibiotics in sand aquifers. Hope College Celebration of Undergraduate Research, Holland, MI March 2005.

Meeting Presentations:

- O'Meara T, P Thornton, JP Megonigal (2018) Considering coasts: adapting terrestrial models to characterise coastal habitats. *Poster*. American Geophysical Union, Washington, D.C. USA, December 2018.
- O'Meara T, JR Hillman, and SF Thrush (2018) Mussels vs mud: Using mussels to restore ecosystem function across turbidity gradients. *Oral presentation*. World Conference on Marine Biodiversity, Montréal, Canada May 2018
- O'Meara T, JR Hillman, and SF Thrush (2017) Rising tides, cumulative impacts and cascading changes to estuarine ecosystem functions. *Oral presentation*. New Zealand Marine Sciences Society, Christchurch, New Zealand July 2017

- O'Meara T (2016) Getting tanked up in preparation for climate change. *Oral Presentation*. Estuarine Coastal Sciences Association, Bremen, Germany September 2016.
- O'Meara T (2015) Denitrifiers in the coastal gradient. *Oral Presentation*. New Zealand Marine Sciences Society Conference, Auckland, New Zealand July 2015
- O'Meara T and MF Piehler (2014) Denitrifiers in the coastal gradient: Potential Contributions to the N₂O budget. *Poster*. Joint Aquatic Sciences Meeting, Portland, OR, May 2014
- O'Meara T and MF Piehler (2011) Dueling Algae: macro- vs micro- algal dominance in a warming world. *Oral Presentation*. UNC Institute of Marine Science Student-Led Symposium, Morehead City, NC, September 2011
- O'Meara T and MF Piehler (2011) Effects of shoreline hardening on nitrogen processing in salt marshes. *Poster*. 11th International Estuarine Biogeochemistry Symposium, Atlantic Beach, NC May 2011
- O'Meara TA, JW Peterson, and MD Seymour (2006) Cephapirin Adsorption in Sand-Iron Systems: Effects of Hematite, Magnetite, and Zero-valent Iron. *Oral Presentation*. Annual Meeting of the Geological Society of America, Philadelphia, PA, October 22-25, 2006
- O'Meara TA, JW Peterson, and MD Seymour (2005) Experimental Investigation of Cephapirin Adsorption to Sands: Implications for Transport of Antibiotics in Groundwater. *Poster*. Annual Meeting of the Geological Society of America, Salt Lake City, UT October 15-19, 2005

Media Communications:

- 2017 Interview "Amazing Water People :: Teri O'Meara" for *Candace Loy, OceanMade*
<https://www.candaceloy.com/blog/amazing-water-people-teri-omeara/>
- 2016 Interview "Fellowship Serves to Protect State's Coasts, Train Future Stewards" Coastwatch Currents, September 2016
- 2013 Article "SEA SCIENCE: Traversing Untrodden Ground" Coastwatch, Spring 2013

Professional Service:

Review/Review Editor

Frontiers in Marine Ecosystem Ecology, Marine Ecology Progress Series, Journal of Environmental Management, Wetlands Ecology and Management

Workshops

- 2017 Organizer *Identifying and predicting marine tipping points*
 University of Auckland, Leigh Marine Laboratory, New Zealand
- 2017 Participant *Identifying factors driving nutrient removal in the coastal marine environment*
 NIWA, Hamilton, New Zealand

Conferences

- 2015 Session moderator, student presentation judge
 NZMSS-OCS, Auckland, New Zealand July 6-9, 2015
- 2013 Session moderator/abstract selection committee,
 Water Microbiology Conference, Chapel Hill, NC May 5-7, 2014

K-12 Education

- 2018 Oak Ridge National Laboratory Flame Challenge submission, participant
- 2017 Dive against debris, Ti Point (New Zealand) clean up, March
- 2013 Volunteer/videographer assistant, Scientific Research and Education Networking (SciREN) Event, Pine Knoll Shores Aquarium, NC April 25, 2013
- 2012-2014 Volunteer, Sunshine Lady Boys and Girls Club, Morehead City, NC
- 2011 Volunteer, Higher Education Readiness Opportunity (HERO) Program, marine science introduction, Morehead City, NC, August 2, 2011

Professional Societies:

American Geophysical Union (AGU), New Zealand Marine Science Society (NZMSS)

Skills:Analytical Instrumentation Experience

Proficient: O₂ planar optodes, ECD, GC/MS, LC/MS, MIMS, HPLC, HOBO water level, temperature, and light loggers, InSitu water level loggers, YSI Sondes, ISCO water samplers, Fluorometry, Spectrophotometry UV/Vis, LI-COR PAR detector, Lachat nutrient auto analyzer

Familiar: NMR Spectroscopy (Proton and Carbon), Photosynthetron, FTIR Spectroscopy, AA Spectroscopy

Basic: PCR, Gel electrophoresis, LI-COR CO₂/O₂ and leaf area measurement

Boating/water related

Canoeing, kayaking, New Zealand Coast Guard Boatmaster, PADI rescue diver, reserve crewmember for R/V Capricorn (UNC-Chapel Hill)

Miscellaneous field projects

Mussel Bed restoration; Whole stream metabolism; Oyster recruitment, settlement, and growth; Tidal freshwater denitrification; Stream monitoring at Camp Lejeune, NC; Surface elevation table (SET) installation; Shark tagging; Spider hunting; Groundwater well installation and maintenance; Developing colonies of *Folsomia candida*

Collaborators:Principal Investigators

R Bulmer (NIWA), K Dafforn (University of New South Wales), P Dijkstra (Northern Arizona University), L Dubbs (UNC-CH, UNC-CSI), RW Fulweiler (Boston University), R Gladstone-Gallagher (University of Waikato), G Guntenspergen (USGS), E Herbert (Ducks Unlimited), J Hewitt (NIWA), JR Hillman (University of Auckland), J Hope (University of Auckland), JL Izurza (University of Maryland), E Johnson (University of New South Wales), P Kangas (University of Maryland), A Keeler (ECU, UNC-CSI), M Kirwan (VIMS), A Lohrer (NIWA), C Lundquist (NIWA), JP Megonigal (SERC), G Noyce (SERC), JW Peterson (Hope College), C Pilditch (University of Waikato), A Rietl (VIMS), R Roy (SERC), C Savage (University of Otago), K Sendall (Georgia Southern), M Seymour (Hope College), F Stephenson (NIWA), SP Thompson (UNC Chapel Hill), P Thornton (ORNL), SF Thrush (University of Auckland), T Williamson (University of Maryland),

Graduate Students

Nick Ray (Boston University), Josie Crawshaw (University of Otago), Kaiwen Yang (University of Auckland), Sebastian Vadillo (University of New South Wales), Sam Thomas (University of Otago), Jack Hamilton (University of Auckland), Amanda Vieillard (University of Auckland)

References:

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