

Kristin Hunter-Thomson

Department of Human Ecology & Rutgers Cooperative Extension
Rutgers, the State University
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Education:

Moss Landing Marine Laboratories, Moss Landing, CA (2007-2011)

Masters of Science in Marine Science

Lewis & Clark College Graduate School of Education and Counseling, Portland, OR (2005-2006)

Masters of Arts in Teaching

Williams College, Williamstown, MA (2000-2003)

Bachelor of Arts (Major: Biology, Concentration: Environmental Studies)

Davidson College, Davidson, NC (1999-2000)

Professional Educational Experience:

Data and Science Literacy Education. *Dataspire – inspiring data + science literacy*. Program

Director – Duties include designing, developing, and implementing educational programs focused on building data literacy skills and integrating data science education into science and social science teaching, writing grants, assisting teachers grades 6-16 to implement data lesson plans into curriculum, developing, creating, and implementing new inquiry based and data-centered lessons and online activities around cutting edge science, NGSS science practices, and process of science for grades 6-16, organizing and hosting teacher training workshops and enrichment events, and presenting at professional conferences (2016-present)

Science Communication Instruction. Department of Human Ecology. Teaching Instructor –

Teach undergraduate courses in science communication as well as data and science literacy, and support scientists in broadening their science communication skills (2016-present)

Ocean Science Data Literacy. Ocean Observatories Initiative. Data Exploration Developer and

Co-PI – Developing exemplar data activities utilizing OOI data streams to aid in concept understanding for undergraduate non-major oceanography students, designing, coordinating and hosting 3-day workshop for Introduction to Oceanography professors to train them on OOI data streams and the exemplar data activities (2015-present)

Data and Science Education, Polar-ICE and Palmer LTER, Project Coordinator – Duties include

designing, developing, and implementing year-long educational program focused on unpacking the process of science and using professionally-collected polar data to conduct observational data-driven investigations by students in grades 6-9 throughout the country; supporting scientists in broadening their science communication skills and developing interactive online data stories to use data to tell research stories from the poles; organizing and hosting teacher training workshops and enrichment events, and presenting at professional conferences (2015-present)

Data Literacy Education. Advancing Climate Literacy through Investment in Pre-Service

Educators. Data Skills Consultant and Developer – Duties include developing data skills focused activities for pre-service educators and middle school students, reviewing course content for data literacy and science practices, designing activities utilizing authentic data via online portals, assisting in design, develop, and editing of new course for undergraduate students (2014-present)

STEM Education. Rutgers University Department of 4-H Youth Development & Department of

Marine & Coastal Sciences, SET Program Coordinator – Duties include designing, developing, and implementing Broader Impact educational programs, writing Broader Impact

statements, supporting scientists in broadening their science communication skills, assisting teachers throughout New Jersey implement STEM lesson plans into curriculum, developing, creating, and implementing new inquiry based and data-centered lesson plans around cutting edge science, NGSS science practices, and process of science for grades 6-12 (e.g., 4hset, COSEE NOW, COOL Classroom, Animal Sciences), developing multiple online data-centered activities for undergraduate students, assisting with STEM educational events for youth grades 5-12 (e.g., Climate & Environmental Change Teen Summit, Summer Science, Rutgerscience Saturdays), organizing and hosting teacher training workshops and enrichment events, and presenting at professional conferences (2013-2016)

Scientist-School Partnerships. Project PARKA & Project CONVERGE, Outreach Coordinator – Developed comprehensive education and outreach programs as broader impact work related to two NSF polar grants that included science mission data- and topic-focused lesson plan development, coordination of blog of the project, facilitation of live calls between scientists at Palmer Station and classrooms, assistance with development of student-designed science investigations, implementation of symposia of student science investigations with scientists, and development and analysis of program evaluation plan, instruments, and data (2013-present)

Marine Science Education. Rutgers University Institute of Marine & Coastal Sciences, Program Assistant – Duties included assisting teachers throughout New Jersey implement ocean literacy and science lesson plans into curriculum, developing, creating, and reviewing new ocean science curriculum, assisting with ocean science and STEM educational events for students, organizing and hosting teacher training workshops and enrichment events, and presenting at professional conferences (2011-2013)

Education Website Developer. Monterey Bay Sanctuary Foundation, Contract –Duties included researching fisheries and educational resources, developing the content for the fisheries education website, collecting images for the website, developing the beta version of the website with a web developer, and assisting with other website related tasks (2011-2012)

Fisheries Education. Monterey Bay National Marine Sanctuary. Fisheries Education Specialist- Duties include assisting teachers throughout California implement the three curriculum modules of the Voices of the Bay program, developing and creating new curriculum modules, conducting local fisheries education and outreach, managing staff of Fisheries Education team, writing grants, organizing and hosting teacher training workshops and enrichment events, and presenting at professional conferences (2010-2011)

Fisheries Education. Office of National Marine Sanctuaries. Fisherman in the Classroom Education Specialist- Duties include organizing and participating in local educational enrichment programs through classroom visits and field trips to the docks for students K-12th grade to meet their local fishing community, writing grants, developing relationships with fishing community (2010-2011)

Monterey Bay Aquarium Family Science Scientist- Duties include educating and mentoring underserved middle school students and their families in six-week long bi-lingual evening programs to introduce the community to scientific topics and create a common language between the students and parents (2010-2011)

Science Education. Winterhaven School. Middle School Science Teacher- Duties included developing curriculum for 7th grade Physical Science and 8th grade Biology, mentoring students, tutoring struggling students, conducting parent-teacher conferences, and participating in the middle school teaching team (2005-2006)

Environmental Science Education. YMCA Camp Seymour Outdoor and Environmental Education Program. Naturalist Educator- Duties included teaching a variety of marine

environmental science courses and outdoor education to 1st-9th grade students, assisting with residential duties and in program maintenance (2004- 2005)

Outdoor Education. Echo Hill Outdoor School Explorer Program. Naturalist Counselor – Duties included leading 5-day sailing and canoeing trips on the Chester River and Chesapeake Bay for 8-16 year olds to explore maritime studies and marine science (Summer 2004)

Environmental Science Education. Echo Hill Outdoor School. Naturalist Educator- Duties included teaching aquatic ecology, environmental science, and adventure/ropes course classes to 3rd-8th grade students, monitoring all residential components, and assisting with campus/adventure course/boat maintenance (Spring 2004)

Ecology Education. Ferry Beach Ecology School. Naturalist Educator- Duties included teaching coastal ecology classes environmental education to 3rd-8th grade students, performing residential duties and assisting with campus maintenance (Fall 2003)

Professional Science & Policy Experience:

Submersible Research. Moss Landing Marine Laboratories. Research Assistant- Duties include analyzing video transects, organizing and examining navigation and physical oceanographic data of submersible surveys of Central California coast for baseline assessment of nearshore fish and invertebrate populations in 30-350m for the California Ocean Protection Council (2007-2010)

Collaborative Fisheries Project. Moss Landing Marine Laboratories. Research Assistant- Duties include catching and tagging fishes in collaborative fisheries project with volunteer recreational anglers and commercial fishermen for baseline assessment of nearshore fish in Central California for the California Ocean Protection Council (Fall 2007 and Summer 2008)

Fisheries Policy. Institute for Fisheries Resources, AmeriCorps Watershed Stewards Project. AmeriCorps Member- Duties included publishing weekly newsletters outlining important fisheries issues, attending regional management and policy meetings to advocate for conservation of fish species and fishing communities, and teaching marine biology and watershed ecology to local elementary schools (2006- 2007)

Undergraduate Teaching:

Communicating Science through Visuals, 11:374:240 (Fall 2017)

Creating Successful Science Talks & Posters, 11:374:241 (Spring 2017)

Creating Effective Science Visuals, 11:374:240 (Winter 2017)

Professional Development:

Social Media & Mobile Marketing, Oregon State University (Summer 2017)

Computational Thinking and Design, The Friday Institute (Winter 2017)

Professional Proposal Writing, Grants Training Center (Fall 2016)

Teaching Statistics through Data Investigations, The Friday Institute (Fall 2016)

Designing Effective eLearning, Oregon State University (Fall 2015)

Reading to Learn Science, Stanford University (Spring 2015)

Developing Effective Evaluations, Oregon State University (Spring 2013)

Awards & Honors:

OASIS Women's Leadership & Professional Development Fellowship, Office of Senior Vice President for Academic Affairs, Rutgers University (January-May, 2017)

National Award in Excellence in Urban 4-H Programming, National Association of Extension 4-H Agents (October 28, 2015)

Extra-curricular Activities:

Tuva Labs, Inc., Professional Development Consultant – Consultant to help develop professional development supports related to data literacy in K-12 education (2017-present)

Science Scope, National Science Teachers Association, Reviewer – Peer-reviewer of middle school science publications monthly (2016-present)

OLLIE Advisory Board – Science/data literacy educator representative to non-profit organization developing mobile, interactive, data-focused, immersive experiences for students and the general public (2015-present)

UNOW Day Nursery Board- Parent representative for non-profit early childcare center (2015-present), chair the Fundraising Committee (2014-present), Secretary of Board (2016-17), Vice President of Board (2017-present), member of Executive Director Evaluating Committee (2016-present)

Marine Advance Technology Education Center ROV Competition Mentor- Assist multiple middle school teams in the creation of the motors and switch boxes for ROVs and judged the ROV competition (Spring 2010-Summer 2011)

San Jose State University College of Science Dean's Advisory Board- Represent the students of Moss Landing Marine Laboratories in departmental meetings. Work closely with the dean of the College of Sciences to further the advancement of Biology as a major and assist current students (2009-2011)

Monterey Bay Aquarium Family Science- Scientist educator to 25 late elementary students and their families to learn more about ocean currents, density, pollution, and conservation (Winter 2009-Spring 2011)

Monterey Bay Aquarium Student Oceanography Club- Mentor to 59 middle school students that participate in the year long after school program to learn more about marine science, oceanography, and conservation (Fall 2008-Spring 2011)

B*tween Productions, Inc., Boston, MA- Science education advisor for upcoming book on middle school science fair (Summer-Fall 2006)

Educational Publications & Presentations:

Hunter-Thomson, K.I., A.P. Trujillo, O. Schofield, C. Halversen, A. deCharon, S. Lichtenwalner, E. Bardar, and J. McDonnell. 2017. Enabling Undergraduates to Dive into Data to Explore the Ocean. *in press* Eos.

Hunter-Thomson, K.I., K. Florio, K. Gardner, C. Ferraro, H. Clark, J. Kohut, and J. McDonnell. 2017. Partnering with a Science Mission to Expand Engagement in and Identification with Science: Science Teachers and Students Grades 6-9 Connected with Scientists in Antarctica. *in prep* for Journal of Research in Science Teaching.

Hunter-Thomson, K.I., R. Huston, J. McDonnell, and G. Saba. 2017. Exploring Ocean Acidification through Student-Collected and Published Data: Developing Data Interpretation Skills while Teaching Complex Concepts. *in prep* for The Science Teacher.

Hunter-Thomson, K.I., J. McDonnell, and C. Ferraro. October 2016. Data, Data, Data: Tips & Tricks for Using Authentic Data and NGSS Science Practices in Your Classroom. New Jersey Science Convention (concurrent session).

- Fichter, M., K. I. Hunter-Thomson, J. McDonnell, and A. Custer. October 2016. Bring Your Students to Antarctica Using Earth Science-Focused Data Nuggets. New Jersey Science Convention (concurrent session).
- Custer, A., K. I. Hunter-Thomson, J. McDonnell, and M. Fichter. October 2016. Bring your Students to Antarctica Using Biology-Focused Data Nuggets. New Jersey Science Convention (concurrent session).
- Hunter-Thomson, K.I., K. Florio, J. Kohut, and M. Oliver. February 2016. Tides, Krill, Penguins, Oh My!: Scientists and Teachers Partner in Project CONVERGE to Bring Collaborative Antarctic Research, Authentic Data, and Scientific Inquiry into the Hands of NJ and NY Students. Ocean Sciences Meeting (concurrent session).
- McDonnell, J., C. Ferraro, K.I. Hunter-Thomson, J. Kohut, and O. Schofield. January 2016. Polar Interdisciplinary Coordinated Education (ICE). Alliance for New Jersey Environmental Education (concurrent session).
- Hunter-Thomson, K.I., C. Ferraro, and J. McDonnell. October 2015. Data, Data, Data: Learn Tips & Tricks for Using Real Science Data and NGSS Science Practices in Your Classroom. New Jersey Science Convention (concurrent session).
- McDonnell, J., S. Lichtenwalner, S. Glenn, C. Ferraro, K.I. Hunter-Thomson, and J. Hewlett. 2015. The Challenges and Opportunities of Using Data in Teaching From the Perspective of Undergraduate Oceanography Professors. *Marine Technology Society Journal* 49(4): 76-85.
- Hunter-Thomson, K.I. and C. Free. October 2014. RU Life Science 2U: Fish Data and NGSS Science Practices in Your Classroom. New Jersey Science Convention (2 concurrent sessions)
- Hunter-Thomson, K.I. and G. Seroka. October 2014. RU Earth Science 2U: Ocean Data and NGSS Science Practices in Your Classroom. New Jersey Science Convention (2 concurrent sessions)
- Hunter-Thomson, K.I., G. Saba and M. Krehbiel. February 2014. Ocean Acidification, Krill, and Kansas: Scientists Share Research Experience in Antarctica to Inspire High School Teachers and Students. Ocean Sciences Meeting (concurrent session).
- McDonnell, J. and K.I. Hunter-Thomson. October 2013. Exploring the Rutgers University COOL Classroom Spatial Literacy Environmental Science Unit. New Jersey Science Convention (concurrent session).
- McDonnell, J., K.I. Hunter-Thomson, C. Ferraro, and S. Lichtenwalner. June 2013. Communicating Ocean Science Network: Year 3 and Beyond. COSIEN meeting (poster presentation).
- Hunter-Thomson, K.I. February 2011. A Voyage of Oral History, Community, and Heritage Through Local Fisheries Knowledge. California Association of Teachers of English Conference (concurrent session).
- Hams, J.E., L. Uttal, K.I. Hunter-Thomson, and S. Nachbar. December 2010. Teaching Sustainability and Resource Management Using NOAA's Voices Of The Bay Community Fisheries Education Curriculum. American Geophysical Union (poster presentation).
- Hunter-Thomson, K.I., L. Uttal, and S. Nachbar, September 2010. Voices of the Bay: Local Fisheries Education & Fisherman in the Classroom. California and the World's Oceans Conference (poster presentation).
- Hunter-Thomson, K.I. and L. Uttal. May 2010. Voices of the Bay: Balance in the Bay Presentation. California BWET Workshop (concurrent session).
- Uttal, L., S. Nachbar, K. Hunter-Thomson, and S. Beyer. April 2010. Voices of the Bay: Local Fisheries Education. Monterey Bay National Marine Sanctuaries Currents Symposium (poster presentation).

Research Publications & Presentations:

- Hunter-Thomson, K.I. and R.M. Starr. September 2011. Filling in a Data Gap of Area-Based

- Management: Fish Community Structure Across Landscape-Scale Habitat Patches. American Fisheries Society (concurrent session).
- Hunter-Thomson, K.I. and R.M. Starr. November 2010. Do terrestrial paradigms apply to subtidal reefs? Fish community structure in landscape-scale habitats. Western Society of Naturalists Annual Conference (concurrent session).
- Hunter-Thomson, K.I., and R.M. Starr. November 2009. Living on the edge: methods to evaluate assemblages of nearshore fishes with respect to landscape-scale habitat characteristics in central California. Western Society of Naturalists Annual Conference (poster presentation).
- Starr, R.M., and K. Hunter-Thomson. April 2009. Monitoring Marine Protected Areas in Deep Water off Central California. University of California Delivers.
(<http://ucanr.org/delivers/impactview.cfm?impactnum=734>)
- Monitoring MPAs in Deep Water Off Central California: 2007 IMPACT Submersible Baseline Survey. California Ocean Protection Council. 2008.
- Pinsky, M. and K. Hunter-Thomson. May 2004. Agriculture vs. Aquaculture: The rise of fish farming and the decline of the family farm in Chile. Tidepool.org.
- Hunter-Thomson, K., J. Hughes, and B. Williams. 2002. Estuarine -- Open-water Comparison of Fish Community Structure in Eelgrass (*Zostera marina*) Habitats of Cape Cod. Biological Bulletin, 203(2): 247-248.
- Williams, B., J. Hughes, K. Hunter-Thomson. 2002. Influence of Epiphytic Algal Coverage on Fish Predation Rates in Simulated Eelgrass Habitat. Biological Bulletin 203(2): 248-249.
- Hunter-Thomson, K. Oct 2002. Estuarine -- Open-water Comparison of Fish Community Structure in Eelgrass (*Zostera marina*) Habitats of Cape Cod. New England Estuarine Research Society Annual Conference (poster presentation).
- Floyd, S. and K. Hunter-Thomson. May 2002. A Comparative Diet Assessment of the Green sea turtle (*Chelonia mydas*) in Captivity. 2002 Annual International Sea Turtle Symposium (poster presentation).