Kalle Matso

Director, Piscataqua Region Estuaries Partnership (PREP)

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PROFESSIONAL EXPERIENCE

Director, Piscataqua Region Estuaries Partnership	May, 2022 – Present
Manager, Coastal Science Program, Piscataqua Region Estuaries Partnership	Feb., 2015 – April, 2022
Affiliate Assistant Professor, Dept. Natural Resources and the Environment, University of New Hampshire (UNH)	March, 2014 – Present
Consulting Participatory Process Designer/Facilitator	Jan. 2013 – Present
Project Investigator, NERRS Science Collaborative, UNH	Sept., 2009 – Feb., 2015
Project Investigator, Cooperative Institute for Coastal & Estuarine Technology (CICEET), UNH	June, 2000 – Sept., 2009

EDUCATION

Ph.D. 2012. University of New Hampshire; Natural Resources and Earth Systems Science.
Dissertation Title = "Producing Science that Gets Used by Coastal Communities: What Funders Should Do to Link More Science with Decisions"

M.S. 2000. University of New Hampshire; Department of Natural Resources.
Thesis Title = "Beach Seine, SCUBA and Remote Video: A Comparison of Three Methods for Assessing Faunal Species Richness and Abundance in Eelgrass Beds"

B.A. 1989. The Colorado College; Department of English

AWARDS & HONORS

The Nature Conservancy Conservation Partner Award	2019
National Estuarine Research Reserve System (NERRS) Impact Award: Outstanding Contribution to Coastal Stewardship	2014
Outstanding Achievement; Office of Vice President for Research, UNH	2012
Ketcham Award for Best Graduate Presentation New England Estuarine Research Society	1999
Reville Prize for Short Fiction (The Colorado College)	1989
Phi Beta Kappa	1989

FUNDED RESEARCH/MANAGEMENT

Piscataqua Region Estuaries Partnership. $850,000 from EPA. 2022-Present
Annual/Ongoing

Great Bay 2030 Philanthropic Effort: Planner 2026-2027

Climate Collabotorium: Co-Creation of Applied Theatre Decision Labs. 2024-2027
$294,104 from New Frontiers in Research Fund.

Piscataqua Region Estuaries Partnership. $909,000/year from EPA via 2022-2027
Infrastructure Investment and Jobs Act.

Remote sensing of seagrass and seaweed dynamics. $1,200,000 from EPA 2024-2027
via Congressionally Designated Spending.

Resilience and Positive Feedbacks: Water quality Management and 2021 - 2024
Eelgrass health in the Great Bay Estuary, NH/ME.
$550,000 award from NERRS Science Collaborative.

NERRS Science Collaborative 2009 – 2014
Co-Investigator, National Coastal and Estuarine Research and
Technology Program. Awarded $23 million from NOAA.

New England Sustainability Consortium (NEST) 2013 – 2015
Co-Investigator. Awarded $6 million award from NSF.

ICNet: Generating and Translating New Knowledge for Sustainable 2014 – 2015
Transportation in a Changing Climate.
Steering Committee Member. $750,000 Research Coordination
Network grant from NSF.

PROFESSIONAL ACTIVITIES

Scientific Review Panel Moderator

CICEET 2003 thru 2009

NERRS Science Collaborative 2009, 2010, 2011, 2012

NOAA RESTORE 2021

Journal/Proposal Reviewer

North Carolina Sea Grant

National Sea Grant

National Park Service, Hurricane Sandy Mitigation Award

Environmental Management

Society and Natural Resources

Estuaries and Coasts

Journal of Community Engagement and Scholarship

Proceedings of the National Academies of Science (PNAS)

Scholarship/Fellowship Referee

North Carolina Research Reserve (Graduate Research Fellowship)	2011
Switzer Foundation Fellowship – Selection Process Interviewer	2014
NOAA Margaret Davidson Coastal Fellowship	2020

Advisory Boards/Steering Committees

Waquoit Bay National Estuarine Research Reserve	2011 – 2015
Research to Application Task Force; Ocean Research and Resources Advisory Panel, Interagency Committee on Ocean Science and Resource Management Integration	2006 - 2007

Public Service

Program Reviewer, Environmental Studies Program, Great Bay Community College	Spring, 2015
Technical Advisor, Spruce Creek Association, Kittery Point, ME	2008 – Present
President, Kittery Land Trust, (Kittery, Maine)	2015 – Present

Public Engagement Process Design

Piscataqua Region Estuaries Partnership/Great Bay National Estuarine Research Reserve Advisory Board	2013
Great Bay 2020: A Five-Year Vision for Collective Investment, Action, and a Healthy Watershed	2015

Invited Workshop Participant

Heinz Center: "Improving Learning Networks in Coastal Management.	2003
Packard Foundation, Conservation & Science: Program Evaluation	2011

Trainings Offered

Working Together to Get Things Done: Collaborative Learning for	2011 - 2012

Natural Resource Mgmnt (San Diego, CA; Monterey, CA; Falmouth, MA)

Collaborative Learning and Collaborative Research 2012

NERRS Annual Meeting, Shepherdstown, W. Virginia

The Resilience Dialogues: Wells National Estuarine Research Reserve 2018

PUBLICATIONS

Refereed Journal Articles

Mikulis, A.E., Grogan, D.S., Shattuck, M. D., Matso,K., & McDowell,W.H. (2026). Biogeochemical stressors and ecological response in a nitrogen-impaired New England estuary. Journal of Geophysical Research: Biogeosciences,131,e2025JG008894. https://doi.org/10.1029/2025JG008894

Trueblood D, S Almazán-Casali, J Arnott, M Brass, MC Lemos, K Matso, J Read, L Vaccaro & J Wondolleck. 2019. Advancing Knowledge for Use in Coastal and Estuarine Management: Competitive Research in the National Estuarine Research Reserve System, *Coastal Management*, DOI: 10.1080/08920753.2019.1598221

Matso, KE and ML Becker. 2014. What Can Funders Do to Better Link Science with Decisions? Case Studies of Coastal Communities and Climate Change. *Environmental Management.* DOI 10.1007/s00267-014-0347-2

Matso, KE and M Becker. 2013. Funding Science that Links to Decisions: Case Studies Involving Coastal Land Use Planning Projects. Estuaries and Coasts. DOI: 10.1007/s12237-013-9649-5

Riley, C, KE Matso, D Leonard, J Stadler, D Trueblood and R Langan. 2011. How research funding organizations can increase application of science to decision making. Coastal Management. 39:336-350

Matso, K.E., M.O. Dix, B. Chicoski, D.L. Hernandez, J.R. Schubel. 2008. Establishing A Minimum Standard for Collaborative Research in Federal Environmental Agencies. *Journal of Integrated Environmental Assessment and Management.* 4:362-368.

Short, F.T., K.E. Matso, H.M. Hoven, J. Whitten, D.M. Burdick, and C.A. Short. 2001. Lobster use of eelgrass habitat in the Piscataqua River on the New Hampshire/Maine Border, USA. *Estuaries.* Vol. 24, No. 2, p. 277-284

Refereed Book Chapters

Matso KE. 2012. Challenge of Integrating Natural and Social Sciences to Better Inform Decisions: A Novel Proposal Review Process. In, "Restoring Lands: Coordinating Science, Politics, and Action," Eds., H. Karl., M. Flaxman, JC Vargas-Moreno and PL Scarlett. Springer Publishing, Dordrecht, the Netherlands.

Commissioned Research Reports/Publications

Burdick, DM, Edwardson, KJ, Gregory T, Matso K, Mattera T, Paly M, Peter C, Short F and Torio D. 2020. A Case for Restoration and Recovery of Zostera marina L. in the Great Bay Estuary. *PREP Reports & Publications*. 441. https://scholars.unh.edu/prep/441

Matso, KE. 2018. Flushing Time Versus Residence Time for the Great Bay Estuary. PREP Reports & Publications. 413. https://scholars.unh.edu/prep/413

Matso, K. 2016. Adaptive Governance. In: Kennish, M.J. (eds) Encyclopedia of Estuaries. Encyclopedia of Earth Sciences Series. Springer, Dordrecht. https://doi.org/10.1007/978-94-017-8801-4_39

Matso, K. 2016. Participatory Research. In: Kennish, M.J. (eds) Encyclopedia of Estuaries. Encyclopedia of Earth Sciences Series. Springer, Dordrecht. https://doi.org/10.1007/978-94-017-8801-4_40

Research to Applications Task Force. 2007. Best practices for increasing the impact of research investments. A report to the Ocean Research and Resources Advisory Panel. http://www.nopp.org/wp-content/uploads/2010/06/or03.pdf

Member, Masters or PhD Committees

Waddell, Jerrica Melva. 2024. Internal and external nutrient loading in relation to Zostera marina distribution, and stable isotopes in the Wheatley River, Prince Edward Island. Masters Thesis, University of Prince Edward Island. https://islandscholar.ca/islandora/object/ir%3A26486

Lowien, Anna. 2021. Biogeochemical stressors and ecological response in Great Bay Estuary. Masters Thesis, Department of Natural Resources and the Environment, University of New Hampshire. https://scholars.unh.edu/thesis/1515/

Erickson, Molly. 2022. Seasonal Variability of Phytoplankton Population Dynamics in Coastal New Hampshire. Masters Thesis, Department of Natural Resources and the Environment, University of New Hampshire. https://scholars.unh.edu/thesis/1552/

Dissertation

Matso, KE. 2012. Producing science that gets used by coastal communities: What funders should do to link more science with decisions. University of New Hampshire. https://scholars.unh.edu/dissertation/699/

PRESENTATIONS

Invited Presentations, Lectures

Matso, KE. 2019. New England Estuarine Research Society. "Surviving the Thunderdome of Environmental Conflict." York, ME.

Matso, KE. 2018. NH Water and Watershed Conference. "Improving Resilience in a Time of Disturbance." Plymouth, NH.

Matso, KE. 2017. "State of Our Estuaries 2018." State of Our Estuaries Conference, Dec., 2017. Portsmouth, New Hampshire.

Matso, KE. 2016. International Low Impact Development Conference. Invited Presentation. "Wicked Problems, the Trust Model and Spanning the Boundary Between Science and Action" Portland, Maine.

Matso, KE. 2016. New England Estuarine Research Society. Invited Presentation. "Cultivating New Roles in Collaborative Research: Scientists, Trust and Impact" York, Maine.

Matso, KE. 2015. New England Estuarine Research Society. Invited Presentation. "Increasing How Much Science Influences Decision Making: Is It a Science or an Art?" Bristol, RI.

Matso, KE. 2011. NERRS Winter Sector Meeting. Invited Presentation. "Funding Decision-Relevant Science: Overview of the Collaborative Approach." Falmouth, MA.

Matso, KE. 2010. NOAA Center for Sponsored Coastal Ocean Research. "Funding Decision-Relevant Science: Overview of a New Approach" Virtual Presentation. Durham, NH.

Matso, KE. 2010. NERRS Annual Meeting. Invited Presentation. "Lessons Learned from the First Year of the NERRS Science Collaborative." Shepherdstown, West Virginia.

Matso, KE. 2009. Aquarium of the Pacific. "Supporting More Useful Science: New Methods for Designing, Implementing and Assessing Applied Coastal Research." Long Beach, CA.

Matso, KE. 2009. NOAA Social Science Committee. "CICEET and Social Science: Efforts to Increase Impact of Research Investments." Washington D.C.

Matso, KE. 2008. NOAA Research Council. "Increasing Impact of Research Investments: Assessing New Models." Washington D.C.

Matso, KE and R. Langan. 2006. Ocean Resources Research Advisory Panel. "Catalytic Investments in Research and Technology: Providing Tools and Knowledge for Coastal Management." Washington D.C.

Matso, KE. 2003. Heinz Center Workshop on Improving Learning Networks in Coastal Management. "Using Web-Based Databases for More Efficient Dissemination of Federally Funded Research Results." Heinz Center, MA.

Matso, KE. 1999. Wood's Hole Visiting Scientist Series. "Beach Seine, SCUBA, and Remote Video: a Comparison of Three Methods for Assessing Faunal Species Richness and Abundance in Eelgrass Beds." Woods Hole, MA.

Conference Sessions Organized

Coastal Estuarine Research Federation (CERF) 2013. "Linking Knowledge with Action: Empirical Evidence of What Works and What Doesn't."

Association for the Sciences of Limnology and Oceanography (ASLO) 2013. "Catapults, Ferries, and Bridges: Getting Aquatic Science Results to Policy and Management." Organizers, E. Turner, D. Trueblood, K. Matso, F. Martinez.

Coastal Zone. 2009. "Applying Land Use Technology in Coastal Communities." Boston, MA.

Coastal Zone. 2009. "Building Capacity for Collaborative Decisions, Resilient Ecosystems, and Sustainable Practices: Water, land, community and people in estuarine watersheds." Boston, MA

Conference Presentations

Matso, KE. 2016. Low Impact Development Conference. Invited Presentation. "Wicked Problems, the Trust Model and Spanning the Boundary Between Science and Action." Portland, Maine.

Matso, KE. 2012. NERRS Annual Meeting. "From Collaboration, to Communication to Translation: Case Studies of Integrating Stakeholders into Research for More Usable Science Products." Shepherdstown, West Virginia.

Matso, K.E. 2010. Research Funding Program Implementation and Impact Evaluation. Concurrent Session Presentation. Environmental Evaluators Network Meeting. June, 2010. Washington D.C.

Matso, K.E., J. Stadler, D. Leonard. 2008. "Effectively Linking land use research to decision making: a case study in federal funding program design." Proceedings of the 21st International Conference for the Coastal Society.

Invited Lectures, Presentations – College Level

Graduate Student Presentation Series. Natural Resources and Earth Systems Science Department. 2012. "Funding Decision-Relevant Science: An analysis of a new approach." Univ. of New Hampshire.

Sustainable Engineering; Civil Engineering Department. 2012, 13. "What to Be Aware of Regarding Participatory Processes and Engineering Planning." Univ. of New Hampshire.

Sustainability and Adaptation. Natural Resources and Earth Systems Science Department. 2012. "The NERRS Science Collaborative: Not the Usual Funding Source." Univ. of New Hampshire.

Grant Writing (for Sciences and Natural Resource Management). 2013, 14. Univ. of New Hampshire.

Natural Resource Co-Management: How Do We Make It Work?. 2013. Graduate seminar. University of Maine, Orono.

Environmental Policy, Natural Resources and the Environment, Undergraduate Class. "The Role of Science in Making Policy." 2014

TEACHING

Co-Instructor. Natural Resources and the Environment, University of New Hampshire. NR 915: TIDES Seminar: Coastal Challenges for Science-Policy Collaborations (2010, 2011, 2012)

Program Co-Developer. Training for the Integration of Decisions and Ecosystems Science (TIDES).

Instructor, "Environmental Factors in Development Practice," Master of Arts in Community Development Policy and Practice; UNH, Carsey Institute. 2013, 2015

Guest Lecturer. UNH Courses: Marine Pollution; Watershed Management; Science Grant Writing