

JESSICA SPELKE JANSUJWICZ
Research Assistant Professor
Department of Wildlife, Fisheries, and Conservation Biology
University of Maine
5710 Norman Smith Hall, Room 222 Orono, Maine
jessica.jansujwicz@maine.edu

EDUCATION:

Ph.D. Ecology and Environmental Sciences, University of Maine, Orono (August 2011)

Concentration: Human dimensions of natural resources

Dissertation: Challenges and opportunities for conserving vernal pools on private land using regulatory and community-based approaches

Advisors: Dr. Aram A.J.K. Calhoun, Dr. Robert J. Lillieholm

Ph.D. Candidate Dept. of Geosciences, University of Massachusetts, Amherst (A.B.D. 2002)

Concentration: Human geography

Research: Balancing flood hazard mitigation and property rights: Will partnerships suffice?

Advisor: Dr. Rutherford H. Platt

M.S. Natural Resource Science, University of Rhode Island (student 1996-1997)

Concentration: Wetland ecology

Research: Population structure of *Melampus bidentatus* at the Galilee Bird Sanctuary, Narragansett, R.I.

Advisor: Dr. Frank C. Golet

M.S. Wildlife & Fisheries Conservation, University of Massachusetts, Amherst (May 1996)

Concentration: Wetland ecology and management, public policy, political science

Research: Property rights organizations: Backlash against regulation

Advisor: Dr. Curtice R. Griffin

B.A. Zoology with honors, Connecticut College, New London (May 1993)

Honors Thesis: Growth, fecundity, and food substrate preferences of *Melampus bidentatus* from two regions of a tidal marsh complex in Connecticut

Advisor: Dr. Paul E. Fell

School for Field Studies, Marine Resource Management, South Caicos, BWI (Fall 1991)

Concentration: Tropical marine ecology and community-based management

Project: Studies of a detritus-based food web in a mangrove ecosystem

CURRENT POSITION:

Research Assistant Professor Department of Wildlife, Fisheries, and Conservation Biology,
University of Maine, Orono, Maine (September 2016-Present)

RESEARCH EXPERIENCE:

Research Associate New England Sustainability Consortium (NEST) Future of Dams project, George J. Mitchell Center for Sustainability solutions University of Maine, Orono, Maine (Fall 2015-2016)

- Working with interdisciplinary team of researchers to examine the economic, environmental, and social tradeoffs associated with different dam management options.

Postdoctoral Fellow Sustainability Solutions Initiative and the Maine Tidal Power Initiative, University of Maine (August 2011 – August 2014)

- Conducted human dimensions research on tidal power development as part of the Maine Tidal Power Initiative (MTPI), an interdisciplinary team of engineers, biologists, oceanographers, and social scientists. Used social science research methods to assess the process and outcomes of stakeholder engagement and interdisciplinary cooperative sustainability science research.

Graduate Fellow Sustainability Solutions Initiative, University of Maine (September 2008-July 2011)

- Worked with an interdisciplinary team of researchers to assess collaborative approaches to vernal pool conservation planning in Maine. Used quantitative and qualitative social science research methods to investigate stakeholder engagement in community-based conservation planning.

Graduate Research Assistant Department of Forest Resources, University of Maine (2007-2008)

- Assisted an interdisciplinary team develop a research framework for a broader proposal on collaborative approaches for natural resource management on private lands in Maine.

Graduate Research Fellow Association of State Floodplain Managers (2000-2001)

- Developed a case study approach to assess the role of public-private partnerships and the impact of the property rights movement on natural hazard mitigation.

Research Assistant University of Rhode Island (January to December 1996)

- Studied distribution and abundance of *Melampus bidentatus* at the Galilee Salt Marsh prior to restoration.

Research Assistant U.S. Fish & Wildlife Service, McKinney National Wildlife Refuge, CT (May to December 1995)

- Assisted with colonial waterbird surveys, roseate tern foraging surveys, international shorebird surveys, wetland call-back surveys, wetland restoration projects, and environmental assessments.

Research Assistant University of Massachusetts, Amherst (January to December 1995)

- Conducted research on property rights organizations and implications for natural hazard mitigation.

Conservation Planning Intern The Nature Conservancy, CT (September 1994 to September 1995)

- Prepared site conservation plan for a tidal wetland on the lower Connecticut River.

Conservation Intern Environmental Defense Fund, NY (September to December 1993)

- Policy research on wetland advanced planning and Upper Mississippi River basin post-flood recovery.

Research Associate Connecticut College, New London, CT (May 1992 to May 1993)

- Examined growth, fecundity, and food/substrate preferences of *Melampus bidentatus*.

Marine Research Intern Northeast Utilities Environmental Laboratory, Waterford, CT (January to May 1993)

- Monitored the impact of Millstone Nuclear Power Station on local marine biota.

Fisheries Intern Mote Marine Laboratory, Sarasota, FL (January 1993)

- Worked on stock enhancement project to determine survival and growth of hatchery-produced red drum.

TEACHING AND MENTORING EXPERIENCE:

Instructor University of Maine (Summer 2014)

- Designed and taught human dimensions component of four-week graduate/upper level undergraduate summer course on the social, biological, technical, and physical aspects of marine renewable energy (SMS 491).

Co-Instructor University of Maine (Fall 2012 – Spring 2013)

- Organized and co-taught graduate readings course in social network analysis (EES590).

Mentor University of Maine (March 2010 – August 2014)

- Trained and supervised six undergraduate research assistants and one post-Masters' Research Associate. Served as ex-officio member on two Wildlife Ecology Ph.D. Oral Comprehensive Exam Committees.

Guest Lecturer University of Maine (Spring 2008 – December 2012)

- Presented lectures on wetland policy and vernal pool management for graduate and undergraduate courses in Forestry (FTY 446: Forest Resources Policy), Wildlife Ecology (WLE 423: Wetland Ecology and Conservation; WLE 470: Wildlife Policy and Administration), and Parks, Recreation, and Tourism (PRT 225: Readings in Outdoor Recreation). Presented lectures on tidal energy development and the Endangered Species Act for an undergraduate course in Marine Science (SMS 230: Marine Policy and Fisheries Management).

Instructor University of Massachusetts, Department of Geosciences (Spring 2000)

- Designed and independently taught 3-credit geography writing class (GEOSCI 314).

Teaching Assistant University of Massachusetts, Department of Geosciences (Spring/Fall 1999)

- Assisted with courses on land use planning and writing in geography.

Science Educator Montshire Museum of Science, Norwich, Vermont (1997 – 1998)

- Taught school programs, children's programs, and public science education programs. Administered volunteer program. Education Staff Liaison for the Silvio O. Conte National Fish & Wildlife Refuge.

Teacher Cardigan Mountain School, Canaan, New Hampshire (Summer 1997)

- Taught aquatic ecology to students in grades 4-9 during six-week summer program.

Teaching Assistant University of Massachusetts, Department of Natural Resources
(January to June 1995)

- Provided teaching support for wetland ecology course. Prepared and gave lectures. Organized course materials. Graded exams and papers.

Marine Environmental Education Intern Newfound Harbor Marine Institute, Big Pine Key, Florida (January to June 1994)

- Taught elementary, middle, and high school students marine science. Designed and taught programs in coral reef ecology, shallow bay ecology, mangrove ecology, and environmental investigations.

PUBLICATIONS:

PEER-REVIEWED PUBLICATIONS

McGreavy, B., A. Calhoun, **J. Jansujwicz**, and V. Levesque (in press) Citizen science and natural resource governance: Program design for vernal pool policy innovation *Ecology and Society*

Jansujwicz, J.S. and T.R. Johnson. 2014. The Maine Tidal Power Initiative: Transdisciplinary sustainability science research for the responsible development of tidal power *Sustainability Science* DOI 10.1007/s11625-014-0263-7.

Calhoun, A.J.K., **J.S. Jansujwicz**, M.L. Hunter, and K.P. Bell. 2014. Improving management of small natural features on private lands by negotiating the science-policy boundary for Maine vernal pools *The Proceedings of the National Academy of Sciences* DOI: 10.1073

Jansujwicz, J.S. and T.R. Johnson. 2013. Understanding and informing permitting decisions for tidal energy development using an adaptive management framework *Estuaries and Coasts*. DOI: 10.1007/s12237-013-9678-0.

Jansujwicz, J.S., A.J. K. Calhoun, J.E. Leahy, and R.J. Lillieholm. 2013. Using mixed methods to develop a frame-based private landowner typology *Society & Natural Resources: An International Journal* 26(8): 945-961 DOI:10.1080/08941920.2012.729294.

Johnson, T.R., **J.S. Jansujwicz**, and G. Zydlewski. 2013. Tidal power development in Maine: Stakeholder identification and perceptions of engagement *Estuaries and Coasts* DOI 10.1007/s12237-013-9703-3.

Jansujwicz, J.S., A.J.K. Calhoun, and R.J. Lillieholm. 2013. The Maine Vernal Pool Mapping and Assessment Program: Engaging municipal officials and private landowners in community-based citizen science. *Environmental Management* 52(6): 1369-1385 DOI 10.1007/s00267-013-0168-8.

Gardner, S.K., **J.S. Jansujwicz**, K. Hutchins, B. Cline, and V. Levesque. 2013. Socialization to interdisciplinarity: faculty and student perspectives. *Higher Education* 67(3): 255-271 DOI 10.1007/s10734-013-9648-2.

Gardner, S.K., **J. Jansujwicz**, K. Hutchins, B. Cline, V. Levesque. 2012. Interdisciplinary doctoral student socialization *International Journal of Doctoral Studies* 7: 377-394.

Spelke, J.A., P.E. Fell, and L.L. Helveston. 1995. Population structure, growth and fecundity of *Melampus bidentatus* (Say) from two regions of a tidal marsh complex in Connecticut. *The Nautilus* 108(2): 42-47.

BOOK CHAPTERS

Jansujwicz, J.S. and A.J.K. Calhoun. 2010. Protecting natural resources on private lands: The role of collaboration in land-use planning. In *Trombulak, S., and R. Baldwin, eds. Landscape-scale Conservation Planning*. New York, NY: Springer-Verlag, pp. 205-233.

Jansujwicz, J.S. 1999. Property rights organizations: backlash against regulation. In *R.H. Platt, ed. Disasters and Democracy: The Politics of Extreme Natural Events*. Washington, D.C.: Island Press, pp. 109-130.

PROCEEDINGS

Jansujwicz, J.S., and Johnson, T.R. Human dimensions research on marine hydrokinetic energy in Maine *Proceedings of the 2nd International Conference on Environmental Interactions of Marine Renewable Technologies (EIMR 2014)* 28 April – 02 May, Stornoway, Isle of Lewis, Outer Hebrides Scotland EIMR2014-259.

OTHER PUBLICATIONS

Jansujwicz, J.S. 2001. Will partnerships suffice? Balancing hazard mitigation and property rights *News and Views Association of State Floodplain Managers, Inc.* 14(4): 1-3.

PRESENTATIONS: (* Undergraduate students)

Jansujwicz, J.S., and T.R. Johnson “Human dimensions research on marine hydrokinetic energy in Maine” *2nd International Conference on Environmental Interactions of Marine Renewable Technologies (EIMR 2014)* 28 April – 02 May, 2014 Stornoway, Isle of Lewis, Outer Hebrides Scotland

Jansujwicz, J.S., and T.R. Johnson “Community and policy research on tidal energy development in Maine” Maine Water and Sustainability Conference Augusta, ME April 1, 2014

Budzinski, C., J.S. Jansujwicz, T.R. Johnson, T. Koboski, J. Vieser, C. Bartlett, and G. Zydlewski “Integrated Research for the responsible development of tidal power” Poster presented at Maine Water and Sustainability Conference Augusta, ME April 1, 2014

Jansujwicz, J.S. and T.R. Johnson. "Community acceptance of tidal energy development in Maine" Annual Meeting of the Society for Applied Anthropology Albuquerque, NM, March 20, 2014

Johnson, T.R. and **J.S. Jansujwicz** “Human dimensions research on sustainable development of tidal energy: Lesson from Cobscook Bay, Maine” *2nd Marine Energy International Symposium* (University of Maine, Orono, September 16, 2013)

Jansujwicz, J.S., Johnson, T.R., Budzinski, C., and T.P. Koboski. “Community engagement in tidal energy development” *2nd Marine Energy International Symposium* University of Maine, Orono, September 17, 2013

Jansujwicz, J.S. and T.R. Johnson “Stakeholder engagement in tidal power development: implications for research, policy, and implementation” Energy Ocean International, Warwick, R.I, June 10, 2013

Jansujwicz, J.S. and T.R. Johnson “Stakeholder engagement in tidal power development: implications for research, policy, and implementation” International Symposium on Society and Resource Management, June 5, 2013

*Koboski, T, **J.S. Jansujwicz**, C. Budzinski, and T.R. Johnson “The Maine Tidal Power Initiative: Lessons Learned Through Collaborative Interdisciplinary Research” Poster Presented at the Conference for Undergraduate Research (CUGR), University of Maine, April 16, 2013

Jansujwicz, J.S. and T.R. Johnson “Understanding Factors Influencing Community Acceptability in Marine Renewable Energy Development” Annual Meeting of the Society for Applied Anthropology Denver, CO March 22, 2013

Jansujwicz, J.S. “The Regulatory Process for Tidal Energy Development” Invited Lecture, Marine Policy and Fisheries Management (SMS 230), University of Maine (December 6, 2012)

Jansujwicz, J.S. “The Endangered Species Act: Past, Present, and Some Challenges” Invited Lecture, Marine Policy and Fisheries Management (SMS 230), University of Maine (November 26, 2012)

Jansujwicz, J.S. and T.R. Johnson “Understanding the Regulatory Process for Tidal Energy Development in Maine” MTPI Review Meeting Cobscook Community Learning Center, Trescott, ME, September 18, 2012

Jansujwicz, J.S. and T.R. Johnson “Understanding and Informing the Process of Tidal Energy Development in Maine” Annual Meeting of the American Fisheries Society Minneapolis-St. Paul, MN August 21, 2012

Johnson, T.R. and **J.S. Jansujwicz** “Human Dimensions and Stakeholder Involvement in Marine Renewable Energy Utilization” Prepared for the 1st Marine Engineering International Symposium Approaches to Marine Renewable Energy Development July 17, 2012 Aomori City, Japan

Jansujwicz, J.S. and T.R. Johnson “Informing Tidal Energy Development Through Stakeholder Engagement” Annual Meeting of the Society for Applied Anthropology, Baltimore, MD March 30, 2012

Jansujwicz, J.S. and T.R. Johnson “Riding the Wave: Informing Tidal Energy Development Through Stakeholder Engagement” Regional Association for Research on the Gulf of Maine (RARGOM) Annual Science Meeting, October 5, 2011, Portsmouth, NH.

Jansujwicz, J.S., Calhoun, A.J.K. and Lilieholm, R.J. “Communicating Sustainability through Citizen Science: Challenges and (Missed) Opportunities” Citizen Science Symposium, University of Maine (May 13, 2011)

Jansujwicz, J.S. “Landowner Response to Vernal Pool Conservation Planning” Invited Lecture, Parks, Recreation, and Tourism (PRT 225), University of Maine (December 8, 2010)

Jansujwicz, J.S. “Integrating Social Science into Natural Resources Conservation Using Vernal Pools as a Model” Sustainability Science Research Seminar, Sustainability Solutions Initiative and Penobscot Valley Senior College, University of Maine (December 3, 2010)

Jansujwicz, J.S. “Emerging Trends in Wetland Conservation: Stakeholder Cooperation in Collaborative Conservation and Community-Based Management” Invited Lecture, Wetland Ecology and Conservation (WLE 423), University of Maine (November 12, 2010)

Jansujwicz, J.S., Calhoun, A.J.K. and Lilieholm, R.J. “Cooperation and Natural Resource Management: Community-Based Vernal Pool Conservation Planning in Maine, USA” Poster Presented at Maine State EPSCoR Conference, University of Maine (November 8, 2010)

Jansujwicz, J.S., Calhoun, A.J.K. and Lilieholm, R.J. “Cooperation and Natural Resource Management: Community-Based Vernal Pool Conservation Planning in Maine, USA” Poster Presented at the 24th International Congress for Conservation Biology, Edmonton, Canada (July 4, 2010)

Jansujwicz, J.S., Calhoun, A.J.K. and Lilieholm, R.J. “Cooperation and Natural Resource Management: Community-Based Vernal Pool Conservation Planning in Maine, USA” International Symposium for Society and Resource Management, Corpus Christi, Texas (June 8, 2010)

Jansujwicz, J.S. “Property Rights, the Policy Process, and Vernal Pool Conservation Planning” Invited Lecture, Forest Resources Policy (FTY 446), University of Maine (April 26, 2010)

Jansujwicz, J.S., Calhoun, A.J.K. and Lilieholm, R.J. “Collaboration and Local Natural Resource Planning: Is Theory Running Ahead of Practice?” Annual Maine Water Conference. Portland Maine (March 24, 2009)

Calhoun, A.J.K, Duchesne, S., Holberton, R., and **Jansujwicz, J.S.** “Women’s Environmental Activism in Our Own Community” Panel Discussion for Women in Curriculum Seminar Series, Sustaining Our Lives: Women Take the Lead to Save Our Planet, University of Maine (March 17, 2009)

Jansujwicz, J.S. “Institutional Change and Vernal Pool Conservation Planning in Maine” Invited Lecture, Forest Resources Policy (FTY 446) University of Maine (April 23, 2008)

Jansujwicz, J.S. “From Snails to Property Rights: An Interdisciplinary Approach to Science” Invited Lecture presented at The Goodwin-Niering Center for Conservation Biology and Environmental Studies, Connecticut College (Fall 1999)

Spelke, J.A. and Golet, F.C. “Distribution and Abundance of *Melampus bidentatus* at the Galilee Salt Marsh Prior to Restoration” Poster presentation at the New England Estuarine Research Society Fall Meeting, Block Island, Rhode Island (October 24-26 1996)

Spelke, J.A. “Population Structure, Growth and Fecundity of *Melampus bidentatus* (Say) from Two Regions of a Tidal Marsh Complex in Connecticut” New England Estuarine Research Society (NEERS) Spring Meeting Groton Point, Connecticut (Spring 1993)

Spelke, J.A. “Population Structure, Growth and Fecundity of *Melampus bidentatus* (Say) from Two Regions of a Tidal Marsh Complex in Connecticut” Annual National Conference on Undergraduate Research (NCUR) University of Utah (March 1993)

RESEARCH GRANTS:

Zydlewski, G.B., **J. Jansujwicz**, T. Johnson, N.R. Pettigrew, and H. Xue 2013 NSF Coastal SEES (Track 2): Sustainability of coastal energy development: Understanding the effects and impacts on a coupled natural and human system (Not Funded) – \$2,999,814

Jansujwicz, J.S. Balancing Flood Hazard Mitigation and Property Rights: Will Partnerships Suffice? Association of State Floodplain Managers Graduate Fellowship (Awarded 2000-2001) - \$25,000

AWARDS/HONORS:

- Graduate Student Government Travel Award (Spring 2008)
- University Graduate Fellowship, University of Massachusetts (2001-2002)
- Graduate Fellowship, Association of State Floodplain Managers (2000-2001)
- Graduate Teaching Award, University of Massachusetts, Amherst (Spring 2000)
- Rankin Prize for Best Undergraduate Presentation, New England Estuarine Research Society (Spring 1993)
- Honors in Zoology, Connecticut College (1993)

RELEVANT SKILLS/TRAINING:

- Qualitative and quantitative methods including interviews, focus groups, structured surveys
- SPSS 18.0; NVivo 10
- Facilitation Training (Level I and Level II)

SERVICE:

- Penjajawoc Marsh/Bangor Mall Management Commission, (2010 – January 2013)
- Maine Audubon Society Board Member Penobscot Valley Chapter (2006-2012)
- Stillwater Montessori School Environmental Club (2008 – 2010)
- Grantham Conservation Commission (Grantham, N.H. 2001 – 2004)