

Jennifer L. Molnar
Lead Scientist
The Nature Conservancy
4245 North Fairfax Dr., Arlington, VA 22203
703-841-2072, jmolnar@tnc.org

EDUCATION

Yale University, School of Forestry and Environmental Studies, New Haven, CT 2004
Master of Environmental Management: Water Science, Policy and Management
Doris Duke Conservation Fellowship, 2003
American Water Resource Association - Yale Chapter President, 2003-4
Alumni Association Board Member, 2011-

Harvard University, Cambridge, MA 1998
S.B. *cum laude*: Environmental Science and Engineering

Additional training:

MIT Sloan Executive Education– Transforming Your Leadership Strategy (April 2014)

Tufts University - Environmental Law - graduate course taught through Civil Engineering and Urban and Environmental Policy Departments (Spring 2001)

PROFESSIONAL EXPERIENCE

The Nature Conservancy – *Global science* 2004 – Present

Lead Scientist 2015 - Present

Provides scientific leadership and is spokesperson on incorporating nature into human decisions at the corporate and policy level. With a focus on sustainability science, leads research on how we can improve society’s ability to make smarter decisions so that both nature and people can thrive. (Arlington, VA)

- Yale Environmental Sustainability Summit (Nov 2015), Co-chair of 400 attendee event
- Natural Capital Project, Governing Board
- Lead on new Conservancy science partnerships with Oxford Martin School (climate) and Cornell Atkinson Center for Sustainable Future (sustainable agriculture)
- Conservation by Design Refresh – implementation team to roll out update of TNC’s core conservation approach across the organization in 50 US states and about 40 countries

Science Lead, TNC-Dow Collaboration 2011-Present

Strategic and technical leadership for TNC-Dow Chemical Company collaboration to incorporate nature and the value it provides to people into business decision-making. (Arlington, VA)

- Contributed to development of Dow’s ground-breaking 10-year Valuing Nature Goal – a commitment to consider nature in all of the Fortune 50 company’s capital, R&D, and real estate decisions by 2020, while aiming to generate \$1B in business value.
- 4 peer reviewed papers, more in prep and in industry publications (including American Chemical Society, American Bar Association)
- 2015 Association of Strategic Alliance Professionals (ASAP) Alliance Excellence Award
- 2013 Roy Family Award for Environmental Partnership, Harvard Kennedy School of Government

The Nature Conservancy – Global science (cont.)

2004 – Present

Director of Science

2013 – 2015

Responsible for helping the Conservancy bring the best possible science to the organization's evolving conservation work. Led an interdisciplinary program of scientists and economists dedicated to cutting-edge research and practice on ecosystem services, social science and economics, climate science, conservation methods and measures, and science communications. (Arlington, VA)

- Conservation by Design Refresh – core member of steering committee, 2014-
- World Business Council on Sustainable Development (WBCSD) Natural Infrastructure Working Group member, 2014-Present
- Science for Nature and People (SNAP) Leadership Team, 2013-2014
- Sawhill Global Leadership Fellow, 2012-2014

Project Lead, Atlas of Global Conservation

2008 – 2014

Partnered with some 70 institutions around the world to compile and develop an unprecedented number of global maps to describe the state of our natural world with Conservancy co-authors. Responsible for book editing, design, and production, working with Conservancy staff, contractors, and the publisher. Played a lead role in media and donor outreach related to book launch. Led work to make all of the global maps and data publicly available online (<http://maps.tnc.org/globalmaps.html>), with partners including Google, Moore Foundation, ESRI, and Conservation Biology Institute. (Seattle, WA; Arlington, VA)

- Editor and co-author of the *Atlas of Global Conservation* (University of California Press, 2010).
- "The Best of the Best from University Presses" by the Association of American University Presses (AAUP)
- "Outstanding Academic Title of 2010" by the American Library Association (ALA).

Director, Sustainability Science Program

2010 – 2013

Leading program that is using science to identify, test, and develop new approaches that improve how conservation benefits both nature and people. Team projects are related to ecosystem services, conservation & human well-being, and urban conservation. (Arlington, VA)

- Science Impact Project, 2011-2013 – TNC science leadership development program
- SESYNC Working Group – How will Business Speak Biodiversity? Novel & Adaptive Uses for Ecosystem Services Data, 2013

Deputy Director, Center for Global Trends

2008 – 2009

Critical purview and a steering role for the work of an international team of scientists which collected, tracked, and analyzed global data to inform conservation strategies, policies, and priorities. Led global analyses of habitat condition and threats across multiple habitats, with a focus on marine and freshwater systems including the first global assessment of the distribution, pathways, and ecological impacts of marine invasive species. (Seattle, WA)

- Led the Science and Technology theme at the Conservancy's Conservation Learning Exchange (ConEx) in Vancouver, BC in October 2008.

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- The Nature Conservancy – *Global science (cont.)*** 2004 – Present
- Conservation Scientist, Global Habitat Assessment Team*** 2004 – 2008
Conducted global habitat assessments to inform organizational priority setting and conservation strategy development. Coordinated work on issues and critical threats that cut across terrestrial, freshwater, and marine habitats. (Seattle, WA)
- Led first ever global threat assessments of marine and freshwater invasive species.
 - Member of Marine Ecoregions of the World Working Group.
 - Nitrogen Loading to the Marine Environment Workshop, Narragansett, RI, December 2007
- Yale University, School of Forestry and Environmental Studies – *Teaching Fellow*** 2003 – 2004
Coordinated four students' Master's Degree projects focused on land use issues and helped incorporate findings into course: Local Environmental Law and Land-Use Practices. (New Haven, CT)
- The Nature Conservancy – *Landscape Ecology Research Lead*** 2003 – 2004
Investigated conservation topics with Lead Scientist Peter Kareiva, including affects of land use change on breeding bird population; use of conservation easements as land protection tools. (Santa Clara, CA)
- The Nature Conservancy/Connecticut Sea Grant – *Coastal Program Intern*** 2003
Developed management tools for community-based shellfish restoration in Connecticut. (Essex, CT)
- Yale University, School of Forestry and Environmental Studies – *Research Assistant*** 2002 – 2003
Conducted field, lab, and remote sensing work for a project investigating loss of vegetation in a Connecticut tidal wetland. (New Haven, CT)
- GEI Consultants, Inc. – *Environmental Engineer*** 1998 – 2002
Performed numerous field investigations, environmental site assessments, and remedial actions. Provided litigation support in groundwater contamination cases. Conducted search for disposal sites for dredged material for four Massachusetts ports and wrote sections of related statewide guidance document. (Winchester, MA)
- Columbia University's Biosphere 2 Center – *NASA Research Intern*** Summer 1997
Conducted independent research on methane emissions and designed sampling system in Mangrove Biome of Biosphere 2, an enclosed ecosystem laboratory. (Oracle, AZ)
- IVI Environmental, Inc. – *Environmental Engineering Research Analyst*** Summer 1996
Conducted environmental site assessments and related research. (White Plains, NY)

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HONORS AND AWARDS

- 2015 Association of Strategic Alliance Professionals (ASAP) Alliance Excellence Award (TNC-Dow Collaboration), 2015
- Sawhill Global Leadership Fellow, The Nature Conservancy, 2012-2014
- Roy Family Award for Environmental Partnership, from Harvard Kennedy School of Government - awarded every two years to honor work that “demonstrates the highest levels of environmental leadership, setting an example for public, private, and non-profit organizations throughout the world” (TNC-Dow Collaboration), 2013
- "The Best of the Best from University Presses" by the Association of American University Presses (*Atlas of Global Conservation*), 2010
- “Outstanding Academic Title of 2010” by the American Library Association (*Atlas of Global Conservation*), 2010
- Doris Duke Conservation Fellowship, 2003
- Sigma Xi, The Scientific Research Society – Associate Member of Honor Society
- Harvard College Scholarship, 1998
- National Science Scholar, 1994

PUBLICATIONS

Book

Hoekstra, J. M., **J. L. Molnar**, M. Jennings, C. Revenga, M. D. Spalding, T. M. Boucher, J. C. Robertson, T. J. Heibel, with K. Ellison. 2010. *The Atlas of Global Conservation: Changes, Challenges, and Opportunities to Make a Difference*. Ed. **J. L. Molnar**. Berkeley: University of California Press

Articles

Molnar, J.L. The Power of NGO Science to Change Corporate Practices. *In prep.*

Meyer, S.R., **J.L. Molnar**, and P. Wheeler. Can Impact Capital Save Conservation? *In prep.*

Molnar, J.L. and P Kareiva. 2015. Conservation chemistry. *Chemistry & Industry*, 79: 7: 40.

Reddy, S.W., D. Whipple, G. Guannel, R. Griffin, J. Faries, T. Boucher, J. Fisher, M. Thompson, J. Brenner, J. Bernhardt, G. Verutes, S. Wood, J. Silver, J. Toft, A. Rogers, A. Maas, A. Guerry, **J.L. Molnar**, J. DiMuro. 2015. Evaluating the role of coastal habitats and sea-level rise in hurricane risk mitigation: An ecological economic assessment method and application to a business decision. *Integrated Environmental Assessment and Management*. DOI 10.1002/ieam.1678.

Reddy, S.M.W., R.I. McDonald, A.S. Maas, A. Rogers, E.H. Givertz, S. Wood, **J.L. Molnar**, T. Finley, G. Leathers, J. DiMuro. 2015. Industrialized Watersheds Have Elevated Water Risk and Limited Opportunities to Mitigate Risk through Water Trading. *Water Resources & Industry*. 11: 27-45.

Reddy, S.W., R.I. McDonald, A. Maas, A. Rogers, E.H. Givertz, J. North, **J.L. Molnar**, T. Finley, G. Leathers, J. DiMuro. 2015. Finding solutions to water scarcity: Incorporating ecosystem service values into business planning at The Dow Chemical Company’s Freeport, TX facility. *Ecosystem Services*. 12: 94–107.

DiMuro, J. and **J.L. Molnar**. 2013. The Economics of Ecosystems. *Natural Resources & Environment*. 28(1): 43-46.

Molnar, J.L. and I. Kubiszewski. 2012. Managing natural wealth: Research and implementation of ecosystem services in the United States and Canada. *Ecosystem Services*.
<http://dx.doi.org/10.1016/j.ecoser.2012.09.005>

Molnar, J.L., R. Gamboa, C. Revenga, M. Spalding. 2008. Assessing the Global Threat of Invasive Species to Marine Biodiversity. *Frontiers in Ecology and the Environment*. 6(9): 485–492.

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- Spalding M.D., H.E. Fox, G.R. Allen, N. Davidson, Z.A. Ferdana, M. Finlayson, B.S. Halpern, M.A. Jorge, A. Lombana, S.A. Lourie, K.D. Martin, E. McManus, **J.L. Molnar**, C.A. Recchia, J. Robertson. 2007. Marine Ecoregions of the World: a bioregionalization of coast and shelf areas. *BioScience*. 57(7): 573-583.
- Spalding M., H. Fox, N. Davidson, Z. Ferdana, M. Finlayson, B. Halpern, M. Jorge, A. Lombana, S. Lourie, K. Martin, E. McManus, **J. Molnar**, K. Newman, C. Recchia, J. Robertson. 2006. Global Coastal and Marine Biogeographic Regionalization as a Support Tool for Implementation of CBD Programmes of Work. COP8 Information Document 34. Convention on Biological Diversity, Montreal, Canada
- Molnar J.**, M. Marvier, and P. Kareiva. 2004. The Sum Is Greater than the Parts. *Conservation Biology* 18 (6), 1670-1671.
- Molnar, J.L.** 1998. Methane Production and Transport within the Marsh Biome of Biosphere 2. *Proceedings of National Conference on Undergraduate Research*. Salisbury, MD.
- Molnar, J.** and K. Goodridge. 1997. Methane Production and Transport within the Marsh Biome of Biosphere 2. NASA Technical Report 19990021123

Reports

- The Nature Conservancy and The Dow Chemical Company. 2015. The Nature Conservancy-Dow Collaboration 2014 Progress Report. Arlington, VA & Midland, MI. ([link](#))
- The Nature Conservancy and The Dow Chemical Company. 2014 The Nature Conservancy-Dow Collaboration 2013 Progress Report. Arlington, VA & Midland, MI. ([link](#))
- The Nature Conservancy and The Dow Chemical Company. 2013 The Nature Conservancy-Dow Collaboration 2012 Progress Report. Arlington, VA & Midland, MI. ([link](#))
- The Nature Conservancy and The Dow Chemical Company. 2012 The Nature Conservancy-Dow Collaboration 2011 Progress Report. Arlington, VA & Midland, MI. ([link](#))
- Hoekstra, J. M., T. Boucher, M. Jennings, **J. Molnar**, C. Revenga, M. Spalding. 2006. Interim report on the global habitat assessments. Prepared for The Nature Conservancy, Arlington, VA.
- M. Burget, T. Boucher, J. M. Hoekstra, M. Jennings, L. Landon, **J. Molnar**, C. Revenga, M. Spalding. 2005. Progress report on the 2015 Goal and Global Habitat Assessments. Prepared for The Nature Conservancy, Arlington, VA.
- Molnar, J.**, T. Boucher, J. Hoekstra. 2005. Preliminary assessment of TNC presence in relation to the world's major habitat types. Prepared for The Nature Conservancy, Arlington, VA.
- Contributed to numerous reports on field investigations, environmental site assessments, and remedial actions, as well as a series of dredged material management plans for ports in Massachusetts (GEI Consultants, Inc., 1998-2002).

PRESENTATIONS:

Invited talks / public lectures

- Molnar, J.L.** 2015. Lessons from the TNC-Dow Collaboration. Invited public lecture at Yale School of Forestry and Environmental Studies. New Haven, CT.
- Molnar, J.L.** 2014. Solutions for Nature and Business. IF Nature: Louisville Ideas Fest. Louisville, KY.
- Molnar, J.L.** 2014. Incorporating the Value of Nature into Corporate Decisions. Public lecture. Café Scientifique. Ballston Science and Technology Alliance. Arlington, VA.
- Molnar, J.L.** 2014. Climate Adaptation and Conservation. Yale School of Forestry and Environmental Studies Leadership Council. New Haven, CT.
- Molnar, J.L.** and J. South. 2013. TNC-Dow Collaboration. Seminar at Resources for the Future. Washington, DC.
- Molnar, J.L.** 2013. Keynote Address: Seeking solutions for business and nature. Northwestern University Summit on Sustainability. Evanston, IL.

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- Molnar, J.L.** 2013. Corporations and Ecosystem Services. Kentucky Corporate Council, The Nature Conservancy. Lexington, KY.
- Molnar, J.L.** 2013. Ecosystem Services and Corporate Strategy: The Nature Conservancy and The Dow Chemical Company. Nature's Returns Webinar Series. Center for Business and the Environment at Yale. New Haven, CT.
- Molnar, J.L.** 2013. Seeking solutions for business and nature: TNC-Dow Collaboration. Invited public lecture at University of Pennsylvania. Philadelphia, PA.
- Molnar, J.L.** 2011. TNC-Dow Collaboration. Invited public lecture at Yale School of Forestry and Environmental Studies. New Haven, CT.
- Molnar, J.L.** 2010. Atlas of Global Conservation. Public lecture. Telluride, CO.
- Hoekstra, J. and **J.L. Molnar**. 2010. Everything We Know about Nature. Public talk at Town Hall, Seattle, WA.
- Molnar, J.L.** 2010. Atlas of Global Conservation. Talk for TNC Legacy Club and Trustees. Minneapolis, MN.
- Revenga, C., **J.L. Molnar**. 2006. TNC's 2015 Goal: Setting priorities for conservation. Presentation at the expert consultation meeting for the Western Palearctic. Belgrade, Serbia and Montenegro.
- Molnar, J.L.**, M.D. Spalding. 2005. The Nature Conservancy's Marine Global Habitat Assessment. Invited presentation at the 8th World Wilderness Congress, Anchorage, AK.

Workshops

- Led ecosystem services workshops for government ministers. 2013. Ulan Bator, Mongolia.
- Organized The Workshop on Nature's Benefits in Conservation (3 days for ~100 TNC staff and partners), San Ramon, CA, February 22-25, 2011
- Led ecosystem services workshops for government ministers. 2011. Ulan Bator, Mongolia.
- Led the Science and Technology theme at the Conservancy's Conservation Learning Exchange (ConEx) in Vancouver, BC in October 2008. Organized symposia and exhibition hall of interactive displays of dozens of conservation tools.

Conferences / University Lectures

- Molnar, J.L.** 2015. From ecosystem function to ecosystem services as a foundation for conservation. Invited talk in Symposium: How Basic Ecology Has and Will Continue to Shape Conservation Science. Ecological Society of America Annual Meeting, Baltimore, MD.
- Closing Plenary Synthesis Panel. 2014. Global Water Summit, The Nature Conservancy. Chicago, IL.
- Molnar, J.L.** 2014. Nature Conservation and Climate Change. Seminar at Chinese University Hong Kong.
- Panel: Integrating the Value of Nature into Business Decisions: Businesses and Collaborators Share and Compare their Approaches. ACES 2014. Washington, DC.
- Molnar, J.L.**, S. Reddy, T. Kroeger, R. McDonald, G. Leathers, T. Finley, J. Waldron, J. DiMuro, J. South. 2014. Poster: Three Business Cases for Nature from The Dow Chemical Company's Freeport, TX Facility. ACES 2014. Washington, DC.
- Molnar, J.L.** 2014. Ecosystem Services and Corporate Decision-Making. Marine Aggregation, The Nature Conservancy. Carmel, CA.
- Molnar, J.L.**, S. Reddy, T. Kroeger, L. Baumgarten, J. Weigel. 2013. TNC-Dow Collaboration: Pilots to Implementations. All Science Conference, The Nature Conservancy. Santa Clara, CA
- Molnar, J.L.** 2013. Translating the Value of Nature for a Company. All Science Conference, The Nature Conservancy. Santa Clara, CA.
- Molnar, J.L.** 2013. TNC Science Informing Policy. All Science Conference, The Nature Conservancy. Santa Clara, CA.
- Molnar, J.L.**, J. Fisher, T. Boucher, T. Kroeger. 2013. New Innovations in Science. Volunteer Leadership Conference, The Nature Conservancy. Washington, DC.

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- Malik, P. and **J.L. Molnar**. Corporate Practices Strategy. Volunteer Leadership Conference, The Nature Conservancy. Washington, DC.
- Molnar, J.L.** 2013. Enabling Businesses To Evaluate the Role of Habitats in Hurricane Risk Mitigation. Climate Risk Reduction Exchange Conference. New Orleans, LA.
- Closing Plenary Synthesis Panel. 2013. Climate Risk Reduction Exchange Conference. New Orleans, LA.
- Molnar, J.L.** 2013. Seeking solutions for business and nature: TNC-Dow Collaboration. Science Fest, The Nature Conservancy, Arlington, VA.
- Molnar, J.**, S. Walsh, T. Kroeger, R. McDonald, P. Kareiva. 2013 Incorporating Ecosystem Services into Corporate Decisions: Results from site-level analysis. 26th International Congress for Conservation Biology. Baltimore, MD.
- Molnar, J.L.** and T. Boucher. 2012. Sharing Global Conservation Data. World Conservation Congress. Jeju, South Korea.
- Molnar, J.L.** 2012. Seeking solutions for business and nature: Incorporating ecosystem services into corporate decisions. Ecosystem Service Partnership Conference. Portland, OR.
- Closing Plenary Synthesis Panel. 2012. Ecosystem Service Partnership Conference. Portland, OR.
- Molnar, J.L.**, S. Walsh, T. Kroeger, J. DiMuro. 2012. Symposium (organizer/moderator): Integrating The Value Of Nature Into Business Decision-Making. ACES 2012. Miami, FL.
- Walsh, S.M., J. Brenner, A. Guerry, **J.L. Molnar**. 2012. Coastal natural hazard mitigation: Opportunities for businesses to lead investments in local public goods. 97th ESA Annual Convention 2012, *Portland, OR*.
- Kareiva, P., V. Matzek, J. Kiesecker, **J.L. Molnar**. 2012. Beyond doomsday ecology: What if engaging with business were the answer for ecological science. 97th ESA Annual Convention 2012, Portland, OR.
- Molnar, J.L.**, T. Kroeger, R.I. McDonald, S. Walsh. 2012. Seeking solutions for business and nature: Incorporating ecosystem services into corporate decisions. 97th ESA Annual Convention 2012, Portland, OR.
- Molnar, J.L.** and M. Weick. 2011. Corporations and Ecosystem Services. All Science Conference, The Nature Conservancy. Olive Branch, MS
- Molnar, J.L.** 2011. Ecosystem Services and Corporations. Ecological Society of America Annual Convention, Austin, TX.
- Molnar J.L.**, Aukema J.E., Vigerstol K., Ruffo S. 2010. Symposium (organizer/moderator): Using nature to protect people from climate change impacts. Society for Conservation Biology Annual Meeting, Edmonton, AB
- Molnar, J.L.** and K. Vigerstol. 2009. Ecosystem Services at The Nature Conservancy. US Army Corps of Engineers & The Nature Conservancy Fourth Partnership Conference, Stevenson, WA.
- Molnar, J.L.** 2009. Overview of The Atlas of Global Conservation. ESRI User Conference, San Diego, CA.
- Bobeldyk A.M., **J.L. Molnar**, D.M. Lodge, and G.A. Lamberti. 2007. Aquatic invasive invertebrates in the United States: Rusty crayfish as a case study. Presentation at 15th International Conference on Aquatic Invasive Species, Nijmegen, the Netherlands.
- Molnar, J.L.**, R. Gamboa, C. Revenga, M. Spalding. 2007. Documenting the Global Threat of Invasive Species to Marine Biodiversity. Presentation at the 20th Annual Meeting of the Society for Conservation Biology, Port Elizabeth, South Africa.
- Molnar, J.L.**, R. Gamboa, C. Revenga, M. Spalding. 2007. Documenting the Global Threat of Invasive Species to Marine Biodiversity. Presentation at 5th International Conference on Marine BioInvasions, Cambridge, MA.
- Molnar, J.L.**, R. Gamboa, C. Revenga, M. Spalding. 2007. Documenting the Global Threat of Invasive Species to Marine Biodiversity. Presentation at The Nature Conservancy's Marine Aggregation 2007, Pacific Grove, CA.

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- Molnar, J.L.** 2006. Documenting the Global Threat of Invasive Species to Freshwater and Marine Biodiversity. Invited lecture at the University of Washington, College of Forest Resources, Seattle, WA.
- Molnar, J.L.** 2006. Documenting the Global Threat of Invasive Species to Freshwater and Marine Biodiversity. Presentation at Conservation Science In Practice Conference, The Nature Conservancy, Tucson, AZ. (in symposium: Thinking globally: How can we apply global science to influence conservation priorities and policies?)
- Molnar, J.L., C. Revenga.** 2006. The Distribution of Freshwater Invasive Species and their Impacts: Results from a Global Threat Assessment. Presentation at the 20th Annual Meeting of the Society for Conservation Biology, San Jose, CA. (in symposium: Freshwater Invasive Species: A Double-Edged Sword? organized by **J.L. Molnar**, C. Revenga, and M. Ogada).
- Revenga, C., **J.L. Molnar**, J. Hoekstra. 2006. Conceptual Framework and Approach to Priority Setting for Conservation at the Global Scale. 1st European Congress of Conservation Biology. Eger, Hungary.
- Molnar, J.L., C. Revenga, E. Underwood.** 2006. A Global Assessment of Invasive Species and their Effect on Terrestrial, Freshwater and Marine Habitats and Biodiversity. Poster at Ecology in an Era of Globalization Conference, Ecological Society of America, Merida, Mexico.
- Molnar, J.L.** 2005. Trends in breeding bird populations on an urbanizing landscape. Presentation at the 19th Annual Meeting of the Society for Conservation Biology, Brasilia, Brazil.
- Boucher, T.M., M. Jennings, **J.L. Molnar** and J. M. Hoekstra. 2005. Getting ahead of the curve: Identifying opportunities for proactive conservation. Poster at the 19th Annual Meeting of the Society for Conservation Biology, Brasilia, Brazil.
- Mitch, A., **J.L. Molnar.** 2004. Comparison of Eutrophication in Chesapeake Bay, Long Island Sound and Northern Gulf of Mexico. Poster at the 2nd National Conference on Coastal and Estuarine Habitat Restoration, Restore America's Estuaries, Seattle, WA.
- Molnar, J.L.** 1998. Methane Production and Transport within the Marsh Biome of Biosphere 2. Presentation at the National Conference on Undergraduate Research. Salisbury, MD.