

Associate Professor of Environmental Education and Citizen Science  
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Post-Doc 2001-2003 Princeton University, Ecology and Evolutionary Biology, J. Gould, D. Rubinstein  
PhD 2001 University of Massachusetts-Amherst (UMASS), Organismic and Evolutionary Biology, F. Juanes  
MS 2000 UMASS, Organismic and Evolutionary Biology, F. Juanes  
BS 1997 University of Connecticut (UCONN), Biological Sciences (Honors Scholar, summa cum laude, 3.8)

### **Current Appointments**

Associate Professor of Environmental Education and Citizen Science, Rutgers University  
Director, Program in Science Learning

### **Previous Appointments**

2004-2010 Assistant Professor of Environmental Education and Citizen Science, Rutgers University  
2006-2010 Undergraduate Program Director, Ecology, Evolution, & Natural Resources  
2003-2004 Visiting Assistant Professor, Elizabeth City State University (ECSU), Elizabeth City, NC, Associate  
of the Partnership for Minority Advancement in the Biomolecular Sciences, University of North Carolina,  
Chapel Hill (UNC)  
2002-2003 Lecturer, Princeton University  
2001-2003 Science and Technology Council Post-doctoral Associate, Princeton University  
2000-Academic Instructor, Academic Study Associates, Armonk, NY  
1998-2001 GAANN Fellow, UMASS  
1998-Polgar Fellow, Hudson River Foundation, New York, NY  
1997-1998 Teaching Assistant, UMASS  
1997-1998 Research Assistant, UMASS

### **Peer Reviewed Publications**

#### *Published*

Jordan, R.C., A.E Sorensen, and C. Hmelo-Silver. A conceptual representation to support ecological systems learning. *Natural Sciences Education* 43:141-146.

Nicosia, K. et al., J. Manderson, R. Jordan, and S.A. Gray. 2014. Measuring the willingness to pay for restoration of a highly urbanized coastal watershed. *Ecological Economics*. Online First.

- Jordan, R.C., W.R. Brooks, C.E. Hmelo-Silver, C. Eberbach, and S. Sinha. 2014. Balancing broad ideas with context: an evaluation of student accuracy in describing ecosystem processes after a system-level intervention. *Journal of Biological Education* 48: 57-62.
- Brooks, W.R., and R.C. Jordan. 2014. Restoring tropical dry forest communities: effects of habitat management and outplantings on composition and structure. *Restoration Ecology* 22:160-168.
- Jordan, R., W.R. Brooks, A. Sorenson, and J. Ehrenfeld. 2014. Understanding plant invasions: an example of working with citizen scientists to collect environmental data. *AIMS Environmental Science* 2: 1-7.
- Crawford, B. and R.C. Jordan. 2013. Inquiry, models, and complex reasoning to transform learning in environmental education. In: Krasny and Dillon (eds.) *Transdisciplinary Research in Environmental Education*. Ithaca: Cornell University Press.
- Jordan, R.C., and W.R. Brooks. 2013. Graduate students as mentors to undergraduates in research: a discussion of benefits and limitations. *Perspectives on Undergraduate Research and Mentoring* 3: 1-8.
- Crall, A.W., G.J. Newman, R.C. Jordan, K.A. Holfelder, J. Graham, and D.M. Waller. 2013. The impacts of an invasive species citizen science program on participant attitudes, behavior, and science literacy. *Public Understanding of Science* 22: 745-764.
- Sinha, S., S. Gray, C.E. Hmelo-Silver, R. Jordan, C. Eberbach, A. Goel, and S. Rugaber. 2013. Conceptual representations for transfer: a case study tracing back and looking forward. *Frontiers in Learning Research* 1: 3-23.
- Hmelo-Silver, C. E., R. Jordan, and S. Sinha. 2013. Seeing to understand: Using visualizations to understand learning in technology-rich learning environments. Pp. 457-471 in R. Luckin, S. Puntambekar, P. Goodyear, B. L. Grabowski, J. Underwood, & N. Winters (eds). *Handbook of Design in Educational Technology*. New York: Routledge.
- Jordan, R.C., C. Hmelo-Silver, L. Liu, and S. Gray. 2013. Fostering reasoning about complex systems: using the aquarium as a model ecosystem. *Applied Environmental Education and Communication* 12: 55-64.
- Jordan, R.C, S.A. Gray, W.R. Brooks, S. Honwad, and C.E. Hmelo-Silver. 2013. Process based thinking in ecosystem education. *Natural Sciences Education* 42: 68-74.
- Jordan, R.C., J.R. DeLisi, W.R. Brooks, S.A. Gray, A. Alvarado, and A.R. Berkowitz. 2013. A collaborative model of science teacher professional development. *International Journal of Modern Education Forum* 2: 31-41.
- Brooks, W.R., and R.C. Jordan. 2013. Propagule pressure and native species richness effects drive invasibility in tropical dry forest seedling layers. *Perspectives in Plant Ecology, Evolution, and Systematics* 15:162-170.
- Brooks, W.R., J.L. Lockwood, and R.C. Jordan. 2012. Tropical paradox: a multi-scale analysis of the invasion paradox within Miami Rock Ridge tropical hardwood hammocks. *Biological Invasions* 15:921-930.
- Jordan, R.C., J.G. Ehrenfeld, S.A. Gray, W.R. Brooks, D.V. Howe, and C.E. Hmelo Silver. 2012. Chapter 11: Cognitive considerations in the development of citizen science projects. Pp. 167-178 in J. L. Dickinson and R. Bonney (eds.) *Citizen Science: Public Participation in Environmental Research*. Ithaca: Cornell University Press.
- Gray, S., R. Shwom, and R.C. Jordan. 2012. Understanding factors that influence stakeholder trust of natural resource science and institutions. *Environmental Management* 49: 663-674.
- Mellor, D.T., L. Wilt, D. Gershenson, and R.C. Jordan. 2012. Female preference in the context of male-male interactions in *Maylandia zebra* of Lake Malawi. *Journal of Ethology* 30: 181-186.
- Gray, S., Chan, A., Clark, D. and R.C. Jordan. 2012. Modeling the integration of stakeholder knowledge in social-ecological decision-making: benefits and limitations to knowledge diversity. *Ecological Modeling* 229: 88-96.
- Gray, S.A., Nicosia, K. and R.C. Jordan. 2012. Lessons Learned from Citizen Science in the Classroom. A Response to "The Future of Citizen Science. *Democracy and Education* 20: Article 14.

- Shirk, J. L., H. L. Ballard, C. C. Wilderman, T. Phillips, A. Wiggins, R. C. Jordan, E. McCallie, M. Minarchek, B. V. Lewenstein, M. E. Krasny and R. Bonney. 2012. Public participation in scientific research: a framework for deliberate design. *Ecology and Society* 17: 29.
- Jordan, R.C., H.L. Ballard, and T.B. Phillips. 2012. Key issues and new approaches for evaluating citizen-science learning outcomes. *Frontiers in Ecology and the Environment* 10: 307–309.
- Jordan, R.C., W.R. Brooks, D.V. Howe, and J.G. Ehrenfeld. 2012. Evaluating performance of volunteers in mapping invasive plants in public conservation lands. *Environmental Management* 49: 425-434.
- Hmelo-Silver, C.E., R.C. Jordan, L. Liu, and C.E. Chernobilsky. 2011. Representational Tools for Understanding Complex Computer-supported Collaborative Learning Environments. Pgs 83-106. In: S. Puntambekar, G. Erkens, & C.E. Hmelo-Silver (eds.) *Analyzing interactions in CSCL: Methodology, approaches, and issues*. NY: Springer.
- Jordan, R.C., S.A. Gray, D.V. Howe, W.R. Brooks, and J.G. Ehrenfeld. 2011. Knowledge gain and behavioral change in citizen science programs. *Conservation Biology* 25: 1148-1154.
- Vattam, S., A. Goel, S. Rugaber, C. Hmelo-Silver, R.C. Jordan, S. Gray, and S. Sinha. 2011. Understanding complex natural systems by articulating Structure-Behavior-Function models. *Educational Technology and Society* 14: 66-81.
- Jordan, R.C., M. Ruibal-Villasenor, and E. Etkina. 2011. Laboratory materials: affordances or constraints. *Journal of Research in Science Teaching* 48: 1010-1025.
- Hmelo-Silver, C.E., R.C. Jordan, C. Eberbach, S. Rugaber, and A. Goel. 2011. Systems and Cycles: Learning about Aquatic Ecosystems. *Learning* 15: 53-61.
- Mellor, D., C. Tarsiewicz, and R. Jordan. 2011. Female *Maylandia zebra* prefer victorious males. *Journal of Fish Biology* 78: 680-687.
- Jordan, R.C., L. Wilt, D. Gershenson, D. Mellor, and D.V. Howe. 2010. Male interactions in a group of Malawi cichlids. *Ethology, Ecology & Evolution* 22: 359-364.
- Groffman, P., C. Duarte, M. Nisbet, C. Stylinski, G. Woodwell, A. Burgin, R.C. Jordan, G. Coloso, and J. Previtalli. 2010. Restarting the Conversation: Challenges at the interface between ecology and society. *Frontiers in Ecology and the Environment* 8: 284-291.
- Gray, S., M. Ives, J. P. Scandol, and R.C. Jordan. 2010. Categorizing the risks in fisheries management. *Fisheries Management and Ecology* 17: 501-512.
- Gray, S., and R.C. Jordan. 2010. Ecosystem-based angling: incorporating recreational fishermen into ecosystem-based management. *Human Dimensions of Wildlife* 15: 233-246.
- Brooks, W.R., and R.C. Jordan. 2010. Enhanced interspecific territoriality and the invasion success of the spotted tilapia (*Tilapia mariae*) in South Florida. *Biological Invasions* 12: 865-874.
- Etkina, E., A. Karelina, M. Ruibal-Villasenor, D. Rosengrant, R.C. Jordan, and C. Hmelo-Silver. 2010. Design and reflection help students develop scientific abilities: learning in introductory physics laboratories. *Journal of the Learning Sciences*. 19: 54-98.
- Bonney, R., H. Ballard, R.C. Jordan, E. McCallie, T. Phillips, J. Shirk, and C. Wilderman. 2009. Public participation in scientific research: Defining the field and assessing its potential for informal science education. A CAISE Inquiry Group Report. Washington, D.C.: Center for Advancement of Informal Science Education (CAISE).
- Jordan, R.C., S. Gray, M. Demeter, L. Lui, and C. Hmelo-Silver. 2009. An assessment of students' understanding of ecosystem concepts: conflating ecological systems and cycles. *Applied Environmental Education & Communication* 8: 40-48.
- Hmelo-Silver, C., L. Liu, and R.C. Jordan. 2009. Visual representation of a multidimensional coding scheme for understanding technology-mediated learning about complex natural systems. *Research and Practice in Technology Enhanced Learning* 4: 253-280.
- Jordan, R.C. and R.G. Duncan. 2009. Student teachers' images of science in ecology and genetics. *Journal of Biological Education* 43: 62-70.

- Jordan, R.C., S. Gray, and R.G. Duncan. 2008. Teachers and scholarship: self-definition of teachers in the scientific enterprise. *Education and Society* 26: 33-44.
- Jordan, R.C., F. Singer, J. Vaughan, and A. Berkowitz. 2008. What should every citizen know about ecology? *Frontiers in Ecology and the Environment* 7: 495-500.
- Jordan, R.C., K.A. Kellogg, F. Juanes, J.R. Stauffer, Jr., E. Garcia-Vasquez, and E.R. Loew. 2008. Small-scale morphological differentiation in a cichlid may provide clues about rapidly diversifying systems. *African Journal of Ecology* 46: 107-109.
- Jordan, R.C. 2008. Color-based association among heterospecifics in Lake Malawi rock-dwelling cichlids. *Ethology* 114: 272-278.
- Howe, D., R. C. Jordan, and F. Juanes. 2008. Selective feeding in a generalist invertivore, age-0 striped bass. *Journal of Freshwater Fish* 17: 495-501.
- Hmelo-Silver, R. C. Jordan, R. Lui, L. Gray, S., Demeter, M., Rugaber, S., Varrtam, S., and A. Goel. 2008. Focusing on function: thinking below the surface of complex natural systems. *Science Scope* 31: 27-35.
- Hmelo-Silver, C., E. Chernobilsky, and R. C. Jordan. 2008. Understanding collaborative learning processes in new learning environments. *Instructional Science* 36: 409-430.
- Jordan, R.C., and D.V. Howe. 2007. Photopigment spectral absorbance of four Hudson River fishes. *Journal of Freshwater Ecology* 22: 155-157.
- Jordan, R.C., J.M. Rousch, and D.V. Howe. 2006. What do our undergraduates think about science and biology? *Journal of Natural Resources and Life Sciences Education* 35: 79-84.
- Jordan, R.C., D.V. Howe, T. Knight, and J.L. Gould. 2006. Female choice linked to male dorsal fin height in a shortfin molly. *Journal of Ethology* 24: 301-304.
- Jordan, R.C., K.A. Kellogg, F. Juanes, J.R. Stauffer, and E.R. Loew. 2006. Photopigment spectral absorbance of Lake Malawi cichlids. *Journal of Fish Biology* 68: 1291-1299.
- Jordan, R.C. 2006. Educating citizens serves to educate at all levels of higher education. *On The Horizon* 14: 7-8.
- Jordan, R.C., D. Howe, A. Beavers, A. Dean, and J.L. Gould. 2006. Female associative behavior accompanies morphological distinction in two Panamanian populations of the molly *Poecilia gilli* (Kner). *Journal of Freshwater Ecology* 21: 47-52.
- Spady, T.C., O Seehausen, E.R. Loew, R.C. Jordan, T.D. Kocher, and K.L. Carleton. 2005. Adaptive molecular evolution in the opsin genes of rapidly speciating cichlid species. *Molecular Biology and Evolution* 22: 1412-1422.
- Jordan, R.C., K.A. Kellogg, F. Juanes, D.V. Howe, E.R. Loew, J.R. Stauffer, Jr., and G. Losey. 2004. Ultraviolet reflectivity in three species of Lake Malawi rock-dwelling cichlids. *Journal of Fish Biology* 65: 876-882.
- Jordan, R.C., D.V. Howe, F. Juanes, J.R. Stauffer, Jr., and E.R. Loew. 2004. Ultraviolet radiation enhances zooplanktivory rate in ultraviolet sensitive cichlids. *African Journal of Ecology* 42: 228-231.
- Jordan, R.C., D.V. Howe, T.D. Hurst, and F. Juanes. 2003. Feeding habits of age-0 striped bass, *Morone saxatilis*, in the mid-Hudson River estuary: temporal, spatial, and ontogenetic variation. *Estuaries and Coasts* 26: 1486-1493.
- Jordan, R.C., K.A. Kellogg, F. Juanes, and J.R. Stauffer, Jr. 2003. An evaluation of female mate choice cues in a group of Lake Malawi *Mbuna* (Cichlidae). *Copeia* 2003: 181-186.
- Jordan, R.C. and K.A. Kellogg. 2001. Lake Malawi cichlid evolution and what stories females can tell. *Buntbarsche Bulletin: Journal of the American Cichlid Association* 203: 25-30.
- Jordan, R.C., A.M. Gospodarek, E.T. Schultz, R.K. Cowen, and K. Lwiza. 2000. Spatial and temporal growth rate variation bay anchovy (*Anchoa mitchilli*) larvae in the mid Hudson River estuary. *Estuaries and Coasts* 23: 683-689.

- Jordan, R.C., W.R. Brooks, J.R. DeLisi, S.A. Gray, and A.R. Berkowitz. Ecology Nature of Science (ENOS): shared discussions and practices among ecologists and high school teachers. *Ecosphere*.
- Mellor, D.T., W.R. Brooks, S.A. Gray, and R.C. Jordan. Troubled transitions into college and the effects of a small intervention course. *Journal of College Student Retention: Research, Theory & Practice*.
- Hmelo-Silver, C., L. Liu, S. Gray, and R. Jordan. Using representational tools to learn about complex systems. *Journal of Research in Science Teaching*.
- Jordan, R.C., A.M. Crall, S.A. Gray, D.T. Mellor, and T. Phillips. Citizen Science as a field of inquiry? *Bioscience*.
- Sorensen, A., D. Mellor, and R. Jordan. The effect of carotenoids on cichlid phenotype and behavior. *Ethology, Ecology, and Evolution*.
- Hmelo-Silver, C. E., Jordan, R. Sinha, S., Yu, Y., & Eberbach, C. 2014. PMC2E: Conceptual Representations to Promote Transfer. Submitted to E. Manalo, Y. Uesaka, & C. A. Chinn (Eds.). Promoting spontaneous strategy use. Singapore: Routledge.

#### *In review*

- Jordan, R.C., A.M. Crall, S.A. Gray, and D.T. Mellor. Citizen science can help meet goals for conservation. Invited for *Conservation Biology*.
- Yu, Y., C.E. Hmelo-Silver, R.C. Jordan, S. Sinha, and C. Eberbach. Promoting transfer of ecosystems concepts. *Environmental Education Research*.
- Jordan, R.C., S. Gray, A. Sorensen, S. Pasewark, S. Sinha, and C. E. Hmelo-Silver. Modeling with a Conceptual Representation: Is it Necessary? Does it work? *World Studies in Education*
- Jordan, R.C., A.E. Sorensen, and C. Hmelo-Silver. A conceptual representation to support ecological systems learning. *Bioscience*
- Hmelo-Silver, C.E., C. Eberbach, W.R. Brooks, and R.C. Jordan. Systems and cycles: learning about aquatic ecosystems. *International Journal of Science Education*.
- Eberbach, C., C.E. Hmelo-Silver, and R.C. Jordan. Slope and change: Multidimensional Trajectories for understanding ecosystems. *Science Education*.
- Sorensen, A., D. Clark, and R. Jordan. Emergent framing phenomenon in environmental communication. *Frontiers in ICT*.
- Jordan, R.C., A.E., Sorensen, and D. Clark. Urban and Suburban Greenspaces: users, identity, and recommendations. *Landscape and Urban Planning*.

#### *Under Contract*

- Gray, S.A, S.R.J Gray, M. Paolisso, and R. Jordan.(Eds) *Integrating Stakeholders in Participatory Modeling*.
- Jordan, R.C., A. Sorensen, and S. Gray. Evaluation and meeting goals in citizen science. Invited chapter for *The Citizen Science Handbook* (Chris Lepcyck, Owen Boyle, and Tim Vargo, editors).

#### **Other publications**

- Jordan, R.C. 2014. But I *am* their Professor November-December *Academe*. (online #.VH1BcjHF-AU)
- Jordan, R.C. 2014. Response to “Convergence Between Science and Environmental Education” by A.E.J. Wals, M. Brody, J. Dillon, R.B. Stevenson in *Science* 344:583-584. Online only. DOI: 10.1126/science.1250515
- Jordan, R.C. 2014. Response to “Next Steps for Citizen Science” by R. Bonney, J.L. Shirk, T.B. Phillips, A. Wiggins, H.L. Ballard, A.J. Miller-Rushing, J.K. Parrish in *Science* 343: 1436-1437. Online only. DOI:10.1126/science.1251554
- Brooks, W.R., and R.C. Jordan. 2013. Swamp Fern Experimental Hammock: past disturbances, present challenges, and a hopeful future. *The Palmetto: Journal of the Florida Native Plant Society* 30(4): 4-7.

- Jordan, R.C. 2013. EcoLiterate: how educators are cultivating emotional, social, and ecological intelligence. *Ecological Restoration* 31: 230-231. (Invited Book Review)
- Jordan, R.C., W.R. Brooks, S.A. Gray, J.R. DeLisi, and A.R. Berkowitz. 2013. Rising to the 'Broader Impacts' Challenge. *Frontiers in Ecology and the Environment* 11: 234-235.
- Eberbach, C., C. Hmelo-Silver, R.C. Jordan, S. Sinha, and A. Goel. 2012. Multiple trajectories for understanding ecosystems. In: van Aalst, Thompson, Jacobson, and Reimann (eds.) *The future of learning: Proceedings of the 10<sup>th</sup> International Conference of the Learning Sciences (ICLS 2012) – Volume 1* (pp. 411-418). Sydney, Australia: ISLS.
- Hmelo-Silver, C. E., R.C. Jordan, S. Honwad, C. Eberbach, S. Sinha, A. Goel, S. Rugaber, D. Joyner. 2011. In: Foregrounding behaviors and functions to promote ecosystem understanding. *Proceedings of Hawaii International Conference on Education* (pp. 2005-2013). Honolulu: HICE.
- Joyner, D.A., A.K. Goel, S. Rugaber, C. Hmelo-Silver, and R.C. Jordan. 2011. 11<sup>th</sup> IEEE International Conference on Advanced Learning Technologies (ICALT). Evolution of an integrated technology for supporting learning about complex systems. pp. 257-259.
- Honwad, S., C. Hmelo-Silver, R.C. Jordan, S. Sinha, C. Eberbach, A. Goel, and S. Rugaber. 2011. Learning about ecosystems in a computer supported collaborative learning environment. *Proceedings of the Ninth International Conference on Computer Supported Collaborative Learning*. Hong Kong.
- Jordan, R.C. 2011. Citizen Science and Environmental Monitoring. In: Norris and Urban-Lurain (eds.) *Critical Conversations about Environmental and Natural Resource Governance: A Report from the 2011 Environmental and National Resource Governance Fellows Program at Michigan State University*. Lansing.
- Honwad, S., C. Hmelo-Silver, R.C. Jordan, C. Eberbach, S. Gray, S. Sinha, A. Goel, S. Vattam, S. Rugaber, and D. Joyner. 2010. Connecting the Visible to the Invisible: Helping Middle School Students Understand Complex Systems. *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (pp. 133-139). Portland: Cognitive Science Society.
- Sinha, S., S. Gray, C.E. Hmelo-Silver, R.C. Jordan, S. Honwad, C. Eberbach, S. Rugaber, S. Vattam, and A. Goel. 2010. Appropriating conceptual representations: a case of transfer in a middle school science teacher. In: Gomez, Lyons, and Radinsky (eds) *Learning in the Disciplines: Proceedings of the 9<sup>th</sup> International Conference of the Learning Sciences (ICLS 2010) - Volume 1* (pp. 834-841). Chicago: International Society of the Learning Sciences.
- Goel, A.K., S. Swaroop, S. Vattam, S. Rugaber, D. Joyner, C.E. Hmelo-Silver, R.C. Jordan, S. Honwad, S. Gray, S. Sinha. 2010. Learning Functional and Causal Abstractions of Classroom Aquaria. *Proceedings of the 32nd Annual Meeting of the Cognitive Science Society*, Portland.
- Hmelo-Silver, C., S. Gray, R.C. Jordan. 2010. Structure, behavior, function as a framework for teaching and learning about complexity in ecosystems: lessons from middle school classrooms. American Geophysical Union, Fall Meeting. (Abstract)
- Vattam, S., A.K. Goel, S. Rugaber, C.E. Hmelo-Silver, R.C. Jordan. 2009. From Conceptual Models to Agent-based Simulations: Why and How. *Proceedings of the 2009 Conference on Artificial Intelligence in Education: Building Learning Systems that Care: From Knowledge Representation to Affective Modelling*. (pp.593-595). Amsterdam: IOS Press.
- Lepczyk, C.A., O. D. Boyle, T. L. Vargo, P. Gould, R.C. Jordan, L. Liebenberg, S. Masi, W. P. Mueller, M. D. Prysby, and H. Vaughan. 2009. Symposium 18: Citizen Science in Ecology: the Intersection of Research and Education. *Bulletin of the Ecological Society of America* 90: 308-317.
- Gray, S., C. E. Hmelo-Silver, L. Liu, R.C. Jordan, H. Jeong. 2008. Learning with Ecosystem Models: A Tale of Two Classrooms. *Proceedings of the International Conference of the Learning Sciences: Utrecht, the Netherlands*.
- Jordan, R.C. and D.V. Howe. 2008. Communication in Fishes, Volume 2. *Transactions of the American Fisheries Society* 137: 1567-1570. (Invited Book Review)

- Jordan, R.C., S. Gray, M. Demeter, L. Lui, and C. Hmelo-Silver. 2008. Adding behavior to thinking about structures and functions. *American Biology Teacher* 70: 329-330.
- Ruibal-Villasenor, M., E. Etkina, A. Karelina, D. Rosengrant, R. C. Jordan, and A. Van Huevelen. 2007. From physics to biology: helping students attain all-terrain knowledge. Physics Education Research Conference. *AIP Conference Proceedings* 951: 96-99.
- Jordan, R.C. 2007. Nudging academic science into the public sphere. *Academe* May-June: 52-54.
- Jordan, R.C., S. Gray, and D.V. Howe. 2007. Atlantic Ocean. *The Encyclopedia of Global Warming and Climate Change*. (Online Sage Publishing).
- Jordan, R.C. 2007. Intertropical convergence zone. *The Encyclopedia of Global Warming and Climate Change*. (Online Sage Publishing).
- Gray, S., R.C. Jordan, and D.V. Howe. 2007. Oceanic Changes. *The Encyclopedia of Global Warming and Climate Change*. (Online Sage Publishing).
- Jordan, R.C. 2006. Environmental education: restoring connections. *Native Cultural Alliance Educator Web*: Summer 2006.
- Jordan, R.C. 2005. Protecting what we care about by doing what we love. *TrailWalker*. September/October 2005.
- Jordan, R.C. and F. Juanes. 1999. Ontogenetic shifts in feeding habits of juvenile striped bass (*Morone saxatilis*) in the mid-Hudson River estuary. Section VI: 21pp. *In*: Nieder and Waldman (eds.), Final Reports of the Tibor T. Polgar Fellowship Program, 1998. Hudson River Foundation.
- Jordan, R.C., A.M. Gospodarek, E.T. Schultz, R.K. Cowen, and K. Lwiza. 1997. International Council for the Exploration of the Seas. Spatial and temporal variation in growth rates of larval bay anchovy (*Anchoa mitchilli*) in the lower Hudson River estuary. (Abstract)

## Grants and Funding Received

### External

2013. US Dept. of Education. Graduate Assistance in Areas of National Need (GAANN). Graduate Education: Ecology and Evolution in Urban Environments. Awarded to the Graduate Program in Ecology and Evolution. (\$178,896) (Committee Member)
2013. National Socio Environment Synthesis Center: Education Theme Integrating Learning across the Social and Natural Sciences. A Socio-Ecological Framework for Understanding Climate Change Mitigation and Adaptation. (\$64,000) (co-PI, PI: Rachel Shwom)
2012. National Science Foundation. IIS – Cyberlearning: Transforming Ed, DIP-Sustaining ecological communities through citizen science and online collaboration. (\$1,206,384) (PI)
2012. National Science Foundation. CNH: Urban Disamenities and Pests: Coupled Dynamics of Urban Mosquito Ecology and Human Systems Across Socioeconomically Diverse Communities, with Cary Institute of Ecosystem Studies. (\$1,434,906) (Rutgers PI, Cary PI: Shannon LeDeau)
2010. NOAA Broad Agency Announcement Cooperative Research Grant. Integrating habitat models into commercial fishing practice for by-catch reduction. (\$217,089) (co-PI, PI: Josh Kohut)
2010. MetroWest's Partnership Grant. Professional Development Seminar for Teachers titled “Frameworks, Models, and Ontologies”. (\$10,000) (PI)
2009. National Science Foundation: DRK-12. Ecosystems and Evidence, co-awarded with Cary Institute for Ecosystems studies. (\$147,888) (Rutgers PI, Cary PI: Alan Berkowitz)
2009. Department of Education: Institute of Educational Studies. Using Structure-Behavior-Function (SBF) Ontology to engage students in ecosystem studies, in collaboration with Georgia Tech. (\$1,630,450) (co-PI, PI: Cindy Hmelo-Silver)
- 2006-2009. National Science Foundation, Collaborative Research: Learning About Complex Systems in Middle School by Constructing Structure Behavior Function Models, with Cary Institute of Ecosystem Studies. (\$302,206) (Rutgers PI, GA PI: Ashok Goel)

- 2006-2008. Woodrow Wilson Foundation, Teacher as Scholars Program (\$25,000) (PI)  
2005-2008. United States Department of Agriculture, Citizen Participation in Science grant (\$462,606) (PI)  
2005-2008. National Science Foundation ROLE-ISE, Transfer of Scientific Abilities grant. (\$512,806) (Co-PI, PI: Eugenia Etkina)  
2004. Ecological Society of America Faculty Travel Award (full meeting cost)  
2001. National Science Foundation Dissertation Improvement Grant (\$5000) (Co-PI, PI; dissertation advisor Francis Juanes)  
2001. American Institute of Fishery Research Biologists Award (\$350) (PI)  
2000. American Fisheries Society Student Membership Award (PI)  
1998. Tibor T. Polgar Award for summer research in the Hudson River (\$5,000) (PI; Co-PI advisor: Francis Juanes)  
1998. Guy Jordan Endowment Fund of the American Cichlid Association (\$1,500) (Co-PI, PI: Karen Kellogg)

***Internal***

- 2012-2016. Hatch Multistate Funds (\$5000 per year plus \$10000 in additional funds).  
2008. Special Research Award (Michael Pazzani's office) for working with individuals from minority serving institutions in research endeavors (\$20000) (PI)  
2008. Pre-tenure Faculty Career Development Award: Studying Cichlid Mate Choice. (\$3050) (PI, Co-PI: David Mellor)  
2008. Curriculum Development Award: Enabling SEBS Students to Become Better Learners. (\$48,700) (PI, Co-PI: Caron Chess, Andrew Pleasant)  
2008. Campus Dean's Special Programs: Darwin 200 (\$11,000) (PI)  
2006. Spring: Rutgers University Northeast Consortium (Food Systems). Development of summer institute for science teachers (\$10,000) (PI, Co-PIs: Peter Bastardo, Terrance Reagan)  
2006. Rutgers University Faculty Research Award (\$200) (PI)  
2006. Cook College Advisory Committee for Instructional Computing (\$7900) (PI, co-PI: Peter Bastardo)  
2005. Rutgers University Faculty Research Award (\$1725) (PI, Co-PI: Julie Lockwood)  
2005. Rutgers Cook College Tuition Differential for Course Enhancement (\$17,000) (PI)  
2001. University of Massachusetts Travel Award (\$150) (PI)  
2001. Marine Biological Laboratory Award (\$600) (PI)  
2000. University of Massachusetts Travel Award (\$150) (PI)  
2000. Marine Biological Laboratory Award (\$600) (PI)  
1999. Marine Biological Laboratory Award (\$600) (PI)  
1999. Healy Foundation Grant (\$5,000) (Co-PI, PI: Francis Juanes)  
1998. Richard Cronin Fisheries Scholarship (\$450) (PI)  
1998. Marine Biological Laboratory Award (\$600) (PI)  
1997. University of Connecticut Travel Award (\$150) (PI)

**Invited Talks*****Keynote or plenary addresses***

- Jordan, R.C. 2014. St. Thomas Aquinas College Sustainability Day. Collaborative Community Science.  
Jordan, R.C. 2008. Gloucester County College Science Teacher Day. Directions in Science Learning.

***Other invited addresses***

- Jordan, R.C., and A. Sorensen. 2015. Framing Citizen Science Contributions in Urban Communities improves Socio-Ecological Sustainability. International Congress for Conservation Biology.  
Jordan, R.C., 2014. Animal Behavior Society's workshop for educators: Citizen Science and Classroom Learning.



- Jordan, R.C. 2013. Rutgers Center for Discrete Mathematics and Theoretical computer Science & Command Control and Interoperability Center for Advanced Data Analysis (Department of Homeland Security) hosted workshop, New Brunswick, NJ. Cyber Security Education Brainstorming session. Panel 5: K-12 and Informal Public Cyber Security Education (Invited panelist).
- Jordan, R.C. 2011. Michigan State University, East Lansing, MI. Transfer, models, and the process of learning science.
- Jordan, R.C. 2011. The Guy-Seevers Program in Natural Resources Conservation: Governance Fellows Program, Michigan State University, East Lansing, MI. Use of citizen science in environmental monitoring.
- Jordan, R.C. 2011. Citizen Science and Outreach Seminar, University of North Carolina, Chapel Hill, NC. Public participation in ecological research: promoting collaborative science and learning.
- Jordan, R.C. 2011. University of Massachusetts- Amherst. Public participation in ecological research: promoting collaborative science and learning.
- Jordan, R.C., and J. McLoughlin. 2011. New Jersey Science Teacher's Convention hosted by New Jersey Biology Teachers' Association, Somerset, NJ. Rubrics, case studies, enduring understanding...oh my!
- Jordan, R.C. 2011. New Jersey Mosquito Control Association, Atlantic City, NJ. Public understanding of science and ecology.
- Gray, S.A., and R.C. Jordan. 2011. James J. Howard Marine Laboratory (NOAA) Seminar Series, Sandy Hook, NJ. Integrating stakeholder knowledge into the management of marine fisheries.
- Jordan, R.C. 2010. Ecology and Evolutionary Biology Eco-Lunch Series, University of Pennsylvania. What every citizen should know about ecology.
- Jordan, R.C. 2010. Cook College Baccalaureate Speaker, School of Environmental and Biological Sciences, Rutgers University, New Brunswick, NJ. Happiness, hope, and success.
- Jordan, R.C. 2010. Bowling Green State University Biological Sciences Seminar Series, Bowling Green, OH. Science literacy and citizen science: exploring the broader impacts of our work.
- Jordan, R.C. 2010. Michigan State University Center for Research into College Science Teaching and Learning Seminar Series, East Lansing, MI. Targeting ecological understanding for different audiences.
- Hmelo-Silver, C., S. Gray, R.C. Jordan. 2010. American Geophysical, Union Fall Meeting, San Fransisco, CA. Structure, behavior, function as a framework for teaching and learning about complexity in ecosystems: lessons from middle school classrooms.
- Jordan, R.C. 2009. NASA Land Cover Citizen Science Workshop, Greenbelt, MD. Land cover citizen science: benefits for scientists.
- Jordan, R.C. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. Workshop: Death Wish or Golden Parachute: A Discussion of Interdisciplinary Research in Ecology and Education and Making it Work for your Dissertation.
- Jordan, R.C. 2009. Rutgers University Newark Program in Biology, Newark, NJ. Perceptions of ecology; research on fish and NJ black bear.
- Jordan, R.C. 2009. Biology Department Seminar Series, Fairleigh Dickinson University, Teaneck, NJ. Sexual selection in Lake Malawi cichlids.
- Jordan, R.C. 2009. Cary Conference XIII, Millbrook, NY. Developing an understanding of the ecological nature of science through public participation inresearch. (poster)
- Jordan, R.C. 2008. Cary Institute for Ecosystem Studies, Millbrook, NY. Promoting ecological understanding in different audiences.
- Hmelo-Silver, C., R.C. Jordan, S. Gray, and M. Demeter. 2008. New Jersey Science Teacher's Convention hosted by New Jersey Biology Teachers' Association, Somerset, NJ. Thinking below the surface: using aquaria to teach about systems.
- Jordan, R.C. 2008. Urban Ecology Center of Milwaukee's Citizen Science Symposium. Promoting ecological understanding through citizen science.

- Jordan, R.C., W.R. Brooks, D. Mellor, and A. Shenko. 2008. Ecological Society of America Annual Meeting; Milwaukee, WI. Organized oral session: Linking Ecological Literacy and Environmental Justice. Integrating underserved groups into scientific endeavors.
- Jordan, R.C. 2008. Ecological Society of America Annual Meeting; Milwaukee, WI. Citizen Science Symposium. Promoting ecological understanding through citizen science: working within a framework where citizens and scientists benefit.
- Jordan, R.C. 2007. James J. Howard Marine Laboratory (NOAA) Seminar Series, Sandy Hook, NJ. Mate choice in a group of Lake Malawi rock-dwelling cichlids: consequences for the maintenance of biodiversity.
- Jordan, R.C. 2007. Citizen Science Toolkit Symposium, Cornell University, Ithaca, NY. Investigating citizen efficacy and learning in an ecological study of invasive plants. (poster)
- Jordan, R.C. 2007. Organismic and Evolutionary Biology Program Seminar Series, University of Massachusetts- Amherst. Biodiversity in Lake Malawi Cichlids.
- Jordan, R.C. 2006. Jane Goodall Institute's Roots & Shoots University Program Annual Meeting. A sense of place. Invited to present an environmental education program from Rutgers and to serve as a faculty panelist.
- Jordan, R.C. 2006. United States Department of Agriculture CSREES: Panel Meeting. The citizen as a scientist or a technician? Invited to discuss the impetus for a USDA funded project and future directions for the funding program.
- Jordan, R.C. 2005. Cook College Board of Trustees meeting, New Brunswick, NJ. African fish, NJ citizens, Rutgers undergraduates, and grade 6-12 students.

#### **Other presentations, lectures, and demonstrations**

- Jordan, R.C. 2015. Citizen Science learning and epistemology in socio-ecologically oriented projects. Citizen Science Association Inaugural Meeting. San Jose, CA. February.
- Author on:
- The Challenges with Training Outdoor Enthusiasts Online. D. Mellor Lead.
  - Emergent Framing Phenomenon of Mosquito Citizen Science Program. A. Sorensen Lead.
  - Park user characterization for increasing and insight into citizen engagement. D. Clark Lead.
- With D Betz., leading symposium:
- Modeling with citizen scientists: Using community-based modeling tools to develop citizen-science projects resulting in resource management outcomes
- Jordan, R.C. 2015. Citizen Science: Testing new theories of public understanding of science. American Association for the Advancement of Science Annual Meeting, San Jose, CA February.
- Take Back the Block: Citizen Science as a mechanism for environmental stewardship in socio-economically disadvantaged communities. A. Sorensen Lead.
- Hmelo-Silver, C. E, and R. Jordan. 2013. National Science Teachers Association NGSS @ NSTA Web Seminar. Crosscutting Concept: Structure and Function.
- Eberbach, C., C.E. Hmelo-Silver, S. Sinha, and R.C. Jordan. 2013. National Association for Research Science Teaching Annual Meeting. San Juan, Puerto Rico. Tracing learning trajectories for understanding ecosystems.
- Sinha, S., C.E. Hmelo-Silver, C. Eberbach, R.C. Jordan, W.R. Brooks, Y. Yu, and C. Damsa. 2013. National Association for Research Science Teaching Annual Meeting. San Juan, Puerto Rico. Charting mechanistic reasoning across aquatic ecosystems.
- Yu, Y., C.E. Hmelo-Silver, S. Sinha, C. Eberbach, and R.C. Jordan. 2013. National Association for Research Science Teaching Annual Meeting. San Juan, Puerto Rico. Fostering transfer of ecosystem concepts.
- Sorensen, A., and R.C. Jordan. 2013. American Waste Management Association and Rutgers University Department of Environmental Sciences Second Annual Mini-Conference, New Brunswick, NJ. Pursuing a Successful Career in Science. (poster)

- Jordan, R.C., C. Hmelo-Silver, W.R. Brooks, and S. Gray. 2012. Ecological Society of America Annual Meeting, Portland, OR. Lessons from implementing a model based pedagogy in the K12 classroom.
- Jordan, R.C., H. Ballard, and T. Phillips. 2012. Ecological Society of America Annual Meeting, Portland, OR. Conference on Public Participation in Research. Key issues in evaluating citizen science learning outcomes.
- Crall, A.W., R.C. Jordan, K. Holfelder, G.J. Newman, J. Graham, D.M. Waller. 2012. Ecological Society of America Annual Meeting, Portland, OR. The impacts of an invasive species citizen science training program on participant attitudes, behavior, and science literacy.
- Eberbach, C., C.E. Hmelo-Silver, S. Sinha, and R.C. Jordan. 2012. Annual Meeting of the American Educational Research Association, Vancouver, Canada. Learning about aquatic ecosystems in middle school classrooms.
- Eberbach, C., C.E. Hmelo-Silver, R.C. Jordan, A. Goel, and S. Rugaber. 2011. 14<sup>th</sup> Biennial Conference of the European Association for Research on Learning and Instruction. Exeter, UK. Mediating disciplinary practice to understand aquatic ecosystems.
- Sinha, S., C.E. Hmelo-Silver, S. Honwad, R.C. Jordan, C. Eberbach, and S. Gray. 2011. Annual Meeting of the American Educational Research Association. Understanding the “why” and uncovering the “how”: transfer of conceptual representations.
- Shirk, J., H.L. Ballard, R.C. Jordan, and R. Bonney. 2011. Ecological Society of America Annual Meeting, Austin, TX. Public participation in scientific research: a framework for intentional design.
- Shirk, J., H. Ballard, A. Wiggins, T. Phillips, R.C. Jordan, C. Wilderman, E. McCallie, and R. Bonney. 2011. Ecological Society of America Annual Meeting, Austin, TX. Public participation in scientific research: converging on effective design strategies. (poster)
- Gray, S., S. Honwad, S. Sinha, R.C. Jordan, C.E. Hmelo-Silver, S. Vattam, S. Rugaber, and A.K. Goel. 2011. Annual Meeting of the American Educational Research Association. Assessing learning as an outcome of modeling.
- Sorensen, A., D. Mellor, R.C. Jordan. 2011. Douglass Residential College STEM Summer Research Experience Symposium, Rutgers University, New Brunswick, NJ. Effects of high versus low carotenoid diets on prepectoral patch reflectance levels in Lake Malawi cichlids. (poster)
- Sorensen, A., D. Mellor, R.C. Jordan. 2011. Aresty Undergraduate Research Symposium, Rutgers University, New Brunswick, NJ. Female preference towards novel colorations in *Mbuna* cichlids of Lake Malawi. (poster)
- Jordan, R.C. 2010. Ecological Society of America Annual Meeting, Pittsburgh, PA. Chaired and led Workshop, Promoting Ecological Literacy and Climate Literacy Successful Strategies for Public Participation in Scientific Research.
- Jordan, R.C. 2010. Ecological Society of America Annual Meeting, Pittsburgh, PA. Chaired Special Session, Public Participation in Research (e.g., Citizen Science) and Ecological Literacy: Meeting the Challenges in Times of Rapid Climate Change.
- Jordan, R.C. 2010. Ecological Society of America Annual Meeting, Pittsburgh, PA. Laboratory materials: constraints or affordances?
- Brooks, W.R., and R.C. Jordan. 2010. Ecological Society of America Annual Meeting, Pittsburgh, PA. Testing the biotic resistance hypothesis across spatial scales: evidence from tropical dry forests.
- Shenko, A.N., R.C. Jordan, and W.F. Bien. 2010. Ecological Society of America Annual Meeting, Pittsburgh, PA. Small mammal population implications for wetland conservation and restoration dynamics. (poster)
- Mellor, D., A. Sorensen, A. Tsiattalos, and R.C. Jordan. 2010. Animal Behavior Society Annual Meeting, Williamsburg, VA. Do color-mediated male-male interactions act as a diversifying force in the *Mbuna* cichlids?
- Sorensen, A., D. Mellor, and R.C. Jordan. 2010. Douglass Residential College STEM Research Symposium, Rutgers University, New Brunswick, NJ. Male aggression towards novel coloration in *Mbuna* cichlids of Lake Malawi. (poster)

- Sorensen, A., D. Mellor, R.C. Jordan. 2010. School of Environmental and Biological Sciences Undergraduate Research in Science Presentation, Rutgers University, New Brunswick, NJ. Male aggression towards novel colorations in *Mbuna* cichlids of Lake Malawi. (poster)
- Hmelo-Silver, C.E., S. Sinha, S. Gray, S. Honwad, C. Eberbach, R.C. Jordan, S. Rugaber, S. Vattam, A. Goel, W. Ford, C. Schmidt, C. 2010. National Association for Research in Science Teaching, Philadelphia, PA. Appropriating conceptual representations: a case of transfer among middle school science teachers.
- Brooks, W.R., and R.C. Jordan. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. Effects of species richness, density, and propagule pressure on woody seedling community productivity and invasibility.
- Gray, S.A., and R.C. Jordan. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. Combining fuzzy logic cognitive mapping with resilience theory to understand social-ecological system dynamics: a case study of Mid Atlantic fisheries and summer flounder (*Paralichthys dentatus*). (poster)
- Bonney, R., R.C. Jordan, and H. Ballard. 2009. American Society of Science and Technology Centers Annual Meeting, Austin, TX. Public participation in scientific research: CAISE Inquiry Group Report.
- Hmelo-Silver, C., R.C. Jordan, and S. Gray. 2009. Marine Activities Resources and Education Teacher Institute, Tuckerton, NJ. Thinking below the surface: using aquaria, the outdoors, and others, to teach about ecosystems.
- Mellor, D., C. Tarsiewicz, and R.C. Jordan. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. The role of male behavior on female mate choice in *Mbuna* cichlids.
- Shenko, A., R.C. Jordan, and W.F. Bien. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. Ecological influence of small mammals in wetland conservation and restoration. (poster)
- Ross, K.A., R.C. Jordan, W.R. Brooks, and J.G. Ehrenfeld. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. Assessing the accuracy of volunteer monitoring of invasive plant species. (poster)
- Jordan, R.C., T. Phillips, and H. Ballard. 2009. North American Association for Environmental Education Annual Meeting, Portland, OR. Public participation in scientific research: implications for education.
- Bonney, R. H. Ballard, and R. Jordan. 2009. Association of Science-Technology Centers. Annual Meeting. Fort Worth, TX. Public participation in scientific research: Defining the field and assessing its potential for informal science education.
- Jordan, R.C. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. A framework for promoting understanding of the ecological nature of science (ENOS).
- Jordan, R.C. 2009. Ecological Society of America Annual Meeting, Albuquerque, NM. Organized and Chaired a Special Session. Public Participation in Research and Ecological Literacy: Future Directions.
- Shirk, J., R. Jordan, and H. Ballard. 2009. World Environmental Education Congress, Montreal, Canada. Public participation in scientific research: Defining the field and assessing its potential for informal science education.
- Jordan, R.C., C. Hmelo-Silver, S. Gray, A. Goel, and S. Rugaber. 2009. American Educational Research Association Annual Meeting, San Diego, CA. Modeling practices as a function of task structure.
- E. Etkina, A. Karelina, R.C. Jordan, M. Ruibail Villanesehor, C. Hmelo-Silver, and A. Van Heuvelen. 2009. NSF REESE Conference, Washington, DC. Transfer of scientific abilities.
- Vattam, S., A.K. Goel, S. Rugaber, C.E. Hmelo-Silver, R.C. Jordan. 2009. Fourteenth International Conference on AI in Education, Brighton, UK. From Conceptual Models to Agent-based Simulations: Why and How.
- Mellor, D., C. Tarsiewicz, and R.C. Jordan. 2008. Animal Behavior Society Annual Meeting, Snowbird, UT. Female mate choice for male behavioral traits and its role in the diversification of the *Mbuna* cichlids of Malawi.
- Jordan, R.C., S. Gray, and C. Hmelo Silver. 2008. North American Association of Environmental Education's Annual Meeting, Wichita, KS. A characterization of ecology and ecosystem understanding: a call for targeted instruction.

- Jordan, R.C., J.G. Ehrenfeld, S. Gray, E. McGowan, and E. Goodell. 2008. Ecological Society of America Annual Meeting, Milwaukee, WI. Organized an Oral Session, Promoting Ecological Literacy in Public Audiences: Research and Case Studies. Research on adult learning gains in an ecologically oriented project.
- Shenko, A.N., S.A. Gray, R.C. Jordan. 2008. Ecological Society of America Annual Meeting, Milwaukee, WI. The backyard mammal project: Promoting ecological literacy in public audiences. (poster)
- Jordan, R.C. 2008. Ecological Society of America Annual Meeting, Milwaukee, WI. Co-organized a special discussion session: Ecological Literacy in Public Audiences. Building upon Successful Strategies and Defining the Research Agenda.
- Jordan, R.C. 2008. Ecological Society of America Annual Meeting, Milwaukee, WI. Co-led a workshop entitled: Promoting Ecological Literacy in Public Audiences: working within a framework where citizens and scientists benefit.
- Hmelo-Silver, S. Gray, L.Liu, H. Jeong, and R.C. Jordan. 2008. American Educational Research Association Annual meeting, NYC, NY. Symposium: Understanding complex learning environments: Integrating multiple data sources: An integrated framework for bridging diverse analytical tools for understanding technology-mediated learning about complex natural systems.
- Etkina, E., Ruibal-Villasenor, M., A. Karelina, D. Rosengrant, R. Jordan, and C. Hmelo-Siver. 2008. American Educational Research Association Annual meeting, NYC, NY. Transfer of scientific abilities.
- Jordan, R.C., W.R. Brooks, D. Mellor, E. Goodell, E. McGowan, and J.G. Ehrenfeld. 2008. Northeast Natural History Conference Annual Meeting, Albany, NY. Using citizens to collect data on weedy invasives.
- Jordan, R.C. 2008. USDA Grant Project Director's Meeting, Milwaukee, WI. Weedy plant invasions on public conservation lands: using citizen scientists to answer ecological questions (poster).
- Hmelo-Silver, C.E., L. Liu, S. Gray, and R.C. Jordan. 2008. National Science Teachers Association Annual Meeting, Boston, MA. Reptools: Representational tools to support learning about complex systems.
- Hmelo-Silver, C.E., R.C. Jordan, L. Liu, S. Gray, and H. Jeong. 2008. American Educational Research Association Annual Meeting, New York, NY. An integrated framework for bridging diverse analytical tools for understanding technology-mediated learning about complex natural systems.
- Jordan, R.C., W.R. Brooks, D. Mellor, and J.G. Ehrenfeld 2007. Black Rock Forest Regional Research Symposium, NY. Using Citizen Scientists to collect Invasive Plant Data on Public Lands (D. Mellor presenter).
- Jordan, R.C. 2007. International Conference on Science and Technology Education; Global Sustainability Conference. Perth, AUS. Declaration on International Science Education; working group.
- Jordan, R.C., D. Howe, and J.G. Ehrenfeld. 2007. Ecological Society of America Annual Meeting, San Jose, CA. Assessing ecological understanding through a citizen science project.
- Brooks, W.R., and R.C. Jordan. 2007. Ecological Society of America Annual Meeting, San Jose, CA. Differential interspecific territoriality and the invasion of the Florida Everglades by the spotted tilapia, *Tilapia mariae*. (poster)
- Ruibal-Villasenor, M., E. Etkina, A. Karelina, D. Rosengrant, R.C. Jordan, and A. Van Huevelen. 2007. Physics Education Research Conference Paper Presentations. From physics to biology; helping students attain all-terrain knowledge.
- Jordan, R.C. 2007. North American Association of Environmental Educators Annual meeting, VA Beach, VA. Assessing environmental learning through citizen science. (poster)
- Etkina, E., A. Van Heuvelen, A. Karelina, M. Ruibal-Villasenor, D. Rosengrant, R.C. Jordan, and C. Hmelo-Silver. 2007. AAPT Summer National Meeting, Greensboro, NC. Transfer of scientific abilities: PER design project.
- Ruibal-Villasenor, M., E. Etkina, A. Van Heuvelen, A. Karelina, D. Rosengrant, R.C. Jordan, and C. Hmelo-Silver. 2007. AAPT Summer National meeting, Greensboro, NC. Helping students attain all-terrain knowledge.

- Jordan, R.C. 2006. Animal Behavior Society Annual Meeting, Salt Lake City, UT. Female Lake Malawi cichlid mate choice: a maladaptive response?
- Jordan, R.C. and Duncan, R. 2006. Ecological Society of America Annual Meeting, Memphis, TN. Pre-service teacher's understanding of the nature of ecological science.
- Jordan, R. 2006. American Society of Ichthyologists and Herpetologists Annual Meeting, New Orleans, LA. Color as a cue for Lake Malawi Cichlid female choice.
- Jordan, R.C. 2005. Ecological Society of America Annual Meeting, Montreal, Canada. What do undergraduates think about science and biology?
- Jordan, R.C. 2005. American Society of Ichthyologists and Herpetologists Annual meeting, Tampa, FL. Female choice linked to male dorsal fin height in a shortfin molly.
- Jordan, R.C. 2004. Ecological Society of America Annual Meeting, Portland, OR. Female preferential association with members of their own population in *Poecilia gilli* (Poeciliidae). (poster)
- Jordan, R.C. 2003. American Society of Ichthyologists and Herpetologists Annual Meeting, La Paz, MX. Ultraviolet reflectivity and male communication in a group of Lake Malawi cichlids.
- Jordan, R.C. 2003. Northeast Ecology and Evolution Conference Annual Meeting, New Brunswick, NJ. Small scale genetic and morphological differentiation in a population of Lake Malawi cichlids.
- Jordan, R.C., K.A. Kellogg, F. Juanes, J.R. Stauffer, Jr., E. Garcia-Vasquez, and E.R. Loew. 2002. American Society of Ichthyologists and Herpetologists Annual Meeting, Kansas City, MO. Variation along a depth gradient in a group of Lake Malawi Cichlids.
- Jordan, R.C., D. Howe, F. Juanes, and J.R. Stauffer. 2001. American Fisheries Society Annual Meeting, Phoenix, AZ. The role of ultraviolet radiation in foraging in a group of Lake Malawi cichlids.
- Jordan, R.C., K.A. Kellogg, F. Juanes, J.R. Stauffer, and E.R. Loew. 2001. American Society of Ichthyologists and Herpetologists: Annual Meeting African cichlid symposium, State College, PA. Visual sensitivity across taxa in Lake Malawi cichlids.
- Jordan, R.C., G. Gries, and F. Juanes. 2001. American Fisheries Society Regional Chapter Meeting, Narragansette, RI. Habitat availability and use in juvenile Atlantic salmon (*Salmo salar*).
- Jordan, R.C., K.A. Kellogg, F. Juanes, and J.R. Stauffer. 2000. American Society of Ichthyologists and Herpetologists Annual Meeting, State College, PA. An evaluation of female mate choice cues in a group of Lake Malawi *Mbuna* (Cichlidae).
- Jordan, R.C., K.A. Kellogg, F. Juanes, and J.R. Stauffer. 1999. Animal Behavior Society Annual Meeting, Lewisburg, PA. The role of ultraviolet radiation in mate choice in a group of Lake Malawi cichlid fishes.
- Jordan, R.C., D. Howe, and F. Juanes. 1999. American Fisheries Society Regional Chapter Meeting, Storrs, CT. Ontogenetic shifts in feeding habits of juvenile striped bass in the Hudson River.
- Jordan, R.C. and F. Juanes. 1998. Hudson River Foundation Polgar Presentations, Annandale-on-Hudson, NY. Ontogenetic shifts in feeding habits of juvenile striped bass in the Hudson River.
- Jordan, R.C., A.M. Gospodarek, E.T. Schultz, R.K. Cowen, and K. Lwiza. 1998. American Fisheries Society Regional Chapter Meeting, Narragansette, RI. Spatial and temporal variation in growth rates of larval bay anchovy (*Anchoa mitchilli*) in the lower Hudson River estuary.
- Jordan, R.C., A.M. Gospodarek, E.T. Schultz, R.K. Cowen, and K. Lwiza. 1997. International Council for the Exploration of the Seas (ICES), Baltimore, MD. Spatial and temporal variation in growth rates of larval bay anchovy (*Anchoa mitchilli*) in the lower Hudson River estuary.

## Service

*Professional Society Memberships*

Citizen Science Association

American Association for the Advancement of Science

American Educational Research Association

Alliance for New Jersey Environmental Educators  
Animal Behavior Society  
Ecological Society of America's Education Committee  
National Science Teachers' Association  
New Jersey Commission for Environmental Education  
North American Association for Environmental Education Research Commission

*Editorial Board*

Natural Sciences Education  
AIMS Environmental Science (founding)  
Frontiers in Ecology and the Environment (awaiting next term)

*Reviewer*

Book proposals:

Enslow Publishers Children's Environmental Series  
WW Norton Reviewer for Environmental Studies textbook proposals

Journals:

Applied Environmental Education and Communication  
Aqua: The International Journal of Ichthyology  
Behavioral Ecology  
BioScience  
Canadian Journal of Zoology  
Conservation Letters  
Current Zoology  
Ecology and Society  
Ecosphere  
Environmental Biology of Fishes  
Environmental Education Research  
Environmental Management  
Estuaries and Coasts  
Estuarine and Coastal Shelf Science  
Ethology  
Freshwater Ecology  
International Journal of Evolutionary Biology  
Journal of Ethology  
Journal of Fish Biology  
Journal of Natural Resources and Life Sciences Education  
Journal of Research in Science Teaching  
Journal of Sustainability Education  
Natural Sciences Education  
Public Understanding of Science  
The American Naturalist  
Trends in Ecology and Evolution

Grants:

Alliance for New Jersey Environmental Education  
NOAA  
NSF (once or twice annually)

USDA

Extramural Review:

2012. Tenure Review.

*Governmental committee work*

2010. Worked directly with Massachusetts Department of Education to provide state-standard resources in Ecology based on my research and produced the following published recommendations.  
2009-Present. New Jersey Commission on Environmental Education and Interagency Working Group.  
2009-2010. New Jersey Environmental Science Standards Advisory Committee.  
2006. New Jersey Highlands Council Technical Advisory Committee for Education.  
2004-2010. New Jersey Environmental Stewards Partnership Advisory Committee.  
2004-2009. New Jersey Black Bear Education Working Group.

*Miscellaneous contributions*

2014. Leader of a models and modeling session for 4<sup>th</sup> grade students from the Old Bridge Township Public School System as part of the Kids at College Program.  
2014. Co-leader for Mosquito Stoppers in-school citizen science program geared to underserved youth.  
2013-2014. Coordinator for STEM Series Dinner with a Scientist program.  
2011-2012. Professional Development Coordinator for Ecology Nature of Science Program through one-on-one consulting or through presentations at New Jersey regional meetings.  
2010. Led a professional development seminar for teachers titled “Frameworks, Models, and Ontologies”. Funding was through a small grant offered through MetroWest's Partnership.  
2009. Faculty mentor for FaST (Faculty and Student Teams) USDA supported project to promote exchange between primarily Hispanic serving institutions and other research oriented schools. 1 faculty member and 2 undergraduates joined me in conducting citizen science research.  
2009. Led the “Impacts Evaluation” session of the 4-H Department Reappointment and Promotion In-service Workshop. New Brunswick, NJ.  
2009. Led an in-service teaching workshop at the Darwin200 Celebration with Dr. Ron Coleman and graduate student David Mellor titled “Using case study to teach Darwin's ideas about parental care”.  
2008. Co-Designed and ran workshop for national Ecological Society of America Meeting: Promoting Public Understanding of Science through Citizen Science.  
2008. Career Services Panelist. Discussed careers at academic institutions for graduate students near completion. Rutgers University.  
2007. International Conference on Science and Technology Education; Global Sustainability Conference, Perth, Australia. Declaration on International Science Education; working group.  
2007. Citizen Science Toolkit Conference, Ithaca NY; worked on evaluation panel.  
2006-2010. North American Association for Environmental Education reviewer for paper proposals  
2006. Designed and ran workshop for national Ecological Society of America Meeting: What Every Citizen Should Know about Ecology.  
2006. External Reviewer for Office of Graduate Studies and Research. University of Puerto Rico.  
2006. Santa Barbara Environmental Studies Summit; worked on panel discussions intended to shape the future of interdisciplinary environmental studies at colleges and universities.

*University contributions*

University-wide Committee Advisory Board Membership:

2011-Present. Science/Math Teacher Imperative

2010-Present. Center for Mathematics, Science, and Computer Education



School of Environmental and Biological Sciences:

- 2014-Present. Biological Sciences Review Committee
- 2013-Present. 'Committee of the Willing' Ad-hoc Learning Goals Committee
- 2011-2012. Learning Goal Writing Committee
- 2008-2012. Curriculum, Education, and Policy Committee
- 2007-Present. Assessment Committee
- 2006-2009. Ad-Hoc Transforming Undergraduate Education Curriculum Implementation Committee for Cook College
- 2006. Advisory Committee to the Executive Dean for budgetary changes for Cook College

Program in Science Learning:

- 2008-Present. Director, Program in Science Learning
- 2005-Present. Teacher Education Program: Teacher Preparation Working Group
- 2004-2007. Teacher Education Program: Higher Education Quality Indicator Standards Alignment Committee

Graduate Mentoring / Instituting University Change:

- 2011-Present. NSF Innovation through Institutional Integration (Collaborator and Panelist)
- 2011-Present. Graduate Mentoring Fellowship Program (Coordinator)

Graduate Program in Ecology and Evolution:

- 2014-2015. Graduate Admissions Committee
- 2008. Executive Committee
- 2007-2008. Seminar Committee (Chair)
- 2006-2008. Graduate Admissions Committee

Department of Ecology, Evolution, and Natural Resources:

- 2012-Present. Online Hybrid Course Committee
- 2008-2010. Undergraduate Program Director
- 2008-2010. Undergraduate Curriculum Committee (Chair)
- 2005-2010. Freshman Recruitment Committee
- 2004-2005. Mission Statement Committee

Department of Human Ecology:

- 2012-Present. Assessment Committee
- 2012-Present. Learning Goal Committee

Undergraduate Club Advisor:

- 2006-2009. Rutgers Roots and Shoots
- 2004-2005. Rutgers Environmental Council
- 2004. Paper Chase Faculty Point Person

Special Events:

- 2013. Climate Change Education Workshop offered through the Rutgers Climate Institute for Rutgers Faculty, Postdocs, and Graduate Students. Co-organizer with Marjorie Kaplan and Rachel Shwom.

2009. Teaching Evolution using animal behavior and Darwin's Galapagos journey. Co-organizer with Terrance Reagan and Heidi Ballard.
2006. Teaching Evolution at Rutgers, seminar and workshop. Co-organizer with Jody Hey, Lena Struwe, Karl Kjer, and Peter Smouse.

*Contributions to society at large*

National Committees:

- 2015-Present. Citizen Science Association Executive Board and Citizen Science: Theory and Practice journal advisory committee.
- 2014-Present. Baltimore Ecosystems Study Education Committee
- 2014-Present. The Socio-environmental Synthesis Center's Translational Ecology Committee (invited)
- 2010-Present. DEVISE: Developing, Validating, and Implementing Standardized Evaluation Instruments Working Group. (invited member)
- 2010-2012. The National Evolutionary Synthesis Center's Communicating Human Evolution Working Group (invited member)
- 2008-2009. National Science Foundation's supported Center for Assessment for Informal Science Education's Public Participation in Research (citizen science) inquiry group (invited panelist)
- 2008-2009. North American Association of Environmental Educator's Research Section Committee (member)
- 2007-2008. Ecological Society of America's Public Understanding of Science Committee (chair)

**Advising**

*Postdoctoral trainees*

- 2013: Wesley Brooks
- 2012: Alycia Crall
- 2010-2011: Steven Gray

*Doctoral theses supervised as primary advisor*

- 2018 (expected): Dan Clark
- 2017 (expected): Amanda Sorensen
- 2016 (expected): Kristina Nicosia
- 2016 (expected): Roberta Hunter
- 2014 (expected): Margaret Holzer
- 2014: Alicia Shenko
- 2013: Wesley Brooks
- 2011: David Mellor
- 2010: Steven Gray

*Other Doctoral committees*

- 2012-present: Natalie Lemanski
- 2011-2013: Rebecca McClelland Crawley (Walden University)
- 2011-present: Ashley DeNegre
- 2011-2014: Brad Greening
- 2011-present: Charrisse Smith (Capella University)
- 2010-present: John Ruppert
- 2009-present: Surabhi Marathe
- 2009- 2013: Suparna Sinha
- 2008-2012: Jessica Sanders

2007-2009: Blake Mathys  
2006-2009: Alison Seigel  
2006-2009: Allison Candelmo  
2006-2009: Aabir Banerji  
2006-2008: Celine Santiago-Bass  
2005-2008: Lauren Spearman  
2005-2008: James MacDonald

*Qualifying exam committees*

2013 Natalie Lemanske  
2011 Ashley DeNegre  
2008 Julian Avery  
2008 Jessica Sanders  
2011 Brad Greening  
2010 John Ruppert  
2008 Holly Vuong  
2007 Aabir Banerji  
2007 Blake Mathys  
2006 Esther Leibovich

*Master's theses supervised as primary advisor*

2015 (expected): Sarah Stewart  
2015 (expected): Dan Betz  
2014: Joanna Jorge  
2014: Ryan Burrows  
2010: Suzanne DeCoursey

*Other Master's theses committees*

2014: Allison Anholtz  
2010: Christen McCoy  
2009: Jay Turnure  
2008: Erin Esteves  
2008: Jennifer Tarhurn

*Undergraduates*

2014: Kelli Mullane, Independent Study  
2014-2015: Brittney Chrans, Cook Honors Thesis  
2014 Spring: Danica Ramos, Project Super, Douglass Project  
2014 Spring: Katie Van Valen, Independent Study  
2013-14 Joshua Greenberg, Cook Honors Thesis  
2013 Spring: Joshua Greenberg, Volunteer, Helped with live animal care and behavioral data collection.  
2013 Spring: Sari Katzen, Volunteer, Helped with live animal care and behavioral data collection.  
2012 Fall-2013 Spring: Victoria Bartley, Cook Honors Project, Classroom-based citizen science and NJ shore restoration research.  
2012 Fall: Carolann Sudia, Independent research student in lab, Learned about field curriculum design.  
2012 Fall: Rachel Weinberg, Honors Tutorial, Learned survey techniques.  
2010 Fall-2012 Spring: Amanda Sorensen, Honors Tutorial, Cook Honors Project, ARESTY research, Designed, collected, and published experimental data.

- 2010 Fall-2011 Spring: Courteney Farrugia, Independent research student in lab, Learned educational study design.
- 2010 Fall-2011 Spring: Ariana Tsiattalos, Independent research student in lab, Learned behavioral data collecting techniques.
- 2009 Fall-2011 Spring 2011: Glen Stuart, Volunteer, Honors Tutorial, Cook Honors Project, Rubric-based evaluation of a classroom inquiry project.
- 2009 Fall-2010 Spring: Rosie Spatefino, Lab technician, Helped with live animal care and behavioral analyses.
- 2008 & 2009 Spring: Kerrie Tiedemann, Cook Honors Project, Final write-up and presentation of data.
- 2008 Fall: Stevie Steffey, Volunteer, Learned behavioral data collecting techniques and methods for learning about and obtaining a graduate degree.
- 2007 Fall-2008 Spring: Catherine Tarsiewicz, Biology Honors Project, Designed and Collected Experimental data (co-mentored with Graduate Student: David Mellor).
- 2007 Fall: Michael Knazek, Independent Study, Learned behavioral data collecting techniques.
- 2007 Spring: Joanna Morel, Independent study, Designed an animal learning project.
- 2006 Fall-2007 Spring, 2008 Spring: Dimitry Gershenson, Participated in experimental design and filming of behavior; career exploration workshop.
- 2006 Fall: Caitlin Kennedy, Independent Study. Worked with a graduate student and the candidate on behavioral data analysis.
- 2006 Summer: Bronwyn Purcell, Volunteer. Helped with live animal care and behavioral analyses.
- 2006 Spring/Fall: Anthony Colandreo, Volunteer. Helped with live animal care.
- 2006 Spring-2008 Spring: Lisa Wilt, Honors Tutorial. Assisted in various lab projects and completed Cook Honors project.
- 2006 Spring: Lisa Korostowki, Independent Study, Aided in various aspects of candidate's behavioral research on fish.
- 2006 Spring: Paul Thompson, Independent Study. Enrolled in the pre-service teacher program. Co-advised by Ravit Duncan, Aided in research focused on pre-service teacher training.
- 2006 Spring: Morgan Morina, Independent Study. Enrolled in the pre-service teacher program. Co-advised by Ravit Duncan, Aided research focused on pre-service teacher training.
- 2006 Spring: Eliza Cava, Swarthmore Ecology and Education undergraduate honors thesis.
- 2005 Spring: Holly Lewis, Waterwatch intern, Worked with Waterwatch on Livingston College as an education intern.
- 2005 Spring: Renee Mhoon, Waterwatch intern., Worked with Waterwatch on Livingston College as an education intern.
- 2005 Spring: Rashi Dhandi, Waterwatch intern, Worked as Waterwatch education and volunteer coordinator with Lord Stirling school in New Brunswick.
- 2004 Fall: Ziggy Kemprowski, Waterwatch intern, Worked with NJ Waterwatch and East Brunswick Schools.

**Outreach**

- 2014: Adventures in Animal Behavior Community Science Fair. Princeton, NJ.
- 2014: Take Back your Block! Science outreach for underserved communities in West Baltimore. Two events: No Boundaries Block Party and National Night Out.
- 2013-Present. Deliver 2-3 in classroom science programs for grade 6-12 students in area districts.
- 2012-Present. Mosquito Stoppers! Teaching Science through citizen science.
- 2011-Present. Dinner with a Scientist Teacher Professional Development Program (STEM series).
2010. The voice of the Zimmerli Art Museum's interdisciplinary telephone tour of its "Water Exhibition"
2008. August: Interviewed by Mitch Teich for Milwaukee's "Lake Effect" radio program in which the citizen science sessions for Ecological Society of America's annual meeting and associated symposia were discussed.

2008. April: Can you dig it? After School Program. Gardening Club for Greater Brunswick Charter School together with the University Roots & Shoots and graduate Students David Mellor and John Ruppert.
2007. Professional Development Facilitator for the New Jersey Science Teacher's Convention and the Alliance for New Jersey Environmental Education's Annual meeting.
- 2006-Present. Teachers as Scholars Professional Development Program Coordinator and Facilitator.
- 2005-2010. Rainforest Science Education, with Georgann Serino (former NJ Science Teacher) BioBlitz; fish inventory.
- 2001-2008. Cichlids in the Classroom with Wildelake Middle School, Howard County Maryland.

**Awards and Honors**

2014. Teaching Excellence Award. School of Environmental and Biological Sciences, Rutgers University.
2013. Best Paper Nominee. International Conference of the Learning Sciences: C. Eberbach, C. Hmelo-Silver, R. Jordan, S. Sinha, A. Goel. Multiple Trajectories for Understanding Ecosystems.
2013. Best Poster Presentation Award. American Waste Management Association and Rutgers University Department of Environmental Sciences Second Annual Mini-Conference. A. Sorensen and R.C. Jordan
2006. Journal of Natural Resources and Life Sciences Education highlighted for submitted paper. R.C. Jordan, D. Howe, and J. Rousch.
2001. American Cichlid Association Writing Award. R.C. Jordan and K. Kellogg.