



MEET the REVIEW TEAM

Corinna Gries

North Temperate Lakes LTER Data Manager



Research Projects

[A toolbox for analysis of long-term community dynamics using the Kepler Workflow System](#)

In collaboration with the

[Sevilleta LTER site at the University of New Mexico and the National Center for Ecological Analysis and Synthesis this project will develop a toolbox for automating the process of analyzing community change. Long-term data sets will be used to demonstrate data and system accessibility and functionality, and through implementation of new metrics we will gain insights into what drives change in ecological communities on a continental scale. Data will be accessed via the DataONE portal and the LTER Network Information System using the Ecological Metadata Language, and analyzed with R statistical routines within the Kepler Scientific Workflow Environment.](#)

Recent Publications

[Robertson PG, Collins SL, Foster DR, Brokaw N, Ducklow HW, Gragson TL, Gries C, Hamilton SK, McGuire DA, Moore JC et al.. 2012. **Long-Term Ecological Research in a Human-Dominated World**. BioScience. 62:342-353.](#)[Google Scholar XML](#)

[Aguilar R, Pan J, Gries C, San Gil I, Palanisamy G. 2010. **A flexible online metadata editing and management system**.. Ecological Informatics. 5:26-31.](#)[Google Scholar XML](#)

[Gries C, San Gil I, Vanderbilt K, Garrit H. 2010. **Drupal developments in the LTER network**.. LTER Databits. \[Google Scholar XML\]\(#\)](#)

[Jones MB, Gries C. 2010. **Advances in environmental information management**.. Ecological Informatics. 5:1-2.](#)[Google Scholar XML](#)

[San Gil I, Sheldon W, Schmidt T, Servilla M, Aguilar R, Gries C, Gray T, Field D, Cole J, Yun Pan J et al.. 2008. **Defining linkages between the GSC and NSF's LTER program: How the Ecological Metadata Language \(EML\) relates to GCDML and other outcomes**. OMICS: A Journal of Integrative Biology. 12:151-156.](#)[Google Scholar XML](#)

George Malanson

Geographical and Sustainability Sciences, University of Iowa



Research Interests:

landscape ecology of mountain geography; spatial simulations of land cover change

My current research focus is on the response of alpine tundra and alpine treeline to climate change. Current funded work is on multiscale analysis of the composition of alpine tundra communities across the western US and modeling the effects of white pine blister rust on treeline dynamics and patterns. My broad research agenda has had a continuing focus on biodiversity, and diverse aspects are linked by a focus on the interaction of spatial pattern and process. I address how spatial patterns (e.g., fragmentation) and processes (e.g., dispersal) affect vegetation dynamics and ecological sustainability in response to human-induced changes such as climatic change and altered disturbance regimes.

My research integrates fieldwork, including quantitative vegetation sampling and some tree-ring work, computer simulations, and statistical analyses. I use simulations to investigate dispersal and plant community dynamics in fragmented landscapes. Much of my ongoing fieldwork is based in the northern Rocky Mountains, where I am interested in patterns and processes at alpine treeline. Simulation work has addressed the spatial configuration of nature reserves.

Recent Publications:

Peterson, D.L., C.D. Allen, J.S. Baron, D.B. Fagre, D. McKenzie, N.L. Stephenson, A.G. Fountain, J.A. Hicke, G.P. Malanson, C.L. Tague, and P.J. van Mantgem. 2011. Response of Western mountain ecosystems to climatic variability and change: a collaborative research approach. In J. Belant and E. Beever (eds.), *Ecological Consequences of Climate Change: Mechanisms, Conservation, and Management*. Taylor and Francis, New York, 163-190.

Grafius, D.R., Malanson, G.P. and Weiss, D.J. 2012. Secondary controls of alpine treeline elevations in the western USA. *Physical Geography* 33: 146-164.

Malanson GP, Walsh SJ. 2013. A geographical approach to optimization of response to invasive species. *Applied Geography* 37: 101-113.

Malanson GP, Walsh SJ. 2013. A geographical approach to optimization of response to invasive species. In Walsh SJ & Mena C, eds. *Science and Conservation in the Galapagos Islands: Frameworks and Perspectives*. Springer, New York, 199-215.

Walsh SJ, Malanson GP, Entwistle B, Rindfuss RR, Mucha PJ, Heumann BW, McDaniel PM, Frizzelle BG, Vergery A, Williams N, Yao X, Ding D. 2013. Design of an agent-based model to examine population-environment interactions in Nang Rong District, Thailand. *Applied Geography* 39: 183-198.

Saran Twombly

NSF Program Officer



Publications:

Twombly, Saran, Nancy Clancy, and Carolyn W. Burns. "Life history consequences of food quality in the freshwater copepod *Boeckella triarticulata*." *Ecology* 79.5 (1998): 1711-1724.

Twombly, Saran. "Timing of metamorphosis in a freshwater crustacean: comparison with anuran models." *Ecology* (1996): 1855-1866.

Caswell, Hal, and Saran Twombly. "Estimation of Stage—Specific Demographic Parameters for Zooplankton Populations: Methods Based on Stage—Classified Matrix Projection Models." *Estimation and Analysis of Insect Populations*. Springer New York, 1989. 93-107.

Twombly, Saran, and William M. Lewis Jr. "Zooplankton abundance and species composition in Laguna la Orsinera, a Venezuelan floodplain lake." *Arch. Hydrobiol. Suppl* 79.1 (1987): 87-107.

Michael Nelson
HJ Andrews Forest LTER PI
Prof of Environmental Ethics and Philosophy,
Oregon State University



Michael P. Nelson, [is an environmental scholar, writer, teacher, speaker, consultant, and professor of environmental ethics and philosophy. He holds the Ruth H. Spaniol Chair of Renewable Resources and serves as the Lead Principal Investigator for the HJ Andrews Experimental Forest Long-Term Ecological Research program at Oregon State University. He is the philosopher in residence of the Isle Royale Wolf-Moose Project, the longest continuous study of a predator-prey system in the world. Michael is the co-founder/co-director of the Conservation Ethics Group, an award-winning environmental ethics consultancy group fusing ethics with social and ecological science, and serves as a senior fellow for the Spring Creek Project for Ideas, Nature, and the Written Word.](#)

He is the author of many articles, and the author or editor of a number of books, in and around the area of environmental ethics. Michael is called upon regularly by various government agencies and conservation organizations to assist with understanding the ethical implications of natural resource management decisions. He lives in Corvallis, Oregon with his three cats, two dogs, and one wife.

Published:

"Wilderness, Value of" (with John A. Vucetich) for *The International Encyclopedia of Ethics*, edited by Hugh LaFollette, Wiley-Blackwell Publishers, 2013.

"Promoting wildlife health or fighting wildlife disease? Insights from history, philosophy, and wildlife health experts" (with Shauna L. Hanisch and Shawn J. Riley), in *Wildlife Society Bulletin*, September 2012, 36(3): 477-482.

"Environmental Ethics and Wildlife Management" (with John A. Vucetich) in *Human Dimensions of Wildlife Management*, 2nd edition, Daniel J. Decker, Shawn J. Riley and William F. Siemer, eds, Johns Hopkins University Press, 2012, pp. 223-37.

"An Environmental Pedagogy of Care: Emotion, Relationships, and Experience in Higher Education Ethics Learning" (with Lissy Goralnik, Kelly Millenbah, and Laurie Thorp), *The Journal of Experiential Education*, 2012, 35(3): 412-28.

Jessica Cherry
Arctic Hydroclimatology
Research Faculty,
University of Alaska
Fairbanks



Projects

Study of the Role of Snow in Land-Atmosphere Coupling (JAMSTEC)
Remote Sensing of Rivers in the National Petroleum Reserve-Alaska (BLM)
Evaluation of the Total Precipitation Sensor (DOE)
Southeast Alaska Hydroelectric Power Climate Impact Analysis (NOAA)
Analysis and Attribution of Changes in Siberian Hydroclimate (NSF)
Development of Improved Satellite-Based Snow Products for Alaska (NOAA)
Regional Model Intercomparison for Alaska (Sandia)
Regional Modeling for Arctic Transportation Networks (DOE)

Professional Interests

Arctic hydrology and climate
Large-scale snow physics
Land-atmosphere interaction on synoptic and longer time-scales
Frozen ground
Water resources and economics

Publications

2012 Cohen, J.L., J.C. Furtado, M.A. Barlow, V.A. Alexeev, and J.E. Cherry, "Asymmetrical Seasonal Temperature Trends", *Geophys. Res. Lett.* 39 (2012) L04705, doi:10.1029/2011GL050582.
2012 Cohen, J.L., J.C. Furtado, M.A. Barlow, V.A. Alexeev, and J.E. Cherry, "Arctic warming, increasing snow cover and widespread boreal winter cooling", *Environ. Res. Lett.* 7 (2012) 014007.
2010 Cherry, J.E., S. Walker, N. Fresco, S. Trainor, A. Tidwell, "Observed and Projected Impacts of Climate Change and Variability on Hydropower in Southeast Alaska", *submitted*.
2010 Cherry, J.E., S. Walker, N. Fresco, S. Trainor, A. Tidwell, "Impacts of Climate Change and Variability on Hydropower in Southeast Alaska: planning for a robust energy future.", *Report to NOAA-NMFS Hydropower coordination office*.