

Gerald J. Niemi

(a) Professional Preparation

Florida State University	Biology	PhD, 1983
University of Helsinki	Ecology	Pre-doctoral, 1981
	Fulbright-Hays Scholarship	1981
University of Minnesota	Biology, Zoology	BS, 1974; MS 1977

(b) Appointments

Professor: Department of Biology, University of Minnesota Duluth (UMD), 1993 to present.

Senior Research Associate: Natural Resources Research Institute (NRRI), UMD, 2008-present.

Director: Center for Water and the Environment (CWE), NRRI, UMD, 1989-2008.

Department Chairman: Department of Biology, University of Minnesota Duluth, 1997-1998.

Graduate Faculty Appointments: Integrated Biological Sciences UMD, 2007-present; Biology 1987 to 2009 (program terminated); Chemical Toxicology, UM-TC, 1992 to present; Conservation Biology Program, UM-TC, 1996 to present.

Associate Professor: Department of Biology, UMD, 1988-1993.

Research Associate: CWE, NRRI, UMD, 1983-1998.

(c) Publications (<http://www.nrri.umn.edu/staff/gniemi.asp>)

(i) up to 5 publications most closely related to the proposed project;

Morrice, J.A., N.P. Danz, R.R. Regal, J.R. Kelly, G.J. Niemi, E.D. Reavie, T. Hollenhorst, R.P. Axler, A.S. Trebitz, A.M. Cotter, G.S. Peterson. 2008. Human influences on water quality in Great Lakes coastal wetlands. *Environmental Management* 41:347-357.

Niemi, G.J. and J. Kelly. 2007. Environmental indicators for the Great Lakes coastal region. Special Issue of the *Journal of Great Lakes Research* 33 (3). (Guest editors)

Brazner, J.C., N.P. Danz, G.J. Niemi, R.R. Regal, Trebitz, A.S., R.W. Howe, J.M. Hanowski, L.B. Johnson, J.J.H. Ciborowski, C.A. Johnston, E.D. Reavie, V.J. Brady, and G.V. Sgro. 2007. Evaluation of geographic, geomorphic, and human influences on Great Lakes wetland indicators: a multi-assemblage approach. *Ecological Indicators* 7:610-635.

Wolter, P., G. Niemi, C. Johnston. 2006. Land use change in the U.S. Great Lakes basin 1992-2001. *Journal of Great Lakes Research* 32:607-628.

Niemi, G.J. and M. McDonald. 2004. Application of ecological indicators. *Annual Review of Ecology and Systematics* 35: 89-111.

(ii) up to 5 other significant publications, whether or not related to the proposed project.

Niemi, G.J., V.J. Brady, T.N. Brown, J.J.H. Ciborowski, N.P. Danz, D.M. Ghioca, J.M. Hanowski, T.P. Hollenhorst, R.W. Howe, L.B. Johnson, C.A. Johnston, E.D. Reavie. 2009. Development of ecological indicators for the U.S. Great Lakes coastal region - A summary of applications in Lake Huron. *Aquatic Ecosystem Health & Management*, 12(1):77 - 89.

Niemi, G.J., and T. Arnold. 2007. Wildlife profile. Report on Minnesota Statewide Conservation and Preservation Plan. Minnesota Legislative Citizen Commission for Minnesota Resources.

- Howe, R.W., R.R. Regal, G.J. Niemi, N.P. Danz, J.M. Hanowski. 2007. A probability-based indicator of ecological condition. *Ecological Indicators* 7:793-806.
- Danz, N.P. G.J. Niemi, R.R. Regal, T. Hollenhorst, L.B. Johnson, J.M. Hanowski, R. Axler, J.J.H. Ciborowski, T. Hrabik, V.J. Brady, J.R. Kelly, J.C. Brazner, R.W. Howe, C.A. Johnston, G.E. Host. 2006. Integrated gradients of anthropogenic stress in the U.S. Great Lakes basin. *Environmental Management* 39:631-647.
- Angelstam, P., S. Boutin, F. Schmiegelow, M. Villard, P. Drapeau, G. Host, J. Innes, G. Isachenko, T. Kuuluvainen, M. Mönkkönen, G. Niemi, J. Roberge, J. Spence, and D. Stone. 2004. Targets for boreal forest biodiversity conservation - a rationale for macroecological research and international cooperation. *Ecological Bulletin* 51:487-509.

(d) Synergistic Activities

- 2008-present Lead principal investigator - Developing a model for sustainable communities: integrating environmental, sociological, and economic information in a natural resource-rich area. U MN-Institute on the Environment, \$59,880; MN Power \$10,000, UM Institute for Advanced Studies, \$10,000.
- 2007-2008 Co-principal investigator and Team Lead for Wildlife portion, Co-Lead for Land and Aquatic Habitat Conservation, Minnesota Statewide Conservation and Preservation Plan. Legislative Citizen's Commission for Minnesota Resources. \$450,000 to U of Minnesota-Institute on the Environment.
- 2001-2006 Lead Principal Investigator with 27 Co-investigators. Development of environmental indicators of condition, integrity, and sustainability in the Great Lakes basin. Joint U.S. Environmental Protection Agency- National Aeronautics and Space Administration, Competitive STAR Grants Program, \$6,979,667
- 1991-2003 Lead Principal Investigator. Effects of changes in the forest ecosystem on the biodiversity of Minnesota's northern forest birds. Minnesota Legislative Commission on Minnesota Resources. \$2,112,473 in cooperation with MN Department of Natural Resources.

(e) Collaborators and Other Affiliations

J. Ciborowski (U of Windsor, Canada); R. Howe (University of Wisconsin, Green Bay); A. Kapuscinski (U of MN-TC); J. Kelly (US EPA); M. Kuitunen (University of Jyväskylä, Finland); D. Swackhamer (U of MN-TC)

Current Thesis Advisor: Annie Bracey (MS), Carly Lapin (MS), Anna Peterson (Ph.D.), Heidi Seeland (MS), Paul Dolan-Linne (MS), Ed Zlonis (MS)

Completed Thesis Advisor (last five years): Chris Burdett (Ph.D – Colo.State), David Grandmaison (MS-AZ Game and Fish), Eric Jensen (MS-Bahrain), Nicholas McCann (MS – Purdue), Anna Peterson (MS-UMN-TC), Julie Palakovich (MS-AIBS); Dave Grosshuesch (MS-USDA Forest Service)