

Julia Frost Nerbonne

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Education

Vassar College, Bachelor of Arts, May 1993
Majors in Biology and Religion

University of Minnesota: Master of Science, September 2000
Conservation Biology with minors in Statistics and Conflict Management

University of Minnesota: Doctor of Philosophy, December 2003
Conservation Biology

Teaching Experience

Environmental Sustainability Program Director

Higher Education Consortium for Urban Affairs

July 2003 - present

Direct interdisciplinary experiential program for college and graduate students: *Environmental Sustainability: Science, Public Policy, and Community Action*. Supervise teaching assistant, balance program budget, work with community organizations in Minnesota to create innovative partnership between higher education and community action. Program Courses include:

- *Adaptive Ecosystem Management*
- *Social Dimensions of Environmental Change*
- *Field Methods*
- *Internship*

Adjunct Assistant Professor

University of Minnesota,

Department of Fisheries, Wildlife and Conservation Biology

Sept. 2005-present

Teach courses, direct undergraduate research, work to connect FWCB students and faculty to community practitioners.

- *Introduction to Fisheries, Wildlife and Conservation Biology* (FW 2001); Spring 2001 – present
- *Ethics, Conflict and Leadership in Natural Resource Management* (FW 3011); Fall 1999, Spring 2000, Fall 2000, Fall 2002 - present

Teaching Specialist

University of Minnesota,

Department of Fisheries, Wildlife and Conservation Biology

1998-2005

Designed courses, created interactive course web page, conducted lectures, supervised teaching assistants and evaluated students for four undergraduate courses and one graduate course.

Redesigned the curriculum for *Ethics Conflict and Leadership in Natural Resource Management*, expanding it to include a unit of conflict and leadership. Courses not described above include:

- *Fisheries Science* (FW 5278), Summer 1998
- *Ethics and Values in Natural Resource Management* (FW3010); Fall 1998
- *Religion and Spirituality: Human Perspectives on Nature* (NRES 3001); Winter 1999
- *Biological Conservation, an Ecosystem Approach* (FW3054); Spring 1999
- *Aquatic Ecology* (FW 4292); Summer 2000

Adjunct Professor

Hamline University, Center for Global Environmental Education

July 2005 - present

Teach *Environment and Society* course in professional graduate program, Natural Resource and Environmental Education. Designed and taught interactive field course on *Stream Ecology* for high school teachers and watershed district staff. (Summer 2001)

Visiting Instructor

Hamline University, Conflict Studies Program

Spring 2002

Worked with Conflict Studies Program director to teach a unit on Environmental Conflict in course called Approaches to Conflict Response as Preparing Future Faculty teaching practicum.

Science and Ethics Teacher

The Queen Anne School, Upper Marlboro Maryland

July 1993-June 1995

Received "Teacher of the Year" award, 1993-94. Taught 7th grade life science, and 11th and 12th grade ethics. Established recycling program; coordinated science fair; advised environmental group; received 3 grants for classroom projects; advised student in Westinghouse project on stream ecology.

Science Teacher

The Sheridan School, Washington D.C.

Sept. 1995-June 1996

Taught 4th - 8th grade science; coordinated science fair; established recycling program; coordinated school-wide AIDS education program.

Research Experience

Principal Investigator

Higher Education Consortium for Urban Affairs

Researching connection between knowledge, attitudes and values regarding water quality in an urban area. Worked with students to conduct survey of 238 residents in 2004.

Currently conducting interviews, and Q-survey to evaluate factors that contribute to environmentally favorable behavior.

Researcher

University of Minnesota

1999 - 2003

Worked with Dr. Kristen Nelson and Dr. Bruce Vondracek to conduct research evaluating the utility of different macroinvertebrate monitoring protocols and the relationship between data quality and citizen empowerment. Advised two undergraduate and one master's student in grant funded research

Land Stewardship Project/ University of Minnesota

July 1996-June 1999

1) Worked in conjunction with cooperative monitoring team that included farmers, researchers, government agencies and non-profit representatives. Conducted monitoring of five streams in southeastern Minnesota. Collected and analyzed physical measurements, water chemistry, macroinvertebrates and fish. 2) Researched bias and error associated with volunteer macroinvertebrate monitoring protocols. Wrote stream monitoring guide for farmers included in “monitoring tool box”. Advised three college seniors with independent research projects. Advised two high school apprentices, one of whom won the awards at the national science fair.

Institute for Social Ecological and Economic Sustainability

March-Dec. 1998

Wrote grant, organized tasks and conducted research that evaluated the success of Adaptive Environmental Assessment model, “The Great River SIM”. Designed and observed focus groups of multi-stakeholder groups; organized evaluative workshop for high school teachers; helped organize and edit reports.

Minnesota DNR and Wells Creek Watershed Partnership

June 1997-Jan. 1998

Designed and implemented a field study of the Wells Creek Watershed to investigate the affects of riparian vegetation on creek temperature. Used U.S. Forest Service instream temperature model; evaluated riparian and instream habitat characteristics; and analyzed effects of riparian land use on stream temperature.

Professional Experience***Program Coordinator*****Volunteer Stream Monitoring Partnership**

Dec.2000-Sept.2001

Worked with diverse community of citizen stream monitoring organizations and agencies to coordinate metro-wide program. Wrote and received grants, coordinated outreach activities, trained volunteers, and supervised undergraduate and graduate research projects.

Workshop Designer**Citizen Science Partnership**

Aug. 1998 & Sept. 2000

Designed and organized two conferences for community activists, farmers, agency representatives and academics:

- “Citizen Science: Challenges for Grassroots Organizers”, December 1998
- “Environmental ethics: Stewardship in a New Millennium”, August 2000

American Fisheries Society, Continuing Education Courses

Dec. 1997 &

Aug.1998

Designed and conducted one-day continuing education course for fisheries and wildlife professionals at the 59th Midwest Fish and Wildlife conference in Madison, Wisconsin; and the 128th Annual Meeting of the American Fisheries Society in Hartford, Connecticut.

- “Modeling Demystified”, December 1997 and August 1998

Minnesota Department of Natural Resources

Fall

1997

Designed and organized two-day continuing education workshop for fisheries and wildlife professionals at the 59th Midwest Fish and Wildlife conference in Madison, Wisconsin.

- “Adaptive Environmental Assessment and Management”, December 1997

Director and Co-Founder

Community Education and Research for Environmental Solutions May 1995-June 1996
Founded small nonprofit organization to promote community involvement in monitoring. Conducted aquaculture and stream monitoring projects; led two-day workshop on stream ecology for Maryland teachers; received grants from Chesapeake Bay Trust to conduct workshops in June and October of 1995.

Activities

Minnesota Society for Conservation Biology 2003-present
Networking coordinator

Campaign Manager for Patricia Torres Ray (MN State Senate) Feb.- May 2006

Dispute Resolution Center, St. Paul Minnesota June 2002-present
Board Member and Volunteer Mediator

43rd Ave. Block Club Leader July 2003-present

Department of Fisheries and Wildlife Voting Staff Committee 1999-2002

Preparing Future Faculty Spring 2002

Resilience Network 1998-2000
Invited by C.S. Holling and Fikret Berkes to attend working groups in Nov.1998 and Sept. 1999

Professional Memberships

- American Fisheries Society
- North American Benthological Society
- International Association for the Study of Common Property
- Society and Natural Resources
- Society for Conservation Biology

Grants and Awards

- Queen Anne School, Teacher of the Year - 1994
- Dayton Wilkie Award: Graduate Research Grant, Spring 1997
- Minnesota Institute for Sustainable Agriculture: Graduate Research Grant 1996-1997
- National Fish and Wildlife Foundation: Graduate Research Grant 1997-1999
- Department of Fisheries and Wildlife: Graduate Research Fellowship, Spring 1999
- McKnight Foundation: worked collaboratively to receive \$150,000 grant for Volunteer Stream Monitoring Partnership and Center for Global Environmental Education

- Mississippi Watershed Management Organization. Principal Investigator: Identifying Bridges and Barriers to Neighborhood Stewardship: Knowledge, Attitudes and Action in the Longfellow Neighborhood. June 2004 – Aug. 2005.
- Mississippi Watershed Management Organization. Principal Investigator: Building an Effective Strategy to Motivate Change in Environmentally Positive Behavior. Aug. 2005-Aug. 2006.
- Minnesota Communities Foundation. Principal Investigator: Evaluating Citizen Stream Health and Evaluation Project in Anoka County, Minnesota. July 2006-June 2005.

Peer Reviewed Publications

- Vondracek, B., K. Blann, C. Cox, J.F. Nerbonne, K. Mumford, B. Nerbonne, L. Sovell and J.G. Zimmerman. 2005. Land Use, Spatial Scale, and Stream Systems: Lessons from an Agricultural Region. *Environmental Management* 36: 775 – 791.
- Nerbonne, J.F. and K.C. Nelson. 2004. Volunteer macroinvertebrate monitoring in the United States: Resource mobilization and comparative state structures. *Society and Natural Resources* 17: 817-839
- Nerbonne, J.F. 2003. The rancher's dilemma: A game exploring the implications of an open access system. *Journal of Natural Resources and Life Sciences Education* 32:65-68.
- Nerbonne, J.F. and R. Lentz. 2003. Rooted in Grass: Changing Patterns of Knowledge Exchange as a Means of Fostering Social Change in a Southeast Minnesota Farm Community. *Agriculture and Human Values* 20(1): 65-78.
- Nerbonne, J.F. and B.C. Vondracek. 2003. Volunteer macroinvertebrate monitoring: Assessing training needs through examining error and bias in untrained volunteers. *Journal of the North American Benthological Society* 22(1):152-163.
- Blann, K., J.F. Nerbonne and B.C. Vondracek. 2002. Relationship of riparian buffer type to water temperature in the Driftless Area Ecoregion of Minnesota. *Journal of North American Fisheries Management* 22 (2): 441-451.
- Sovell, L., B. Vondracek, J.A. Frost, and K.G. Mumford. 2000. Impacts of rotational grazing and riparian buffer strips on the physicochemical characteristics and biological communities of southeastern Minnesota streams. *Environmental Management* 26: 629-641.

Other Publications

- Nerbonne, J.F. and R. Schreiber. 2005. Connecting Knowledge, Attitudes and Behaviors Regarding Urban Water Quality: A Mississippi Watershed Management Organization Study. Lauderdale, Minnesota.
- Nerbonne, J.F. 2003. Volunteer Macroinvertebrate Monitoring as a Tool For Empowering Citizen Groups in the United States. Doctoral Dissertation, University of Minnesota, St. Paul Minnesota.

- Frost, J.A. 2000. Macroinvertebrate Monitoring: Potential for Volunteers. M.S. Thesis, University of Minnesota, St. Paul Minnesota.
- Land Stewardship Project. 1998. The Monitoring Tool Box. Available through the Land Stewardship Project, White Bear Lake Minnesota.
- Frost, J.A. and K.L. Blann 1998. Wells Creek Trout Habitat Study. Report to the Minnesota Department of Natural Resources, Lake City Minnesota, March 1998.
- Vondracek, B., L. Sovell, and J.A. Frost. 1998. Impacts of rotational grazing and riparian buffer strips on the physicochemical characteristics and biological communities of southeastern Minnesota streams. Proceedings of the 23rd Annual Minnesota Forage Conference.

Oral Presentations

- J. F. Nerbonne. 2006. The Colors of Nature: Cultural Identity and the Natural World. Invited Panelist, St. Olaf College, Northfield, Minnesota. 28 April.
- R. Schreiber and J.F. Nerbonne. 2006. Connecting knowledge, attitudes, and behaviors regarding water quality in an urban neighborhood. Minnesota Natural Resource Conference, Brainerd, Minnesota. 28 Feb. – 1 March.
- R. Schreiber, Marshall, K. and J.F. Nerbonne. 2004. The role of social capital and scientific knowledge in watershed protection efforts. Joint Meeting of MN Society for Conservation Biology and MN Fisheries, St. Cloud, MN, 14-16 March.
- Nerbonne, J.F. 2004 and K. C. Nelson. 2004. Is good science key to citizen empowerment? Joint Meeting of MN Society for Conservation Biology and MN Fisheries, St. Cloud, MN, 14-16 March.
- Nerbonne, J.F. and K.C. Nelson. 2003. Mobilizing resources for conservation: Citizen empowerment through stream monitoring. International Meeting of the Society for Conservation Biology, Duluth, Minnesota. 28-30 June.
- Nerbonne, J.F. and K.C. Nelson. 2002. Volunteer stream monitoring as a tool for citizen empowerment. International Symposium on Society and Resource Management. Bloomington, Indiana. 2-5 June.
- Nerbonne, J.F. and K.C. Nelson. 2002. Volunteer stream monitoring as a tool for citizen empowerment. Working Together in a Climate of Change to Manage Minnesota's Water Resources, St. Cloud, Minnesota. 17-20 April.
- Nerbonne J.F. 2002. Macroinvertebrate monitoring as a tool for citizen empowerment. St. Croix Basin Research Conference, Dresser Wisconsin. 21 February.
- Frost J.A. 2000. Rooted in grass: Promoting local knowledge as a means for fostering social change. 8th Annual Conference of the International Association for the Study of Common Property Resources, Bloomington, Indiana. 31 May – 4 June.

- Frost J.A. and K. Blann. 1999. Wells Creek temperature model. American Fisheries Society Tri-State meeting, LaCross Wisconsin. January.
- Frost, J.A. and B. Vondracek. 1999. Citizen macroinvertebrate monitoring: Does it meet the mark? 47th Annual meeting of the North American Benthological Society, Duluth, Minnesota. 25-28 May.
- Frost, J.A. and K Blann. 1998. Wells creek temperature model. Mississippi River Research Consortium, La Crosse, WI. March.
- Frost, J.A. and B. Vondracek. 1998. Citizen macroinvertebrate monitoring: Does it meet the mark? 128th Annual meeting of the American Fisheries Society, Hartford, Connecticut. 24-27 August.
- Frost, J.A. 1997. Foundations of belief systems: a discussion session. 127th Annual meeting of the American Fisheries Society, Monterey, California. 24-28 August.
- Frost, J.A. and B. Vondracek. 1997. Impacts of rotational grazing and riparian buffer strips on the physicochemical characteristics and biological communities of southeastern Minnesota streams. 59th Annual Midwest Fish and Wildlife Conference, Madison, Wisconsin. December.

Posters and Facilitated Sessions

- Nerbonne, J.F. and B. Stenquist. Facilitated Conversation: "Finding our Foundation -- Ethics and the Real World of Conservation and Management. " Minnesota Natural Resource Conference, Brainerd, Minnesota. 28 Feb. – 1 March.
- S. Fenster, C. Ahlers, K. Byrd and J.F. Nerbonne. 2006. Poster: Q-Methodology: a case study. Minnesota Natural Resource Conference, Brainerd, Minnesota. 28 Feb. – 1 March.
- F. Doherty, L. Recker and J.F. Nerbonne. Understanding citizen actions for protecting the Mississippi. Minnesota Natural Resource Conference, Brainerd, Minnesota. 28 Feb. – 1 March.
- Nerbonne, J.F, 2005. Facilitated Conversation: "Overcoming Barriers: A Roundtable on Relevancy in Conservation Biology." Joint Meeting of MN Society for Conservation Biology and MN Fisheries, St. Cloud, Minnesota. 15-17 March.
- Symposium Organizer: Human Interaction with Aquatic Systems: How Knowledge of Aquatic Systems Impacts Individual and Institutional Action. International Meeting of the Society for Conservation Biology, Duluth, Minnesota. 28-30 June.