

Project Manager Qualifications and Organization Description

Manager: Mark A. Hanson, Ph.D., E-mail: mark.hanson@dnr.state.mn.us, Ph. 218.208.2283

Organization: Wetland Wildlife Populations & Research Group (WWPRG), MDNR, Bemidji, MN; MDNR's mission is to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life. DNR is committed to conserving natural resource systems - working with citizens and partners to achieve its three-part mission. The WWPRG conducts research and monitoring on wetland wildlife and ecological characteristics of wetlands and shallow lakes statewide.

Research Experience and perspective: 1991 – Present: Wetland research scientist. I serve as a project leader for research on wetlands and shallow lake ecology, waterfowl, and wetland-dependent processes and wildlife. Since 1991, I have managed approximately \$900,000 in research support and I have supervised approximately 50+ undergraduate and graduate students, and seasonal employees. Current research focuses on scale-dependent influences on shallow lake characteristics and water quality, on measuring effects of fish in prairie lakes and wetlands, and clarifying relationships between small wetlands and upland management in forest regions. My dissertation research (1980s) focused on ecological responses of fish removal from Lake Christina, MN, a large shallow prairie lake managed primarily for migrating waterfowl.

Related Professional and Service Experience:

Member of MFRC Riparian Science Technical Committee for riparian management (2004-08)

President, Minnesota Chapter of the Wildlife Society (2003-04)

Organizer, Inter-Agency Workshop on Needs for Wetlands and Waterfowl in Forested Landscapes (2003)

Organizing Committee: Ecology of Wetlands and Shallow Lakes: Alternative Stable States, Anthropogenic Influences, and Management Options. International workshop held at Delta Marsh, Manitoba (2001)

Wildlife Program Chair, 62nd Annual Midwest Fish and Wildlife Conference (December 2000)

Associate Editor, *Wetlands* (1995-1997)

MDNR Division of Wildlife Aquaculture Task Force, member (1992-1993)

MDNR Division of Wildlife Wetland Policy Committee, member (1991-present)

Over 100 presentations at local, state, national, and international conferences, meetings, and workshops

Selected Related Publications:

Zimmer, K.D., **M.A. Hanson**, B.R. Herwig, and M.L. Konsti. In press. Thresholds and stability of alternative regimes in shallow prairie-parkland lakes of central North America. *Ecosystems*.

Potthoff, A.J., B.R. Herwig, **M.A. Hanson**, K.D. Zimmer, M.G. Butler, J.R. Reed, B.G. Parsons, and M.C. Ward. 2008. Cascading effects of piscivore introductions in shallow lakes. *Ecological Applications* 45: 1170-1179.

Hanson, M.A., K.D. Zimmer, M.G. Butler, B.A. Tangen, and N.H. Euliss, Jr. 2005. Biotic Interactions as determinants of ecosystem structure in prairie wetlands. *Wetlands* 25:764-775.

Zimmer, K.D., **M.A. Hanson**, and M.G. Butler. 2003. Relationships among nutrients, phytoplankton, macrophytes, and fish in prairie wetlands. *Canadian Journal of Fisheries and Aquatic Sciences* 60:721-730.

Angeler, D.G., P. Chow-Frazer, **M.A. Hanson**, and S. Sanchez-Carillo. 2003. Biomanipulation: a useful tool for freshwater wetland mitigation? *Freshwater Biology* 48:2203-2213.

Zimmer, K.D., **M.A. Hanson**, and M.G. Butler. 2001. Effects of fathead minnow colonization and removal on a prairie wetland ecosystem. ***Ecosystems* 4:346-357.**

Bouffard, S.H., and **M.A. Hanson**. 1997. Fish in waterfowl marshes: waterfowl managers' perspective. *Wildlife Society Bulletin* 25:146-157.

Hanson, M.A., and M.G. Butler. 1994. Responses of plankton, turbidity, and macrophytes to biomanipulation in a shallow prairie lake. *Canadian Journal of Fisheries and Aquatic Sciences* 51:1180-1188.