

## CURRICULUM VITAE

**Timothy W. Stewart**

Associate Professor

Department of Natural Resource Ecology and Management (NREM)

College of Agriculture and Life Sciences

Iowa State University

### Degrees Held

Ph.D. (1999) Biology (Aquatic Ecology emphasis), Bowling Green State University

M.S. (1993) Biology (Aquatic Ecology emphasis), SUNY Brockport

B.S. (1989) Biology, Ithaca College (3.49 cumulative grade point average)

### Professional Experience

2012-present Associate Professor, NREM, Iowa State University

2006-2012 Assistant Professor, NREM, Iowa State University

2003-2006 Adjunct Assistant Professor, NREM, Iowa State University

1999-2003 Assistant Professor, Longwood University, Department of Natural Sciences

## RESEARCH

**Refereed Research Publications** (26; graduate student co-author underlined, undergraduate student co-author italicized)

Maurer, K.M., **Stewart, T.W.**, and Lorenz, F.O. 2014. Direct and indirect effects of fish on invertebrates and tiger salamanders in prairie pothole wetlands. *Wetlands* 34:735-745.

Wu, J.Y., Thompson, J.R., Kolka, R.K., Franz, K.J., and **Stewart, T.W.** 2013. Using the Storm Water Management Model to predict urban headwater stream hydrological response to climate and land cover change. *Hydrology and Earth Systems Sciences* 17:4743-4758.

Thomas, J.T., Culler, M.E., Dermisis, D.C., Pierce, C.L., Papanicolaou, A.N., **Stewart, T.W.**, and Larson, C.J. 2013. Effects of grade control structures on fish passage, biological assemblages and hydraulic environments in western Iowa streams: a multidisciplinary review. *River Research and Applications* 29:389-398.

Colvin, M.E., Pierce, C.L., and **Stewart, T.W.**, and Grummer, S.E. 2012. Strategies to control a common carp (*Cyprinus carpio*) population by pulsed commercial harvest. *North American Journal of Fisheries Management* 32:1251-1264.

Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2012. Semidiscrete biomass dynamic modeling: an improved approach for assessing fish stock responses to pulsed harvest events. *Canadian Journal of Fisheries and Aquatic Sciences* 69:1710-1721.

Herringshaw, C.J., **Stewart, T.W.**, and Thompson, J.R. 2011. Relationships among land cover, in-stream physicochemical features, and aquatic invertebrate community attributes in urban and agroecosystems. *American Midland Naturalist* 165:274-293.

Hentges, V.A., and **Stewart, T.W.** 2010. Macroinvertebrate assemblages in Iowa prairie pothole wetlands and relation to environmental features. *Wetlands* 30:501-511.

Herringshaw, C.J., Thompson, J.R., and **Stewart, T.W.** 2010. Learning about restoration of urban ecosystems: a case study integrating public participation, stormwater management, and ecological research. *Urban Ecosystems* 13:535-562.

Fischer, J.R., Quist, M.C., *Wigen, S.L.*, *Schaefer, A.J.*, **Stewart, T.W.**, and Isenhardt, T.M. 2009. Assemblage and population-level responses of stream fish to riparian buffers at multiple spatial scales. *Transactions of the American Fisheries Society* 139:185-200.

**Stewart, T.W.**, and Lowe, R.L. 2008. The benthic algae of Lake Erie (1865-2006): a review of assemblage composition, ecology, and causes and consequences of changing abundance. *Ohio Journal of Science* 108:82-94.

**Stewart, T.W.**, and Downing, J. 2008. Macroinvertebrate communities and environmental conditions in recently constructed wetlands. *Wetlands* 28:141-150.

Litvan, M.E., Pierce, C.L., **Stewart, T.W.**, and Larson, C.J. 2008. Fish passage in a western Iowa stream modified by grade control structures. *North American Journal of Fisheries Management* 28:1384-1397.

Litvan, M.E., Pierce, C.L., **Stewart, T.W.**, and Larson, C.J. 2008. Fish assemblage structure in a western Iowa stream modified by grade control structures. *North American Journal of Fisheries Management* 28:1398-1413.

Litvan, M.E., **Stewart, T.W.**, Pierce, C.L., and Larson, C.J. 2007. Local effects of grade control structures on the macroinvertebrate assemblage of an agriculturally-impacted stream. *River Research and Applications* 24: 218-233.

**Stewart, T.W.** 2006. The freshwater gastropods of Iowa (1821-1998): taxonomic composition, geographic distributions, and conservation concerns. *American Malacological Bulletin* 21:59-75.

**Stewart, T.W.**, and Dillon, R.T. Jr. 2004. Composition and geographic distribution of Virginia's freshwater gastropod fauna: a review using historical records. *American Malacological Bulletin* 19:79-91.

**Stewart, T.W.**, Shumaker, T.L., and *Radzio, T.A.* 2003. Linear and nonlinear effects of habitat structure on composition and abundance in the macroinvertebrate community of a large river. *American Midland Naturalist* 149:293-305.

**Stewart, T.W.**, and Garcia, J.E. 2002. Environmental factors causing local variation in density and biomass of the snail *Leptoxis carinata* in Fishpond Creek, Virginia. *American Midland Naturalist* 148:172-180.

**Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1999. A field experiment to determine *Dreissena* and predator effects on zoobenthos in a nearshore, rocky habitat of western Lake Erie. *Journal of the North American Benthological Society* 18:488-498.

Haynes, J.M., **Stewart, T.W.**, and Cook, G.E. 1999. Benthic macroinvertebrate communities in southwestern Lake Ontario following invasion of *Dreissena*: continuing change. *Journal of Great Lakes Research* 25:828-838.

**Stewart, T.W.**, Gafford, J.C., Miner, J.G., and Lowe, R.L. 1999. *Dreissena*-shell habitat and antipredator behavior: combined effects on survivorship of snails co-occurring with molluscivorous fish. *Journal of the North American Benthological Society* 18:274-283.

**Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1998. Macroinvertebrate communities on hard substrate in western Lake Erie: structuring effects of *Dreissena*. *Journal of Great Lakes Research* 24:868-875.

**Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1998. An experimental analysis of crayfish (*Orconectes rusticus*) effects on a *Dreissena*-dominated benthic macroinvertebrate community in western Lake Erie. *Canadian Journal of Fisheries and Aquatic Sciences* 55:1043-1050.

**Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1998. Quantifying mechanisms for zebra mussel effects on benthic macroinvertebrates: organic matter production and shell-generated habitat. *Journal of the North American Benthological Society* 17:81-94.

**Stewart, T.W.**, and Haynes, J.M. 1994. Benthic macroinvertebrate communities of southwestern Lake Ontario following invasion of *Dreissena*. *Journal of Great Lakes Research* 21:479-493.

#### **Research Manuscripts Under Review** (3; graduate student co-author underlined)

Olson, A.R., **Stewart, T.W.**, and Thompson, J.R. In review. Direct and indirect effects of human population density and land use on stream physical characteristics and invertebrate assemblages. *Urban Ecosystems*.

Wu, J., Thompson, J.R., Kolka, R., and Franz, K. In review. Watershed features and stream water quality: a causal analysis of linkages in a Midwest urban landscape, U.S.A. *Landscape and Urban Planning*.

Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** In review. Common carp, zebra mussels, and the food web: consequences of non-native species invasions for lake restoration and recreational fisheries. Submitted to *Canadian Journal of Fisheries and Aquatic Sciences*.

**External Research Grants** (18 totaling \$1,105,259; \$394,907 as P.I./senior author; contract period provided for recent grants; undergraduate student P.I. in italics)

Thompson, J.R., and **Stewart, T.W.** 2014. Evaluation of Successful Forested Wetland Mitigation in Iowa. Iowa Department of Transportation (\$119,996) (Contract Period 10/1/14-9/30/17)

**Stewart, T.W.**, and Weber, M.J. 2013. A condition assessment protocol for Iowa's prairie pothole wetlands. United States Environmental Protection Agency Region 7 Wetland Program Development Grant (\$196,769) (Contract period 1/15/2014-8/20/2016).

Christoffel, R., **Stewart, T.W.\*** and Carter, A., 2012. Navigating the waters: a wetland development guide for agencies and organizations working with women landowners. United States Environmental Protection Agency Region 7 Wetland Program Development Grant (\$234,423) (Contract period 1/1/12-9/31/15). **\*Status changed to from Co-P.I. to P.I. in July 2014.**

Thompson, J.R., **Stewart, T.W.**, and Franz, K.J. 2011. Quantifying urban headwater stream flow and water quality dynamics to develop predictions for urbanization and climate change scenarios in central Iowa. University of Iowa Center for Global and Regional Environmental Research (\$29,897) (Contract period 5/1/11-6/30/12).

**Stewart, T.W.** and Evelsizer, V. 2009. Development of a wetland condition index for Iowa's prairie pothole wetlands. United States Environmental Protection Agency Region 7 Wetland Program Development Grant (\$140,170) (Contract period 9/30/09-9/29/12).

Quist, M.C., **Stewart, T.W.**, and Isenhardt, T.M. 2007. Effects of managed riparian buffers on native fish communities in central Iowa streams. Iowa Department of Natural Resources Wildlife Diversity Program (\$1,800) (Contract period 3/1/07-2/28/08).

Pierce, C.L., and **Stewart, T.W.** 2007. Effects of common carp and invading zebra mussels on water quality and the native biological community of Clear Lake. Iowa Department of Natural Resources (\$241,654) (Contract period 5/15/07-6/30/11).

Quist, M., **Stewart, T.W.**, and Isenhardt, T. 2007. Effects of managed riparian buffers on the integrity of stream systems: a biological assessment using fish and invertebrate communities. Iowa Water Center and United States Geological Survey (\$16,609) (Contract period 3/1/07-2/28/08).

**Stewart, T.W.** 2006. A macroinvertebrate-based index of biotic integrity for semipermanent and permanent Iowa wetlands. Iowa Department of Natural Resources (\$34,261) (Contract period 12/31/06-12/31/08).

**Stewart, T.W.** 2005. Pollution-filtering capacity of Ada Hayden wetlands: an assessment focusing on biological components. City of Ames Departments of Parks and Recreation and Water and Pollution Control (\$2,959).

Pierce, C.L. and **Stewart, T.W.** 2004. Effects of stream stabilization structures on fish movements and fish and invertebrate communities in a southwestern Iowa stream. Iowa Department of Natural Resources, Hungry Canyons Alliance, and United States Geological Survey Science Support Program (\$65,973).

**Stewart, T.W.** 2002. A demographic study of the snail, *Leptoxis carinata*, in a tributary of the Appomattox River: effects of physicochemical features on densities, biomass, and body size. Virginia Academy of Science (\$568).

*Northington, R.*, and **Stewart, T.W.** 2001. Using zebrafish survivorship to monitor organic pollutants in sediments of Virginia waters. Virginia Academy of Science (\$500).

**Stewart, T.W.** 2000. Combining high taxonomic resolution and regression analysis to quantify relationships between physically complex habitat and benthic invertebrate community attributes in the James River. Virginia Academy of Science (\$1,180).

**Stewart, T.W.**, Miner, J.G. and Lowe, R.L. 1997. Zebra mussels as determinants of benthic macroinvertebrate community composition in western Lake Erie: a systematics approach to species responses. National Fish and Wildlife Foundation (\$13,500).

**Stewart, T.W.**, Miner, J.G. and Lowe, R.L. 1996. Regulatory mechanisms of benthic macroinvertebrate community structure in western Lake Erie: direct and indirect effects of zebra mussels and large fish. Ohio Department of Natural Resources Wildlife Diversity Grant (\$3,725).

**Stewart, T.W.** 1996. Using field experiments and path analysis to identify mechanisms regulating benthic macroinvertebrate community structure in western Lake Erie. American Museum of Natural History Theodore Roosevelt Memorial Fund (\$800).

**Stewart, T.W.** 1996. Using field experiments and path analysis to identify critical food web linkages in a benthic macroinvertebrate community. Sigma Xi (\$475).

#### **Unfunded External Research Grant Proposals (past 10 years)**

**Stewart, T.W.**, Thompson, J.R., and Harms, T. 2014. Landscape impacts on wetland ecosystems: development of a volunteer monitoring protocol based on relationships between land use, water quality, and biodiversity. Leopold Center for Sustainable Agriculture Pre-proposal (\$119,368)

Thompson, J.R., **Stewart, T.W.**, and Christoffel, R. 2014. Water quality and biological diversity in stormwater wetlands: enhancing environmental knowledge and stewardship in urban areas. USEPA Environmental Education Model Grants (\$284,430).

- Stewart, T.W.**, Thompson, J.R., Gasteyer, S., Haynes, D., Franz, K., Marquart-Pyatt, S., Kolka, R., Sebestyen, S., Prell, C., Lorenz, F., Tyndall, J. 2013. NSF-CNH: Dynamics of integrated social-ecological systems in urban watersheds facing climate change. National Science Foundation Coupled Natural and Human Systems Program (\$1,489,857).
- Stewart, T.W.**, and Weber, M.J. 2013. Determinants and indicators of ecosystem condition in Iowa's shallow lakes. Iowa Department of Natural Resources (\$41,003).
- Weber, M., Pierce, C., and **Stewart, T.W.** 2013. Impacts of invasive keystone species on ecological and social systems: a case study involving zebra mussels in the Iowa Great Lakes. Iowa Department of Natural Resources (\$338,918).
- Stewart, T.W.**, Thompson, J.R., Christoffel, R., Pierce, C.L., and Evelsizer, V. 2012. Ecosystem condition and pollutant removal in urban stormwater wetlands: integrating research and collaborative learning to promote water resource protection. USEPA Region 7 Wetland Program Development Grant Program (\$130,618).
- Christoffel, R., and **Stewart, T.W.** 2011. Identification guides to Iowa's invertebrates and vertebrates. Submitted to Iowa Department of Natural Resources, Resource Enhancement and Protection – Conservation Education Program (\$48,246).
- Thompson, J.R., **Stewart, T.W.**, and Tyndall, J. 2011. Collaborative learning about land use and stream conditions in the Des Moines, Iowa area. United States Environmental Protection Agency (\$62,391).
- Stewart, T.W.**, Thompson, J.R., Gasteyer, S.P., Franz, K.J., Pyatt, S.T., Kolka, R., Sebestyen, S., Tyndall, J., and Schulte-Moore, L. 2011. CNH: Urban social-ecological relationships and feedbacks under climate change scenarios: humans and stream condition. National Science Foundation Coupled Natural and Human Systems Program (\$1,443,463).
- Stewart, T.W.**, Thompson, J.R., and Christoffel, R. 2011. Biological communities, water quality, and pollutant-removal in urban stormwater wetlands: integrating research and education to enhance water resource protection. United States Environmental Protection Agency Region 7 Wetland Development Program (\$216,463).
- Ryan, S., Jackman, J., Min, K.J., Dinsmore, S., and **Stewart, T.W.** 2011. Partnerships for international research and education (PIRE): sustainable wind energy. National Science Foundation PIRE program.
- Stewart, T.W.**, Thompson, J.R., Gasteyer, S., Franz, K.J., Marquart-Pyatt, S., Kolka, R.K., Sebestyen, S.D., Tyndall, J., Lorenz, F., and Schulte, L. 2010. Urban social-ecological relationships and feedbacks under climate change scenarios: humans and stream condition. National Science Foundation Coupled Natural and Human Systems Program (\$1,405,354).

- Stewart, T.W.**, Thompson, J.R., and Pierce, C.L. 2010. Urban stormwater wetlands in central Iowa: assessing performance in water quality improvement and engaging public participation. National Institute of Water Resources Competitive Research Program (\$249,912).
- Stewart, T.W.**, Thompson, J.R., Wright Morton, L., Franz, K.J., Kolka, R.K., Lorenz, F., Palic, D., Schulte Moore, L., Sebestyen, S.D., and Soupir, M. 2009. Critical linkages among human systems, terrestrial landscapes, and headwater streams: a path analysis approach to identifying determinants of urban watershed condition. National Science Foundation Dynamics of Coupled Natural and Human Systems Program (\$1,397,436).
- Stewart, T.W.**, Thompson, J.R., Franz, K.J., Palic, D., Arbuckle, J.G., Soupir, M., Kolka, R.K., and Sebestyen, S. 2009. Linkages among land use policy, civic actions, and stream condition in Des Moines, Iowa. National Science Foundation Urban Long-term Research Area Exploratory Program (\$299,747).
- Thompson, J.R., Mabry-McMullen, C., Kolka, R.K., Randall, J., Arbuckle, J.G., **Stewart, T.W.**, Sebestyen, S.D., and Schultz, R. 2009. Increasing pollutant capture in forests to improve stream water and habitat quality: assessing community function and collaborative learning with forest owners. USDA-CSREES National Integrated Water Quality Program (\$658,917).
- Thompson, J.R., Mabry-McMullen, C., Kolka, R.K., Randall, J., Arbuckle, J.G., **Stewart, T.W.**, Sebestyen, S.D., and Schultz, R. 2008. Increasing nutrient capture in riparian forests to improve stream water quality: assessment of plant guilds and collaborative learning with forest landowners. USDA-CSREES National Integrated Water Quality Program (\$649,891).
- Stewart, T.W.**, and Pierce, C.L. 2006. Modeling effects of multiple invasive species (common carp and zebra mussels) and other ecosystem components on water quality in a small eutrophic lake. National Institute of Water Resources, United States Geological Survey (\$103,097).
- Isenhardt, T., Quist, M.C., and **Stewart, T.W.** 2006. Effects of riparian buffers on fish and invertebrate communities in an agriculturally-impacted stream. Natural Resource Conservation Service (\$160,474).
- Pierce, C.L., and **Stewart, T.W.** 2006. Modeling effects of multiple invasive species (common carp and zebra mussels) and other ecosystem components on water quality in a small eutrophic lake. Iowa Department of Natural Resources (\$103,097).
- Pierce, C.L. and **Stewart, T.W.** 2005. A simulation model for water quality of Clear Lake, Iowa: effects of the native biological community, introduced carp, and invading zebra mussels. Iowa Department of Natural Resources (\$171,722).
- Pierce, C.L. and **Stewart, T.W.** 2005. A simulation model for water quality of Clear Lake, Iowa: effects of the native biological community, introduced carp, and invading zebra mussels. Iowa State Water Resources Research Institute and United States Geological Survey (\$37,555).



**Stewart, T.W.** and Isenhardt, T. 2005. Effects of riparian buffers and boulder weirs on integrity of an agriculturally-impacted stream ecosystem. Iowa State Water Resources Research Institute and United States Geological Survey (\$34,504).

**Stewart, T.W.**, Downing, J., Morris, J., and Pierce, C.L. 2004. Using living and nonliving components of wetlands (Ada Hayden Heritage Park) to monitor absorption of pollutants after fish removal. City of Ames (\$22,325).

**Internal Research Grants** (graduate student Co-P.I. underlined; undergraduate student P.I. *italicized*)

**Stewart, T.W.**, and Thompson, J.R. 2012. Urban social-ecological relationships and feedbacks under climate change scenarios: Humans and stream condition. Presidential Initiative for Interdisciplinary Research (\$12,850).

Thompson, J.R., McMullen, C., **Stewart, T.W.**, Kolka, R.K., Gerken, M., and Keninger, Z. 2010. Getting the most from Iowa's forests: linking forest understory composition to stream water quality and enhancing nutrient capture in forest remnants in agricultural landscapes. Leopold Center for Sustainable Agriculture (\$93,385).

**Stewart, T.W.**, and Thompson, J.R. 2008. Enabling the strategic plan: streams in urban landscapes – ecological analysis, management, and engaging local citizens. Natural Resource Ecology and Management, Iowa State University (\$9,890).

Quist, M.C., Roe, K.J., and **Stewart, T.W.** 2008. Teaching and research funding proposal – enabling the strategic plan: Smith-Root backpack electrofisher. Natural Resource Ecology and Management, Iowa State University (\$8,350).

**Stewart, T.W.** and Garcia, J.E. 2001. A demographic study of the snail, *Leptoxis carinata*, in the Appomattox River: site and microhabitat effects on densities, biomass, size structure, movement patterns, and growth rates. Summer Research Assignment, Longwood University (\$3,005).

**Stewart, T.W.** 2001. Movement patterns and substrate selection in a population of the freshwater snail, *Leptoxis carinata*. Fund for Student Research, Internships, and Public History, Longwood University (\$300).

**Stewart, T.W.** 2001. A demographic study of the snail, *Leptoxis carinata*, in a tributary of the Appomattox River: microhabitat effects on densities, biomass, and body size. Graduate Faculty Grant, Longwood University (\$611).

*Radzio, T.A.*, and **Stewart, T.W.** 2001. Diurnal feeding in juvenile striped bass (*Morone saxatilis*) and white perch (*Morone americanus*) in the James River. Fund for Student Research, Internships, and Public History, Longwood University (\$830).



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**Stewart, T.W.** 2001. A demographic study of the gastropod, *Leptoxis carinata*, in the Appomattox River: site and microhabitat effects on abundance, size structure, movement patterns, and growth rates. Fund for Student Research, Internships, and Public History, Longwood University (\$667).

*Radzio, T.A.*, and **Stewart, T.W.** 2000. Diurnal feeding in juvenile striped bass (*Morone saxatilis*) and white perch (*Morone americanus*) in the James River. Fund for Student Research, Internships, and Public History, Longwood University (\$730).

**Stewart, T.W.** 2000. Physically complex habitat and benthic invertebrate community parameters: mathematical relationships in the James River. Graduate Faculty Grant, Longwood University (\$1,950).

**Stewart, T.W.** 2000. Physically complex habitat and benthic macroinvertebrate community parameters: mathematical relationships in the James River. Summer Research Assignment, Longwood University (\$2,500).

**Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1995. Mechanisms for zebra mussel effects on co-occurring macroinvertebrates inhabiting hard substrates in western Lake Erie. Bowling Green State University Graduate Student/Faculty Grant (\$5,000).

### Unfunded Internal Research Grants (past 5 years)

Lee, S., **Stewart, T.W.**, Christoffel, R., Kling, C. 2014. The value of Iowa wetlands from an eco-tourism perspective: a choice-experiment approach. CHS Seed Grant for Intramural Collaborative Research. \$30,000.

Lee, S., **Stewart, T.W.**, Christoffel, R. 2013. The value of Iowa wetlands from an eco-tourism perspective: a choice-experiment approach. CHS Seed Grant for Intramural Collaborative Research. \$24,998.

**Stewart, T.W.**, Thompson, J.R., Schulte-Moore, L.A., Tyndall, J.C., Franz, K.J., Lorenz, F., Gasteyer, S.P., Marquart-Pyatt, S.T., Hayes, D., Cheruvilil, K., Kolka, R., and Sebestyen, S. 2012. Urban social-ecological relationships and feedbacks under climate change scenarios: Humans and stream condition. Presidential Initiative for Interdisciplinary Research (\$87,290).

### Invited Research Seminars

**Stewart, T.W.** 2015. Species invasions alter wetland community structure: Iowa prairie potholes as model systems. Department Seminar, Biological Sciences, Bowling Green State University.

**Stewart, T.W.** 2015. Invasive fish effects on biological communities of Iowa prairie pothole wetlands. Department Seminar, Entomology, Iowa State University.

**Stewart, T.W.** 2013. Indicators and causes of variation in prairie pothole wetland condition. Seminar presented to graduate students and faculty, *Environmental Science* 590 (Special Topics), Iowa State University.

**Stewart, T.W.** 2008. Using invertebrate communities to assess aquatic ecosystem condition in agricultural and urban landscapes of Iowa. Department Seminar, Biological Sciences, Bowling Green State University.

**Stewart, T.W.** 2008. Using macroinvertebrates to assess aquatic ecosystem health in Iowa. Department Seminar, Natural Resource Ecology and Management, Iowa State University.

**Stewart, T.W.** 2005. Aquatic invertebrates: critical tools for evaluating human land use impacts on ecosystem health. Natural Resource Ecology and Management, Iowa State University.

**Stewart, T.W.** 2003. Evidence and mechanisms for benthic macroinvertebrate community responses to habitat structure manipulations. Department Seminar, Natural Resource Ecology and Management, Iowa State University.

**Stewart, T.W.** 1999. Evidence and mechanisms for zebra mussel impacts on benthic community structure in the Great Lakes. Departmental Seminar, Biology, Virginia Commonwealth University.

**Stewart, T.W.** 1998. Invasive species in the Great Lakes: evidence and mechanisms for zebra mussel impacts on benthic community structure. Seminar, Institute of Ecosystem Studies, Cornell University.

**Stewart, T.W.** 1998. Mechanisms for zebra mussel impacts on benthic macroinvertebrate communities in Lake Erie. Biology Departmental Retreat, Bowling Green State University.

**Invited Conference Presentations (Research)** (graduate student co-author underlined)

**Stewart, T.W.** 2014. A wetland condition assessment protocol for Iowa's prairie pothole wetlands. USEPA Region 7 Wetland Conference. Lenexa, Kansas (paper).

**Stewart, T.W.**, Maurer, K.M., and Lorenz, F.O. 2014. Mechanisms for invasive fish effects on invertebrate assemblages and tiger salamanders in Iowa Prairie Pothole wetlands. Iowa Chapter of the Wildlife Society workshop. Milford, Iowa (paper).

**Stewart, T.W.**, and Maurer, K.M. 2011. Functional relationships and identification of ecological condition metrics in Iowa Prairie Pothole wetlands. Annual Meeting of the Wildlife Society, Iowa Department of Natural Resources, Moravia, Iowa (paper).

Pierce, C.L., Colvin, M.E., and **Stewart, T.W.** 2011. Clear Lake project. Annual Coordinating Committee Meeting of the Iowa Cooperative Fish and Wildlife Research Unit, Ames, Iowa (paper).

Pierce, C.L., Colvin, M.E., and **Stewart, T.W.** 2011. Modeling and monitoring the Clear Lake ecosystem: native and invasive species in the context of lake restoration. Iowa Water Conference, Ames, Iowa (paper).

**Stewart, T.W.**, and Maurer, K.M. 2010. Functional relationships and identification of ecological condition metrics in semipermanent wetlands of the Iowa Prairie Pothole region. Midwest Fish and Wildlife Conference, Minneapolis, Minnesota (paper).

Colvin, M.E., Grummer, S.E., Wahl, J., **Stewart, T.W.**, and Pierce, C. 2010. Real and potential common carp and zebra mussel impacts on water quality in the context of ongoing shallow lake restoration. Midwest Fish and Wildlife Conference, Minneapolis, Minnesota (paper).

Colvin, M.E., Grummer, S.E., Wahl, J., **Stewart, T.W.** and Pierce, C.L. 2010. Carp and water quality research, a midwest case study. Malheur National Wildlife Refuge Invasive Carp Control Workshop, Burns, Oregon (paper).

**Stewart, T.W.** 2007. Freshwater gastropods of the Midwest: ecological functions, taxonomy, and conservation concerns. Midwest Fish and Wildlife Conference, Madison, Wisconsin (paper).

**Stewart, T.W.**, and Dillon, R.T. 2002. Geographic distribution and conservation status of the freshwater gastropods of Virginia. American Malacological Society, College of Charleston, Charleston, South Carolina (paper).

Lowe, R.L., and **Stewart, T.W.** 1999. Lake Erie benthic algae: past, present, and future. Lake Erie at the Millenium - Changes, Trends, and Trajectories. University of Windsor, Ontario, Canada (paper).

**Contributed Conference Presentations (Research)** (graduate student co-author underlined, undergraduate student co-author italicized)

Sundberg, M., Baldwin, R., **Stewart, T.W.**, and Weber, M.W. 2015. Changes in wetland condition following drought-induced reductions in fish abundance. Midwest Fish and Wildlife Conference, Indianapolis, Indiana (paper).

Maurer, K.M., and **Stewart, T.W.** 2013. Biophysical interactions in prairie pothole wetlands of Iowa: consequences for macroinvertebrate assemblages and ecosystem condition. Society of Wetland Scientists Annual Meeting, Duluth Minnesota (paper).

Maurer, K.M., and **Stewart, T.W.** 2013. Biophysical interactions in prairie pothole wetlands of Iowa: consequences for macroinvertebrate assemblages and ecosystem condition. Iowa Wildlife Society Winter Conference, Ames, Iowa (paper).

- Maurer, K.M., and **Stewart, T.W.** 2013. Impacts of surrounding landscape characteristics on biophysical components of Iowa prairie pothole wetlands. Iowa Wildlife Society Winter Conference, Ames, Iowa (poster).
- Maurer, K.M., and **Stewart, T.W.** 2012. Biophysical interactions in prairie pothole wetlands of Iowa: consequences for macroinvertebrate assemblages and ecosystem condition. Environmental Science Graduate Research Symposium, Iowa State University (poster).
- Maurer, K.M., and **Stewart, T.W.** 2012. Biophysical relationships and ecosystem condition indicators in prairie pothole wetlands: descriptions and identification using a regression approach. Society for Freshwater Science, Louisville, Kentucky (paper).
- Maurer, K., and **Stewart, T.W.** 2012. Biophysical relationships and ecosystem condition metrics in prairie pothole wetlands. Iowa Water Conference, Ames, Iowa (poster).
- Bolton, J., Bice, P., Gerken, M., Olson, A., Thompson, J.R., Stewart, T.W., Keninger, Z., Mabry, C., and Kolka, R.* 2012. Land cover, plant communities, and condition of forested headwater streams. Iowa Water Conference, Ames, Iowa (poster).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2011. Setting harvest targets for a common carp stock undergoing pulsed harvest. Midwest Fish and Wildlife Conference, Des Moines, Iowa (poster).
- Maurer, K.M., and **Stewart, T.W.** 2011. Functional relationships among biophysical components of prairie pothole wetlands and identification of ecosystem condition metrics. Midwest Fish and Wildlife Conference, Des Moines, Iowa (paper).
- Olson, A., **Stewart, T.W.**, and Thompson, J.R. 2011. Benthic macroinvertebrate community diversity and abundance across a rural-urban gradient in central Iowa headwater streams. Midwest Fish and Wildlife Conference, Des Moines, Iowa (paper).
- Thompson, J.R., **Stewart, T.W.**, McMullen, C., Franz, K.J., Kolka, R.K., Gerken, M., Wu, J., Keninger, Z., and *Manatt, R.* 2011. Headwater streams in central Iowa: measuring hydrological and biological responses to intensified rural and urban land use and climate change. Iowa Water Conference, Ames, Iowa (poster).
- Colvin, M.E., Grummer, S., Wahl, J., **Stewart, T.W.**, and Pierce, C.L. 2010. Impacts of invasive species and restoration on recreational fisheries: zebra mussels and common carp in a shallow hypereutrophic lake. Annual Meeting of the North American Benthological Society, Santa Fe, New Mexico (poster).
- Thompson, J.R., Herringshaw, C.J., and **Stewart, T.W.** 2010. Forested riparian buffers for stormwater management: biophysical and social aspects. Society of American Foresters National Convention, Albuquerque, New Mexico (paper).

- Skiff, J.J., Colvin, M.E., Stewart, T.W., and Pierce, C.L. 2010. Analysis of sampling methods for *Dreissena polymorpha* veligers. Iowa Academy of Science, Des Moines, Iowa (poster).
- Skiff, J.J., Colvin, M.E., Stewart, T.W., and Pierce, C.L. 2010. Comparison of sampling methods for *Dreissena polymorpha* veligers. Iowa Chapter of the American Fisheries Society, Ames, Iowa (poster).
- Colvin, M.E., Stewart, T.W., and Pierce, C.L. 2009. Towards ecosystem management of an inland freshwater fishery in the context of invasive species. Iowa State University Subunit of the American Fisheries Society, Ames, Iowa (paper).
- Fischer, J.R., Quist, M.C., Wigen, S.L., Schaefer, A.J., Stewart, T.W., and Isenhardt, T.M. 2009. Effects of riparian buffers on instream habitat, fish assemblages, and growth rates of fishes in Iowa streams. Annual Meeting of the American Fisheries Society, Nashville, Tennessee (paper).
- Colvin, M.E., Katzenmayer, E.D., Pierce, C.L., and Stewart, T.W. 2009. Simulating food web interactions among nuisance common carp, invading zebra mussels, and the native biological community in a shallow eutrophic lake. American Fisheries Society, Nashville, Tennessee (paper).
- Katzenmeyer, E.D., Colvin, M.E., Pierce, C.L., and Stewart, T.W. 2009. Fish growth responses to changing conditions in Clear Lake: effects of common carp (*Cyprinus carpio*) and zebra mussels (*Dreissena polymorpha*). American Fisheries Society, Nashville, Tennessee (paper).
- Stewart, T.W., and Hentges, V.A.** 2009. Using macroinvertebrate assemblages and related environmental attributes to assess ecological condition of Iowa prairie pothole wetlands. North American Benthological Society, Grand Rapids, Michigan (paper).
- Herringshaw, C.J., Stewart, T.W., and Thompson, J.R. 2009. Linkages among land cover, in-stream physicochemical features, and macroinvertebrate community attributes in urban and agricultural landscapes of central Iowa. North American Benthological Society, Grand Rapids, Michigan (paper).
- Herringshaw, C.J., Stewart, T.W., and Thompson, J.R. 2009. Linkages among land cover, water and habitat quality, and invertebrates in local urban and agricultural streams. Iowa Water Center Conference, Ames, Iowa (poster).
- Katzenmayer, E.D., Colvin, M.E., Pierce, C.L., and Stewart, T.W. 2009. Fish growth responses to changing conditions in Clear Lake: effects of common carp (*Cyprinus carpio*) and zebra mussels (*Dreissena polymorpha*). Iowa Chapter of the American Fisheries Society and Wildlife Society, Ames, Iowa (paper).
- Quist, M.C., Fischer, J.R., Wigen, S.L., Schaefer, A.J., Stewart, T.W., and Isenhardt, T.M. 2009. Effects of riparian buffers on fish assemblages in central Iowa streams. Joint meeting of the Iowa Chapter of the American Fisheries Society and Wildlife Society, Ames, Iowa (paper).

- Katzenmayer, E.D., Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. Fish growth responses to changing conditions in Clear Lake: effects of common carp (*Cyprinus carpio*) and zebra mussels (*Dreissena polymorpha*). Midwest Student Colloquium, Ames, Iowa (paper).
- Fischer, J.R., Quist, M.C., **Stewart, T.W.**, and Isenhardt, T.M. 2008. Response of fish assemblage and instream habitat structure to riparian buffers in central Iowa. Midwest Fish and Wildlife Conference, Columbus, Ohio (poster).
- Fischer, J.R., Quist, M.C., **Stewart, T.W.**, and Isenhardt, T.M. 2008. Response of fish assemblage and instream habitat structure to riparian buffers in central Iowa. Iowa Water Center Conference, Cedar Falls, Iowa (poster).
- Colvin, M.E., Pierce, C.L., and Stewart, T.W. 2008. Carp removal strategies: a simulation model to identify effective carp removal strategies for Clear Lake, IA. American Fisheries Society, Ottawa, Ontario, Canada (paper).
- Hentges, V.A., and **Stewart, T.W.** 2008. Macroinvertebrate community attributes and related environmental features in permanent and semi-permanent prairie pothole wetlands in north-central Iowa. North American Benthological Society, Salt Lake City, Utah (paper).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A simulation model to evaluate common carp (*Cyprinus carpio*) removal as a tool to improve water quality. North American Benthological Society, Salt Lake City, Utah (paper).
- Stewart, T.W.**, Thompson, J.R., and Herringshaw, C.J. 2008. Effects of urban development on headwater stream condition: an assessment using relationships among land cover, in-stream physicochemical features, and benthic macroinvertebrate community attributes. Symposium on Urbanization and Stream Ecology, Salt Lake City, Utah (paper).
- Thompson, J.R., Herringshaw, C.J., and **Stewart, T.W.** 2008. Local participation in storm water management and urban stream restoration efforts in Iowa. Symposium on Urbanization and Stream Ecology, Salt Lake City, Utah (paper).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A proposed ecosystem simulation model to predict the effects of common carp and zebra mussels in shallow lake ecosystems. Iowa and Dakota Chapter of the American Fisheries Society Annual Meeting, Sioux City, Iowa (poster).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A simulation model to evaluate common carp (*Cyprinus carpio*) removal as a tool to improve water quality. Midwest Student Colloquium, Lincoln, Nebraska (paper).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A simulation model to evaluate common carp (*Cyprinus carpio*) removal as a tool to improve water quality. Iowa and Dakota Chapter American Fisheries Society Annual Meeting, Sioux City, Iowa (paper).



- Hentges, V.A., and **Stewart, T.W.** 2008. Macroinvertebrate community attributes and related environmental features in prairie pothole wetlands of north-central Iowa. EPA Regional Wetlands and Watershed Conference, Kansas City, Missouri (paper).
- Hentges, V.A., and **Stewart, T.W.** 2008. Macroinvertebrate community attributes and related environmental features in prairie pothole wetlands of north-central Iowa. EPA Regional Wetlands and Watershed Conference, Kansas City, Missouri (poster).
- Herringshaw, C.J., **Stewart, T.W.**, and Thompson, J.R. 2008. Impacts of land use and management practices on water quality, habitat conditions, and macroinvertebrate communities in urban streams. EPA Regional Wetlands and Watershed Conference, Kansas City, Missouri (paper).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A proposed simulation model to predict the effects of common carp and zebra mussels in shallow lake ecosystems. Iowa Water Conference, Ames, Iowa (poster).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A proposed simulation model to predict the effects of common carp and zebra mussels in shallow lake ecosystems. Iowa Water Monitoring Conference, Iowa Department of Natural Resources, Ames, Iowa (poster).
- Hentges, V.A., and **Stewart, T.W.** 2008. Macroinvertebrate community attributes and related environmental features in prairie pothole wetlands of north-central Iowa. Iowa Water Monitoring Conference, Iowa Department of Natural Resources, Ames, Iowa (poster).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. A proposed ecosystem simulation model to predict the effects of common carp and zebra mussels in shallow lake ecosystems. United States Geological Survey Modeling Conference, Orange Beach, Alabama (paper).
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2007. Carp removal strategies: a simulation model to identify effective carp removal strategies for Clear Lake, Iowa. Midwest Fish and Wildlife Conference, Madison, Wisconsin (paper).
- Stewart, T.W.** 2007. Relationships between macroinvertebrate abundance and environmental features in recently constructed wetlands. Annual Meeting of the North American Benthological Society, Columbia, South Carolina (paper).
- Stewart, T.W.** 2007. Macroinvertebrate communities, carp invasions, and constructed wetlands. Iowa/Nebraska/Kansas Meeting of the American Fisheries Society, Council Bluffs, Iowa (paper).
- Litvan, M.E., Pierce, C.L., **Stewart, T.W.** and Larson, C.J. 2006. Evaluation of fish passage and fish and macroinvertebrate communities in southwest Iowa streams modified by grade control structures. Iowa/Wisconsin Meeting of the American Fisheries Society, Dubuque, Iowa (poster).



- Litvan, M.E., Pierce, C.L., **Stewart, T.W.**, and Larson, C.J. 2005. Evaluation of fish passage and fish and macroinvertebrate communities in southwest Iowa streams modified by grade control structures. Annual Meeting of the American Fisheries Society, Anchorage, Alaska (poster).
- Stewart, T.W.** 2005. A historical review of Iowa's freshwater gastropod fauna: taxonomic composition, geographic distributions, and conservation status. Freshwater Mollusk Conservation Society, St. Paul, Minnesota (paper).
- Stewart, T.W.** 2005. The freshwater gastropods of Iowa (1821-1998): species composition, geographic distributions, and conservation concerns. Iowa Academy of Science, Cornell College, Mount Vernon, Iowa (paper).
- Litvan, M.E., **Stewart, T.W.**, and Pierce, C.L. 2005. Evaluation of macroinvertebrate assemblage structure in a southwest Iowa stream with grade control structures. Iowa Academy of Science, Cornell College, Mount Vernon, Iowa (paper).
- Rosauer, D.R.*, and **Stewart, T.W.** 2005. The macroinvertebrate community in a newly constructed wetland receiving urban runoff: an evaluation of factors causing spatial variation in biomass, densities, and diversity. Iowa Academy of Science, Cornell College, Mount Vernon, Iowa (poster).
- Stewart, T.W.** 2004. Species composition and geographic distribution of Iowa's freshwater gastropod fauna: a review using historical records. North American Benthological Society, University of British Columbia, Vancouver, British Columbia (paper).
- Cherko, E.C.*, **Stewart, T.W.**, Pierce, C.L., and Stokke, D.D. 2004. Potential of recycled fishing line as fish habitat: effectiveness of different formulations based on invertebrate colonization. Iowa Academy of Science, University of Northern Iowa, Cedar Falls, Iowa (poster).
- Stewart, T.W.**, and Dillon, R.T. 2003. Taxonomic composition and geographic distribution of Virginia's freshwater gastropod fauna: a review using historical records. Freshwater Mollusk Conservation Society, Durham, North Carolina (paper).
- Brantley, L.*, *Edwards, T.R.*, and **Stewart, T.W.** 2002. A demographic analysis of the snail *Leptoxis carinata* in an Appomattox River tributary: movement patterns vary as a function of habitat type. Virginia Academy of Science, Hampton University, Hampton, Virginia (paper).
- Northington, R.M.*, and **Stewart, T.W.** 2002. Using zebrafish embryo survivorship to monitor organic pollution in Virginia waters. Virginia Academy of Science. Hampton University, Hampton, Virginia (paper).
- Northington, R.M.*, and **Stewart, T.W.** 2001. Using zebrafish survivorship to monitor organic pollutants in sediments of Virginia waters: a research proposal. Virginia Academy of Science Undergraduate Research Conference, University of Richmond, Richmond, Virginia (poster).

- Stewart, T.W., Shumaker, T., and Radzio, T.A.** 2001. Benthic macroinvertebrate responses to physically-complex habitat manipulations in the James River, Virginia: linear or curvilinear relationships? Virginia Academy of Science, James Madison University, Harrisonburg, Virginia (paper).
- Northington, R.M., Stewart, T.W., and Garcia, J.E.** 2001. Relationships between substratum particle size and mollusk abundance in the Appomattox River, Virginia. Virginia Academy of Science, James Madison University, Harrisonburg, Virginia (paper).
- Radzio, T.A., Austin, H.M., Seaver, D.M., and Stewart, T.W.** 2001. Summer feeding habits of juvenile striped bass (*Morone saxatilis*) in the James River, Virginia. Association of Southeastern Biologists, New Orleans, Louisiana (paper).
- Radzio, T.A., Austin, H.M., Seaver, D.M., and Stewart, T.W.** 2001. Summer feeding habits of juvenile striped bass (*Morone saxatilis*) in the James River, Virginia. National Council on Undergraduate Research, Louisville, Kentucky (paper).
- Garcia, J.E., Stewart, T.W., and Northington, R.M.** 2001. Relationships between physical factors and benthic invertebrate community characteristics in the Appomattox River, Virginia. Association of American Geographers, New York, New York (poster).
- Stewart, T.W., Shumaker, T., and Radzio, T.A.** 2000. Physically complex habitat and benthic invertebrate community parameters: mathematical relationships in the James River. Virginia Academy of Science, Radford University, Radford, Virginia (paper).
- Stewart, T.W., Gafford, J.C., Miner, J.G., and Lowe, R.L.** 1999. *Dreissena*-shell habitat and antipredator behavior: combined effects on survival of snails in the presence of fish. International Association of Great Lakes Research, Cleveland, Ohio (paper).
- Stewart, T.W., Miner, J.G., and Lowe, R.L.** 1999. *Dreissena*-shell habitat and antipredator behavior: combined effects on snails co-occurring with molluscivorous fish. Symposium of the Freshwater Mollusk Conservation Society, Chattanooga, Tennessee (paper).
- Stewart, T.W., Miner, J.G., and Lowe, R.L.** 1998. Simultaneous effects of zebra mussels and predators on a benthic invertebrate community in western Lake Erie. North American Benthological Society, Charlottetown, Prince Edward Island, Canada (poster).
- Stewart, T.W., Miner, J.G., and Lowe, R.L.** 1997. Quantifying strengths of benthic interactions: mechanisms for zebra mussel effects on a benthic macroinvertebrate community. American Society of Limnology and Oceanography, Santa Fe, New Mexico (poster).
- Stewart, T.W., Miner, J.G., and Lowe, R.L.** 1997. Strengths of species interactions in western Lake Erie: mechanisms for *Dreissena* effects on a benthic macroinvertebrate community. Annual Sigma Xi meeting at Bowling Green State University, Bowling Green, Ohio (poster).

- Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1996. Habitat or nutrients? Mechanisms for zebra mussel effects on benthic macroinvertebrates of western Lake Erie. North American Benthological Society, Kalispell, Montana (paper).
- Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1996. Effects of the introduced crayfish *Orconectes rusticus* on a benthic macroinvertebrate community in western Lake Erie. Annual Sigma Xi meeting at Bowling Green State University, Bowling Green, Ohio (poster).
- Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1996. Mechanisms for zebra mussel effects on other benthic macroinvertebrates of western Lake Erie. International Zebra Mussel and Other Nuisance Organisms Conference, Dearborn, Michigan (paper).
- Stewart, T.W.**, Miner, J.G., and Lowe, R.L. 1996. Effects of crayfish on a benthic macroinvertebrate community in western Lake Erie. International Zebra Mussel and Other Nuisance Organisms Conference, Dearborn, Michigan (poster).
- Miner, J.G., Lowe, R.L., **Stewart, T.W.**, Snyder, F., and Kelch, D. 1995. Distribution, abundance, and growth of freshwater sponges (Spongillidae) in western Lake Erie: projecting impacts on zebra mussels. International Zebra Mussel and Other Nuisance Organisms Conference, Toronto, Ontario, Canada (paper).
- Stewart, T.W.**, and Haynes, J.M. 1993. Benthic macroinvertebrate community changes associated with zebra mussel colonization of southwestern Lake Ontario. New York State Chapter of the American Fisheries Society, Owego, New York (paper).
- Stewart, T.W.**, and Haynes, J.M. 1993. Benthic macroinvertebrate communities following the zebra mussel invasion of southwestern Lake Ontario. Great Lakes Research Consortium, SUNY Environmental Science and Forestry, Syracuse, New York (paper).
- Stewart, T.W.**, and Haynes, J.M. 1992. Zebra mussel effects on benthic macroinvertebrates of the Great Lakes. Scholar's Day, SUNY Brockport, Brockport, New York (paper).
- Stewart, T.W.**, and Haynes, J.M. 1992. Early benthic macroinvertebrate community changes associated with zebra mussel colonization of southwestern Lake Ontario. New York State Chapter of the American Fisheries Society, Owego, New York (paper).
- Stewart, T.W.**, and Haynes, J.M. 1992. Benthic macroinvertebrate community changes associated with zebra mussel invasion of southwestern Lake Ontario. Great Lakes Research Consortium, SUNY Environmental Science and Forestry, Syracuse, New York (paper).
- Stewart, T.W.**, and Buttner, J.K. 1991. Maintenance and propagation of endangered amphibians at the Buffalo Zoo. Scholar's Day, SUNY Brockport, Brockport, New York (paper).

### Reports Submitted to Research Funding Agencies

**Stewart, T.W.** A condition assessment protocol for Iowa's prairie pothole wetlands. Quarterly reports submitted to United States Environmental Protection Agency Region 7 on 6/6/14, 9/18/14, 12/12/14.

**Stewart, T.W.** and Carter, A. Navigating the waters: a wetland development guide for agencies and organizations working with women landowners. Quarterly reports submitted United States Environmental Protection Agency Region 7 on 7/31/14, 10/28/14, 1/26/15.

**Stewart, T.W.** 2012. Development of a condition assessment index for depressional wetlands in the Iowa prairie pothole region. Final report submitted to Iowa Department of Natural Resources.

**Stewart, T.W.** 2008. Prairie pothole wetlands in Iowa: physical, chemical, and biological attributes and assessment of ecological condition. Final Report submitted to Iowa Department of Natural Resources.

**Stewart, T.W.** 2005. Pollution-filtering capacity of Ada Hayden wetlands: an assessment focusing on biological components. Final Report submitted to City of Ames Departments of Parks and Recreation and Water and Pollution Control.

### Research and General Scholarship Awards (graduate student co-recipient underlined, undergraduate student co-recipient italicized)

Best Professional Presentation (co-author), 2009 Meeting of the Iowa Chapter of the American Fisheries Society and Wildlife Society, Ames, Iowa (M.C. Quist, J. Fischer, *S.L. Wigen*, *A.J. Schaefer*, **T.W. Stewart** and T.M. Isenhardt. Effects of riparian buffers on fish assemblages in central Iowa streams).

Student Paper Presentation Award (2<sup>nd</sup> place; co-author), Natural History Section, 2002 Virginia Academy of Science Meeting, Hampton University, Hampton, Virginia (*L. Brantley*, *T.R. Edwards*, and **T.W. Stewart**. A demographic analysis of the snail *Leptoxis carinata* in an Appomattox River tributary: movement patterns vary as a function of habitat type).

Outstanding Student Presentation Award (co-author), 2001 Virginia Academy of Science Undergraduate Research Conference, Richmond, Virginia. (*R.M. Northington* and **T.W. Stewart**. Using zebrafish survivorship to monitor organic pollutants in sediments of Virginia waters: a research proposal).

International Association of Great Lakes Ph.D. Research Scholarship (1998)

Sigma Xi Student Research Competition Award, Bowling Green State University (1996)

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Student Paper Presentation Award (2<sup>nd</sup> place), 1993 Annual Meeting of the New York State Chapter of the American Fisheries Society, Owego, New York (**T.W. Stewart**, and J.M. Haynes. Benthic macroinvertebrate community changes associated with zebra mussel colonization of southwestern Lake Ontario).

Best Student Paper Presentation Award, 1993 Annual Meeting of the Great Lakes Research Consortium, SUNY Environmental Science and Forestry, Syracuse, New York (**T.W. Stewart**, and J.M. Haynes. Benthic macroinvertebrate communities following the zebra mussel invasion of southwestern Lake Ontario).

Best Student Paper Presentation Award, 1992 Annual Meeting of the New York State Chapter of the American Fisheries Society, Owego, New York (**T.W. Stewart** and J.M. Haynes. 1992. Early benthic macroinvertebrate community changes associated with zebra mussel colonization of southwestern Lake Ontario).

Ithaca College Academic Scholarship (1986-1989)

Dean's List, Ithaca College (1985-1986)

Freshman Biology Student Award (co-recipient), Ithaca College (1986)

Oracle Society of Ithaca College (1986)

### TEACHING

#### **Teaching Assignments and Responsibilities, Iowa State University, Fall 2003-Spring 2015**

General Ecology (AECL 312) – 4 credits, fall semester; lecture co-instructor (responsible for 50% of lectures) in 2007, 2009, 2011, 2013 (240-286 students per year).

Natural History of Aquatic Organisms (AECL 360) – 1 credit; taught 1 section in Fall 2005 (10 students).

Natural History of Fishes (AECL 361) – 1 credit; taught 2 sections in Fall 2004 (15-16 students per section).

Natural History of Amphibians and Reptiles (AECL 362) – 1 credit; taught 4 sections in Spring 2005 and 2006 (8-15 students per section).

Natural History of Mammals (AECL 364) – 1 credit; taught 6 sections in Fall 2003, Spring 2004, Fall 2004 and 2005 (11-22 students per section).

Natural History of Iowa Vertebrates (AECL 366) – 3 credits, spring semester; course coordinator, instructor of record, and co-instructor for 8 sections in 2007, 2008, 2009, 2010, and sole instructor for 11 sections in 2011, 2012, 2013, 2014, 2015 (12-24 students per section).

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Ecology of Freshwater Invertebrates, Plants, and Algae (AECL 415/515) – 3 credits, fall semester; taught 2 sections in Spring 2005, Fall 2008\*, 2010, 2012, 2014 (3-21 students per section).

\*Course title in 2005 and 2008 was Ecology of Freshwater Invertebrates.

### **Teaching Assignments and Responsibilities, Longwood University, Fall 1999-Spring 2003**

Biological Concepts and Applications (BIOL 101) – 4 credits; taught 18 sections between 1999 and 2003 (23-26 students per section).

Biostatistics and Experimental Design (BIOL 300/ENST 550) – 3 credits; taught 4 sections between 2000 and 2003 (8-21 students per section).

General Ecology (BIOL 341) – 4 credits; taught 2 sections between 2000 and 2002 (24 students per section).

Aquatic Ecology (BIOL 361) – 4 credits; taught 1 section in 1999 (21 students).

Biological Seminar (BIOL 461) – 1 credit; taught 1 section in 2000 (13 students).

### **Undergraduate Advising**

Iowa State University (2005-2015) – advising provided to Animal Ecology majors enrolled in Aquatic Sciences, Fisheries, Fisheries and Aquatic Sciences, and Wildlife options (1-20 students annually).

Longwood University (2000-2003) – advising provided to students enrolled in Biology program (8-15 students annually).

### **Direction of M.S. and Ph.D. Students, Iowa State University**

Michael Sundberg (M.S., Fisheries Ecology, 2014-2015). Thesis: A condition assessment protocol for Iowa prairie pothole wetlands (co-advised with M. Weber).

Ryan Baldwin (M.S., Environmental Science, 2014-2015). Thesis: A comparative analysis of community sampling methods in Iowa prairie pothole wetlands: influence of sieve-mesh size on macroinvertebrate community variables (co-advised with M. Weber).

Alister Olson (M.S., Environmental Science, awarded 2014). Thesis: Forest understory impacts on aquatic ecosystem integrity in urban landscapes (co-advised with J.R. Thompson). Current employment – Science teacher, Chisago Lakes High School, Minnesota.



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Kristine Maurer\* (M.S., Wildlife Ecology and Environmental Science, awarded 2013). Thesis: Development of an ecological condition index for Iowa prairie pothole wetlands.  
*Current employment* – Westwood Consulting Services, Minnesota.

Michael Colvin\*\* (Ph.D., Fisheries Ecology, awarded 2012). Dissertation: Modeling water quality responses to carp management and the zebra mussel invasion of Clear Lake, Iowa (co-advised with C.L. Pierce).  
*Current employment* – Assistant Professor, Fisheries, Mississippi State University.

Cassie Herringshaw\*\*\* (M.S., Environmental Science, awarded 2009). Thesis: Relationships among land cover, in-stream physicochemical features, and aquatic invertebrate community attributes in urban and agroecosystems (co-advised with J.R. Thompson).  
*Current employment* – Owner, Peace of Prairie Organic Farm, Muskogee, Oklahoma.

Valerie Hentges\*\*\*\* (M.S., Wildlife Ecology, awarded 2008). Thesis: Macroinvertebrate community characteristics and related environmental features in Iowa prairie pothole wetlands.  
*Current employment* – Environmental Specialist III, Division of Water Quality, Water Protection Program, Missouri Department of Natural Resources.

Mary (Litvan) Culler (M.S., Environmental Science, Iowa State University, awarded 2006). Thesis: Fish movement, condition, community structure and invertebrate communities following modification of streambed grade control structures in Turkey Creek, Cass County, Iowa (co-advised with C.L. Pierce).  
*Current employment*: Fisheries Management Biologist, Fisheries Division, Missouri Department of Conservation.

\*Awards received while at ISU: Dr. Keith McNurlen Award, Izaak Walton League; ISU Graduate Student Teaching Excellence Award; NREM Graduate Student Teaching Award (all received in 2013)

\*\* Awards received while at ISU: Certificate of appreciation, Education Section of the American Fisheries Society (2011); Kenneth Carlander Award, NREM (2011); USEPA Scientific and Technological Achievement Award (Honorable Mention; 2011); American Fisheries Society Skinner Award (2010); Iowa Natural Heritage Foundation J.N. “Ding” Darling Scholarship (2010); Sherry Fisher Award (2010); ISU Preparing Future Faculty program (selected participant in 2010); Fenske Award Finalist, American Fisheries Society (2009); Kenneth Carlander Award (2009)

\*\*\* Award received while at ISU: ISU Graduate Student Research Excellence Award (2009)

\*\*\*\* Award received while at ISU: Natural Resource Ecology and Management Graduate Student Teaching Excellence Award (2008)

### **Direction of M.S. Students, Longwood University**

Tammy Shumaker (M.S., Environmental Studies, Longwood University, awarded Spring 2000)  
Thesis: Benthic macroinvertebrate abundance and diversity in the James River, Virginia: regulatory effects of habitat complexity.



**Service on M.S. and Ph.D. Committees\***

Jennifer Swanson, M.S. Wildlife Biology, 2015-  
Steve Konrady, M.S. Fisheries Biology, 2014-  
Ruben (Isai) Madriz, Entomology, 2014-  
Shannon Osterholm, M.S., Wildlife Ecology, 2012-2014  
Jiayu Wu, Ph.D., Environmental Sciences, 2010-2013  
Rebecca Sam, Ph.D., Entomology, 2010-2011  
Rich Clayton, Ph.D., Fisheries, 2008-2010  
Eric Katzenmayer, M.S., Animal Ecology, 2007-2009  
Jennifer Loda, M.S., Animal Ecology, 2006-2007  
Rich Clayton, M.S., Animal Ecology, 2006-2007  
Len Kring, M.S., Animal Ecology, Iowa State University, 2004-2005

\*I also served on M.S. Committees for 8 Environmental Studies students at Longwood University (1999-2003)

**Supervised Undergraduate Student Research, Independent Studies, and Internships** (Students co-authoring a professional conference presentation and/or refereed publication based on their project are underlined, and students delivering a presentation at a university symposium are italicized; ISU = Iowa State University, LU = Longwood University, BGSU = Bowling Green State University.)

*Michael Collazo*. Linkages among urban landscape features, and stream water quality and biological assemblages. Biogeosciences REU program (ISU, Summer 2011).

*K.J. Rebarcak*. Benthic invertebrate assemblages in Clear Lake, Iowa: spatiotemporal variation due to habitat and the zebra mussel invasion. Science with Practice (AGEDS 312) (ISU, Spring 2010).

Laura Kohn. Mammal museum specimen preparation (ISU, Spring 2006).

Courtney Beals. Alligator reproductive behavior at the Henry Doorly Zoo (ISU, Summer and Fall 2005).

Dan Rosauer. Relationships between invertebrate community attributes, fish abundance, and organic matter in a newly constructed wetland of Ada Hayden Heritage Park (ISU, Spring 2005).

Eric Cherko. Potential artificial reef materials: a comparison of effectiveness based on benthic invertebrate colonization (ISU, Fall 2003 and Spring 2004).

Sarah Franklin. Development and application of techniques for preparing study skins from frozen small mammals (ISU, Spring 2004).

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Robert Northington. Using zebrafish embryo survivorship to monitor organic pollution in Virginia waters (LU, Spring 2002).

Tracey Embrey. Demonstrating that habitat structure facilitates coexistence of predator and prey: a revised laboratory experiment (LU, Fall 2001 and Spring 2002).

Lori Brantley. Demographics of the freshwater snail, *Leptoxis carinata*, in the Appomattox River (LU, Spring and Fall 2001).

Tiffany Edwards. Substratum selection in a population of the freshwater snail, *Leptoxis carinata* (LU, Fall 2001).

Elizabeth Edwards. A demographic study of the snail, *Leptoxis carinata*, in the Appomattox River: site and microhabitat effects on size structure (LU, Spring 2001).

Tracey Embrey. A demographic study of the snail, *Leptoxis carinata*, in the Appomattox River: site and microhabitat analysis (LU, Spring 2001).

Robert Northington. Relationships between substratum particle size and mollusk abundance in the Appomattox River (LU, Summer and Fall 2000 and Spring 2001).

Thomas Radzio. Diel feeding periodicity in young-of-year striped bass (*Morone saxatilis*) and white perch (*Morone americana*) (LU, Fall 2000 and Spring 2001).

Sara Shaw. A demographic study of the snail, *Leptoxis carinata*, in the Appomattox River: site and microhabitat effects on densities (LU, Spring 2001).

Jenifer Gafford. *Dreissena*-shell habitat and antipredator behavior: combined effects on survivorship of snails co-occurring with molluscivorous fish (BGSU, Spring 1998).

### Teaching Leadership Positions

NREM Fisheries and Wildlife Biology Club faculty co-advisor (Fall 2004-Spring 2007).

### Selected Teaching Service Activities

Coordinator, NREM New Student Orientation Camp (August 2013, August 2014).

Instructor (stream ecology, avian ecology), NREM New Student Orientation Camp (2 sessions in August 2013, 3 sessions in August 2014).

NREM New Student Orientation Picnic Activity Leader – Aquatic Ecology (August 2006, 2007, 2008, 2009, 2010, 2012).

## Timothy W. Stewart

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Ag Discovery Program (USDA and ISU) workshop – Wetland and stream ecology (July 13, 2010; July 19, 2011; July 17, 2012).

Summer Biogeosciences REU program orientation, Iowa State University, guest presentation – Students and research in my laboratory, and a project example: Ada Hayden wetlands (June 6, 2011).

Landscape Architecture Studio (LA 302, instructor Paul Anderson) – reviewed student project presentations (Spring 2009, 2010, 2011).

Iowa 4-H Youth Conference workshop – Life of Ada Hayden Wetlands (June 30, 2010).

NREM Learning Community (NREM 110, 111) – discussed coursework and career options with undergraduate students (Fall 2007, Spring 2009, Fall 2009, Fall 2011, Fall 2012, Fall 2013).

Biology Club, guest presentation – Aquatic invertebrates in Iowa, and their use in assessing aquatic ecosystem health (Spring 2009).

Research Orientation (NREM 580), guest presentation – Using macroinvertebrates to assess aquatic ecosystem condition in Iowa (Fall 2008).

Fisheries and Wildlife Biology Club, guest presentation – Aquatic invertebrates as indicators of Iowa's water and wildlife habitat quality (Spring 2006).

Natural History of Mammals (AECL 364), guest lecture – Analysis of community data (2 lectures, Spring 2006).

### Refereed Teaching Publications (3)

**Stewart, T.W.** 2007. Measuring animal movements in a natural ecosystem: a mark-recapture investigation using stream-dwelling snails. *American Biology Teacher* 69(1).  
<http://www.nabt.org/websites/institution/File/pdfs/publications/abt/archived-table/2007/069-01-0028.pdf>

**Stewart, T.W.** 2006. Observing and quantifying predator-avoidance behavior: habitat shifts in snails threatened by shell-crushing predators. *Teaching Issues and Experiments in Ecology*, Volume 4. Ecological Society of America.  
[http://tiee.ecoed.net/vol/v4/experiments/habitat\\_shifts/abstract.html](http://tiee.ecoed.net/vol/v4/experiments/habitat_shifts/abstract.html)

**Stewart, T.W.**, and *Embrey, T.R.* 2003. Demonstrating that habitat structure facilitates coexistence of predator and prey: a laboratory experiment using goldfish and invertebrates. *American Biology Teacher* 65:292-297.

### **Non-refereed Teaching Publications**

**Stewart, T.W.**, and Waggoner, C. 2000. Microhabitat shifts by snails in response to fish predators. *Tested Studies of Laboratory Education*, Association for Biology Laboratory Education 21:271-292.

### **Conference Paper Presentations (Teaching)** (undergraduate student co-author italicized)

*Embrey, T.R.*, and **Stewart, T.W.** 2002. Demonstrating that habitat structure facilitates coexistence of predator and prey: a revised laboratory experiment. Virginia Academy of Science, Hampton University, Hampton, Virginia.

*Schilling, J.S.*, Ploch, D., and **Stewart, T.W.** 2002. Habitat structure effects on benthic macroinvertebrates: an example for adapting experiments to grades K-12. Society for Conservation Biology, University of Kent at Canterbury, United Kingdom.

### **Teaching Workshop Presentations**

**Stewart, T.W.**, and Waggoner, C.M. 1999. Shifts in microhabitat use by snails in response to fish predators. Association of Biology Laboratory Education, University of Nebraska, Lincoln, Nebraska.

### **Teaching/Teaching Scholarship Awards** (undergraduate student co-recipient italicized)

Most Beloved Professor Award, Animal Ecology – awarded by NREM students (2010).

Best Student Paper Presentation (co-author), Education Section, 2002 Virginia Academy of Science Meeting, Hampton University, Hampton, Virginia (*T.R. Embrey* and **T.W. Stewart**. Demonstrating that habitat structure facilitates coexistence of predator and prey: a revised laboratory experiment).

## **SERVICE AND OUTREACH**

### **Selected Outreach Workshops and Seminars** (graduate student co-author underlined, undergraduate student italicized)

**Stewart, T.W.**, and Sundberg, M.D. 2014. Wetland ecology. Friends of Ada Hayden Park, August 21, Ames, Iowa.

**Stewart, T.W.**, and Sundberg, M. 2014. Pond animals. Iowa Department of Natural Resources Children's Water Festival, May 15, Des Moines, Iowa.

**Stewart, T.W.**, and Christoffel, R. 2014. Wildlife of Iowa. Workshop presentation at Fellows Elementary School Science and Technology Night, March 6, Ames, Iowa.

**Stewart, T.W.** 2013. Aquatic organism identification and ecology. Women Caring for the Land Conservation Meetings, Navigating the Waters Field Days (5 workshops held in Iowa between June 10 and June 27; Okoboji, Waterloo, Centerville, Onawa, Decorah)

**Stewart, T.W.** 2013. Stream invertebrate identification and ecology. Master River Stewards Program, Iowa Rivers Revival, June 1, Saylorsville, Iowa.

**Stewart, T.W.**, *Locker, E.*, and Maurer, K.M. 2013. Pond life. Iowa Department of Natural Resources Children's Water Festival, May 9, Des Moines, Iowa.

**Stewart, T.W.** 2012. Causes and consequences of variation in wetland condition. ISU Faculty Women's Nature Study Group, April 25, Ames, Iowa.

Thompson, J.T., **Stewart, T.W.**, Patillo, A., and Christoffel, R. 2012. SOS: Sustaining our streams. Café Scientifique program, Science Center of Iowa, April 3, Des Moines, Iowa.

Christoffel, R. and **Stewart, T.W.** 2012. Wild creatures of Iowa. Workshop presentation at Fellows Elementary School Science and Technology Night, February 16, Ames, Iowa.

**Stewart, T.W.** 2011. Wildlife of Iowa. Workshop presentation at Fellows Elementary School Science and Technology Night, February 24, Ames, Iowa.

**Stewart, T.W.** 2010. Biology of Ada Hayden wetlands. Workshop presentation for Friends of Ada Hayden Park, October 7, Ames, Iowa.

**Stewart, T.W.** 2010. Aquatic invertebrates of central Iowa and use in water quality assessment. Workshop presentation at City of Ames Clean Water Festival, April 24, Ames, Iowa.

**Stewart, T.W.**, and Christoffel, R. 2010. Mammals of Iowa. Workshop presented at Fellows Elementary School Science and Technology Night, April 22, Ames, Iowa.

Colvin, M.E., Katzenmayer, E.D., Pierce, C.L., and **Stewart, T.W.** 2009. Zebra mussel biology and potential impacts in Clear Lake. Seminar presented at Clear Lake Association Annual Picnic, April, Clear Lake, Iowa.

Herringshaw, C.J., **Stewart, T.W.**, and Thompson, J.R. 2009. Linkages among land cover, water and habitat quality, and invertebrates in local urban and agricultural streams. Seminar presented to Squaw Creek Coalition, March, Ames, Iowa.

Thompson, J.R., Herringshaw, C.J., and **Stewart, T.W.** 2009. Local participation in stormwater management: the Daley Park riparian buffer. Seminar presented to Squaw Creek Coalition, March, Ames, Iowa.

- Stewart, T.W.** 2009. Bats of Iowa. Workshop presented to 1<sup>st</sup> grade class at Fellows Elementary School, March, Ames, Iowa.
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2008. Impacts of nuisance species in a shallow lake: a simulation modeling approach for ecosystem restoration and management. Seminar presented to Ames Anglers Group, October 10, Ames, Iowa.
- Stewart, T.W.** 2008. Assessment of pollution-filtering effectiveness of constructed wetlands in Ada Hayden Park. Seminar presented at Ames, Iowa, City Council meeting, September 16, Ames, Iowa.
- Stewart, T.W.**, Thompson, J.R., and Herringshaw, C.J. 2008. Fish, bugs, and slugs. Workshop presented at Daley Park and Greenbelt Community meeting, July 29, Ames, Iowa.
- Colvin, M.E., Pierce, C.L., and **Stewart, T.W.** 2007. Clear Lake project update. Seminar presented at the Iowa Department of Natural Resources biologist meeting, July 17, Des Moines, Iowa.
- Stewart, T.W.** 2007. Using macroinvertebrates and fishes to evaluate pollution-filtering effectiveness of the Ada Hayden wetlands. Seminar presented to Ames Anglers Group, December 7, Ames, Iowa.
- Stewart, T.W.** 2006. Amphibians and reptiles of the Ada Hayden wetlands: early colonists and threats to survival. Seminar presented to Big Bluestem Audubon Society, April 20, Ames, Iowa.
- Stewart, T.W.** 2006. Mammals of Elwood Prairie and Squaw Creek. Workshop presented to Squaw Creek Stream Health Community Group, May 18, Ames, Iowa.
- Litvan, M.E., Pierce, C.L., and **Stewart, T.W.** 2006. Evaluation of fish passage and fish and macroinvertebrate communities in southwest Iowa streams modified by grade control structures. Seminar presented to the North Central Division Rivers and Streams Technical Committee of the American Fisheries Society, March 30, Rock Island, Illinois.
- Litvan, M.E., Pierce, C.L., and **Stewart, T.W.** 2006. Evaluation of fish passage and fish and macroinvertebrate communities in southwest Iowa streams modified by grade control structures. Seminar presented to the Hungry Canyons Alliance and United States Fish and Wildlife Service, March 3, Oakland, Iowa.
- Stewart, T.W.** 2005. Freshwater invertebrates: critical tools for assessing aquatic ecosystem health in agricultural and urbanized landscapes. Seminar presented to the Natural Resource Conservation Service Outreach/Coordination Meeting, October 4, Ames, Iowa.
- Stewart, T.W.**, and Haynes, J.M. 1993. Aquatic invertebrate community changes following the zebra mussel invasion of Lake Ontario. Seminar presented to the Niagara County Fishery Advisory Board, May 6, Lockport, New York.

**Stewart, T.W.**, and Buttner, J.K. 1991 and 1992. Aquatic life. Science Fun Day workshop presented to Elementary students, Brockport (NY) Central School District, May, Brockport, New York.

### Co-authored Outreach Websites

Dillon, R.T., Watson, B.T., and **Stewart, T.W.** 2008. The Freshwater Gastropods of Virginia. Accessible at <http://spinner.cofc.edu/~fwgna/FWGVA/>

Dillon, R.T., Reeves, W.K., and **Stewart, T.W.** 2007. The Freshwater Gastropods of Georgia. Accessible at <http://www.cofc.edu/~fwgna/FWGGA/index.html>

Dillon, R.T., Jr., Watson, B.T., and **Stewart, T.W.** 2006. The Freshwater Gastropods of North Carolina. Accessible at <http://www.cofc.edu/~fwgna/FWGNC/>

Dillon, R.T., Jr., and **Stewart, T.W.** 2006. The Freshwater Gastropods of South Carolina. Accessible at <http://www.cofc.edu/%7Efwgna/FWGSC/>

### Media Interviews and Recognition

Inside Iowa State. Quoted from interview in article “A striking fox squirrel near Lake LaVerne has been drawing second looks and camera clicks”.  
<http://www.inside.iastate.edu/article/2013/03/28/squirrel>. March 28, 2012.

Des Moines News Channel 8 (KCCI). On-camera interview: drought effects on stream life and health: <http://www.kcci.com/news/central-iowa/Rivers-that-flooded-in-2010-now-run-dry/-/9357080/15651828/-/140uc37z/-/index.html>. June 2012.

Iowa Public Television. SOS: Sustaining our streams.  
[http://www.iptv.org/video/detail.cfm/27391/cs\\_20120403\\_103](http://www.iptv.org/video/detail.cfm/27391/cs_20120403_103). April 2012.

Iowa Public Radio. Featured guest on “Talk of Iowa” for program entitled “Saving Iowa’s Wetlands”. May 5, 2011.

Interview, WHO 1040 Radio. Topic: “Wetlands and their value to Iowans”. November 10, 2010.

Iowa State Daily. Quoted from interview in the article “Research aids in wetlands survival”. November 5, 2010.

Summary of stream restoration and learning community work by C.J. Herringshaw, J.R. Thompson, and T.W. Stewart appeared in Conservation Magazine. “It Takes A Village”, by David Malakoff (<http://www.conservationmagazine.org/2010/10/it-takes-a-village/print/>). October 19, 2010.



The article, “ISU researchers get drenched to study wetland health in the upper midwest” profiled my research on prairie pothole wetland ecosystems, and appeared in the following publications:

Iowa State University News Service (<http://www.news.iastate.edu/news/2010/oct/stewart>).

October 19, 2010.

Sourcews (<http://www.sourcews.com/isu-researchers-get-drenched-study>). October 19, 2010.

Ames Tribune. October 24, 2010.

Newdesignworld (<http://www.newdesignworld.com/press/story/206871>). October 28, 2010.

Association of State Wetland Managers (<http://www.aswm.org/swp/index.htm>). October 28, 2010.

Farmnews (<http://www.farm-news.com/page/content.detail/id/501652/ISU-researchers-get-drenched>). November 5, 2010.

Iowa State Daily. Quoted from interview in the article “Ada Hayden Water Quality Threatened”. September 24, 2008.

Ames Tribune. Quoted from presentation to Ames City Council in the article “Ada Hayden Lake Focus of Panel Presentation”. September 16, 2008.

Ames Tribune. My expertise was briefly summarized in the article entitled “Experts: Ada Hayden Park Lake Could Be Healthier”. September 17, 2008.

Virginia Public Radio. Featured guest on weekly program “With Good Reason” for program entitled “A Shellfish Smorgasbord”. December 2000.

### **Service to the State of Iowa**

2009, 2015	Wetland Action Plan Committee member, Iowa Department of Natural Resources
2002-2015	Identified aquatic snails for State Hygienic Laboratory and Iowa Department of Natural Resources
2012	Wildlife Action Plan Committee, Iowa Department of Natural Resources
2008-2009	Aquatic Mollusk Working Group member, Wildlife Action Plan Committee, Iowa Department of Natural Resources
2007-2008	Wetland Subcommittee member, Water Quality Steering Committee, Iowa Department of Natural Resources
2005-2008	Wetland Monitoring Technical Advisory Committee member, Iowa Department of Natural Resources

### **Journal Editorships**

Journal of Insect Science (3 manuscripts; 2012-2013)

Northeastern Naturalist (1 manuscript; 2010-2012)

### **Referee for Journals**

American Malacological Bulletin (2003, 2007, 2008)  
American Society of Agriculture and Biological Engineering (2014, 2015)  
Aquatic Ecology (2006)  
Aquatic Insects (2006)  
Canadian Journal of Fisheries and Aquatic Sciences (1998, 1999, 2000, 2001, 2007)  
Canadian Journal of Zoology (2000, 2001, 2002, 2006)  
Ecology (2000)  
Freshwater Biology (2010, two in 2011, 2012, 2014)  
Freshwater Science (2013)  
Fundamental and Applied Limnology (2007)  
Hydrobiologia (2000, 2008, 2009, 2010)  
Journal of Great Lakes Research (1999, 2000, 2001, 2002)  
Journal of Insect Science (two in 2012)  
Journal of the North American Benthological Society (1998, 1999, 2001, 2006, 2007, 2009, 2010)  
Journal of the Royal Society of New Zealand (2002)  
Limnology and Oceanography (2010)  
Malacologia (2011)  
Marina Mesopotamica (2005)  
Marine and Freshwater Research (2005)  
North American Journal of Fisheries Management (2006)  
Ohio Journal of Science (1995)  
Oikos (2006)  
Science of the Total Environment (two in 2013)  
Southeastern Naturalist (2010)  
Texas Journal of Science (2009, 2010)  
Transactions of the American Fisheries Society (1997)  
Turkish Journal of Zoology (2003)  
Urban Habitats (2008)  
Walkerana (2006)  
Wetlands (2008, 2009, 2014)  
Wetlands Ecology and Management (2011, 2012)

### **Grant Proposal Reviews**

Hudson River Foundation (2010, 2011)  
National Science Foundation, Ecosystem Science Program (2008)  
New York State Sea Grant (2005)  
New York State Great Lakes Research Consortium Small Grant's Program (1999, 2001)  
Ohio Sea Grant (2007)

### Textbook Reviews

Borden, V. and Belk, C. Biology and Society: An Issues Approach. Prentice Hall, Chapters 2, 7, 8, 14, 15 (2002-2003).  
Anonymous. Untitled non-science majors biology textbook. Brooks/Cole, Chapter 7 (2003).  
Cain, M., L., Damman, H., Lue, R.A., and Yoon, C.K. Discover Biology, 2<sup>nd</sup> Edition. Sinauer Associates, Chapters 21 to 23 (2002).

### Federal Report Reviews

United States Fish and Wildlife Service: Status Review of the Bliss Rapid's Snail, *Taylorconcha serpenticola* (2004).

### Current Professional Society Memberships

Society for Freshwater Science  
Society of Wetlands Scientists

### Service to Profession

#### Professional Societies

2004, 2007, 2010, 2012 Judge, student presentations, Society for Freshwater Science annual meetings  
2011 Symposium co-chair, "Linkages Between Human Activity and Well-being and Aquatic Resource Quality", Midwest Fish and Wildlife Conference  
2010 Judge, student presentations, Midwest Fish and Wildlife Conference  
2004, 2007, 2009 Paper Presentation Session Moderator (Wetlands, Systematics), meetings of the North American Benthological Society

#### Academic Institutions

2013 External Evaluation (tenure), Jason Stockwell, University of Vermont

### Service to University and College

2013-2015 Environmental Sciences Graduate Admission Committee  
2011-2015 College of Agriculture and Life Sciences Curriculum Committee  
2014-2015 Course Proposal Review Subcommittee, College of Agriculture and Life Sciences Curriculum Committee  
2013-2015 College of Agriculture and Life Sciences General Education Subcommittee (U.S. Diversity/International Perspectives)  
2014 Reviewer, Agriculture Experiment and Home Economics Experiment Station Project  
2005 Reviewer, University Research Grant proposal

## Timothy W. Stewart

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### Service to Department, NREM, Iowa State University

2011-2015	Chair, NREM Curriculum and Catalog Committee
2014-2015	Search Committee (Co-chair), Student Services Specialist (Amanda Chung)
2013-2014	Coordinator and instructor (stream ecology, bird identification), NREM new-student orientation mini-camp (2 two-hour activities in 2013, 3 two-hour activities in 2014).
2014	Search committee, Animal Ecology Lecturer (Michael Rentz)
2014	Presentation of awards, NREM Awards Banquet
2012-2014	“New Student Orientation Camp” Committee
2013	Ad Hoc Curriculum Review Committee
2011-2012	Search Committee, Assistant Professor, Fish Biologist
2008-2012	Member, Graduate Student Life/Orientation Committee
2008-2012	Member, Recruiting and Retention Committee
2004-2014	Maintain Animal Ecology microscope collection
2003-2007, 2009-2011	Member, Curriculum and Catalog Committee
2010-2011	Member, Fisheries Extension Search Committee (David Allen Patillo)
2007-2011	Member, Scholarship Committee
2011	NREM Faculty Representative, Undergraduate Commencement
2010, 2012	NREM Faculty Representative, Parents Weekend
2004-2008	Member, Awards Committee (prepared and submitted dossier for J.R. Thompson, College of Agriculture and Life Sciences Outstanding Achievement in Teaching - award received; prepared and submitted dossier for R. Summerfelt, University Professor - award not received)
2006	Department Seminar Host (Rex Lowe, Bowling Green State University)
2005	NREM Faculty Representative, Parents Weekend
2004	NREM Faculty Representative, College of Agriculture Undergraduate Commencement
2003-2004	Member, Faculty Search Committee, Fish Environmental Physiologist

### Selected Institutional Service, Longwood University (August 1999-May 2003)

2000-2003	Member, Intercollegiate Athletic Council Committee
2000-2003	Member, Fund for Student Research, Internships, and Public History Committee
2000-2003	Chair, Institutional Effectiveness Subcommittee, SACS Reaccreditation Committee
2002	Member, Faculty Search Committee, Geographer (Edward Kinman)
2000-2001	Member, Faculty Awards Subcommittee, Faculty Development and Research Committee
2000-2001	Chair, Faculty Search Committee, Vertebrate Ecologist (Alix Fink)