

## James S. Adelman, Assistant Professor

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### Education

PhD, Ecology and Evolutionary Biology, Princeton University, 2010  
BS, Biology, Duke University, 1999

### Areas of Expertise

Revealing how host physiology and behavior influence the spread and evolution of infectious diseases in wildlife

### Professional Service

Society for Integrative and Comparative Biol., Symposium *Co-Chair*, "Methods and Mechanisms in Ecoimmunology", 2014

### Awards and Recognition

Organismal Biology and Ecology Grants, Virginia Tech, 2012  
EBIRD USA Exchange Visit Award, NSF, 2007  
Graduate Research Fellowship, NSF, 2006  
Francis Boyer Fellowship in the Life Sciences, Princeton University, 2004

### Recent Presentations

**Adelman, J.S.**, S.C. Moyers, and D.M. Hawley. 2014. "Behavioral risk factors of Mycoplasmal conjunctivitis in house finches: are super-receivers also super-spreaders?" Invited symposium speaker, Annual Meeting of the American Ornithologists' Union, Estes Park, CO.

**Adelman, J.S.** 2014. "How radio telemetry and radio frequency identification can help link individual immune responses and disease dynamics in wild animals." Invited Symposium speaker, Annual Meeting of the Society for Integrative and Comparative Biology, Austin, TX.

### Books/Book Chapters

**Adelman, J.S.** 2015. Immune systems: linking organisms, populations, and evolution through disease. *In* Integrative Organismal Biology. L.B. Martin, C.K. Ghalambor and H.A. Woods. [eds]. Wiley, Hoboken, NJ. Pg. 169-185.

**Adelman, J.S.**, D.R. Ardia, and K.A. Schat. 2013. Ecoimmunology *In* Avian Immunology, 2nd edition. K.A. Schat, B. Kaspers, and P. Kaiser. [eds]. Elsevier, Amsterdam. Pg. 391-411.

### Recent Refereed Journal Articles

**Adelman, J.S.**, I.T. Moore, and D.M. Hawley. 2015. House finch responses to *Mycoplasma gallisepticum* do not vary with experimentally increased aggression. *J. Exp. Zool., A* 323: 39-51.

Núñez, C.M.V., **J.S. Adelman**, and D.I. Rubenstein. 2015. Sociality increases juvenile survival after a catastrophic event in the feral horse (*Equus caballus*). *Behav. Ecol.* 26: 138-147.

Hau, M., M.F. Haussmann, T.J. Greives, C. Matlack, D. Costantini, M. Quetting, **J.S. Adelman**, A.C. Miranda, and J. Partecke. 2015. Repeated stressors in adulthood increase the rate of biological ageing. *Frontiers Zool.* 12:4.

**Adelman, J.S.**, S.C. Moyers, and D.M. Hawley. 2014. Using remote biomonitoring to understand heterogeneity in immune-responses and disease-dynamics in small, free-living animals. *Int. Comp. Biol.* 54: 377-386.

Downs, C.J., **J.S. Adelman**, and G.E. Demas. 2014. Methods and mechanisms in ecoimmunology. *Int. Comp. Biol.* 54: 340-352.

Núñez, C.M.V., **J.S. Adelman**, J. Smith, L.R. Gesquiere, and D.I. Rubenstein. 2014. Linking social environment and stress physiology in feral mares (*Equus caballus*): group transfers elevate fecal cortisol levels. *Gen. Comp. Endocrinol.* 196: 26-33.

**Adelman, J.S.**, L. Kirkpatrick, J.L. Grodio, and D.M. Hawley. 2013. House finch populations differ in early inflammatory signaling and pathogen tolerance at the peak of *Mycoplasma gallisepticum* infection. *Am. Nat.* 181: 674-689.

**Web page:** <http://www.nrem.iastate.edu/people/james-adelman>

## Julie A. Blanchong, Associate Professor

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### Education

PhD, Fisheries and Wildlife; Ecology, Evolutionary Biology and Behavior, Michigan State University, 2003

MS, Zoology, Michigan State University, 1999

BS, Biology, Bowling Green State University, 1995

### Areas of Expertise

Wildlife Disease Ecology and Wildlife Genetics

### Professional Service

*Associate Editor*, Wildlife Research, 2009-2015

*Associate Editor*, Wildlife Society Bulletin, 2012-present

*Board member*, Wildlife Society Wildlife Diseases working group, 2013-present

### Recent Presentations

**Blanchong, J.A.** 2015. "Changing genetics and the future of chronic wasting disease," Invited symposium speaker, Western States and Provinces Deer and Elk Workshop, Canmore, Alberta, Canada.

**Blanchong, J.A.**, W. Reiter-Marolf, and S.J. Dinsmore. 2014. "Excrement as an alternative to blood for examining lead exposure in Bald Eagles," Wildlife Society Annual Conference, Pittsburgh, PA.

**Blanchong, J.A.** 2014. "Why care about wildlife diseases: humans, domestic animals, and conservation," Invited speaker, ISU Biological Sciences Club.

### Recent Refereed Journal Articles

**Blanchong, J.A.**, J.T. Foster, S.J. Robinson, and M.D. Samuel. In review. Application of genetics and genomics to wildlife epizootiology. *Journal of Wildlife Management*, invited review.

Reiter-Marolf, W.J., S.J. Dinsmore, and **J.A. Blanchong**. In revision. An evaluation of excrement as an alternative to blood for characterizing lead exposure in bald eagles. *Wildlife Society Bulletin*.

Randall, N.J., B.J. Blitvich, and **J.A. Blanchong**. 2013. Association between agricultural land use and West Nile virus seroprevalence in Iowa birds. *Journal of Wildlife Diseases* 49:869-873.

**Blanchong, J.A.**, A.B. Sorin, and K.T. Scribner. 2013. Genetic diversity and population structure in urban white-tailed deer. *Journal of Wildlife Management* 77:855-862.

Lang, K.R. and **J.A. Blanchong**. 2012. Population genetic structure of white-tailed deer: understanding risk of chronic wasting disease spread. *Journal of Wildlife Management* 76:832-840.

Sippy, R., C. Sandoval-Green, O. Sahin, P. Plummer, W.S. Fairbanks, Q. Zhang, and **J.A. Blanchong**. 2012. Occurrence and molecular analysis of *Campylobacter* in wildlife on livestock farms. *Veterinary Microbiology* 157:369-375.

**Blanchong, J.A.**, D.A. Grear, B.V. Weckworth, D.P. Keane, K.T. Scribner, and M.D. Samuel. 2012. Effects of chronic wasting disease on reproduction and fawn harvest vulnerability in Wisconsin white-tailed deer. *Journal of Wildlife Diseases* 48:361-370.

Randall, N.J., B.J. Blitvich, and **J.A. Blanchong**. 2012. The efficacy of wildlife rehabilitation centers in the surveillance and monitoring of pathogen activity: A case study with West Nile virus. *Journal of Wildlife Diseases* 48:648-653.

**Blanchong, J.A.**, D.M. Heisey, K.T. Scribner, S.V. Libants, C. Johnson, J.M. Aiken, J.A. Langenberg, and M.D. Samuel. 2009. Genetic susceptibility to chronic wasting disease in free-ranging white-tailed deer: Complement component C1q and Prnp polymorphisms. *Infection, Genetics and Evolution* 9:1329-1335.

**Blanchong, J.A.**, M.D. Samuel, K.T. Scribner, B.V. Weckworth, J.A. Langenberg, and K.B. Filcek. 2008. Landscape genetics and the spatial distribution of chronic wasting disease. *Biology Letters* 4:130-133.

Conner, M.M., M.R. Ebinger, **J.A. Blanchong**, and P.C. Cross. 2008. Infectious disease in cervids of North America: data, models, and management challenges. *Annals of the New York Academy of Sciences* 1134:146-172.

**Web page:** <http://www.nrem.iastate.edu/people/julie-blanchong>

## Sue Blodgett, *Chair and Professor*

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### Education

PhD, Entomology, Kansas State University, 1989  
MS, Entomology, Kansas State University, 1987  
MS, Vegetable/Horticulture Crops, Cornell University, 1980  
BS, Biology, Syracuse University, 1974

### Areas of Expertise

Administration of Natural Resource Ecology and Management (NREM) and Entomology Departments

### Professional Service

*Chair*, North Central Regional Aquaculture Center Board of Director, 2011-present  
*Co-Chair*, ESA Program Committee, 2012-2015  
*President-elect, President, and Past-President*, ESA North Central Branch, 2011-2014  
*Chair*, Committee of Entomology Department Administrators, 2012-2013

### Awards and Recognition

Kansas State University Entomology Department Distinguished Alumnus, 2011  
USDA, PPD Deputy Administrator's Safeguarding Award, Western Cereal Leaf Beetle, 2010

### Recent Presentations

Blader, T., V. Pocius, K. Bidne, **S. Blodgett**, S. Bradbury, D. Debinski, R. Hartzler, R. Hellmich, M. Honeyman, L. Jesse, D.R. Lewis, J. Pleasants, and W. Wintersteen. 2015. Iowa Monarch Conservation Consortium (IMCC): stepping up to the front lines of habitat restoration. Entomological Society of America, Minneapolis, MN.

Blader, T., R. Hellmich, **S. Blodgett**, S. Bradbury, R. Moranz, J. Pleasants, and D. Debinski. 2015. Does density of host plant (*A. syriaca*) influence monarch butterfly (*Danaus plexippus*) oviposition? Entomological Soc. of America, Minneapolis, MN.

Philips, C.R., H. Atthowe, J. Asplund, **S. Blodgett**, A. Stone, and W.E. Snyder. 2015. Integrating predatory arthropods, scouting, and selective organic insecticides to control the pest caterpillar *Pieris rapae*, ESA-NCB, Manhattan, KS.

**Blodgett, S.** 2014. Invited: "Getting to Yes: A Career in Academia" Symposium, Entomological Soc. of America, Portland, OR.

### Books/Book Chapters

**Blodgett, S.L.** and J. Kieckhefer. 2012. Insect Pests of Wheat, *In* Clay, D.E., C.G. Carlson, and K. Dalsted (eds). iGrow Wheat: Best Management Practices for Wheat Production. South Dakota State University, SDSU Extension, Brookings, SD.

**Blodgett, S.L.** and J.L. Capinera. 2007. Blister Beetles *In* Handbook of Forage Insects. W.O. Lamp, R.C. Berberet, L.G. Higley, C.R. Baird. [eds]. American Phytopathology Society Press, MN. Pg. 53-55.

### Recent Refereed Journal Articles

Rand, T.A., D.K. Waters, **S.L. Blodgett**, J.J. Knodel, and M.O. Harris. 201X. Increased area of a highly suitable host crop increases herbivore pressure in intensified agricultural landscapes. *Agriculture, Ecosystems & Environment* 186:135-143.

Lenssen, A.W., D.S. Long, W.E. Grey, **S.L. Blodgett**, and H.B. Goosey. 2013. Spring Wheat Production and Associated Pests in Conventional and Diversified Cropping Systems in North Central Montana. *Crop Mgmt*. DOI 10.1094/CM-2013-0017-RS.

Lenssen, A.W., W.M. Iversen, U.M. Sainju, T.C. Caesar-TonThat, **S.L. Blodgett**, B. Allen, and R.G. Evans. 2012. Yield, Pests, and Water Use of Durum and Selected Crucifer Oilseeds in Two-year Rotations. *Agronomy Journal*. 104:1295-1304.

Pearce, A.M., K.M. O'Neill, R.S. Miller, and **S. Blodgett**. 2012. Diversity of flower-visiting bees and their pollen loads on a wildflower seed farm in Montana. *J. Kansas Entomol. Soc.* 85:97-108.

Lenssen, A.W., D.C. Cash, P.G. Hatfield, U.M. Sainju, W.R. Grey, **S.L. Blodgett**, H.B. Goosey & G.D. Johnson. 2010. Yield, Quality, Water and Nitrogen Use of Durum and Selected Annual Forages in Two-year Rotations. *Agron. J* 102:1261-1268.

**Web page:** <http://www.nrem.iastate.edu/people/sue-blodgett>

## Steven Bradbury, Professor

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### Education

PhD, Toxicology and Entomology, Iowa State University, 1985  
MS, Entomology (Insecticide Toxicology), Iowa State University, 1981  
BS, Molecular Biology, University of Wisconsin, 1978

### Areas of Expertise

Environmental toxicology; pesticide resistance, pollination and monarch butterfly conservation; sustainable agriculture

### Professional Service

Member, *Steering Committee*, Keystone Monarch Collaborative, 2015 to present  
U.S. Gov't *Head of Delegation*, North American Free Trade Association, Technical Working Group on Pesticides, 2010-2014  
Chair, *Federal Advisory Committee*, US EPA Pesticide Program Dialogue Committee, 2010 to 2014

### Awards and Recognition

Henry A. Wallace Award for Outstanding Leadership to National and International Agriculture, College of Agriculture and Life Sciences, Iowa State University, 2014

### Recent Presentations

- Bradbury, S.P.** Cost-benefit analyses and U.S. pesticide registrations: Options for neonicotinoid seed treatments. 70<sup>th</sup> Annual Meeting of the North Central Branch of the Entomological Society of America. May 31 – June 3, 2015, Manhattan, KS.
- Bradbury, S.P.** Managing resistance: Options for shared pest susceptibility. 70<sup>th</sup> Annual Meeting of the North Central Branch of the Entomological Society of America. May 31 – June 3, 2015, Manhattan, KS.
- Bradbury, S.P.** The next generation of sustainable chemistries and agricultural products. American Bar Association Committee on Pesticides, Chemical Regulation and Right to Know Committee. July 11, 2014, Washington, DC.

### Books/Book Chapters

- Bradbury, S.P.**, R.W. Carlson, T.R. Henry, S. Padilla, and J. Cowden. 2008. Toxic Responses of the Fish Nervous System. In: *The Toxicology of Fishes*. DiGiulio, R. and Hinton, D. (Eds.), Taylor & Francis, Boca Raton, FL (pp. 417-456).
- Degitz, S.J., R.A. Hoke, **S. Bradbury**, et al. 2007. Application of genomics to regulatory ecological risk assessments for pesticides. In: *Genomics in Regulatory Ecotoxicology: Applications and Challenges*. Ankley, G., Miracle, A., Perkins, E.J. and Datson, G.P. (Eds.). Taylor and Francis, Boca Raton, FL. (pp. 63-85).
- Fairbrother, A., G.T. Ankley, L.S. Birnbaum, **S.P. Bradbury**, et al. 1999. Reproductive and developmental toxicology of contaminants in oviparous animals. In: *Reproductive and Developmental Effects of Contaminants in Oviparous Vertebrates*. Di Giulio R.T. and Tillitt, D.E., (Eds.), SETAC Press, Pensacola, FL. (pp. 283-361).

### Recent Refereed Journal Articles

- Bradbury, S.P.**, C.L. Russom, P.K. Schmieder, T.W. Schultz, R. Diderich, and C.M. Auer. 2014. Advancing computational toxicology in a regulatory setting: A selected review of the accomplishments of Gilman D. Veith (1944–2013). *Appl. In Vitro Toxicol.* 1:11-20.
- Russom, C.L., **S.P. Bradbury**, S.J. Broderius, D.J. Hammermeister, R.A. Drummond, and G.D. Veith. 2013. Predicting modes of toxic action from chemical structure. *Environ. Toxicol. Chem.* 32:1441-1442.
- Sappington, K.G., T.S. Bridges **S.P. Bradbury**, et al. 2011. Application of the tissue residue approach in ecological risk assessment. *Integr. Environ. Assess. Manag.* 7:116-140.
- Dellarco, V., T. Henry, P. Sayre, J. Seed, and **S.P. Bradbury**. 2010. Meeting the common needs of a more effective and efficient testing and assessment paradigm for chemical risk mgmt. *J. Toxicol. Environ. Health, Part B*, 13:347-360.

**Web page:** <http://www.nrem.iastate.edu/people/steven-bradbury>

## Stephen J. Dinsmore, *Associate Chair and Professor*

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### Education

PhD, Fishery and Wildlife Biology, Colorado State University, 2001

MS, Zoology, North Carolina State University, 1994

BS, Fisheries and Wildlife Biology, Iowa State University, 1990

### Areas of Expertise

Avian ecology, population biology, and community ecology; research that addresses contemporary ecological problems, provides science-based solutions to these problems, and contributes to other natural resource disciplines through methodological advances

### Professional Service

*Associate Editor*, *The Auk*, 2006-2015

*Editor*, *Iowa Bird Life*, 2010–present

*Chair-elect*, *Chair*, and *Past-Chair*, Biometrics Working Group, The Wildlife Society, 2010-2012

### Awards and Recognition

Elected Fellow, American Ornithologists' Union, 2011

### Recent Presentations

Murphy, K.T., T.M. Harms, K.E. Kinkead, and **S.J. Dinsmore**. 2015. Developing predictive models for species of greatest conservation need in Iowa. Iowa Chapter of The Wildlife Society annual meeting, Ames, Iowa.

**Dinsmore, S.J.** 2015. Cascading ecological events: Do Burrowing Owls reduce recruitment of Mountain Plovers? Invited seminar at the University of Gröningen, Netherlands, 9 January 2015.

### Books/Book Chapters

**Dinsmore, S.J.** and D.H. Johnson. 2012. Chapter 15 – Population analysis in wildlife biology. Pages 349-380 in Silvy, N.S., editor. *The Wildlife Techniques Manual – Research*, Volume 1. The Wildlife Society, Bethesda, MD.

White, T.H., **S.J. Dinsmore**, and J.A. Collazo. Niche restriction and conservatism in a neotropical psittacine: the case of the Puerto Rican parrot. *Habitat Loss: Causes, Impacts on Biodiversity, and Reduction Strategies*. *In review*.

### Recent Refereed Journal Articles

**Dinsmore, S.J.**, D.J. Lauten, K.A. Castelein, E.P. Gaines, and M.A. Stern. 2014. Effects of predator and habitat management on Snowy Plover nest survival in Oregon. *The Condor* 116:619-628.

Harms, T.M., K.E. Kinkead, and **S.J. Dinsmore**. 2014. Evaluating the effects of landscape configuration on site occupancy and metapopulation dynamics of Odonates in Iowa. *Journal of Insect Conservation* 18:307-315.

Gillespie, M.K. and **S.J. Dinsmore**. 2014. Nest survival of Red-winged Blackbirds in areas developed for wind energy. *Agriculture, Ecosystems, and the Environment* 197:53-59.

Alverson, K. and **S.J. Dinsmore**. 2014. Factors affecting Burrowing Owl (*Athene cunicularia*) occupancy of prairie dog colonies. *Condor* 116:242-250.

Colwell, M.A., W.J. Pearson, L. Eberhart-Phillips, and **S.J. Dinsmore**. 2013. Apparent survival of Snowy Plovers varies with reproductive effort, year, and between sexes. *Auk* 130:725-732.

Dzul, M.C., **S.J. Dinsmore**, M.C. Quist, D.B. Gaines, K.P. Wilson, M.R. Bower, and P.M. Dixon. 2013. Developing a simulation model of the Devils Hole Pupfish population using monthly length frequency distributions. *Population Ecol* 55:325-341.

**Dinsmore, S.J.** 2013. Mountain Plover responses to deltamethrin treatments on prairie dog colonies in Montana. *Ecotoxicology* 22:415-424.

Hovick, T.J., J.R. Miller, **S.J. Dinsmore**, D.M. Engle, D.M. Debinski, and S.D. Fuhlendorf. 2012. Effects of fire and grazing on Grasshopper Sparrow nest survival in a fragmented landscape. *Journal of Wildlife Management* 76:19-27.

**Web page:** <http://www.nrem.iastate.edu/people/stephen-dinsmore>

## Richard B. (Rick) Hall, *Professor*

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### Education

PhD, Plant Breeding and Genetics (Forestry), Iowa State University, 1974  
BS (Honors Program), Forestry, Iowa State University, 1969

### Areas of Expertise

Genetics and Silviculture of short rotation cottonwood, aspen, and alder to provide ecosystem services and woody biomass for energy

### Professional Service

*Chair*, Interdepartmental Genetics, Iowa State University, 2000-02  
*Secretary/Treasurer*, Poplar Council of the United States, 1993-present

### Awards and Recognition

Fellow, Society of American Foresters, 2013  
Arthur L. and Frances S. Wallace Endowed Professor in Forestry, 2004-2010  
ISU College of Agriculture Faculty Award for Diversity Enhancement, 2007

### Recent Presentations

**Hall, R.B.** and S. Ruigu. 2010. Clonal differences among *Populus alba* selections and hybrids in short-rotation and coppice biomass traits. Fifth International Poplar Symposium, Orvieto, Italy.  
**Hall, R.B.**, W. Headlee, and S. Ruigu. 2010. Developing a hybrid aspen coppice system for the midwest agricultural region of the United States. Fifth International Poplar Symposium, Orvieto, Italy.

### Books/Book Chapters

Zalesny, R.S., Jr., M.W. Cunningham, **R.B. Hall**, J. Mirck, D.L. Rockwood, J.A. Stanturf, and T.A. Volk. 2011. Woody biomass from short rotation energy crops. In: Sustainable Production of Fuels, Chemicals, and Fibers from Forest Biomass. Zhu, J., et al. Chapter 2. P. 27-63. ACS Symposium Series; American Chemical Society. Washington, DC.

### Recent Refereed Journal Articles

Headlee, W.L. and **R.B. Hall**. 2015. Methods to inventory and strip thin in dense stands of aspen root suckers. *iForest - Biogeosciences and Forestry*, in press. (Accepted for publication 3/24/2015, early view on line now) *doi: 10.3832/ifer1461-008*.

Headlee, W.L. and **R.B. Hall**. 2015. Biomass fly ash as foliar fertilizer for hybrid aspen trees: nutrient uptake, growth response, and compatibility with nitrogen fertilizer. *Journal of Plant Nutrition* 38:647-662.

Headlee, W.L. and **R.B. Hall**. 2015. Biomass fly ash as foliar fertilizer for hybrid aspen trees: nutrient uptake, growth response, and compatibility with nitrogen fertilizer. *Journal of Plant Nutrition* 38:647-662.

Iakovoglou, V., T.B. Parkin, **R.B. Hall** & M.K. Misra. 2014. Gas chromatograph analysis on closed nitrous oxide and air atmospheres of recalcitrant *Quercus alba* seeds, *Scandinavian Journal of Forest Research*, DOI: [10.1080/02827581.2014.915979](https://doi.org/10.1080/02827581.2014.915979).

Headlee, W.L., C.E. Brewer, and **R.B. Hall**. 2014. Biochar as a substitute for vermiculite in potting mix for hybrid poplar. *BioEnergy Res* 7:120-131.

Wilson D.M., E.A. Heaton, L.A. Schulte, T.P. Gunther, **R.B. Hall**, W.L. Headlee, K.J. Moore, M.E. Maier, and N.N. Boersma. 2014. Establishment and short-term productivity of annual and perennial bioenergy crops across a landscape gradient. *BioEnergy Research*, 7:885-898.

Chendev, Yu.G., T.J. Sauer, **R.B. Hall**, A.N. Petin, L.L. Novykh, E.A. Zazdravnyih, Yu.I. Cheverdin, V.V. Tischenko, K.I. Filatov. 2013. Stock assessment and balance of organic carbon in the Eastern European forest-steppe ecosystems tree windbreaks. *Regional Environmental Issues (Russia)* 4:7-14.

**Web page:** <http://www.nrem.iastate.edu/people/richard-hall>

## Mary Harris, *Adjunct Assistant Professor*

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### Education

PhD, Entomology, University of Georgia, 1995  
MS, Integrated Pest Management, University of California, Riverside, 1984  
MS, Wildlife Biology, University of Montana, 1982  
BS, Biology, University of California, Los Angeles, 1977

### Areas of Expertise

My research program addresses issues of pollinator biodiversity and habitat quality as well as environmental hazards to pollinators in an agricultural setting.

### Fellowships, Assistantships and Awards

Office of the Executive Vice-President and Provost Honorarium, 2012  
College of Agriculture and Life Science Faculty Professional Development Award, 2012  
Faculty Professional Development Assignment, ISU, Office of the Executive Vice President and Provost, 2010  
Office of the Executive Vice President and Provost/ISU ADVANCE Program Administrative Fellowship, 2008-2009

### Current Grant Support

Prairie strips as an innovative agroecosystem practice to enhance ecosystem services from farmers' fields. L. Schulte-Moore, M. Helmers, M. Liebman, and **M. Harris**. USDA, Managed Ecosystems Program, Area: Agriculture and Food Research Initiative, \$498,966  
Blurring the lines between working and conservation lands: Enhancing bird and pollinator habitat using prairie strips. PIs L. Schulte and **M. Harris**, co-PIs M. Helmers and R. Klaver. Leopold Center for Sustainable Agriculture. \$107,211  
Evaluation of Current USDA Contour Buffer & Filter Strip Designs as Resources for Pollinators and for Meeting Water Quality Improvement Goals in Iowa, Year 3. USDA-FSA. PI: **M. Harris**, collaborators: M. Helmers, L. Schulte-Moore. \$81,655

### Recent Presentations

Honey Bee Collected Pollen: Forage Species Importance and Levels of Neonicotinoid Contamination ICPPR 12<sup>th</sup> International Symposium Ghent, Belgium. **Mary Harris**, Reid Palmer, Joel Coats.  
Prairie strips integrated with row crops: biodiversity, soil conservation and income opportunities. **Mary A. Harris**, Lisa A. Schulte, Matthew J. Helmers, J. Gordon Arbuckle, Pauline Drobney, Randall K. Kolka, Matt Liebman, Matthew E. O'Neal, John C. Tyndall. Society of Ecological Restoration, March 28-29, 2014, Minneapolis, MN.

### Recent Refereed Journal Articles

Martin, Leanne M., **Mary A. Harris**, and Brian J. Wilsey. 2015. Phenology and temporal niche overlap differ between novel, exotic- and native-dominated grasslands for plants, but not for pollinators. *Biological Invasions*. 17:2633-2644.  
Martin, Leanne M., H. Wayne Polley, Pedram P. Daneshgar, **Mary A. Harris**, and Brian J. Wilsey. 2013. Biodiversity, photosynthetic mode, and ecosystem services differ between native and novel ecosystems. *Oecologia* 175:687-697.

**Web page:** <http://www.nrem.iastate.edu/people/mary-harris>



## Thomas Isenhardt, *Professor*

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### Education

PhD, Water Resources, Iowa State University, 1992  
MS, Water Resources, Iowa State University, 1988  
BS, Botany and Environmental Studies, Iowa State University, 1983

### Areas of Expertise

Impact of land use change on water quality and aquatic integrity; Riparian ecology; Conservation buffer systems to reduce pollutant transport; Stream bed and bank erosion; Influence of vegetation on soil processes

### Professional Service

*Chair*, Phosphorus Subcommittee, Iowa Nutrient Reduction Strategy Science Assessment Team, 2010-2015  
*Member*, State Advisory Committee, Iowa Water Center, 2007-2015  
*Member*, Organizing Committee, American Water Resources Association Riparian Ecosystems IV: Advancing Science, Economics and Policy International Conference, 2012

### Awards and Recognition

Iowa State University College of Agriculture and Life Sciences Dean's Citation for Extraordinary Contributions, 2013  
Journal of Soil and Water Conservation 2008 Research Award for Impact and Quality, 2008  
Iowa State University College of Agriculture and Life Sciences Student Council Advisor Award, 2008

### Recent Presentations

**Isenhardt, T.M.** 2015. Planning Conservation Buffers from a Landscape Perspective. Invited plenary speaker at the 2015 USDA-NRCS National Conservation Buffers Workshop.  
**Isenhardt, T.M.** 2013. Established and Remnant Riparian Forests as Buffers of Concentrated Flow from Crop Fields. Invited presentation at the American Water Resources Association 2013 Spring Specialty Conference – Agricultural Hydrology and Water Quality II.

### Books/Book Chapters

Zaimis, G.N., K.-H. Lee, M. Tufekcioglu, L. Long, R.C. Schultz, and **T.M. Isenhardt**. 2012. The Effectiveness of Riparian Conservation Practices in Reducing Sediment in Iowa Streams. Chapter 3 In: Hendriks, Barbara P (Ed.). Agricultural Research Updates, Volume 2. Nova Science Publishers, Inc., Hauppauge, NY.  
Schultz, R.C., **T.M. Isenhardt**, J.P. Colletti, W.W. Simpkins, R.P. Udawatta, and P.L. Schultz. 2009. Riparian and Upland Buffer Practices. Chapter 8 In: H.E. Garrett, (Ed.) North American Agroforestry: An integrated Science and Practice, 2nd Ed. American Society of Agronomy, Madison, WI.

### Recent Refereed Journal Articles

Schilling, K.E., C.F. Wolter, **T.M. Isenhardt**, and R.C. Schultz. 2015. Reconnecting tile drainage to riparian buffer hydrology for enhanced nitrate removal. *Journal of Environmental Quality*. DOI:10.2134/jeq2015.02.0105.  
Tomer, M.D., S.A. Porter, K.M.B. Boomer, D.E. James, J.A. Kostel, M.J. Helmers, **T.M. Isenhardt**, and E. McLellan. 2015. Agricultural Conservation Planning Framework: 1. Developing multi-practice watershed planning scenarios and assessing nutrient production potential. *Journal of Environmental Quality* 44:754–767.  
Gutierrez-Lopez, J., H. Asbjornsen, M. Helmers, and **T. Isenhardt**. 2014. Regulation of soil moisture dynamics in agricultural fields using strips of native prairie vegetation. *Geoderma* 226:238-249.  
Palmer, J.A., K.E. Schilling, **T.M. Isenhardt**, R.C. Schultz, and M.D. Tomer. 2014. Streambank erosion rates and loads within a single watershed: Bridging the gap between temporal and spatial scales. *Geomorphology* 209:66-78.  
Jaynes, D.B. and **T.M. Isenhardt**. 2014. Reconnecting tile drainage to riparian buffer hydrology for enhanced nitrate removal. *Journal of Environmental Quality* 43(2): 631-638.

**Web page:** <http://www.nrem.iastate.edu/people/thomas-isenhardt>



## **Robert W. Klaver, Unit Leader – U.S. Geological Survey, Iowa Cooperative Fish and Wildlife Research Unit and Professor**

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### **Education**

PhD, Wildlife Biology, South Dakota State University, 2001  
MS, Wildlife Biology, University of Montana, 1977  
BS, Wildlife Biology, University of Montana, 1974  
BS, Biochemistry, Iowa State University, 1971

### **Areas of Expertise**

Use of geospatial data for the analysis of habitat selection and population dynamics for conservation and management of wildlife species. Integration of forest management and wildlife conservation. Biostatistical analysis.

### **Professional Service**

*Served on 45 graduate committees since 2008*  
*Advisor, NREM Graduate Student Seminar Committee*  
*Member, Ecology and Evolutionary Biology Program Supervisory Committee*  
*Member, NREM Awards Committee*

### **Awards and Recognition**

USGS Performance-Based Cash Award for research, annually 2008 - 2014

### **Recent Presentations**

Towery, B.N., **R.W. Klaver**, and G.G. Zenner. 2015. A methodology to predict Canada goose breeding pair densities. Mississippi Flyway Council Gamebird Technical Section Winter Meeting. Little Rock, Arkansas. 23 – 27 February 2015.

Datta, S., W.M. Inselman, J.A. Jenks, **R.W. Klaver**, and T.W. Grovenburg. 2015. Reproductive ecology of Ferruginous hawks in the Northern Great Plains. South Dakota Chapter, The Wildlife Society. Cedar Shore Resort and Convention Center, Oacoma, South Dakota. 23 – 25February 2015.

Inselman, W.M., S. Datta, J.A. Jenks, **R.W. Klaver**, and T.W. Grovenburg. 2015. Time-lapse video as a method for assessing Swainson's hawk (*Buteo swainsoni*) diets during the breeding season. South Dakota Chapter, The Wildlife Society. Cedar Shore Resort and Convention Center, Oacoma, South Dakota. 23 – 25February 2015.

Inselman, W.M., S. Datta, J.A. Jenks, **R.W. Klaver**, and T.W. Grovenburg. 2015. Buteo ecology: an intensive study of Swainson's hawks (*Buteo swainsoni*) in the Northern Great Plains. Midwest Fish and Wildlife Conference. Hyatt Regency, Indianapolis, Indiana. 8 – 11 February 2015.

Sasmal, I., T.W. Grovenburg, S. Kempema, J.A. Jenks, **R.W. Klaver**, C. Swanson, T. Runia, and T. Kirschenmann. 2015. Evaluating landscape models for prairie grouse distributions in South Dakota. Midwest Fish and Wildlife Conference. Hyatt Regency, Indianapolis, Indiana. 8 – 11 February 2015.

### **Recent Refereed Journal Articles**

Tyler J. Grant, Peter G. Eyheralde, Melissa S.C. Telemeco, Amy L. Moorhouse, Rebecca A. Reeves, Karin Grimlund, Amy Podaril, Sarah E. Emeterio, and **Robert W. Klaver**. Book Review: Conservation by Proxy: Indicator, Umbrella, Keystone, Flagship, and Other Surrogate Species. *Prairie Naturalist* 46:109-110.

Grovenburg, T.W., K.L. Monteith, C.N. Jacques, **R.W. Klaver**, and J.A. Jenks. Re-evaluating neonatal age models for ungulates: does model choice affect survival estimates? *PLoS ONE* 9(9): e108797.

Smith, J.B., J.A. Jenks, T.W. Grovenburg, and **R.W. Klaver**. 2014. Disease and Predation: Sorting out Causes of a Bighorn Sheep (*Ovis canadensis*) Decline. *Plos One* 9: e88271.

Jacques, C.N., J.A. Jenks, T.W. Grovenburg, **R.W. Klaver**, C.S. DePerno. 2014. Development and evaluation of a pronghorn sightability model in the Northern Great Plains. *Journal of Wildlife Management* 78:164-174.

**Web page:** <http://www.nrem.iastate.edu/people/robert-klaver>

## Catherine Mabry McMullen, *Adjunct Associate Professor*

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### Education

PhD, Ecology and Evolutionary Biology, Iowa State University, 2000  
MTS, Harvard Divinity School, 1990  
MA, Biology, Drake University, 1983  
BA, Biology, Drake University, 1981

### Areas of Expertise

Restoration ecology of the forest ground layer community, bird use of restored habitats, teaching

### Awards and Recognition

Iowa State University Forestry Undergraduate Students, Most Beloved Instructor, 2014  
College of Agriculture and Life Sciences, Excellence in Teaching by Lecturers and Adjunct Faculty, 2013

### Teaching

I emphasize learning through cooperation and collaboration, in the process students also build professional skills needed to succeed professionally.

Dendrology (FOR/BIO 356)  
Forest Herbaceous Layer Ecology and Identification (FOR 358x)  
Midwestern Prairie Plants (NREM 357, formerly 256)  
Resource Measurement and Evaluation (FOR 203)

### Recent Refereed Journal Articles

Gerken Golay, M., **C. Mabry**, R. Manatt, J. Thompson, and R. Kolka. 2013. Targeted restoration of herbaceous woodland plants: survival, growth, and reproductive success of local and non-local propagules. *Ecological Restoration* 31:378-387.

Gerken, M.E., J.R. Thompson, **C.M. Mabry**, and R.K. Kolka. 2013. An investigation of water nutrient levels associated with forest vegetation in highly altered landscapes. *Journal of Soil and Water Conservation* 68:361-371.

Hirsch, S., **C.M. Mabry**, L.A. Schulte, and J. Liebman. 2013. Diversifying agricultural catchments by incorporating prairie buffer strips. *Ecological Restoration* 31:202-211.

**Mabry, C.M.** 2012. Optimizing shrub density in Midwest, USA, savannah restoration. *Ecological Restoration* 31:63-68.

**Mabry, C.M.** 2011. The signs of the times: The state of the question among ecologists, pp. 19-36 In, Winright, T. ed. *Green Discipleship: Catholic Theological Ethics and the Environment*. St. Mary's Press, Winona, MN.

**Mabry, C.M.** 2011. Population trends in *Penstemon tubiflorus*, a rare Midwestern prairie species: recruitment, survival, reproductive output and transplant success. *Western North American Naturalist* 71:17-24.

**Web page:** <http://www.nrem.iastate.edu/people/catherine-mcmullen>

## Peter L. Moore, *Adjunct Assistant Professor*

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### Education

PhD, Geology, Iowa State University, 2009

MS, Geology, Iowa State University, 2002

BA, Geology, Carleton College, 1998

### Areas of Expertise

Geomorphology and physical processes that shape the landscape; Glacier dynamics and melt; Erosion and sediment transport; Quantitative modeling of physical and ecological processes and patterns

### Professional Service

*Marketing Committee member*, Partnership for River Restoration and Science in the Upper Midwest (PRRSUM), 2013-2015

### Recent Presentations

**Moore, P.L.** 2013. "Disappearing Glaciers", Iowa State University, NREM departmental seminar.

**Moore, P.L.** 2012. "Subglacial seismicity: sources and significance", Princeton University, Dept. Geosciences, Solid Earth brownbag seminar.

**Moore, P.L.** 2012. Geomorphology lecture and Freda Hafner kettlehole field trip, Iowa Lakeside Laboratory, course in Winter Ecology.

**Moore, P.L.** 2011. University of Minnesota, Dept. Geology & Geophysics departmental seminar.

### Recent Refereed Journal Articles

**Moore, P.L.** 2014. Deformation of debris-ice mixtures, *Reviews of Geophysics*, v. 52, doi:10.1002/2014RG000453.

**Moore, P.L.**, J.P. Winberry, N.R. Iverson, K.A. Christianson, S. Anandakrishnan, M. Jackson, M.E. Mathison, and D. Cohen. 2013. Glacier slip and seismicity induced by surface melt, *Geology*, v. 41(12), p. 1247-1250, doi:10.1130/G3470.1.

**Moore, P.L.**, N.R. Iverson, K.T. Uno, M.P. Dettinger, K.A. Brugger, and P. Jansson. 2013. Entrainment and emplacement of englacial debris bands near the margin of Storglaciären, Sweden, *Boreas*, doi:10.1111/j.1502-3885.2012.00274.x. ISSN 0300-9483.

**Moore, P.L.**, N.R. Iverson, K.A. Brugger, D. Cohen, T.S. Hooyer, and P. Jansson. 2011. Effect of a cold margin on ice flow and sediment transport at the terminus of Storglaciären, Sweden: implications for sediment transport, *Journal of Glaciology*, Vol. 57, no. 201, p. 77-87.

Kavanaugh, J.L., **P.L. Moore**, C.F. Dow and J.W. Sanders. 2010. Using pressure pulse seismology to examine basal criticality and the influence of sticky spots on glacial flow, *Journal of Geophysical Research - Earth Surface*, Vol. 115, F04025, doi:10.1029/2010JF001666.

**Moore, P.L.**, N.R. Iverson and D. Cohen. 2010. Conditions for thrust faulting in a glacier, *Journal of Geophysical Research - Earth Surface*, Vol. 115, F02005, doi:10.1029/2009JF001307.

Kavanaugh, J.L. and **P.L. Moore**. 2010. A peak-capturing measurement circuit for detecting and recording short-duration glacial signals, *Journal of Glaciology*, Vol. 56, no. 195, p. 41-47.

**Moore, P.L.**, N.R. Iverson and D. Cohen. 2009. Ice flow across a warm-based/cold-based transition at a glacier margin, *Annals of Glaciology*, Vol. 50, no. 52 p. 1-8.

**Moore, P.L.**, N.R. Iverson, and R.M. Iverson. 2008. Frictional properties of the Mount St. Helens gouge; Chapter 20 of D.A. Sherrod, W.E. Scott and P.H. Stauffer, (eds.), *A Volcano Rekindled: The renewed eruption of Mount St. Helens, 2004-2006*, U.S. Geological Survey Professional Paper no. 1750.

**Web page:** <http://www.nrem.iastate.edu/people/peter-moore>

## Joseph E. Morris, Center Director and Professor

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### Education

PhD, Fisheries and Wildlife, Mississippi State University, 1988

MS, Wildlife and Fisheries, Texas A&M University, 1982

BS, Fisheries and Wildlife Biology, Iowa State University, 1979

AS, Biology, Iowa Western Community College, 1977

### Areas of Expertise

Administration of the North Central Aquaculture Center and research and outreach focus on aquaculture and pond management issues

### Professional Service

*Member*, American Fisheries Society: Iowa Chapter; Education, Fish Culture, Early Life History, and Fish Mgmt Sections

*Associate Editor*, Journal of Applied Aquaculture, 2007-10

*Associate Editor*, North American Journal of Aquaculture, 2009-present

*Member*, 2-person departmental review team at University of Arkansas-Pine Bluff, 2014

*Member*, 4-person departmental review team at Purdue University, 2013

*Member*, 3-person departmental review team at University of Arkansas-Pine Bluff, proposed Ph.D. program, 2008

### Awards and Recognition

Certificate of Appreciation as Chapter Vice-President of the U.S. Chapter of the World Aquaculture Society, 2008

Certificate of Appreciation as Chapter President for the Iowa Chapter of the American Fisheries Society, 1999

Recognition Award for Outstanding Contributions to Graduate Education presented by Department of Animal Ecology Graduate Student Organization, Iowa State University, 1997

### Recent Presentations

Kramer, N.W., Q.E. Phelps, and J.E. Morris. 2015. History of Iowa non-native aquatic introductions, 1874-2014. American Fisheries Society Annual Meeting, Portland, OR.

Kramer, N.W., Q.E. Phelps, and J.E. Morris. 2015. History of Iowa non-native aquatic introductions, 1874-2014. Midwest Fish and Wildlife Conference, Indianapolis, IN.

### Books/Book Chapters

Stone, N., J.E. Morris, and B. Smith. 2012. Managing the pond management. Pages 113-152 *In* W. Neal and D. Willis (editors). Management of Small Impoundments in North America. American Fisheries Society, Bethesda, MD.

Lovell, G., J.E. Morris, and R.D. Clayton. 2012. Dealing with fish kills. Pages 251-273 *In* W. Neal and D. Willis (editors). Management of Small Impoundments in North America. American Fisheries Society Bethesda, MD.

### Recent Refereed Journal Articles

Mammoser, E.M., R.D. Schultz, and J.E. Morris. In Review. Grass carp for controlling aquatic vegetation: Iowa's experience. North American Lake Management Society.

Wamboldt, J.J., A.D. Wanamaker, and J.E. Morris. 2015. Commercial Diets in Phase I Palmetto Bass, *Morone saxatilis* × *M. chrysops* Production in Plastic-Lined Ponds: Fertilizer or Feed. Journal of the World Aquaculture Society 46(5): 490-504.

Hayward, R.S., R.D. Clayton, J.E. Morris, K. Masagounder, and M. Ali. 2013. Increasing growth and feed efficiency of Juvenile Walleye, *Sander vitreus* (Mitchill, 1818), through novel, subsatiation, restrict/feed cycles from late summer into fall: 1-7.

Kaatz, S.E., J.E. Morris, J.B. Rudacille, J.A. Johnson, and R.D. Clayton. 2011. [Role of organic fertilizers in walleye \(\*Sander vitreus\*\) production in plastic-lined culture ponds](#). Aquaculture Research 42:490-498.

Mulligan, B., J.E. Morris, and R.D. Clayton. 2010. Chironomid abundance and consumption by juvenile channel catfish in plastic-lined and earthen culture ponds. Aquaculture Research 41:e234-e238.

**Web page:** <http://www.nrem.iastate.edu/people/joseph-morris>

## Cassandra M.V. Nuñez, Assistant Adjunct Professor

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### Education

PhD, Behavioral Ecology, Princeton University, Princeton, NJ, 2000

BA, Laboratory Psychology, Douglass College, Rutgers University, New Brunswick, NJ, 1993

### Areas of Expertise

The study of animal behavior and physiology as it pertains to the conservation and management of species and diverse teaching experience

### Recent Professional Service

Member, Animal Behavior Society, 2014-2015

Member, Society for Conservation Biology, 2013-2015

Reviewer for Behaviour, 2015

Member, Errington Lecture Committee, 2015

### Recent Awards

Writing Productivity Workshop (NSF-IOS sponsored), August 2013— selected participant

American Association for the Advancement of Science Fellowship, 2011–2012— \$84,000.00

### Recent Presentations

**Nuñez, C.M.V.**, J.S. Adelman, J. Smith, L.R. Gesquiere, and D.I. Rubenstein. “Linking social behavior and stress physiology in feral mares (*Equus caballus*): Group transfers elevate fecal cortisol levels,” Animal Behavior Society, August 2014.

**Nuñez, C.M.V.** “Mares gone wild: Immunocontraception alters female behavior and physiology in feral horses,” University of North Carolina, Asheville, Department of Biology, Undergraduate Seminar Series, April, 2014.

**Nuñez, C.M.V.**, J.S. Adelman, and D.I. Rubenstein. “Immunocontraception in feral horses (*Equus caballus*) extends reproductive cycling beyond the normal breeding season,” International Wild Equid Conference, September 2012.

### Book Chapters

**Nuñez, C.M.V.**, A. Scorolli, L. Lagos, D. Berman, and A. Kane. 2014. Management of free-roaming horses in J.I. Ransom and P. Kaczensky, eds. Wild Equids. The Johns Hopkins University Press. *Invited, in press.*

**Nuñez, C.M.V.** 2011. Management of wild horses with porcine zona pellucida: History, consequences, and future strategies, Pages 85-98 in J.E. Leffhalm, ed. Horses: Biology, Domestication, and Human Interactions. Nova Science Publishers, Inc. *Invited.*

**Nuñez, C.M.V.**, C.S. Asa, and D.I. Rubenstein. 2011. Zebra reproduction, Pages 2851-2865 in A.O. McKinnon, E.L. Squires, W.E. Vaala, and D.D. Varner, eds. Equine Reproduction, Second Edition. Ames, IA, Wiley-Blackwell. *Invited.*

### Refereed Journal Articles

**Nuñez, C.M.V.**, J.S. Adelman, and D.I. Rubenstein. 2015. Sociality increases juvenile survival after a catastrophic event in the feral horse (*Equus caballus*). Behavioral Ecology, 26(1), 138–147.

**Nuñez, C.M.V.**, J.S. Adelman, J. Smith, L.R. Gesquiere, and D.I. Rubenstein. 2014. Linking social environment and stress physiology in feral mares (*Equus caballus*): Group transfers elevate fecal cortisol levels. General and Comparative Endocrinology, 196: 26-33.

**Nuñez, C.M.V.**, J.S. Adelman, and D.I. Rubenstein. 2013. A free-ranging, feral mare (*Equus caballus*) affords similar maternal care to her genetic and adopted offspring. American Naturalist, 182:674-681.

**Nuñez, C.M.V.**, J.S. Adelman, and D.I. Rubenstein. 2010. Immunocontraception in wild horses (*Equus caballus*) extends reproductive cycling beyond the normal breeding season. PLoS ONE, 5(10): e13635.

**Web page:** <http://www.nrem.iastate.edu/people/cassandra-m-nuñez>

## **Clay Pierce, Assistant Unit Leader – Iowa Cooperative Fish & Wildlife Research Unit**

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### **Education**

PhD, Zoology, University of Maryland, 1987

MS, Biology, University of Kentucky, 1982

BS, Biology, Mankato State University, 1980

### **Areas of Expertise**

Fisheries and aquatic ecology

### **Recent Professional Service**

Invited by the American Fisheries Society Fisheries Information & Technology Section to review the new version of their Fishery Analysis and Modeling Simulator (FAMS) software. August 2014

Taught American Fisheries Society Iowa Chapter Continuing Education Course titled "Fish Population Analysis and Simulation with FAMS". July 2015

### **Recent Presentations**

Camacho, C.A., C.J. Sullivan, M.J. Weber, and **C.L. Pierce**. 2015. Using GSI and Gonad Staging as an Indication of Silver Carp Spawning in the Des Moines and Mississippi Rivers (contributed paper). Iowa Chapter American Fisheries Society. Ames, IA, March 2015.

Sullivan, C.J., C.A. Camacho, **C.L. Pierce**, and M.J. Weber. 2015. Seasonal variation in catch rates and size structure of Silver Carp in southeast Iowa Rivers (contributed paper). Iowa Chapter American Fisheries Society. Ames, IA, March 2015.

Mills, N.T., D. Cashatt, M.J. Weber, and **C.L. Pierce**. 2015. Temporal variation in largemouth bass mercury concentrations (contributed paper). Iowa Chapter American Fisheries Society, Ames, IA, March 2015.

Camacho, C.A., C.J. Sullivan, M.J. Weber, and **C.L. Pierce**. 2015. Seasonal Variation of Silver Carp Egg Development in the Upper Mississippi and Des Moines Rivers (contributed paper). Midwest Fish and Wildlife Conference, Indianapolis, IN, February, 2015.

Sullivan, C.J., C.A. Camacho, **C.L. Pierce**, and M.J. Weber. 2015. Seasonal sampling dynamics of Silver Carp in southeast Iowa rivers (contributed paper). Midwest Fish and Wildlife Conference, Indianapolis, IN, February, 2015.

### **Recent Refereed Journal Articles**

Reeves, R.A., **C.L. Pierce**, E. Muths., K.L. Smalling, R.W. Klaver, M.W. Vandever, and W.A. Battaglin. *Accepted*. Amphibian stress, survival, and habitat quality in restored agricultural wetlands in Central Iowa. *Wetlands*.

Bakevich, B.D., **C.L. Pierce**, and M.C. Quist. 2015. Status of the Topeka shiner in west-central Iowa. *American Midland Naturalist* 174:350-358.

Colvin, M.E., **C.L. Pierce**, and T.W. Stewart. 2015. A food web modeling analysis of a Midwestern, USA eutrophic lake dominated by non-native Common Carp and Zebra Mussels. *Ecological Modeling* 312:26-40.

Smalling, K.L., R.A. Reeves, E. Muths, M.W. Vandever, W.A. Battaglin, M.L. Hladik, and **C.L. Pierce**. 2015. Pesticide concentrations in frog tissue and wetland habitats in a landscape dominated by agriculture. *Science of the Total Environment* 502:80-90.

Parks, T.P., M.C. Quist, and **C.L. Pierce**. 2014. Anthropogenic disturbance and environmental associations with fish assemblage structure in two nonwadeable rivers. *River Research and Applications* DOI: 10.1002/rra.2844.

Parks, T.P., M.C. Quist, and **C.L. Pierce**. 2014. Historical changes in fish assemblage structure in Midwestern nonwadeable rivers. *American Midland Naturalist* 171:27-53.

Bakevich, B.D., **C.L. Pierce**, and M.C. Quist. 2013. Habitat, fish species, and fish assemblage associations of the Topeka shiner in west-central Iowa. *North American Journal of Fisheries Management* 33:1258-1268.

**Pierce, C.L.**, N.L. Ahrens, A.K. Loan-Wilsey, G.A. Simmons, and G.T. Gelwicks. 2013. Fish assemblage relationships with physical characteristics and presence of dams in three eastern Iowa rivers. *River Research and Applications* DOI: 10.1002/rra.2654.

**Web page:** <http://www.cfwru.iastate.edu/people/clay-pierce>

## **James A. Pritchard, Adjunct Associate Professor: NREM and Landscape Architecture**

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### **Education**

PhD, U.S. History, University of Kansas, 1996  
MA, History, Montana State University, 1991  
BA, Psychology, Miami University (Ohio), 1976

### **Areas of Expertise**

Environmental History, National Parks, History of Natural Resource Conservation Policy, History of Wildlife Science and Management

### **Professional Service**

*Member*, Professional Development Committee, American Society for Environmental History, 2011-2015  
*Chair*, Public Outreach Award Committee, American Society for Environmental History, 2014 to present

### **Recent Presentations**

"RAGBRAI: the Context of a Mass Ride Through an Agrarian Landscape," Poster Presentation, American Society for Environmental History meeting, San Francisco, CA, March 12-15, 2014.  
"Fryxell's Vision, Woodruff's Hobby: The Trails of Grand Teton National Park." Invited talk at the U. Wyoming-National Park Service (UW-NPS) Research Center, Moran, WY, July 7, 2012.  
"Paul Errington on Iowa's Marshes: A Context for Wildlife Science." Invited talk, Annual meeting of the Wildlife Bureau, Iowa Department of Natural Resources, Springbrook Training Center, Panora, IA, February 7, 2011.

### **Books/Book Chapters**

**Pritchard, J.A.** "A Landscape Transformed." Chapter 1 (pp. 12-43) in J.L. Anderson, ed., *The Rural Midwest Since WWII*. Dekalb: Northern Illinois University Press, 2014.  
Debinski, D.M. and **J. Pritchard**. *Guide to the Butterflies of the Greater Yellowstone Ecosystem*. Roberts Rinehart, 2002.  
Beeman, R. and **J. Pritchard**. *A Green and Permanent Land: Ecology and Agriculture in the Twentieth Century*. Lawrence: University Press of Kansas, 2001.  
**Pritchard, J.** *Preserving Yellowstone's Natural Conditions: Science and the Perception of Nature*. University of Nebraska Press, 1999.

### **Recent Journal Articles**

**Pritchard, J.** "Irresistible Fascination: Fritiof Fryxell and the Development of Grand Teton National Park." *Annals of Wyoming* 85, No. 4 (Autumn 2013): 2-16.  
**Pritchard, J.** "Mountain Home, Prairie Home," *Wapsipinicon Almanac* No. 15 (December, 2008).  
**Pritchard, J.A.**, D.M. Debinski, B. Olechnowski, and R. Vannimwegen. "The Landscape of Paul Errington's Work." *Wildlife Society Bulletin* Vol. 34, No. 5 (2006): 1411-16. Peer Edited.  
**Pritchard, J.** "Prairie Cemeteries: Memories and Biological Heritage." *The Iowan* 54 No. 4 (March /Apr. 2006): 14-16.

**Web page:** <http://www.nrem.iastate.edu/people/james-pritchard>



## Jesse Randall, Associate Professor and Extension Forester

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### Education

PhD, Forestry, Michigan State University, 2006  
BS, Natural Resources, Cornell University, 1999

### Areas of Expertise

Silvicultural research and extension activities that focus on overcoming deer, invasive plant, and herbicide impacts in an agriculturally dominated landscape

### Professional Service

Chair, Tri-State Forest Stewardship, 2008-present  
+ 12 state committee assignments  
NRCS Technical Reviewer

### Awards and Recognition

Iowa State University (ISU) Early Achievement in Extension Award, 2011  
ISU College of Ag & Life Science – Early Achievement in Extension Award, 2010  
American Forest Foundation: National Tree Farm Leadership Award, 2010  
Governor’s Golden Dome Award – Department of Natural Resources Deer Depredation, 2009

### Extension Activities since 2008

	Field days	Workshops	Invited Presentations	Extension Publications	Extension Videos
2015*	11	9	11	10 revisions	7
2014	11	15	12	7 (1 booklet)	9
2013	10	12	4	9	
2012	12	14	14	10	
2011	14	9	19	3	
2010	6	3	22	8	
2009	7	7	7	5	
2008	13	3	7	4	
<b>Total</b>	<b>96</b>	<b>72</b>	<b>101</b>	<b>56</b>	<b>16</b>

### Refereed Journal Articles since 2008

Frater, H., J. Blanchong, L. Bartholomay, and J.A. Randall. Accepted. Impact of prescribed burning on the abundance of mammalian host, *Peromyscus leucopus*, and the vector, *Ixodes scapularis* of *Borrelia burgdorferi*. *Natural Areas Journal*.

Headlee, W.L., R. Zalesny, R. Hall, E. Bauer, B. Bender, B. Birr, R. Miller, J.A. Randall, and A. Wiese. 2013. Specific gravity of hybrid poplars in the north-central region, USA: within-tree variability and site X Genotype effects. *Forests* 4(2),251-269.

Randall, J.A. and M.B. Walters. 2011. Deer density effects on vegetation and soils over site productivity and stand age gradients in aspen stands. *Forest Ecology and Management* 261:408-

Brudvig, L.A., H.M. Blunck, H. Asbjornsen, V.S. Mateos-Remigio, S.A. Wagner, A. Beringer, and J.A. Randall. 2011. Influences of woody encroachment and restoration thinning on savanna oak tree radial growth rates. *Forest Ecology and Management* 262: 1409-1416.

Web page: <http://www.nrem.iastate.edu/people/jesse-randall>

## Michael Rentz, *Lecturer*

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### Education

PhD, Conservation Biology, University of Minnesota, 2014

BA, Biology, University of Minnesota-Morris, 1994

### Areas of Expertise

Teaching lecture, laboratory, and field-based courses. Mammalogy, ecology, evolution, conservation biology, policy, and environmental education courses. Work with undergraduate students on research. Advise student organizations.

### Professional Service

*President and founding member*, Minnesota Chapter of the Society for Conservation Biology. Served 2 terms as President 2003-04 and 2010-11.

*Member*, Resolutions Committee American Society of Mammalogists, 2007-2009

### Awards and Recognition

University of Minnesota Duluth, Queer and Allied Student Union Ally of the Year, 2011-2012

### Recent Presentations

**Rentz, M.** 2014. "No Free Lunch: The Ecological Impacts of Woody Biomass Harvest." Oral presentation, St. Paul Audubon Society.

**Rentz, M.** 2011. "No Free Lunch: The Ecological Impacts of Woody Biomass Harvest." Oral presentation, Woody Biomass Energy Research Symposium University of Vermont, Burlington, VT.

**Rentz, M.** 2010. "Does Woody Biomass Harvest Open Forests to Increased Exotic Plant Invasion?" Oral presentation, Minnesota-Wisconsin Invasive Species Conference.

**Rentz, M.** 2009. "The effect of woody biomass harvest on small mammals." Oral presentation, American Society of Mammalogists.

**Rentz, M.** 2009. "Woody Biomass Harvest: short-term impacts on vegetation (there is no such thing as zero-impact)." Oral presentation, Minnesota Chapter of the Society for Conservation Biology annual meeting.

**Rentz, M.** 2008. "The Tagging of the Shrew: The Feasibility of Visible Impact Elastomers for Marking Small Mammals." Poster presentation, American Society of Mammalogists.

### Books/Book Chapters

Served as subject editor for two children's books for Discovery Channel/Animal Planet under contract with Scout Media.

### Recent Refereed Journal Articles

4 in preparation

**Web page:** <http://www.nrem.iastate.edu/people/michael-rentz>

## Kevin J. Roe, Adjunct Associate Professor

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### Education

PhD, Biology, The University of Alabama, 1999

MS, Zoology, The University of Georgia, 1994

BS, Zoology, The University of Georgia, 1988

### Areas of Expertise

Conservation and evolutionary genetics, with an emphasis on freshwater organisms

### Professional Service

*Managing Editor*, The American Malacological Bulletin, 2015 -

*Subject Editor*, *Walkeriana*, Journal of the Freshwater Mollusk Conservation Society, 2011 – present

*Grants Committee*, Conchologists of America, 2009 – 2013

*Chair*, Land snail sub-committee, Iowa DNR Wildlife Action Plan, 2008 – present

*Co-chair*, Mussel sub-committee, Iowa DNR Wildlife Action Plan, 2008 – present

*Co-chair*, Conservation Committee, American Malacological Society, 2005 – 2008

*Consulting Editor*, *Nemouria*: Occasional Papers of the Delaware Museum of Natural History, 2003 – 2005

*Chair*, Distribution/Status Committee. Freshwater Mollusk Conservation Society, 2002 – 2006

### Recent Presentations

**Roe, K.J.** 2014. A comparison of genetic diversity between sympatric populations of the endangered winged-mapleleaf (*Quadrula fragosa*) and its common congener the pimpleback (*Quadrula pustulosa*) in the St. Croix River, USA. Mollusca 2014, Mexico City, Mexico.

Chong, JP, J. Harris, **K.J. Roe**. 2013. Using molecular Data to aid delineation of two species in the freshwater mussel genus *Cyprogenia* (Bivalvia: Unionidae). Freshwater Mollusk Conservation Society, Guntersville, AL.

### Books/Book Chapters

**Roe, K.J.** and W.R. Hoeh. 2003. Systematics of Freshwater Mussels (Bivalvia: Unionoida). *In*: C. Lydeard and D. Lindberg (Eds.) *Molecular Systematics and Phylogeography of Mollusks*. p. 93-122. Smithsonian Institution Press, Washington, DC

Lydeard, C. and **K.J. Roe**. 1997. The phylogenetic utility of the mitochondrial cytochrome *b* gene for inferring relationships of actinopterygian fishes. *In*: *Molecular Systematics of Fishes*. C. Stepien and T. Kocher (Eds.) Academic Press, San Diego.

### Recent Refereed Journal Articles

**Roe K.J.** and S.L. Boyer. 2015. A comparison of genetic diversity between sympatric populations of the endangered winged-mapleleaf (*Quadrula fragosa*) and the pimpleback (*Amphinaias pustulosa*) in the St. Croix River, USA. Bulletin of the American Malacological Society. 33(1):1-9.

**Roe, K.J.** 2013. Molecular phylogenetics and zoogeography of the freshwater mussel genus *Ptychobranthus* (Bivalvia: Unionidae). Bulletin of the American Malacological Society. 31(2):257-265.

Randklev, C.R., M.S. Johnson, E.T. Tsakiris, S. Rogers-Oetker, **K.J. Roe**, J.L. Harris, S. McMurray, C. Robertson, J. Groce, and N. Wilkins. 2012. False spike, *Quadrula mitchelli* (Bivalvia: Unionidae), is not extinct: first account of a live population in over 30 years. Bulletin of the American Malacological Society. 30:327-328.

O'Bryhim, J., J.P. Chong, S.L. Lance, K.L. Jones and **K.J. Roe**. 2012. Development and characterization of sixteen microsatellite markers for the federally endangered species: *Leptodea leptodon* (Bivalvia: Unionidae) using paired-end Illumina shotgun sequencing. Conservation Genetics Resources. 4: 787-789.

von Rintelen, K., T.J. Page, Y. Cai, **K.J. Roe**, B. Stelbrink, B.R. Kuhajda, T. Iliffe, J. Hughes, and T. von Rintelen. 2011. Drawn to the dark side: a molecular phylogeny of freshwater shrimps (Crustacea: Decapoda: Caridea: Atyidae) reveals frequent cave invasions and challenges current taxonomic hypotheses. Molecular Phylogenetics and Evolution. 63: 82-96.

**Web page:** <http://www.nrem.iastate.edu/people/kevin-roe>

## Ann Russell, Adjunct Associate Professor

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### Education

PhD, Ecology and Evolutionary Biology, Statistics minor, Iowa State University, 1996

MS, Botany, Soil Science minor, University of Florida, 1983

BS, Natural Resources, Cornell University, 1976

### Areas of Expertise

Teaching and research in ecology, including ecosystem ecology, soil ecology, plant species effects in tropical & managed systems, process-based modeling, sustainability science, and agroforestry. Grant-writing adviser.

### Professional Service

*Subject Editor*, Biotropica, 2005-2015

*President, Past-President, and Board Member*, Fulbright Association Iowa Chapter, 2011-2015

### Awards and Recognition

Fulbright Scholar, Environmental Science, India, 2005

Charles A. and Anne M. Lindbergh Foundation, Certificate of Merit, 2000

### Recent Presentations

**Russell, A.E.** 2014. Drivers of tree species effects on phosphorus and cation cycling in plantations at La Selva Biological Station, Costa Rica. American Geophysical Union Annual Meeting, San Francisco, CA.

**Russell, A.E.** 2013. Belowground drivers of aboveground cation and phosphorus cycling in fast-growing tropical trees. Annual Meetings of the Ecological Society of America, Minneapolis, MN.

**Russell, A.E.** and D.C. Oik. 2012. Testing the effects of chemistry of organic matter inputs on soil carbon dynamics in an unconfounded experiment. Annual Meetings of the Ecological Society of America, Portland, OR.

**Russell, A.E.**, S.F. Oberbauer, and W.J. Parton. 2011. Modeling the complex effects of climatic variation on tropical rainforest carbon cycling. Annual Meetings of the Ecological Society of America, Austin, TX.

**Russell, A.E.** 2011. ExtendSim rainforest simulation model: An interactive learning tool for middle-school children. Annual Meetings of the Ecological Society of America, Austin, TX.

### Recent Refereed Journal Articles

**Russell, A.E.** 2014. Unexpected effects of chitin, cellulose, and lignin addition on soil dynamics in a wet tropical forest. *Ecosystems* DOI 10.1007/s10021-014-9769-1.

Weintraub, S.R., **A.E. Russell**, and A.R. Townsend. 2014. Native tree species regulate nitrous oxide fluxes in tropical plantations. *Ecological Applications* 24(4), 750-758.

Jagadamma, S., M.A. Mayes, Y.L. Zinn, G. Gísladóttir, and **A.E. Russell**. 2013. Sorption of organic carbon compounds to the fine fraction of surface and subsurface soils. *Geoderma* 213: 79–86.

**Russell, A.E.** and J.W. Raich. 2012. Rapidly growing tropical trees mobilize remarkable amounts of nitrogen, in ways that differ surprisingly among species. *Proceedings of the National Academy of Science*.  
[www.pnas.org/cgi/doi/10.1073/pnas.1204157109](http://www.pnas.org/cgi/doi/10.1073/pnas.1204157109)

**Russell, A.** 2012. Rainforest carbon cycling and biodiversity: A simulation model learning tool. EcoEd Digital Library, <http://esa.org/ecoed/index.php?P=FullRecord&ID=429>.

Saatchi, S., M. Marlier, R.L. Chazdon, D.B. Clark, and **A.E. Russell**. 2011. Impact of spatial variability of tropical forest structure on radar estimation of aboveground. *Remote Sensing of Environment*, Special Issue: VEG3D. doi:10.1016/j.rse.2010.07.015

**Russell, A.E.**, J.W. Raich, R. Bedoya, O. Valverde-Barrantes, and E. González. 2010. Impacts of individual tree species on carbon dynamics in a moist tropical forest environment. *Ecological Applications* 20(4): 1087-1100.

**Web page:** <http://www.nrem.iastate.edu/people/ann-russell>

## Lisa Schulte Moore, Associate Professor

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### Education

PhD, Forestry, University of Wisconsin-Madison, 2002

MS, Biology, University of Minnesota-Duluth, 1996

BS, Biology, University of Wisconsin-Eau Claire, 1993

### Areas of Expertise

Human-landscape interactions, including the causes, consequences, and design of land-use change in forest and agroecosystems

### Professional Service

*Member*, Rapid Response Team for the Ecological Society of America, 2012-present

*Member*, Board of Trustees for the Iowa Chapter of The Nature Conservancy, 2010-present

*Coordinating Editor*, Landscape Ecology, 2010-2014

### Awards and Recognition

National Academy of Science Kavli Frontiers of Science Fellow, 2014

Stanford University Leopold Leadership Fellow, 2013

Teaching Award of Merit from the North American Colleges and Teachers of Agriculture, 2007

ISU Award for Early Achievement in Teaching from Iowa State University, 2007

### Recent Grants and Contracts

Leopold Center for Sustainable Agriculture by L. Schulte, M. Harris, M. Helmers, R. Klaver; 2015-2018: Blurring the lines between working and conservation lands: enhancing bird and pollinator habitat using prairie strips; \$107,211

USDA National Institute for Food and Agriculture – Agriculture and Food Research Initiative by L. Schulte, M. Harris, M. Helmers, R. Kolka, M. Liebman, J. Westra; 2015-2018: Prairie strips as an innovative agroecosystem practice by enhance ecosystem services from farmers' fields; \$499,930

USDA Farm Services Agency by L. Schulte, M. Helmers, M. Harris; 2014-2017: Estimating the effect of the conservation reserve program (CRP) contour strips on grassland birds in Iowa; \$ \$124,754

The McKnight Foundation to Helmers, M.J., M. Liebman, L.A. Schulte; 2014-2016: Soil and water quality benefits from integrating prairie strips into corn-soybean production acres; \$70,000

### Recent Refereed Journal Articles

Ontl, T.A., C.A. Cambardella, **L.A. Schulte**, and R.K. Kolka. 2015. Factors influencing aggregation and particulate organic matter responses to bioenergy crops across a topographic gradient. *Geoderma* 255-256:1-11.

McGranahan, D., P.W. Brown, **L.A. Schulte**, and J.C. Tyndall. 2015. Associating conservation/production patterns in U.S. farm policy with agricultural land-use in three Iowa, USA townships, 1933-2002. *Land Use Policy* 45:76-85.

Knoet, T.G., M.E. Shea, **L.A. Schulte**, J.C. Tyndall, M. Nelson, C. Perry, B. Palik, and L. Westphal. 2015. Forest change in the Driftless Area of the Midwest: from a preferred to undesirable future? *Forest Ecology & Management* 341:110-120.

Liebman, M.Z. and **L.A. Schulte**. 2015. Enhancing agroecosystem performance and resilience through increased diversification of landscape and cropping systems. *Elementa*: [online](#).

Asbjornsen, H., V. Hernandez-Santana, M. Liebman, J. Bayala, J. Chen, M. Helmers, C.K. Ong, and **L.A. Schulte**. 2014. Targeting perennial vegetation in agricultural landscapes for enhancing ecosystem services. *Renewable Agriculture & Food Systems* 29:101-125.

Cox, R., M. O'Neal, R. Hessel, **L.A. Schulte**, and M. Helmers. 2014. The impact of prairie strips on aphidophagous predator abundance and soybean aphid predation in agricultural catchments. *Environmental Entomology* 43:1185-1197.

Shea, M.E., **L.A. Schulte**, and B.J. Palik. 2014. Reconstructing vegetation past: pre-Euro-American vegetation for the Midwest Driftless Area, USA. *Ecological Restoration* 32:417-433.

**Web page:** <http://www.nrem.iastate.edu/people/lisa-schulte-moore>

## **Richard Schultz, *University Professor***

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### **Education**

PhD, Forest Biology, Iowa State University, 1970  
MS, Forest Biology, Iowa State University, 1968  
BS, Forest Management, Iowa State University, 1965

### **Areas of Expertise**

Conduct research on the design, installation and placement of conservation buffers in agricultural landscapes. Teach courses in ecology, soils, watershed management and global resources of developing countries.

### **Professional Service**

*Associate Editor* – Agroforestry Systems Journal 2011- present  
*Advisory Board Member*, Forest Science and Technology Journal – Journal of the Korean Forest Society  
Southern Illinois University Department Review Team *Chair*, 2010  
*Led* 24 international study abroad trips to China, S. Korea, Greece, Turkey, Norway, Ethiopia, Uganda, Ecuador, Thailand  
*Co-Chair* of International Biodiversity Conferences, ISU Oct 2011 and Oct 2015  
*Hosted* 35 international scholars and students in our lab

### **Awards and Recognition**

Iowa State University Professor, 2010  
Regional Winner of USDA CREES National Award for Excellence in College & University Teaching in Food & Ag Sciences, 2008  
Journal of Soil and Water Conservation Research Award for Impact and Quality, 2008

### **Recent Presentations**

**Schultz, R.C.** Biodiversity, farming systems and food security. International Conference on Agricultural Biodiversity and Sustainability – Hokkaido University, Hokkaido, Japan 2012.  
**Schultz, R.C.** Maintaining and strengthening ties between Wondo Genet and Iowa State University. Seminar presented to Wondo Genet College of Forestry, Ethiopia, 2012.  
**Schultz, R.C.** Agriculture, environmental conservation and feeding 9 billion people. Seminar presentation to the Department of Sociology, Yunnan University, Kunming, China, 2011.  
**Schultz, R.C.** Developing sustainable landscapes in the Cornbelt of the USA. Presentation to School of Forest Sciences – Artvin Coruh University, Turkey, 2010.

### **Recent Refereed Journal Articles**

Zaimes, G.N. and **R.C. Schultz**. 2015. Riparian Land-use Impacts on Bank Erosion and Deposition of an Incised Stream in Central Iowa, USA. *Catena* 125: 61-73.  
Palmer, Jason, Keith E. Schilling, Thomas M. Isenhardt, **Richard C. Schultz**, Mark D. Tomer. 2013. Streambank erosion rates and loads within a single watershed: Bridging the gap between temporal and spatial scales. *Geomorphology* 209:66-78.  
Zaimes, G.N. and **R.C. Schultz**. 2012. Assessing Riparian Conservation Land Management Practice Impacts on Gully Erosion in Iowa. *Environmental Management* 49:1009-1021.  
Tufekcioglu, M., T.M. Isenhardt, J. Russell, and **R. Schultz**. 2012. Stream bank erosion as a source of sediment & phosphorus in grazed pastures of the Rathbun Lake Watershed in southern Iowa, USA. *J of Soil/Water Conservations* 67: 545-555.  
Tufekcioglu, M., **R.C. Schultz**, G.N. Zaimes, T.M. Isenhardt, and A. Tufekcioglu. 2012. Riparian grazing impacts on streambank erosion and phosphorus loss via surface runoff. *Journal of the American Water Resources Association* 49 (1): 103-113. DOI: 10.1111/jawr.12004.  
Tufekcioglu, M., T.M. Isenhardt, **R.C. Schultz**, D.A. Bear, J.L. Kovar, and J.R. Russell. 2012. Stream bank erosion as a source of sediment and phosphorus in grazed pastures of the Rathbun Lake Watershed in southern Iowa, USA. *Journal of Soil and Water Conservation* 67(6):545-555.

**Web page:** <http://www.nrem.iastate.edu/people/richard-schultz>

## **Lydia R. Skrynnikova, Lecturer**

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### **Education**

MS, Biology, University of Michigan, 1998

MA, International Peace Studies (Environmental Studies), University of Notre Dame, 1995

BS, Diploma in Biology, University of St. Petersburg, Russia, 1993

### **Additional Education**

Bowdoin College, Brunswick (USA); East-West Cultural and Academic Exchange Program, September 1990 -May 1991

Certificate of Completion: Raising Readers: Preparing Preschoolers for Success, PBS TeacherLine course, fall 2010

Certificate of Completion: Early Learning Webinars, Iowa State University, fall 2009 - spring 2010

Parenting Education Certificate of Completion, (USA) Iowa State University, 2008

### **Honors and Awards**

Professional development grant from ISU, 2015

Scholarship from PBS, 2010

Scholarship from Story County Empowerment at Iowa State University, 2008

Chase S. Osborn Fellowship from University of Michigan Biological Station, 1996

Grants (tuition and fees, and stipend) from NAFSA (Russia-Eurasia Award Program) at the University of Notre Dame (USA), 1993-94 and 1994-1995

Diploma with Honor from the University of St. Petersburg (Russia), 1993

Full scholarship (tuition and fees, and stipend) from Bowdoin College (USA), 1990-91

### **Professional Experience**

Lecturer, Iowa State University (NREM), Aug 2013- present time

- Taught Animal Ecology and Wildlife Management (NREM 450); Introduction to Renewable Resources (NREM 120); Foundations in Natural Resource Policy and History (NREM 270); Environmental Issues in Modern Russia (RUS 375); Influential Environmental Thinkers in Russia and the U.S. (RUS 370)

Adjunct Instructor, DMACC (Boone and Ames, Iowa), Jan 2013- present time

- Taught Environmental Science

Teacher, Memorial Lutheran Church and Student Center (Ames, Iowa), Jan 2012-Dec. 2012

- Taught ESL (advanced level English) and French

Teacher, Waldorf Preschool "Prairie Flower" (Ames, Iowa), Sept 2011-May 2012

- Taught 3-5 year old children; Facilitated Waldorf parent-child playgroup

Farmer, Mustard Seed Community Farm and Catholic Worker House (Iowa), summer 2011-present time

- Helped with farming operations

Teacher, "Words and Meanings" Centre d'enseignement et de formation professionnelle (Marseille, France), spring 2011

- Taught English language, taught workshops "How to prepare for the interview"

Childcare Coordinator, Lutheran Services in Iowa (Family Resource Center "People Place") (Ames, Iowa), 2006-2010

- Supervised the program for the children, designed and implemented educational activities for the children, provided assistance for the parents through education and support, trained new staff (work-study ISU students), facilitated classes for parents (Nurturing Healthy Sexual Development) and children (Care for Kids)

Advocate, ACCESS (Assault Care Center Extending Shelter and Support) (Ames, Iowa), 2006-2008.

- Provided counseling, advocacy, and referral to survivors of domestic and sexual violence, helped with office work

Volunteer, Reiman Gardens (Ames, Iowa), 2005-present time

- Helped with the organization of various events

### **Web page:**



## Timothy Stewart, Associate Professor

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### Education

PhD, Biology, Bowling Green State University, 1999

MS, Biology, SUNY Brockport, 1993

BS, Biology, Ithaca College, 1989

### Areas of Expertise

Community ecology, aquatic ecology

### Professional Service

Chair, NREM Curriculum and Catalog Committee, 2011-2015

### Awards and Recognition

Evaluation of Successful Forested Wetland Mitigation in Iowa. Research grant awarded by the Iowa Department of Transportation to J.R. Thompson, **T.W. Stewart** (\$119,996- contract period 10/1/14-9/30/17)

A condition assessment protocol for Iowa's prairie pothole wetlands. Research grant awarded by the United States Environmental Protection Agency to **T.W. Stewart**, M.J. Weber (\$196,769 - contract period 1/15/2014-8/20/2016)

Navigating the waters: a wetland development guide for agencies and organizations working with women landowners. Research grant awarded by the United States Environmental Protection Agency to R. Christoffel, **T.W. Stewart**, A. Carter (\$234,423 - contract period 1/1/12-9/31/15)

### Recent Presentations

**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.

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

### Recent Refereed Journal Articles

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

Wu, J.Y., J.R. Thompson, R.K. Kolka, K.J. Franz, and **T.W. Stewart**. 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., M.E. Culler, D.C. Dermisis, C.L. Pierce, A.N. Papanicolaou, **T.W. Stewart**, and C.J. Larson. 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., C.L. Pierce, **T.W. Stewart**, and S.E. Grummer. 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., C.L. Pierce, and **T.W. Stewart**. 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., **T.W. Stewart**, and J.R. Thompson. 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 **T.W. Stewart**. 2010. Macroinvertebrate assemblages in Iowa prairie pothole wetlands and relation to environmental features. *Wetlands* 30:501-511.

**Web page:** <http://www.nrem.iastate.edu/people/timothy-stewart>

## **Douglas D. Stokke, Senior Lecturer**

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### **Education**

PhD, Forestry (Forest Biology/Wood Science), Iowa State University, 1986

MS, Forestry (Forest Products) University of Minnesota, 1982

BS, Forestry (Forest Products), Iowa State University, 1980

### **Areas of Expertise**

Forest products, forestry undergraduate teaching and advising

### **Professional Service**

111 Project *Collaborator*, Northeast Forestry University, Harbin, China, September 2008-2013

*Vice Chair*, Marketing Standing Committee, Society of Wood Science and Technology, 2011-2012

*Panel Member*, U.S. Department of Agriculture, Cooperative State Research, Education and Extension Service, National Institute of Food and Agriculture/Agriculture and Food Research Initiative, Biobased Energy Co-Products Research Program, 2010

*Panel Member*, U.S. Department of Agriculture, Cooperative State Research, Education and Extension Service, Agriculture and Food Research Initiative, Biobased Products and Bioenergy Research Program, 2009

*Member*, Student Activities Committee for the 63rd International Convention of the Forest Products Society, 2008-2009 (Boise, ID, June 2009)

Sessions 5 & 8 *Chair*, Wood Chemistry, Pulping and Papermaking; New Biobased Materials, IAWPS 2008 International Symposium on Wood Science and Technology, Northeast Forestry University, Harbin, China. September 27 & 28

*Chair*, Visiting Scientist Committee, Society of Wood Science and Technology, 2007-2009

Student Activities *Chair and Member*, Planning Committee for the 62nd International Convention of the Forest Products Society, 2007-2008 (St. Louis, MO, June 2008)

### **Awards and Recognition**

Outstanding Advisor Award, College of Agriculture and Life Sciences, Iowa State University, 2013

"Most Beloved Professor" from the Iowa State University Forestry Club/Forestry Undergraduate Students, 2013

Fellow, Society of Wood Science and Technology, June 2009

Fred W. Gottschalk Memorial Award for Outstanding Service, Forest Products Society, June, 2009

### **Recent Presentations**

**Stokke, D.D.** 2009. Biofuels and byproducts. Oral presentation to the College of Materials Science and Engineering, Northeast Forestry University, Harbin, China.

**Stokke, D.D.** 2008. Biofuels: A perspective from the U.S. Midwest. Invited presentation, Seoul National University and the Korea Forestry Research Institute.

**Stokke, D.D.**, Y. Bian, and D.J. Myers. 2008. Enzymatic soy hydrolysates for wood adhesives. Poster presented at the 62<sup>nd</sup> International Convention of the Forest Products Society, St. Louis, MO.

**Stokke, D.D.** 2008. Soy protein adhesives. Oral presentation at the Midwest Biopolymers and Biocomposites Workshop, Iowa State University.

**Stokke, D.D.**, Y. Bian, and D.J. Myers. 2008. Enzymatic soy hydrolysates for wood adhesives. Oral presentation at the Protein Technical Advisory Panel (TAP) meeting of the United Soybean Board, St. Louis, MO.

### **Books/Book Chapters**

**Stokke, D.D.**, Q. Wu, and G. Han. 2014. Introduction to Wood and Other Natural Fiber Composites. John Wiley and Sons, Ltd., Chichester, UK. 297 pages. ISBN 978-0-470-71091-3.

**Appointment is 90% teaching/advising, 10% service**

**Web page:** <http://www.nrem.iastate.edu/people/douglas-stokke>

## Jan R. Thompson, *Professor*

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### Education

PhD, Forestry, Iowa State University, 1991  
MS, Soil Science, Iowa State University, 1984  
BS, Forestry, Michigan Technological University, 1981

### Areas of Expertise

Urban forestry, urban ecosystem ecology, forest ecology and restoration, cooperative and collaborative learning, professional development for undergraduate students

### Professional Service

*Member*, Forest Science and Technology Board, Society of American Foresters, 2015 (anticipated to 2018)  
*Chair*, Urban Forestry Working Group, Society of American Foresters, 2009-10 (*Secretary*, 2007-08, *Vice-Chair* 2008-09)  
*Ad-hoc Reviewer* (regularly), *Journal of Forestry*, *Landscape and Urban Planning*, *Environmental Monitoring and Assessment*, *Journal of Life Science Education*

### Awards and Recognition

Faculty Fellow, Center for Excellence in Teaching and Learning, Iowa State University, 2011  
Emerging Leaders Academy, Iowa State University, 2010  
Harmon Family Professor, Department of NREM, 2010-2015  
Trees Forever Twenty Partners Award, 2009  
Outstanding Achievement in Teaching, College of Agriculture and Life Sciences, 2008

### Recent Presentations

Altrichter, E., C. Mabry, **J. Thompson**, and A. Grossi. 2015. Woodland herbaceous layer restoration in urban forests: Assessing key species. Society for Ecological Restoration, Manchester, U.K.  
Bearinger, K., M. Serr, T. Bowman, **J. Thompson**, et al. 2015. Pathways to successful urban biodiversity conservation. International Symposium on Society and Resource Management, Charleston, SC.  
Hendrich, S., **J. Thompson**, C. Hill, N. Gabiam, and D. Stokke. 2014. Risks and rewards of integrative assignments: Using different perspectives to explore world hunger. National Learning Communities Conference, Bay City, MI.

### Book Chapter

Hess, G., C. Moorman, **J. Thompson**, and C. Larson. 2014. Integrating wildlife conservation in urban planning. Pp. 239-278 *In* McCleery, R. et al. (eds.), *Urban Wildlife Conservation: Theory and Practice*. Springer Science+Business Media LLC.

### Recent Refereed Journal Articles

Wu, J., T. Stewart, **J. Thompson**, R. Kolka, and K. Franz. 2015 (in press). Watershed features and stream water quality: Gaining insight through path analysis in a Midwest urban landscape, U.S.A. *Landscape and Urban Planning*.  
Olson, A.R., T. Stewart, and **J. Thompson**. 2015 (in press). Direct and indirect effects of human population density and land use on physical features and invertebrates of Iowa (U.S.A.) streams. *Urban Ecosystems*.  
Gerken Golay, M., P. Bice, and **J. Thompson**. 2014. Collaborative learning about forest understory restoration: Identifying goals and sharing knowledge. *Journal of Forestry* 112(4): 327-336.  
Wu, J.W. and **J. Thompson**. 2013. Quantifying impervious surface changes using time-series planimetric data from 1940 to 2011 in four central Iowa cities, U.S.A. *Landscape and Urban Planning* 120: 34-47.  
Gerken Golay, M., R. Manatt, C. Mabry, **J. Thompson**, and R. Kolka. 2013. Restoration of herbaceous woodland plants: Persistence, growth, and reproductive success of local and non-local propagules. *Ecological Restoration* 31(4): 378-387.  
Gerken Golay, M., **J. Thompson**, C. Mabry, and R. Kolka. 2013. An investigation of water nutrient levels associated with forest vegetation in highly altered landscapes. *Journal of Soil and Water Conservation* 68(5): 361-371.

**Web page:** <http://www.nrem.iastate.edu/people/janette-thompson>

## John Tyndall, Associate Professor

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### Education

PhD, Natural Resource Economics, Iowa State University, 2003  
MS, Resource Management, Iowa State University, 1996  
BA, Sociology & Environmental Studies, Western Michigan University, 1991

### Areas of Expertise

Natural resource and environmental economics and policy

### Professional Service

Co-Advisor, National Society of American Foresters Student Chapter, 2007-present

### Awards and Recognition

University Extension Team Award, 2008

### Recent Refereed Journal Articles (Student at time of publication\*; former students\*\*)

- Prokopy L., J.G. Arbuckle, A.P. Barnes, V.R. Haden, A. Hogan, M.T. Niles, and J.C. Tyndall. 2015. Farmers and Climate Change: A Cross-National Comparison of Beliefs and Risk Perceptions in High Income Countries. *Environmental Management*.
- Tyndall, J.C., J.G. Arbuckle, Jr., L. Wright Morton, L. Stalker Prokopy, T. Haigh, T. Knoot, C. Knutson, and M. Widhalm. 2015. New Atlas features Corn Belt farmers' perspectives in agriculture and climate. *Journal of Extension*.
- Knoot, T.G., M.E. Shea, L.A. Schulte, J.C. Tyndall, M.D. Nelson, C.H. Perry, and B.J. Palik. 2015. Forest change in the Driftless Area of the Midwest: From a preferred to undesirable future. *Forest Ecology and Management*. 341: 110-120.
- McGranahan, D\*\*, P. Brown, L. Schulte, J.C. Tyndall. 2015. Associating conservation/production patterns in U.S. farm policy with agricultural land-use in three Iowa, townships, 1933-2002. *Land Use Policy*. 45: 76-85.
- Tyndall, J.C. and G. Roesch\*. 2014. A Standardized Approach to the Financial Analysis of Structural Water Quality BMPs. *Journal of Extension*. Vol. 52, Num. 3, 3FEA10.
- Arbuckle, J., J. Hobbs\*, A. Loy\*, L. Wright-Morton, L. Prokopy, and J.C. Tyndall. 2014. Understanding farmer perspectives on climate change: Toward effective communication strategies for adaptation and mitigation in the Corn Belt. *Journal of Soil and Water Conservation*. 69 (6): 505-516.
- Enloe, S.\*\*, L.A. Schulte, and J.C. Tyndall. 2014. Toward a collaborative approach to watershed management: Lessons learned from the Boone River watershed, Iowa. *Journal of Soil and Water Conservation*. 69 (5): 149A-153A.
- Christianson, L.\*\*, J.C. Tyndall, and M. Helmers. 2013. Financial Comparison of Seven Nitrate Reduction Strategies for Midwestern Agricultural Drainage. *Water Resources & Economics*. <http://dx.doi.org/10.1016/j.wre.2013.09.001>
- Tyndall, J.C., L. Schulte, M. Liebman, and M. Helmers. 2013. Field-Level Financial Assessment of Contour Prairie Strips for Environmental Quality Enhancement. *Environmental Management*. 52(3): 736-747.
- McGranahan, D.\*\*, P. Brown, L. Schulte, and J.C. Tyndall. 2013. A historical primer on the U.S. farm bill: Supply management and conservation policy *Journal of Soil and Water Conservation*. 68 (3), 67A-73A.
- Arbuckle, J., L. Prokopy, (10 authors; J.C. Tyndall). 2013. Climate Change Beliefs, Risk Perceptions, and Attitudes toward Adaptation and Mitigation among Farmers in the Midwestern United States. *Climate Change Letters*. 117(4): 943-950.

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## Michael J. Weber, Assistant Professor

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### Education

PhD, Fisheries Science, South Dakota State University, 2011

MS, Natural Resources and Environmental Sciences, University of Illinois, 2008

BS, Wildlife and Fisheries Sciences, South Dakota State University, 2005

### Areas of Expertise

Fisheries ecology and management focused on mechanisms regulating population dynamics, food webs, and community structure and function

### Professional Service

*Representative*, North Central Division Centrarchid Technical Committee, 2015-present

*Advisor*, Iowa State University Student Subunit of the Iowa Chapter of the American Fisheries Society, 2012-present

*Iowa State University Representative*, Upper Mississippi River Asian Carp Committee, 2013-present

### Awards and Recognition

Iowa AFS Chapter Meeting Best Student Paper, 2014

Dakota AFS Chapter Meeting Best Professional Paper, 2014

Iowa Water Conference Meeting Best Student Paper, 2014

### Recent Presentations

 † denotes graduate student, \* denotes undergraduate student, ‡ denotes best paper award

\*Carl, D., **M.J. Weber**, and M.L. Brown. 2015. Can attractants be used to increase catch rates and deplete age-0 common carp. Iowa Chapter of the American Fisheries Society Annual Meeting, Ames, IA.

**Weber, M.J.**, M. Thul, and M. Flammang. 2015. "Laboratory evaluation of a pulsed direct current electric barrier for reducing walleye escapement" 75th Annual Midwest Fish and Wildlife Conference, Indianapolis, IN.

†Camacho, C., †C. Sullivan, **M.J. Weber**, and C. L. Pierce. 2015. "Seasonal variation of Silver Carp egg development in Upper Mississippi and Des Moines rivers" 75th Annual Midwest Fish and Wildlife Conference, Indianapolis, IN.

†Sundberg, M.D., †R.C. Baldwin, T.W. Stewart, and **M.J. Weber**. 2015. "Changes in wetland condition following drought-induced reductions in fish abundance" 75th Annual Midwest Fish and Wildlife Conference, Indianapolis, IN.

‡\*Sleeper, W. and **M.J. Weber**. 2014. "Population dynamics of smallmouth bass in the Skunk River" Iowa Chapter of the American Fisheries Society Annual Meeting, Council Bluffs, IA.

### Recent Refereed Journal Articles

**Weber, M.J.**, B. Ruebush, S.M. Creque, R.A. Redman, J.M. Dettmers, and S.J. Czesny. 2015. Early life history of alewife *Alosa pseudoharengus* in southwestern Lake Michigan. *Journal of Great Lakes Research*.

**Weber, M.J.**, M.L. Brown, D.H. Wahl, and D.E. Shoup. 2015. Metabolic theory explains latitudinal variation in common carp populations and predicts responses to climate change. *Ecosphere* 6:54.

Bajer, P., T.K. Cross, J. Lechelt, C.J. Chizinski, **M.J. Weber**, and P.W. Sorensen. 2015. Across-ecoregion analysis suggests a hierarchy of ecological filters that regulate recruitment of a globally invasive fish. *Diversity and Distributions* 21:500-510.

Wagner, C., **M.J. Weber**, and D.H. Wahl. 2015. Effect of branching complexity on use of woody habitat by juvenile muskellunge. *North American Journal of Fisheries Management* 35:14-19.

**Weber, M.J.**, and M.L. Brown. 2015. Biomass-dependent effects of juvenile common carp on aquatic ecosystems. *Hydrobiologia* 742:71-80.

Flammang, M., M. Thul, **M.J. Weber**, and R. Schultz. 2014. Laboratory evaluation of a bioacoustic bubble strobe light barrier for reducing walleye escapement. *North American Journal of Fisheries Management* 34:1047-1054.

**Weber, M.J.** and M.L. Brown. 2013. Spatiotemporal variation of juvenile common carp foraging patterns as inferred from stable isotope analysis. *Transactions of the American Fisheries Society* 142:1179-1191.

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## Peter T. Wolter, Assistant Professor

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### Education

PhD, Forest Ecology (minor: Environmental Monitoring), University of Wisconsin – Madison, 2009  
MS, Forest Resources (remote sensing emphasis), University of New Hampshire, 1990  
BS, Forest Administration, University of Wisconsin – Stevens Point, 1985

### Areas of Expertise

Remote sensing (active and passive) or forested ecosystems, nutrient cycling, indicator development, forest and landscape ecology, forest structure and avian ecology, and land use/land cover change

### Professional Service

Reviewer for the following journals: Remote Sensing of Environment, Landscape Ecology, Photogrammetric Engineering and Remote Sensing, International Journal of Remote Sensing

### Conferences

**Wolter, P.T.** and P.A. Townsend. 2009. Estimating forest species composition using a multi-sensor approach (poster). Eos Trans. AGU, 88(54), Fall Meet. Suppl., Abstract B31A-0312.  
James, P.M., B.R. Sturtevant, P.A. Townsend, **P.T. Wolter**, and M-J. Fortin. 2008. Spatial legacies of forest management in spruce budworm host species. Proceedings: 23rd Annual Landscape Ecology Symposium, 6-10 April 2008 Madison, WI.

### Grants

2010 NASA (NNH10ZDA001N-CARBON) \$672,346 (**Pending**), Direct and indirect effects of climate change and disturbance on bird species distributions in western Great Lakes forests (lead PI).  
2010 NASA (NNH10ZDA001N-BIOCLIM) \$1,531,370 (**Pending**), Integrating fine resolution imagery and broad scale modeling to assess regional effects of climate change on carbon in northern forest ecosystems (lead PI).  
2010 USGS (NCCWSC2010) \$749,335 (**Pending**), Projecting landscape-scale forest bird response to changes in climate and disturbance regimes in the Western Great Lakes Region (Co-PI).  
2009 U.S. Fish & Wildlife Service \$3000.00. Estimating forest composition and basal area in Sherburne National Wildlife Refuge using multi-temporal Landsat data (Lead PI).  
2008 The Nature Conservancy \$5,500, Forest landscape change analysis, Manitou and Sand Lakes\Seven Beavers: 2000-2005 (lead PI).

### Recent Refereed Journal Articles

Sturtevant, B.R., B.R. Miranda, D.J. Shinneman, E.J. Gustafson, and **P.T. Wolter**. Submitted. Comparing contemporary and presettlement forest dynamics in the Boundary Waters Canoe Area Wilderness (USA) – Does spruce budworm disturbance enhance fire risk? *Ecological Applications*.  
James, P.M.A., B.R. Sturtevant, P.A. Townsend, **P.T. Wolter**, and M-J. Fortin. Accepted. Spatial legacies of forest management in spruce budworm host tree species in the Border Lakes Landscape. *Ecological Applications*.  
**Wolter, P.T.** and P.A. Townsend. 2011. Estimating forest species composition using a multi-sensor fusion approach. *Remote Sensing of Environment*, 115, 671–691.  
**Wolter, P.T.**, P.A. Townsend, and B.R. Sturtevant. 2009. Estimation of forest structural parameters using 5 and 10 meter SPOT-5 satellite data. *Remote Sensing of Environment*, 113, 2019-2036.  
Johnston, C.A., T.N. Brown, T.P. Hollenhorst, **P.T. Wolter**, N.P. Danz, and G.J. Niemi. 2009. GIS in support of ecological indicator development. *Manual of Geographic Information Systems* (56):1095-1113.  
**Wolter, P.T.**, P.A. Townsend, C.C. Kingdon, and B.R. Sturtevant. 2008. Remote sensing of the distribution and abundance of host species for spruce budworm in N. Minnesota and Ontario. *Remote Sensing of Environment*, 112(10), 3971-3982.  
Johnston, C.A., T. Watson, and **P.T. Wolter**. 2008. Sixty-three years of land alteration in Erie Township. *International Journal of Great Lakes Research*, 33 (3), 253–268.

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