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EDUCATION:

Ph.D., Applied Plant Sciences, 2006, University of Minnesota, St. Paul, MN. Dissertation: *Seed ecology of wetland Carex species - implications for restoration*. Advisor: Dr. Susan M. Galatowitsch.

B.A., Biology, 1998, Oberlin College, Oberlin, OH. Advisor: Dr. David Benzing.

PROFESSIONAL EXPERIENCE:

Assistant Professor, Utah State University, 2008-present.

Post-doctoral Fellow, Smithsonian Environmental Research Center with Dr. Dennis Whigham, 2006-8.

Post-doctoral Researcher, The Field Museum of Natural History and the Morton Arboretum with Drs. Andrew Hipp and Kevin Feldheim, 2006.

Graduate Research Assistant, University of Minnesota with Dr. Susan Galatowitsch, 2000-6.

COURSES TAUGHT:

WATS 4310/6310 Wetland Ecology and Management, Department of Watershed Sciences, Utah State University, 2009, 2010

WATS/WILD 6700 Restoration Ecology, Department of Watershed Sciences, Utah State University, 2010.

GRANTS AND FELLOWSHIPS:

Kettenring, K.M. Restore and maintain native and desired nonnative plant and animal species diversity in terrestrial and aquatic ecosystems. U.S. Forest Service, \$80,000; 2009-2011.

Jordan, T., D. Breitburg, C. Gallegos, E. Johnson, **K.M. Kettenring**, X. Li, M. McCormick, P. Neale, G. Reidel, D. Weller, D. Whigham, M. Erwin, L. Karrh, E. Koch, R. Seitz, T. Targett, D. Wardrop. Predicting impacts of stressors at the land water interface. National Oceanic and Atmospheric Association. \$4,818,081 (KMK \$253,005); 2009-2014.

Kettenring, K.M. and D.E. Rosenberg. Allocating scarce water to benefit wetlands and wetland plant communities at the Bear River Migratory Bird Refuge: ecological experiments and optimization modeling. Research Initiation Grant, Utah State University, \$35,335; 2009.

Kettenring, K.M. Inventory of native *Phragmites* and assessment of nonnative *Phragmites* spread in wetlands in northern Utah. U.S. Fish and Wildlife Service Challenge Cost Share, Utah Wetlands Foundation, and Intermountain West Joint Venture, \$22,000; 2009.

Kettenring, K.M., K. Mercer, J. Hines, and C. Reinhardt Adams. Plant genetic diversity and ecosystem function in wetland restorations – building research capacity through pilot studies. Research Catalyst Grant, Utah State University, \$19,983; 2009.

Kettenring, K.M. What is driving the invasion of the non-native plant *Phragmites australis* (common reed) in wetlands in northern Utah? New Faculty Research Grant, Utah State University, \$10,124; 2008-9.

Kettenring, K.M. Effects of salinity, flooding, nitrogen and CO₂ on the establishment of native and non-native haplotypes of *Phragmites australis*. Smithsonian Post-doctoral Fellowship, \$77,000; 2006-8.

PUBLICATIONS (* student researcher):

Peer reviewed publications:

Kettenring, K.M., M.K. McCormick, H.M. Baron, and D.F. Whigham. 2010. *Phragmites australis* (common reed) invasion in the Rhode River subestuary of the Chesapeake Bay: disentangling the effects of foliar nutrients, genetic diversity, patch size, and seed viability. *Estuaries and Coasts*, *In press*.

McCormick, M. K., **K. M. Kettenring**, H. M. Baron* and D. F. Whigham. 2010. Extent and mechanisms of *Phragmites australis* spread in brackish wetlands in a subestuary of the Chesapeake Bay, Maryland (USA). *Wetlands*, *In press*.

Hipp, A.L., **K.M. Kettenring**, K.A. Feldheim, and J.A. Weber. 2009. Isolation of 11 polymorphic tri- and tetranucleotide microsatellite loci in a North American sedge (*Carex scoparia*: Cyperaceae) and cross-species amplification in three additional *Carex* species. *Molecular Ecology Resources* 9: 625-627.

Kettenring, K. M., C. W. Weekley and E. S. Menges. 2009. Herbivory delays flowering and reduces fecundity of *Liatris ohlingerae* (S.F. Blake) B.L. Rob., an endangered, endemic plant of the Florida scrub. *Journal of the Torrey Botanical Society* 136: 350-362.

Kettenring, K. M. and D. F. Whigham. 2009. Seed viability and seed dormancy of non-native *Phragmites australis* in suburbanized and forested watersheds of the Chesapeake Bay, USA. *Aquatic Botany*, 91:199-204.

Kettenring, K.M. and S.M. Galatowitsch. 2007. Requirements for dormancy break and seed germination vary greatly among 14 species of *Carex* (sedges) from wetlands in mid-continental U.S. *Aquatic Botany* 87: 209-220.

Kettenring, K.M. and S.M. Galatowitsch. 2007. Tools for *Carex* revegetation in prairie pothole wetlands: understanding dormancy loss and germination temperature requirements. *Plant Ecology* 193: 157-169.

Kettenring, K.M., G. Gardner, and S.M. Galatowitsch. 2006. Effects of light on *Carex* seed germination. *Annals of Botany* 98: 869-874.

Kettenring, K.M., B.T. Martinez, A.M. Starfield, and W.M. Getz. 2006. Good practices for sharing ecological models. *BioScience* 56: 59-64.

Manuscripts in revision or review:

McCormick, M.K., **K.M. Kettenring**, H.M. Baron, D.F. Whigham. *In revision*. Spread of invasive *Phragmites australis* in estuaries with differing degrees of development: Genetic patterns, Allee effects and interpretation. *Journal of Ecology*.

Baldwin, A.H., **K.M. Kettenring** and D.F. Whigham. *In review*. The seed banks of brackish wetlands dominated by the non-native genotype of *Phragmites australis*. *Aquatic Botany*.

JOURNAL AND GRANT REVIEWING:

Conservation Biology, Ecological Restoration, New Phytologist, Plant Ecology, Restoration Ecology, Rangeland Ecology and Management, Wetlands, International Society for Salt Lake Research. NOAA, NSF.

PUBLISHED ABSTRACTS (* student researcher):

Alminagorta, O.*, D. Rosenberg, and **K.M. Kettenring**. 2009. System analysis to improve wetland water allocation at the Bear River Migratory Bird Refuge, Utah. World Environmental & Water Resources Congress, Providence, RI.

Downard, R.*, J. Endter-Wada, and **K.M. Kettenring**. 2009. Keeping wetlands wet: Wetland policies and politics in the Bear River Basin. Ecological Society of America Millennium Conference on water-ecosystem services, drought, and environmental justice, Athens, GA.

Endter-Wada, J., L.W. Welsh*, R. Downard*, and **K.M. Kettenring**. 2009. Paradoxes in adapting to droughts – The rationality of locality. Ecological Society of America Millennium Conference on water-ecosystem services, drought, and environmental justice, Athens, GA.

Kettenring, K.M., M.K. McCormick, and D.F. Whigham. 2009. A feedback mechanism for the spread of the invasive plant *Phragmites australis* – increased local genetic diversity and cross pollination can drive viable seed production. Botanical Society of America annual meeting, Snowbird, UT.

Kettenring, K.M., D.F. Whigham, M.K. McCormick, H.M. Baron*, S.K. Gallagher*, and A.H. Baldwin. **2009**. Mechanisms of *Phragmites* invasion in the Chesapeake Bay: Disentangling the importance of land-use, disturbances, nutrients, genetic diversity, and viable seed production. Ecological Society of America annual meeting, Albuquerque, NM.

Wardrop, D.H., **K.M. Kettenring**, M.K. McCormick, M.M. Easterling, J. Peterson-Smith, and D.F. Whigham. **2009**. Writing a new story of *Phragmites* invasion: Historical land cover analysis and population studies in three Chesapeake Bay subestuaries. Society of Wetland Scientists annual meeting, Madison, WI.

Baldwin, A.H., **K.M. Kettenring**, and D.F. Whigham. **2008**. Seed banks of brackish *Phragmites* wetlands. Society of Wetland Scientists annual meeting, Washington, D.C.

Baron, H.M.*, **K.M. Kettenring**, M.K. McCormick, and D.F. Whigham. **2008**. Variation in seed viability, genetic diversity, and foliar nutrients of non-native *Phragmites australis* in the Rhode River, a subestuary of the Chesapeake Bay. Society of Wetland Scientists annual meeting, Washington, D.C.

Gallagher, S.M.*, **K.M. Kettenring**, and D.F. Whigham. **2008**. The effects of small disturbances on germination and emergence of *Phragmites australis* in brackish wetlands. Ecological Society of America annual meeting, Milwaukee, WI.

Gallagher, S.M.*, **K.M. Kettenring**, and D.F. Whigham. **2008**. Effects of small disturbances on the emergence of *Phragmites australis* in native wetland plant communities. Wisconsin Wetlands Association annual meeting, Oconomowoc, WI.

Kettenring, K.M., M.K. McCormick, H.M. Baron*, A.H. Baldwin, and D.F. Whigham. **2008**. The potential for a seed-driven invasion of *Phragmites australis* in developed vs. forested watersheds of the Chesapeake Bay. Ecological Society of America annual meeting, Milwaukee, WI.

McCormick, M.K., **K.M. Kettenring**, H.M. Baron*, D.F. Whigham. **2008**. Watershed land-use, viable seed production, and genetic diversity of non-native *Phragmites australis* in Chesapeake Bay subestuaries. Atlantic Estuarine Research Society annual meeting, Lewes, DE.

Kettenring, K.M. and D.F. Whigham. **2007**. Seed germination and seedling growth of invasive *Phragmites australis* from forested and developed watersheds of the Chesapeake Bay. Ecological Society of America annual meeting, San Jose, CA.