

## **Peter E. Schweizer**

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### **Education**

Ph.D., Biological Sciences, Ecology and Evolutionary Biology, Ohio University, 2008  
Concentration: Landscape Ecology, Aquatic Ecology, Urban-Rural Gradients, Remote Sensing and GIS  
Dissertation: Influences of Watershed Land Cover Pattern on Water Quality and Biotic integrity of Coastal Plain Streams in Mississippi, USA

B.S., Biological Sciences *cum laude*, The University of Southern Mississippi, Hattiesburg, MS, 2000  
Concentration: Marine Biology  
Senior Honors Thesis: Effects of Area Development on Selected Parameters in Local Creeks of the Hattiesburg Area, Forrest County and Lamar County, Mississippi

### **Experience**

Postdoctoral Research Associate, 2009 - present  
ORAU/ORISE, Oak Ridge National Laboratory  
Modeling patterns of fish biodiversity for landscape scenarios with dedicated bioenergy crops  
Modeling water quality using SWAT for landscape scenarios with dedicated bioenergy crops  
Modeling risk of blade strike to fish from marine hydrokinetic (MHK) technologies

Instructor, Ohio University, 2008  
Courses: Principles of Geographic Information Science, Analysis of Geographic Information

Graduate Teaching Assistant, Ohio University, 2002 - 2007  
Courses: Biostatistics II; Multivariate Methods, Ecosystem Ecology, American Forests, Plants and People, Plant Population Ecology, Introduction to Alternative Agriculture, Principles of Biology Laboratory, Southeast Asian Global Studies Program: Tropical Forest Ecology in Thailand

Graduate Teaching Assistant, The University of Southern Mississippi, 2000 - 2002  
Courses: Conservation Biology, Botany Laboratory

### **Publications**

Schweizer, P.E. and H.I. Jager. (Accepted 2011). Modeling regional variation in riverine fish biodiversity in the Arkansas-White-Red River basin. *Transactions of the American Fisheries Society*.

McBride, A.C., V.H. Dale, L.M. Baskaran, M.E. Downing, L.M. Eaton, R.A. Efroymson, C.T. Garten Jr., K.L. Kline, H.I. Jager, P.J. Mulholland, E.S. Parish, P.E. Schweizer, and J.M. Storey. (Accepted 2011). Indicators to support environmental sustainability of bioenergy systems. *Ecological Indicators*.

Baskaran, L., H.I. Jager, P.E. Schweizer, and R. Srinivasan. 2010. Progress toward evaluating the sustainability of switchgrass as a bioenergy crop using the SWAT model. *Transactions of the American Society of Agricultural and Biological Engineers* 53(5):1847-1556.

- Baskaran, L., H.I. Jager, *P.E. Schweizer*, and R. Srinivasan. 2009. Use of the SWAT model to evaluate the sustainability of switchgrass production at a national scale. 2009 International SWAT Conference Proceedings, Boulder, CO. <http://twri.tamu.edu/reports/2009/tr356.pdf>
- Schweizer, P.E.* and G.R. Matlack. 2005. Annual variation in fish assemblages of watersheds with stable and changing land use. *Am. Midl. Nat.* 153:298-308.

## Presentations

- Schweizer, P.E.*, H.I. Jager, and L.M. Baskaran. 2010. Forecasting changes in water quality and aquatic biodiversity in response to future bioenergy landscapes in the Arkansas-White-Red River basin. International Association of Landscape Ecology Annual Meeting. Contributed oral presentation.
- Eaton, L.M., *P.E. Schweizer*, H.I. Jager, and R. Efromson. 2010. Assessing watershed benefits of bioenergy crops: recreational and subsistence value of fishes. International Association of Landscape Ecology Annual Meeting. Contributed oral presentation.
- Schweizer, P.E.* and H.I. Jager. 2010. Influences of environmental gradients and land use on fish biodiversity in the Arkansas-White-Red River basin. Southern Division of the American Fisheries Society Spring Meeting. Contributed oral presentation.
- Schweizer, P.E.* 2009. Stream fish diversity in a changing landscape: a comparison of stream fish assemblages from forested, rural and urbanized watersheds. American Fisheries Society Annual Meeting. Contributed oral presentation.
- Schweizer, P.E.*, H.I. Jager, C.C. Brandt, and L.M. Baskaran. 2009. Modeling species richness for stream fishes in agricultural landscapes of the Arkansas-White-Red River basin. American Fisheries Society Annual Meeting. Contributed oral presentation.
- Baskaran, L.M, H.I. Jager, *P.E. Schweizer* and R. Srinivasan. 2009. Use of the SWAT model to evaluate the sustainability of bioenergy production at a National scale. International SWAT User Conference. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. A spatially explicit watershed modeling approach investigating distribution of land cover and their influences on watershed condition. American Water Resources Association Annual Meeting. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Stream fish assemblages in headwater and low-order streams; conservation planning based on land cover distribution in small watersheds. American Water Resources Association Annual Meeting. Poster presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Land cover distribution and their influence on watershed condition in small watersheds; a spatially explicit modeling approach. Southern Region Water Quality Conference. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Transient land cover in small developing watersheds as disturbance of water quality parameter. Ecological Society of America Annual Meeting. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Spatial distribution of land cover and their influence on watershed condition. Mississippi Water Resources Annual Conference. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Stream fish assemblages in headwater and low-order streams: conservation planning based on land cover distribution in small watersheds. Mississippi Water Resources Annual Conference. Poster presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Spatial distribution of land cover and their influence on watershed condition. International Association of Landscape Ecology Annual Meeting. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. The spatial distribution of land cover and their influence on watershed condition. Association of Mid-Atlantic Aquatic Biologists Annual Workshop. Poster presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. Spatial distribution of land cover and their influence on watershed condition. Midwest Ecology and Evolution Conference. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2007. A comparison of selected stream fish assemblages from forested, rural, and urbanized watersheds. Midwest Ecology and Evolution Conference. Poster presentation.

- Schweizer P.E.* and G.R. Matlack. 2006. Land cover pattern and watershed health in small catchments of southeastern coastal plain streams, MS. Ecological Society of America Annual Meeting. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2005. Influence of land use pattern on water quality and biotic integrity of coastal plain streams in Mississippi, USA. Ecological Society of America Annual Meeting. Contributed oral presentation.
- Schweizer P.E.* and G.R. Matlack. 2002. A predictive Model for Land use planning at the watershed scale based on fish community composition. 32<sup>nd</sup> Annual Mississippi Water Resources Conference. Contributed oral presentation.

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