JUSTIN N. MURDOCK

Department of Biology
PO Box 5063
Tennessee Technological University
Cookeville, TN 38505

EDUCATION:

Kansas State University, Biology, Manhattan, KS (Ph.D. August 2008)
Dissertation: *Regulators of Stream Ecosystem Recovery from Disturbance*

PROFESSIONAL EXPERIENCE:

Assistant Professor **August 2012-present**
Tennessee Technological University, Cookeville, TN

Postdoctoral Research Associate **March 2009-July 2012**
USDA-Agricultural Research Service, National Sedimentation Laboratory, Oxford, MS

Postdoctoral Research Associate **August 2008-March 2009**
Kansas State University, Manhattan, KS

RESEARCH INTERESTS:

Aquatic community ecology, Biogeochemical cycles in aquatic systems, Algal ecology and physiology, Disturbance ecology, Infrared and Raman spectroscopy

CURRENT PROJECTS:

- Effects of *Didymosphenia geminata* invasion on riverine food webs in the upper Tennessee River basin. US Fish and Wildlife Service Aquatic Invasive Species Program.
- Determining *Didymosphenia geminata* (Didymo) distribution and colonization potential in Tennessee streams. National Park Service. Great Smoky Mountains National Park.
- Microbial roles in water quality improvement. US Department of Agriculture, Agricultural Research Service.

KEY/RECENT PUBLICATIONS:

Bertrand, K N., M.R. Whiles, K.B. Gido, and **J.N. Murdock**. Influence of macroconsumers and stream position on invertebrate assemblage development following flooding in intermittent prairie streams. *Hydrobiologia*. 2013: 714 (1) 169-182.

Murdock, J.N., F.D. Shields Jr., and R.E. Lizotte Jr. Periphyton responses to nutrients and atrazine introduced through agricultural runoff in a riverine wetland. *Ecotoxicology.* 2013: 22 (2), 215-230.

Murdock, J.N. and D.L. Wetzel. 2012. Measuring the response of individual algal cells to nutrient and herbicide mixtures within natural biofilms. *Microbial Ecology*. 63:761-722.

Murdock, J.N., W.K. Dodds, K.B. Gido, and M.R. Whiles. 2011. Dynamic influences of nutrients and grazing fish on benthic algae during recovery from flood. *Journal of the North American Benthological Society*. 30:331-345.

Murdock, J.N., K.B. Gido, W.K. Dodds, K.N. Bertrand, and M.R. Whiles. 2010. Consumer return chronology alters recovery trajectory of stream ecosystem structure and function following drought. *Ecology* 91:1048–1062.

Murdock, J.N. and D.L. Wetzel. 2009. FT-IR Microspectroscopy enhances biological and ecological analysis of algae. *Applied Spectroscopy Reviews* 44:335-361.