MARK D. NORRIS

Instructor
Department of Environmental Science & Biology
SUNY College at Brockport
585-395-5743
mnorris@brockport.edu

EDUCATION

Ph.D. University of Minnesota, Natural Resources Science and Management
Dissertation: Soil-plant interactions: Ecosystem patterns and processes in an oak savanna

M.S. Kansas State University, Biology
Thesis: Biogeochemical consequences of land cover change in eastern Kansas

B.S. Allegheny College, Environmental Science
Senior thesis: Forest composition following abandonment of agricultural land at the Harvard Forest LTER site: a study of land-use legacies

TEACHING EXPERIENCE

Instructor
Department of Environmental Science & Biology, SUNY Brockport 2005-present
Ecology, Plant ecology, Botany, Biostatistics

Resident Assistant Professor 2004-2005
Department of Biology, Creighton University

Co-Instructor Fall 2003
Forest Ecology, Department of Forest Resources, University of Minnesota

Guest Lecturer Spring 2003
Ecology, Department of Biology, Gustavus Adolphus College

Teaching Specialist Fall 2000
Math and Science Tutorial (MST) Program, University of Minnesota

Teaching Assistant June 1997-May 2000
Division of Biology, Kansas State University

Teaching Assistant Spring 1997
Department of Biology, Allegheny College

RESEARCH INTERESTS

Ecosystem ecology, terrestrial biogeochemistry, soil ecology, nutrient and litter dynamics including decomposition, patterns of productivity, effects of natural and anthropogenic disturbances, land use change

Experience

Undergraduate Independent Research Project Mentor Summers 2001, 2002, and 2003
Cedar Creek Natural History Area, University of Minnesota

Advised undergraduate independent research projects including project planning, implementation, data analysis, and presentation. Projects have included: 1. Microarthropod dynamics across a fire frequency gradient, and 2. Short-term precipitation effects on soil nitrogen pools.

Graduate Research Assistant 2000 - 2004
Department of Forest Resources, University of Minnesota with Dr. Peter B. Reich
Dissertation research addressing mechanisms controlling ecosystem patterns and processes in oak savanna and plant responses to the oak savanna environment. This appointment also includes collection and management of much of the oak savanna long-term data as part of the NSF-funded Cedar Creek LTER program as well as supervising interns and undergraduate independent research projects.

Graduate Research Assistant 1997 - 2000
Division of Biology, Kansas State University with Dr. John M. Blair
Master's degree research assessing the biogeochemical consequences of land-cover change in eastern Kansas, emphasizing nitrogen dynamics in soil and vegetation and changes in litter dynamics following shift of dominant vegetation from native tallgrass species to *Juniperus virginiana* forests (funded by NASA LCLUC program).

Research Assistant 1996 - 1997
Allegheny College and Harvard Forest LTER Program with Dr. Rich Bowden
Research investigating the impact of agricultural land-use legacies on forest soil-plant-atmosphere interactions including soil studies and vegetation analyses (funded by the NSF CRUI program).

Scientific, Engineering Intern 1995
Pennsylvania's Department of Environmental Protection
Field inspected Single Residence Sewage Treatment Facilities and instructed homeowners regarding proper usage and maintenance. Designed and constructed new chlorination device for these systems.

Assistant Laboratory Technician 1994 - 1997
Environmental Science Department, Allegheny College
Maintained student research environmental science/ecology laboratory, including operating and supervising use of research equipment/machinery in laboratory.

Field Technician 1994
Hess & Fisher Engineers and Laboratory, Inc.
Monthly and quarterly water quality monitoring analyses in active and abandoned strip mines (acid mine drainage).

Research skills
Nutrient dynamics: including decomposition patterns, *in situ* and lab incubated N mineralization, inorganic N extraction and analysis using Alpkem continuous flow auto analyzer, analyses for total C and N on Carlo Erba CN analyzer, soil microbial biomass determination (fumigation-extraction technique), soil respiration using Shimadzu GC (lab) and LiCor 6200 (*in situ*).

Determination of aboveground biomass and productivity of forested and grassland ecosystems including development of allometric growth equations

Computer expertise with Microsoft Word, Excel, Sigma Plot, Power Point and statistical analyses using SAS and JMP, and website design

PUBLICATIONS

Norris, Mark D., John M. Blair, and Loretta C. Johnson. 2001. Land cover change in eastern Kansas: litter dynamics of closed-canopy eastern redcedar forests in tallgrass prairie. Can. J. Bot. 79(2):214-222.

Norris, Mark D., John M. Blair, Loretta C. Johnson, and Robert B. McKane. 2001. Developing regression equations to assess shifts in biomass, productivity, and nutrient stores following *Juniperus virginiana* forest establishment in tallgrass prairie. Can. J. Forest Research 31(11):1940-1946.

In preparation

Norris, Mark D., John M. Blair, and Loretta C. Johnson. *In preparation for Global Change Biology.* Altered ecosystem nitrogen dynamics as a consequence of land cover change in eastern Kansas.

Norris, Mark D. and Peter B. Reich. *In preparation for Plant and Soil.* Nutrient resorption patterns across a natural and artificial fertility gradient.

Norris, Mark D., Peter B. Reich, and Sarah Hobbie. *In preparation for Ecology.* Plant-soil interactions in an oak savanna: biotic vs abiotic control of nitrogen dynamics.

Norris, Mark D., Peter B. Reich, and Sarah Hobbie. *In preparation for Soil Biology and Biochemistry.* Decomposition patterns across multiple gradients.

PRESENTATIONS

Norris, Mark D., Peter B. Reich, Sarah E. Hobbie, and Dave Wedin. Soil nutrient dynamics across a fire frequency gradient in oak savanna (poster presented at Ecological Society of America annual meeting, Savannah, GA, 2003).

Norris, Mark D. Plant-soil interactions: Nitrogen dynamics in the oak savanna (oral presentation at annual Cedar Creek Research Symposium, East Bethel, MN, 2003)

Norris, Mark D. Plant-soil interactions in the oak savanna (poster presented at annual Cedar Creek Research Symposium, East Bethel, MN, 2002)

Norris, Mark D., John M. Blair, and Loretta C. Johnson. Ecosystem consequences of land cover change in eastern Kansas (oral presentation at Ecological Society of America annual meeting, Snowbird, UT, 2000).

Norris, Mark D., John M. Blair, and Loretta C. Johnson. Biomass and productivity of eastern redcedar in tallgrass prairie (oral presentation at 11th Annual Konza Prairie LTER Workshop, Manhattan, KS, 1999)

Norris, Mark D., John M. Blair, and Loretta C. Johnson. Litter and nutrient dynamics following land cover change in eastern Kansas (poster presented at Ecological Society of America annual meeting, Spokane, WA, 1999).

Norris, Mark D., John M. Blair, and Loretta C. Johnson. Soil nutrient response to forest establishment in tallgrass prairie (oral presentation at Soil Ecology Society, Chicago, IL, 1999)

Norris, Mark D., John M. Blair, and Loretta Johnson. Biogeochemical consequences of trees in the prairie (oral presentation at Biology Graduate Student Forum, Kansas State University, 1999).

Norris, Mark D., John M. Blair, and Loretta Johnson. Land cover change in northeastern Kansas: Nutrient dynamics (oral presentation at 10th Annual Konza Prairie LTER Workshop, Manhattan, KS, 1998).

Norris, Mark D., R. Bowden, C. McClaugherty, and T. Sipe. Forest composition following abandonment of agricultural land at the Harvard Forest LTER (oral presentation at Ecological Society of America annual meeting, Albuquerque, NM, 1997).

Norris, Mark D., and R. Bowden. Forest development following agricultural abandonment in New England (oral presentation at Sigma Xi, Western Pennsylvania Chapter, Thiel College, PA, 1997).

PROFESSIONAL SERVICE

Manuscript reviewer: Soil Biology and Biochemistry, Plant and Soil
Science Fair Judge
Fontenelle Nature Association volunteer

AWARDS AND HONORS

University of Minnesota
- Dr. T. Schantz-Hansen Memorial Research Fellowship
- Henry L. Hansen Forest Ecology Fellowship
- Cedar Creek graduate student support award

Kansas State University
- Graduate Teaching Assistantship

Allegheny College
- Magna Cum Laude
- Environmental Science Departmental Honors
- Provost Merit Scholarship
- Alden Scholar
- Omicron Delta Kappa
- Who's Who

ACADEMIC AFFILIATIONS

Cedar Creek LTER Program
Konza Prairie LTER Program
Ecological Society of America
Soil Science Society of America
Soil Ecology Society
Fontenelle Nature Association