



Mid-Atlantic Chapter



**TRANSITIONS ACROSS LANDSCAPES:
THE ECOLOGY OF CHANGES**

PROGRAM

2010 Annual Conference
Mid-Atlantic Chapter
of the Ecological Society of America

University of Mary Washington
Stafford Campus, North Building
121 University Boulevard, Fredericksburg, VA 22406
April 17, 2010

Mid-Atlantic Chapter of the Ecological Society of America

Mission

The objective of the Chapter shall be to encourage communication among professional and student ecologists of the Mid-Atlantic region of the United States (including NY, PA, NJ, DE, MD, WV, and VA).

2009-10 Chapter Officers

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Montclair State University
Montclair State University
The College of New Jersey
Rowan University

TRANSITIONS ACROSS LANDSCAPES: THE ECOLOGY OF CHANGES

Mid-Atlantic Chapter of the Ecological Society of America
2010 Annual Conference
University of Mary Washington, April 17, 2010

- Meeting at a Glance -

Morning Activities

8:00	Registration / Continental Breakfast / Poster Set-up	Lobby
8:45	Welcome (A. Griffith /J. Harper)	University Hall
9:00	Plenary Presentation (D. Whigham)	University Hall
10:00	Break	
10:15	Oral Session I - Microbial Ecology	University Hall

Mid-day activities

12:00	Lunch pick-up	Lobby
	ESA Mid-Atlantic Chapter Business Meeting	Room 115
	Student Career Roundtable	Room 122
	Informal Poster Viewing	2 nd floor

Afternoon activities

1:30	Oral Session II - Applied and Urban Ecology	University Hall
3:30	Break	
3:45	Oral Session III (Concurrent) - Aquatic Ecology	Room 115
	Oral Session IV (Concurrent) - Biogeochemistry	Room 122
5:15	Poster Pub Session	2 nd floor

Evening activities

7:00	Dinner	University Hall
7:45	After dinner speaker (M.B. Adams)	University Hall
8:45	Concluding comments / Adjourn	University Hall

Detailed Program – Saturday, April 17

- 8:00 Registration / Continental Breakfast
Poster Set-up Lobby
2nd floor
- 8:45 WELCOME University Hall
Alan Griffith, Chair, Mid-Atlantic Chapter ESA
Jay Harper, Provost, University of Mary Washington
- 9:00 PLENARY PRESENTATION University Hall
“Chesapeake Bay - Conflict between the scale of problems and the reality of restoration and effective management”
Dennis Whigham, Smithsonian Environmental Research Center
- 10:00 BREAK (Posters on display until 7:00 pm)
- ORAL SESSION I – Microbial Ecology (10:15 – 11:55) University Hall
- 10:15 **Genetic analysis of the smut fungus *Sporisorium ellisii* using direct polymerase chain reaction (PCR).** *Emily Nowicki* and Janet A. Morrison*
- 10:35 **Temporal patterns in microbial communities associated with freshwater marsh sediments.** *Amy Jenkins* and Rima B. Franklin*
- 10:55 **Examining microbial communities and their responses to saturation and vegetation in an emerging freshwater wetland.** *Christine E. Prasse*, David J. Berrier, and Rima B. Franklin*
- 11:15 **Functional diversity of *Platanthera* orchid mycorrhizas.** *Zoë F. Smith*, Melissa K. McCormick and Dennis F. Whigham*
- 11:35 **Impact of solar radiation on the infectivity of *Cryptosporidium parvum* oocysts associated with environmental biofilms.** *Elizabeth A. Wolyniak*, Bruce R. Hargreaves, and Kristen L. Jellison*
- 12:00 LUNCH AND MEETINGS
ESA Mid-Atlantic Chapter Business Meeting Room 115
Student Career Roundtable Room 122
Informal Poster Viewing 2nd floor

ORAL SESSION II –Applied and Urban Ecology (1:30 – 3:30)

University Hall

- 1:30 **Suburban white-tailed deer: spatial and temporal pattern of land use.**
*Eugene Potapov**, Brad Nyholm, David Robertson, Allen Beford, Fredrik Bryntesson, Sherri Cooper, Bracken Brown, Dallas Hendricks, Laird Klippenstein and Eric A. Rohtla
- 1:50 **Goals and objectives in preventing overbrowse and invasive collapse of Mid-Atlantic forest habitats: What to detect and measure for effective action.** *Eugene Meyer**
- 2:10 **Influences of a popular landscaping plant on native woodland salamanders.** *Kiyoshi Sasaki**
- 2:30 **Habitat preference and distribution of tropical butterflies in peat-swamp forest: Impacts of forest fragmentation on butterfly diversity.**
*Peter Houlihan**
- 2:50 **Disease ecology in complex landscape mosaics: Song sparrows and their hematozoan parasites .** *Jeffrey Stratford**, Andrew Bartlow, Katie White, Chris Nemeth, and John Hogland
- 3:10 **Scales of transition: Of edges and ecotones.** *Jeffrey K. Keller**
- 3:30 BREAK

CONCURRENT ORAL SESSIONS III AND IV (3:45 – 5:05)

ORAL SESSION III - Aquatic Ecology

Room 115

- 3:45 **Effects of spatial scale and shared prey density on intraguild predation among aquatic invertebrates.** *Cristina M. Cornell** and Patrick W. Crumrine
- 4:05 **Validation of a bioenergetics model linking primary production and Atlantic menhaden growth in Chesapeake Bay.** *Eric R. Annis**, Edward D. Houde, Lawrence W. Harding, Jr., Michael Wilberg, and Michael Maloney
- 4:25 **Rusty crayfish (*Orconectes rusticus*) feeding behavior and associated effects in a simulated submerged aquatic grass bed environment.**
*Matthew A. Curtis**, Drew Ferrier, Eric R. Annis, and Ron Albaugh
- 4:45 **Restoration of normal stream functioning following wastewater treatment plant upgrades.** *Samuel E. Georgian** and Susan F. Cushman

ORAL SESSION IV –Biogeochemistry Session

Room 122

- 3:45 **Wastewater effluent reduces P buffering capacity of receiving streams.**
*Jeffrey A. Simmons**
- 4:05 **Characterizing spatial, temporal, and seasonal changes in dissolved oxygen concentration within vernal ponds in south-central Pennsylvania.** *Justin K. Atkins* and Timothy J. Maret*
- 4:25 **Historical trends in pond abundance and sediment accumulation rates.**
Andrew Brainard, G. Winfield Fairchild, Gary W. Coutu, and Christopher Robinson*
- 4:45 **Forest disturbance and recovery: The effects of gypsy moth (*Lymantria dispar* L.) defoliation on nitrogen, carbon, and hydrologic cycling in an oak-pine forest.** *Andrea Kornbluh*, Kenneth L. Clark, Dennis Gray, Nicholas Skowronski, and John Hom*

5:15 POSTER PUB (5:15 – 7:00)

2nd floor

Animal Ecology

1. **The effect of habitat disturbance on common Lepidoptera in the New Jersey Pinelands.** *Dane C. Ward*, Walter F. Bien, Harold W. Avery, and James R. Spotila*
2. **Integrity of eggs from aquatic organisms.** *Jonathan Rothstein*, Ekaterina Selivanovitch, Charles Barrios, Neeti Bathala, Lynda Valanzano, Allen Burdowski, and Kathleen Nolan*
3. **Consequences of population size structure for intraspecific competition and predation in red-eyed treefrog larvae (*Agalychnis callidryas*).**
Christopher M. Asquith and James R. Vonesh*
4. **Population study of freshwater turtles on a Pennsylvania college campus: The effects of suburban habitat on population structure.** *Jennifer Schoonmaker* and David R. Bowne*
5. **Amphibian use of agricultural streams.** *Michael P. Torre* and David R. Bowne*

6. **Habitat partitioning by native and invasive species of crayfish in Maryland's Monocacy River.** *Meghan Coulbourne* and Eric R. Annis*
7. **A comparison of sampling methods of crayfish in the Monocacy River, Maryland.** *Katie Geiger* and Eric R. Annis*
8. **Distribution of invasive crayfish in the Monocacy River, Maryland.** *Katelyn Horn* and Eric R. Annis*

Microbial Ecology

9. **Preliminary analysis of microsatellite DNA diversity of *Orconectes rusticus* in the Monocacy River.** *Ann Neeley* and Susan Carney*
10. **Assessing genetic variation in the grass *Andropogon virginicus*.** *Jason Wong*, Lauren Frazee and Janet A. Morrison*
11. **Smut fungus infection and detection in the perennial grass *Andropogon virginicus*.** *Jacquelyn Harth* and Janet A. Morrison*
12. **An evaluation of bacterial and fungal contributions to litter decomposition along a soil moisture gradient.** *David Berrier*, Morgan Rawls, Leigh McCallister, and Rima B. Franklin*

Applied Ecology and Education

13. **The role of disturbance in controlling stand dynamics of high elevation pine ecosystems in northeastern West Virginia.** *Lauren F. Howard*, Daniel Brophy, and Maria Stelacio*
14. **Developing podcast trail guides: Using technology to merge community-based learning with public ecology education.** *Courtney Sperger*, Kevin Hopper, and Kenneth M. Klemow*
15. **Woody plant colonization of a reclaimed anthracite surface mine in northeastern Pennsylvania.** *Robert Mercatili, Chad Rizzard, Edmund Janosov, Jephthe Akakpo, June Lor, Priscella Payne, Tylor Ricker, Kenneth M. Klemow*
16. **The relationship between white-tailed deer impact and native and non-native plant species composition in five suburban/exurban forests.** *Janet A. Morrison, Paul Fourounjian*, and Joanna Sblendorio**
17. **The impact of partial or complete defoliation on starch reserves and growth of Japanese barberry.** *Jean-Edson Belcourt*, Anthony Cullen, and Dirk Vanderklein*

18. **When white-tailed deer cross roads: A case study at the Pennypack Ecological Restoration Trust.** *Eugene Potapov**, *Brad Nyholm*, *David Robertson*, *Allen Bedford*, *Fredrik Bryntesson*, *Sherri Cooper*, *Bracken Brown*, and *Laird Klippenstein*

Wetland and Soil Ecology

19. **Seasonal changes in water quality in a small pond in Auburn, PA: A pre-restoration study.** *Derek R. Faust** and *Thomas E. Murray*
20. **Which to use: NWI Maps or Corps of Engineers Wetlands Delineation Manual?** *Brian Mikucki**, *Meiyin Wu*, and *Dennis Kalma*
21. **Analysis of a horizontal subsurface flow constructed wetland system for wastewater treatment at Hundredfold Farm Cohousing Community in Orrtanna, PA.** *Lisa AnnMarie Fleshman**, *Sadie C. Winship*, and *Rosina H. Bolen*
22. **Cultivating healthy soils: Developing reliable indicators of soil quality for pasture soils.** *Nasser Abdelhadi*, *Jeannine Freyman*, and *Katherine O'Neill**
23. **Microarthropods as bioindicators of grazing management in Appalachian pasture systems.** *Katherine O'Neill**, *Harry Godwin*, *Kimberly Cassida*, and *Jeffrey Battigelli*
24. **Growth of three different plant species in soilless medium.** *P. Salcedo*, *E. Ford*, and *D. Vanderklein**

7:00 DINNER AND EVENING SPEAKER

University Hall

7:45 After dinner speaker

"The Ecology of Changes: Thoughts from a Luddite"

Mary Beth Adams, *USDA Forest Service*, *Fernow Experimental Forest*

8:45 Concluding comments / Adjourn