



**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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## Conference Organizing Committee

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Jeffrey A. Simmons  
Dirk Vanderklein  
Meiyin Wu  
Janet Morrison  
Courtney Richmond

University of Mary Washington  
Mount St. Mary's University  
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 <sup>nd</sup> 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 <sup>nd</sup> 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  
2<sup>nd</sup> 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 2<sup>nd</sup> 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)

2<sup>nd</sup> 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