



## Mid-Atlantic Ecology Conference

*Management of Landscapes and Ecosystems*

March 17<sup>th</sup> – 18<sup>th</sup>, 2007



### Meeting Schedule

#### **Saturday, March 17<sup>th</sup>, 2007**

- 8:00 – 8:45 Registration (Student Union);  
Poster set-up (Campbell Hall)
- 8:45 – 9:00 Introduction/Welcome (Alumni Hall)
- 9:00 – 10:15 Plenary talk by Gary Alt (Alumni Hall)
- 10:15 – 10:30 Break –Refreshments (1770's Room)
- 10:30 – 11:45 Oral Presentation Session #1 (Alumni Hall; William Walker Room)
- 11:45 – 13:00 Lunch (Buechel Lounge)
- 13:00 – 14:15 Chapter Business Meeting (Alumni Hall);  
or Job Panel (William Walker Room)
- 14:30 – 16:00 Poster Session (Campbell Hall)
- 16:15 – 17:30 Oral Presentation Session #2 (Alumni Hall; William Walker Room)
- 17:45 – 19:30 Dinner (Buechel Lounge);  
Speaker, George Gress, (The Nature Conservancy)

#### **Sunday March 18<sup>th</sup>, 2007**

- 8:30 – 15:00 Field trip to the Gettysburg National Military Park (w/ Zach Bolítho)

## ORAL SESSIONS SCHEDULE

### Session One (AM) –Alumni Hall

#### Applied Animal Ecology

- 1. 10:30 –10:45**  
**Coexistence of rattlesnakes and military operations: occurrence and spatial ecology of the timber rattlesnake (*Crotalus horridus*) at the Warren Grove Gunnery Range in the Pinelands of New Jersey**  
SMITH, R.\* , W. F. BIEN, H. W.W. AVERY, and J. R. SPOTILA  
Dept. of Bioscience and Biotechnology, Drexel University, Philadelphia, Pennsylvania 19104 USA
- 2. 10:45-11:00**  
**The impact of urbanization on bumblebee (*Bombus spp.*) populations in southeastern Pennsylvania**  
MALFI, R.\* and N. M. WILLIAMS  
Dept. Biology, Bryn Mawr College, Bryn Mawr, PA 19010 USA
- 3. 11:00 – 11:15**  
**Anthropogenic mediation of a cross-ecosystem subsidy: the response of terrestrial spiders on bridges to emerging aquatic adult prey**  
MCTAMMANY, M. E.\*(1) and J. S. HARDING (2)  
(1) Department of Biology, Bucknell University, Lewisburg, Pennsylvania 17837 USA  
(2) School of Biological Sciences, University of Canterbury, Private Bag 4800, Christchurch, New Zealand
- 4. 11:15-11:30**  
**Can ecology inform security? A metapopulation analysis of the insurgency in Iraq**  
BOWNE, D.R.\* (1)  
  
(1)Department of Biology, Franklin and Marshall College, P.O. Box 3003, Lancaster, PA 17604 USA.
- 5. 11:30-11:45**  
**Disappearing Anurans: An auditory chronicle of the decline of four species of anurans in south central Pennsylvania.**  
WINGERT, G  
Dept of Environmental Studies, Dickinson College, Carlisle, PA 17013

### Session One (AM) – William Walker Room

#### Invasive Plants

- 6. 10:30-10:45**  
**The importance of small-scale environmental factors on population growth of Japanese Stiltgrass (*Microstegium vimineum*)**  
NORD, A. (1) and D. MORTENSEN (1)  
(1) Department of Crop and Soil Sciences and IGDP in Ecology, The Pennsylvania State University, University Park, PA 16802
- 7. 10:45-11:00**  
**Unexpectedly slow spread of the invasive exotic, *Microstegium vimineum***  
RAUSCHERT, E. S. J.\* (1,2), NORD, A. (1,2), BJORNSTAD, O. N. (2,3) and MORTENSEN, D. A. (1,2)  
(1)Department of Crop and Soil Sciences, The Pennsylvania State University, University Park, PA 16802 USA  
(2)Intercollege Graduate Degree Program in Ecology, The Pennsylvania State University, University Park, PA 16802 USA  
(3)Departments of Entomology and Biology, The Pennsylvania State University, University Park, PA 16802 USA
- 8. 11:00-11:15**  
**Enemy release and evolved increased competitive ability in *Spartina alterniflora* invading Pacific U.S. estuaries**  
ALLEN, J.\*(1) and D. CARR(1,2)  
(1) Dept. of Environmental Science, University of Virginia, Charlottesville, VA 22904 USA  
(2) Blandy Experimental Farm, 400 Blandy Farm Lane, Boyce, VA 22620 USA
- 9. 11:15-11:30**  
**The effects of the invasive tree, *Ailanthus altissima*, on the biodiversity and biomass of understory plants**  
GALLAGHER, S.\* (1) AND A. GRIFFITH (1)  
(1) Department of Biological Sciences, Univ. of Mary Washington, Fredericksburg, VA 22401 USA
- 10. 11:30-1:45**  
**INTRODUCTION TO THE PLANT STEWARDSHIP INDEX or “Floristic Quality DOES Count!”**  
VANNAIS, JEANNINE  
Bowman’s Hill Wildflower Preserve, P.O. Box 685, New Hope, Pennsylvania, 18940

## Session Two (PM) Alumni Hall

### Applied Ecology

11. **16:15-16:30**  
**Vegetative influence on reducing agricultural pollutants associated with subsurface tile drainage within a novel constructed wetland.**  
SPAYD, E.\* (1), K. BAKER (1), S. CLARK (1)  
(1) Penn State Harrisburg, Science and Technology Building  
777 West Harrisburg Pike, Middletown, PA. 17057
12. **16:30-16:45**  
**A Unique Approach to Stream and Wetland Restoration Using Shallow Pools, Cobble Weirs, and Sand Seepage Features**  
BERG, J. (1) and K. UNDERWOOD (2)  
(1) Biohabitats, Inc., 2081 Clipper Park Road, Baltimore, MD 21211  
(2) Underwood & Associates, Inc., 1753 Ebling Trail, Annapolis, MD 21401
13. **16:45-17:00**  
**The use of ribbed mussels (*Geukensia demissa*) as bioindicators of bacterial levels relative to the water flow rate at various watersheds within Mamaroneck Harbor**  
YEUNG-CHEUNG, A. and P. PERSAD\*  
Dept. of Biology, Manhattanville College, Purchase, New York 10577 USA
14. **17:00-17:15**  
**The use of passive samplers to examine landscape level patterns of distribution of airborne mercury in Rockingham Co. VA.**  
TEMPLE, M. S.\* and D. COCKING  
Dept. of Biology MSC 7801, James Madison University, Harrisonburg, VA 22807 USA
15. **17:15-17:30**  
**Landscape level airborne mercury upstream and downstream from an original point source along the South River, Waynesboro, VA.**  
LUMBI, Z. and D. COCKING\*  
Dept. of Biology MSC 7801, James Madison University, Harrisonburg, VA 22807 USA

## Session Two (PM) – William Walker Room

### Plant Ecology

16. **16:15-16:30**  
**Smut fungus disease and host plant density in native, naturalized, and invasive populations of the grass *Andropogon virginicus* (broomsedge)**  
MORRISON, J.A.  
Department of Biology, The College of New Jersey, P.O. Box 7718, Ewing, NJ 08628
17. **16:30-16:45**  
**Air pollution and invasive species: Threats to the Northeast Atlantic Forests**  
ELTON, E.\*(1)(2)  
(1) Dept. of Environmental Sciences, University of Virginia, Charlottesville, VA 22904  
(2) Blandly Experimental Farm, Boyce, VA 22620
18. **16:45-17:00**  
**Long distance movement and hydraulic disruption by *Xylella fastidiosa* in host tree xylem: passive migration or cellulose degradation & cavitation**  
JACKSON, S.\*(1) and A.J. MCELDRONE (1,2)  
(1) Saint Joseph's University, Philadelphia, PA 19131 USA  
(2) USDA-ARS, University of California, Davis, CA 95616 USA
19. **17:00-17:15**  
**The effects of light differences on leaf damage in *Cercis canadensis***  
SWANEY, M. (1)\* and A. GRIFFITH (2)  
(1) Undergraduate student of Department of Biological Science, University of Mary Washington, Fredericksburg, VA 22401  
(2) Professor of Ecology, University of Mary Washington, Fredericksburg, VA 22401

## **POSTER SESSION – Campbell Hall**

### **Animal Ecology**

**1. Effects of environmental richness and habitat switching upon the development of silk deposition behaviors in the wolf spider *Hogna helluo***

LATANICH, C.\*(1), SMITH, M. (1), RYPSTRA, A. (2), and M. PERSONS (1)  
(1) Department of Biology, Susquehanna University, Selinsgrove, Pennsylvania 17870 USA  
(2) Department of Zoology, Miami University, Hamilton, OH 45056 USA

**2. Foraging and growth costs of habitat switching in the wolf spider *Hogna helluo***

SMITH, M.M.\*, LATANICH, C. and M. PERSONS  
Department of Biology, Susquehanna University, Selinsgrove, Pennsylvania 17870, USA

**3. The effects of indirect predation risk on male courtship displays through female sexual advertisement in the wolf spider *Pardosa milvina*.**

SWEGER, A.\*(1), MARR, M. (1), SATTESON, A. (1), RYPSTRA, A. (2), and M. PERSONS (1)  
(1) Department of Biology, Susquehanna University, Selinsgrove, Pennsylvania 17870 USA  
(2) Department of Zoology, Miami University, Hamilton, OH 45056 USA

**4. Habituation of male *Arrenurus manubriator* (Acari: Hydrachnida) to female sex pheromone.**

BROGAN, W.R.\* (1) and B.P. SMITH (2)  
(1) Biology Dept., Ithaca College, 135 Fayette Street, Ithaca, NY, 14850 USA  
(2) Biology Dept., Ithaca College, 953 Danby Road, Ithaca, NY 14850 USA

**5. Use of partially predated gastropod shells by the hermit crab *Pagurus longicarpus*: who is predated on the *Littorina littorea*?**

McGuire, B. \*(1) and J. Williams (1)  
Department of Biology, Hofstra University, Hempstead NY 11549 USA

**6. Terrestrial movements of Diamondback Terrapin hatchlings (*Malaclemys terrapin*) on Long Island, New York**

MULDOON, K\*  
Dept. of Biological Science, Hofstra University, Hempstead, New York, 11549 USA

**7. A pictorial atlas and identification keys to the scale patterns of guard hairs for all indigenous Pennsylvanian mammalian species**

FERETIC, J.S\*., DESIMONE, J.J., WARD, D.E. and IUDICA, C.A. (all from Department of Biology, Susquehanna University, 514 University Ave., Selinsgrove, PA 17870)

**8. Plants, bones, hairs, and flesh: feeding ecology of two sympatric foxes in central Pennsylvania**

WARD, D.E.\*, DESIMONE, J.J., FERETIC, J.S. AND IUDICA, C.A. (all from Department of Biology, Susquehanna University, 514 University Ave., Selinsgrove, PA 17870)

**9. How trophic cascade caused by herbivore and carnivore irruptions in Mid-Atlantic forests affects ecological research: solutions and research opportunities.**

MEYER, E. \*  
Dept of Biology, Loyola College, 4501 N Charles St, Baltimore, MD 21210

### **Aquatic Ecology**

**10. Stream ecology in Pine Barrens landscapes: does monitoring improve with taxonomic refinement?**

CROMARTIE\*, J., COSTA, C. AND A. TRIPLER (1)  
(1) NAMS, Richard Stockton College, POMONA NJ 08240 USA

**11. Effects of pesticides and larval odonates on parasitic trematode cercariae survivorship**

MILLER, A.\*(1) and P. CRUMRINE (2)  
(1) Ursinus College, MSC #761, 601 E. Main St., Collegeville, PA 19426 USA  
(2) Department of Biological Sciences & Program in Environmental Studies, Rowan University, 201 Mullica Hill Road, Glassboro, NJ 08028 USA

**12. Characterization of foodwebs in limestone springs using stable isotopes**

MILLER, D. JR.\*(1), JESIC, S. (1)., JERIN, J., BRITT, T. (1), AMEDUME, Y. (1), FULLER, N. (1) and T. HURD (1)  
(1) Dept. of Biology, Shippensburg University, Shippensburg, Pennsylvania 17257 USA

## Aquatic Ecology –cont.

### **13. The effects of shading on the growth and morphology of the threatened seagrass *Halophila johnsonii*.**

RICHMOND\*, C.E.(1), HAMMERSTROM, K.K. (2), HISEY, J. (1), O'BYRNE, M. (1), and E. STEVENS (1)

(1) Dept. of Biological Sciences, Rowan University, Glassboro, NJ 08028 USA

(2) Moss Landing Marine Laboratories, Moss Landing, CA 95039 USA

### **14. Evaluating the ability of different wetland species to remove iron within constructed wetlands to treat abandoned mine drainage.**

RESCINITI, D.\*(1), A. LEE\*(1), C. KUDRAK\*(1), and K. KLEMOW(1).

Biology Department, Wilkes University, Wilkes-Barre, PA 18766.

## Plant-Animal

### **15. A modified colorimetric bait-lamina method for estimating litter decomposition by soil microinvertebrates**

GODWIN, H.W.\*(1) and K.P. O'NEILL (1)

(1) USDA-ARS, Appalachian Farming Systems Research Center, 1224 Airport Road, Beaver WV 25813

### **16. Investigating hemlock (*Tsuga canadensis* (L.) Carriere) stand resistance to hemlock woolly adelgid (HWA; *Adelges tsugae* Annand) infestations**

MAAS, L.\* (1) and C. LOEFFLER (1)

(1) Dept. of Biology, Dickinson College, Carlisle, PA, 17013 USA

### **17. Comparison of visitation patterns and pollen deposition in a “pollination” network**

MITEVA, D.\* and N. M. WILLIAMS

Dept. of Biology, Bryn Mawr College, Bryn Mawr, PA 19010, USA

### **18. The contributions of specialist and generalist bees to the reproduction of desert mallow (*Sphaeralcea laxa*)**

RAHI, A.\* and N. M. WILLIAMS

Dept. of Biology, Bryn Mawr College, Bryn Mawr, PA 19010 USA

### **19. Impact of extrafloral nectaries on herbivore damage in *Prunus serotina***

PULICE, C.\*, LAITEM, M. AND A. PACKER

Department of Biology, Susquehanna University, Selingsgrove, PA 17870 USA

## Plant Ecology

### **20. Smut fungus infection in the perennial grass *Andropogon virginicus* (broomsedge): individual and population level consequences**

BOJDANI, E.\*, B. GRAF\*, R. SHUPAK, A. ROMANCHUK, J. DECKER, and J.A. MORRISON

Department of Biology, The College of New Jersey, P.O. Box 7718, Ewing, NJ 08628 USA

### **21. Seed germination in native, naturalized, and invasive populations of the grass *Andropogon virginicus* (broomsedge) grown in a common environment**

ROMANCHUK, A.\*, J. DECKER\*, and J.A. MORRISON

Dept. of Biology, The College of New Jersey, P.O. Box 7718, Ewing, New Jersey 08628 USA

### **22. What is the zone of influence of an individual tree on the soil microbial community structure and function?**

A.E. JIMENEZ-ESQUILÍN\*, K. O'NEILL, and J. CARTER

USDA-ARS Appalachian Farming Systems 1224 Airport Rd. Beaver, WV 25813

### **23. Jack of all trades: *Biological invasion facilitated by use of multiple forms of Nitrogen.***

HEWINS, D. B.\*, CHEONG, D., GAYOMBA, S. R., HYATT, L. A.

Department of Biology, Rider University, Lawrenceville, New Jersey 08648 USA

### **24. Colonization of adjoining forest and fallow field plots after extensive hurricane damage**

HOLCOMB-GOSNELL, E (1) and. BOUCHER, D. H. (2)

(1) 30 5<sup>th</sup> Street, Hanover, PA 17331

(2) Department of Biology, Hood College, 401 Rosemont Ave, Frederick, MD 21701

### **25. Optimizing tree spacing and orientation for forage production in silvopastoral systems: insights from a spatially-explicit light capture model**

O'NEILL, K.P.\* (1) and C.M. FELDHAKE (1)

(1) USDA-ARS, Appalachian Farming Systems Research Center, 1224 Airport Road, Beaver WV 25813