Thirteenth Annual
Institute of Ecology

Graduate Student Symposium

February 2-3, 2007

Ecology Auditorium
Institute of Ecology
University of Georgia
Athens

Brought to you by:
The Ecology Graduate Students

Symposium Coordinators: Andrew Mehring and Sonia Hernandez-Divers
Administrative Support: Anisa Jimenez, Jeremy Sanderlin
Program Committee: Chip Small, Michelle Creech, Jane Shevtsov, Jamie Winternitz
Undergraduate Poster Committee: John Davis, Matt Heard
Judging Committee: Ashley Helton, Cindy Tant, Kelly Siragusa
Souvenir Committee: Lindsey Sargent, Kathleen Rugel
Audio-visual Committee: John Kominoski, Carla Atkinson, Ken Leonard

Thanks to all additional students, staff and faculty who made this possible
9:30-10:00 am **Coffee available in front lobby**

10:00 _ 10:10 **Introduction by Andrew Mehring and Sonia Hernandez-Divers, Symposium Coordinators**

10:10 _ 10:25 **Welcome Address by Dr. John Gittleman, Director, Institute of Ecology**

**SESSION I_** Introduction by Session Moderator

10:30 _ 10:45 **“Leaf litter species diversity and chemistry: Effects on stream macroinvertebrate communities” by John S. Kominoski**

10:45 _ 11:00 **“Distribution and habitat requirements for *Orconectes plameri* and *Procambarus spiculifer* in the Flint River Basin” by Lindsey Sargent**

11:00 _ 11:15 **“Impact of the red imported fire ant (*Solenopsis invicta*) on soil fauna of a cotton agroecosystem by Kyle Wickings**

11:15 _ 11:30 **“A Georgia program for maximizing mitigation funds through collaborations and strategic land conservation” by Kelly Siragusa**

11:30 _ 1:00 pm **Lunch (on your own)**

**Session II_** Introduction by Session Moderator

1:00 _ 1:15 **“The effects of leaf litter species diversity on decomposition in a forested watershed in the southern Appalachians” by Becky A. Ball**

1:15 _ 1:30 **“Organic matter and dissolved oxygen budgets for a coastal plain blackwater stream, Georgia” by Andrew Mehring**

1:30 _ 1:45 **“Do yellow-bellied marmots respond to predator vocalizations?” by Jamie Winternitz**

1:45 _ 2:00 **“Linking the epidemiology and evolutionary history of bat rabies” by Daniel Streicker**

2:00 _ 2:15 **P. M. Coffee Break**

**SESSION III_** Introduction by Session Moderator

2:15 _ 3:30 **Undergraduate Poster Session**
# Schedule of Events

## Saturday, February 3

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00-9:30 am</td>
<td><strong>Coffee available in front lobby</strong></td>
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<tr>
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<td><strong>Session IV</strong> _ Introduction by Session Moderator_</td>
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<tr>
<td>9:30 _ 9:45</td>
<td>“Red imported fire ants and seed dispersal in the longleaf pine ecosystem” by Katherine Stuble</td>
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<tr>
<td>9:45 _ 10:00</td>
<td>“Radio telemetry reveals spacial and temporal movement patterns of predator fish species in Bahamian mangrove estuaries” by Jake Allgeier</td>
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<td>10:00 _ 10:15</td>
<td>“The role of Class 1 Integrons in the evolution of environmental bacteria: Not just for antibiotic resistance?” by Meredith S. Wright</td>
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<td>10:15 _ 10:30</td>
<td>“Flow regime effects on basal food resources and niche overlap of filtering bivalves in a coastal plain stream” by Carla L. Atkinson</td>
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<td>10:30 _ 10:45</td>
<td>“Invasive earthworms decrease diversity of millipedes” by Bruce A. Snyder</td>
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<td>10:45 _ 11:00</td>
<td><strong>A. M. Coffee Break</strong></td>
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<td><strong>SESSION V</strong> _ Introduction by Session Moderator_</td>
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<tr>
<td>11:00 _ 11:15</td>
<td>“Effects of food quality on nutrient storage and retention in a freshwater invertebrate consumer” by Gaston E. Small</td>
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<td>11:15 _ 11:30</td>
<td>“Demographic response of two understory evergreen herbs across multiple environmental gradients” by Robert J. Warren III</td>
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<td>11:30 _ 11:45</td>
<td>“Examining the geomorphological and ecological significance of confluence associated shoals in the Etowah River, Georgia” by William W. Duncan</td>
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<td>11:45 _ 12:00</td>
<td>“Linking riparian tree species composition and associated litter inputs to stream microbial communities at the reach scale” by John R. Frisch</td>
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<td>12:00-1:30 pm</td>
<td><strong>Lunch (on your own)</strong></td>
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<td><strong>Session VI</strong> _ Introduction by Session Moderator_</td>
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<tr>
<td>1:30 _ 1:45</td>
<td>“Measurement of water residence time, flowpath and sediment oxygen demand in seasonally inundated floodplain swamps of the Georgia Coastal Plain” by M. Jason Todd</td>
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<td>1:45 _ 2:00</td>
<td>“223 g/m² and we still know very little about our giant salamanders” by Thomas M. Luhring</td>
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<td>2:00 _ 2:15</td>
<td>“Neotropical amphibian declines affect stream ecosystems” by Scott Connelly</td>
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2:15 _ 2:30  “Global transmission of pathogens through the international wildlife trade: The case of *Batrachochytrium dendrobatidis* in imported ornamental frogs” by Jacob McGrew

2:30 _ 3:00  **P. M. Coffee Break I**

SESSION VII _ Introduction by Session Moderator

3:00 _ 3:15  “Do small streams matter? Scaling up in-stream nitrate uptake to stream networks” by Ashley M. Helton

3:15 _ 3:30  “Ecology in the bloodstream: A predator-prey model suggests ways to treat HIV infection” by Jane Shevstov

3:30 _ 3:45  “Protecting agriculture and aquatic environments: An oxymoron? Possible applications in the lower Flint River Basin” by Kathleen Rugel

3:45 _ 4:00  “Past and present declines in hemlocks and the future of Great Smoky Mountains National Park” by Matthew Heard

4:00 _ 4:15  **P. M. Coffee Break II**

4:15 _ 4:20  Keynote speaker introduction by Symposium Chairs

4:20 _ 5:30  **Keynote Speaker, Dr. Jonathan Ambrose**

5:30 _ 7:00  Reception at the Institute of Ecology, front lobby