

# **52<sup>st</sup> Southern Forest Insect Work Conference**

**July 28-31, 2009**

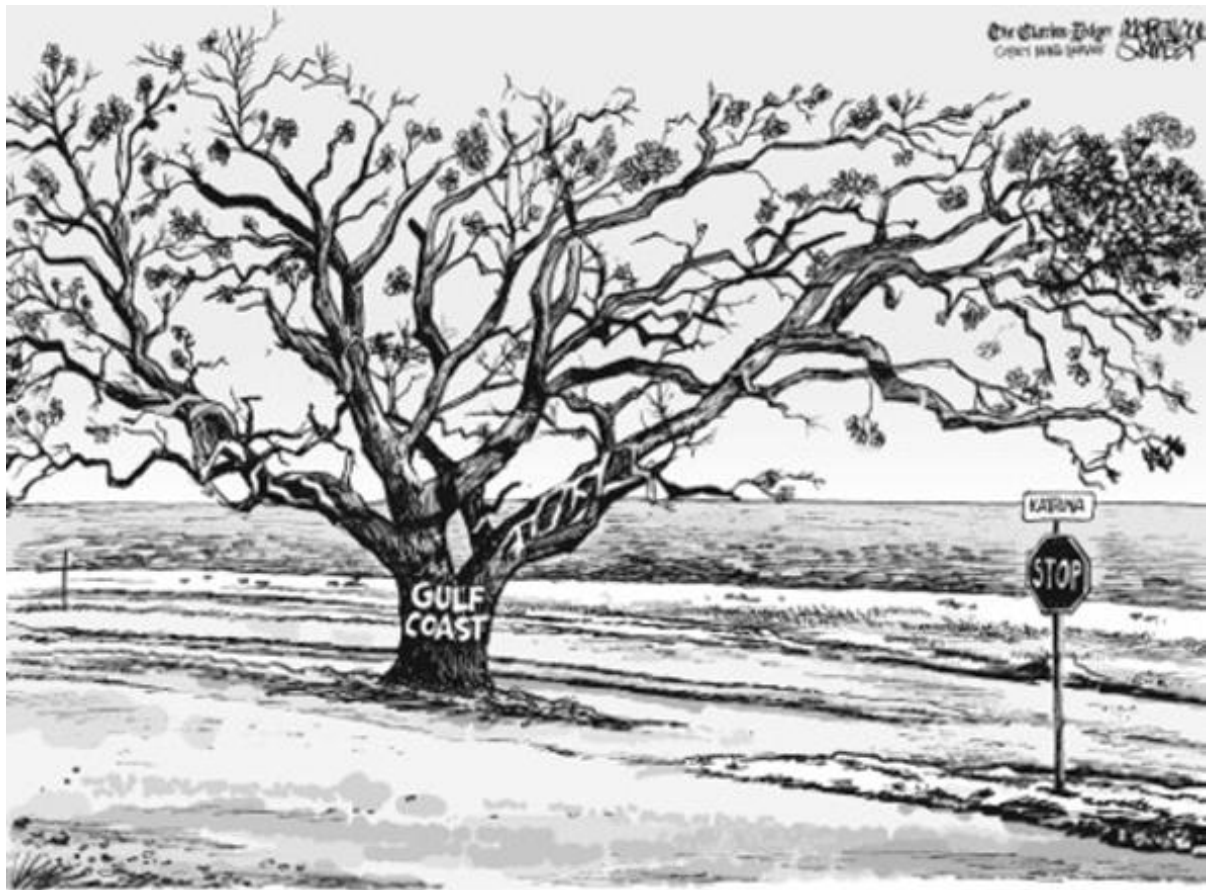
**Courtyard Marriot, Gulfport, MS**

**Scott Salom, SFIWC Chair**

**Andy Londo and John Riggins, Local Arrangements**

**Will Shepherd, Secretary-Treasurer**

**John Nowak, Program Chair**



**52<sup>nd</sup> Southern Forest Insect Work Conference,  
July 28-31, 2009  
Courtyard Marriott, Gulfport, MS**

**PROGRAM**

**Tuesday, July 28<sup>th</sup>**

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- 1:00-2:30 PM      **SPB Working Group (Organizer: Stephen Clarke)** – Harbor Room
- It's your Thing – Tony Courter
- SPBIS – Valli Peacher
- Insecticides for SPB – John Taylor
- The rise of fall SPB trapping – James Meeker
- SPB encyclopedia update – Robert Coulson
- SPB Internet Control Center – Scott Salom
- Plane talk: the availability of aerial detection aircraft – Chris Steiner
- Pheromone database – Brian Strom
- SPB novel control screening committee – Brian Strom
- Operational use of semiochemicals in a mixed WPB/MPB infestation- Dave Wakerchuk
- SPB prevention program – John Nowak
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- 2:30-3:30 PM      **Forest Health Task Force (Organizer: James Johnson, GFC)** – Harbor Room
- 3:30-5:00 PM      **State Cooperators Meeting (Organizer: Wes Nettleton, FHP)** – Harbor Room
- 3:00-5:00 PM      **Poster Set Up (Organizer: LÍgia Cota Vieira, VT)** – pre-function Ballroom
- 3:00-7:00 PM      **Meeting Registration** – pre-function Ballroom
- 5:00-5:45 PM      **AD Hopkins Award Committee Meeting** – Harbor Room
- 5:15-6:00 PM      **SFIWC Executive Team Meeting** - Boardroom
- 6:30-8:30 PM      **Mixer and Reception** – Coastal Ballroom

## Wednesday, July 29th (all events in Coastal 2&3)

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- 6:00-10:00 AM      **Breakfast (Courtyard Cafe)**
- 8:00-12:00 PM      **Registration**
- 8:30-9:00 AM      **Hurricane Katrina: Impacts and Recovery**  
Glenn Hughes, Extension Professor, MS State University
- 9:00-9:45 AM      **Opening Business Meeting**
- 9:45-10:00 AM      **Roger F. Anderson Award**  
**AD Hopkins Award**
- 10:00-10:30 AM     **Break and Group Photos**
- 10:30-12:00 PM     **Plenary Session**  
**Biomass, Bioenergy and Forest Health**
- Woody biomass feedstock availability, production costs and implications for bioenergy conversion in Mississippi**  
Donald Grebner, Mississippi State University
- Options for biomass recovery**  
Dana Mitchell, Southern Research Station, USDA Forest Service
- The future role of wood for energy: Traditional wood industry perspective**  
Montgomery Simpson, Public Affairs, Eastern U.S. Region, Weyerhaeuser
- 12:00-1:30 PM      **Lunch – on your own**
- 1:30-2:30 PM      **A.D. Hopkins Address: SFIWC and Me - A Road Less Traveled**  
Jim Hanula, Southern Research Station, USDA Forest Service
- 2:30-5:15 PM      **Graduate Student Session**  
Carla Dilling, University of Tennessee, and Kelly Felderhoff, North Carolina State University, Moderators
- Distribution of imidacloprid in eastern hemlock, *Tsuga canadensis* (L.) Carrière, in the southern Appalachians**  
Carla I. Dilling<sup>1</sup>, P. L. Lambdin<sup>1</sup>, J. F. Grant<sup>1</sup>, and R. Rhea<sup>2</sup>  
<sup>1</sup>Department of Entomology and Plant Pathology, University of Tennessee,  
<sup>2</sup>USDA Forest Service, Forest Health Protection
- Population dynamics of red oak borer in the Ozark and Ouachita Mountains**  
Laurel J. Haavik and Fred M. Stephen  
University of Arkansas
- Can an herbivore of the invasive tree of heaven carry a plant pathogenic fungus from tree to tree?**

Amy L. Snyder<sup>1</sup>, Scott M. Salom<sup>1</sup>, Loke T. Kok<sup>1</sup>, Gary J. Griffin<sup>1</sup>, Donald D. Davis<sup>2</sup>

<sup>1</sup>Virginia Tech, Department of Entomology

<sup>2</sup>Pennsylvania State University, Department of Plant Pathology

3:15-3:45 PM

**Break**

**Examining the Impact of Hemlock Woolly Adelgid Invasions on Headwater Streams: Preliminary Findings**

Joshua K. Adkins and Lynne K. Rieske-Kinney  
University of Kentucky, Department of Entomology

**Barcoding Forest Lepidoptera in Central Appalachia: Development and Application of a Sequence Library**

Luke E. Dodd, E. G. Chapman, J. D. Harwood, M. J. Lacki, and L. K. Rieske-Kinney  
University of Kentucky, Dept. of Entomology

**Scanning electron images of *Adelges tsugae***

Kelly Felderhoff  
North Carolina State University

**Host range testing of *Laricobius osakensis* (proposed) Montgomery and Shiyake (Coleoptera: Derodontidae), a new predator for hemlock woolly adelgid, *Adelges tsugae* Annand (Homoptera: Adelgidae)**

Lígia Cota Vieira, Scott M. Salom and Loke T. Kok  
Virginia Tech

**Future forests: Predicting outcomes of invasion by hemlock woolly adelgid and sudden oak death in the southern Appalachians**

H. L. Spaulding and L. K. Rieske  
University of Kentucky, Department of Entomology

**Competitive interactions among three congeneric species of *Laricobius*: Predators of hemlock woolly adelgid part II**

Heather Story, Scott M. Salom, and L. Kok  
Virginia Tech

6:30-9:30 PM

**Banquet; Pool (Inclement weather location - Coastal Ballroom)**

**Insect Photo Salon - Ballroom**

## Thursday, July 30<sup>th</sup>

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6:00-10:00 AM      **Breakfast (Courtyard Cafe)**

8:30-10:00 AM      **Concurrent Session 1**

### **A. Forest Insect and Pest Risk Assessment in the South: Current (and Future) State of the Art**

Steve Clarke and Kier Klepzig, Moderators – Bay Room

**Prediction of forest threats** - Frank Koch, NCSU; Bill Hargrove or Danny Lee, Eastern Forest Environmental Threat Assessment Center, USDA Forest Service

**National insect and disease risk map** - Frank Krist or Frank Sapio, Forest Health Technology Enterprise Team, USDA Forest Service

**Forest insect models** - Andrew Birt, Knowledge Engineering Lab, Texas A&M University

**Agenda:** Each panelist (only one per organization) will provide a brief overview of their responsibilities and recent accomplishments in the area of insect pest risk assessment, hazard rating, modeling, etc. (5-10 min. each).

Open discussion with audience questions directed to the panelists. (45-60 min.)

Session wrap-up directed toward meeting session objectives. (15 min.)

#### **Session objectives:**

1. Discuss current NF insect pest risk map efforts and decide: Insects to be included, host layers to be used, and models to be utilized to predict mortality.
2. Invasive insect pest hazard and risk map development needs.
3. Improved coordination between agencies and universities.

### **B. Host Interactions with Non-native Invasive Pests**

Fred Hain and Brian Strom, Moderators – Harbor Room

Format: Workshop format that encourages audience participation at any time.

***Sirex, Tomicus, and theory*** - Matt Ayers, Dartmouth College

**Emerald Ash Borer** - Pierluigi Bonello, Ohio State University

**Hemlock Woolly Agedid (w/some additional comments by Fred Hain on Balsam Woolly Adelgid)** - Kelly Felderhoff, North Carolina State University

**Gene conservation program for hemlock, (and the Partnership for Saving Threatened Forest)** - Robert Jetton, Camcore, North Carolina State University (and Fred Hain)

## **C. Hardwood Defoliators from Bull Run to the Bayou**

Chris Asaro, Moderators – Coastal 1

### **Using landsat imagery to detect gypsy moth defoliation –**

Chris Asaro, Todd Edgerton and Jim Pugh, Virginia Dept of Forestry

### **Fall cankerworm - the 'worm' that ate Charlotte -**

Rob Trickel, North Carolina Division of Forest Resources

### **Hijacking the hijackers: how plant signaling compounds affect galling by the Asian chestnut gall wasp -** Lynne Rieske-Kinney, University of Kentucky

### **Propagation of synchrony through trophic interactions in the gypsy moth -** Kyle J. Haynes, Andrew M. Liebhold, and Derek M. Johnson Dept. of Biology, University of Louisiana

### **Defoliators and Louisiana's coastal wetland forests -**

Jeremy Allison, Louisiana State University

10:00-10:30 AM

**Break**

10:30-12:00 PM

**Concurrent Session 2**

## **A. International Activities of SFIWC Members**

Keith Douce, Moderator – Bay Room

### **10:30 – 10:32: Opening Comments - G. K. Douce, University of Georgia**

**10:32 – 10:44: Far Out in the Far East: A Sentinel Tree Project in China** - Stephen Clarke, Tom Eager, and Gary Man. Forest Health Protection, USDA Forest Service

**10:44 – 10:56: Fortune Cookie says you will have great success in China and Japan, and meet a monkey too –** Scott M. Salom, Virginia Tech

**10:56 – 11:08: Evaluation of Mortality in Natural Stands of *Pinus oocarpa* and *P. caribaea* in Nicaragua –** Roger Menard, James Ward, Lori Eckhardt, and A. Sediles. USDA Forest Service, FHP, Pineville, LA; USDA Forest Service, FHP, Atlanta, GA; School of Forestry and Wildlife Sciences, Auburn University; University of Managua, NICARAGUA

**11:08 - 11:20: (very) short course in North American forest entomology: teaching in the Viennese Mountain Master of Forestry Program -** Fred Stephen, University of Arkansas

**11:20 – 11:32: Genetic tools and invasive species (what we know/can do, and what we don't know/can –** Ferenc Lakatos, University of West-Hungary, Institute of Silviculture and Forest Protection Sopron, HUNGARY

**11:32 – 11:44: Expanding Bugwood Technology Systems to Central Europe: Building a Global System** - G. Keith Douce, Center for Invasive Species and Ecosystem Health, University of Georgia

**11:44 – 12:00: Questions and discussion and other comments**

**B. What We Thought We Knew (and Think We Know) About SPB: Things Learned During the Writing of the Southern Pine Beetle Encyclopedia**

Brian Sullivan, Moderator – Harbor Room

**The Southern Pine Beetle Encyclopedia project – updating the SPB ‘bible’** - Bob Coulson, K.E.L., Texas A&M University

**SPB II: Return of the Fungi** - Kier Klepzig, Southern Research Station, USDA Forest Service

**Semiochemical Management of SPB** - Brian Strom, Southern Research Station, USDA Forest Service

**SPB Behavior and Host Interactions** - Brian Sullivan, Southern Research Station, USDA Forest Service

**Group discussion**

**C. Damage to trees in forest and urban areas following major storms**

Joe Pase Moderator – Coastal 1

**Damage in thinned and unthinned pine stands in East Texas following Hurricane Ike** - Aleksandar Dozic, Texas Forest Service

**Observations and experiences with post-hurricane effects on trees in Florida** - Bud Mayfield, Florida Division of Forestry

**Post Hurricane Assessment and Management on the De Soto National Forest** - Jim Meeker, Forest Health Protection, USDA Forest Service

**Crown Condition of Declining and Healthy Urban Live Oaks in Gulfport, MS Pre- and Post-Hurricane Katrina** - Dale Starkey, Forest Health Protection, USDA Forest Service

**Assessment of urban tree damage in Galveston, TX following Hurricane Ike** - Joe Pase, Texas Forest Service

12:30-4:30 PM

**Lunch and Afternoon Activities**

1:30–5:00 PM

**Frontalis Cup: Shell Landing Golf Course**

1:30-3:00 PM

**Field Trip: Hurricane Damage and Recovery in an Urban Setting**

3:30-5:30 PM

**Frustrana Cup: Badminton Tournament on the beach**

4:30-6:00 PM

**Poster Session**– pre-function Ballroom

Detecting Forest Canopy Change using NDWI: A Historical Look at the Red Oak Borer Outbreak, Joshua Jones, Jason Tullis, and Fred Stephen

Forestry-related pathways for the movement of exotic insect pests into and within the Greater Caribbean Region, L. Newton, H. Meissner, and A. Lemay

Wood packaging material as a pathway for the movement of exotic insect pests into and within the Greater Caribbean Region, H. Meissner, T. Culliney, A. Lemay, L. Newton, and C. Bertone

Phoretic mite and nematode associates of the spruce bark beetle, *Ips typographus* (Coleoptera: Scolytidae) in Georgia, John C. Moser, Medea S. Burjanadze, Pavel Klimov, and Lynn K. Carta

*Hylastes* spp. and their fungal associates in longleaf pine stands at Fort Benning, GA, JW. Zanzot and L. G. Eckhardt

Root feeding bark beetle populations in association with stand health, biomass removal and standard silvicultural practices, J. A. Thompson and L. G. Eckhardt

Bark beetle population responses to harvest and thin treatments in loblolly pine stands in decline-impacted central piedmont regions, Kathryn R. Booker and Lori G. Eckhardt

Premature pine mortality, root-inhabiting bark beetles and their associated blue-stain fungi, George Matusick and Lori G. Eckhardt

Genetic Conservation of Table Mountain Pine (*Pinus pungens* Lamb.) in the Southern Appalachian Mountains by Camcore and the USDA Forest Service, Robert Jetton, Barbara Crane, Bill Dvorak, Valerie Hipkins, and Andrew Whittier

Survivorship of saproxylic beetles in prescribed-burned loblolly pine stands in Georgia, Mike D. Ulyshen, Scott Horn, and Kamal J.K. Gandhi

Effects of exotic earthworms on oribatid mites in hardwood stands of New York, Jordan Burke, Joe R. Milanovich, John C. Maerz, and Kamal J.K. Gandhi

Responses of the European woodwasp to southern pine species, Kamal J.K. Gandhi, and John J. Riggins

Hide and Seek: Release and recovery of *Sasajiscymnus tsugae*, an introduced biological control agent of hemlock woolly adelgid, *Adelges tsugae*, in the Great Smoky Mountains National Park, Abdul Hakeem, Jerome F. Grant, Paris L. Lambdin, David Buckley, Frank A. Hale, Rusty J. Rhea, Gregory J. Wiggins and Glenn Taylor

*Xyleborus octidentatus* Muryama: New Ambrosia Beetle in North America, Wood Johnson, Valli Peacher, Saul Petty, Billy Bruce, Chris Steiner, Jacob Hudson and Bob Rabaglia

Laurel wilt disease in Georgia 2006 – 2008, Chip Bates, James Johnson and Scott Cameron

Effects of lure composition and release rate on catch of EDRR target species and other forest Coleoptera, B. L. Strom, S. L. Smith, J. R. Meeker and R. J. Rabaglia

Dosage and residual effects of systemic emamectin benzoate against the southern pine beetle in a small bolt assay, B. L. Strom and L. M. Roton

Systemic insecticides for preventing tree mortality from the exotic goldspotted oak borer, *Agrilus coxalis*, in southern California, Tom W. Coleman, Brian Strom and Sheri Smith

Seasonal thinning effects on *Ips* beetle use of slash in Mississippi Loblolly pine stands, Floyd, J.D., A.J. Londo, J.R. Riggins, and T.E. Nebeker, MS State University

## Friday, July 31<sup>st</sup>

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**6:00-10:00 AM**      **Breakfast (Courtyard Cafe)**

**8:30-10:00 AM**      **Concurrent Session 3**

**A. Population Dynamics of the Southern Pine Beetle: Where have all the bark beetles gone?**

Robert Coulson and Fred Stephen, Moderators – Bay Room

**Mountain Pine Beetle Populations - from endemic to epidemic cycles -**  
Allan Carroll, University of British Columbia

**Regional Populations Dynamics – when do outbreaks occur? -**  
Andrew Birt et al., Knowledge Engineering Laboratory, Texas A&M University

**Latent tendencies of the SPB -** Stephen Clarke, Forest Health Protection, USDA Forest Service

**Are there regime shifts in southern pine beetle population dynamics? -**  
Matthew Ayres, Dartmouth College

**Within-tree precursors of change population change leading to outbreaks -** Frederick Stephen, University of Arkansas and Robert Coulson, Knowledge Engineering Laboratory, Texas A&M University

**Session Agenda:** examine how populations of the southern pine beetle transitions from enzootic to epizootic levels and to speculate on the current state of declined populations throughout the South.

**B. State of Sirex**

Kevin Dodds, Moderator – Harbor Room

***Sirex noctilio*: Biology 101, 102, and 103 –** Peter de Groot, Canadian Forest Service

**Stand level impacts of *Sirex noctilio* in northeastern U.S. and southern Ontario -** Kevin Dodds, USDA Forest Service, Forest Health Protection

**What's in store for *Sirex noctilio* in the southeastern U.S. –** James Meeker, USDA Forest Service

**10:00-10:30 AM**      **Break**

**10:30-12:00 PM**      **Closing Business Meeting – Coastal 2&3**

## NOTES

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## **NOTES**

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## 52<sup>nd</sup> SFIWC Program Summary

Tuesday, July 28 <sup>th</sup>	Wednesday, July 29 <sup>th</sup>	Thursday, July 30 <sup>th</sup>	Friday, July 31 <sup>st</sup>
	6:00-10:00AM Breakfast	6:00-10:00AM Breakfast	6:00-10:00AM Breakfast
1:00-2:30PM SPB Working Group	8:00AM-Noon Registration	<b>8:30-10:00AM Concurrent Session 1</b>	<b>8:30-10:00AM Concurrent Session 3</b>
2:30-3:30PM Forest Health Task Force	8:30-9:00 Opening Presentation: Hurricane Katrina Impacts – Glenn Hughes	A. Forest insect pest risk assessment in the South – Klepzig and Clarke	A. Population Dynamics of SPB Coulson and Stephen
3:30-5:00 State Cooperators Meeting	<b>9:00-9:45AM Opening Business Meeting</b>	B. Host Interactions with Non-native Invasive Pests – Hain and Strom	B. State of Sirex - Dodds
3:00-5:00PM Poster Setup	9:45-10:00AM Roger F. Anderson Award AD Hopkins Award	C. Hardwood Defoliators - Asaro	10:00-10:30 Break
3:00-7:00PM Meeting Registration	10:00-10:30AM Break and Group Photos	10:00-10:30AM Break	<b>10:30-12:00 Closing Business Meeting</b>
5:00-5:45PM AD Hopkins Award Committee	<b>10:30-12:00PM Plenary Session: Biomass/Bioenergy</b>	<b>10:30-12:00PM Concurrent Session 2</b>	
5:15-6:00PM Executive Meeting	12:00-1:30PM Lunch	A. International Activities of SFIWC Members – Douce	
6:30-8:30PM Mixer and Reception	<b>1:30-2:30 AD Hopkins Award Presentation</b>	B. What We Thought We Knew About SPB Sullivan	
	2:30-3:15 Graduate Student Session	C. Storm Damage and Forestry – Pace	
	3:15-3:45 Break	12:00-1:30PM Lunch	
	3:45-5:15 Graduate Student Session	<b>1:30-3:00PM Field Trip: Hurricane in an Urban Setting</b>	
	6:30-9:30 Banquet and Photo Salon	Frustrana Cup and Frontalis Cup	
		<b>4:30-6:00PM Poster Session</b>	