



Peabody Hotel & Statehouse Convention Center  
Little Rock, Arkansas

March 4 - 6, 2008

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Texas Parks and Wildlife Department  
U.S. Fish and Wildlife Service  
U.S. Forest Service, Center for Bottomland Hardwoods  
Research**

**U.S. Geological Survey National Wetlands Research Center**

## **Symposium Theme**

Floodplain ecosystems are influenced by fluvial processes in current and previous climatic cycles. In the southeastern United States, floodplain ecosystems consist predominantly of bottomland hardwood forests and other associated wetlands, rivers and streams, and agricultural/urban areas. These ecosystems provide numerous ecosystem services to society including wildlife habitat, carbon storage, timber products, and water quality enhancement. There is tremendous diversity in the structure and function of floodplain ecosystems across the region. Hydrologic and geomorphic alterations, agricultural practices, water quality and availability, and urban development continue to challenge restorationists and managers at multiple spatial and temporal scales. These challenges are exacerbated by high natural variability in floodplains and the prospect of climate change. A critical evaluation of current natural resource restoration and management practices is needed to ensure the sustainability of floodplain ecosystem functions.

## **Intended Audience**

This symposium is intended for wildlife and forestry practitioners, researchers, hydrologists, ecologists, state and federal resource agencies, policy makers, conservation organizations, academics, students and other professionals interested in floodplain ecosystems.

## **Hotel and Conference Information**

Peabody Hotel of Little Rock	800.906.4000	<a href="http://www.peabodylittlerock.com">www.peabodylittlerock.com</a>
Statehouse Convention Center	800.844.4781	<a href="http://www.littlerock.com">www.littlerock.com</a>

## **Special Needs**

Check the downtown trolley schedule pamphlet in your conference portfolio for accessing shopping, museums, meals and entertainment.

Special dietary needs for provided meals can be made by contacting a Host Committee member.

To receive messages and announcements, first check the message board in the foyer outside Ballroom B. Contact a Committee member if you require further assistance.

**PROGRAM OUTLINE**  
STATEHOUSE CONVENTION CENTER

**Monday, March 3**

<b>Registration</b>	12:00 pm to 9:00 pm	<i>Atrium</i>
<b>Display Setup</b>	8:00 am – 5:30 pm	<i>East Ballroom Foyer</i>

**Tuesday, March 4**

<b>Registration</b>	7:30 am to 3:00 pm	<i>Atrium</i>
<b>Sessions I &amp; II</b>	8:00 am to 12:00 pm	<i>Ballrooms B &amp; C</i>
<b>Lunch (provided)</b>	12:00 pm to 1:00 pm	<i>Ballroom A</i>
<b>Sessions III &amp; IV</b>	1:00 pm to 5:30 pm	<i>Ballrooms B &amp; C</i>
<b>Poster Session</b>	6:00 pm	<i>Ballroom A</i>

**Wednesday, March 5**

<b>Sessions V &amp; VI</b>	8:00 am to 12:00 pm	<i>Ballrooms B &amp; C</i>
<b>Lunch (provided)</b>	12:00 pm to 1:00 pm	<i>Ballroom A</i>
<b>Sessions VII &amp; VIII</b>	1:20 pm to 4:30 pm	<i>Ballrooms B &amp; C</i>
<b>Dinner (provided)</b>	6:00 pm	<i>Ballroom A</i>

**Thursday, March 6**

<b>Sessions IX &amp; X</b>	8:00 am to 12:00 pm	<i>Ballroom B &amp; C</i>
<b>Lunch (provided)</b>	12:00 pm to 1:00 pm	<i>Ballroom A</i>
<b>Adjourn</b>		

# PROGRAM

## Monday, March 3

12:00 pm – 9:00 pm Registration

## Tuesday, March 4

7:30 am – 3:00 pm Registration

8:00 am – 8:10 am Welcome and Announcements

8:10 am **Keynote:** Dr. Graeme Lockaby, Associate Dean of Research in the School of Forestry and Wildlife Sciences and Director of the AU Water Resources Center, Auburn University, *Floodplain Ecosystems of the Southeast: Linkages Between Forests and People*

### Session I

8:40 am **Invited Speaker:** David L. Galat, *Guidelines for Effective Restoration of River-floodplain Ecosystems*

9:10 am **Invited Speaker:** Cliff R. Hupp, Aaron R. Pierce, and Phillip A. Townsend, *Floodplain Geomorphic Processes, Sedimentation, and Ecological Impacts of Hydrologic Alteration along Coastal Plain Rivers*

9:40 am **Break**

### Session II

10:00 am Scott B. Franklin, John A. Kupfer, S. Reza Pezeshki, Randy Gentry, and R. Daniel Smith, *Complex Effects of Channelization and Leveeing on Western Tennessee Floodplain Forest Structure, Composition and Function*

10:20 am Charles Klimas, Elizabeth Murray, Thomas Foti, Jody Pagan, and Henry Langston, *Geomorphology, Plant Community Distribution, and Wetland Restoration in the Mississippi Alluvial Valley*

10:40 am Kimberly Meitzen, *The Effects of Lateral Channel Migration Rates on Riparian Forest Structure and Composition, Congaree River, Congaree National Park, South Carolina*

- 11:00 am K. H. Nislow, C. O. Marks, F. J. Magilligan, J. K. H. Zimmerman, and K. A. Lutz, *Influence of Hydrologic Alteration on Floodplain Ecosystems in the Connecticut River Basin, Northeastern U.S.*
- 11:20 am M. Jason Todd, George Vellidis, R. Richard Lowrance, and Catherine M. Pringle, *Influence of Sediment Oxygen Demand in Seasonally Inundated Floodplain Swamps of the Georgia Coastal Plain*
- 11:40 am Gregory B. Noe and Cliff R. Hupp, *Retention of Riverine Nutrient and Sediment Loads by Floodplains in the Chesapeake Bay Watershed*
- 12:00 pm **Lunch (provided)** *Ballroom A*

### Session III

- 1:00 pm Harold L. Schramm, Jr., Michael S. Cox, Andrew W. Ezell, and Todd E. Tietjen, *Nitrogen and Phosphorus Sequestration on the Floodplain: A Case for Restoring the Ecological Functionality of the Lower Mississippi River-Floodplain Ecosystem*
- 1:20 pm Robert R. Lane, John W. Day, Rachael Hunter, and Joel Lindsey, *Wetland Assimilation of Treated Municipal Effluent: Wetland Restoration & Improved Water Quality in Louisiana*
- 1:40 pm Michael A. Eggleton, John R. Jackson, and Benjamin J. Lubinski, *Multiple-gear Assessment of Floodplain Lake Fish Assemblages of a Large-river Floodplain Ecosystem*
- 2:00 pm Mark C. Leao, Edmund R. Buckner, and Michael A. Eggleton, *Patterns in Fish Community Structure and Diversity in Natural and Artificially-created Wetlands in the White River, Arkansas*
- 2:20 pm Bradley S. Williams and S. Reid Adams, *Patterns of Macroinvertebrate Diversity and Community Structure across a Gradient of River-Floodplain Connectivity*
- 2:40 pm S. Reid Adams, Matt D. Schroeder, Robert L. Clark, and Bradley S. Williams, *Fish Assemblages and Connectivity of Riparian Wetlands in the Lower Arkansas River Floodplain Ecosystem*
- 3:00 pm **Break**

### Session IV

- 3:20 pm Sandra J. Clark-Kolaks, John R. Jackson, and Steve E. Lochmann, *Population Structure of Adult and Juvenile Paddlefish in Floodplain Lakes along the Lower White River, Arkansas*

- 3:40 pm Andrew L. Rypel, Wendell R. Haag, and Robert H. Findlay, *Pervasive Hydrologic Effects on Freshwater Mussels and Riparian Trees in Southeastern Floodplain Ecosystems*
- 4:00 pm B. T. Halloran, D. A. Rutherford, M. D. Kaller, and William E. Kelso, *The Degree of Co-occurrence between Zooplankton and Ichthyoplankton Shape the Year-class Recruitment in Newly Inundated Bottomland Hardwood Floodplains*
- 4:20 pm Kim Diana Connolly, *The Significant Nexus of Science to the Future Protection of the Waters of the United States*
- 5:00 pm **Invited Speaker:** Richard Sparks, *Integrating Economics in Floodplain Restoration: An Analysis of The Nature Conservancy's Emiquon Project on the Illinois River*
- 6:00 pm **Poster Session** – Reception

## Wednesday, March 5

### Session V

- 8:00 am **Invited Speaker:** John D. Hodges, *Changes in Forest Management Practices Needed to Insure Timber Quality of Bottomland Hardwood Stands*
- 8:30 am **Invited Speaker:** Hugh McManus, *Changing Landownership Patterns and the Hardwood Lumber Industry in the South*
- 9:00 am **Invited Speaker:** Randy Wilson and Kenny Ribbeck, *Managing Bottomland Forests for Wildlife*
- 9:30 am **Break**

### Session VI

- 10:00 am Brian Roy Lockhart, *The State of Knowledge Regarding Site Quality Evaluation for Bottomland Hardwood Management*
- 10:20 am Aaron Hohl, Andrew Niccolai, and Chad Oliver, *A Decision Support Tool for the Landscape Scale Management of Bottomland Hardwood Ecosystems of the Southeast*
- 10:40 am Bruce P. Allen, Charles P. Goebel, and Rebecca R. Sharitz, *Floodplain Forest Development Models: Do Examples from Old-growth Forests Fit?*

11:00 am Bobby Keeland and John McCoy, *Tree Survival and Growth through 20 years of Green-Tree Reservoir Management*

11:20 am John L. Nelson, John W. Groninger, Loretta L. Battaglia, and, Charles M. Ruffner, *A Century of Disturbance Regime Changes in an Ohio River Floodplain Forest: Implications for Wetland Conservation Area Management*

12:00 pm **Lunch (provided)** *Ballroom A*

### **Session VII**

1:20 pm Ken W. Krauss, Thomas W. Doyle, William H. Conner, Richard H. Day, and Jamie A. Duberstein, *Structure and Growth of Tidal Freshwater Forested Wetlands in Relation to Salinity and Fertility*

1:40 pm Paul R. Gagnon and William J. Platt, *Fire in Bottomland Forests: Insights from Disturbance Ecology of Arundinaria*

2:00 pm Andrew W. Ezell, J. L. Moree, and John D. Hodges, *Influence of Planting Stock, Planting Method, Fertilization, and Competition Control on Survival of Oak Seedlings Planted in Afforestation Areas – Second Year Results*

2:20 pm Stephen Faulkner, Wylie Barrow, Bob Keeland, Susan Walls, and Tom Moorman, *Conservation Practice Effects on Wetland Ecosystem Services in the Mississippi Alluvial Valley*

2:40 pm **Break**

### **Session VIII**

3:00 pm **Invited Speaker:** Richard F. Keim, Loretta L. Battaglia, William H. Conner, and Diane De Steven, *Hydrologic Controls on Swamp Forest Regeneration and Sustainability.*

3:30 pm **Invited Speaker:** Skip Hyberg, *Floodplain Ecosystem Restoration: Commodity Markets, Environmental Services, and the Farm Bill.*

4:00 pm **Invited Speaker:** David Shoch, *Past, Present, and Future of Carbon as a Financial Tool for Bottomland Hardwood Restoration in the Lower Mississippi Valley*

6:00 pm **Dinner (provided)** *Ballroom A*

## Thursday, March 6

### Session XV

- 8:00 am **Invited Speaker:** Leigh H. Fredrickson, *Early Successional Habitats in the Mississippi Alluvial Valley: Their Role in Meeting Conservation Objectives*
- 8:30 am Andrew K. Zadnik, James T. Anderson, Petra Bohall Wood, and Kerry Bledsoe, *Wildlife Use of Back Channels Associated with Islands on the Ohio River*
- 8:50 am Jeff Hoover, *The Effects of Hydrologic Restoration on Birds Breeding in Forested Wetlands*
- 9:10 am Larry A. Wood and Robert J. Cooper, *Response of Prothonotary Warblers to Flooding and Timber Harvest in a Bottomland Hardwood Forest*
- 9:30 am **Break**

### Session X

- 10:00 am Jeremy Brown, Thomas J. Benson, and James C. Bednarz, *Vegetation Characteristics Associated with Habitat Occupied by Swainson's Warblers at the White River National Wildlife Refuge: Implications for Management of Bottomland Systems*
- 10:20 am Troy J. Bader and James C. Bednarz, *Reproductive Success and Causes of Nest Failures for Mississippi Kites in the White River National Wildlife Refuge: Response to Altered Hydrology?*
- 10:40 am J. Brian Davis, Bruce D. Leopold, Richard M. Kaminski, and Robert R. Cox, *Wood Duck Duckling Mortality and Survival in Mississippi and Alabama Floodplain Ecosystems*
- 11:00 am Paul D. Scharine, Clayton K. Nielsen, Eric M. Schaubert, and Lyann Rubert, *Habitat Factors Affecting Relative Abundance of Swamp Rabbits in a Floodplain Forest Ecosystem*
- 11:30 am **Invited Speaker:** Rebecca Sharitz, Lorreta L. Battaglia, John W. Groninger and Sammy L. King, *Integrating Science into the Restoration and Management of Floodplain Ecosystems of the Southeast: A Synthesis*
- 12:00 pm **Lunch** (provided) *Ballroom A*

## Symposium Concludes

# POSTERS

Babbit, G., Bick, A., *Restoration of the Flat Fork Valley*

Baldwin, M., Barrow, W., Faulkner, S., Case, C., *Migratory Bird Stopover Use of Reforested Lands: a Portable Radar Study*

Benson, T.J., Brown, J.D., Anich, N.M., Bednarz, J.C., *Using Elevation Data to Improve GIS-based Estimates of Potential Habitat in Bottomland Systems: A Case Study with Swainson's Warblers at White River National Wildlife Refuge, Arkansas*

Bentrup, G., Dosskey, M.G., Schoeneberger, M.M., Wells, G., *Landscape Planning and Site Design Tools for Supporting Forest Ecological Restoration with Agroforestry*

Brendecke, W.W., Zaczek, J.J., Arnold, K., *Restoration and Management Practices for Canebrake Establishment*

Burke, M.K., Eisenbies, M.H., Harrison, C.A., Liechty, H.O., *Primary Productivity, Hydroperiod, and Nutrient Cycling in Four Floodplain Forest Communities on a Blackwater River*

Chen, X., Carrington, M., Mendelson, J., *Stand Structures in Riparian Floodplain and Upland Forests along Thorn Creek in Northeastern Illinois*

Clark-Kolaks, S.J., Jackson, J.R., Lochmann, S.E., *Effects of River Connectivity on Floodplain Lake Fish Communities of the Lower White River, Arkansas*

Day, R.H., *The Effect of Microtopography on Drainage Patterns, Hydroperiod, and Tree Species Distribution within the Cache River Floodplain, Arkansas*

Dosskey, M.G., Bentrup, G., Burger, W.L., Schoeneberger, M.M., *Restoring Ecological Functions of Bottomland Forest with Agroforestry*

Duzan, J.D., Lindsey, M.B., Haase, C.S., *Hydrologic and Geomorphic Restoration of a Bottomland Hardwood Headwater Ecosystem in the Cache River Basin of Eastern Arkansas, USA*

Eggleton, M.A., Jackson, J.R., Lubinski, B.J., *Evaluation of Minimum-length Limits for Crappies in a Large River-floodplain*

Fleming, K.S., Kaminski, R.M., Tietjen, T., *Evaluating Benefits of Moist-soil Management on Wetland Reserve Program Lands in the Mississippi Alluvial Valley*

Horton, R., Kaminski, R.M., *Estimation and Modeling of Red Oak Acorn Abundance in the Mississippi Alluvial Valley*

Kaminski, R., Wang, G., Ezell, A., Leininger, T. Uihlein, B., Reinecke, K., Moorman, T., *Estimating and Modeling Acorn Abundance in the Mississippi Alluvial Valley*

Lockhart, B.R., Kellum, J.E., *Bottomland Hardwood Old Growth: Myth or Matter of Perspective*

Lucas, J.S., Loeb, S.C., *Roost Site Selection of a Rare Bat in an Old Growth Bottomland Forest*

Menon, R., Holland, M.M., Moore, M. Cooper, C.M., Kroger R., *Phosphorus Retention by Wetland Plants in Agricultural Drainage Ditches: A Greenhouse Study*

Miyazono, S., Aycok, N., Miranda, L.E., Steffen, C, Tietjen, T., *River Connectivity as a Determinant of Fish Communities in Oxbow Lakes of the Yazoo River Basin*

Nelson, F., *Shallow Bathymetric Mapping of Floodplain Wetlands to Assist Management Decisions*

Nero, B.F., Lond, A.J., Maiers, R.P., Dewey, J.C., *Restoring Former Agricultural Wetlands in LMAV with Mixed Bottomland Hardwood Species: Effects of Species Mixes and Early Management Practices*

Nuse, B.L., *Patterns of Vegetation and Avifaunal Diversity in Georgia River Floodplains*

Scaroni, A.E., Nyman, J.A., Lindau, C.W., DeLaune, R.D., Keim, R.F., *Denitrification in Three Habitat Types of a Large River Floodplain, Atchafalaya River Basin, Louisiana, USA*

Self, A.B., Ezell, A.W., *Efficacy of Chemical Site Preparation for Competition Control in Hardwood Afforestation Areas*

Shelley, D.C., Thom, T.A., French M., Dolphin, B., *Piezometers as Tools for Floodplain Hydrology Monitoring, Research, and Education Programs at Congaree National Park*

Stapleton, R.E., Williams, H.M., Farrish, K.W., Kronrad, G.D., *Development of Carbon Pools in Created Forested Wetlands on Reclaimed Lignite Mine Soil*

Thogmartin, W.E., Gallagher, M., Young, N., Rohweder, J.J., Durbian, F., Knutson, M.G., *Bird Habitat Associations on the Lower Missouri River Floodplain*

Thom, T.A., Shelley, D.C., *Floodplain Research at the Old-growth Bottomland Forest Research and Education Center, Congaree National Park, SC*

Thompson, L.C., General, D.M., *Effects of Harvesting Treatments on Ant Assemblages in a Mississippi River Bottomland Hardwood Forest in West-central Mississippi*

Whitsitt, T., Tappe, P.A., *Small Mammal Community Associations with Topographic Complexities on a Wetland Restoration Site in Southeast Arkansas*

**STATEHOUSE CONVENTION CENTER  
LAYOUT DIAGRAM**

## **STEERING COMMITTEE**

Loretta Battaglia, Southern Illinois University at Carbondale  
Martin Blaney, Arkansas Game and Fish Commission  
William Conner, Baruch Institute of Coastal Ecology and Forest Science  
Thomas Foti, Arkansas Natural Heritage Commission  
Leigh H. Fredrickson, Wetland Management and Education Services, Inc.  
Curtis R. Hopkins, Ducks Unlimited, Inc.  
Bobby D. Keeland, USGS National Wetlands Research Center  
Richard Keim, Louisiana State University  
Sammy King, USGS Louisiana Cooperative Fish and Wildlife Research Unit  
Theodor D. Leininger, Forest Service, Center for Bottomland Hardwoods Research  
Graeme Lockaby, Auburn University  
Rebecca McPeake, University of Arkansas Cooperative Extension Service  
Jeff Raasch, Texas Parks and Wildlife Department  
Kenny Ribbeck, Louisiana Department of Wildlife and Fisheries  
Randall J. Rousseau, Mississippi State University  
Randy Wilson, US Fish and Wildlife Service

## **HOST COMMITTEE**

Doug Akin, Arkansas Forestry Commission  
Kyle Cunningham, University of Arkansas Cooperative Extension Service  
Arlene Greene, Arkansas Game and Fish Commission  
Janet Greenwood, Arkansas Game and Fish Commission  
Caroll Guffey, University of Arkansas Cooperative Extension Service  
Joe Krystofik, US Fish and Wildlife Service  
Allan Mueller, The Nature Conservancy, Arkansas Field Office  
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George Rheinhardt, Natural Resources Conservation Service