

## CURRICULUM VITAE OF LORETTA L. BATTAGLIA

### PROFESSIONAL AFFILIATION AND CONTACT INFORMATION

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### EDUCATION

- 1998 Ph.D., Ecology, University of Georgia  
Dissertation: "Microsite heterogeneity and regeneration patterns along a post-hurricane disturbance gradient in an old-growth bottomland hardwood forest"  
Advisor: Dr. Rebecca R. Sharitz
- 1991 M.S., Biology, University of Louisiana, Monroe  
Thesis: "Early secondary succession in a bottomland hardwood area"  
Advisor: Dr. Davis Pritchett
- 1988 B.S., Zoology (*Magna cum laude*), University of Louisiana, Monroe

### PROFESSIONAL EXPERIENCE

- 2009 – Associate Professor, Dept. of Plant Biology, Southern Illinois University Carbondale.
- 2003-2009 Assistant Professor, Dept. of Plant Biology, Southern Illinois University Carbondale.
- 2000-2003 Post-doctoral Associate, Dept. of Biological Sciences, Louisiana State University.
- 1999-2000 Instructor, Dept. of Biological Sciences, Louisiana State University.
- 1998 Research Associate, Dept. of Biological Sciences, Louisiana State University.
- 1993-1998 Graduate Research Fellow, Savannah River Ecology Laboratory, University of Georgia.
- 1991-1993 Graduate Teaching Assistant, Division of Biological Sciences, University of Georgia.
- 1991 Research Technician, Dept. of Biology, University of Louisiana, Monroe & USDA Forest Service, Hot Springs, Arkansas.
- 1988-1991 Graduate Teaching Assistant, Dept. of Biology, University of Louisiana, Monroe.
- 1988 Undergraduate Field Assistant, Dept. of Biology, University of Louisiana, Monroe.

## RESEARCH INTERESTS

I am a community ecologist working primarily in coastal wetlands of the northern Gulf Coast of Mexico. Current research in my lab is focused on two main areas: 1) effects of climate change and disturbance on wetland ecosystems; and 2) utility of assisted migration for instilling resilience to climate change in restored coastal ecosystems.

## PEER-REVIEWED PUBLICATIONS

- Chupp, A. D., A.M. Roder, **L. L. Battaglia** and J. F. Pagels. In press. A case study of urban and peri-urban mammal communities: implications for the management of National Park Service areas. *Northeastern Naturalist*.
- Paudel, S. and **L. L. Battaglia**. 2013. Sea level rise and germination of the invasive *Triadica sebifera* and two co-occurring native woody species across a Gulf Coast transition ecosystem. *Wetlands* 33: 527-535.
- Alsop, S. E., S. D. Ebbs, **L. L. Battaglia** and W. A. Retzlaff. 2013. Green roof systems as sources or sinks influencing heavy metal concentrations in runoff. *Landscape and Urban Planning* 139: 502-508.
- Tate, A.S. and **L. L. Battaglia**. 2013. Disassembly and reassembly of coastal communities following experimental storm surge and wrack deposition. *Journal of Vegetation Science* 24: 46-57.
- Battaglia, L. L.**, M. S. Woodrey, M. S. Peterson, K. S. Dillon and J. M. Visser. 2012. Wetland Ecosystems of the Northern Gulf Coast. In: D. Batzer and A. Baldwin, editors. *Wetlands of North America: Ecology and Conservation Concerns*. Pages 75-88.
- King, S. L., **L. L. Battaglia**, C. R. Hupp, R. F. Keim and B. G. Lockaby. 2012. Floodplain Wetlands of the Southeastern Coastal Plain. In: D. Batzer and A. Baldwin, editors. *Wetlands of North America: Ecology and Conservation Concerns*. Pages 253-266.
- Visser, J. M., J. W. Day, Jr., **L. L. Battaglia**, G. P. Shaffer and M. W. Hester. 2012. Mississippi River Delta Wetlands. In: D. Batzer and A. Baldwin, editors. *Wetlands of North America: Ecology and Conservation Concerns*. Pages 63-74.
- McLane, C. R., **L. L. Battaglia**, D. J. Gibson and J. G. Groninger. 2012. Succession of exotic and native species assemblages across a chronosequence of restored floodplain forests: a test of the parallel dynamics hypothesis. *Restoration Ecology* 20: 202-210.
- Kain, M., **L. L. Battaglia**, A. Royo and W. P. Carson. 2011. Over-browsing in Pennsylvania creates a depauperate forest dominated by an understory tree: Results from a 60-year-old deer enclosure. *Journal of the Torrey Botanical Society* 138: 322-326.
- Alsop, S.E., S.D. Ebbs, **L. L. Battaglia** and W.A. Retzlaff. 2011. Heavy metals in leachate from simulated green roof systems. *Ecological Engineering* 37: 1709-1717.
- Wolff, J. M., **L. L. Battaglia**, T. C. Carter, L. B. Rodman, E. R. Britzke and G. A. Feldhamer. 2009. Effects of tornado disturbance on bat communities in southern Illinois. *Northeastern Naturalist* 16: 553-562.

- Nelson, J. L., J. W. Groninger, C. M. Ruffner and **L. L. Battaglia**. 2009. Past land use, disturbance regime change, and vegetation response in a southern Illinois floodplain conservation area. *Journal of the Torrey Botanical Society* 136: 242-256.
- King, S. L., R. R. Sharitz, J. W. Groninger and **L. L. Battaglia**. 2009. Ecology, restoration, and management of floodplains: a synthesis. *Wetlands* 29: 624-634.
- Battaglia, L. L.**, J. S. Denslow, J. R. Inczauskis and S. G. Baer. 2009. Effects of native vegetation on invasion success of Chinese Tallow in a floating marsh ecosystem. *Journal of Ecology* 97: 239-246.
- Nelson, J. L., J. W. Groninger, **L. L. Battaglia** and C. M. Ruffner. 2008. Regeneration response to tornado and salvage harvesting in a bottomland forest. *Proceedings of the 14<sup>th</sup> Biennial Southern Silvicultural Research Conference*, Athens, GA.
- Shirley, L. J. and **L. L. Battaglia**. 2008. Projecting fine resolution land-cover dynamics in a rapidly changing coastal landscape. *Journal of Coastal Research* 24: 1545-1554.
- Battaglia, L. L.**, P. R. Minchin and D. W. Pritchett. 2008. Evaluating dispersal limitation in passive bottomland forest restoration. *Restoration Ecology* 16: 417-424.
- Nelson, J. L., J. W. Groninger, **L. L. Battaglia** and C. M. Ruffner. 2008. Bottomland hardwood forest vegetation and soils recovery following a tornado and salvage logging. *Forest Ecology and Management* 256: 388-395.
- Collins, B. and **L. L. Battaglia**. 2008. Oak regeneration in bottomland hardwood forests. *Forest Ecology and Management* 255: 3026-3034.
- Battaglia, L. L.**, J. S. Denslow and T. G. Hargis. 2007. Does woody species establishment alter herbaceous community composition of freshwater floating marshes? *Journal of Coastal Research* 23: 1580-1587.
- Shirley, L. J. and **L. L. Battaglia**. 2006. Assessing vegetation change in coastal marsh-forest transitions along the northern Gulf of Mexico using National Wetlands Inventory data. *Wetlands* 26: 1057-1070.
- Battaglia, L. L.** and B. S. Collins. 2006. Linking hydroperiod and vegetation response in Carolina Bay wetlands. *Plant Ecology* 184: 173-185.
- Battaglia, L. L.** and R. R. Sharitz. 2006. Response of floodplain forest species to spatially condensed gradients: a test of the flood-shade tolerance tradeoff hypothesis. *Oecologia* 147: 108-118.
- Battaglia, L. L.** and R. R. Sharitz. 2005. Effects of natural disturbance on bottomland hardwood regeneration. *In: Ecology and Management of Bottomland Hardwood Systems: The State of Our Understanding*. L. H. Fredrickson, S. L. King and R. M. Kaminski, editors. University of Missouri-Columbia. Gaylord Memorial Laboratory Special Publication No. 10. Puxico.

**Battaglia, L. L.**, B. S. Collins and R. R. Sharitz. 2004. Do published tolerance ratings and dispersal factors predict species distributions in bottomland hardwoods? *Forest Ecology and Management* 198: 15-30.

**Battaglia, L. L.**, B. S. Collins and P. B. Weisenhorn. 2004. *Quercus michauxii* regeneration in and around aging canopy gaps. *Canadian Journal of Forest Research* 34: 1-6.

Denslow, J. S. and **L. L. Battaglia**. 2002. Stand composition and structure across a changing hydrologic gradient: Jean Lafitte National Park. *Wetlands* 22: 738-752.

**Battaglia, L. L.**, P.R. Minchin and D. W. Pritchett. 2002. Sixteen years of old-field succession and reestablishment of a bottomland hardwood forest in the Lower Mississippi Alluvial Valley. *Wetlands* 22: 1-17.

Collins, B. S. and **L. L. Battaglia**. 2002. Microenvironmental heterogeneity and *Quercus michauxii* regeneration in experimental canopy gaps. *Forest Ecology and Management* 155: 281-292.

Collins, B. S. and **L. L. Battaglia**. 2001. Hydrology effects on propagule bank expression and vegetation in six Carolina Bays. *Community Ecology* 2: 21-33.

**Battaglia, L.L.**, S. A. Foré, S. A. and R. R. Sharitz. 2000. Seedling emergence, survival and size in relation to light and water availability in two bottomland hardwood species. *Journal of Ecology* 88: 1041-1050.

**Battaglia, L. L.**, R. R. Sharitz and P. R. Minchin. 1999. Patterns of seedling and overstory composition along a gradient of hurricane disturbance in an old-growth bottomland hardwood community. *Canadian Journal of Forest Research* 29: 144-156.

**Battaglia, L. L.**, J. R. Keough and D. W. Pritchett. 1995. Early secondary succession in a southeastern U.S. alluvial floodplain. *Journal of Vegetation Science* 6: 769-776.

## NON-REFEREED PUBLICATIONS AND REPORTS

Guyon et al. **L. L. Battaglia**. 2012. *Final report submitted to the USGS Long Term Resource Monitoring Program.* .

Minchin, P. R. and **L. L. Battaglia**. 2011. Analysis of ground-truthing data for LiDAR classifications of vegetation in Jean Lafitte National Park. Final report submitted to the National Park Service Inventory and Monitoring Program, Gulf Coast Network. 20 p.

**Battaglia, L. L.**, V. A. Barko and D. Henderson. 2008. Ecological Indicators of Floodplain Forests within the Mississippi River Ecosystem. *Final report submitted to the USGS Long Term Resource Monitoring Program.* 49 p.

**Battaglia, L. L.** 2007. Habitat inventory of Cypress Creek National Wildlife Refuge. *Final report submitted to the US Fish and Wildlife Service, Cypress Creek National Wildlife Refuge.* December 15, 2007. 32 p.

**Battaglia, L. L.** and B. Beckage. 2007. Large-scale disturbances and ecological communities in the Southeast US. *White Paper, Southeast Region TER-S Workshop.*

Gibson, D.J., **L. L. Battaglia**, J. Inczauskis and M. Hacker. 2006. Inventory of non-native species. *Final report submitted to the USDA Forest Service, Shawnee National Forest*. 49 p.

**Battaglia, L. L.** 2005. Survey of invasive plant species in Crab Orchard Wildlife Refuge. Final report submitted to the USFWS, Crab Orchard. 2005. 24 p.

Collins, B. S. and **L. L. Battaglia**. 2002. Review of "The Ecological Consequences of Environmental Heterogeneity". *Journal of Vegetation Science* 13: 893-894.

## MANUSCRIPTS IN REVISION OR REVIEW

Stork, E. J. and **L. L. Battaglia**. In revision. Prairie on the rocks: remnant dolomite prairies of northeastern Illinois. *Journal of the Torrey Botanical Society*.

Hobbs, R., R. Standish, B. Bestelmeyer, M. Mayfield, K. Suding, **L. L. Battaglia**, V. Eviner, C. Hawkes, V. Temperton, V. Cramer, J. Harris, J. Funk, and P. Thomas. In revision. Resilience in ecology: abstraction, distraction, or where the action is? *Biological Conservation*.

Pivovarov, A. L., C. Swift, B. Kunz, and **L. L. Battaglia**. In review. Physiological envelopes as indicators of response to hurricane disturbance for three coastal wetland species. *Wetlands*.

Paudel, S., S. G. Baer, and **L. L. Battaglia**. In review. Vesicular arbuscular mycorrhizae (VAM) and success of *Triadica sebifera* invasion in coastal transition ecosystems along the northern Gulf of Mexico. *Plant and Soil Science*.

## GRANTS

Great Rivers Faculty Proposal for the National Great Rivers Research & Education Center Internship Program. May 2013 - Aug 2013. PI: Loretta Battaglia. Resilience of Floodplain Forests to Rapid Relative Sea Level Rise and Hurricane Disturbances: a Dendrochronological Perspective. \$5,000.

National Park Service Inventory and Monitoring Program. Vegetation plot surveys and plant community classification at Jean Lafitte National Historical Park and Preserve in support of the National Park Service Inventory and Monitoring Program. June 2012 – May 2013. PI: Loretta Battaglia. \$25,109.

Department of Defense, Strategic environmental research and development program (SERDP). June 1, 2012 - May 14, 2014. PI: Loretta Battaglia. Supplement. Assisted migration as a management tool in coastal ecosystems threatened by climate change. \$14,494.

Department of Defense, Strategic environmental research and development program (SERDP). June 1, 2010 - May 14, 2014. PI: Loretta Battaglia. Supplement. Assisted migration as a management tool in coastal ecosystems threatened by climate change. \$73,898.

NOAA, Graduate Research Fellowship. Life after redbay. June 2011 - June 2014. coPIs: Adam Chupp and Loretta Battaglia. \$60,000.

Great Rivers Faculty Proposal for the National Great Rivers Research & Education Center Internship Program. May 2011 - Aug 2011. PI: Loretta Battaglia. Resilience of Floating

Aquatic Plant Communities in Coastal Bottomlands of the Lower Mississippi Alluvial Valley. \$5,000.

National Park Service Inventory and Monitoring Program (subcontract from LSU to SIUC).  
Analysis of JELA ground-truth vegetation. July 2009 - August 2009. PI: Loretta Battaglia.  
\$42,025.

NOAA, Graduate Research Fellowship. Can coastal seedbanks function as a biological buffer to incursions of the sea? June 2009 - June 2011. coPIs: Hannah Kalk and Loretta Battaglia.  
\$40,000.

Great Rivers Faculty Proposal for the National Great Rivers Research & Education Center Internship Program. May 2009 - Aug 2009. coPIs: Loretta Battaglia and Valerie Barko. Comparisons of herpetofauna in restored and reference bottomland sites in the Upper Mississippi River floodplain. \$5,000.

Department of Defense, Strategic environmental research and development program (SERDP).  
May 15, 2009 – May 14, 2014. PI: Loretta Battaglia. Assisted migration as a management tool in coastal ecosystems threatened by climate change. \$583,979.

National Park Service. August 2007 - August 2009. PI: Loretta Battaglia. Assessing fire for control of exotic Chinese Tallow in the marshes of the Barataria Preserve. \$123,232.

Great Rivers Faculty Proposal for the National Great Rivers Research & Education Center Internship Program. Student: Craig McLane. May 2008 - Aug 2008. PI: Loretta Battaglia, coPI: David Gibson. If we build it, will they leave? Evaluating invasive species assemblages across a chronosequence of restored floodplain forests. \$5,000.

U.S.C.O.E. and U.S.G.S. June 2007 - December 2007. PI: Lyle Guyon, coPIs: Loretta Battaglia & John Chick. Ecological Assessment of High Quality UMRS Floodplain Forests. \$95,000.

U.S.F.W.S. January 2007 - January 2008. PI: David Gibson, coPI: Loretta Battaglia. Invasive Species Survey on Cypress Creek NWR. \$7,900.

Grand Bay National Estuarine Research Reserve and Mississippi Department of Marine Resources. April 2007 - April 2008. PI: Bill Platt, coPI: Loretta Battaglia. Coastal transitions at Grand Bay NERR: effects of sea level rise and hurricanes. \$10,000.

National Park Service. July 2006 - December 2007. PI: Loretta Battaglia, coPI: Julie Denslow. Quantify rate of change in bottomland hardwood forests of the Barataria Preserve Unit. \$20,300.

National Science Foundation. Feb 2006 - August 2007. PI: Bill Platt, coPIs: Loretta Battaglia, Kam-biu Liu, & Julie Whitbeck. SGER Collaborative Research: Do Hurricanes Spur Responses of Coastal Communities to Changing Sea Level? \$50,000.

U.S.F.W.S. Feb 2006 - Dec 2006. PI: Loretta Battaglia. Habitat inventory in the Cache River Basin: towards a habitat management plan. \$11,524.

SIUC, Interdisciplinary Research Seed Grant Program. 2006. Development of a hydrologic monitoring network and experimental design for the Middle Mississippi River Field Station.

PI: Matt Whiles, coPIs: Sara Baer, Loretta Battaglia & Eric Hellgren, \$54,554.

U.S.C.O.E. and U.S.G.S. Feb 2006 - Sept 2006. PI: Loretta Battaglia; coPIs Valerie Barko & Dawn Henderson. Developing Indicators of Southern Bottomland Hardwood Forest Condition within the Upper Mississippi River Ecosystem. \$67,419.

Great Rivers Faculty Proposal for the National Great Rivers Research & Education Center Internship Program. May 2006 - Aug 2006. PI: Loretta Battaglia, coPI Valerie Barko. Assessment of Exotic Plant Species in Restored, Unrestored, and Reference Bottomland Sites at the Illinois-Mississippi Rivers Confluence. \$4,500.

U.S.D.A. Forest Service. Sept 2004 - Aug 2005. PI: David Gibson, coPI: Loretta Battaglia. Invasive species in the Shawnee National Forest. \$10,000.

U. S. Fish and Wildlife Service. May 2004 - Sept 2004. PI: Loretta Battaglia. Survey of invasive species in Crab Orchard Wildlife Refuge. \$7,000.

National Park Service. April 2000 - April 2003. Co-investigator: Julie Denslow. Modeling risk of Chinese tallow invasion in a heterogeneous landscape. \$196,000.

Society of Wetland Scientists. Jan 1996 - Dec 1996. Influence of disturbance on heterogeneity and post-hurricane tree regeneration in an old-growth bottomland hardwood forest. \$500.

## **PARTIAL LIST OF PRESENTATIONS AT PROFESSIONAL MEETINGS**

Fruchter, J. and **L L Battaglia**. Changing disturbance regimes and woody species dynamics in coastal wetlands. Oral presentation. 97<sup>th</sup> Annual Meeting of the Ecological Society of America. August 5-10, 2012. Portland, OR. National Meeting.

**Battaglia, L. L.** Assisted colonization: how far is too far? Results of a futuristic transplant garden experiment. Oral presentation. 97<sup>th</sup> Annual Meeting of the Ecological Society of America. August 5-10, 2012. Portland, OR. National Meeting.

Paudel, S and **L L Battaglia**. Resilience of floating aquatic plant communities in coastal bottomlands of the lower Mississippi alluvial valley. Oral presentation. 97<sup>th</sup> Annual Meeting of the Ecological Society of America. August 5-10, 2012. Portland, OR. National Meeting.

Abbott, M.J. and **L L. Battaglia**. Effects of experimental storm surge and sedimentation on pitcher plants (*Sarracenia purpurea*) in a coastal pine savanna. Oral presentation. 97<sup>th</sup> Annual Meeting of the Ecological Society of America. August 5-10, 2012. Portland, OR. National Meeting.

Harshbarger, D. and **L.L. Battaglia**. Remnant and restored community trajectories following disturbance. Oral presentation. 97<sup>th</sup> Annual Meeting of the Ecological Society of America. August 5-10, 2012. Portland, OR. National Meeting.

Chupp, A. D. and **L. L. Battaglia**. Disease induced canopy gaps: the persistence niche and plant community dynamics. Poster presentation. 97<sup>th</sup> ESA annual meeting. Portland, OR. August 5 – 10, 2012. National meeting.

- Battaglia, L. L.** and H. J. Kalk. Use of assisted migration and community zonation patterns to build a climate-resilient coastal landscape. Oral presentation, Annual meeting of the Society of Wetland Scientists (joint meeting with INTECOL). Orlando, FL. June 3 – 8, 2012. International meeting.
- Chupp, A. D. and **L. L. Battaglia**. Multi-trophic Consequences of an Emerging Disease: Sources of Functional Redundancy and Ecosystem Resilience. Poster presentation. 1<sup>st</sup> annual Grand Bay National Estuarine Research Reserve (NERR) Research Symposium. Moss Point, MS. October 14 – 15, 2011. National meeting.
- Chupp, A. D., **L.L. Battaglia** and J.F. Pagels. Mesopredator release and the divergence of small mammal communities in urban vs. rural parks. Oral presentation. 96<sup>th</sup> ESA annual meeting. Austin, TX. August 7 – 12, 2011. International Meeting.
- Battaglia, L. L.**, M. J. Abbott, A. D. Chupp and J. Fruchter. Effects of experimental storm surge and sediment deposition along an estuarine gradient in northwestern Florida, U.S.A. Oral presentation. Annual conference of the Society of Wetland Scientists. Prague, Czech Republic. July 3-8, 2011. International meeting.
- Battaglia, L. L.**, M. J. Abbott, A. D. Chupp and J. Fruchter. Effects of experimental storm surge and sediment deposition along an estuarine gradient in northwestern Florida, U.S.A. Oral presentation. Annual meeting of the International Association for Vegetation Science. Lyon, France. June 20-24, 2011. International meeting.
- Chupp, A. D. and **L. L. Battaglia**. Life after redbay: predicting shifts in producer and consumer communities. Oral presentation. 31<sup>st</sup> Conference of Midwest Ecology & Evolution. Carbondale, IL. April 1-3, 2011. Regional meeting.
- Battaglia, L. L.**, M. J. Abbott, A. D. Chupp, J. Fruchter, J. Looft, and A. Thalhammer. Short term effects of experimental storm surge along a coastal transition ecosystem in northwestern Florida. Poster presentation. 15<sup>th</sup> annual Partners in Environmental Technology Technical Symposium & Workshop. Washington, D.C. November 30-December 2, 2010. National meeting.
- Tate, A. S. and **L. L. Battaglia**. Are hurricane-generated storm surge and wrack deposition stepping stones for community reassembly? Oral presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.
- Battaglia, L. L.** Effects of storm surge disturbance on plant communities across a coastal transition ecosystem in northwestern Florida, USA. Oral presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.
- Schmale, G. D., **L. L. Battaglia** and D. J. Gibson. Limitations of natural history data in a revisitation study of non-native invasive plants. Poster presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.
- Paudel, S. and **L. L. Battaglia**. Predicting effects of altered tropical storm regimes on recruitment of native and invasive species along the coastal transition ecosystem at Grand Bay, Mississippi, USA. Oral presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.

Kalk, H. J. and **L. L. Battaglia**. Seed banks as components of ecosystem resilience in coastal ecosystems exposed to hurricane storm surge. Oral presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.

Looft, J. A. and **L. L. Battaglia**. Short-term effects of hurricane storm surge on floating marsh plant communities in the Mississippi Deltaic Plain. Poster presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.

Whitehurst, H., J. Martinez, C. Swift, J. A. Looft, A. S. Tate and **L. L. Battaglia**. Salt and wet: effects of artificial storm surges on Gulf Coast wetland species. Poster presentation. Annual meeting of the Ecological Society of America. August 1-6, 2010. Pittsburgh, PA. National meeting.

**Battaglia, L. L.** Effects of storm surge disturbance on plant communities across a coastal transition ecosystem in northwestern Florida, USA. Oral presentation. Annual meeting of the Society of Wetland Scientists. June 27 – July 2, 2010. Salt Lake City, UT. International meeting.

**Battaglia, L. L.**; H. J. Kalk, J. A. Looft, S. Paudel and A. S. Tate. Characteristics of successful wetland ecology students. Invited symposium presentation. Annual meeting of the Society of Wetland Scientists. June 27 – July 2, 2010. Salt Lake City, UT. International meeting.

**Battaglia, L. L.** Does hurricane disturbance facilitate landward migration of coastal species along a tidal river ecosystem? Results of a storm surge experiment. Invited seminar speaker. June 9, 2010. Pymatuning Seminar Series, University of Pittsburgh.

**Battaglia, L. L.** Does hurricane disturbance facilitate landward migration of coastal species along a tidal river ecosystem? Results of a storm surge experiment. Invited seminar speaker. April 30, 2010. Department of Environmental and Plant Biology Seminar Series, Ohio University.

**Battaglia, L. L.**, S. Paudel, M. A. Foster and M. S. Woodrey. Climate change and proliferation of exotic species threaten coastal ecosystems. Invited symposium presentation. Coastal and Estuarine Research Federation, 20<sup>th</sup> Biennial Conference. November 1-5, 2009. Portland, OR. National meeting.

**Battaglia, L. L.**, M. S. Woodrey, H. J. Kalk and M. A. Foster. Back to the future: how do we develop ecologically appropriate targets for restoration under increased climatic extremes? Invited symposium presentation. 19th Conference of the Society for Ecological Restoration International. August 23-27, 2009. Perth, Australia. International meeting.

Kalk, H. J. and **L. L. Battaglia**. Donor seed banks as tools for assessing restoration targets in coastal ecosystems undergoing climate change. Poster presentation. 19th Conference of the Society for Ecological Restoration International. August 23-27, 2009. Perth, Australia. International meeting.

- Battaglia, L. L.**, W. J. Platt, L. J. Shirley and S. Phipps. Hurricane-generated wrack deposition drives community dynamics of a northern Gulf of Mexico coastal ecosystem. Oral presentation. Annual meeting of the Ecological Society of America. August 2-7, 2009. Albuquerque, NM. National meeting.
- Kalk, H. J. and **L. L. Battaglia**. Donor seed banks as tools for assessing restoration targets in coastal ecosystems undergoing climate change. Poster presentation. Annual meeting of the Ecological Society of America. August 2-7, 2009. Albuquerque, NM. National meeting.
- Platt, W. J., **L. L. Battaglia**, S. W. Phipps, J. M. Huffman and M. S. Woodrey. Landscape ecology of coastal transitions along the northern Gulf of Mexico. Invited symposium presentation. Annual meeting of the Society of Wetland Scientists. June 21-26, 2009, Madison, WI. International meeting.
- McLane, C. R., **L. L. Battaglia**, D. J. Gibson and J. W. Groninger. Succession of exotic species assemblages in actively restored floodplain forests. Oral presentation. Annual meeting of the Society of Wetland Scientists. June 21-26, 2009, Madison, WI. International meeting.
- Paudel, S. and **L. L. Battaglia**. Climate change and potential shifts in distribution of exotic and native plant species in coastal ecosystems of the northern Gulf of Mexico. Oral presentation. Annual meeting of the Society of Wetland Scientists. June 21-26, 2009, Madison, WI. International meeting.
- Foster, M. A. and **L. L. Battaglia**. Hurricane effects on vegetation community composition at a coastal mitigation bank in Mississippi. Oral presentation. Annual meeting of the Society of Wetland Scientists. June 21-26, 2009, Madison, WI. International meeting.
- Tate, A. S. and **L. L. Battaglia**. A conceptual framework for examining the effects of hurricane-generated wrack deposition on coastal plant communities. Poster presentation. Annual meeting of the Society of Wetland Scientists. June 21-26, 2009, Madison, WI. International meeting.
- Foster, M. A. and **L. L. Battaglia**. Hurricane effects on vegetation community composition at a coastal mitigation bank in Mississippi. Poster presentation. National Mitigation and Ecosystem Banking Conference. May 5-8, 2009, Salt Lake City, UT. National meeting.
- Paudel, S. and **L. L. Battaglia**. Predicting the invasiveness of an alien plant *Triadica sebifera* under future climate change scenarios in southeastern United States. Oral presentation. Illinois Academy of Sciences. April 17-18, 2009, Edwardsville, IL. Regional meeting.
- McLane, C. R., **L. L. Battaglia**, D. J. Gibson and J. W. Groninger. Evaluating exotic species assemblages across a chronosequence of restored floodplain forests. Oral presentation (2<sup>nd</sup> place award in Botany Division). Illinois Academy of Sciences. April 17-18, 2009, Edwardsville, IL. Regional meeting.
- Battaglia, L. L.** L. J. Shirley and W. J. Platt. Invited symposium participant. Annual meeting of the Ecological Society of America, Milwaukee, WI, August 2008. Forecasting future ecosystem states in a time of global change: from models to management. "A conceptual framework for restoration and conservation of coastal ecosystems subject to chronic sea-level rise."

- Isbell, J. T., **L. L. Battaglia** and C. M. Ruffner. Biological invasions and the alteration of disturbance regimes: A case study of autumn olive (*Eleaegnus umbellata* Thunb.) invasion in upland oak-hickory forest. Oral presentation. Annual meeting of the Ecological Society of America, Milwaukee, WI, August 2008. National meeting.
- Battaglia, L. L.** L. J. Shirley and W. J. Platt. Invited symposium participant. Annual meeting of the Society of Wetland Scientists, Washington, DC, May 2008. Disassembly of coastal ecosystems in the face of global climate change: implications for conservation, management, and restoration. "Conservation and management of coastal species in the face of rising sea level."
- Makweche, P.T, S. Paudel, J. Looft, G. D. Schmale, D. R. Ernat. and **L. L. Battaglia**. Fire suppression effects on a coastal floating marsh ecosystem. Poster presentation. Society of Wetland Scientists annual meeting. Washington, DC, May 27-30, 2008. International meeting.
- Battaglia, L.L.**, V. B. Barko. and D. E. Henderson. Ecological indicators of floodplain forests within the Mississippi River Ecosystem. Oral presentation. Society of Wetland Scientists annual meeting. Washington, DC, May 27-30, 2008. International meeting.
- Battaglia, L. L.** Invited guest speaker. Annual Wetlands Symposium of the California Coastal Conservancy Meeting, San Diego, CA, May 2008. Adaptation strategies to address the impacts of climate change. "Sea level incursions and implications for conservation of coastal ecosystems."
- Makweche, P. T. and **L. L. Battaglia**. Fire suppression effects on a coastal floating marsh ecosystem. Oral presentation. Illinois Academy of Sciences. Champaign, IL. April 4-5, 2008. Regional meeting.
- Alsop, S., S. Ebbs, S., **L. L. Battaglia**, E. Woods, K. Lockett and B. Retzlaff. Evaluating storm water runoff quality from green roofs. Poster presentation. Illinois Academy of Sciences. Champaign, IL. April 4-5, 2008. Regional meeting.
- McLane, C. R. and **L. L. Battaglia**. A conceptual model of exotic community change across a chronosequence of restored bottomland forests. Poster presentation. Illinois Academy of Sciences. Champaign, IL. April 4-5, 2008. Regional meeting.
- Incauskis, J. R., **L. L. Battaglia** and D. J. Gibson. Exotic plant species invasion of roadsides in southern Illinois: a comparison between active and abandoned roadsides. Annual symposium of the US Regional Association for the International Association for Landscape Ecology (US-IALE). Oral presentation. Madison, WI. April 6-10, 2008. National meeting.
- Battaglia, L. L.** and W. J. Platt. Migration models for coastal transition communities subject to sea level rise. Oral Presentation. Ecological Society of America Annual Meeting, San Jose, CA, August 5 - 10, 2007. National meeting.
- Incauskis, J. R., M. S. Hacker, **L. L. Battaglia**, and D. J. Gibson. An exotic species database for determining the distribution of exotic plants in southern Illinois. Poster presentation. Ecological Society of America Annual Meeting, San Jose, CA, August 5 - 10, 2007. National meeting.

- Battaglia, L. L.** and W. J. Platt. Invited symposium participant. Annual meeting of the Society of Wetland Scientists, Sacramento, CA, June 2007. Global Patterns. "Developing and testing migration models for coastal transition communities subject to sea level rise."
- Battaglia, L. L.** Invited symposium participant. Annual meeting of the Society of Wetland Scientists, Sacramento, CA, June 2007. Teaching Wetlands. "Meshing ecology, policy, and culture: the Mississippi Deltaic Plain wetland landscape as a classroom."
- Isbell, J. T. and **L. L. Battaglia**. Is a novel invasive growth form casting shadows of doubt on future understory dynamics? A case study of *Elaeagnus umbellata* in southern Illinois forests. Oral Presentation (**Isbell was co-1<sup>st</sup> place winner oral presentation**). Illinois Academy of Sciences Annual Meeting, Springfield, IL, April 20-21, 2007. State meeting.
- Marten, E. J. and **L. L. Battaglia**. Using removal experiments to determine impacts of the exotic *Poa compressa* on a dolomite prairie plant community. Oral Presentation. Illinois Academy of Sciences Annual Meeting, Springfield, IL, April 20-21, 2007. State meeting.
- Hacker, M., **L. L. Battaglia** and D. J. Gibson. Potential effects of the invasive *Celastrus orbiculatus* Thunb. on soil seedbank composition. Poster Presentation. Illinois Academy of Sciences Annual Meeting, Springfield, IL, April 20-21, 2007. State meeting.
- Battaglia, L. L.** and B. Beckage. Invited speaker. Southeast Region TER-S Workshop. February 2007. "Large-scale disturbances and ecological communities in the Southeast US."
- Incauskis, J. R., M. S. Hacker, **L. L. Battaglia** and D. J. Gibson. Construction of a Non-Native Invasive Species Database for Eleven Southern Illinois Counties. Oral presentation. Midwest Invasive Species Network Symposium, Milwaukee, WI, December 11-14, 2006.
- Sharitz, R. R. and **L. L. Battaglia**. Invited symposium participant. Exchanges between channel and floodplain in large rivers. "Forested floodplains and ecological services of large rivers: a biological perspective." Ecological Society of America Annual Meeting, Memphis, TN, August 6-11, 2006.
- Platt, W. J. K. L. Liu, **L. L. Battaglia**, and J. Whitbeck. Invited symposium participant. Ecological effects of Gulf Coast hurricanes: short-term impacts and long-term consequences. "Do hurricanes spur responses of coastal ecosystems to changing sea level?" Ecological Society of America Annual Meeting, Memphis, TN, August 6-11, 2006.
- Shirley, L. J. and **L. L. Battaglia**. Assessing vegetation change in coastal landscapes of the northern Gulf of Mexico using National Wetlands Inventory data. Oral presentation. Ecological Society of America Annual Meeting, Memphis, TN, August 6-11, 2006.
- Marten, E. J. and **L. L. Battaglia**. Prairie on the rocks: effects of *Poa compressa* on dolomite prairie pavement communities. Poster presentation. Ecological Society of America Annual Meeting, Memphis, TN, August 6-11, 2006.
- Isbell, J. T. and **L. L. Battaglia**. Does the invasive autumn olive alter community composition and fuelbed characteristics in upland hardwood forests of southern Illinois? Poster presentation. Ecological Society of America Annual Meeting, Memphis, TN, August 6-11, 2006. National meeting.

- Marten, E. J. and **L. L. Battaglia**. Prairie on the rocks: threats to the unique dolomite prairie plant communities of northeastern Illinois. Oral presentation. North American Prairie Conference, Kearney, NE, July 23-26, 2006. Regional meeting.
- Marten, E. J. and **L. L. Battaglia**. Prairie on the rocks: *Poa compressa* invasion of dolomite prairie pavements necessitates expansion of the driver/passenger model. Poster presentation. Association of Southeastern Biologists, Gatlinburg, TN, March 29-April 1, 2006. Regional meeting.
- Isbell, J. T. and **L. L. Battaglia**. Does the invasive autumn olive alter community composition and fire characteristics in upland hardwood forests of southern Illinois? Poster presentation. Association of Southeastern Biologists, Gatlinburg, TN, March 29-April 1, 2006. Regional meeting.
- Battaglia, L. L.** and W. J. Platt. Disassembly and reassembly of coastal plant communities: the role of abiotic and biotic filters in invasion resistance to seaward and landward migrations. Oral presentation. Association of Southeastern Biologists, Gatlinburg, TN, March 29-April 1, 2006. Regional meeting.
- Shirley, L. J. and **L. L. Battaglia**. Assessing vegetation change in coastal landscapes of the northern Gulf of Mexico using National Wetlands Inventory data. Midwest Ecology and Evolution Conference, St. Louis, MO, March 17-19, 2006. **Shirley was 3<sup>rd</sup> place winner, oral presentation.** Regional meeting.
- Inczauskis, J. R. and **L. L. Battaglia**. Poster presentation. Illinois Academy of Sciences Meeting. Galesburg, IL. April 7-8, 2005.
- Romano, S. P., J. J. Zaczek, K. Williard, D. J. Gibson, **L. L. Battaglia**, and S. G. Baer. Soil texture and forest strata relationships of the central floodplain forest, Lower Kaskaskia River, Illinois. Oral presentation. Mississippi River Research Consortium, April 28-29, 2005.
- Shirley, L. and **L. L. Battaglia**. Fifty years of vegetation change in estuarine coastal transitions across the northern Gulf of Mexico. Poster presentation. Ecological Society of America. 2005. National meeting.
- Battaglia, L. L.** and J. R. Inczauskis. Wax myrtle controls recruitment of Chinese tallow and native wetland species in a Louisiana floating marsh. Oral presentation. Ecological Society of America. 2005. National meeting.
- Shirley, L. and **L. L. Battaglia**. Fifty years of vegetation change in estuarine coastal transitions across the northern Gulf of Mexico. Poster presentation. Society of Wetland Scientists Meeting. 2005. International meeting.
- Inczauskis, J. R. and **L. L. Battaglia**. Wax myrtle controls recruitment of Chinese tallow and native wetland species in a Louisiana floating marsh. Oral presentation. Illinois Academy of Sciences. 2004. State meeting.
- Battaglia, L. L.**, P. R. Minchin and D. W. Pritchett. Dispersal of bottomland hardwood forest species during old-field succession. Oral presentation. Association of Southeastern Biologists. 2004. Regional meeting.

- Battaglia, L. L.**, J. R. Inczauskis and J. S. Denslow. Wax myrtle controls recruitment of Chinese tallow and native wetland species in a Louisiana floating marsh. Oral presentation. Ecological Society of America. 2004. National meeting.
- Platt, W.J. **L. L. Battaglia** and C. Yoder. Do large-scale disturbances influence plant community composition and structure along terrestrial: Marine transitions in southeastern coastal landscapes? Poster presentation. Ecological Society of America. 2004. National meeting.
- Battaglia, L. L.** and B. S. Collins. Disturbance, tolerance, and tree regeneration strategies in bottomland hardwood forests. Oral presentation. Annual meeting of the Society of Wetland Scientists, New Orleans, Louisiana, June 8-13, 2003. National Meeting.
- Battaglia, L. L.** and J. S. Denslow. *Sapinum sebiferum* invasion of a forest-marsh complex in the Louisiana Deltaic Plain. Oral presentation. Annual meeting of the Ecological Society of America, Savannah, Georgia, August 3-8, 2003. National Meeting.
- Collins, B. S. and **L. L. Battaglia**. Making it big in bottomlands: regeneration strategies of intermediate species. Oral presentation. Annual meeting of the Ecological Society of America, Savannah, Georgia, August 3-8, 2003. National Meeting.
- Battaglia, L. L.** and R. R. Sharitz. Congaree Swamp National Monument: Science Symposium I. January 2002. "Microsite variation and vegetation dynamics in floodplain forest gaps along a disturbance gradient."
- Battaglia, L. L.** and R. R. Sharitz. Ecology and management of bottomland hardwood systems: the state of our understanding. Memphis, Tennessee, March, 1999. "Regeneration in bottomland hardwood forests: lessons learned and future challenges."
- Battaglia, L. L.** and R. R. Sharitz. Annual meeting of the Ecological Society of America, Baltimore, Maryland, August 1998. "Hurricane disturbance increases environmental heterogeneity in an old-growth bottomland hardwood forest."
- Battaglia, L. L.** and B. S. Collins. Annual meeting of the Association of Limnology and Oceanography, Albuquerque, New Mexico, February 2001. "Linking patterns: hydroperiod and vegetation in Carolina bay wetlands."

## TEACHING EXPERIENCE

Teaching Interests and Specialties: My teaching experience at SIUC has included majors and non majors undergraduate courses, two undergraduate/graduate-level courses, and graduate seminars. I regularly teach Environmental Issues, Biostatistics, Community Ecology and Multivariate Analysis, and Wetland Ecology.

Current Graduate Faculty Status: Regular Graduate Faculty Member

### Students Who Have Completed Graduate Degrees Under My Advisorship:

- Laura Shirley-Pollock (M.S. earned 2005)
- Craig McLane (M.S. earned 2009)
- Anthony Tate (M.S. earned 2010)
- Hannah Kalk (M.S. earned 2011)
- Jason Inczauskis (M.S. earned 2011)

Emily Stork (M.S. earned 2011)  
Jesse Fruchter (M.S. earned 2012)  
Matthew Abbott (M.S. earned 2012)  
Shishir Paudel (Ph.D.; graduation scheduled for May 2013)

Current Graduate Students:

Guy Schmale (M.S. program 2009 – present)  
Diane Harshbarger (M.S. program 2010 – present)  
Adam Chupp (Ph.D. program 2010 – present)  
Brooklyn Krings (Ph.D. program 2011 – present)  
George Manning (Ph.D. program 2012 – present)

**PROFESSIONAL SERVICE**

Professional Memberships:

Ecological Society of America  
Society of Wetland Scientists  
Illinois Academy of Science

Editorships:

Coordinating Editor, *Restoration Ecology*. September 2009 – present  
Subject Editor, *Castanea*. May 2007 – May 2009  
Associate Editor, *Wetlands*. January 2003 - December 2005

Synergistic Activities:

Environmental Protection Agency Review Panelist for STAR grants, Nutrient Management Panel:  
April 2013

National Academies Committee Member, Independent Scientific Review of Everglades Restoration  
Progress: October 2012 – present

President, North Central Chapter of SWS: June 2011 - present

SWS Students Grants Awards Committee: January 2010 – December 2011

Co-organizer (with Brian Beckage) of ESA meeting symposium. "Forecasting future ecosystem  
states in a time of global change: from models to management." Milwaukee, WI, August 2008.

Co-organizer (with Bill Platt) of SWS meeting symposium. "Disassembly of coastal ecosystems in  
the face of global climate change: implications for conservation, management, and restoration".  
Washington, DC, May 2008.

Environmental Protection Agency Review, Chesapeake Bay Panel - 2011, 2012.

PEATNET workshop participant: March 2008.

Secretary, Vegetation Section of the Ecological Society of America: August 2007-present.

Steering Committee, Bottomland Hardwoods Symposium: August 2006 – February 2008.

Steering Committee, The Shawnee Conservation and Development Council River to River Cooperative Weed Management: January 2006 - present.

Lower Mississippi Valley Workshop, Developing a conceptual model for the Lower Mississippi Valley ecosystem: June 2006.

ESA Cooper Award Committee: January 2004 - December 2005.

Environmental Protection Agency Review Panelist for STAR fellowships, Terrestrial Systems Ecology: 2008.

Panel Member, Protocols Evaluation Program for Grand Canyon Monitoring and Research Center: 2007.

National Science Foundation Review Panelist for Doctoral Dissertation Improvement Grants: 2006.

Environmental Protection Agency Review Panelist for STAR fellowships, Terrestrial Plant Ecology - Plants and Soils: 2004, 2006, 2007.

Environmental Protection Agency Review Panelist for STAR fellowships, Terrestrial Ecology - Plants and Animals: 2005, 2006.

Evaluation of Manuscripts for Journals and of Grant Proposals for Agencies:

I have reviewed grant proposals for NSF-Division of Environmental Biology and one for the Louisiana Board of Regents. I have reviewed manuscripts for the following journals:

*American Journal of Botany*

*Biological Conservation*

*Castanea*

*Ecosystems*

*Forest Ecology and Management*

*Hydrobiologia*

*Journal of Ecology*

*Journal of Tropical Ecology*

*Plant Ecology*

*Wetlands*

*American Midland Naturalist*

*Canadian Journal of Forest Research*

*Ecological Applications*

*Environmental Management*

*Global Change Biology*

*Journal of Applied Ecology*

*Journal of the Torrey Botanical Society*

*Journal of Vegetation Science*

*Restoration Ecology*

**INVITED SEMINARS**

University of Florida Levin College of Law Symposium: The Sea Around Us: Coastal Communities, Sea Level Rise and Ecosystem Migration. February 2010. A conceptual framework for restoration and conservation of coastal ecosystems subject to chronic sea-level rise.

U. S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS. March 2008. "Disassembly of coastal ecosystems in the face of global climate change: implications for conservation, management, and restoration."

Texas Tech University. April 2007. "Disassembly and reassembly of coastal plant communities: the role of abiotic and biotic filters in invasion resistance to seaward and landward migrations."

Eastern Illinois University. November 2006. "Disassembly and reassembly of coastal plant communities: the role of abiotic and biotic filters in invasion resistance to seaward and landward migrations."

Lindenwood University. October 2006. "Disassembly and reassembly of coastal plant communities: the role of abiotic and biotic filters in invasion resistance to seaward and landward migrations."

Advanced Ecology Series, Fudan University, China. June 2006. Delivered 9 hours of lecture material covering global climate change and wetland ecology.

Southern Illinois University Edwardsville. September 2005. "Wax myrtle controls recruitment of Chinese tallow and native wetland species in a Louisiana floating marsh."

Association of Women in Science, University of Louisiana at Monroe chapter. April 2004. "*Triadica sebifera* invasion of a forest-marsh complex in the Louisiana Deltaic Plain."

University of Memphis. October 2003. "Gentle slopes, steep gradients: environmental determinants of wetland community composition."

Illinois Natural History Survey seminar series. May 2003. "Gentle slopes, steep gradients: environmental determinants of wetland community composition."

University of Louisiana, Monroe, Department of Biology seminar series, April 2002. "Sixteen years of old-field succession and reestablishment of a bottomland hardwood forest in the Lower Mississippi Alluvial Valley."

Louisiana State University, Department of Natural Resources, luncheon seminar series, March 2002. "Senescent populations and shifting composition in a subsiding coastal bottomland forest."

National Wetlands Research Center, January 2002. "Regeneration of bottomland hardwood communities following natural and anthropogenic disturbances."

Sigma Xi luncheon seminar series, October 2001. "Ecological processes and conservation challenges in southeastern floodplain forests."

University of New Orleans, May 2000. "Microsite heterogeneity and regeneration patterns along a post-hurricane disturbance gradient in an old-growth bottomland hardwood forest."

#### **RECENT COLLABORATORS (other than students in my lab)**

Davis Pritchett  
Peter Minchin  
Mark Woodrey  
Scott Phipps  
John Chick  
David Gibson  
Sammy King

Rebecca Sharitz  
Valerie Barko  
Kevin Dillon  
Lyle Guyon  
John Groninger  
Sara Baer  
Julie Denslow

George Felhamer  
Mark Peterson  
Julie Whitbeck

Jenneke Visser  
Julia Cherry