# Mark W. Hester

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#### Education

Louisiana State University, Ph.D. in Oceanography and Coastal Sciences, full minors in Botany and Experimental Statistics, 1995.

Louisiana State University, M.S. in Marine Sciences, minor in Experimental Statistics, 1985.

Indiana University, B.A. in Biology, Magna cum Laude, 1980.

### Professional Experience

2016 – Director of Research, Institute for Coastal and Water Research; Fritz Lang BORSF Professor of Environmental Biology, Coastal Plant Ecology Laboratory, Department of Biology, University of Louisiana at Lafayette.

2014 - 2016 Interim Director, Institute for Coastal and Water Research; Fritz Lang BORSF Professor of Environmental Biology, Coastal Plant Ecology Laboratory, Department of Biology, University of Louisiana at Lafayette.

2013 - 2014 Fritz Lang BORSF Professor of Environmental Biology, Coastal Plant Ecology Laboratory, Department of Biology, University of Louisiana at Lafayette.

2011 - 2013 Professor, Coastal Plant Ecology Laboratory, Department of Biology, University of Louisiana at Lafayette, Lafayette, Louisiana.

2006 - 2011 Associate Professor, Coastal Plant Ecology Laboratory, Department of Biology, University of Louisiana at Lafayette, Lafayette, Louisiana.

2001 - 2006 Associate Professor and Director, Coastal Plant Sciences Laboratory, Department of Biological Sciences & Pontchartrain Institute for Environmental Sciences, University of New Orleans, New Orleans, Louisiana.

2000-2001 Associate Professor. Department of Biological Sciences, Southeastern Louisiana University, Hammond, Louisiana.

1995-2000 Assistant Professor. Department of Biological Sciences, Southeastern Louisiana University, Hammond, Louisiana.

1987-1995 Research Associate IV - V. Wetland Biogeochemistry Institute, Center for Coastal, Energy and Environmental Resources, Louisiana State University, Baton Rouge, Louisiana.

1983-1987 Research Associate III. Laboratory for Wetland Soils and Sediments, Center for Wetland Resources, Louisiana State University, Baton Rouge, Louisiana.

### Research Interests

Ecological restoration of degraded coastal ecosystems; barrier island and wetland restoration science; adaptations and responses of plants to natural and anthropogenic environmental stressors including climate change, altered hydrology, salinity, flooding, drought, nutrient loading rates, temperature, CO2 levels, and oiling; plant ecophysiology; ecosystem response to climate and environmental change with emphasis on altered patterns of plant species zonation, distribution, and ecosystem function.

**Publications in Refereed Journals**

Rouhani, S., M. Baker, M. Steinhoff, M. Zhang, J. Oehrig, I. Zelo, S. Emsbo-Mattingly, Z. Nixon, J. Willis, and **M. Hester**. 2016. Nearshore exposure to *Deepwater Horizon* oil. Marine Ecology Progress Series. DOI 10.3354/meps11811.

Silliman, B. R., P. M. Dixon, C. Wobus, Q. He, P. Daleo, B. B. Hughes, J. M. Willis, and **M. W. Hester**. 2016. Thresholds in marsh resilience to the *Deepwater Horizon* oil spill. Nature Scientific Reports. 6, Article number: 32520*.* DOI 10.1038/srep32520.

**Hester, M. W.**, J. M. Willis, S. Rouhani, M. Steinhoff, and M. C. Baker. 2016. Impacts of the *Deepwater Horizon* oil spill on the salt marsh vegetation of Louisiana. Environmental Pollution. 216: 361-370. DOI: 10.1016/j.envpol.2016.05.065.

Willis, J. M., **M. W. Hester**, S. Rouhani, M. Steinhoff, and M. C. Baker. 2016. Field assessment of the impacts of *Deepwater Horizon* oiling on the coastal marsh vegetation of Mississippi and Alabama. Environmental Toxicology and Chemistry. 35: 2791-2797. DOI: 19.1002/etc.3450.

Yando, E. S., M. J. Osland, J. M. Willis, R. H. Day, K. W. Krauss, and **M. W. Hester**. 2016. Salt marsh-mangrove ecotones: Using structural gradients to investigate the effects of woody plant encroachment on plant-soil interactions and ecosystem carbon pools. Journal of Ecology. 104: 1020–1031. DOI:10.1111/1365-2745.12571.

Jones, S. F., C. L. Stagg, K. W. Krauss, and **M. W. Hester**. 2016. Tidal saline wetland regeneration of sentinel vegetation types in the Northern Gulf of Mexico: An overview. Estuarine and Coastal Shelf Science. 174: A1-A10. DOI: 10.1016/j.ecss.2016.02.010.

Sloey, T. M., R. J. Howard, and **M. W. Hester**. 2016. Response of *Schoenoplectus acutus* and *Schoenoplectus californicus* at different life-history stages to hydrologic regime. Wetlands. 36(1), 37-46. DOI: 10.1007/s13157-015-0713-8.

Sloey, T. M., and **M. W. Hester**. 2016. Interactions between soil physicochemistry and belowground biomass production in a freshwater tidal marsh. Plant and Soil. 401(1):397-408. DOI: 10.1007/s11104-015-2760-6.

**Hester, M. W.**, J. M. Willis, and T. M. Sloey. 2016. Field assessment of environmental factors constraining the development and expansion of *Schoenoplectus californicus* marsh at a California tidal freshwater restoration site. Wetlands Ecology and Management. 24(1), 33-44. DOI: 10.1007/s11273-015-9448-9.

McFarlin, C. R., T. D. Bishop, **M. W. Hester**, and M. Alber. 2015. Context-dependent effects on the loss of *Spartina alterniflora* on salt marsh invertebrate communities. Estuarine, Coastal and Shelf Science. 163: 218 - 230.

Sloey, T. M., J. M. Willis, and **M. W. Hester**. 2015. Hydrologic and edaphic constraints on *Schoenoplectus acutus*, *Schoenoplectus californicus*, and *Typha latifolia* in tidal marsh restoration. Restoration Ecology: 23: 430–438.

Willis, J. M., and **M.W. Hester**. 2015. Evaluating postharvest sugarcane residue amendment and broadcast fertilizer application as techniques to enhance dune grass establishment and expansion. Ecological Restoration. 33: 190-196.

Baas, P., **M. W. Hester**, and S. B. Joye. 2013. Benthic primary production and nitrogen cycling in *Spartina alterniflora* marshes: Effect of restoration after acute dieback. Biogeochemistry. 117:511-524.

Krauss, K. W., K. L. McKee, and **M. W. Hester**. 2012. Water use characteristics of black mangrove (*Avicennia germinans*) communities along an ecotone with marsh at a northern geographical limit. Ecohydrology. 7:354-365.

Baustian, J. J., I. A. Mendelssohn, and **M. W. Hester**. 2012. Vegetation’s importance in regulating surface elevation in a coastal salt marsh facing elevated rates of sea level rise. Global Change Biology. 18: 3377–3382.

Alleman, L. K. and **M. W. Hester**. 2011. Reproductive ecology of black mangrove (*Avicennia germinans*) along the Louisiana coast: propagule production cycles, dispersal limitations, and establishment elevations. Estuaries and Coast. 34: 1068-1077.

Willis, J. M., R. P. Gambrell, and **M.W. Hester**. 2011. Mercury concentrations in oligohaline wetland vegetation and associated soil biogeochemistry. Environmental Monitoring and Assessment. 181:373-383

Pickens, C. N., and **M. W. Hester**. 2011. Temperature tolerance of early life history stages of black mangrove, *Avicennia germinans*: Implications for range expansion. Estuaries and Coasts. 34: 824-830.

Alleman, L. K., and **M.W. Hester**. 2011. Refinement of the fundamental niche of black mangrove (*Avicennia germinans*) seedlings in Louisiana: Applications for restoration. Wetlands Ecology and Management. 19: 47-60.

Meert, D. R., and **M. W. Hester**. 2010. Response of a Louisiana oligohaline marsh plant community to nutrient availability and disturbance. Journal of Coastal Research, Special Issue 54: 174 -185.

Mayence, C. E., and **M. W. Hester**. 2010. Growth and allocation by a keystone wetland plant: implications for managing and rehabilitating coastal freshwater marshes, Louisiana, USA. Wetlands Ecology and Management 18: 149-163.

Reed, D. J., A. M. Commagere, and **M. W. Hester**. 2010. Marsh elevation response to Hurricanes Katrina and Rita and the effect of altered nutrient regimes. Journal of Coastal Research, Special Issue 54: 166 – 173.

Willis, J. M., and **M. W. Hester**. 2010. Use of Humic Acid Amendment to Accelerate the Establishment of Dune and Back-Barrier Marsh Vegetation. Shore and Beach 78:27-36.

Willis, J. M., **M.W. Hester**, and R. P. Gambrell. 2010. Growth response and tissue accumulation trends of herbaceous wetland plant species exposed to elevated aqueous mercury levels. International Journal of Phytoremediation 12: 586-598.

Mayence, C. E., and **M. W. Hester**.2009*.* Assessment of a multi-species planting approach for restoring thick-mat floating marsh, Louisiana, USA. Restoration Ecology. 19:216-224

Willis, J. M., and **M. W. Hester.**  2008. Evaluation of enhanced *Panicum amarum* establishment through fragment plantings and humic acid amendment. Journal of Coastal Research 24: 263-268.

Spalding, E. A., and **M. W. Hester**. 2007. Interactive effects of hydrology and salinity on oligohaline plant species productivity: Implications for relative sea-level rise. Estuaries and Coasts 30 (2): 214-225.

Mayence, C. E., and **M. W. Hester**. 2005. Restoring maidencane-dominated thick-mat floating marsh (Louisiana). Ecological Restoration 23: 272 – 273.

Travis, S. E., and **M. W. Hester**. 2005. A space-for-time substitution reveals the long-term decline in genotypic diversity of a widespread salt marsh plant, *Spartina alterniflora*, over a span of 1500 years. Journal of Ecology 93: 417-430.

**Hester, M. W.,** E. A. Spalding, C. D. Franze. 2005. Biological resources of the Louisiana Coast: Part 1. An overview of coastal plant communities of the Louisiana Gulf shoreline. Journal of Coastal Research 44: 134-145.

Willis, J. M., G. P. Shaffer, and **M. W. Hester**. 2005.A mesocosm evaluation of processed drill cuttings for wetland restoration and creation. Ecological Engineering 25: 41-50.

Willis, J. M., and **M. W. Hester**. 2004. Interactive effects of salinity, flooding, and soil type on *Panicum hemitomon*. Wetlands 24:43-50.

**Hester, M. W**., I. A. Mendelssohn, and I. A. McKee. 2001. Species and population variation in salt tolerance in *Panicum hemitomon, Spartina patens,* and *Spartina alterniflora*: morphological and physiological constraints. Environmental & Experimental Botany 46 (3): 277-297.

Dowty, R. A., G. P. Shaffer, **M. W. Hester**, G. W. Childers, F. M. Campo, and M. C. Greene. 2001. Phytoremediation of small-scale oil spills in fresh marsh environments: a mesocosm simulation. Marine Environmental Research 52: 195-211

**Hester, M. W**., I. A. Mendelssohn. 2000. Long-term recovery of a Louisiana brackish marsh plant community from oil-spill impact: vegetation response and mitigating effects of marsh surface elevation. Marine Environmental Research 49 (2000): 233-254.

Pezeshki, R., **M. W. Hester**, Q. Lin, and J. A. Nyman. 2000. The effects of oil spill and clean-up on dominant US Gulf Coast marsh macrophytes: a review. Environmental Pollution 108 (2000): 129-139.

Courtemanche, R., **M. W. Hester**, and I. A. Mendelssohn. 1999. Recovery of a Louisiana barrier island marsh plant community following extensive hurricane-induced overwash. Journal of Coastal Research 15: 872-883.

**Hester, M. W**., I. A. Mendelssohn, and I. A. McKee. 1998. Intraspecific variation in salt tolerance and morphology in *Panicum hemitomon* and *Spartina alterniflora*. International Journal of Plant Sciences 159: 127-138.

Lessmann, J. M., I. A. Mendelssohn, **M. W. Hester**, and K. L. McKee. 1997. Population variation in growth response to flooding in three marsh species. Ecological Engineering 8: 31-47.

**Hester, M. W**., I. A. Mendelssohn, and K. L. McKee. 1996. Intraspecific variation in salt tolerance and morphology in the coastal grass *Spartina patens*. American Journal of Botany 83: 1521-1527.

Ewing, K., K. L. McKee, I. A. Mendelssohn, and **M. W. Hester**. 1995. A comparison of indicators of sublethal nutrient stress in the salt marsh grass *Spartina patens*. Environmental and Experimental Botany 35: 331-343.

Ewing, K., K. L. McKee, I. A. Mendelssohn, and **M. W. Hester**. 1995. A comparison of indicators of sublethal salinity stress in the salt marsh grass *Spartina patens* (Ait.) Muhl. Aquatic Botany 52: 59-74.

**Hester, M. W.**, B. J. Wilsey, and I. A. Mendelssohn. 1994. Grazing of *Panicum amarum* in a Louisiana barrier island dune plant community: Management implications for dune restoration projects. Ocean and Coastal Management 23: 213-224.

**Hester, M. W.**, K. L. McKee, D. M. Burdick, M. S. Koch, K. M. Flynn, S. Patterson, and I. A. Mendelssohn. 1994. Clonal integration in *Spartina patens* across a nitrogen and salinity gradient. Canadian Journal of Botany 72: 767-770.

**Hester, M. W.**, and I. A. Mendelssohn. 1991. Expansion patterns and soil physicochemical characterization of three Louisiana populations of *Uniola paniculata* (sea oats). Journal of Coastal Research 7: 387-401.

Mendelssohn, I. A., and **M. W. Hester**. 1991. Experimental dune building and stabilization in an abandoned, sand-deficient deltaic environment. Journal of Coastal Research 7: 137-149.

Mendelssohn, I. A., **M. W. Hester**, C. Sasser, and M. Fischel. 1990. The effect of a Louisiana crude oil discharge from a pipeline break on the vegetation of a southeast Louisiana brackish marsh. Oil and Chemical Pollution 7: 1-15.

**Hester, M. W**., and I. A. Mendelssohn. 1990. Effects of macronutrient and micronutrient additions on photosynthesis, growth parameters, and leaf nutrient concentrations of *Uniola paniculata* and *Panicum amarum*. Botanical Gazette 151: 21-29.

**Hester, M. W**., and I. A. Mendelssohn. 1989. Water relations and growth responses of *Uniola paniculata* (sea oats) to soil moisture and water-table depth. Oecologia 78: 289-296.

McKee, K. L., I. A. Mendelssohn, and **M. W. Hester**. 1988. Re-examination of pore water sulfide concentrations and redox potentials near the aerial roots of *Rhizophora mangle* and *Avicennia germinans*. American Journal of Botany 75: 1352-1359.

**Hester, M. W**., and I. A. Mendelssohn. 1987. Seed production and germination response of four Louisiana populations of *Uniola paniculata* (Gramineae). American Journal of Botany 74: 1093-1101.

**Manuscripts Accepted Pending Revision or in Review**

Hundy, L. C.,J. M. Willis, and **M. W. Hester**. *Accepted pending revision.* Effect of age post-restoration on soil properties in Louisiana back-barrier island salt marshes. Journal of Coastal Research.

Powers, S. P., S. Rouhani, S., B. C. Baker, H. Roman, J. Grabowski, S. B. Scyphers, J. M. Willis, and **M. W. Hester**. *In Review.* Loss of oysters as a result of the *Deepwater Horizon* Oil Spill degrades nearshore ecosystems and disrupts facilitation between oysters and marshes. Ecological Applications.

Sloey, T. M., and **M. W. Hester**. *In Review.* Effects of nitrogen and silicon nutrient regimes on *Schoenoplectus acutus* and *Schoenoplectus californicus*. American Journal of Botany.

Osland, M., K. Griffith, J. Larriviere, L. Feher, D. Cahoon, N. Enwright, D. Oster, J. Tirpak, M. Woodrey, R. Collini, J. Baustian, J. Breithaupt, N. Cormier, C. Coronado-Molina, J. Donoghue, S. Graham, J. Harper, **M. Hester**, R. Howard, K. Krauss, Ken, D. Kroes, R. Lane, K. McKee, I. Mendelssohn, B. Middleton, J. Moon, S. Piazza, N. Rankin, F. Sklar, G. Steyer, K. Swanson, C. Swarzenski, W. Vervaeke, J. Willis, K. Wilson. *In Review.* Assessing coastal wetland vulnerability to sea-level rise along the northern Gulf of Mexico coast: gaps and opportunities for developing a coordinated regional sampling network. Journal of Applied Ecology.

**Manuscripts in Preparation**

**Hester, M. W.,** J. M. Willis, S. Rouhani, M. Steinhoff, and M. C. Baker. Impacts of the *Deepwater Horizon* oil spill on Northern Gulf of Mexico coastal wetlands: A synthesis. Marine Ecology Progress Series.

Hester, M. W. and J. M. Willis. Spatial variation in mangrove community zonation in the Lower Florida Keys. Hydrobiologia.

Willis, J. M. and M. W. Hester. Mesocosm assessment of *Spartina alterniflora* photosynthetic and integrated growth responses to weathered Macondo well oil. Marine Pollution Bulletin.

**Book Chapters**

Visser, J. M., Day, J. W. Jr., L. L. Battaglia, G. P. Shaffer, and **M. W. Hester**. 2012. Mississippi River Delta Wetlands. pp 63-74 *In:* Wetland Habitats of North America: Ecology and Conservation Concerns. D. Batzer and A. Baldwin eds. University of California Press, Berkeley, CA. 389 pp. ISBN 978-0-520-27164-7.

Euliss, N. H., Jr.,M. M. Brinson, D. M. Mushet, L. M. Smith, W. H. Conner, V. R. Burkett, D. A. Wilcox, **M. W. Hester**, and H. Zeheng. 2013. Ecosystem Services: Developing Sustainable Management Paradigms Based on Wetland Functions and Processes, pp 181-227 *In:* Wetland Techniques Volume 3: Applications and Management, J. T. Anderson and C. A. Davis eds., Springer Netherlands. 270 pp. ISBN 978-94-007-6906-9.

**Book Chapters in Preparation**

**Hester, M. W.**, J. M. Willis, and M. C. Baker. Oil Spills in Coastal Wetlands. *In* Encyclopedia of the Anthropocene. Anticipated publication date 2017.

**Relevant Technical Reports**

**Hester, M. W.**, and J. M. Willis. 2015. Vegetative Characterization of Barrier Island Restoration Projects of Varying Ages in Louisiana. Final Report. Louisiana CPRA (Coastal Protection and Restoration Authority).

**Hester, M. W.**, and J. M. Willis. 2014. Mangrove Transect Re-occupation and Real Time Kinematic Surveys in the Key Deer National Wildlife Refuge. Final Report. US Fish and Wildlife Service.

**Hester, M. W.,** J. M. Willis, and T. M. Sloey. 2013. Task 8: Constraints on Plant Establishment and Expansion. *In*: Simenstad et al. BREACH III: Evaluating and Predicting Restoration Thresholds in Evolving Freshwater-Tidal Marshes. Final Report. CALFED Bay Delta Science Program.

**Hester, M. W.,** J. M. Willis, C. N. Pickens, and M. J. Dupuis. 2012. Enhancement of Barrier Island and Salt Marsh Vegetation Demonstration Project. Final Report. US EPA/ Louisiana CPRA.

**Hester, M. W.**, and J. M. Willis. 2012. Sea-Level Rise in the Florida Keys: Implications for Ecosystem Sustainability. Final Report. US Fish and Wildlife Service.

Mendelssohn, I. A., **M. W. Hester**, and K. L. McKee. 2011. Hurricanes Gustav and Ike: Relative Sustainability of Saline Wetlands in the Mississippi River Delta Complex. Final Report. NSF SGER.

**Hester, M. W.,** and J. M. Willis. 2011. Fifi Island Black Mangrove Experimental Planting and Monitoring. Final Report. The Coalition to Restore Coastal Louisiana.

Hester, M. W., and J. M. Willis. 2011. Bucktown Created Marsh: 2006 - 2010 Vegetative and Edaphic Characterization and Nutrient Status of Sediment and Plant Tissue. Final Report. Lake Pontchartrain Basin Foundation.

**Hester, M. W.,** A. A. Abdelghani, K. R. Piller, and J. M. Willis. 2010. Establishment of Baseline Concentrations and Elucidation of Environmental Processes Controlling the Bioavailability and Bioaccumulation of Mercury and other Toxic Metals in the Lake Maurepas Basin. Final Report. Pontchartrain Restoration Basin Program.

**Hester, M. W.,** I. A. Mendelssohn, M. Alber, M. Joye. 2009. Climate-Linked Alteration of Ecosystem Services in Tidal Salt Marshes of Georgia and Louisiana. Final Report. US EPA STAR.

**Hester, M. W.,** J. M. Willis, and L. K. Alleman. 2009. Continued Monitoring of the Bucktown Created Marsh: 2008 Vegetative and Edaphic Characterization and Effects of the Bonnet Carre Opening on Nutrient Status of Sediment and Plant Tissue. Lake Pontchartrain Basin Foundation.

**Hester, M. W.,** L. K. Alleman, and J. M. Willis. 2008. Restoration Enhancement of Black Mangrove Establishment in Barrier Island/Headland Project Design: Determination of Differential Tolerance Thresholds of Propagules and Seedlings. Final Report. NOAA/CREST (Coastal Restoration Enhancement through Science and Technology).

**Hester, M. W.,** I. A. Mendelssohn, and D. J. Reed. 2008. Effects of Hurricane Disturbance on North Shore Marshes: Assessment of Resilience and Sustainability Under Altered Nutrient Regimes. Final Report, NOAA/Pontchartrain Restoration Program and UNO Research and Technology Foundation.

Kulp, M., D. Fitzgerald, and **M. W. Hester**. 2008.Hurricane Impact within the Caernarvon Basin: Wetland Habitat Response to Biologic, Geologic and Hydrodynamic Processes. Final Report, NOAA/Pontchartrain Restoration Program and UNO Research and Technology Foundation.

Childers, G., J. M. Willis, and **M. W. Hester**. 2008. Baseline Evaluations of the Maurepas Landbridge: Microbial Ecology, Sediment Biogeochemical and Vegetative Dynamics. Final Report, NOAA/Pontchartrain Restoration Program and UNO Research and Technology Foundation.

**Hester, M. W.,** and J. M. Willis. 2008. Assessment of Vegetative and Edaphic Characteristics of the Bucktown Created Marsh: Year Two Report. Lake Pontchartrain Basin Foundation.

Fearnley, S., J. M. Willis, R. Stoessell, and **M. W. Hester.** 2007. Establishing Best Management Practices for Urban Stormwater Ditches in St. Tammany Parish to Reduce Nutrient and Bacterial Loads to Lake Pontchartrain. Final Report, NOAA/Pontchartrain Restoration Program and UNO Research and Technology Foundation.

**Hester, M. W.,** T. K. Henkel,J. M. Willis, and P. A. Taylor. 2006. Enhancement of Barrier Island Marsh Creation through Black Mangrove Propagule Dispersal: A Cost-Effective Alternative to Planting Seedlings. Final Report, NOAA/CREST (Coastal Restoration Enhancement through Science and Technology).

**Hester, M. W.,** and J. M. Willis. 2006. Enhancing Barrier Island Planting Success: Phase I. Improving Planting Success through Humic Acid Amendment. Final Report US EPA.

**Hester, M. W.,** I. A. Mendelssohn, and D. J. Reed. 2006. Value of North Shore Marshes in Improving Lake Water Quality: Assessment of Sustainability Under Increased Nutrient Loading and Rising Sea levels. Final Report, NOAA/Pontchartrain Restoration Program and UNO Research and Technology Foundation (first-year deliverables).

**Hester, M. W.,** J. M. Willis, and D. Lee. 2005. Assessment of Cost-effective Methods of Enhancing Vegetation Success in Barrier Island Restoration Projects. Final Report, NOAA/CREST (Coastal Restoration Enhancement through Science and Technology).

**Hester, M. W.,** J. M. Willis, M. J. Kaller, C. E. Mayence, and T. E. Crane. 2005. Ecology and Restoration Potential of the Manchac Area Wetlands: Constraints on Plant Establishment and Community Composition. Phase I Final Report. US EPA/SRPP.

**Hester, M. W.,** J. M. Willis, and C. E. Mayence. 2005. Plant Community Composition of the Bucktown Created Marsh: A Preliminary Assessment. Final Report, Lake Pontchartrain Basin Foundation.

Campbell, T., L. Benedet, D. Mann, D. Resio, **M. W. Hester**, and M. Materne. 2004. Restoration Tools for Louisiana’s Gulf Shoreline, Chapter D6, Volume 4. LCA (Louisiana Coastal Area) , Louisiana Ecosystem Restoration Study, Louisiana Gulf Shoreline Restoration Report. Final Report to Department of Natural Resources, Coastal Restoration Division, Baton Rouge, LA.

Visser, J. M., G. D. Steyer, G. P. Shaffer, S. S. Höppner, **M. W. Hester**, E. Reyes, P. Keddy, I. A. Mendelssohn, C. E. Sasser, C. Swarzenski. 2003. Habitat Switching Module, Chapter 9. In, R.R. Twilley (ed.), Coastal Louisiana Ecosystem Assessment and Restoration (CLEAR) Model of Louisiana Coastal Area (LCA) Comprehensive Ecosystem Restoration Plan. Volume I: Tasks 1-8. Final Report to Department of Natural Resources, Coastal Restoration Division, Baton Rouge, LA.  Contract No. 2511-02-24. 319 pp.

**Hester**, **M. W.**, K. J. Fisher, E. A. Spalding, and J. M. Willis. 2002. Investigations of Global Sea-Level Rise Scenarios on Adventitious Root Formation and its Potential Role in Marsh Accretion Processes. Final Report, Louisiana Board of Regents.

Shaffer, G. P., **M. W. Hester**, P. Kemp, H. Mashriqui, J. Day, R. Lane. 2001 Diversion into the Maurepas Swamps: A Feasibility Study of a Complex Project under the Coastal Wetlands Planning, Protection, and Restoration Act. Prepared by Lee Wilson and Associates for US EPA, Region 6.

**Hester**, **M. W.**, G. P. Shaffer, J. M. Willis, and D. J. DesRoches. 2000. Restored Drill Cuttings for Wetland Creation: Results of a Mesocosm Approach to Emulate Field Conditions Under Varying Salinity and Hydrologic Regimes. Final Report. US Department of Energy, National Petroleum Technology Office.

**Hester, M. W.**, Q. Lin, I. A. Mendelssohn, and D. J. DesRoches. 1998. The Potential for Accelerated Bioremediation and Restoration of Oil-Impacted Marshes Through the Selection of Superior Oil-Tolerant Vegetation. Final Report. US Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region.

Shaffer, G. P., **M. W. Hester**, S. Miller, D. DesRoches, R. F. Souther, G. C. Childers, and F. M. Campo. 1998. Restored Drill Cuttings for Wetlands Creation: Results of a Two-Year Mesocosm Approach to Emulate Field Conditions Under Varying Hydrologic Regimes. Final Report. US Department of Energy, National Petroleum Technology Program.

**Hester, M. W.**, and J. A. Nyman. 1998. In-Situ Burning of Oiled Wetlands as a Cleanup Technique. In: C. Edward Proffitt (ed.) Effects and Management of Oil Spills in Marsh Ecosystems: a review produced from a workshop convened July 1996 at McNeese State University. OCS Study MMS 98-0018. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Regio, New Orleans, LA. xii + 46pp.

Mendelssohn, I. A., **M. W. Hester**, and J. W. Pahl. 1995. Environmental Effects and Effectiveness of In-Situ Burning in Wetlands. Final Report. The Louisiana Applied Oil Spill Research and Development Program, Center for Coastal, Energy, and Environmental Resources, LSU.

Mendelssohn, I. A., **M. W. Hester**, and J. M. Hill. 1993. Effects of Oil Spills on Coastal Wetlands and Their Recovery: Year 4, Final Report. US Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region.

**Hester, M. W.**, and I. A. Mendelssohn. 1992. Barrier Island Vegetation Dynamics: Stabilization and Maintenance Projects on Timbalier Island. Final Report. Texaco USA, New Orleans Operations Division, PO Box 60252, New Orleans, LA 70160.

McKee, K. L., **M. W. Hester**, I. A. Mendelssohn, and K. M. Flynn. 1989. Mangrove Dieback and Distribution on Mangrove Ranges in the Belizean Barrier Reef: An Analysis of Controlling Factors. Caribbean Coral Reef Ecosystem Progress Report 1988-89. National Museum of Natural History, Smithsonian Institution, Washington, D. C.

Mendelssohn, I. A., and **M. W. Hester**. 1988. Texaco USA Coastal Vegetation Project, Timbalier Island: Final Report. Texaco USA, New Orleans Operations Division.

Mendelssohn, I. A., and **M. W. Hester**. 1985. Isles Dernieres and Cheniere Ronquille Stabilization Project: Soil-Plant Survey and Test Plantings. Technical Report. Louisiana Geological Survey, Coastal Protection Section, LSU, Baton Rouge, LA 70803.

**Grants and Contracts Awarded**

US Army Corps of Engineers/Louisiana CPRA. 2016. Coast 2050 Academic Advisor PPL (Project Priority List) 26 (review proposed coastal restoration projects for CWPPRA). Principal Investigator ($3,000).

Louisiana Sea Grant/Louisiana CPRA. 2015 – 2018. Coastal Science Assistantship Program (CSAP) Award (graduate student assistantship and intern support). Principal Investigator ($75,000).

Louisiana CPRA/CIAP. 2013 – 2015. Comparison of Vegetation Communities within Barrier Island Restoration Projects of Varying Ages through the Development of a Vegetation Sampling Protocol for the Barrier Island Comprehensive Monitoring (BICM) Program. Principal Investigator with J. M. Willis ($270,000).

The Water Institute of the Gulf/Louisiana CPRA. 2014 – 2015. Modeling Sediment-Diversion Related Nutrient Effects Expert Panel. Principal Investigator ($4,500).

US Army Corps of Engineers/Louisiana CPRA. 2015. Coast 2050 Academic Advisor PPL-25. Principal Investigator ($3,000).

The Water Institute of the Gulf/Louisiana CPRA. 2014. Developing Coastwide and Basin-Wide Monitoring Plans for the Systemwide Assessment and Monitoring Program (SWAMP). Principal Investigator ($1,800).

US Army Corps of Engineers/Louisiana CPRA. 2014. Coast 2050 Academic Advisor PPL-24. Principal Investigator ($3,000).

USFWS. 2014. Mangrove Transect Re-occupation and Real Time Kinematic Surveys in the Key Deer National Wildlife Refuge, Florida. PI with J. M. Willis ($10,575).

The Water Institute of the Gulf/Louisiana CPRA. 2013 - 2014. 2017 Coastal Master Plan Model Development and Application. Co-PI with J. Visser (Lead PI), W. Broussard, S. Duke-Sylvester. ($122,854).

The Water Institute of the Gulf/Louisiana CPRA. 2013. Sediment Diversion Nutrient Dynamics Expert Panel. Principal Investigator ($3,600).

USGS/SE Climate Change Center. 2012 – 2015. Ecological Implications of Mangrove Forest Migration in the Southeastern U.S. Co-Principal Investigator with M. Osland (lead PI; USGS), K. Kraus (USGS), R. Day (USGS), ($312,092; UL Lafayette subcontract $96,969).

Louisiana Sea Grant/Louisiana CPRA. 2012 – 2015. Coastal Science Assistantship Program (CSAP) Award (graduate student assistantship and intern support). Principal Investigator ($75,000).

BP Gulf Research Initiative LSU ORED. 2012 – 2015. A Multidisciplinary Analysis of Linkages Among Wetland Vegetation, Rhizosphere Microbial Communities and Soil Stability in Response to Oiling. Co-Principal Investigator with G. King (lead PI; LSU) and G. Zhang (LSU). ($800,000; UL Lafayette subcontract $225,322).

Louisiana Board of Regents Enhancement Program. 2012 – 2013. Upgrading Instrumentation for Metal Analysis in Biological Research and Education at UL Lafayette. Co-Principal Investigator with P. L. Klerks (Principal Investigator) and L. E. Deaton. $72,262.

US Army Corps of Engineers/Louisiana CPRA. 2008 – 2013. Coast 2050 Academic Advisor. ($18,000).

CALFED. 2008 – 2013. Evaluating and Predicting Restoration Thresholds in Evolving Freshwater-Tidal Marshes. Co-Principal Investigator with S. Simenstad (lead PI, UW), J. Toft (UW), P. Williams, S. Crooks (PWA), D. Reed (UNO), E. Reyes (ECU), S. Bollens (WSUV) ($2,496,498; UL award $201,752).

US Fish and Wildlife Service. 2010-2012. Sea-Level Rise in the Florida Keys: Implications for Ecosystem Sustainability. Principal Investigator ($62,719).

US EPA/Louisiana DNR. 2008 – 2012. Enhancement of Barrier Island Vegetation Demonstration Project. Principal Investigator/Project Director ($710,698).

Lake Pontchartrain Basin Foundation. 2010. Bucktown Created Marsh 2010: Continued Monitoring with Additional Determination of Effects of Herbivory and Plant N. Principal Investigator ($14,951).

NSF SGER. 2008 – 2009. Hurricanes Gustav and Ike: Relative Sustainability of Saline Wetlands in the Mississippi River Delta Complex. Co-PI with I. A. Mendelssohn (Lead PI LSU) and K. L. McKee (USGS/NWRC) ($50,000).

LDNR/LSU Sea Grant. 2008 – 2011. Coastal Science Assistantship Program (CSAP) Award: University of Louisiana at Lafayette. Principal Investigator ($75,000).

Lake Pontchartrain Basin Foundation/Shell E&P. 2008. Bucktown Created Marsh Monitoring: 2008 Annual Monitoring of Plant Community and Environmental Variables and Supplemental Monitoring of Marsh Response to Bonnet Carre Spillway Opening. Principal Investigator ($12,453).

Louisiana Sea Grant/Louisiana OCPR. 2007 – 2010. Coastal Science Assistantship Program award (graduate student assistantship and intern support). Principal Investigator ($75,000).

Coastal Wetlands Planning, Protection and Restoration Act/LUMCON. 2007. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-17). Principal Investigator ($17,500).

NOAA/CREST. 2006 – 2008. Restoration Enhancement of Black Mangrove Establishment in Barrier Island/Headland Project Design: Determination of Differential Tolerance Thresholds of Propagules and Seedlings. Principal Investigator with J. Willis ($75,000).

NOAA/Pontchartrain Restoration Program. 2006-2007. Effects of Hurricane Disturbance on North Shore Marshes: Assessment of Resilience and Sustainability under Altered Nutrient Regimes. Principal Investigator with D. J. Reed (UNO) and I. A. Mendelssohn (LSU) ($175,270).

NOAA/Pontchartrain Restoration Program. 2006-2007. Baseline Evaluations of the Maurepas Landbridge: Microbial Ecology, Sediment Biogeochemical and Vegetative Dynamics. Co-Principal Investigator with G. Childers (Lead PI, SLU) ($126,683).

NOAA/Pontchartrain Restoration Program. 2006-2007. Hurricane Impact within the Caernarvon Basin: Wetland Habitat Response to Biologic, Geologic and Hydrodynamic Processes. Co -Principal Investigator with M. Kulp (Lead PI, UNO) and D. Fitzgerald (Boston University) ($141,061).

US EPA. 2006 – 2007. Establishment of Baseline Concentrations and Elucidation of Environmental Processes Controlling the Bioavailability and Bioaccumulation of Mercury and Other Toxic Metals in the Lake Maurepas Basin. Principal Investigator with J. Willis (UNO), A. Abdelghani (Tulane), and K. Pillar (SLU) ($129,501).

Lake Pontchartrain Basin Foundation/Shell E&P. 2006 - 2007. Assessment of Vegetative and Edaphic Characterisitcs of the Bucktown Created Marsh. Principal Investigator ($24,800).

Coastal Wetlands Planning, Protection and Restoration Act/LUMCON. 2006. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-16). Principal Investigator ($19,000).

US EPA. 2005 – 2009. Climate-Linked Alteration of Ecosystem Services in Tidal Salt Marshes of Georgia and Louisiana. Principal Investigator/Project Director with I. A. Mendelssohn (LSU), M. Alber, S. Joye (UGA) ($749,457).

NOAA/Pontchartrain Restoration Program. 2005-2006. Establishing Best Management Practices for Urban Stormwater Ditches in St. Tammany Parish to Reduce Nutrient and Bacterial Loads to Lake Pontchartrain (year 2). Co-Principal Investigator with S. Fearnley and R. Stoessel (UNO) ($77,148).

NOAA/Pontchartrain Restoration Program. 2005-2006. Value of North Shore Marshes in Improving Lake Water Quality: Assessment of Sustainability Under Increased Nutrient Loading and Rising Sea levels (year 3). Principal Investigator with D. J. Reed (UNO) and I. A. Mendelssohn (LSU) ($101,000).

NOAA/CREST (Coastal Restoration Enhancement through Science and Technology). 2005 – 2006. Enhancement of Barrier Island Marsh Creation through Black Mangrove Propagule Dispersal. Principal Investigator with J. Willis and P. Taylor (US EPA) ($35,414).

Coastal Wetlands Planning, Protection and Restoration Act/LUMCON. 2005. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-15). Principal Investigator ($12,500).

USDA/LSU Ag Center. 2004 – 2007. Implementation of a Floating Marsh Creation Demonstration Project. Co-Principal Investigator with C. Sasser, J. Visser, and M. Materne (LSU) ($1,012,310 total project; UNO subcontract $234,400).

NOAA/Pontchartrain Restoration Program. 2004-2005. Value of North Shore Marshes in Improving Lake Water Quality: Assessment of Sustainability Under Increased Nutrient Loading and Rising Sea levels (year 2). Principal Investigator with D. J. Reed and I. A. Mendelssohn ($180,999).

NOAA/Pontchartrain Restoration Program. 2004-2005. Establishing Best Management Practices for Urban Stormwater Ditches in St. Tammany Parish to Reduce Nutrient and Bacterial Loads to Lake Pontchartrain. Principal Investigator with Ron Stoessel ($71,000).

US EPA. 2004–2005. Enhancing Barrier Island Planting Success: Phase I. Improving Planting Success through Humic Acid Amendment. Principal Investigator ($58,176).

Coastal Wetlands Planning, Protection and Restoration Act/LUMCON. 2004. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-14). Principal Investigator ($12,500).

NOAA/Pontchartrain Restoration Program. 2003-2004. Value of North Shore Marshes in Improving Lake water Quality: Assessment of Sustainability Under Increased Nutrient Loading and Rising Sea levels. Principal Investigator with D. J. Reed and I. A. Mendelssohn ($184,714).

NOAA/CREST. 2003-2005. Assessment of Cost-effective Methods of Enhancing Vegetation Success in Barrier Island Restoration Projects. Principal Investigator with J. M. Willis and D. Lee (Louisiana DNR) ($49,576).

Coastal Wetlands Planning, Protection and Restoration Act/LUMCON. 2003. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-13, and scientific evaluation of previously constructed projects). Principal Investigator ($12,500).

US Geological Survey, Department of the Interior. 2002-2003. Elevated CO2 Effects on Net Photosynthesis and Water-Use Efficiency in a Mangal-Marsh Community and a Freshwater Marsh-Swamp Community. Principal Investigator ($13,882).

Louisiana Department of Natural Resources. 2002-2004. Ecological Consultant -LDNR/CWPPRA Monitoring Program, New Orleans Field Office. Principal Investigator ($28,281).

Coastal Wetlands Planning, Protection and Restoration Act/LUMCON. 2002. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-12, and scientific evaluation of previously constructed projects). Principal Investigator ($29,251).

US EPA. 2001-2003. Ecology and Restoration Potential of the Manchac Area Wetlands: Principal investigator with N. Norton, P. Keddy, A. Cheek, W. Font, G. Shaffer, and P. Stouffer. ($925,000 total contract). Task 2.3 - Constraints on Plant Establishment and Community Composition. Principal Investigator ($188,585).

NOAA. 2001-2003. Integrative Approach to Understanding the Causes of Saltmarsh Dieback (Brown Marsh): Determination of Salt Marsh Species Tolerance Limits to Potential Environmental Stressors and Simulation of Saltmarsh Dieback (Task II.1). Co-Principal Investigator with I. A. Mendelssohn (LSU, lead PI), K. L. McKee, and R. W. Schneider ($218,580).

Coastal Wetlands Planning, Protection and Restoration Act. 2000. Professional Services Contract (Wetland Value Assessment of proposed restoration projects, PPL-11).

Principal Investigator ($17,347).

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA - EPA project sponsor). 2000-2001. Feasibility Study of a Freshwater Diversion into the Maurepas Swamp. Co-Principal Investigator with G. P. Shaffer and P. Keddy ($127,000).

Argonne National Laboratory and US Department of Energy. 1999-2000. Wetlands Restoration Mesocosm Studies. Principal Investigator with G. P. Shaffer ($41,927).

Coastal Wetlands Planning, Protection and Restoration Act. 1999. Professional Services Contract (Wetland Value Assessment of Proposed Restoration Projects, PPL-9).

Principal Investigator ($6,531).

Louisiana Board of Regents. 1998-2001. Investigations of Global Sea-Level Rise Scenarios on Adventitious Root Formation and its Potential Role in Marsh Accretion Processes. Principal Investigator ($70,700).

Louisiana Department of Natural Resources. 1998. Ecological Consultant - LDNR/CWPPRA Monitoring Program Thibodaux Office. Principal Investigator with G. P. Shaffer ($30,620).

LaCEPT (Louisiana Collaborative for Excellence in the Preparation of Teachers). 1998.

Faculty Internship Grant (Project CYPRESS). Principal Investigator ($6,988).

US Department of Energy. 1997-2000. Beneficial Use of Restored Drill Cuttings: A Wetland Field Study. Co-Principal Investigator with G. P. Shaffer and G. W. Childers ($225,527).

US Environmental Protection Agency. 1997-2000. Genetic and Population Ecology of Louisiana Populations of *Spartina alterniflora*. Co-Principal Investigator with R. Lowenfeld and E. Proffitt (Lead PI, McNeese State University) ($420,997).

US Department of Energy. 1997-1998. Using Restored Drill Cuttings for Wetlands Creation: Expansion and Extension of a Mesocosm Approach. Co-Principal Investigator with G. P. Shaffer and G. W. Childers ($24,994).

Louisiana Department of Natural Resources. 1997-1998. Academic Assistance for Louisiana’s Strategic Coastal Planning Initiative (Coast 2050). Principal Investigator ($9,815).

US Department of Energy. 1996-1997. Wetlands Creation Using Restored Drill Cuttings: A Mesocosm Approach. Co-Principal Investigator with G. P. Shaffer and G. W. Childers ($50,000).

MMS-LSU Coastal Marine Institute. 1995-1997. The Potential for Accelerated Bioremediation and Restoration of Oil-Impacted Marshes Through the Selection of Superior Oil-Tolerant Vegetation. Principal Investigator with I. A. Mendelssohn ($92,081).

The Consortium for Plant Biotechnology Research, Inc. 1994-1995. The Potential for Biomass Energy Production from Native Species of Willow in Louisiana. Co-Principal Investigator with K. L. McKee and I. A. Mendelssohn ($121,796).

Texaco Exploration and Production, Inc. 1994-1995. Comparison of Ecological Recovery and Oil Degradation as a Function of Oil Cleanup Method for *Phragmites* Marshes in the Delta National Wildlife Refuge. Co-Principal Investigator with I. A. Mendelssohn and C. Henry ($83,218).

US Fish and Wildlife Service. 1993-1995. The Response and Recovery of the Isles Dernieres Barrier Island Marsh Plant Communities to Hurricane-Induced Disturbance. Principal Investigator with I. A. Mendelssohn ($74,878).

Louisiana Board of Regents. 1991-1994. The Development of a Coastal Horticulture Industry in Louisiana: The Selection and Propagation of Superior Stress-Tolerant Plants. Co-Principal Investigator with I. A. Mendelssohn and K. L. McKee ($221,169).

Texaco, USA 1990-1991. Timbalier Island Canal Restoration Project: Continued Monitoring and Habitat Assessment. Principal Investigator with I. A. Mendelssohn ($20,000).

Texaco USA 1987-1990. BarrierIsland Vegetation Dynamics: Stabilization and maintenance projects on Timbalier Island. Co-Principal Investigator with I. A. Mendelssohn ($242,570).

**Grants and Contracts Awarded (Involvement as part of scientific team)**

Tetra Tech. 2010 – 2011. Vegetation Module for Louisiana Coastal Protection and Restoration Master Plan ($158,467). J. Visser Principal Investigator. Hester’s role was to review products and provide scientific expertise on vegetation response.

Louisiana Governor’s Office of Coastal Activities. 2010 – 2011. Donaldsonville to the Gulf Scientific Advisory Board ($10,000). Hester’s role was to provide scientific expertise on wetland ecosystem impacts that may result from various flood-protection levee alignments.

Louisiana DNR. 2003-2004. Gulf Shoreline Restoration Science Report for the LCA Comprehensive Study. S. Penland Principal Investigator ($479,737). Hester’s role was to write sections on coastal plant communities and restoration science.

Louisiana DNR. 2002-2003. Conceptual Ecological Models for Planning and Evaluation. E. Reyes Principal Investigator ($49,930). Hester’s role was to provide scientific expertise on the drivers of plant community shifts and to assist in the development of algorithms for habitat-switching modules.

Louisiana DNR. 2002-2003. Implementation of the Gulf Shoreline Restoration Science Advisory Board: Planning and Evaluating the Gulf Shoreline Component of the Louisiana Coastal Area Plan and the Current and Planned CWPPRA Gulf Shoreline Projects. S. Penland Principal Investigator ($279,409). Hester’s role was to serve as the coastal plant science expert on a six-member advisory panel (four of six members are out-of-state experts).

**Proposals in Review**

NSF CNH. 2017 – 2020. CHN-L: Assessing Slow versus FastOn-set Change in Coastal Settings Using the Resilience, Adaptation and Transformation Framework. Co-PI with J. DeRouen (Lead PI), E. Habib, and W. Broussard ($1,529,000).

NSF DEB. 2018 – 2021. RUI-COLLABORATIVE: The Influence of Mangrove Invasion and Rising Temperatures on Belowground Processes in Coastal Ecosystems. Co-PI with S. Chapman (Lead PI), A. Langley, I. Fellar, J. Morris and G. Verutes ($830,000, ULL Collaborative $380,000*).*

NOAA RESTORE Act Science Program. 2017 – 2020. Collection of Critical Wetland Plant Response Data for Parameterization of the Vegetation Dynamics Component of the Louisiana Biophysical Model Used to Analyze Restoration Strategies. Lead PI with J. Willis, S. Duke-Sylvester, J. Visser, M. Baustian and E. Meselhe ($1,293,307).

NOAA RESTORE Act Science Program. 2017 – 2020. Enhancing the Capabilities of the LAVegMod Component of the Louisiana Coastal Master Plan Integrated Compartment Model for Barrier Island Habitats through Data Acquisition and Algorithm Refinement. Co-PI with Jonathan Willis (Lead PI), Scott Duke-Sylvester, and Eric White ($404,657).

The Water Institute of the Gulf, RESTORE Act Center of Excellence for Louisiana. 2017 – 2019. Field Assessment of Multiple In-Situ soil Shear Strength Methodologies Across Major Louisiana Coastal Marsh Types: Determination of Optimal Methodology and Relationships Between Shear Strength, Belowground Biomass and Key Soil Metrics. Lead PI with J. Willis and J. Wang ($281,687).

National Academies of Science/Robert Woods Johnson Foundation. 2017 – 2020. Enhancing Community Health and Resilience in the Gulf of Mexico Region by Implementing the National Disaster Recovery Framework. Co-PI with M. Dunaway (Lead PI), E. Theriot, E. Habib, J. DeRouen, G. Stewart, K, Smith, K. Burstein, T. Mallery, W. Broussard, R. Loganantharaj ($2,895,000)*.*

The Water Institute of the Gulf, RESTORE Act Center of Excellence for Louisiana. 2017 – 2019. Assessment of Nitrate Loading Rates on Growth Parameters relevant to Biomass Partitioning in Key Louisiana Emergent Marsh Species to Inform Coastal Master Plan Modeling Efforts. Co-PI with J. Willis (Lead PI) and S. D. Sylvester ($85,010).

**Proposals in Prep**

GoMRI VI. 2018 – 2019. Reoccupation of Natural Resource Damage Assessment Sites to Determine the Long-Term Impacts and Trajectory of Gulf of Mexico Salt Marsh Vegetation after the *Deepwater Horizon* Oil Spill. Lead PI with J Willis and S. Rouhani ($998,351). *Submission date March 3, 2017.*

Columbia Institute of Marine Science (INVEMAR)/Universidad del Valle. 2017 – 2018. Evaluation of Damage and Development of Restoration Strategies for an Oil Spill in the Coastal Shoreline and Watershed of the Rio Mira Delta, Columbia. Lead PI with J. Willis ($80,903).

**Grants and Contracts Recently Submitted, but Not Funded**

NSF CNH. 2016 – 2019. Application of the Resilience, Adaptation, Transformation Model to Assess Coupled Natural and Human Systems in Coastal Settings Undergoing Continuous and Event-Driven Change. Co-PI with J. DeRouen (Lead PI), E. Habib, and W. Broussard ($1,414,574).

NOAA EESLR. 2017 – 2019. Spatial Replacement to Determine Natural and Nature-Based Features Long-Term Resilience. Co-PI with J. Nelson (Lead PI) and S. Sable ($754,067).

GOMRI V. 2016 – 2018. High Marsh and Salt Flat Ecosystem Response to Oil and Dispersant in the Northern Gulf of Mexico: An Integrated Approach Linking Plant, Soil, Microbial, and Invertebrate Community Responses. Lead PI with P. Klerks, A. Chistoserdov, and K. Krauss ($1,560,869).

GOMRI V. 2016 – 2018. Predicting the Sustainability of Northern Gulf of Mexico Salt Marshes Impacted by the Deepwater Horizon Oil Spill. Co-PI with J. M. Willis (Lead PI) and J. T. Morris ($1,040,821).

Gulf Research Program. 2016 – 2018. Integration and Synthesis of Monitoring Program Data for Restored Barrier Island Habitats Across the Northern Gulf of Mexico. Co-PI with J. M. Willis (Lead PI) ($267,613).

NSF DEB. 2016 – 2019. RUI- COLLABORATIVE: The Influence of Mangrove Invasion and Rising Temperatures on Belowground Processes in Coastal Ecosystems. Co-PI with S. Chapman (Lead PI), A. Langley, I. Fellar, N. Dix, and G. Verutes ($899,974).

**Invited Symposia and Presentations**

Invited presentation. The Role of Climate Change and Disturbance in Structuring Mangrove Communities. Special Session: Storms, Sea Level, Climate, and Humans: Spatial and Temporal Impacts of Disturbance to Mangrove Forests. *Upcoming* - Society for Wetland Scientists. Puerto Rico. June 5 – 8, 2017.

Invited Symposium. Climate Driven Alteration of Mangrove-Saline Marsh Plant Community Composition and Structure. 10th INTECOL International Wetlands Conference. Changshu, China. September 19 - 24, 2016.

Invited Workshop. Environmental Change and Coastal Plant Communities: Insights for Coastal Restoration and Management. 9th Aoshan Forum on Effects of Climate Change and Associated Environmental Drivers on Coasts and Wetlands. Qingdao China. September 25 - 26, 2016.

Invited presentation. Understanding Coastal Wetland Plant Responses to Flooding. Special Session: Flooding Impacts of Diversions on Wetland Vegetation. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Invited Workshop Presentation and Panel. Monitoring framework for beach and dune restoration. National Academies of Science. Effective Approaches for Monitoring and Assessing Gulf of Mexico Restoration Activities Workshop. New Orleans, Louisiana. August 24 – 25, 2015.

Invited Symposium. Mangrove community response to sea-level rise in the Florida Keys, USA: Potential limitations on upslope migration. Ecological Society of America Meeting. Baltimore Maryland, August 9 – 14, 2015.

Invited Presentation. Climate change and coastal ecosystems: What’s a plant to do? LSU Oceanography and Coastal Science Seminar Series. Baton Rouge, Louisiana, September 12, 2013.

Invited Presentation. Insights into colonization and expansion dynamics of *Schoenoplectus californicus* at Liberty Island, California. Bay Delta Science Conference. Sacramento, California, October 16 -18, 2012.

Invited Presentation. Response of black mangrove (*Avicennia germinans*) to environmental stress and disturbance. Mangrove Expansion, Climate Change, and Sea-Level Rise Workshop. USGS National Wetlands Research Center, Lafayette, Louisiana. June 12 -13, 2012.

Invited Symposium. Alteration of salt marsh ecosystem services from climate-induced changes in *Spartina alterniflora* abundance. Society for Wetland Scientists. Wetland Biogeochemistry and Climate Change. Prague, Czech Republic. July 3 – 8, 2011.

Invited Symposium. Response of thick-mat floating marsh to salinity and nutrient loadings. Response of Louisiana Marsh Soils and Vegetation to Diversions NOAA Workshop. February 23 – 24, 2011. University of Louisiana, Lafayette.

Invited Symposium: Influence of altered river hydrology and nutrient loadings on sustainability of floating freshwater marsh in the Mississippi River deltaic plain, Louisiana, USA. Flood Pulsed Wetlands. Ecohydrology: Maun, Botswana. February 1– 5, 2010.

Invited Symposium: Influence of *Spartina alterniflora* stem density on salt marsh ecosystem services. Estuarine Research Federation 20th Biennial Conference. Invited session: Tipping Points in Wetlands. Portland, Oregon. November 1– 5, 2009.

Invited Presentation: Overview of black mangrove restoration ecology in South Louisiana. South Lafourche Levee Board. Louisiana. August 10, 2009.

Invited Presentation: Brown marsh overview: Field and experimental studies. USGS National Wetlands Research Center Brown Marsh Briefing. Lafayette, Louisiana. July 9, 2009.

Invited Symposium: A question of balance: management insights from plant C and N allocations. Society of Wetland Scientists 30th Annual Meeting. Symposium: Physiological Ecology of Wetlands: Translating Process-based Studies into Important Management Insights. Madison, Wisconsin. June 21 – 26, 2009.

Invited Presentation: Climate-linked alteration of ecosystem services in tidal salt marshes of Georgia and Louisiana. The Plight of Ecosystems in a Changing Climate: Impacts, on Services, Interactions, and Responses Workshop. Seattle, Washington. May 27 – 28, 2009.

Invited Presentation: Climate-linked alteration of ecosystem services in tidal salt marshes of Georgia and Louisiana: preliminary findings. Estuarine Research Federation 19th Biennial Conference. Climate Effects on Tidal Wetlands. Providence, Rhode Island. November 4 – 8, 2007.

Invited Presentation: Climate-linked alteration of ecosystem services in tidal salt marshes of Georgia and Louisiana. US EPA STAR Global Aquatic Ecosystem Services and Multi-Stressor Progress Review Workshop. Washington D.C. June 8-9, 2006.

Invited Seminar: Can freshwater floating marsh be managed for long-term sustainability? Louisiana State University, Department of Oceanography and Coastal Sciences seminar series. February 25, 2005.

Invited Symposium: Interactive effects of salinity, flooding, and nutrient loading on freshwater floating marsh buoyancy and community composition. 7th International Ecological Congress. Symposium co-Chair: Wetland plant responses to multiple environmental stressors. Utrecht, The Netherlands. July 25 – 30, 2004.

Invited Seminar: Vegetative science issues in the LCA Gulf shoreline plan. Louisiana Gulf Shoreline Restoration Science Advisory Group Workshop 2. The LCA Gulf Shoreline Plan

– Overview and Restoration Science Needs. University of New Orleans. February 12-13, 2003.

Invited Seminar: Importance of salinity and flooding in structuring coastal plant communities. Loyola University Biology Seminar Series. New Orleans, Louisiana. October 8, 2002.

Invited Seminar: Environmental change and wetland plant communities: Adaptations, responses, and implications. USDA Southern Research Center. New Orleans, Louisiana. April 17, 2002.

Invited Symposium: Species and population variation in salt tolerance in *Panicum hemitomon, Spartina patens*, and *Spartina alterniflora*: morphological and physiological constraints. International Ecological Congress. Symposium: Plants and organisms in stressed wetland environments. Quebec City, Canada. August 6-12, 2000.

Invited Symposium: The potential use of restored drill cuttings in wetlands restoration and creation. Second National Mitigation Banking Conference. Atlanta, Georgia. June 13-15, 1999.

Invited Seminar: Aspects of salt tolerance in *Panicum hemitomon, Spartina patens,* and *Spartina alterniflora*. Coastal Wetlands Planning, Protection and Restoration Act Salinity Workshop. Center for Coastal, Energy, and Environmental Resources, LSU. May 18, 1999.

Invited Seminar: Investigations of intraspecific variation in salt tolerance in three dominant marsh plant species. Tulane University, EEOB Seminar Series. March 7, 1997

Invited Lecture: The Gaia hypothesis: Spirituality and biodiversity for the 21st century? United Campus Ministries Lecture Series, Methodist-Presbyterian Ministries in Higher Education, The Wesley Foundation. May 7, 1997.

Invited Presentation: Feasibility of selecting superior oil-tolerant populations of *Spartina patens*. 16th Annual Minerals Management Service, Gulf of Mexico OCS Region Information Transfer Meeting. New Orleans, Louisiana. December 10-12, 1996.

Invited workshop presenter: Oil Spills in Coastal Marshes. US Minerals Management Service. Louisiana Environmental Research Center, McNeese State University. June 5-7, 1996.

Invited Seminar: Using wetland plant ecology to improve your fly fishing success. Red Stick Fly Fishers, Federation of Fly Fishers. March 10, 1996.

Invited Lecture: Designing coastal restoration projects within a theoretical framework to maximize project success while advancing science. LSU, Department of Oceanography and Coastal Sciences. April 7, 1992.

Invited Symposium: Ramet relations of *Spartina patens* in response to nitrogen level and salinity stress. Botanical Society of America Symposium. 42nd AIBS Annual Meeting, San Antonio, Texas. August 4-8, 1991.

**Contributed Papers with Published Abstracts or Proceedings: 1995 –**

Sloey, T. M., J. M. Willis, and **M. W. Hester**. Comprehensive Ecology of *Schoenoplectus californicus*: Recommendations for Restoration of Tule Marsh. Bay Delta Science Conference. Sacramento, California. November 15 – 17, 2016.

Yando, E., and **M. W. Hester**. Transplant Success, Expansion, and Natural Recruitment of Vegetation following Coastal Wetland Restoration: Understanding Key Biotic and Abiotic Drivers. Gulf Estuarine Research Society/ Society for Wetland Scientists South Central & South Atlantic Chapters Joint Meeting. Pensacola, Florida. November 2 - 5, 2016.

Jones, S., C. Stagg, K. Krauss, and **M. W. Hester**. *Spartina alterniflora* Salt Marsh Response to Climate Change: Effects of Altered Hydrology and Increased Atmospheric CO2. Gulf Estuarine Research Society/ Society for Wetland Scientists South Central & South Atlantic Chapters Joint Meeting. Pensacola, Florida. November 2 - 5, 2016.

**Hester, M. W**., and J. M. Willis. Spatial Variation in Mangrove Community Zonation in the Lower Florida Keys. Mangrove and Macrobenthos Meeting 4. St. Augustine, Florida. July 18 - 22, 2016.

Yando, E., and **M. W. Hester**. Mangrove Propagule Dispersal and Establishment at the Marsh-Mangrove Ecotone: Linking Hydrology, Dispersal Distance, and Propagule Retention. Mangrove and Macrobenthos Meeting 4. St. Augustine, Florida. July 18 - 22, 2016.

Sloey, T. M., J. M. Willis, and **Mark W. Hester**. Recommendations for the Implementation of *Schoenoplectus californicus* in Freshwater Wetland Restoration: Lessons Learned. Society for Wetland Scientists Conference. Corpus Christi, Texas. May 31 - June 3, 2016.

**Hester, M. W**., and J. M. Willis. Assessment of Louisiana Barrier Island Restoration Trajectories through the Development and Implementation of a New Monitoring Protocol. Special Session: Advances in Barrier Island Restoration and Monitoring. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Willis, J. M., and **M. W. Hester.** *Spartina alterniflora* Growth Responses to Weathered Macondo Well Oil Applied to Soil and Aboveground Tissue: a Mesocosm Assessment. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Sloey, T. M., J. M. Willis, and **M. W. Hester**. Recommendations for Implementation of *Schoenoplectus californicus* in Freshwater Wetland Restoration: Lessons Learned. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Hundy, L. C., and **M. W. Hester**. Interactive Effects of Created Salt Marsh Substrate Type, Elevation and Nutrient Regime on *Spartina alterniflora* and *Avicennia germinans* Productivity and Soil Development. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Yando, E., M. Osland, and **M. W. Hester**. Vegetation Trajectories Following Coastal Wetland Restoration: Understanding Key Biotic and Abiotic Drivers of Planting Success and Natural Recruitment. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

McCoy, M., J. M. Willis, and **M. W. Hester**. Interactive Effects of Elevation, Nutrient Regime, and Hydrology on Structuring Fresh and Intermediate Marsh Vegetation Communities. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Jones, S. F., C. L. Stagg, K. W. Krauss, and **M. W. Hester** Interactive Effects of Variable Hydrologic Regimes and Atmospheric [CO2] on *Spartina alerniflora* Salt Marsh Response in Coastal Louisiana. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

**Hester, M. W**., T. M. Sloey, J. M. Willis. Vegetation colonization thresholds and marsh platform expansion dynamics at a tidal freshwater restoration site in the Sacramento-San Joaquin Delta, California, USA. National Conference on Ecosystem Restoration, Fort Lauderdale Florida. April 18 – 22, 2016.

Sloey, T. M., M. Gagliano, and **M. W. Hester**. Maximizing shoreline protection using vegetation and artificial oyster reef structures: Lessons learned. National Conference on Ecosystem Restoration, Fort Lauderdale Florida. April 18 – 22, 2016.

**Hester, M. W**., J. M. Willis. Upslope migration of mangrove communities in the Lower Florida Keys: Got soil? 23rd Biennial Conference of the Coastal and Estuarine Research Federation. Portland, Oregon. November 8 - 12, 2015.

**Hester, M. W**., J. M. Willis, and T. M. Sloey. Marsh Platform Development and Expansion Dynamics at a Tidal Freshwater Restoration Site. Society for Wetland Scientists. Providence, Rhode Island. May 31 – June 5, 2015.

Hundy, L. C., M. J. Osland, J. M. Willis, R. H. Day, and **M. W. Hester**. Abiotic Controls of Black Mangrove (*Avicennia germinans*) Survival and Growth in a Restored Louisiana Coastal Wetland. Society for Wetland Scientists. Providence, Rhode Island. May 31 – June 5, 2015.

Sloey, T. M. and **M. W. Hester**. Constraining Effects of Hydrologic and Nutrient Regimes on Tidal Marsh Restoration. Society for Wetland Scientists. Providence, Rhode Island. May 31 – June 5, 2015.

Willis, J. M., and **M. W. Hester**. Effects of Weathered Macondo Well Oil Applied to Soils and Aboveground Tissues on *Spartina alterniflora* Survival and Growth. Society for Environmental Toxicology and Chemistry North America 35th Meeting. Vancouver, British Columbia, November 9 - 13, 2014.

Yando, E. S., M. J. Osland, J. M. Willis, R. H. Day, K.W. Krauss, and **M. W. Hester**. Mangrove Forests vs. Salt Marshes: the Ecological Implications of Climate-Induced Woody Plant Encroachment on Plant-Soil Interactions in Tidal Saline Wetlands. Gulf Coast Plains and Ozarks LLC & Southeast Climate Science Center Webinar. Lafayette, LA. November 25, 2014.

Hundy, L. C., and **M. W. Hester**. Plant Growth and Soil Shear Strength in Relation to Hydro-Edaphic Characteristics of Restored Salt Marsh Soils. Gulf Estuarine Research Society 2014 Biennial Meeting. Port Aransas, TX. October 30 - 31, 2014.

Sloey, T. S., **M. W. Hester**. Response of *Schoenoplectus* spp. to hydrologic and nutrient regimes. Gulf Estuarine Research Society 2014 Biennial Meeting. Port Aransas, TX. October 30-31, 2014.

Sloey, T. S., J. M. Willis, M. Brennan, E. Divita, S. Crooks,and **M. W. Hester.** Understanding stem strength and flood tolerance of *Schoenoplectus californicus* for enhanced restoration success. 8th Biennial Bay Delta Science Conference. Sacramento, CA. October 28 - 30, 2014.

Yando, E. S., M. J. Osland, J. M. Willis, R. H. Day, K. W. Krauss**, M. W. Hester.** Heterogeneity in Plant Ecological Interactions at a Shifting Salt Marsh-Mangrove Ecotone in the Northern Gulf of Mexico. 23rd Annual Society for Wetland Scientist South Central Chapter Meeting. Corpus Christi, TX. October 23 - 25, 2014.

Hundy, L. C., and **M. W. Hester, M.W**. Effect of Hydrologic Regime and Soil Properties on Black Mangrove (*Avicennia germinans*) Survival and Growth in a Restored Louisiana Salt Marsh.” Annual Meeting of the Society of Wetland Scientists South Central Chapter. Corpus Christi, TX. October 23 - 25, 2014.

Sloey, T. S., and **M. W. Hester.** Effects of Flooding Regime and Nutrient Status on Freshwater Macrophytes: Recommendations for Improved Wetland Restoration. 23rd Fall Society of Wetland Scientists South Central Chapter Meeting. Corpus Christi, TX. October 23 - 25, 2014.

Willis, J. M., L. K. Alleman, C. N. Pickens, L. C. Hundy, and **M. W**. **Hester**.Environmental Constraints on the Restoration of Black Mangrove Habitats in the Northern Gulf of Mexico. Conference on Ecological and Ecosystem Restoration. New Orleans, Louisiana. July 28 – August 1, 2014.

**Hester, M. W**., J. M. Willis, and K. F. Kubiak. Response of Thick Mat Floating Marsh to Nitrate and Phosphate Loadings Under Fresh and Oligohaline Conditions. Joint Aquatic Sciences Meeting. Portland, Oregon. May 19 – 23, 2014.

Sloey, T. M. and **M. W. Hester**. Hydrologic and Edaphic Constraints on Vegetation Expansion in a Freshwater Tidal Marsh: Recommendations for Restoration. Joint Aquatic Sciences Meeting. Portland, Oregon. May 19 – 23, 2014.

Hundy, L. C.and **M. W. Hester.** Plant Community Composition in Restored Salt Marshes: Understanding the Relationships between Elevation, Soil Type and the Restored Community. Joint Aquatic Sciences Meeting. Portland, Oregon. May 19 – 23, 2014.

Yando, E. S., M. J. Osland,and **M. W. Hester.** Micro-spatial Examination of Above- and Belowground Processes at the Salt Marsh-Magrove Ecotone in the Northern Gulf of Mexico. Joint Aquatic Sciences Meeting. Portland, Oregon. May 19 – 23, 2014.

**Hester, M. W**., J. M. Willis. Black mangrove (*Avicennia germinans*) Restoration Ecology: Understanding Tolerance Limits to Guide Restoration. State of the Coast Conference. New Orleans, Louisiana. March 18 - 20, 2014.

Jones, S. F., C. L. Stagg, S. A. Graham, I. A. Mendelssohn, and **M. W. Hester.** Elevation Change in a Sediment-Slurry Amendment Restoration Site in Port Fourchon, Louisiana. State of the Coast Conference. New Orleans, Louisiana. March 18 - 20, 2014.

Sloey, T. M. and **M. W. Hester**. Limitations of Hydrologic Regime on *Schoenoplectus spp.* Survival and Establishment: Implications for Marsh Restoration. State of the Coast Conference. New Orleans, Louisiana. March 18 - 20, 2014.

Hundy, L. C., M. J. Osland, J. M. Willis, R. H. Day, and **M. W. Hester.** Effect of Elevation and Soil Properties on Black Mangrove (*Avicennia germinans*) Survival and Growth in a Created Tidal Saline Wetland. State of the Coast Conference. New Orleans, Louisiana. March 18 - 20, 2014.

Yando, E. S., M. J. Osland,J. M. Willis, R. H. Day, K. W. Krauss, and **M. W. Hester**  Salt Marsh-Mangrove Structural Gradients: Implications for Restoration within a Shifting Ecotone in Louisiana and across the Northern Gulf of Mexico. State of the Coast Conference. New Orleans, Louisiana. March 18 - 20, 2014.

Willis, J. M. and **M. W. Hester**. Mesocosm assessment of *Spartina alterniflora* growth responses to weathered Macondo **w**ell oil applied to aboveground tissues and soil. 22nd Biennial Conference of the Coastal and Estuarine Research Federation. San Diego, California. November 3 - 7, 2013.

Yando, E. S., M. J. Osland, J. M. Willis, R. H Day, K. W. Krauss, and **M. W. Hester**. Salt marsh-mangrove ecotones in the Northern Gulf of Mexico: a comparison of plant-soil variability across structural gradients. 22nd Biennial Conference of the Coastal and Estuarine Research Federation. San Diego, California. November 3 - 7, 2013

**Hester, M. W**., and J. M. Willis, and T. M. Sloey. Insights into Vegetation Colonization and Expansion Dynamics at a Tidal Freshwater Restoration Site in the Sacramento/San Joaquin Delta, California. State of the Estuary Conference. Oakland, California. October 28 – 30, 2013.

Sloey, T. M., and **M. W. Hester**. Effects of hydrologic regime on soil physicochemistry and tidal freshwater macrophyte survival. Society of Wetland Scientists South Central Chapter Meeting. Starkville, Mississippi. October 17 - 19, 2013.

Jones, S. F., C. L. Stagg, C. M. Swarzenski, and **M. W. Hester**. Effects of Climate Change on Community Structure and Resilience in Smooth Cordgrass (*Spartina alterniflora*) Dominated Salt Marsh. Society of Wetland Scientists South Central Chapter Fall Meeting. Starkville, Mississippi. October 17 -1 9, 2013.

Hundy, L. C., and **M. W. Hester**. Relationships between soil properties, elevation and plant community composition in restored salt marshes. 22nd Annual Conference of the Society of Wetland Scientists South Central Chapter. Starkville, Mississippi. October 17 - 19, 2013.

Yando, E. S., M. J. Osland, J. M. Willis, R. H Day, K. W. Krauss, **M. W. Hester**. Mangrove structural gradients: A comparison of plant-soil interactions across salt marsh-mangrove ecotones. 22nd Annual Fall Society for Wetland Scientists- South Central Chapter Meeting. Starkville, Mississippi. October 17 - 19, 2013.

**Hester, M. W**., and J. M. Willis. Mangrove response to sea-level rise in the Florida Keys, USA. INTECOL International Ecological Congress. London, UK, August 18 – 23, 2013.

**Hester, M. W**., and J. M. Willis. Response of mangroves to sea-level rise: Limitations on upslope migration in the Florida Keys, USA. Society for Wetland Scientists. Duluth, Minnesota, June 2 – 6, 2013.

Sloey, T. M., and **M. W. Hester**. Seed Ecology and Transplant Success of *Schoenoplectus acutus, S. californicus, and Typha latifolia* at Liberty Island, California: Applications to Restoration. Bay Delta Science Conference. Sacramento, California, October 16 - 18, 2012.

Willis, J. M., and **M. W. Hester.** Relationship between elevation, edaphic characteristics, and patterns of *Schoenoplectus californicus* abundance and distribution at Liberty Island, California. Bay Delta Science Conference. Sacramento, California, October 16 -18, 2012.

**Hester, M. W**., and J. M. Willis. Potential Constraints on Mangrove Response to Sea-Level Rise in the Florida Keys, USA. Coastal and Estuarine Research Federation International Conference, Mar Del Plata, Argentina, November 11 – 14, 2012.

**Hester, M. W**., and J. M. Willis. Evaluation of techniques to enhance plant establishment success at barrier island dune and swale restoration sites. State of the Coast Conference. New Orleans, Louisiana. June 25 – 27, 2012.

Willis, J. M., M. Dupuis, C. N. Pickens, and **M. W. Hester**. Range-finding studies to optimize use of commercially-prepared humic acid for the enhancement of barrier island planting success. State of the Coast. New Orleans, Louisiana. June 25 - 27, 2012.

Willis, J. M., and **M. W. Hester**. Soil development and mangrove establishment in the Lower Florida Keys, USA. 50th Estuarine & Coastal Sciences Association Conference. Venice, Italy. June 3 - 7, 2012.

Pickens, C. N. and **M. W. Hester.** Measuring back-barrier marsh restoration success and failure in centimeters. State of the Coast Conference. New Orleans, Louisiana. June 25 – 27, 2012.

Sloey, T. M., and **M. W. Hester.** Environmental constraints on the establishment and expansion of three species of freshwater tidal marsh macrophytes (*Schoenoplectus acutus, S. californicus and T. latifolia*): Implications for restoration. State of the Coast Conference. New Orleans, Louisiana. June 25 – 27, 2012.

Dupuis, M. J., and **M. W. Hester**. Establishment Techniques for *Baccharis halimifolia* at Coastal Restoration Sites. State of the Coast Conference. New Orleans, Louisiana. June 25 – 27, 2012.

Pickens, C. N., K. L. McKee, and **M. W. Hester**. Considering nitrogen and black mangrove (*Avicennia germinans*) in context: Lessons learned. 9th INTECOL International Wetlands Conference. Orlando, Florida. June 3 - 8, 2012.

Sloey, T. M., and **M. W. Hester.** Environmental constraints and species differences in establishment and expansion of three freshwater tidal marsh plant species. 9th INTECOL International Wetlands Conference. Orlando, Florida. June 3 -8 , 2012.

Dupuis, M. J., and **M. W. Hester**. Evaluation of *Baccharis halimifolia* establishment techniques for coastal restoration. Society of Wetland Scientist South Central Chapter Conference. Lafayette, Louisiana. October 20 - 22, 2011.

Sloey, T. M., and **M. W. Hester.**  Environmental constraints on the establishment and expansion of a tule marsh in the Sacramento-San Joaquin Bay Delta: Preliminary results. Society of Wetlands Scientists South Central Chapter Meeting. Lafayette, LA. October 21 - 22, 2011.

**Hester, M. W**., M. J. Dupuis, M. J., C. J. Pickens, and J. M. Willis. Potential for humic acid amendment in facilitating plant establishment in coastal dune and swale environments. 21st Biennial Conference of the Coastal and Estuarine Research Federation. Daytona Beach, Florida. November 6 - 10, 2011.

Pickens, C. N. and **M. W. Hester.** Ecophysiological response of a mangrove-salt marsh association to elevated carbon dioxide and nitrogen supply. 21st Biennial Conference of the Coastal and Estuarine Research Federation. Daytona Beach, Florida. November 6 - 10, 2011.

Willis, J. M., M. J. Dupuis, M. J., C. J. Pickens, and **M. W. Hester**. Determining the toxic, beneficial, and no-effect endpoints of a commercially available soil amendment for coastal restoration application. 21st Biennial Conference of the Coastal and Estuarine Research Federation. Daytona Beach, Florida. November 6 - 10, 2011.

Sloey, T. and **M. W. Hester**. Environmental constraints on the establishment and expansion of *Schoenoplectus acutus, Schoenoplectus californicus* and *Typha latifolia*in a freshwater tidal marsh: Applications to restoration ecology. 21st Biennial Conference of the Coastal and Estuarine Research Federation. Daytona Beach, Florida. November 6 - 10, 2011.

Dupuis, M. J., and **M. W. Hester**. *Baccharis halimifolia* applied using hydromulch may increase germination success at coastal restoration sites. 21st Biennial Conference of the Coastal and Estuarine Research Federation. Daytona Beach, Florida. November 6 - 10, 2011.

**Hester, M. W.**, T. E. Crane, C. E. Mayence2, and J. M. Willis. Constraints on baldcypress regeneration and stand dynamics in the Lake Pontchartrain Basin: Field germination trials and dendrochronology. Tenth Biennial Basics of the Basin Research Symposium. Hammond, Louisiana. October 27 - 29, 2011.

Kaller, M. J. and **M. W. Hester**. Role of nutrient enrichment, disturbance, dispersal, and herbivory on oligohaline/mesohaline marsh transitions. Tenth Biennial Basics of the Basin Research Symposium. Hammond, Louisiana. October 27 - 29, 2011.

Meert, D., and **M. W. Hester**. Response of a Louisiana oligohaline marsh plant community to nutrient availability and disturbance. Tenth Biennial Basics of the Basin Research Symposium. Hammond, Louisiana. October 27 - 29, 2011.

Willis, J. M. and **M. W. Hester**. Edaphic and vegetative controls on mercury cycling in the Lake Maurepas Wetlands. Tenth Biennial Basics of the Basin Research Symposium. Hammond, Louisiana. October 27 - 29, 2011.

Willis, J. M., S. M. Fearnley, R. Stoessell, and **M. W. Hester**. Management of drainage-ditch systems for water quality enhancement on the north shore of Lake Pontchartrain. Tenth Biennial Basics of the Basin Research Symposium. Hammond, Louisiana. October 27 - 29, 2011.

Pickens, C. N., K. L. McKee, and **M. W. Hester.** Ecophysiological response of a mangrove-salt marsh association to elevated carbon dioxide and nitrogen supply. Society for Wetland Scientists. Prague, Czech Republic. July 3 – 8, 2011.

**Hester, M. W.**, and J. M. Willis. Factors controlling the expansion of *Schoenoplectus californicus* (tule) in the Liberty Island wetland system. State of the Estuary Conference, Oakland, California, September 19 - 21, 2011.

Sloey, T., and M. W. **Hester**. Species differences in wetland vegetation establishment and expansion at Liberty Island, California. State of the Estuary Conference, Oakland, California, September 19 - 21, 2011.

**Hester, M. W.**, and J. M. Willis. Constraints on the expansion of *Schoenoplectus californicus* (tule) in the Liberty Island wetland system. Bay Delta Science Conference. Sacramento, California, September 27 - 29, 2010.

**Hester, M. W.**, M. D. Dupuis, C. J. Pickens, and J. M. Willis. Evaluation of humic acid amendment in facilitating plant establishment in coastal environments. 7th Society for Ecological Restoration European Conference on Ecological Restoration. Avignon, France. August 23 - 27, 2010.

Willis, J. M., M. D. Dupuis, C. J. Pickens, and **M. W. Hester**. Elucidating the beneficial and toxic endpoints of a soil conditioning agent (commercial humic acid) in a coastal plant restoration. 7th Society for Ecological Restoration European Conference on Ecological Restoration. Avignon, France. August 23 - 27, 2010.

Pickens, C. N., K. L. McKee, and **M. W. Hester**. Will the *Avicennia-Spartina* association be a component of a sustainable Louisiana coast? State of the Coast Conference: Implementing a Sustainable Coast in Louisiana. Baton Rouge, Louisiana. June 8 – 10, 2010.

Alleman, L. K., and **M. W. Hester**. Refinement of Black Mangrove’s Restoration Template in Coastal Louisiana. State of the Coast Conference: Implementing a Sustainable Coast in Louisiana. Baton Rouge, Louisiana*.* June 8 – 10, 2010.

Willis, J. M., R. P. Gambrell, and M. W. Hester. Mercury Concentrations in the Soils and Vegetation of the Lake Maurepas Wetlands and Potential Responses to Increased Nutrient Loading. State of the Coast Conference: Implementing a Sustainable Coast in Louisiana. Baton Rouge, Louisiana. June 8 – 10, 2010.

Dupuis, M. D., and **M. W. Hester.** Soil Amendments May Improve Establishment of *Baccharis halimifolia*at Coastal Restoration Sites. State of the Coast Conference: Implementing a Sustainable Coast in Louisiana. Baton Rouge, Louisiana. June 8 – 10, 2010.

Pickens, C. N., K. L. McKee, and **M. W. Hester.** Shifts in root productivity and morphology of a mangrove-salt marsh association in response to elevated CO2 and nitrogen supply. Society of Wetland Scientists 31st Annual Meeting, Salt Lake City, Utah. June 27 – July 2, 2010.

Dupuis, M. D., and **M. W. Hester.** Methods for enhancing establishment of *Baccharis halimifolia* at coastal restoration sites. Society of Wetland Scientists 31st Annual Meeting, Salt Lake City, Utah. June 27 – July 2, 2010.

Willis, J.M., **M.W. Hester**, and R.P. Gambrell. Phytoaccumulation of mercury by *Pontedaria cordata*, *Sagittaria lancifolia*, and *Polygonum punctatum* exposed to elevated aqueous mercury. Society of Environmental Toxicology and Chemistry North America 30th meeting. New Orleans, Louisiana. November 19-23, 2009.

Pickens, C. N., K. L. McKee, and **M. W. Hester**. Getting below the surface: Impacts of elevated CO2 and nitrogen supply on mangrove-marsh associations. Coastal and Estuarine Research Federation 20th Biennial Conference, Portland, Oregon. November 1– 5, 2009.

Alleman, L. K., and **M. W. Hester**. Restoration ecology of black mangroves in coastal Louisiana: Coupling population dynamics with ecophysiology. Coastal and Estuarine Research Federation 20th Biennial Conference, Portland, Oregon. November 1– 5, 2009.

Dupuis, M. D., and **M. W. Hester**. Effects of burial depth, precipitation regime, and sediment organic matter on *Baccharis halimifolia* (groundsel bush) germination response. Coastal and Estuarine Research Federation 20th Biennial Conference, Portland, Oregon. November 1– 5, 2009 (3rd Place Graduate Student Poster Competition).

Willis, J. M., R. P. Gambrell, and **M. W. Hester**. Impacts of altered surface-water nutrients on sediment methyl mercury concentration and related biogeochemical and microbial indicators. Coastal and Estuarine Research Federation 20th Biennial Conference, Portland, Oregon. November 1– 5, 2009.

McFarlin, C., T. D. Bishop, M. Alber and **M. W. Hester.** Variation in benthic invertebrate presence and abundance related to altered *Spartina alterniflora* density. Coastal and Estuarine Research Federation 20th Biennial Conference, Portland, Oregon. November 1– 5, 2009.

Joye, S. B., P. Baas, C. Hyacinthe, V. A. Samarkin, and **M. W. Hester.** Biogeochemical signatures and microbial activity in sediments impacted by salt marsh dieback. Coastal and Estuarine Research Federation 20th Biennial Conference. November 1-5, 2009. Portland, Oregon.

**Hester, M. W.**, I. A. Mendelssohn, M. Alber, and M. Joye. Climate-linked alteration of ecosystem services in meso- and micro-tidal salt marshes of the southeastern United States. 10th International Congress of Ecology. August 16-21, 2009. Brisbane, Australia.

**Hester, M. W.**, L. Alleman, and C. Pickens. Status of black mangrove (*Avicennia germinans*) restoration ecology in Louisiana, USA: Insights for a changing world. Society for Ecological Restoration International World Conference on Ecological Restoration. August 23-27, 2009. Perth, Australia.

Alleman, L. K., **and M. W. Hester**. Effect of age and elevation on black mangrove success. Invited Symposium: Physiological Ecology of Wetlands: Translating Process-based Studies into Important Management Insights. Society of Wetland Scientists 30th Annual Meeting. June 21-26, 2009. Madison, Wisconsin.

Baustian, J., I. A. Mendelssohn, **and M. W. Hester**. Remediating the effects of sudden marsh dieback through vegetative plantings: impacts on elevation change and belowground processes. Society of Wetland Scientists 30th Annual Meeting. June 21-26, 2009. Madison, Wisconsin.

Willis, J. M., R. P. Gambrell, **and M. W. Hester**. Photosynthetic response and phytoaccumulation trends of *Pontedaria cordata, Sagittaria lancifolia*, and *Polygonum punctatum* exposed to elevated levels of mercury. Poster. Society of Wetland Scientists 30th Annual Meeting. June 21-26, 2009*.* Madison, Wisconsin.

Willis, J. M., **M. W. Hester**, and R. P. Gambrell. An investigation of mercury uptake by *Pontedaria cordata*, *Polygonum punctatum*, and *Sagittaria lancifolia* in a greenhouse setting. Association of Southeastern Biologists 70th Annual Meeting. April 1-4, 2009. Birmingham, Alabama.

**Hester, M. W.**, and J. M. Willis. Status and trends of the Bucktown created marsh: A south shore success story? Basics of the Basin 9th Biennial Research Symposium (Pontchartrain Research Committee & Gulf Estuarine Research Society Joint Meeting). New Orleans, Louisiana. November 5 – 7, 2008.

Willis, J.M., **M.W. Hester**, R.P. Gambrell. Baseline concentrations of mercury and methyl mercury in the sediments and vegetation of an oligohaline wetland. Society of Environmental Toxicology and Chemistry North America 29th meeting. Tampa, Florida. November 16 - 20, 2008.

Alleman, L. K., and **M.W. Hester**. Trade-offs between growth and reproduction following hurricane disturbances in a Louisiana black mangrove population. Basics of the Basin 9th Biennial Research Symposium (Pontchartrain Research Committee & Gulf Estuarine Research Society Joint Meeting). New Orleans, Louisiana. November 5 – 7, 2008.

(3rd Place Student Oral Presentation Competition).

Pickens, C. N., and **M. W. Hester**. Impact of cold temperatures on early life history stages of black mangrove (*Avicennia germinans*): Implications for restoration. Basics of the Basin 9th Biennial Research Symposium (Pontchartrain Research Committee & Gulf Estuarine Research Society Joint Meeting). New Orleans, Louisiana. November 5 – 7, 2008.

**Hester, M. W.**, and J. M. Willis. Potential for enhanced restoration success of key barrier island plant species through humic acid amendment. Restore America’s Estuaries 4th National Conference on Coastal and Estuarine Habitat Restoration. Providence, Rhode Island. October 11-15, 2008.

Pickens, C. N. and **M. W. Hester**. Impact of Cold Temperatures on Early Life History Stages of Black Mangrove (*Avicennia germinans* (L.) L.): Implications for Restoration. Restore America’s Estuaries 4th National Conference on Coastal and Estuarine Habitat Restoration. Providence, Rhode Island. October 11-15, 2008. (Poster, 1st Place Student Poster Competition).

Alleman, L. K., and **M. W. Hester**. Physiological tolerances of black mangroves: Designing successful barrier island restoration. Restore America’s Estuaries 4th National Conference on Coastal and Estuarine Habitat Restoration. Providence Rhode Island. October 11-15, 2008. (Poster, 2nd Place Student Poster Competition).

Willis, J.M., **M.W. Hester**, and R.P. Gambrell. An assessment of mercury cycling in a Louisiana oligohaline wetland using structural equation modeling. Society of Wetland Scientists South Central & South Atlantic Joint Chapter Meeting. Tuscaloosa, Alabama. October 9-11, 2008.

**Hester, M. W.**, I. A. Mendelssohn, M. Joye, and M. Alber**.** Climate-linked alteration of ecosystem services in tidal salt marshes of Georgia and Louisiana: Preliminary findings. Estuarine Research Federation 19th Biennial Conference. Providence, Rhode Island. November 4 – 8, 2007.

McFarlin, C. R., B. Kenemer, M. Alber, **M. W. Hester**, and D. Bishop. A comparison of dieback effects on salt marsh invertebrates in Georgia and Louisiana. Estuarine Research Federation 19th Biennial Conference. Providence, Rhode Island. November 4 – 8, 2007.

Mayence, C. E., and **M. W. Hester**. The influence of manipulated environmental conditions on *Panicum hemitomon* growth response within the context of thick-mat floating marsh creation, Louisiana, USA. Society of Wetland Scientists 28th Annual Meeting. June 10-15, 2007. Sacramento, California.

Mayence, C. E., and **M. W. Hester**. Assessing multi-species plantings on the vegetative development of thick-mat floating marsh, Louisiana, USA. Society of Wetland Scientists 28th Annual Meeting. June 10-15, 2007. Sacramento, California.

**Hester, M. W.**, J. M. Willis, and D. Lee. Assessment of cost-effective methods of enhancing vegetation success in barrier island restoration projects (poster presentation). CREST Conference Advances in Coastal Restoration Research. May 17, 2007. Baton Rouge, Louisiana.

Henkel, T. K., J. M. Willis, P. Taylor, and **M. W. Hester**. Effect of elevation and enclosure on black mangrove (*Avicennia germinans)* propagule establishment. CREST Conference Advances in Coastal Restoration Research. May 17, 2007. Baton Rouge, Louisiana.

Henkel, T. K., J. M. Willis, P. Taylor, and **M. W. Hester**. Effect of light availability on black mangrove (*Avicennia germinans)* propagule establishment. CREST Conference Advances in Coastal Restoration Research. May 17, 2007. Baton Rouge, Louisiana.

Joye, S. B., K. S. Hunter, M. Bernier, I. A. Mendelssohn, M. Alber, and **M. W. Hester.** Climate-linked alteration of ecosystem services in tidal salt marshes of Georgia and Louisiana. 10th International Symposium on Wetlands Biogeochemistry. April 1-4, 2007. Annapolis, Maryland.

Willis, J. M., S. M. Fearnley, and **M. W. Hester**. Management of drainage-ditch systems to reduce nutrient input into Lake Pontchartrain in the face of increased human population pressure. Restore America’s Estuaries 3rd National Conference. December 9 – 13, 2006. New Orleans, Louisiana.

Henkel, T. K., and **M. W. Hester**. Effect of light and elevation on black mangrove (*Avicennia germinans*) propagule establishment. Restore America’s Estuaries 3rd National Conference. December 9 – 13, 2006. New Orleans, Louisiana.

Meert, D. R., and **M. W. Hester**. Response of the oligohaline marsh community at Big Branch National Wildlife Refuge (Louisiana, USA) to nutrient loading and disturbance. Restore America’s Estuaries 3rd National Conference. December 9 – 13, 2006. New Orleans, Louisiana.

**Hester, M. W.**, J. M. Willis, C. E. Mayence, and T. E. Crane. Environmental constraints on the establishment of baldcypress (*Taxodium distichum*) in the Lake Maurepas Basin, Louisiana. Society of Wetland Scientists 27th Annual Meeting. July 9 – 14, 2006. Cairns, Australia.

Willis, J. M., and **M. W. Hester**. Management of drainage-ditch systems for water quality enhancement in southeastern Louisiana, USA. Society of Wetland Scientists 27th Annual Meeting. July 9 – 14, 2006. Cairns, Australia.

Mayence, C. E., and **M. W. Hester**. Optimizing growth and performance of maidencane (*Panicum hemitomon*) for use in the creation of thick-mat floating marsh. Society of Wetland Scientists 27th Annual Meeting. July 9 – 14, 2006. Cairns, Australia.

Willis, J. M., and **M. W. Hester**. Water quality trends in drainage-ditch systems along the north shore of Lake Pontchartrain. Louisiana Academy of Sciences 80th Annual Meeting. March 10, 2006. Lafayette, Louisiana.

Meert, D. R., and **M. W. Hester**. Effects of N and P loading and disturbance on a Louisiana oligohaline marsh plant community. Louisiana Academy of Sciences 80th Annual Meeting. March 10, 2006. Lafayette, Louisiana.

Mendelssohn, I. A.,S. Faulkner,R. P. Gambrell, **M. W. Hester**, K. L. McKee, C. Swarzenski, R. Twilley. Sudden salt marsh dieback in the northern Gulf of Mexico: An update on causation. Estuarine Research Federation Meeting. September 16 – 21, 2005. Norfolk, Virginia.

**Hester, M. W.**, and K. J. Fisher. Freshwater floating marsh sustainability: a balancing act between saltwater intrusion and nutrient loading? Society of Wetland Scientists 26th Annual Meeting. June 5 – 10, 2005. Charleston, South Carolina.

Mayence, C. E., and **M. W. Hester**. Evaluating growth characteristics of maidencane (*Panicum hemitomon*) for use in the restoration of freshwater floating marsh. Society of Wetland Scientists 26th Annual Meeting. June 5 – 10, 2005. Charleston, South Carolina.

**Hester, M. W.**, J. M. Willis, and D. Lee. Assessment of cost-effective methods of enhancing vegetation success in barrier island restoration projects (poster presentation). CREST Symposium. Progress in Understanding Coastal Land Loss and Restoration in Louisiana. Lafayette, Louisiana. April 12 – 13, 2005.

Mayence, C. E., and **M. W. Hester**. Evaluating growth characteristics of maidencane (*Panicum hemitomon*) for use in the restoration of freshwater floating marsh. Joint meeting of the Gulf Estuarine Research Society and the South Central and South Atlantic Chapters of the Society of Wetland Scientists. Pensacola, Florida. March 30 - April 2, 2005.

Willis, J. M., **M. W. Hester**, K. L. McKee and I. A. Mendelssohn. Evaluation of environmental drivers associated with a salt marsh dieback event using photosynthetic response data. Joint meeting of the Gulf Estuarine Research Society and the South Central and South Atlantic Chapters of the Society of Wetland Scientists. Pensacola, Florida. March 3) - April 2, 2005.

**Hester, M. W.**, J. M. Willis, and D. Lee. Assessment of cost-effective methods of enhancing vegetation success in barrier island restoration projects. Environmental State of the State IX Conference. Environmental Research Consortium of Louisiana. University of New Orleans, New Orleans, Louisiana. October 22, 2004.

**Hester, M. W.**, I. A. Mendelssohn, D. J. Reed, and M. A. Ford. Value of north shore marshes in improving lake water quality: Assessment of sustainability under increased nutrient loading rates and rising sea levels. Environmental State of the State IX Conference. Environmental Research Consortium of Louisiana. University of New Orleans, New Orleans, Louisiana. October 22, 2004.

Willis, J. M., **M. W. Hester**, K. L. McKee and I. A. Mendelssohn. Drought-induced salt marsh dieback in North America: Assessment of multiple stressors using photosynthetic response data. 7th International Ecological Congress. Symposium: Wetland plant responses to multiple environmental stressors. Utrecht, The Netherlands. July 25 – 30, 2004.

**Hester, M. W.**, and K. J. Fisher. Response of *Panicum hemitomon* floating freshwater marsh to increased salinity levels and nutrient loading rates. Estuarine Research Federation 17th Biennial International Conference. Seattle, Washington. September 14-18, 2003.

Mendelssohn, I. A., K. L. McKee, Q. Lin, and **M. W. Hester**. Sudden salt marsh dieback in the northern Gulf of Mexico: A potential climate change scenario. Estuarine Research Federation 17th Biennial International Conference. Seattle, Washington. September 14-18, 2003

Willis, J. M., **M. W. Hester**, K. L. McKee and I. A. Mendelssohn. Investigations of a coast-wide *Spartina alterniflora* marsh dieback event: Preliminary results of environmental tolerance trials. Ecological Society of America 88th annual meeting. Savannah, Georgia. August 3-8, 2003.

Kaller, M.J., and **M.W. Hester**. Herbivory, fertilization, and disturbance effects on a reciprocal transplant study in Louisiana: Investigations in an oligohaline and a degraded, transitional mesohaline marsh. Society of Wetland Scientists 24th Annual Meeting, New Orleans, Louisiana. June 8-13, 2003.

Willis, J. M., **M. W. Hester**, G. P. Shaffer. Simulated, hematite-based drill cuttings as a substrate for wetland restoration: plant growth responses and contaminant levels. Society of Wetland Scientists 24th annual meeting. New Orleans, Louisiana. June 8-13, 2003.

Kaller, M. J. and **M. W. Hester**. Effects of herbivory, nutrient addition, and disturbance in a reciprocal transplant study between an oligohaline and mesohaline marsh in southeastern Louisiana. Botany 2003, The Botanical Society of America Annual Meeting. Mobile, Alabama. July 26-31, 2003.

Kaller, M. K., and **M. W. Hester**. 2002. Effects of fertility, disturbance, and herbivory on reciprocally transplanted sods in a Louisiana intermediate and brackish marsh. 6th Bi-Annual Basics of the Basin Research Symposium. University of New Orleans. May 16-17, 2002.

Willis, J. M., **M. W. Hester**, and G. P. Shaffer. 2002. Preliminary investigations of a new drilling mud formulation for use in wetland rehabilitation. 6th Bi-Annual Basics of the Basin Research Symposium. University of New Orleans. May 16-17, 2002.

Shaffer, G. P., S. S. Hoeppner, J. M. Willis, S. Howell, C. Parsons, and **M. W. Hester**. 2002. A feasibility study of a diversion into the degraded swamps of Lake Maurepas: an overview. Gulf Estuarine Research Society Meeting. University of New Orleans. May 16-17, 2002.

Spalding, E. A., and **M. W. Hester**. 2002. Interactive effects of salinity and hydrology on plant species performance and community composition. 6th Bi-Annual Basics of the Basin Research Symposium. University of New Orleans. May 16-17, 2002.

Spalding, E. A., and **M. W. Hester**. 2001. Species and community response of *Panicum hemitomon, Sagittaria lancifolia*, and *Spartina patens* to sea-level rise scenarios. Estuarine Research Federation 16th Biennial International Conference. St. Pete Beach, Florida. November 4–8, 2001.

Shaffer, G., J. Willis, S. Hoeppner, C. Parsons, and **M. W. Hester**. 2001. Feasibility study of a diversion of the Mississippi River into the Maurepas swamps, Louisiana. Estuarine Research Federation 16th Biennial International Conference. St. Pete Beach, Florida. November 4–8, 2001.

Willis, J., G. Shaffer, S. Hoeppner, C. Parsons, and **M. W. Hester**. 2001. Elucidating benefits of nutrient addition in the Lake Maurepas wetlands: edaphic and herbaceous response. Estuarine Research Federation 16th Biennial International Conference. St. Pete Beach, Florida. November 4–8, 2001.

Fisher, K. J., and **M. W. Hester**. 2001. Floating marsh response to increased salinity and nutrient levels: a mesocosm investigation. Society of Wetland Scientists 22nd Annual Meeting. Chicago, Illinois. May 27 – June 1, 2001.

Willis, J., D. DesRoches, S. Miller, G. P. Shaffer, and **M. W. Hester**. 2001. Mesocosm evaluations of processed drill cuttings: can they be used in the restoration of coastal wetlands? Coastal Zone 01. Cleveland, Ohio. July 15-19, 2001.

Fisher, K. J., and **M. W. Hester**. 2001. A Mesocosm Investigation of floating marsh response to increased salinity and nutrient levels. Association of Southeastern Biologists 62nd Annual Meeting. New Orleans, Louisiana. April 4-7, 2001.

Willis, J. M., **M. W. Hester,** and G. P. Shaffer, D. J. DesRoches, and S. Miller. 2000. Processed drill cuttings as potential substrates for wetland creation: an overview of Southeastern Louisiana University’s research. Gulf Estuarine Research Society, Fall 2000 Meeting. Hammond Louisiana, November 13-14, 2000.

Fisher, K. J., E. A. Spalding, and **Mark W. Hester**. 2000. Wetland mesocosm investigations: Flotant response to increased salinity and nutrient levels, and competitive ability of *Panicum hemitomon, Sagittaria lancifolia,* and *Spartina patens* to global sea-level rise scenarios. Gulf Estuarine Research Society, Fall 2000 Meeting. Hammond Louisiana, November 13-14, 2000.

Willis, J. M., **M. W. Hester,** and G. P. Shaffer. 2000. A mesocosm evaluation of restored drill cuttings as an alternative sediment for wetland creation under elevated salinity levels. Association of Southeastern Biologists, 61st Annual Meeting. Chattanooga, Tennessee, April 5-8, 2000.

Fisher, K. J., and **M. W. Hester**. 1999. Growth response of *Panicum hemitomon* to global sea-level rise scenarios. Society of Wetland Scientists, South Central Chapter, 1999 Annual Meeting. Lafayette, Louisiana. November 5-6, 1999.

Willis, J. M., **M. W. Hester,** and G. P. Shaffer. 1999. Evaluation of restored drill cuttings as a novel sediment for wetland creation under elevated salinity levels. Society of Wetland Scientists, South Central Chapter, 1999 Annual Meeting. Lafayette, Louisiana. November 5-6, 1999.

**Hester, M. W.**, and I. A. Mendelssohn. 1999. Long-term recovery of a Louisiana brackish marsh from oiling: experimental manipulation of elevation and sediment. Estuarine Research Federation 15th International Conference. New Orleans, Louisiana. September 25-30, 1999.

Lin, Q., I. A. Mendelssohn, **M. W. Hester**, E. C. Webb, and C. B. Henry, Jr. 1999. Effect of oil cleanup methods on ecological recovery and oil degradation of *Phragmites* marshes. Proceedings: 1999 International Oil Spill Conference. Seattle, Washington. March 8-11, 1999.

Willis, J. M., and **M. W. Hester**. 1999. Effects of global sea-level rise scenarios on a Louisiana fresh marsh species: a greenhouse approach. Estuarine Research Federation 15th International Conference. New Orleans, Louisiana. September 25-30, 1999.

Shaffer, G. P., R. A. Dowty, **M. W. Hester**, G. W. Childers, M. C. Greene, and F. M. Campo. 1999. Bioremediation of small-scale oil spills in fresh marsh habitats. Estuarine Research Federation 15th International Conference. New Orleans, Louisiana. September 25-30, 1999.

Campo, F. M., G. P. Shaffer, **M. W. Hester,** and D. W. Llewellyn. 1999. In-situ hurricane simulations on two age classes of baldcypress seedlings. Estuarine Research Federation 15th International Conference. New Orleans, Louisiana. September 25-30, 1999.

DesRoches, D. J. G. P. Shaffer, and **M. W. Hester**. 1999. A mesocosm approach to determine the suitability of restored rill cuttings for use in wetland creation. Estuarine Research Federation 15th International Conference. New Orleans, Louisiana. September 25-30, 1999.

**Hester, M. W**., and I. A. Mendelssohn. 1999. Long-term vegetative recovery from an oil spill in a Louisiana salt marsh: experimental manipulations of elevation and sediment. Association of Southeastern Biologists 60th Annual Meeting. Wilmington, North Carolina. April 14-16, 1999.

Willis, J. M., and **M. W. Hester**. 1999. Effects of salinity, flooding depth, and soil organic content on *Panicum hemitomon* adventitious root production and biomass partitioning. Association of Southeastern Biologists 60th Annual Meeting. Wilmington, North Carolina. April 14-16, 1999.

Dowty, R. A., **M. W. Hester**, G. P. Shaffer, G. W. Childers, and J. M. Willis. 1998. Bioremediation of small-scale oil spills in fresh marshes. Society of Wetland Scientists, South Central Chapter, 1998 Annual Meeting. Memphis, Tennessee. October 22-24, 1998.

DesRoches, D. J., G. P. Shaffer,and **M. W. Hester**. 1998. Restored drill cuttings: a mesocosm approach to determine the suitability as a substrate. Society of Wetland Scientists, South Central Chapter, 1998 Annual Meeting. Memphis, Tennessee. October 22-24, 1998.

**Hester, M. W**., Q. Lin, and I. A. Mendelssohn. 1997. Intraspecific variation in response to oiling in the coastal grass *Spartina patens*. 14th Annual International Conference of the Estuarine Research Federation, Providence, Rhode Island. October 12-16, 1997.

**Hester, M. W**., Q. Lin, and I. A. Mendelssohn. 1996. Feasibility of selecting superior oil-tolerant populations of *Spartina patens*. 16th Annual Minerals Management Service, Gulf of Mexico OCS Region Information Transfer Meeting. New Orleans, Louisiana. December 10-12, 1996.

**Hester, M. W**., I. A. Mendelssohn, and K. L. McKee. 1996. Investigations of intraspecific variation in salt tolerance in *Panicum hemitomon*. 47th AIBS Annual Meeting in conjunction with the Botanical Society of America, Seattle, Washington. August 4-8, 1996.

**Hester, M. W**., I. A. Mendelssohn, and K. L. McKee. 1996. Population variation in salt tolerance in *Panicum hemitomon*: morphological and physiological investigations. Basics of the Basin Research Symposium, Southeastern Louisiana University, Hammond, Louisiana. May 30-31, 1996.

**Hester, M. W**., I. A. Mendelssohn, and K. L. McKee. 1995. Intraspecific variation in salt tolerance in *Spartina alterniflora*: investigations of underlying factors. 13th Annual International Conference of the Estuarine Research Federation, Corpus Christi, Texas. November 7-11, 1995.

Courtemanche, R. P., **M. W. Hester**, and I. A. Mendelssohn. 1995. Response and recovery of the Isles Dernieres barrier island marsh plant community to hurricane-induced disturbance. 13th Annual International Conference of the Estuarine Research Federation, Corpus Christi, Texas. November 7-11, 1995.

**Graduate Students Supervised**

***Current Students***

Sanjana Banerjee. Ph.D. student in Environmental and Evolutionary Biology and ***Institute for Coastal and Water Research (ICaWR) Doctoral Fellow***. Co-chair with Paul Klerks (Chair). Dissertation research topic to be determined. Anticipated graduation May 2019.

Meagan M. McCoy. M.S. student in Biology and ***CSAP (Coastal Science Assistantship Program) Recipient***, University of Louisiana at Lafayette. Interactive Effects of Nutrient and Hydrologic Regimes on Structuring Fresh and Intermediate Plant Communities. Anticipated graduation May 2018.

Erik Yando. Ph.D. student in Environmental and Evolutionary Biology and ***University of Louisiana at Lafayette Doctoral Fellow***. University of Louisiana at Lafayette. Black Mangrove (*Avicennia germinans*) Expansion in Coastal Salt Marshes of the Northern Gulf of Mexico: Environmental Modulation and Alteration of Ecosystem Service Provision. Anticipated graduation 2018.

Scott Jones. Ph.D. student in Environmental and Evolutionary Biology and ***Board of Regents Doctoral Fellow in Environmental and Evolutionary Biology***. University of Louisiana at Lafayette. Effects of Environmental Alteration on Salt Marsh Plant Community Dynamics: Implications for Climate Change and Ecosystem Resilience. Anticipated graduation 2017.

***Graduated Students***

Laura Hundy. M.S. graduate in Biology and ***CSAP (Coastal Science Assistantship Program) Recipient***, University of Louisiana at Lafayette. 2015. Effect of Coastal Salt Marsh Restoration Site Age and Substrate Type on Plant Community Dynamics, Soil Development and Shear Strength.

Taylor Sloey. Ph.D. graduate in Environmental and Evolutionary Biology and ***Board of Regents Doctoral Fellow in Environmental and Evolutionary Biology***, University of Louisiana at Lafayette. 2015. Environmental Constraints on the Establishment and Expansion of Freshwater Tidal Macrophytes: Applications to Restoration Ecology.

Erik Yando. M.S. graduate in Biology, University of Louisiana at Lafayette. 2014. Black Mangrove (*Avicennia germinans*) Structural Gradients: A Comparison of Plant-Soil Interactions across Salt Marsh-Mangrove Ecotones.

Michael Dupuis. M.S. graduate in Biology and ***CSAP (Coastal Science Assistantship Program) Recipient***, University of Louisiana at Lafayette. 2012. Role of Species Interactions and Microsite Environment in the Establishment of *Baccharis halimifolia* in Restored Barrier Island Environments.

Christine Pickens. Ph.D. graduate in Environmental and Evolutionary Biology and ***Board of Regents Doctoral Fellow in Environmental and Evolutionary Biology***,University of Louisiana at Lafayette. 2012. Effects of Climate Change on the Restoration Ecology and Community Interactions of Black Mangrove, *Avicennia germinans.*

Taylor Sloey. M.S. graduate in Biology and ***University of Louisiana at Lafayette MS Fellow in Biology***, University of Louisiana at Lafayette. 2012***),*** Constraints on the Establishment and Expansion of Tule Marsh Species: Implications for Management and Restoration in the Sacramento/San Joaquin Delta, California.

Lauren K. Alleman. M.S. graduate in Biology and ***CSAP (Coastal Science Assistantship Program) Recipient***, University of Louisiana at Lafayette. 2010. Differential Tolerance of Seedlings and Propagules of Black Mangrove, *Avicennia germinans*: Enhancement of Coastal Restoration Design Templates.

Jonathan M. Willis. Ph.D. graduate in Oceanography and Coastal Sciences, Louisiana State University (co-chair with R. P. Gambrell). 2010. Edaphic Characteristics and Vegetative Controls Relevant to the Cycling of Mercury in Oligohaline Wetlands.

Danielle R. Meert. M.S. graduate in Biological Sciences, University of New Orleans. 2008. Responses of an Oligohaline Marsh Plant Community to Nutrient Availability and Disturbance, Louisiana, USA.

C. Ellery Mayence. Ph.D. graduate in Conservation Biology and ***EPA STAR Doctoral Fellowship Recipient***, University of New Orleans. 2007. Assessment of Growth Response and Patterns of Biomass Allocation by *Panicum hemitomon* Schultes: Implications for Thick-mat Floating Marsh Creation and Restoration.

Theryn K. Henkel. Ph.D. student and ***Board of Regents Doctoral Fellow in Conservation Biology***, University of New Orleans, Louisiana. 2005-2006. Restoration Enhancement of Black Mangrove, *Avicennia germinans*, in Coastal Louisiana: Assessment of Alternative Establishment Techniques and Environmental Limitations (Transferred to Tulane University post-Katrina and graduated).

Mathew J. Kaller, M.S. graduate in Biological Sciences, University of New Orleans. 2003. Environmental Drivers of Transitions between Oligohaline and Mesohaline Marshes: Effects of Herbivory, Nutrient Addition, and Disturbance.

Elizabeth A. Spalding, M.S. graduate in Biological Sciences, University of New Orleans. 2003. Species and Community Response of *Panicum hemitomon, Sagittaria lancifolia*, and *Spartina patens* to Altered Salinity and Hydrologic Regimes.

Kimberly J. Fisher. M.S. graduate in Biology, Southeastern Louisiana University. 2003. Response of *Panicum hemitomon*, a Fresh Marsh Dominant, to Environmental Change.

Jonathan M. Willis. M.S. graduate in Biology, Southeastern Louisiana University. 2000. A Simulation of Global Sea-Level Rise Stressors on a Louisiana Fresh Marsh Dominant, *Panicum hemitomon* Schult, and An Evaluation of Processed Drill Cuttings as Novel Sediments for Wetland Rehabilitation Under Different Salinity and Hydrologic Regimes.

Rachel A. Dowty. M.S. graduate in Biology, Southeastern Louisiana University. 1998. Wetland Restoration: the Bioremediation of Small-Scale Oil Spills in Fresh Marsh Environments and Investigations of Adventitious Rooting in Wetland Vegetation.

**Undergraduate Student Research**

Hester has supervised 35 undergraduate students (SLU, UNO, and UL, Lafayette combined) in the development and completion of independent research projects on topics of coastal restoration ecology, wetland and terrestrial plant ecology, and plant physiological ecology.

**Courses Taught (\*indicates new course offerings developed by Hester)**

Coastal Restoration Ecology \* (UL Lafayette; graduate level course)

Introduction to Coastal Ecology\* (UL Lafayette; upper division; non-Biology majors)

Coastal Plant Ecology**\*** (UNO; graduate level course)

Effects of Climate Change on Coastal Communities\* (UL Lafayette; graduate level seminar)

Ecology and Taxonomy of Aquatic Plants (UL Lafayette; senior/graduate level course)

Plant Physiological Ecology**\*** (UNO; senior/graduate level course)

Coastal Restoration Science**\*** (UNO; senior/graduate level course)

Biostatistics (SLU; graduate level course)

Plant Physiology (SLU; senior/graduate level course)

Plant Stress Ecophysiology**\*** (SLU; senior/graduate level course)

Terrestrial Plant Ecology (SLU; senior/graduate level course)

Plant Ecology (UNO; senior/graduate level course)

General Ecology (SLU; undergraduate level course)

Principles of Ecology (UL Lafayette; undergraduate level course)

Several Senior Undergraduate and Graduate Seminar courses\* (SLU, UNO, and UL Lafayette)

**Awards**

2016 Outstanding Professor, Ray P. Authement College of Sciences, University of Louisiana at Lafayette

2005 Team Achievement Award (US Army Corps of Engineers award for assistance with writing the Louisiana Coastal Area (LCA) document for comprehensive coastal restoration that was submitted to the US Congress in 2004 for $14 billion of funding)

2004 Pirogue Award (Lake Pontchartrain Basin Foundation award for outstanding research in the Lake Pontchartrain Basin)

2004 Coastal America Partnership Award (Presidential award in recognition of efforts to address wetland loss in Louisiana in conjunction with the Breaux Act Task Force)

1999 Faculty Research Award (Association of Southeastern Biologists award for outstanding original faculty research publication)

1998 Governor’s Certificate of Appreciation Award for coastal planning (Governor Mike Foster)

**Coastal Plant Ecology Lab Graduate Student Presentation Honors/Achievements**

2016 Erik Yando **awarded 1st Place student Oral Presentation**, Gulf Estuarine Research Society Meeting. Pensacola, Florida. November 2-5, 2016.

2016 Scott Jones Board of Regents Doctoral Fellow awarded **1st Place Student Oral Presentation**, Society for Wetland Scientists South Central & South Atlantic Chapters Joint Meeting. Pensacola, Florida. November 2-5, 2016.

2016 Sanjana Banerjee (ICaWR Doctoral Fellow) awarded **3rd Place Student Poster Presentation Award,** State of the Coast Meeting. June 1 – 3, 2016. New Orleans, Louisiana.

2016 Erik Yando (UL Lafayette Doctoral Scholar) awarded **Wetlands Foundation Seneca Travel Award** to present at the Mangrove and Macro benthos International Meeting. July 2016, St. Augustine FL.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **Gulf Estuarine Research Society Travel Award** to attend Society of Wetland Scientists South Central and Atlantic Chapters and Gulf Estuarine Research Society Joint Meeting, Pensacola Beach, Florida, November 3-5, 2016.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **Society of Wetland Scientists South Central Chapter Travel Award** to attend Society of Wetland Scientists South Central and Atlantic Chapters and Gulf Estuarine Research Society Joint Meeting, Pensacola Beach, Florida, November 3-5, 2016.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **University of Louisiana at Lafayette Ecology Center Student Research Grant**.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **Society for Wetland Scientists Student Research Grant**.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **Institute for Coastal and Water Research Student Scholarship** to attend State of the Coast Conference, New Orleans, Louisiana, June 1-3, 2016.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **State of the Coast Student Scholarship**, Louisiana Sea Grant, to attend State of the Coast Conference, New Orleans, Louisiana, June 1-3, 2016.

2016 Scott Jones (Board of Regents Doctoral Fellow) awarded **2nd Place**, University of Louisiana at Lafayette, Louisiana Sea Grant 3 Minute Thesis Competition, April 8, 2016.

2016 Erik Yando (University Doctoral Fellow awarded **Gulf Estuarine Research Society Travel Award** to attend Society of Wetland Scientists South Central and Atlantic Chapters and Gulf Estuarine Research Society Joint Meeting, Pensacola Beach, Florida, November 3-5, 2016.

2016 Erik Yando (University Doctoral Fellow) awarded **Wetland Foundation Seneca Award** to present at the Mangrove and Macrobenthos Meeting. July, 2016, St. Augustine, FL

2016 Erik Yando (University Doctoral Fellow) awarded **Institute for Coastal and Water Research Student Scholarship** to attend State of the Coast Conference, New Orleans, Louisiana, June 1-3, 2016.

2016 Erik Yando (University Doctoral Fellow) awarded **Institute for Coastal and Water Research Student Scholarship** to attend State of the Coast Conference, New Orleans, Louisiana, June 1-3, 2016.

2016 Erik Yando (University Doctoral Fellow) awarded **2nd Place**, University of Louisiana at Lafayette Graduate STEM Paper Competition

2016 Meagan McCoy (CSAP graduate student intern) awarded **State of the Coast Student Scholarship**, Louisiana Sea Grant, to attend State of the Coast Conference, New Orleans, Louisiana, June 1-3, 2016.

2016 Meagan McCoy (CSAP graduate student intern) awarded the **Martial F. Billeaud Endowed Scholarship**

2015 Erik Yando (University Doctoral Fellow) awarded **the Martial F. Billeaud Endowed Scholarship**

2014 Scott Jones (Board of Regents Doctoral Fellow), Taylor Sloey (Board of Regents Doctoral Fellow), Erik Yando (Board of Regents Doctoral Fellow), and Laura Hunday (CSAP graduate student intern) awarded **University of Louisiana at Lafayette Ecology Center Student Research Grant**.

2014 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **1st Place Student Oral Presentation**,University of Louisiana at Lafayette Graduate Student Appreciation Showcase. April 8, 2014. Lafayette, LA.

2014 Laura Hundy (CSAP graduate student intern) awarded **3rd Place Student Oral Presentation**, Gulf Estuarine Research Society 2014 Biennial Meeting. October 30-31, 2014. Port Aransas, TX.

2014 Laura Hundy (CSAP graduate student intern) awarded **1st Place Student Oral Presentation**,Society for Wetland Scientists South Central Chapter Meeting. October 23-25, 2014 . Corpus Christi, TX.

2014 Laura Hundy (CSAP graduate student intern) awarded **2nd Place Student Oral Presentation**, UL Lafayette Graduate Student Appreciation Showcase. April 8, 2014. Lafayette, LA.

2014 Laura Hundy (CSAP graduate student intern) awarded **3rd Place Student Oral Presentation**, State of the Coast Conference. March 18-20, 2014. New Orleans, LA.

2014 Scott Jones (Board of Regents Doctoral Fellow) awarded **Jay Huner Travel Award**, University of Louisiana at Lafayette, Department of Biology, to attend Society of Wetland Scientists South Central Chapter Meeting, Corpus Christi, Texas, October 23-25, 2014.

2014 Scott Jones (Board of Regents Doctoral Fellow) awarded **Society of Wetland Scientists South Central Chapter Travel Award** to attend Society of Wetland Scientists South Central Chapter Meeting, Corpus Christi, Texas, October 23-25, 2014.

2014 Scott Jones (Board of Regents Doctoral Fellow) awarded **State of the Coast Student Scholarship**, Louisiana Sea Grant, to attend State of the Coast Conference, New Orleans, Louisiana, March 18-20, 2014.

2014 Erik Yando (University Doctoral Fellow) awarded **Jay Huner Travel Award**, University of Louisiana at Lafayette, Department of Biology, to attend Society of Wetland Scientists South Central Chapter Meeting, Corpus Christi, Texas, October 23-25, 2014.

2014 Erik Yando (University Doctoral Fellow) awarded **Society of Wetland Scientists South Central Chapter Travel Award** to attend Society of Wetland Scientists South Central Chapter Meeting, Corpus Christi, Texas, October 23-25, 2014.

2014 Erik Yando (University Doctoral Fellow) awarded **State of the Coast Student Scholarship**, Louisiana Sea Grant, to attend State of the Coast Conference, New Orleans, Louisiana, March 18-20, 2014.

2013 Scott Jones (Board of Regents Doctoral Fellow) awarded **Jay Huner Travel Award**, University of Louisiana at Lafayette, Department of Biology, to attend Society of Wetland Scientists South Central Chapter Meeting, Starkville, Mississippi, October 17-19, 2013.

2013 Scott Jones (Board of Regents Doctoral Fellow) awarded **Society of Wetland Scientists South Central Chapter Travel Award** to attend Society of Wetland Scientists South Central Chapter Meeting, Starkville, Mississippi, October 17-19, 2013.

2013 Erik Yando (University Doctoral Fellow) awarded **Jay Huner Travel Award**, University of Louisiana at Lafayette, Department of Biology, to attend Society of Wetland Scientists South Central Chapter Meeting, Starkville, Mississippi, October 17-19, 2013.

2013 Erik Yando (University Doctoral Fellow) awarded **Society of Wetland Scientists South Central Chapter Travel Award** to attend Society of Wetland Scientists South Central Chapter Meeting, Starkville, Mississippi, October 17-19, 2013.

2013 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **1st Place Graduate Student Oral Presentation**, Society for Wetlands Scientists South Central Chapter Meeting Starkville, Mississippi, October 17-19, 2013.

2013 Laura Hundy (CSAP graduate student intern) awarded **1st Place Graduate Student Poster Presentation**, Society for Wetlands Scientists South Central Chapter Meeting Starkville, Mississippi, October 17-19, 2013.

2012 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **2nd Place Graduate Student Oral Presentation**, Louisiana Association of Professional Biologists meeting, Lafayette, Louisiana, August 2012.

2012 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **Society for Wetland Scientists Graduate Research Grant**.

2011 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **1st Place Graduate Student Oral Presentation**, Society for Wetlands Scientists South Central Chapter Meeting. Lafayette, Louisiana, October 21-22, 2011.

2011 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **3rd Place Graduate Student Oral Presentation**, Coastal and Estuarine Research Federation 21st Biennial Conference, Daytona Beach, Florida, November 6-10, 2011.

2011 Taylor Sloey (Board of Regents Doctoral Fellow) awarded **Wetland Foundation Graduate Student Travel Grant**.

2010 Christine Pickens (Board of Regents Doctoral Fellow) awarded **2nd Place Graduate Student Poster**, State of the Coast conference, Baton Rouge, Louisiana, June 8 -10, 2010.

2010 Lauren Alleman (M.S. graduate) awarded **Best M.S. Thesis in Southwest Louisiana** by Phi Beta Kappa. May, 2010.

2010 Christine Pickens (Board of Regents Doctoral Fellow) awarded **Society for Wetland Scientists Graduate Research Grant**.

2009 Michael Dupuis (M.S. graduate student) awarded **3rd Place Graduate Student Poster**, Coastal and Estuarine Research Federation 20th Biennial Conference, November 1-5, 2009, Portland, Oregon.

2008 Lauren Alleman (M.S. graduate student) awarded **3rd Place Graduate Student Oral Presentation**, Basics of the Basin 9th Biennial Research Symposium, New Orleans, Louisiana, November 5 – 7, 2008.

2008 Christine Pickens (Board of Regents Doctoral Fellow) awarded **1st Place Graduate Student Poster**, Restore America’s Estuaries 4th National Conference on Coastal and Estuarine Habitat Restoration, Providence, Rhode Island, October 11-15, 2008.

2008 Lauren Alleman (M.S. graduate student) awarded **2nd Place Graduate Student Poster**, Restore America’s Estuaries 4th National Conference on Coastal and Estuarine Habitat Restoration, Providence, Rhode Island, October 11-15, 2008.

**Teaching Excellence**

2004 NSF FIRST (Faculty Institutes Reforming Science Teaching) UNO team member

1999 NSF PKal (Project Kaleidoscope Faculty for 21st Century) appointment

1998 LaCEPT (Louisiana Collaborative for Excellence in the Preparation of Teachers) Faculty Intern

**Editorial Boards**

*Wetlands*, Associate Editor 2004 – 2007

**Peer Reviewer**

Hester routinely serves as a peer reviewer for a number of national/international scientific journals including American Journal of Botany, Australian Journal of Botany, Biological Invasions, Bulletin of the Torrey Botanical Society, Canadian Journal of Botany, Canadian Journal of Forest Research, Ecology, Ecological Monographs, Ecosystems, Environmental and Experimental Botany, Estuaries and Coasts, International Journal of Plant Science, Journal of Coastal Research, Journal of Ecology, Marine Ecology Progress Series, Plant Ecology, and Wetlands. He also serves as a reviewer for various federal funding agencies and NSF National Estuary Research Reserve proposals.

**Professional Societies**

American Ecological Engineering Society

Association of Southeastern Biologists

Botanical Society of America

British Ecological Society

Coastal and Estuarine Research Federation

International Association for Ecology

International Society for Ecological Restoration

Society of Wetland Scientists

Sigma Xi

**Synergistic Activities & Scientific Community Service**

***External Doctoral Committee Review Member***

Asian Institute for Technology (2009)

University of Technology Sydney, Australia (Plant Functional Biology and Climate Change Cluster) (2016)

***Scientific Advisor on the Following Louisiana Coastal Restoration Panels***

Region 3 Planning Team, Coast 2050. 1996 – Present.

Scientific advisor for town meetings on coastal restoration strategies/projects in Region 3, which includes diverse coastal habitats from forested wetlands to salt marshes and most of the state’s barrier islands.

Environmental Work Group, CWPPRA. 1997 -2007.

Scientific advisor on work group consisting of state and federal agency representatives charged with evaluating proposed CWPPRA wetland restoration/creation projects through the Wetland Value Assessment method.

Technical Advisory Group, CWPPRA. 1997 – 2007.

Scientific advisor on team of state and federal agency representatives charged with developing monitoring plans and experimental designs for funded coastal restoration projects.

Gulf Shoreline Restoration Science Advisory Board. 2002 – 2007.

Member of blue-ribbon scientific panel formed to provide expertise on barrier island and coastal headland processes in the development of restoration and management strategies.

Conceptual Modeling Group, LCA (Louisiana Coastal Area). 2002 – 2004.

Member of scientific panel charged with developing wetland habitat switching algorithms in response to altered salinity and hydrologic regimes.

Multiple Lines of Defense (MLOD) Review Team. 2007 – 2010.

Member of scientific and management advisory team working on *gratis* basis with the Lake Pontchartrain Basin Foundation in reviewing and commenting on the state’s Master Plan.

CIAP (Coastal Impact Assistance Program) Review Panel. 2007 – 2010.

Scientific advisor on team of academic, state, and federal agency representatives charged with reviewing proposed coastal restoration projects and developing adaptive monitoring.

**NOAA Lead Scientific PI for Coastal Wetland Vegetation Natural Resource Damage Assessment (NRDA) in the aftermath of the Deepwater Horizon Oil Spill. 2010 – 2016.** First author of the Sampling and Monitoring Plan for the NRDA (Natural Resource Damage Assessment) of MC252 Oil Impacts to Coastal Wetland Vegetation in the Gulf of Mexico. Oversaw sampling plan development and data collection and interpretation.

***Technical Working Group (TWG) Coastal Ecology representative for the Louisiana Center of Excellence (CoE). 2016 - present.*** Responsible for drafting sections of the CoE Research Strategy that identify key research needs to support the implementation of the Louisiana Coastal Master Plan and other research that advances coastal sustainability.

***USGS/National Wetlands Research Center Brown Marsh Advisory Committee. 2009 – present.***  NWRC initiative to facilitate information transfer regarding sudden salt marsh dieback events and potential causes/courses of action.

**Scientific Research Advisory Committee, Lake Pontchartrain Basin Foundation. 2005 – present.**

***NSF Coastal Barrier Island Network 2009 – 2010***. NSF initiative to foster greater awareness and scientific understanding of barrier islands with the overarching goal of sustaining barrier island ecosystems in a changing world.

***Scientific Advisory Committee, Strategic Plan for Northern Gulf of Mexico SET-MH Network. 2007 – 2009.***  USGS-lead effort to develop a landscape-scale monitoring framework to understand the role of chronic low-level stress and infrequent, high magnitude disturbances on coastal ecosystems of the Northern Gulf of Mexico.

***Scientific Conferences and Workshops***

Special session organizer: Recent Advances in Barrier Island Restoration and Monitoring. State of the Coast Meeting, New Orleans, Louisiana. June 1 – 3, 2016.

Institute for Coastal and Water Research (ICaWR) Sponsor liaison for Public Workshop on Hypoxia in the Gulf of Mexico (Louisiana Hypoxia Working Group). October 19, 2015.

Panel member and presenter. National Academies of Science. Effective Approaches for Monitoring and Assessing Gulf of Mexico Restoration Activities Workshop. New Orleans, Louisiana. August 24 – 25, 2015.

Planning Committee for NRCS Workshop on Use of Vegetation in Coastal Restoration, Baton Rouge, Louisiana. 2003.

Steering Committee and Field Trip Co-Chair for the Estuarine Research Federation 15th International Conference, New Orleans, Louisiana. 1999.

***Professional Mentoring Activities***

Women in Wetlands Mentoring Program (Society for Wetland Scientists) 2009 – present

Minority Mentoring Program (Society for Wetland Scientists) 2010

**University Service**

***UL Lafyette Steering Committee on Global Sustainabilty (Communities of Interest Initiative) 2016 - present***

***UL Lafayette Dept. of Biology Executive Committee 2014 – 2015***

***UL Lafayette Dept. of Biology Tenure and Promotion Committee 2013 - 2015***

***UL Lafayette Search Committee Chair for two successful Coastal Biologist position searches 2014 - 2015***

***UL Lafayette Biology Graduate Assessment Coordinator 2010 – 2011***

***UNO Representative for GCCESU (Gulf Coast Cooperative Ecosystems Studies Unit) 2005 – 2006***

***UL Lafayette Representative for the CREST (Coastal Restoration Enhancement through Science and Technology) Technical Advisory Board 2007 – 2009***

***UL Lafayette Faculty Senate 2007***

**General Community/Society Service**

Lafayette Middle School Coastal Ecology Liaison (2009 – present). Interface with Lafayette Middle School Environmental Sciences Academy in areas of Louisiana coastal ecological restoration and stewardship activities.

Co-founder, past President, and member of the Board of Directors (2002-2005) of Friends of the Jefferson Animal Shelter (FJAS). FJAS is a volunteer organization formed to assist the Jefferson Parish Animal Shelter in the caring, fostering, and adoption of animals. For more information or to make a donation, visit [www.petfinder.com/shelters/fjas.html](http://www.petfinder.com/shelters/fjas.html).

Co-founder, past President, and member of the Board of Directors (1987 – 1994) of the Red Stick Fly Fishers (RSFF). RSFF is a regional volunteer organization of the Federation of Fly Fishers (FFF), an international non-profit organization dedicated to the betterment of the sport of fly fishing through conservation, restoration, and education. For more information, visit [www.rsff.org](http://www.rsff.org).