

Dr. John M. Marton
Curriculum Vitae
Indiana University
School of Public and Environmental Affairs
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Education:

- 2012 Ph.D., Environmental Science, Indiana University, Bloomington, IN
Dissertation title: Ecosystem services of restored wetlands and riparian buffers- USDA conservation practices in the Glaciated Interior Plains. Advisor: Dr. Christopher B. Craft
- 2008 M.S., Environmental Science and Policy, Johns Hopkins University, Baltimore, MD
- 2004 B.S., Biology, Towson University, Towson, MD

Research Interests:

Wetland ecology, biogeochemistry, saltwater intrusion, restoration ecology, carbon sequestration, impacts of anthropogenic disturbances on wetland ecosystem services, water quality

Professional Experience:

- July 2014-Present Assistant Scientist, Indiana University, Bloomington, IN
- April 2012-July 2014 Post-Doctoral Researcher, Louisiana Universities Marine Consortium (LUMCON), Chauvin, LA (advised by Dr. Brian J. Roberts)
- 2008-April 2012 Graduate Research Assistant, Wetland Biogeochemistry Laboratory, School of Public and Environmental Affairs, Indiana University, Bloomington, IN.

Publications:

Marton JM, RR Chowdhury, CB Craft. A comparison of the spatial variability of denitrification and related soil properties in restored and natural depressional wetlands in Indiana, USA. Invited manuscript for special edition of International Journal for Biodiversity, Ecosystem Services and Management, titled "EcoSummit 2012 Ecosystem Services of Wetlands." *In Press*.

Marton JM and BJ Roberts. 2014. Phosphorus sorption dynamics in Louisiana marshes two years after the Deepwater Horizon oil spill. *Journal of Geophysical Research- Biogeosciences* 119(3): 451-465.

Marton JM, BJ Roberts, AE Bernhard, AE Giblin. Spatial and temporal variability of nitrification potential and ammonia-oxidizer abundances in Louisiana salt marshes. *Estuaries and Coasts*. *In Review*.

Marton JM, BJ Roberts, AE Bernhard, AE Giblin, S Mack, T Moore. Differential biogeochemical responses of *Spartina alterniflora* and *Avicennia germinans* soils following the Deepwater Horizon oil spill. *In Preparation*.

Roberts BJ, JM Marton. Louisiana brackish and salt marsh greenhouse gas fluxes two years after the Deepwater Horizon oil spill. To be submitted to *Estuaries and Coasts*. *In Preparation*.

Roberts BJ, JM Marton. Effects of varying salinity on greenhouse gas production from oiled and unoiled Louisiana salt marsh soils. To be submitted to *Wetlands*. *In Preparation*.

Marton JM, MS Fennessy, CB Craft. 2014 Functional differences between natural and restored wetlands in the Glaciated Interior Plains. *Journal of Environmental Quality* 43(1): 409-417. doi: 10.2134/jeq2013.04.0118

Marton JM, MS Fennessy, CB Craft. 2014. Nutrient removal and carbon storage vary among USDA conservation practices: an example from Ohio. *Restoration Ecology* 22(1): 117-124. doi: 10.1111/rec/12033

Marton JM, ER Herbert, CB Craft. 2012. Effects of salinity on denitrification and greenhouse gas production from laboratory-incubated tidal forest soils. *Wetlands*. doi 10.1007/s13157-012-0270-3.

Current Research:

- Effects of the BP Oil Spill on Salt Marsh C, N, and P Biogeochemistry
- Differences in Soil Biogeochemical Processes Between *Spartina alterniflora* and *Avicennia germinans*
- Saltwater Intrusion and Greenhouse Gas Emissions from Tidal Freshwater Forested Wetlands
- Geographic Variation in Greenhouse Gas Fluxes from Bald Cypress Swamps across Gulf Coast
- Biogeochemistry of Geographically Isolated Wetlands
- Ecosystem Services of Natural and Restored Wetlands and Riparian Zones

Teaching Experience:

2014 LUMCON

- Changing Coastal Oceans (“Climate Change and Coastal Wetlands”)
- Summer REU Program Mentor (Mentees not yet selected)

2013 Summer REU Program Mentor, LUMCON

- Sara Mack, University of Maryland (*Mentee*): “Microbial iron reduction rates of Macondo oil-impacted *Avicennia germinans* and *Spartina alterniflora* soils in Barataria Bay marshes”
- Tierra Moore, Rice University (*Mentee*): “Greenhouse gas production in oiled and unoiled *Spartina alterniflora* and *Avicennia germinans* soils in Barataria Bay marshes”

2012 Summer REU Program Mentor, LUMCON

- Aaron Marti, University of Wisconsin, Stevens Point (*Mentee*): “Effects of varying salinity on greenhouse gas production from oiled and unoiled Louisiana salt marsh soils”

2009-2011, Indiana University

- E442/E555, Terrestrial Habitat Analysis (Instructor on Record)
- E440, Wetlands Biology and Regulation (guest lectures and field laboratory)
- E534, Restoration Ecology (guest lectures)

Service Experience:

- 2014 Board of Readers, *Biogeochemistry*
- 2011-2014 Peer reviewer for *Ecosystems, Wetlands, Wetlands Ecology and Management, Biogeochemistry, Ecological Engineering, Plant and Soil, Hydrobiologia, Estuarine, Coastal, and Shelf Science*
- 2013 Geographically Isolated Wetlands Workshop, Joseph W. Jones Ecological Research Center, Newton, GA (November 2013), Biogeochemistry sub-group co-lead
- 2013 Coastal Waters Consortium, Gulf Lagniappe, Adult Education Workshop, “Coastal Wetlands: Formation, Functions, and Susceptibility”
- 2013 Wetland Restoration Section, SWS- Steering Committee member
- 2013 Symposium organizer at 2013 SWS International Meeting, Duluth, MN: “Biogeochemical Responses to Natural and Anthropogenic Disturbances”
- 2012 ASLO Aquatic Sciences Meeting student presentation judge
- 2012 LUMCON REU Workshop: “Applying to graduate school”
- 2011 Soil Science Society of America Annual Meeting student presentation judge

Awards:

- 2011 Soil Science Society of America (S10 Division) Best Student Presentation

Presentations at National and International Meetings:

Marton, John M., Brian J. Roberts, Anne E. Bernhard, Anne E. Giblin, Sara Mack, Tierra Moore. 2014. Differential Biogeochemical Responses of *Spartina alterniflora* and *Avicennia germinans* soils following the Deepwater Horizon Oil Spill. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Mobile, Alabama.

Marton, John M., Brian J. Roberts, Anne E. Bernhard, Anne E. Giblin. 2013. Location, location, location! Spatial heterogeneity of salt marsh biogeochemical processes. Biennial Conference of the Coastal and Estuarine Research Federation, San Diego, California.

Bernhard, Anne E., John M. Marton, Brian J. Roberts, Anne E. Giblin. 2013. Community composition of ammonia-oxidizing bacteria in Louisiana marshes impacted by the Deepwater Horizon oil spill. Biennial Conference of the Coastal and Estuarine Research Federation, San Diego, California.

Giblin, Anne E., Anne E. Bernhard, John M. Marton, Jen Tucker, Brian J. Roberts. 2013. Denitrification and dissimilatory nitrate reduction to ammonium in sediments exposed to oil from the Deepwater Horizon oil spill. Biennial Conference of the Coastal and Estuarine Research Federation, San Diego, California.

Roberts, Brian J., John M. Marton. 2013. Louisiana brackish and salt marsh soil greenhouse gas fluxes following the Deepwater Horizon oil spill and salinity manipulations. Biennial Conference of the Coastal and Estuarine Research Federation, San Diego, California

Marton, John M., Brian J. Roberts, Anne E. Bernhard, Anne E. Giblin. 2013. The Deepwater Horizon oil spill: biogeochemical impacts two years post-spill. Annual meeting of the Society of Wetland Scientists, Duluth, Minnesota.

Marton, John M. 2013. Being a successful post-doc: setting the stage for your future. Annual meeting of the Society of Wetland Scientists, Duluth, Minnesota.

Marton, John M. and Brian J. Roberts. 2013. Patterns of phosphorus sorption in Louisiana brackish and salt marshes impacted by the Deepwater Horizon oil spill. Association for the Sciences of Limnology and Oceanography, Aquatic Sciences Meeting, New Orleans, Louisiana.

Brian J. Roberts, John M. Marton, and Aaron M. Marti. 2013. Louisiana brackish and salt marsh greenhouse gas fluxes following the Deepwater Horizon oil spill and salinity manipulations. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, Louisiana.

Marton, John M., Brian J. Roberts, Anne E. Bernhard, Anne E. Giblin. 2013. Louisiana brackish and salt marsh nitrification potential and microbial diversity following the Deepwater Horizon oil spill. Gulf of Mexico Oil Spill & Ecosystem Science Conference, New Orleans, Louisiana.

Marti, Aaron M., John M. Marton, and Brian J. Roberts. 2012. Effects of varying salinity on greenhouse gas production from oiled and unoiled Louisiana salt marsh soils. Annual meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Cincinnati, Ohio.

Marton, John M., Ken W. Krauss, Ellen R. Herbert, and Christopher B. Craft. 2012. Quantifying the effects of salinity and water level on greenhouse gas emissions using two different approaches: laboratory incubation versus in situ measurements. The 9th INTECOL International Wetlands Conference, Orlando, Florida.

Marton, John M. and Christopher B. Craft. 2011. Water Quality Improvement Benefits of Restored and Natural Wetlands and Riparian Buffers. Annual meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, San Antonio, Texas.

Christopher B. Craft and John M. Marton. 2011. Soil properties and processes of alluvial and blackwater tidal forests, Georgia, USA. Annual meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, San Antonio, Texas.

Marton, John M., Ellen R. Herbert, and Christopher B. Craft. 2011. Effects of salt water intrusion on denitrification and greenhouse gas emissions in tidal freshwater floodplain forests of southeast Georgia, USA. Biennial Conference of the Coastal and Estuarine Research Federation, Daytona Beach, Florida.

Marton, John M. 2010. Denitrification in Tidal Freshwater Floodplain Forests of Southeast Georgia, USA. Annual meeting of the Society of Wetland Scientists, Salt Lake City, Utah.

Christopher B. Craft, Mi-hee Jun, and John M. Marton. 2010. Climate Change Reduces Nitrogen Sink Capacity of Tidal Freshwater Floodplain Forests. Annual meeting of the Society of Wetland Scientists, Salt Lake City, Utah.

Professional Memberships:

Society of Wetland Scientists
Coastal and Estuarine Research Federation
Soil Science Society of America
International Association for Ecology
Association for the Sciences of Limnology and Oceanography