

Benjamin Branoff

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Research Interests

Systems ecology and the dynamics between human and natural systems. Multi-disciplinary research involving engineers, sociologists, and natural scientists. Ecosystem adaptations, services, and their utility in a future of changing climate, urban expansion, and increasing anthropogenic influences.

Current Research

Urban Mangrove Ecology (Doctoral Thesis)

Mangrove biology and ecology throughout the urban mangroves of Puerto Rico. I am measuring numerous attributes of the mangroves in three estuaries across the island, and will reveal how surrounding urban land use is influencing their health, function, and the provisioning of ecosystem services.

Education

PhD Biology, University of Puerto Rico-Río Piedras, 2013 – present, 3.7/4.0 GPA

Field course, 2017, Tropical Biology, University of Costa Rica, Organization for Tropical Studies

MSc Oceanography and Coastal Sciences, Louisiana State University (LSU), 2010 – 2012, 4.0/4.0 GPA

BSc Environmental Engineering Sciences, University of Florida, 2003 – 2009, 3.0/4.0 GPA

Semester abroad, 2007, University of Dar es Salaam, Tanzania

Research Experience for Undergraduates, 2008, University of Cape Coast, Ghana

Publications

Book Chapter

Branoff, B.L. (2018, accepted) Urban mangrove biology and ecology: Emergent patterns and management implications. In C. Makowski and C.W. Finkl (Eds.), *Threats to mangrove forests: Hazards, vulnerability, and management*. Coastal Research Library. Springer

Journal Articles

Evers, C., Wardropper, C.B., **Branoff, B.L.**, et al. (2018, accepted) The ecosystem services and biodiversity of novel ecosystems: A literature review. *Global Ecology and Conservation*.

Branoff, B.L. (2017) Quantifying the influence of urban land-use on mangrove biology and ecology: a meta-analysis. *Global Ecology and Biogeography* 26: 1339-1356.

Steger, C., Hirsch, S., Evers, C.R., **Branoff, B.L.**, et al. (2018) Ecosystem services as boundary objects for transdisciplinary collaboration. *Ecological Economics* 143: 153-160.

Rodríguez Barreras, Ruber, Cuevas, E., Cabanillas-Terán, N., and **B.L. Branoff** (2016) Understanding trophic relationships among Caribbean sea urchins. *Rev. Biol. Trop* 64.2: 837-848.

Rivera-Monroy, Victor H., **Branoff, B.L.**, et al. (2013) Landscape-Level Estimation of Nitrogen Removal in Coastal Louisiana Wetlands: Potential Sinks under Different Restoration Scenarios. (Louisiana 2012 Coastal Master Plan Technical Analysis) *Journal of Coastal Research* 67: 75-87.

Branoff, B.L., Yankson, K., Wubah, D. (2009). Seaweed and associated invertebrates on Iture Rocky Beach, Cape Coast, Ghana. *Journal of Young Investigators*, 19(9).

Languages

Fluent in English and Spanish

Employment History

2014-present Ecology/Botany laboratory instructor, Dept of Biology, University of Puerto Rico
2014-present Forest dynamics technician, Luquillo Experimental Forest, Puerto Rico
2013-2015, Graduate Fellow, NSF Integrative Graduate Education and Research Traineeship
2010-2013, Research Assistant, Department of Oceanography and Coastal Sciences, LSU
2010, Instructor, Newfound Harbor Marine Institute and Seacamp
2007-2009, Aquatic toxicology laboratory technician, AMEC Engineering and Consulting

Educational Experience

2014 - present, Instructor, Ecol. Laboratory (BIOL 3410), University of Puerto Rico- Río Piedras
2015, Instructor, Botany Laboratory (BIOL3112), University of Puerto Rico- Río Piedras
2011 – 2013, Producer and host of Louisiology, a coastal science radio program
Produced and hosted more than a dozen radio shows aimed at educating the Louisiana public on the science behind their coastal and environmental issues. This show airs on WHYR Baton Rouge Community Radio and is available as a podcast online. <http://www.mixcloud.com/CEGO/>
2010 – 2012, LSU EnvironMentors after school volunteer mentoring program
Partnered with a local high school student on developing a science fair project. In 2011, my student was awarded a trip to Washington DC to compete at the national level. <http://environmentors.lsu.edu/>
2010 , Environmental and Marine Science Educator, Newfound Harbor Marine Institute, Big Pine Key, Florida, Designed and taught curricula focused on marine sciences in on site laboratories and research vessels.

Computer Languages and Software Proficiencies

Languages: R, JavaScript, Visual Basic, Python
Operating Systems: Windows, iOS, Ubuntu
Software: R, R Studio, ArcGIS, QGIS, Microsoft Office

Certifications

NAUI Scuba Rescue Diver, 2010
NAUI Open Water Diver, 2006
Engineer in Training, Florida, 2009

Conference Presentations

Society of Wetland Scientists, San Juan, Puerto Rico 2017 (oral)
American Association for the Advancement of Science, San Juan, Puerto Rico 2016 (poster)
American Society of Limnology and Oceanography, Granada, Spain, February 2015 (poster)
State of the Coast, New Orleans, LA, June 2012, (poster)
INTECOL International Wetlands Conference, Orlando Florida, June 2012 (oral)
Graduate Student Symposium, Dauphin Island Sea Lab, March 2012 (oral)
Coast and Estuarine Research Federation, November 2011 (poster)
American Ecological Engineering Society, May 2011 (oral)

Leadership

Seminar chair, Society for Wetland Scientists 2017 annual meeting, San Juan, Puerto Rico
Asociación de Estudiantes Graduados de Biología (Association of Biology Graduate Students) University of Puerto Rico, Nominated and subsequently elected to the governing body, fall, 2014

President: Coast and Environment Graduate Organization (CEGO). Lead an organization of 100 graduate students, oversaw its budget, served as liaison to the faculty and administration, and coordinated various education & outreach events, 2011-2012.

Co-Principal Investigator, Louisiana Sea Grant, Louisiology Radio Show and Podcast. A monthly science radio show on Baton Rouge Community Radio, WHYR of Louisiana, 2011-2013.

Student director: National Science Foundation's Research Experience for Undergraduates, University of Cape Coast, Ghana, summer 2008

Student Member: Sustainability in Curriculum and Education Committee (SCurrE), a committee of faculty and students concerned with incorporating sustainability science in the LSU curriculum, 2011-2012.