

Luke M. Browne

CURRICULUM VITAE – AUGUST 2016

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EDUCATION

- 2011-present Ph.D. Ecology and Evolutionary Biology
Tulane University, New Orleans, Louisiana
Advisor: Dr. Jordan Karubian
- 2009 B.S. Natural Resource Ecology and Management – Conservation Biology
magna cum laude
Louisiana State University, Baton Rouge, Louisiana
Academic Advisor: Dr. Phil Stouffer

FELLOWSHIPS AND SCHOLARSHIPS

- 2013-14 IBM Fellowship in Computational Science
2013-16 National Science Foundation Graduate Research Fellowship
2011-13 Louisiana Board of Regents Fellowship
2008 F.O. Batemen Memorial Scholarship
2008 LSU Chancellor's Aide Scholarship
2007 American Society of Animal Science Scholastic Achievement Award
2005 LSU Chancellor's Future Leaders in Research Scholarship

GRANTS

- 2014 NSF Doctoral Dissertation Improvement Grant: \$18,025
2014 Tulane EEB Graduate Research Award: \$1,945
2013 International Palm Society: \$900
2013 IDEA WILD Biodiversity Conservation Grant: \$1,050
2013 American Ornithologist's Union Research Award: \$1,842
2013 Stone Center for Latin American Studies and Tinker Foundation
Summer Field Research Grant: \$1,470
2013 The Explorers Club Exploration Fund: \$1,000
2013 Western Ag Innovations Research Award: \$960
2012 The Gerald E. Gunning Memorial Fund, \$500
2012 Organization for Tropical Studies Post-course Research Grant: \$831
2011,13 Provost's Office Graduate Student Travel Grant: \$400
2011,13,15 School of Science and Engineering Dean's Travel Grant: \$300
2011,13,15 Graduate Studies Student Association Travel Grant: \$300

PUBLICATIONS

- 2016 Karubian, J., **L. Browne**, D. Cabrera, M. Chambers, and J. Olivo. Relative influence of relatedness, conspecific density, and microhabitat on seedling survival and growth of an animal-dispersed Neotropical palm. **Botanical Journal of the Linnean Society**. *In press*.
- 2016 **Browne, L.** and J. Karubian. Diversity of palm communities at different spatial scales in a recently fragmented tropical landscape. **Botanical Journal of the Linnean Society**. *In press*.
- 2015 **Browne, L.**, K. Ottewell, and J. Karubian. Short-term genetic consequences of habitat loss and fragmentation for the Neotropical palm *Oenocarpus bataua*. **Heredity** 115: 389-395.
doi:10.1038/hdy.2015.35

- 2012 Karubian, J., **L. Browne**, C. Bosque, T. Carlo, M. Galetti, B. Loiselle, J. Blake, D. Cabrera, R. Durães, F. Labecca, K. Holbrook, R. Holland, W. Jetz, F. Kümmeth, J. Olivo, K. Ottewell, G. Papadakis, G. Rivas, S. Steiger, B. Voirin, and M. Wikelski. Seed dispersal by Neotropical birds: emerging patterns and underlying processes. **Ornitologia Neotropical** 23: 9–24.

PUBLICATIONS – IN REVIEW

- Walter, S.T., **L. Browne**, J. Freile, N. González, M. Darkes, J. Loor, T. Gillespie, and J. Karubian. Nocturnal bird diversity in forest fragments in northwest Ecuador.

PUBLICATIONS – OUTREACH

- Browne, L.**, M. Gonzalez, and J. Karubian. Biodiversity in forest fragments of the Mache-Chindul Reserve. Quito, Ecuador. DOI: 10.13140/RG.2.1.2619.2485

ORAL PRESENTATIONS

- Browne, L.** 2016. Community-based conservation and research in the Chocó forests of Ecuador: Challenges, successes, and the road forward. American Association for the Advancement of Science (AAAS) Biodiversity Affinity Group. Washington, DC.
- Browne, L.** and J. Karubian. 2015. Response of palm communities to habitat fragmentation in northwest Ecuador. World Palm Symposium. Armenia, Colombia.
- Browne, L.**, K. Ottewell, and J. Karubian. 2015. Consecuencias genéticas a corto plazo de fragmentación forestal en REMACH para *Oenocarpus bataua*. Simposio Internacional Ciencia y Conservación en la Reserva Mache Chindul. Universidad San Francisco de Quito, Quito, Ecuador.
- Browne, L.** 2013. How does fruit abundance influence seed dispersal and predation by vertebrates in the Chocó forests of Ecuador? Stone Center for Latin American Studies Research Symposium, New Orleans, LA
- Browne, L.** 2013. Defaunation: the next global change? Tulane Ecolunch Seminar Series, New Orleans, LA.
- Browne, L.**, K. Ottewell, and J. Karubian. 2013. Genetic consequences of forest fragmentation in Ecuador for a widespread canopy palm. Student Conference on Conservation Science, American Museum of Natural History Center for Biodiversity and Conservation, New York City, NY.
- Browne, L.**, K. Ottewell, and J. Karubian. 2013. Genetic and ecological consequences of forest fragmentation in Ecuador for the palm *Oenocarpus bataua*. Tulane Ecolunch Seminar Series, New Orleans, LA.
- Browne, L.** 2011. Impacts of behavior, movement, and the environment on seed dispersal: perspectives and advances in Neotropical avifauna. Neotropical Ornithology Congress, Cuzco, Peru.

POSTER PRESENTATIONS

- L. Browne**, F. Castillo, J. Riveiro, A. Moreno, S.T. Walter, R. Ribeiro, and J. Karubian. 2016. Diversity of understory birds in forest fragments of the Ecuadorian Chocó. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- N. González, **L. Browne**, S.T. Walter, J. Loor, M. Darkes, J. Freile, T. Gillespie and J. Karubian. 2016. Diversity of nocturnal birds in forest fragments of the Ecuadorian Chocó. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- Olivo, J., J.B. Cox, **L. Browne**, and J. Karubian. 2015. Use of aerial and terrestrial camera traps for describing palm frugivore communities. World Palm Symposium. Armenia, Colombia.
- Castillo, F., M. Chambers, **L. Browne**, and J. Karubian. 2015. How does dispersal into umbrellabird lek breeding sites impact survival of *Oenocarpus bataua* seedlings? World Palm Symposium. Armenia, Colombia.
- Cabrera, D., Z. Diaz-Martin, **L. Browne**, and J. Karubian. 2015. Using seed traps to describe fruiting phenology of palm communities. World Palm Symposium. Armenia, Colombia.
- Olivo, J., M. Gonzáles, **L. Browne**, S.T. Walter, and J. Karubian. 2014. Study of avian diversity in forest fragments in the Mache-Chindul Reserve. Ecuadorian Ornithology Meeting. Maldonado, Ecuador.
- Walter, S.T., F. Castillo, J. Rivero, J. Olivo, **L. Browne**, M. Darkes, A. Moreno, M. Gonzáles, J. Loor, M. Gonzáles, J. Freile, and J. Karubian. 2014. Avian community diversity across forest fragments in Ecuador. Ecuadorian Ornithology Meeting. Maldonado, Ecuador.
- Chambers, M., **Browne, L.**, and J. Karubian. 2014. Influence of lek breeding sites and surrounding genetic diversity on the survival of dispersed seedlings. Tulane School of Science and Engineering Research Day. New Orleans, LA, USA.
- Browne, L.** 2014. Comparing pollen and seed dispersal in fragmented landscapes: a simulation-based approach. Tulane School of Science and Engineering Research Day. New Orleans, LA, USA.
- Browne, L.**, K. Ottewell, and J. Karubian. 2013. Genetic and ecological consequences of forest fragmentation in Ecuador for the palm *Oenocarpus bataua*. New Frontiers in Tropical Biology: The Next 50 Years – ATBC/OTS Joint Meeting. San José, Costa Rica.
- Browne, L.**, K. Ottewell, and J. Karubian. 2013. Genetic and ecological consequences of forest fragmentation in Ecuador for the palm *Oenocarpus bataua*. Tulane School of Science and Engineering Research Day. New Orleans, LA, USA.
- Cabrera, D., J. Cabrera, J. Karubian, and **L. Browne**. 2011. Diet and activity of the Long-wattled Umbrellabird and its relation with the phenology of the palm *Oenocarpus bataua*. Neotropical Ornithology Congress, Cuzco, Peru.

SPECIALIZED TRAINING

- 2015 **UCLA La Kretz Conservation Genomics Workshop**. Santa Monica, California
- 2014 **NIMBioS Tutorial: Computing in the cloud: what every computational life scientist should know**. University of Tennessee, Knoxville
- 2012 **Hierarchical models for abundance, distribution and species richness in spatially structured populations using unmarked/R and WinBUGS**. USGS Patuxent Wildlife

Research Center

- 2012 **Tropical Biology: An Ecological Approach 2012 – 1.** Organization for Tropical Studies, Costa Rica & Duke University
- 2011 **Summer Institute for Training in Biostatistics and Genetic Epidemiology Statistics.** Washington University in St. Louis, Missouri

TEACHING EXPERIENCE

- 2015, **Tropical Field Biology & Conservation - TA, Tulane University**
 2013 An immersive study abroad course with a strong focus on engaged scholarship and experiential learning in the field. Based in Ecuador.
- 2012 **R Club – Founder and leader, Tulane University**
 Group of faculty and students learning the R statistical programming language.
- 2011 **Techniques in Conservation Biology - TA, Smithsonian Conservation Biology Institute**
 A field course with an overview of techniques used by conservation biologists and wildlife managers. For University of Pennsylvania students.

PREVIOUS RESEARCH EXPERIENCE

- 2011 **Smithsonian Conservation Biology Institute - Field Ecologist Intern**
Front Royal, Virginia
 – Conducted litterfall, seed rain, and carbon sequestration studies on a CTFS (Center for Tropical Forest Science) 26 ha long-term forest dynamics plot
 – Assisted with launch and management of siwild.si.edu, a collection of over 200,000 camera trap photographs from researchers worldwide
 – Compiled dataset of oak acorn mast cycles across Northeastern USA
- 2008-10 **NSF Undergraduate Research Assistant in Ecology, Louisiana State University**
 – Researched predator-prey population dynamics Dr. Jim Cronin using Cowpea weevils (*Callosobruchus maculatus*) and the parasitoid wasp (*Anisopteromalus calandrae*)
 – Assisted in developing an experiment to test how variability in the vulnerable stage of host development affects long-term population dynamics
- 2008-09 **Louisiana Department of Wildlife and Fisheries - Wildlife Technician**
Sherburne Wildlife Management Area, Louisiana
 – Mist-netted and banded birds for the MAPS (Monitoring Avian Productivity and Survivorship) program
 – Performed daily breeding bird surveys by sight and sound
- 2008 **Louisiana State University – Field Technician**
Sherburne Wildlife Management Area, Louisiana
 – Radio-tracked movements of wild turkeys (*Meleagris gallopavo*) and raccoons (*Procyon lotor*)
- 2003 **Naval Research Laboratory Science & Engineering Apprenticeship Program**
Stennis Space Center, Mississippi
 – Used an electron microscope to assess the magnitude of microbial iron reduction of sea-floor sediment

SERVICE & OUTREACH

- 2015 **Linking Scholarship & Applied Research: Community-based Conservation & Development.** Taylor Center for Social Innovation & Design Thinking, Tulane University
- 2015 **Forest Fragment Symposium with landowners and local officials.** La Y de la Laguna, Mache-Chindul Ecological Reserve, Ecuador
- 2014 **Annual Environmental Fair.** La Y de la Laguna, Mache-Chindul Ecological Reserve, Ecuador
- 2014 **Science Fair Judge – Senior computer science.** New Orleans Science and Engineering Fair, New Orleans, LA
- 2014 **Science Fair Judge (6th – 8th grade).** Benjamin Franklin Elementary Mathematics and Science school, New Orleans, LA
- 2013 **Classroom helper (6th grade Life science), Reading mentor (Kindergarten).** Benjamin Banneker Charter Public School, New Orleans, LA
- 2013 **College Captain for STEM Awareness (8th grade).** Viva Technology, Luling, LA
- 2013 **Science Fair Judge (6th – 8th grade).** Benjamin Franklin Elementary Mathematics and Science school, New Orleans, LA
- 2012 **Math and Science Tutor (8th grade).** Sophie B. Wright Public Charter School, New Orleans, LA
- 2012 **Annual Environmental Fair.** La Y de la Laguna, Mache-Chindul Ecological Reserve, Ecuador

MANUSCRIPT REVIEWS

Biotropica (3x), Ecological Monographs