

Postdoctoral Fellow
La Kretz Center for California Conservation Science
University of California, Los Angeles, CA

Email: lukembrowne@gmail.com
Website: lukembrowne.github.io

EDUCATION & APPOINTMENTS

Postdoc	<i>University of California, Los Angeles</i> La Kretz Center for California Conservation Science Institute of the Environment and Sustainability Department of Ecology and Evolutionary Biology Advisor: Dr. Victoria Sork	2017 – present
PhD	<i>Tulane University</i> Department of Ecology and Evolutionary Biology Advisor: Dr. Jordan Karubian Committee: Dr. Caz Taylor, Dr. Sunshine Van Bael, Dr. Victoria Sork	2011 – 2017
BS	<i>Louisiana State University</i> <i>magna cum laude</i> Natural Resource Ecology and Management – Conservation Biology Department of Renewable Natural Resources	2005 – 2009

FELLOWSHIPS AND AWARDS:

2017-19	UCLA La Kretz Center Postdoctoral Fellowship: \$96,000
2017	George Henry Penn Memorial Award for Outstanding Graduate Research: \$200
2016	Organization for Tropical Studies (OTS) Annual Student Paper Award: \$500
2013-14	IBM Fellowship in Computational Science: \$3,000
2013-16	NSF Graduate Research Fellowship: \$132,000
2011-13	Louisiana Board of Regents Fellowship: \$54,000
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:

2015	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: \$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 Postcourse 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: \$900
2011,13,15	Graduate Studies Student Association Travel Grant: \$900

PUBLICATIONS (* = UNDERGRADUATE; ** = COMMUNITY PARTNER)

- (13) **L. Browne** & J. Karubian. 2018. Habitat loss and fragmentation reduce effective gene flow by disrupting seed dispersal in a Neotropical palm. *Molecular Ecology*. 27: 3055–3069.
- (12) **L. Browne**, K. Ottewell, V.L. Sork, & J. Karubian. 2018. The relative contributions of seed and pollen dispersal to gene flow and genetic diversity in seedlings of a tropical palm. *Molecular Ecology*. 27: 3159–3173.
- (11) **L. Browne** & J. Karubian. 2018. Rare genotype advantage promotes survival and genetic diversity of a tropical palm. *New Phytologist*. 218: 1658–1667.
- (10) Ottewell, K., **L. Browne**, D. Cabrera**, J. Olivo**, and J. Karubian. 2018. Genetic diversity of dispersed seeds is highly variable among leks of the long-wattled umbrellabird. *Acta Oecologica*. 86: 31–37.
- (9) Mahoney, M.*, **L. Browne**, Z. Diaz-Martin, J. Olivo**, J. Cabrera**, M. Gonzalez**, J. Hazlehurst, and J. Karubian. 2018. Fruit removal by large avian frugivores varies in relation to habitat quality in continuous Neotropical rainforest. *Ornitologia Neotropical*. 29: 247–254.
- (8) Rivero de Aguilar, J., F. Castillo**, A. Moreno**, N. Peñafiel, **L. Browne**, S. Walter, J. Karubian, and E. Bonaccorso. 2018. Habitat loss and avian malaria infections: analyses from a tropical forest community in northwestern Ecuador. *PloS One*. *In Press*
- (7) Walter, S.T., **L. Browne**, J. Freile, N. González**, J. Looor**, M. Darkes*, T. Gillespie, and J. Karubian. 2017. Nocturnal bird diversity in forest fragments in north-west Ecuador. *Journal of Tropical Ecology*. 33: 357–364.
- (6) Walter, S.T., **L. Browne**, J. Freile, J. Olivo**, M. González, and J. Karubian. 2017. Landscape-level tree cover predicts species richness of large-bodied frugivorous birds in forest fragments. *Biotropica*. 49: 838–847.
- (5) **Browne, L** and J. Karubian. 2016. Frequency-dependent selection for rare genotypes promotes genetic diversity of a tropical palm. *Ecology Letters*. 19: 1439–1447.
- received Organization for Tropical Studies (OTS) Annual Student Paper Award
- (4) Karubian, J., **L. Browne**, D. Cabrera**, M. Chambers*, and J. Olivo**. 2016. 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*. 182: 425–438.
- (3) **Browne, L.** and J. Karubian. 2016. Diversity of palm communities at different spatial scales in a recently fragmented tropical landscape. *Botanical Journal of the Linnean Society*. 182: 451–464.
- (2) **Browne, L.**, K. Ottewell, and J. Karubian. 2015. Short-term genetic consequences of habitat loss and fragmentation for the Neotropical palm *Oenocarpus bataua*. *Heredity*. 115: 389–395.
- (1) 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. Kümme, J. Olivo**, K. Ottewell, G. Papadakis, G. Rivas, S. Steiger, B. Voirin, and M. Wikelski. 2012. Seed dispersal by Neotropical birds: emerging patterns and underlying processes. *Ornitologia Neotropical*. 23: 9–24.

PUBLICATIONS – *OUTREACH*

- 2015 **Browne, L.**, M. González, and J. Karubian. Biodiversity in forest fragments of the Mache-Chindul Reserve. Quito, Ecuador. [DOI: 10.13140/RG.2.1.2619.2485](https://doi.org/10.13140/RG.2.1.2619.2485)

INVITED TALKS

- 2018 **Browne, L.** Patterns and processes of genetic diversity in a changing world. Occidental College, Los Angeles, CA.
- 2018 **Browne, L.** Sustaining genetic diversity in the 21st century. LancerTalk on Sustainability. Pasadena City College, Pasadena, CA.
- 2017 **Browne, L.** Umbrellabirds, ocelots, and palm trees: community-based conservation and research in the rainforests of Ecuador. Louisiana State University, Baton Rouge, LA.
- 2016 **Browne, L.** 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.

CONTRIBUTED TALKS (* = UNDERGRADUATE; ** = COMMUNITY PARTNER)

- 2018 Sork, V. L., S. Fitz-Gibbon, **L. Browne**, P. Gugger, J. Wright, and M. Pellegrini. Epigenetics in oaks. 9th International Oak Society Conference, Davis, California.
- 2018 **Browne, L.**, J. Wright, P. Gugger, and V. L. Sork. Predicting the growth of Valley oak in a changing climate using common garden & genomic approaches. Ecological Society of America. New Orleans, Louisiana.
- 2018 Carrasco, L., J. Karubian, F. Castillo**, J. Rivero, **L. Browne**, and E. Bonaccorso. Avian biodiversity in a fragmented landscape in the Ecuadorian Chocó: 2003-2017. Ecuadorian National Ornithology Conference. Arenillas, Ecuador.
- 2017 **Browne, L.** and J. Karubian. Rare genotype advantage promotes survival and genetic diversity of a tropical palm. Ecological Society of America. Portland, Oregon.
- 2017 **Browne, L.** and J. Karubian. Frequency-dependent selection for rare genotypes promotes genetic diversity of a tropical palm. Society for Integrative and Comparative Biology. New Orleans, Louisiana.
- Talk featured on [the Molecular Ecologist](#) blog
- 2017 Rivero de Aguilar, J., F. Castillo**, A. Moreno**, N. Peñafiel, **L. Browne**, S. Walter, J. Karubian, E. Bonaccorso. Pérdida de hábitat e infecciones por malaria aviar en fragmentos de bosque tropical de Ecuador. Charla congreso chileno de ornitología. Santa Cruz, Chile.
- 2016 Cabrera, D.**, M. Mahoney*, J. Olivo**, **L. Browne** and J. Karubian. Patterns of frugivory and seed dispersal by large frugivores in the Ecuadorian Chocó. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- 2016 Olivo, J.**, **L. Browne** and J. Karubian. A tale of two terrestrial birds: *Neomorphus radiolossus* and *Aramides wolfi*. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- Winner of best oral presentation

- 2016 Walter, S.T., **L. Browne**, J. Freile, J. Olivo**, M. González, and J. Karubian. Amount of surrounding forest cover best predicts diversity of large bodied frugivorous birds. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- 2015 **Browne, L.** and J. Karubian. Response of palm communities to habitat fragmentation in northwest Ecuador. World Palm Symposium. Armenia, Colombia.
- 2015 **Browne, L.**, K. Ottewell, and J. Karubian. 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.
- 2013 **Browne, L.** 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, Louisiana.
- 2013 **Browne, L.** Defaunation: the next global change? Tulane Ecolunch Seminar Series, New Orleans, Louisiana.
- 2013 **Browne, L.**, K. Ottewell, and J. Karubian. Genetic consequences of forest fragmentation in Ecuador for a widespread canopy palm. Student Conference on Conservation Science, American Museum of Natural History, New York City, New York.
- 2013 **Browne, L.**, K. Ottewell, and J. Karubian. Genetic and ecological consequences of forest fragmentation in Ecuador for the palm *Oenocarpus bataua*. Tulane Ecolunch Seminar Series, New Orleans, Louisiana.
- 2011 **Browne, L.** Impacts of behavior, movement, and the environment on seed dispersal: perspectives and advances in Neotropical avifauna. Neotropical Ornithology Congress, Cuzco, Peru.

POSTER PRESENTATIONS (* = UNDERGRADUATE; ** = COMMUNITY PARTNER)

- 2018 **L. Browne**, J. Wright, S. Fitz-Gibbon, P. Gugger, V. Sork. Future climate change will reduce the growth of California endemic Valley oak. 9th International Oak Society Conference, Davis, California.
- 2018 Choi, H. J.*, S. Thornburgh*, J. Leung*, **L. Browne**, and V. L. Sork. Relationship between environment and genetic background of California valley oak (*Quercus lobata*) and its germination rate. UCLA Research Poster Day, Los Angeles, California.
- 2018 Herrera, D.*, V. Balasa*, **L. Browne**, and V. L. Sork. How do genetic and maternal effects in valley oak (*Quercus lobata*) influence growth rates? UCLA Research Poster Day. Los Angeles, California.
- 2018 Olivo, J.**, M. Mahoney*, **L. Browne**, Z. Diaz-Martin, J. Cabrera**, M. González, J. Hazlehurst, and J. Karubian. Fruit removal by large avian frugivores varies based on habitat quality. Ecuadorian National Ornithology Conference. Arenillas, Ecuador.
- Winner of best poster presentation

- 2018 Cabrerera, D.** , T. Ramirez*, **L. Browne**, Z. Diaz-Martin, and J. Karubian. Seed dispersal in leks of the long-wattled umbrellabird (*Cephalopterus penduliger*) increases species diversity compared to nearby sites. Ecuadorian National Ornithology Conference. Arenillas, Ecuador.
- 2016 **L. Browne**, F. Castillo**, J. Riveiro, A. Moreno**, S.T. Walter, R. Ribeiro, and J. Karubian. Diversity of understory birds in forest fragments of the Ecuadorian Chocó. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- 2016 N. González**, **L. Browne**, S.T. Walter, J. Loor**, M. Darkes*, J. Freile, T. Gillespie and J. Karubian. Diversity of nocturnal birds in forest fragments of the Ecuadorian Chocó. Ecuadorian National Ornithology Conference. Zamora, Ecuador.
- Winner of best poster presentation
- 2015 Olivo, J.** , J.B. Cox*, **L. Browne**, and J. Karubian. Use of aerial and terrestrial camera traps for describing palm frugivore communities. World Palm Symposium. Armenia, Colombia.
- 2015 Castillo, F.** , M. Chambers*, **L. Browne**, and J. Karubian. How does dispersal into umbrellabird lek breeding sites impact survival of *Oenocarpus bataua* seedlings? World Palm Symposium. Armenia, Colombia.
- 2015 Cabrera, D.** , Z. Diaz-Martin, **L. Browne**, and J. Karubian. Using seed traps to describe fruiting phenology of palm communities. World Palm Symposium. Armenia, Colombia.
- 2014 Olivo, J.** , M. Gonzáles, **L. Browne**, S.T. Walter, and J. Karubian. Study of avian diversity in forest fragments in the Mache-Chindul Reserve. Ecuadorian Ornithology Meeting. Maldonado, Ecuador.
- 2014 Walter, S.T., F. Castillo**, J. Rivero, J. Olivo**, **L. Browne**, M. Darkes*, A. Moreno**, N. González**, J. Loor**, M. Gonzáles, J. Freile, and J. Karubian. 2014. Avian community diversity across forest fragments in Ecuador. Ecuadorian Ornithology Meeting. Maldonado, Ecuador.
- 2014 Chambers, M.* , **Browne, L.**, and J. Karubian. 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, Louisiana.
- 2014 **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, Louisiana.
- 2013 **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.
- 2013 **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, Louisiana.
- 2011 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.

TEACHING EXPERIENCE

UCLA/La Kretz Center Workshop in Conservation Genomics	Instructor	UCLA	2018
Tropical Field Biology & Conservation	Instructor	Tulane University (based in Ecuador)	2017
Diversity of Life	Teaching Assistant	Tulane University	2017
Introduction to Environmental Studies	Guest Lecture	Tulane University	2017
Tropical Biology	Guest Lecture	Tulane University	2017
Ecology	Teaching Assistant	Tulane University	2016
Introduction to R	Guest Lecture	Tulane University	2015
Tropical Field Biology & Conservation	Teaching Assistant	Tulane University (based in Ecuador)	2013,15
R Club	Founder	Tulane University	2012,13
Techniques in Conservation Biology	Teaching Assistant	Smithsonian Conservation Biology Institute	2011

PROFESSIONAL SERVICE

Molecular Ecology & Molecular Ecology Resources Junior Editorial Board – Inaugural Member	2018-present
UCLA La Kretz Center Postdoc search committee	2018
Ecological Society of America Buell Award Judge	2018
UCLA La Kretz Center Research grant committee	2017,18
Organization for Tropical Studies (OTS) Student paper award committee	2017

MANUSCRIPT REVIEWS: Molecular Ecology (3x), Ecological Monographs, Journal of Ecology, Ecology and Evolution, Scientific Reports, Biotropica (3x), Biodiversity and Conservation

OUTREACH

Ecological Society of America SEEDS mentor	2018
Workshop on California Oaks – Wishtoyo Chumash Village	2018
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	2015
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 (6 th – 8 th grade). Benjamin Franklin Elementary Mathematics and Science school, New Orleans, LA	2014
Classroom helper (6 th grade Life science), Reading mentor (Kindergarten). Benjamin Banneker Charter Public School, New Orleans, LA	2013
College Captain for STEM Awareness (8 th grade). Viva Technology, Luling, LA	2013
Science Fair Judge (6 th – 8 th grade). Benjamin Franklin Elementary Mathematics and Science school, New Orleans, LA	2013
Math and Science Tutor (8 th grade). Sophie B. Wright Public Charter School, New Orleans, LA	2012
Annual Environmental Fair. La Y de la Laguna, Mache-Chindul Ecological Reserve, Ecuador	2012

MENTORSHIP & ADVISING

Maria Alvarez	ESA SEEDS Mentee	North Carolina State
Courtney Horn	Independent research	UCLA
Kevin Chang	Independent research	UCLA
Zeynep Celikkol	Independent research	UCLA
Benjamin Kleinerman	Research credit	UCLA
David Herrera	Research credit	UCLA
Sara Thornburgh	Research credit	UCLA
Veeksha Balasa	Research credit	UCLA
Hee Joon Choi	Research credit	UCLA
Jason Leung	Research credit	UCLA
Tadeo Ramirez	Honor's thesis	Tulane University
Michael Mahoney	Honor's thesis	Tulane University
Annie Russell	Field research	Tulane University
Molly Rowe	Field research	Tulane University
Malinda Chambers	Master's thesis	Tulane University
John Bailey Cox	Field research	Tulane University
Erik Iverson	Field research	Tulane University
Dor Haberer	Field research	Tulane University
Cassidy Anton	Field research	UC Santa Barbara
Gilbert Dreschke	Honor's Thesis	University of Innsbruck

SPECIALIZED TRAINING

Faculty Workshop on Best Practices in Teaching - UCLA	2018
UCLA La Kretz Conservation Genomics Workshop. Santa Monica Mountains, California	2015
NIMBioS Tutorial: Computing in the cloud: what every computational life scientist should know. University of Tennessee, Knoxville	2014
Hierarchical models for abundance, distribution and species richness in spatially structured populations using unmarked/R and WinBUGS. USGS Patuxent Wildlife Research Center	2012

OTS Tropical Biology: An Ecological Approach 2012 – 1. Organization for Tropical Studies, 2012
Costa Rica & Duke University

Summer Institute for Training in Biostatistics and Genetic Epidemiology Statistics. 2011
Washington University in St. Louis, Missouri

PROFESSIONAL AFFILIATIONS: Ecological Society of America, Association for Tropical Biology and Conservation, Fundación para la Conservación de los Andes Tropicales

LANGUAGES: Spanish, R, C++, Python, HTML, CSS