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ADDRESS

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EDUCATION & TRAINING

Cornell University, Postdoctoral Fellow, Advisor: Mike Webster	2017 – 2018
Cornell University, NSF Postdoctoral Fellow, Advisors: Mike Webster & Irby Lovette	2015 - 2017
University of Arizona, PERT Postdoctoral Fellow, Advisor: A. Dornhaus	2015
University of Miami, Ph.D., Advisor: W. Searcy	2009 - 2015
Colgate University, B.A., Advisors: K. Ingram and F. Frey	2005 - 2009

POSITIONS

Assistant Professor of Biology, SUNY Buffalo State, 2018 - current
Cornell Lab of Ornithology Postdoctoral Fellow, 2017 - 2018
National Science Foundation Postdoctoral Fellow, 2015 - 2017
PERT Postdoctoral Research Fellow, 2015
National Geographic Young Explorer, 2013 - 2015
University of Miami College of Arts and Sciences Dissertation Fellow, 2014-2015
University Teaching Assistant, University of Miami, 2009-2014
Environmental Research Fellow with K. Hopfensperger, Colgate University, 2008
Field Biology Research Fellow with K. Powers, University of Notre Dame, 2007

PUBLICATIONS (*Denotes Undergraduate Co-author); h-index: 10

In review:

24. LaPergola, J.; **Leighton, G.M.**; Riehl, C.; The Population Genetics of Palmchats in the Dominican Republic. *In review at Ibis*.

Published / in press:

23. **Leighton, G.M.**; Drury, J.; Miller, E.T. Unfamiliarity generates costly aggression in interspecific dominance hierarchies. *Nature Communications*. **15**, 335 (2024).
<https://doi.org/10.1038/s41467-023-44613-0>

22. **Leighton, G.M.**; Malcolm, K.*; Lamour, D.*; & Miller, E.T.; (2023) “Both morphological and behavioral traits predict interspecific social dominance in birds”. *Journal of Ornithology*. 164, 163–169 (2023) <https://doi.org/10.1007/s10336-022-02022-y>
21. **Leighton, G.M.**; Lu, L.J.*; Dobler, J.*; Holop, E.*; & Ligon, R.A.; (2021). “Sociality and migration predict hybridization across birds”. *Proceedings of the Royal Society: B*. 20201946. <https://doi.org/10.1098/rspb.2020.1946>
20. Odom, K.; Araya-Salas, M.; Morano, J.; Ligon, R.; **Leighton, G.M.**; Taff, C.; Dalziell, A.; Billings, A.; Germain, R.; Pardo, M.; de Andrade, G.; Hedwig, D.; Keen, S.; Yu, S.; Charif, R.; Webster, M.; & Rice, A.; (2021). “Comparative Bioacoustics: A Roadmap for Quantifying and Comparing Animal Sounds Across Diverse Taxa”. 96:1135-1159. <https://doi.org/10.1111/brv.12695>
19. **Leighton, G.M.**; & Birmingham, T.*; (2021) “Multiple factors affect the evolution of repertoire size across birds”. *Behavioral Ecology* 32(3): 380-385. <https://doi.org/10.1093/beheco/araa139> (*Editor’s Choice*).
18. Miller, E.T., **Leighton, G.M.**, Freeman, B.G., Lees, A.C., Ligon, R.A. (2020). “Reply to Convergent and divergent selection in sympatry drive plumage evolution in woodpeckers”. *Nature Communications*. 11:145
17. Miller, E.T., **Leighton, G.M.**, Freeman, B.G., Lees, A.C., Ligon, R.A. (2019). “Ecological and geographical overlap drive plumage evolution and mimicry in woodpeckers”. *Nature Communications*. 10:1602
16. MacLeod, K.M., Freidenfelds, N.A., **Leighton, G.M.**, Langkilde, T. (2019) “Tree selection is linked to locomotor performance and associated noise production in a lizard”. *Journal of Zoology*. <https://doi.org/10.1111/jzo.12632>
15. **Leighton, G.M.**, Lees, A.C., Miller, E.T. (2018) “The Hairy-Downy game revisited: an empirical test of the Interspecific Social Dominance Mimicry Hypothesis”. *Animal Behavior* 137: 141-148.
14. Webster, M.S.; Ligon, R.A.; **Leighton, G.M.** (2018) “Honest signaling of quality in animal aggregations”. *Animal Behavior* 143: 167-176.
13. **Leighton, G.M.** (2017) “Cooperative Breeding Influences the Number and Type of Vocalizations in Avian Lineages”. *Proceedings of the Royal Society B* 284(1868): 1-9.
12. **Leighton, G.M.**; Charbonneau, D.; Dornhaus, A. (2017) “Task-switching is Associated with Temporal Delays in *Temnothorax rugatulus* Ants”. *Behavioral Ecology* 28(1): 319-327.
11. **Leighton, G.M.**; *Echeverri, S. (2016) “Population genomics of Sociable Weavers *Philetairus socius* reveals considerable admixture among colonies”. *Journal of Ornithology* 157(2): 483-492.
10. **Leighton, G.M.** (2016) Evolutionary Mechanisms Maintaining Nest Construction in Avian Clades. *Avian Biology Research*, 9(1): 44-51.
9. **Leighton, G.M.**; *Vander Meiden, L. (2016) “Sociable Weavers Increase Cooperative Nest Construction After Suffering Aggression.” *PLoS ONE*, 11(3): e0150953.
8. **Leighton, G.M.**; *Echeverri, S.; Heinrich, D.; Kolberg, H. (2015). “Relatedness Predicts Multiple Measures of Investment in Cooperative Nest Construction in Sociable Weavers”. *Behavioral Ecology and Sociobiology*, 69: 1835-1843.

7. **Leighton, G.M.;** *Echeverri, S. (2015). “Stable Isotope Signatures Reveal Cryptic Differences in the Diet of Sociable Weavers (*Philetairus socius*).” *Avian Biology Research*. 8(2): 104-108.
6. **Leighton, G.M.** (2014). “Sex and individual differences in cooperative nest construction of sociable weavers.” *Journal of Ornithology*, 155(4): 927-935.
DOI: 10.1007/s10336-014-1075-3
5. **Leighton, G.M.** (2014). “The Relative Effectiveness of Signaling Systems: Relying on External Items Reduces Signaling Accuracy while Leks Increase Accuracy.” *PLoS ONE*, 9(3): e91725
4. **Leighton, G.M.** (2014). “Multiple Interactive Simulations of Public Goods Games Promotes Knowledge of Evolutionary Mechanisms that Maintain Cooperation”. *Evolution: Education and Outreach* 7(19): 1-7.
3. **Leighton, G.M.;** *Echeverri, S. (2014). “Non-Linear Influence of Nest Size on Thermal Buffering of Sociable Weaver Nests and the Maintenance of Cooperative Nest Construction.” *Avian Biology Research*. 7(4): 255-260.
2. Hopfensperger, K.N.; **Leighton, G.M.;** Fahey, T.J. (2011). “Influence of Invasive Earthworms on Above and Below ground Vegetation in a Northern Hardwood Forest”. *American Midland Naturalist*. 166(1): 53-62.
1. **Leighton, G.M.;** Lee, J. Francl; K. (2009). “Influence of Structural Complexity on Bat Activity at Palustrine Habitats in the Northern Great Lakes Region”. *Michigan Academician*. 39(3):163-176.

PUBLICATIONS (NOT REFEREED)

Leighton, G.M. (2014). “Sociable Weavers: An Opportunity to Test the General Principles of Social Evolution”. *Lanioturdus*, 46(5): 19-22.

POPULAR PRESS

Research has been discussed in *National Geographic*, *Wired Magazine*, *Publiscize.com*, *Audubon*, and *Talking Birds*

GRANTS & FELLOWSHIPS (Total awarded to date: \$204,036)

Buffalo State College Undergraduate Summer Research Fund, 2020 (\$500.00)
 Buffalo State College Undergraduate Summer Research Fund, 2019 (\$500.00)
 National Science Foundation Postdoctoral Research Fellowship in Biology, \$138,000, 2015-2017
 University of Arizona Center for Insect Science Seed Grant, \$10,000.00, 2015
 Postdoctoral Excellence in Research and Teaching Fellowship. National Institutes of Health, through the Center for Insect Science, University of Arizona, AZ. \$144,000.00, 2014 – 2017 (Declined 2nd and 3rd year).
 Kushlan Graduate Research Support Grant, \$708.00, 2014
 University of Miami College of Arts and Sciences Dissertation Fellowship, \$22,000.00, 2014
 Frank M. Chapman Memorial Fund from American Museum of Natural History, (Declined), \$600.00, 2013
 National Geographic Young Explorer’s Grant, \$3640.00, 2013
 Kushlan Graduate Research Support Grant, \$770.00, 2012
 University of Miami College Of Arts and Sciences Doctoral Summer Award, \$5,000.00, 2012
 National Science Foundation Doctoral Dissertation Improvement Grant, \$14,918.00, 2012-2014
 Max and Peggy Kriloff Travel Award, \$200.00, 2011
 National Academy of Sciences Travel Grant, \$250.00, 2010

GAFAC Travel Grant, \$350.00, 2010
William H. Evoy Graduate Research Support Fund, \$600.00, 2010

AWARDS

Best Student Talk, Division of Animal Behavior, Society for Integrative and Comparative Biology, 2015

REFEREE

Proceedings of the Royal Society: B, Evolution, The American Naturalist, PLoS Biology, Philosophical Transactions of the Royal Society: B, Molecular Biology and Evolution, Journal of Animal Ecology, Behavioural Ecology, Animal Behavior, Behavioral Ecology & Sociobiology, Behaviour, Integrative and Comparative Biology, Biological Journal of the Linnean Society, African Journal of Ecology, Scientific Reports, Biotropica, Journal of Ornithology, Journal of Avian Biology, The Auk, BMC Zoology, Ecology & Evolution, PeerJ

GRANT REVIEWER

NSF reviewer, 2023
NSF reviewer, 2020
Animal Behavior Society (Student Grants), 2018
Sigma Xi, 2018

HONORS

Top Student in Environmental Studies, Class of 2009: Colgate University, 2009

INVITED SEMINARS

Daemen College, Department of Biology, 2022
SUNY Oswego, Department of Biology, 2020
Eckerd College, Department of Biology, 2017
Cornell University, Department of Neurobiology & Behavior, 2017
Cornell University Lab of Ornithology, 2015
University of Arizona Department of Entomology, 2015
Broward Community College, 2013

ORAL PRESENTATIONS (*Invited conference presentation)

15. "Local weather conditions alter aggressive outcomes at food resources in North American birds", AOS 2022
14. "Macroevolution of Hybridization in Birds", NAOC2020
13. "Interspecific Aggression and the Evolution of Avian Mimicry in Woodpeckers", AOS, 2019*
12. "Influence of Ecological and Social factors on Repertoire size in Birds", ISBE, 2018
11. "Cooperative Breeding Influences Evolution of Communicative Complexity in Birds", Evolution, 2017
10. "Cooperative Breeding is Associated with Increased Communicative Complexity in Avian Species", Animal Behavior Society, 2017
9. "Cryptic differences in gene expression among behavioral castes of *Temnothorax rugatulus*", SICB, The Development and Mechanisms Underlying Inter-individual Variation in Pro-social Behavior Symposium, 2017*
8. "Sociality influences call repertoire size across avian lineages", NAOC, 2016

7. “Evolutionary forces that maintain large communal nests: cooperation, conflict, and the potential for signaling in sociable weavers.” Nest Construction and Function, Lincoln, UK 2015*
6. “Cooperation, conflict, and the evolutionary maintenance of a communal good in sociable weavers” Evolution of Organismality conference, 2015*
5. “Genomic relatedness predicts investment in a public good” Society for Integrative Biologists, Winner of DAB Best Talk Competition, 2015
4. “The Evolutionary Maintenance of Cooperative Nest Construction in Sociable Weavers” Finalist in Animal Behavior Society Allee Competition, 2014
3. “Sex Difference in Behavior and Genomic Data Suggest Indirect Benefits Important for the Maintenance of Cooperative Nest Construction in Sociable Weavers” AOU and COS Joint Meeting, 2013
2. “Sex Difference in Behavior and Genomic Data Suggest Indirect Benefits Important for the Maintenance of Cooperative Nest Construction in Sociable Weavers” Animal Behavior Society, 2013
1. “Sex Difference in Behavior and Genetic Data Suggest Indirect Benefits Important for the Maintenance of Cooperative Nest Construction in Sociable Weavers” Evolution, 2013

POSTER PRESENTATIONS

6. “The influence of sociality on the complexity of communication in avian species” NSF Postdoctoral Fellows Meeting, Harvard University, Boston, 2017
5. “Indirect Benefits Likely Important for Cooperative Nest Construction in Sociable Weavers” Animal Behavior Society meeting jointly hosted with the International Ethological Congress, University of Indiana, Bloomington, 2011
4. “Minimizing exploitation via directed cooperation” Research, Creativity, and Innovation Forum, University of Miami, 2011
3. “Minimizing exploitation via directed cooperation” University of Miami Graduate Symposium, 2011
2. “Explaining variable cooperation in communal nest building” University of Miami Graduate Symposium, 2010
1. “*hedgehog* expression during development of large-egg larvae in the poecilogonous marine annelid, *Streblospio benedicti*” Colgate University Biology Research Symposium, 2009

TEACHING EXPERIENCE*

Bio 670 Advanced Data Analysis, 2021
 Bio 389 Experimental Behavioral Ecology, Buffalo State, 2021
 Bio 300 Biostatistics, Buffalo State, 2020-2022
 Bio 405W Organic Evolution, Buffalo State, 2019-2022
 Bio 333 Organismal Form and Function, Buffalo State, 2019
 Bio 213 Intro to Ecology, Evolution, and Behavior, Buffalo State, 2018-2022
 Biology 1440 (Comparative Physiology), Cornell University, Summer 2018
 Freshman Writing Seminar: Cooperation, Complexity, and Evolution, Cornell University, 2018
 Biology 1250 Understanding Social Evolution, Cornell University, 2017
 Biology 162 HHMI Laboratory Instructor, University of Miami, 2011-2012, 2014
 Biology 152 HHMI Laboratory Instructor, University of Miami, 2010-2012, 2014
 Biology 161 Laboratory Instructor, University of Miami, 2010, 2013
 Biology 151 Laboratory Instructor, University of Miami, 2009, 2013

*A copy of my teaching statement is available upon request.

STUDENT MENTORING AND SUPPORT

Destiny Denz – Independent undergraduate research, 2022
Brianna Saylor – Independent undergraduate research, 2020
Nneoma Anyaso – Undergraduate Research Summer Fellowship, 2020 (cancelled due to COVID)
Connor McGrath – Undergraduate Research Summer Fellowship, 2019
Khalil Malcolm – Independent Undergraduate Research 2019
Tucker Birmingham – Independent undergraduate research, 2018
Eliot Holop – Independent undergraduate research, 2018
Jessica Dobler – Independent undergraduate research, 2018
Lucy Jingli Lu – Independent undergraduate research, 2017
Vincent Tso - Undergraduate research, 2015
Preston Cooper - Undergraduate research, 2015
Natalia Uehara - Undergraduate summer research, 2015
Raynisha Jewelryman - KEYS High School Student Research, 2015
Dorian Tallman - KEYS High School Student Research, 2015
Laura Vander Meiden - (currently Ph.D. student at University of Nebraska), Field research, 2014
Sebastian Echeverri - (Ph.D., University of Pittsburgh), Field research 2012-2013
Shawn Daniel (Currently in law school) - 2010-2011

SERVICE

Biology Graduate Committee, 2022-present, SUNY Buffalo State
IACUC Review Committee, 2018-present, SUNY Buffalo State
Research and Creativity Committee, 2019-2022, SUNY Buffalo State
Undergraduate Research Committee, 2018-present, SUNY Buffalo State
Advising and Communications Committee, 2019-2020, SUNY Buffalo State
Biology Graduate Student Association Vice President, 2013-2014
Member of the Department of Biology's Graduate Admissions and Advertisement Committee, 2012-2013
Biology representative to the GSA, University of Miami, 2010-2011

OUTREACH

Burchfield-Penney Art Center Virtual Talk on Bird Song (2020)
Delivered the William C. Vaughan Public Lecture at the Buffalo Museum of Science (2018)
Writer for National Geographic's Explorers Journal Blog, 2014
Invited writer for Namibian Bird Journal *Lanioturdus*, 2012-2013