Grace Smith-Vidaurre

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Appointments and educational history

2021 - 22	**NSF Postdoc Research Fellow**	The Rockefeller University, University of Cincinnati
2013 - 20	**PhD, Ecology and Evolutionary Biology**	New Mexico State University
2007 - 11	**BS, Biology and Spanish**	Haverford College

Publications and accepted manuscripts

*undergraduate mentee

7. Smith-Vidaurre, G., *Perez-Marrufo, V., and T.F. Wright. (2021). Individual vocal signatures show reduced complexity following invasion. Animal Behavior, in press.

6. Smith-Vidaurre, G., Araya-Salas, M., and T.F. Wright. (2020). Individual signatures outweigh social group membership in contact calls of a communally nesting parrot. Behavioral Ecology, 31: 448-458.

5. Araya-Salas, M., **Smith-Vidaurre, G.**, González-Gómez, P., Mennill, D., and T.F. Wright. (2019). Social group signatures in hummingbird displays provide evidence of co-occurrence of vocal and visual learning. Proceedings of the Royal Society B, 286: 20190666.

4. Wright, T. F., Lewis, T. C., Lezama-López, M., **Smith-Vidaurre, G.**, and Dahlin, C. R. (2018). Yellow-naped Amazon (Amazona auropalliata) populations are markedly low and rapidly declining in Costa Rica and Nicaragua. Bird Conservation International, 29(2): 291-307.

3. Araya-Salas, M., **Smith-Vidaurre, G.**, and M. Webster. (2017). Assessing the effect of sound file compression and background noise on measures of acoustic signal structure. Bioacoustics 28: 57-73.

2. Hobson, E.A., **Smith-Vidaurre, G.**, and A. Salinas-Melgoza. (2017). History of nonnative Monk Parakeets in Mexico. PLOS ONE 12(9): e0184771.

1. Araya-Salas, M. and **Smith-Vidaurre, G.**. (2016). warbleR: an R package to streamline analysis of animal acoustic signals. Methods in Ecology and Evolution 8: 184-191.

Manuscripts in prep

*undergraduate mentee

Smith-Vidaurre, G., *Perez-Marrufo, V., Hellmich, D. L., Hobson, E.A., Salinas-Melgoza, A. and T.F. Wright. Strong individual signatures persist in learned calls of a parrot following invasion.

Smith-Vidaurre, G., Veale, A., Russello, M., Mudge, J., Sundararajan, A., and T.F. Wright. Origins of and selection in a biological invader.

Dahlin, C.R., **Smith-Vidaurre, G.**, Hellmich, D., Dupin, M., and T.F. Wright. Long term monitoring of cultural evolution in parrot vocal dialects.

Book chapters

Russello, M.R., **Smith-Vidaurre, G.**, and T.F. Wright. Genetics of invasive parrot populations. *Naturalized parrots of the world: Distribution, ecology, and impacts of the world's most colorful colonizers*. Stephen Pruett-Jones (Ed). Princeton University Press, 2021.

Software

Araya-Salas, M., **Smith-Vidaurre, G.**, and H. Zhong. 2015. warbleR: an R package to streamline bioacoustic analysis. URL: http://cran.r-project.org/package=warbleR.

Fellowships and funding

NSF Broadening Participation Postdoctoral Research Fellowship	2021 - present
NMSU Whaley Fieldwork Award, Biology Department	2017
Fulbright Study/Research fellowship for fieldwork in Uruguay	2016
American Ornithologists' Union Carnes Award for fieldwork in Uruguay	2016
Private donation from Drs. Michael and Susan Achey to support PhD research	2014
NMSU College of Arts and Sciences Graduate Tuition Scholarship	2013 – 2017

Awards

NMSU Outstanding Graduate Award, College of Arts and Sciences	2020
NMSU Biology Department Graduate Award for Excellence in Research	2019
NMSU Graduate School Merit-Based Enhancement Award	2016, 2019
NMSU Biology Department Graduate Award for Excellence in Teaching	2016
NMSU Biology Department Star, College of Arts and Sciences Award	2016
Nominee for Thomas J. Watson Fellowship at Haverford	2011
Manuel J. and Elisa P. Asensio Prize for best senior thesis in Spanish	2011

Presentation Awards: NMSU Biosymposium Best Graduate Talk (2020), NMSU Biosymposium Best Graduate Poster (2015, 2018), NMSU Graduate Research and Arts Symposium (GRAS) Honorable Poster Mention (2015)

Travel and Diversity Awards: Society for Integrative and Comparative Biology (SICB: 2016, 2019), Animal Behavior Society (2015, 2019), NMSU College of Arts and Sciences (2015, 2019), American Ornithologist's Society (AOS: 2018, 2020)

Invited talks

Allee Competition symposium. *Resilience and sensitivity of learned vocalizations to social change*. To be delivered at the 58th annual conference of the Animal Behavior Society August 2021

Integrated Behavioral Research Group seminar. *Monk parakeet calls exhibit resilience and sensitivity to invasion*. Princeton Ecology and Evolutionary Biology. Mar 2021

Coffee with Scientists talk with Fedorova, N. and Logan, C.J. *Understanding urban history from an ecological perspective*. Dept. of History and Philosophy of Science, University of Cambridge Nov 2020

Departmental seminar. *Learned calls of monk parakeets exhibit sensitivity and resilience to invasion*. Dept. of Biological Sciences, University of Cincinnati Oct 2020

Symposium talk with Russello, M.A. and Wright, T.F. *Genetics of invasive parrots: insights into origins, invasion patterns and adaptation*. Symposium titled *The global rise of naturalized parrots: status, lessons learned, and emerging issues*, North American Ornithological Conference Aug 2020

Seminar delivered to ethology class. *Más allá de los genes: La evolución y los cambios ambientales producidos por hombre*, la Universidad de la República, Uruguay Jun 2017

Presentations

Smith-Vidaurre, G., Perez, V., and T.F. Wright. Invasion influences the complexity of individual signatures in learned contact calls of a parrot. Talk, ABS Jul 2020

Smith-Vidaurre, G., Perez, V., and T.F. Wright. Patterns of vocal variation are conserved between a parrot's native and invasive range. Talk, NMSU Biosymposium Mar 2020

Smith-Vidaurre, G., Araya-Salas, M., and T.F. Wright. Social information differs among contact calls of three vocal learning species. Talk, ABS Jul 2019

Smith-Vidaurre, G., Araya-Salas, M., and T.F. Wright. Distinct social information in contact calls of three vocal learning species. Poster, Songbird and Animal Communication Jul 2019

Smith-Vidaurre, G., Araya-Salas, M., and T.F. Wright. Monk parakeets exhibit low acoustic convergence across social scales in their native range. Talk, SICB Jan 2019

Smith-Vidaurre, G., and T.F. Wright. Mapping patterns of vocal variation in the native range of an invasive parrot. Poster presented at:

- NMSU Biosymposium Feb 2018
- American Ornithologists' Society Apr 2018

Hobson, E.A, **Smith-Vidaurre, G.**, and A. Salinas-Melgoza. History of nonnative Monk Parakeets in Mexico. Talk, Ornithological Congress of the Americas Aug 2017

Araya-Salas, M., **Smith-Vidaurre, G.**, Mennill, D. and T.F. Wright. 2015. Social group signatures provide evidence of learning in visual displays. Talk, ABS Jun 2015

Smith-Vidaurre, G., A. Veale, M.A. Russello and T.F. Wright. Identifying genomic evidence of adaptation to novel environments in an invasive parakeet (*Myiopsitta monachus*). Poster presented at:

- Society for Integrative and Comparative Biology — Jan 2016
- NMSU Biosymposium — Apr and Oct 2015
- New Mexico IDeA Networks of Biomedical Research Excellence Symposium — Mar 2015
- NMSU GRAS — Mar 2015

Research experience

Graduate research assistant, The Ohio State University, Assessing vocal variation over social scales and evidence of vocal learning in vampire bats, with Dr. Gerry Carter — Jan – Aug 2020

Graduate research assistant, Jornada Basin Long-Term Ecological Research Station, Employing a Big Data approach in R to assess cyclical spatiotemporal disease occurrence, with Dr. Heather Savoy in Dr. Debra Peter's group — Jun 2018 – Dec 2019

Visiting researcher, Santa Fe Institute, Monk parakeet research collaborative visit, with Drs. Elizabeth Hobson and Alejandro Salinas-Melgoza — 01 – 07 Nov 2016

Graduate research assistant, NMSU, Evaluating quasispecies diversity in dengue virus strains, Dr. Kathryn Hanley — 21 May – Oct 2016

Field research technician, Pacific coast of Nicaragua, Assessing spatiotemporal variability in parrot vocal dialects, Drs. Tim Wright, Christine Dahlin — 22 Jun – 12 Jul 2016

Sanger DNA Sequencing Graduate Assistant, NMSU Biology Department — Spring 2016

Bioinformatics intern, National Center for Genome Resources, Santa Fe, NM. Research internship in cutting-edge genomics and bioinformatics — 16 Jun – 10 Jul 2015

Visiting researcher, University of British Columbia-Okanagan, Kelowna, BC, Canada. Restriction enzyme associated DNA sequencing (RAD-seq) bioinformatics, library prep, Drs. Andrew Veale, Michael Russello — 7 Jul – 5 Aug 2014, 15 Jan – 26 Jan 2015

Avian field research technician:

- La Selva Biological Station, Sarapiquí, Costa Rica. Social learning in hummingbirds with Drs. Marcelo Araya-Salas and Tim Wright — Jan – Apr 2013
- RI Department of Environmental Management, Kingston, RI. Management research with 3 native duck species — Nov 2011 – Mar 2012

Undergraduate thesis, Haverford College Biology Department.

Using acrylodan to probe oligomeric structures formed by the huntingtin N-terminus during aggregation, Dr. Robert Fairman Sep 2010 – Apr 2011

Undergraduate thesis, Haverford College Spanish Department.
Esta criatura no es de aquí: constelaciones de transformaciones y la invasión de la barbarie en 2666, Dr. Roberto Castillo-Sandoval Sep 2010 – Apr 2011

Professional development

Accepted to Weaving the Future of Animal Behavior (WFAB) professional development workshop offered at the 58th annual meeting of Animal Behavior Society, 2021

Received instructor training to learn best practices for teaching coding to researchers at different experience levels, provided by the Carpentries community initiative

Attended mentor training with Wisconsin Institute for Science Education and Community Engagement through NSF Research Experience for Undergraduates mentoring program with Rocky Mountain Biological Laboratories, 2021

Attended NextProf Science 2021 virtual workshop, University of Michigan

Attended Complex Networks Winter Workshop, Jan. 3rd – Jan. 16th, 2021

Attended NextProf Science 2020 virtual workshop, University of Michigan

Co-delivered workshop *Packages for streamlined bioacoustics analyses in R*, AOS annual meeting, Tucson, AZ with Dr. Marcelo Araya-Salas, 10 Apr 2018

Delivered workshop *An introduction to coding and bioacoustics analyses in R*, Wright Lab, NMSU, 01 Mar 2018 – 16 May 2018 (weekly sessions)

Delivered workshop *warbleR: a package for streamlined bioacoustic analyses in R*, 1st Ornithological Congress of the Americas, Puerto Iguazú, Argentina, 7 Aug 2017

Co-delivered workshop *Taller de bioacústica: análisis de sonidos animales en R*, UCA, Managua, Nicaragua, with Dr. Marcelo Araya-Salas, 13-17 Jul 2017

Attended *UCLA/La Kretz Center for California Conservation Science Workshop in Conservation Genomics*, La Kretz Field Station, 20-24 Mar 2016

Organized and delivered one session of *Biology Graduate Student Organization R workshop*, NMSU Biology Department, 08 - 09 Nov 2015

Co-delivered workshop *Taller de bioacústica: análisis de sonidos animales en R y la aplicación en la biología de la conservación*, Organization for Tropical Studies Palo Verde Research Station, with Dr. Marcelo Araya-Salas, 14-19 Jul 2015

Attended NIMBioS *Graduate Workshop on Current Issues in Statistical Ecology*, National Institute for Mathematical and Biological Synthesis (NIMBioS), Knoxville, 15 – 17 Apr 2015

Teaching

Guest lecturer for R course with Dr. Scott Ferrenberg, NMSU Biology (April 3rd , 2019)
Teaching Assistant, NMSU Biology Department:

- BIOL 211: Cellular and Organismal Biology Lecture (Spring 2018)
- BIOL 309 and 350 (HHMI): Guided Biological Research (Fall 2016, Spring and Fall 2015)
- BIOL 211: Cellular and Organismal Biology Lab (Fall 2013, Spring 2014)

HHMI Graduate Assistant (designed active learning exercises), NMSU (Fall 2015, Spring 2017)
Substitute Teacher, Moses Brown School, Providence, RI (Fall 2012)
Teaching Assistant, Haverford College, Spanish Department (Fall 2010)

Mentoring activities

Asterisks indicate students from underrepresented groups in science

2021 Jasmine Brace*: Data analysis, writing, dissemination of results, NSF Research Experience for Undergraduates Scholar with remote Rocky Mountain Biological Laboratories program

2019-20 Valeria Perez-Marrufo*: Data collection and analysis, dissemination of results at local symposia and national conferences, Maximizing Access to Research undergraduate student (NMSU)

Service

Peer mentoring: Women of Color in Ecology and Evolutionary Biology (WOCinEEB), Animal Behavior Collective (ABC), Weaving the Future of Animal Behavior (WFAB)
Journal reviewer: *Bioacoustics, Animal Behavior, Methods in Ecology and Evolution, Ecology, Ornithology*

Outreach

TED-Ed lesson on parrot vocalizations and mimicry to be adapted for animation Jun 2021

Discussion panelist:

- Fulbright Uruguay Orientation Jul 2021
- Fulbright Workshops with NMSU Honors College Feb, Nov 2018
- Research Panel for New Mexico Alliance for Minority Participation Oct 2018

Twitter Takeover of Animal Behavior Society account, Research findings in animal communication with monk parakeets, learning how to code in R, and upcoming postdoc research Nov 2020

Podcast interview about monk parakeets, University of Southern California Annenberg Media, Liam Reilly Nov 2020

RLadies co-organizer, Monthly virtual meetings about R coding from September to December 2020, El Paso chapter and Las Cruces community Fall 2020

Skype a Scientist:

- Discussion with elementary school class Feb 2020
- LGBTIA+ LIVE Q and A session Jun 2020

Outreach volunteer, Making DNA bracelets to link structure and function, Vista Middle School and Hillrise Elementary, Las Cruces, NM with Dr. Michèle Shuster Jan 2018, Mar 2019

Outreach volunteer, Evolution and bioacoustics hands-on exercise with Sierra Middle School students, organized by Dr. Tim Wright, NMSU Biology Dept. Jan 2014, 2015, 2016

Science fair judge:

- Desert Hills Elementary, Las Cruces, NM Nov 2015
- Asombro Institute for Science Education, Las Cruces, NM Apr 2015

Society memberships

Animal Behavior Society	2015, 2019-21
American Ornithologists' Union	2014, 2018, 2020
Society for the Study of Evolution	2018
American Genetic Association	2016, 2018-19
SICB	2016, 2018-19
Graduate Women in Science	2018
Sigma Xi	2016
RLadies	2019-20
GeoLatinas	2020-21
Biology Graduate Student Organization office	2014 - 2016