



CURRICULUM VITAE

Appointments & Educational History

- 2019— **Assistant Professor**, Department of Biological Sciences, University of Cincinnati
- 2016-19 **Postdoctoral Fellow**, Santa Fe Institute
- 2014-16 **Postdoctoral Fellow**, National Institute for Mathematical and Biological Synthesis
- 2013 **Ph.D. in Biology** New Mexico State University, Las Cruces, New Mexico, U.S.A.
- 2004 **B.A. in Environmental Studies** McGill University, Montreal, Quebec, Canada

Grants, Fellowships, & Research Funding

- 2017-19 **U.S. Department of Defense, *The Role of Information in Structured Conflict***
Co-PI with Simon DeDeo (Carnegie Mellon) and Dan Mønster (Aarhus U.)
- 2016-19 **ASU-SFI Center for Biosocial Complex Systems Postdoctoral Fellowship**
- 2014-16 **National Inst. of Mathematical and Biological Synthesis Postdoctoral Fellowship**
- 2014-16 **NSF Biology International Postdoctoral Fellowship, *Declined***
- 2011-13 **NSF GK-12 Discover Science through Computational Thinking Fellowship**
- 2011-12 **Preparing Future Faculty Fellowship, *Declined***
- 2010-11 **Scientific Teaching Fellows Program**, Howard Hughes Medical Institute & NMSU
- 2008-09 **Merit-based Enhancement Fellowship**, New Mexico State University Graduate School
- 2008 **American Ornithologist's Union Student Research Grant**
- 2008 **Sigma Xi Grants-in-Aid of Research Grant**
- 2006-08 **Graduate Student Research Fellowship**, New Mexico Higher Education Department

Awards & Professional Recognition

- 2018 **Best Symposium Talk** (audience vote) in the symposium "*What Are We Not Asking About The Evolution of Behavior That We Should Be Asking*", Animal Behavior Conference, Milwaukee, WI
- 2013 **Graduate Award for Excellence in Research**, Department of Biology, New Mexico State University
- 2009-10 **Joaquin O. Loustaunau Memorial Graduate Award**, NMSU
- 2008-09 **Mike Watts Leadership Award**, NMSU Graduate School
- 2009 **Outstanding Poster Presentation**, Graduate Research and Arts Symposium, NMSU
- 2009 **Best Poster Presentation** at Biosymposium, Department of Biology, NMSU
- 2008 **Graduate Award for Excellence in Teaching**, Department of Biology, NMSU

Publications (superscripts indicate: ^Uundergraduate mentee; ^Ggraduate student mentee)

- [16] **Elizabeth A. Hobson**, Vanessa Ferdinand, Artemy Kolchinsky, and Joshua Garland. Rethinking animal social complexity measures with the help of complex systems concepts. *Animal Behaviour*, 155:287–296, 9 2019
- [15] Jonathan N. Pruitt, Andrew Berdahl, Christina Riehl, Noa Pinter-Wollman, Holly V. Moeller, Elizabeth G. Pringle, Lucy M. Aplin, Elva J. H. Robinson, Jacopo Grilli, Pamela Yeh, Van M. Savage, Michael H. Price, Joshua Garland, Ian C. Gilby, Margaret C. Crofoot, Grant N. Doering, and **Elizabeth A. Hobson**. Social tipping points in animal societies. *Proceedings of the Royal Society B*, DOI: 10.1098/rspb.2018.1282, 2018
- [14] Courtney L. Fitzpatrick, **Elizabeth A. Hobson**, Tamra C. Mendelson, Rafael L. Rodríguez, Rebecca J. Safran, Elizabeth Scordato, Maria R. Servedio, Caitlin A. Stern, Laurel Symes, and B. Michael Kopp. Theory meets empiry: a citation network analysis. *BioScience*, <https://doi.org/10.1093/biosci/biy083>, 2018. *Recommended in F1000Prime as being of special significance in its field*
- [13] David McDonald and **Elizabeth A. Hobson**. Edge-weight variance: population genetic metrics for social network analysis. *Animal Behaviour*, 136:239–250, 2018
- [12] **Elizabeth A. Hobson**, Grace Smith-Vidaurre, and Alejandro Salinas-Melgoza. History of nonnative monk parakeets in Mexico. *PLOS ONE*, 12(9):1–16, 2017
- [11] Donald Brightsmith*, **Elizabeth A. Hobson***, and Gustavo Martinez (* indicates shared primary authorship). Testing food availability and breeding season as drivers of geophagy in Amazonian parrots. *Ibis*, 160:112–129, 2017
- [10] Brittany Coppinger^(G), Ryan A. Cannistraci, Ferhat Karaman, Steven C. Kyle, **Elizabeth A. Hobson**, Todd M. Freeberg, and Jessica F. Hay. Studying audience effects in animals: What we can learn from human language research. *Animal Behaviour*, 124:161–165, 2017
- [9] **Elizabeth A. Hobson** and Simon DeDeo. Social feedback and the emergence of rank in animal society. *PLoS Computational Biology*, 11(9):1–20, 09 2015
- [8] Pim Edelaar, Severine Roques, **Elizabeth A. Hobson**, Anders Gonçalves da Silva, Michael L. Avery, Michael A. Russello, Juan C. Senar, Timothy F. Wright, Martina Carrete, and José L. Tella. Shared genetic diversity across the global invasive range of the monk parakeet suggests a common restricted geographic origin and the possibility of convergent selection. *Molecular Ecology*, 24(9):2164–2176, 2015
- [7] **Elizabeth A. Hobson**, Darlene J John^(U), Tiffany L Mcintosh^(U), Michael L Avery, and Timothy F Wright. The effect of social context and social scale on the perception of relationships in monk parakeets. *Current Zoology*, 61(1):55–69, 2015
- [6] **Elizabeth A. Hobson**, Michael L. Avery, and Timothy F. Wright. The socioecology of monk parakeets: Insights into parrot social complexity. *The Auk*, 131(4):756–775, 2014
- [5] Noa Pinter-Wollman, **Elizabeth A. Hobson**, Jennifer E. Smith, Andrew J. Edelman, Daizaburo Shizuka, Shermin de Silva, James S. Waters, Steven D. Prager, Takao Sasaki, George Wittemyer, Jennifer Fewell, and David B. McDonald. The dynamics of animal social networks: Analytical, conceptual, and theoretical advances. *Behavioral Ecology*, 25(2):242–255, 2014
- [4] **Elizabeth A. Hobson**, Michael L. Avery, and Timothy F. Wright. An analytical framework for quantifying and testing patterns of temporal dynamics in social networks. *Animal Behaviour*, 85(1):83–96, 2013

- [3] Anna M. Young, **Elizabeth A. Hobson**, L. Bingaman Lackey, and Timothy F. Wright. Survival on the ark: Life-history trends in captive parrots. *Animal Conservation*, 15(1):28–43, 2012
- [2] T.F. Wright, J.R. Eberhard, **E.A. Hobson**, M.L. Avery, and M.A. Russello. Behavioral flexibility and species invasions: The adaptive flexibility hypothesis. *Ethology Ecology & Evolution*, 22(4):393–404, 2010
- [1] Susannah C. Buhrman-Deever, **Elizabeth A. Hobson**, and Aaron D. Hobson. Individual recognition and selective response to contact calls in foraging brown-throated conures, *Aratinga pertinax*. *Animal Behaviour*, 76(5):1715 – 1725, 2008

Published datasets

- Elizabeth A. Hobson**, Grace Smith-Vidaurre, and Alejandro Salinas-Melgoza. 2017. Data from: The history of nonnative Monk Parakeets in Mexico. GitHub Repository, <https://github.com/EAHobson/MX-monk-invasion>
- Elizabeth A. Hobson** and Simon DeDeo. 2015. Data from: Social feedback and the emergence of rank in animal society. Dryad Digital Repository, <http://dx.doi.org/10.5061/dryad.p56q7>

Article responses

- Noa Pinter-Wollman, **Elizabeth A. Hobson**, Jennifer E. Smith, Andrew J. Edelman, Daizaburo Shizuka, Shermin de Silva, James S. Waters, Steven D. Prager, Takao Sasaki, George Wittemyer, Jennifer Fewell, and David B. McDonald. Response to comments on the dynamics of network dynamics. *Behavioral Ecology*, 25(2):260–261, 2014

Invited book reviews

- Elizabeth A. Hobson**. Network thinking in animal social behavior. *Trends in Ecology & Evolution*, 31(6):411 – 412, 2016

Manuscripts in review or revision

- Elizabeth A. Hobson**. Differences in social information are critical to understanding aggressive behavior in animal dominance hierarchies. *Accepted pending minor revisions, Current Opinion in Psychology, Special Issue "Power, Status, and Hierarchy 2020"*.
- Elizabeth A. Hobson**, Dan Mønster, and Simon DeDeo. Strategic heuristics underlie animal dominance hierarchies and provide evidence of group-level social knowledge. *In revision, preprint available: <https://arxiv.org/abs/1810.07215>*
- Jonathan N. Pruitt*, Joshua Garland*, Holly V. Moeller, Andrew Berdahl, Noa Pinter-Wollman, Pamela Yeh, Van Savage, Kyle W. Demes, Alexander G. Little, David N. Fisher, Michael H. Price, Davide P. Feldman, and **Elizabeth A. Hobson***. Coupled tipping points in socioecological systems. *In review, Biological Reviews* (*Indicates equal intellectual contribution)
- David N. Fisher, R. Julia Kilgour, Erin R. Siracusa, Jennifer R. Foote, **Elizabeth A. Hobson**, Pierre-Olivier Montiglio, Jonathan N. Pruitt, Julia B. Saltz, Tina W. Wey, Eric W. Wice. Anticipated impacts of global environmental change on intraspecific social interactions. *Revisions in review, Biological Reviews*
- Eleanor Redstart Harris and **Elizabeth A. Hobson**. Learning about signals of quality can be better than using an innate signal assessment strategy. *In revision*

Invited Seminars, Colloquia, & Symposium Talks

- 2019 **Colloquium speaker:** The Ohio State University (November)
- 2019 **Colloquium speaker:** University of Nevada, Reno (October)
- 2019 **Seminar speaker:** University of Cincinnati, Psychology group (September)
- 2019 **Invited speaker & panelist:** Statistical Inference for Network Models Symposium, NetSci Conference, Burlington, Vermont
- 2019 **Invited talk:** Department of Psychology, University of Tennessee
- 2019 **Invited talk:** Department of Biological Sciences, University of Cincinnati
- 2019 **Invited talk:** Department of Biology, Missouri State University
- 2019 **Invited talk:** Schmid College, Chapman University
- 2019 **Invited talk:** Department of Cognitive Science, University of California, Merced
- 2019 **Invited talk:** Department of Ecology and Evolutionary Biology, Yale University
- 2018 **Satellite meeting:** "Evolution of Cultural Complexity", Thessaloniki, Greece
- 2018 **Symposium:** "What Are We Not Asking About The Evolution of Behavior That We Should Be Asking", Animal Behavior Conference, Milwaukee
- 2018 **Colloquium:** Peter Yodzis Colloquium in Fundamental Ecology, *Integrating the Ecology and Evolution of Social Interactions*, Canadian Society for Ecology and Evolution, Guelph, Ontario
- 2018 **Departmental seminar:** Department of Integrative Biology at University of Texas at Austin
- 2018 **Departmental seminar:** Department of Biology at New Mexico State University
- 2018 **Departmental seminar:** Department of Integrative Biology at University of Colorado Denver
- 2017 **Colloquium:** *Evolution of Social Complexity* Colloquium, Arizona State University
- 2017 **Symposium:** *Complexity in Ecological, Evolutionary, and Social Dynamics* Symposium, U. Michigan
- 2016 **Symposium:** *Networks in Ornithology* Symposium, North American Ornithological Conference
- 2016 **Symposium:** *Experiments & Models of Social Networks* Symposium, Copenhagen, Denmark
- 2016 **Departmental seminar:** Interacting Minds Centre, Aarhus University, Denmark
- 2016 **Invited speaker:** Santa Fe Institute, Santa Fe, NM
- 2015 **Departmental seminar:** Dept of Ecology & Evolutionary Biology, University of Tennessee
Santa Fe Institute, Santa Fe, NM
- 2015 **Symposium:** Animal Behavior Society Conference, University of Alaska
- 2014 **Departmental seminar:** National Institute for Mathematical and Biological Synthesis
- 2014 **Symposium:** American Mathematical Society, Special Session
- 2012 **Symposium:** *Network Science in Biological, Social, & Geographic Systems*. U. Wyoming

Selected Contributed Research Presentations

- 2019 Animal Behaviour Conference, Chicago, Illinois (Talk)
- 2018 Cultural Evolution Society Conference, Tempe, Arizona (Talk)
- 2018 Complex Systems Society Conference, Thessaloniki, Greece (Talk)
- 2018 ISBE Conference, Minneapolis (Talk)
- 2018 Animal Behavior Conference, Milwaukee (Talk)
- 2017 Behaviour Conference, Estoril, Portugal (Poster)
- 2017 Animal Behaviour Conference, Toronto, Canada (Talk)
- 2015 American Ornithologists' Union & Cooper Ornithological Society Conference, Oklahoma (2 talks)

- 2015 National Institute for Mathematical and Biological Synthesis (Talk)
 2014 NIMBioS Investigative Workshop, *Animal Social Networks*, University of Tennessee (Poster)
 2013 Animal Behavior Society Conference, University of Colorado, July 2013 (Talk)
 2013 Ecology and Behavior Conference, Strasbourg, France (Talk)
 2012 Animal Behavior Society Conference, University of New Mexico (Talk)
 2011 Behavior Conference, Indiana University (Talk)

Working Groups

- 2019 **Participant:** Working group "Cumulative cultural evolution", Santa Fe Institute
 2019 **Organizer:** Working group "Culturally transmitted mate preferences and the process of evolution by sexual selection" (second meeting), Santa Fe Institute
 2019 **Invited participant:** Working group "Common themes in biological complexity", University of Tennessee
 2019 **Organizer:** Working group "The role of information in conflict", Santa Fe Institute
 2018 **Organizer:** Working group "Culturally transmitted mate preferences and the process of evolution by sexual selection", Santa Fe Institute
 2018 **Co-lead:** Working group "Dynamic feedbacks between social structure and behaviors" with Erol Ackay at the Collective Behavior and Emergent Phenomena in Biology current topics meeting, Mathematical Bioscience Institute, The Ohio State University
 2018 **Participant:** Working group "Cumulative cultural evolution", Santa Fe Institute
 2018 **Participant:** Working group "Distributed decision making", Santa Fe Institute
 2015-16 **Participant:** Working group "Cooperation and communication in the evolution of cognition", National Institute for Mathematical and Biological Synthesis, University

Mentoring Activities

Superscripts denote underrepresented student groups: Hispanic/Latino (^{H/L}), Native American (^{NAm})

Graduate students

- 2014-16 Brittany Coppinger: social network analysis, grant writing (U. Tennessee)

Undergraduate students

- 2018 Maddie Barrie: NSF Research Experience for Undergraduates at Santa Fe Institute
 2018 Megan Bromley: NSF Research Experience for Undergraduates at Santa Fe Institute
 2012-13 Gael Sanchez^(H/L): data management, social structure project (NMSU)
 2008-10 Darlene John^(NAm): field research, sound analysis; RISE undergraduate (NMSU)
 2008-09 Tiffany McIntosh: field research, sound analysis (NMSU)
 2009 Chelsea Hooper: sound analysis (NMSU)
 2009 Amanda Zamora^(H/L): sound analysis (NMSU)
 2006-08 Jaime Guerra^(H/L): research, preparation, dissemination of results. RISE undergraduate (NMSU)
 2007 Wesley Moseman: field research, Argentina (NMSU, U. New Hampshire)

High school students

- 2018 Brandi Sanchez^(NAm): Santa Fe Institute & Santa Fe Indian School student mentorship program

- 2018 Patrick Mauboussin: Santa Fe Institute, Summer Research Internship
 2018 Nick Dow: Santa Fe Institute, Summer Research Internship
 2017 Isabelle Mauboussin: Santa Fe Institute, Summer Research Internship
 2017 Claire Miller: Santa Fe Institute, Summer Research Internship

Teaching Experience

- 2018-19 **Lecturer** for Santa Fe Institute's Complex Systems Summer School
 2018 **Invited lecturer** for the workshop "Modeling and Analysis of Dynamic Social Networks" at the Mathematical Biosciences Institute, The Ohio State University
 2018 **Lecturer** for Santa Fe Institute's Graduate Workshop in Computational Social Science
 2016 **Co-instructor** for full-day tutorial *Networks in Ornithology*, North American Ornithological Conference (50 participants)
 2014 **Freelance author** of supplemental textbook materials (*Ecology*, Third Edition, Sinauer)
 2013-14 **Freelance author** of supplemental textbook materials (*Biology for a Changing World*, Macmillan)
 2013-14 **Freelance reviewer** of undergraduate-level textbook chapters (Pearson, Campbell)
 2012-13 **NSF GK-12 Teaching Fellow**: Centennial High School, Las Cruces, NM (approx. 100 students)
 2011-12 **NSF GK-12 Teaching Fellow**: Picacho Middle School, Las Cruces, NM (approx. 40 students)
 2011 **Co-instructor** Principles of Ecology (BIOL 301), NMSU (taught 33% of course; approx. 80 students)
 2010-11 **Scientific Teaching Fellow**: Biology Department, NMSU
 2009 **Teaching Assistant**: Natural History of Life (BIOL 111) Lecture Section, NMSU (approx. 200 students)
 2008 **Teaching Assistant**: Zoology (BIOL 322) Lab Section, NMSU (approx. 45 students)
 2006-08 **Teaching Assistant**: Human Biology (BIOL 101) Lab Section, NMSU
 2008-11 **Invited lectures**: Community Structure (1 lecture), Community Dynamics & Succession Patterns (3 lectures) Principles of Ecology; Evolution of Species & Vertebrate Evolution (2 lectures) Biology of Life; Craniate Origins & the Fishes (1 lecture) Zoology, New Mexico State University

Pedagogical Research and Presentations

- 2011 **Hobson, Elizabeth A.** The far-reaching benefits and structure of a future faculty teacher training program. 33rd Annual Association for Biology Laboratory Education Conference and Workshop, New Mexico State University, Mini Workshop Session (45 minute presentation with discussion).

Professional Development

Activities developed & talks given

- 2017-19 **Talk**: *How to hack your life to create more time (and preserve your sanity)*. Santa Fe Institute, Summer REU program

Activities attended & training received

- 2019 Animal Behavior Society WFAB session, Scottsdale AZ, April 2019.
 2019— Animal Behavior Society WFAB POP mentoring

Service Activities

Proposal reviewer

- 2018 National Science Foundation Division of Integrative Organismal Systems (BIO/IOS) Ad hoc reviewer
- 2018 Animal Behavior Society, Student Research Grants
- 2016— Santa Fe Institute, Postdoctoral Fellowship applications
- 2016— Santa Fe Institute, Complex Systems Summer School applications
- 2016— Santa Fe Institute, Research Experience for Undergraduates applications
- 2016 United States Department of Defense, Army Research Office
- 2016 United States-Israel Binational Science Foundation
- 2015 National Institute for Mathematical and Biological Synthesis, Graduate Research Assistant Fellowship applications

Journal reviewer

American Naturalist, Animal Behaviour, Animal Cognition, Applied Network Science, Behavior, Behavioral Ecology, Behavioral Ecology and Sociobiology, Bioacoustics, Current Zoology, Ecological Complexity, Florida Field Naturalist, Functional Ecology, Journal of Field Ornithology, Landscape and Urban Planning, Methods in Ecology & Evolution, Nature Ecology & Evolution, PLOS ONE, Royal Society Open Science, TREE, Urban Ecosystems

Other service

- 2018 Presentation Judge: Allee Competition, Animal Behavior Society Conference, Milwaukee, Wisconsin
- 2016-17 Organizing committee member: Santa Fe Institute/McDonnell Fellows Postdoc Conference
- 2015— Volunteer: Association of Field Ornithologists, Editorial Assistance Program for non-native English speakers
- 2015 Judge: Sigma Xi Student Research Presentation Competition, University of Tennessee
- 2013 Faculty Search Committee: Graduate Student Representative, NMSU Department of Biology
- 2006-07 Secretary/Treasurer: NMSU Biology Graduate Student Organization
- 2006-07 Member: Finance Committee, NMSU Graduate Student Council

Outreach Activities

- 2019 Scientific consulting for children's television show: Public Broadcasting Company "Wild Kratts" Show, Season 6, Episode 13
- 2018 Mentor: High school student mentorship program, Santa Fe Institute & Santa Fe Indian School
- 2017 Volunteer: Santa Fe Indian School, data analysis and final project development
- 2017 March for Science, Booth Presentation, Santa Fe, NM
- 2016 Volunteer Science Fair Judge: Santa Fe Alliance for Science (1 fair)
- 2007-09 Volunteer Science Fair Judge: Las Cruces, NM (3 regional fairs)

Popular science books

Elizabeth A. Hobson. *Pandemonium: Unraveling mysteries of wild parrot behavior in the Peruvian rainforest.*
In prep.