

ARIANA STRANDBURG-PESHKIN

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EMPLOYMENT

Max Planck Institute of Animal Behavior , Research Scientist Department for the Ecology of Animal Societies	Dec 2019 - Present
University of Konstanz , Junior Research Group Leader Department of Biology	June 2018 - Present
University of Zurich , Postdoctoral Fellow Department of Evolutionary Biology and Environmental Studies	June 2017 – May 2018
Max Planck Institute for Ornithology , Postdoctoral Researcher Department of Migration and Immuno-Ecology	Dec 2016 – June 2017

EDUCATION

Princeton University Ph.D. Quantitative and Computational Biology M.A. Quantitative and Computational Biology	2016 2013
Swarthmore College B.A. Physics	2011

PUBLICATIONS

13. **Strandburg-Peshkin, A.**, Clutton-Brock, T., Manser M.B. (2019) Burrow usage and decision-making in meerkat groups. *Behavioral Ecology* 31(2):292-302.
12. Demartsev, V.*, **Strandburg-Peshkin, A.***, Ruffner, M., & Manser, M. (2018) Vocal turn-taking in meerkat group calling sessions. *Current Biology*. *Current Biology* 28(22):3661-3668. *equal contributors
11. **Strandburg-Peshkin, A.**, Papageorgiou, D., Crofoot, M.C., & Farine, D.R. (2018) Inferring influence and leadership in moving animal groups. *Philosophical Transactions B*. 373:20170006.
10. Hughey, L.F., Hein, A.M., **Strandburg-Peshkin, A.**, & Jensen, F. (2018) Challenges and solutions for studying collective behavior in the wild. *Philosophical Transactions B*. 373:20170005.
9. Gall, G.E.C., **Strandburg-Peshkin, A.**, Clutton-Brock, T., Manser, M.B. (2017) As dusk falls: collective decisions about the return to sleeping sites in meerkats. *Animal Behaviour* 132: 91-99.
8. Farine DR*, **Strandburg-Peshkin A***, Couzin ID, Crofoot MC (2017) Individual variation in local interaction rules can explain emergent patterns of spatial organization in wild baboons. *Proceedings of the Royal Society of London B: Biological Sciences* 284:20162243. *equal contributors
7. **Strandburg-Peshkin A**, Farine DR, Crofoot MC, Couzin ID (2017) Habitat and social factors shape individual decisions and emergent group structure during baboon collective movement. *eLife* 6: e19505.
6. Farine DR, **Strandburg-Peshkin A**, Berger-Wolf TW, Ziebart B, Brugere I, Li J, Crofoot MC (2016) Both nearest neighbors and long-term affiliates predict individual locations during collective movement in wild baboons. *Scientific Reports* 6:27704.
5. Farine DR*, **Strandburg-Peshkin A*** (2015) Estimating uncertainty and reliability of social network data using Bayesian inference. *Royal Society Open Science* 2:150367. *equal contributors

4. **Strandburg-Peshkin A***, Farine DR*, Couzin ID, Crofoot MC (2015) Shared decision-making drives collective movement in wild baboons. *Science* 348(6241):1358-1361. *equal contributors
3. **Strandburg-Peshkin A**, Twomey CR, Bode NW, Kao AB, Katz Y, Ioannou CC, Rosenthal SB, Torney CJ, Wu H, Levin SA, Couzin ID (2013) Visual sensory networks and effective information transfer in animal groups. *Current Biology* 23(17):R709-711.
2. Latka A, **Strandburg-Peshkin A**, Driscoll MM, Stevens CS, Nagel SR (2013) Creation of prompt and thin-sheet splashing by varying surface roughness or increasing air pressure. *Physical Review Letters* 109(5):054501.
1. Barnard ME, **Strandburg-Peshkin A**, Yarett IR, Merz RA (2012) The blue streak: A dynamic trait in the mud fiddler crab, *Uca pugnax*. *Invertebrate Biology* 131(1):52-60.

GRANTS

Centre for the Advanced Study of Collective Behavior Large Project Grant – Co-Investigator <i>The role of communication structure in consensus decision-making in human and animal groups</i> Team: Helge Giese, Ariana Strandburg-Peshkin Amount: €230k	2020
Human Frontier Science Program Research Grant – Principal Investigator <i>Communication and the coordination of collective behavior across spatial scales in animal societies</i> Team: Ariana Strandburg-Peshkin, Marta Manser, Kay Holekamp, Ben Hirsch, Marie Roch Amount: \$1.35M	2019
Zukunftskolleg Interdisciplinary Collaborative Project Grant – Co-Investigator <i>The communication network in collective decision-making: How does group structure affect decision dynamics and outcomes?</i> Team: Helge Giese, Ariana Strandburg-Peshkin Amount: €10k	2019
DFG Cluster of Excellence – Co-Investigator (1 of 30 PIs) <i>Centre for the Advanced Study of Collective Behaviour</i> Amount: €30M	2019
Zukunftskolleg 5-Year Research Fellowship <i>“Revealing the interplay among communication, social structure, and collective behavior in animal societies”</i> Amount: €95k	2019
NSF BEACON Evolution in Action Grant - Co-Investigator <i>“Biological and algorithmic evolution of acoustic recognition”</i> Team: Kay Holekamp, Ariana Strandburg-Peshkin, Frants Jensen, Andrew Gersick Amount: \$112k	2018
Human Frontier Science Program Long-Term Fellowship <i>“Uncovering the drivers of collective movement at individual and group scales in meerkats”</i> Amount: \$174k	2017
National Geographic Society / Waitt Grant – Principal Investigator <i>“How do social factors and acoustic communication shape collective movement dynamics in meerkats?”</i> Amount: \$15k	2017
NSF BEACON Evolution in Action Grant – Co-Investigator <i>“The role of individual intelligence in the evolution of collective sensing and defense”</i> Team: Kay Holekamp, Ariana Strandburg-Peshkin, Frants Jensen, Andrew Gersick Amount: \$90k	2017
NSF BEACON Evolution in Action Grant – Co-Investigator <i>“Cooperation in the face of social complexity: The evolution of long-distance and long-term collective behavior in spotted hyenas”</i> Team: Kay Holekamp, Mark Johnson, Frants Jensen, Andrew Gersick, Ariana Strandburg-Peshkin	2016

Amount: \$103k

Charlotte Elizabeth Proctor Fellowship, Princeton University	2015
National Science Foundation Graduate Research Fellowship	2011

INVITED TALKS

Invited departmental seminars

University of Tübingen (Tübingen, Germany, 2020)
University of Glasgow (Glasgow, UK, 2019)
German Primate Center (Göttingen, Germany, 2019)
University of St. Andrews (St. Andrews, UK, 2018)
Swarthmore College (Swarthmore, USA, 2017)
Michigan State University (Lansing, USA, 2017)

Invited conference and workshop talks

Virtual Workshop on The Physics of Behavior (The Internet, 2020)
Workshop on Collective Information Processing (Humboldt University, Berlin, Germany, 2020)
Workshop on The Dynamics of Collective Decisions (Wissenschaftskolleg, Berlin, Germany, 2020)
IMPRS Grand Challenges Symposium (Max Planck Institute for Ornithology, Seewiesen, Germany 2019)
Conference on Complex Systems, Collective Behavior Satellite (Thessaloniki, Greece, 2018)
Conference on Collective Behavior (International Centre for Theoretical Physics, Trieste, Italy, 2018)
Workshop on Social Media, Collective Behavior, & Systemic Risk (Princeton University, Princeton, USA, 2018)
Workshop in Quantifying Collective Behavior (Santa Fe, USA 2017)
Workshop on Collective Animal Motion in the Wild (Santa Fe, USA, 2016)

TEACHING

University of Konstanz, Instructor

Co-Instructor for: Quantitative Field Biology block course Summer 2018
Co-Instructor for: Trends in computational modeling of collectives Summer 2019, Winter 2019

University of Zurich, Instructor

Co-Instructor for: BIO324 – Behavioral Biology block course Spring 2017, 2018

Princeton University, Teaching Assistant

Teaching assistant for: Animal Behavior, Methods & Logic in Quantitative Biology 2013-2014

Princeton University, Prison Teaching Initiative

Co-taught semester-long courses in local prisons: Pre-Algebra, Environmental Science 2013-2014

Swarthmore College, Science Associate

Teaching assistant for: Introduction of Mechanics, Introduction to Electricity and Magnetism 2008-2010

PUBLIC ENGAGEMENT

My research has been featured in a variety of news publications worldwide, including Science News, Discovery News, Washington Post, Los Angeles Times, Nature World News, Tech Times, and Business Standard. My work on baboons was also the subject of a National Geographic blog post by science writer Ed Yong and an extended article in the French magazine *Espèces*. My research on fish was featured in the popular science magazine *Scientific American*. I was also interviewed about my work for *Today's Science*, a science magazine aimed a high school and undergraduate students, and was featured in Indian Institute of Science's undergraduate science magazine *Quark*.