

Emily Levy, PhD
Postdoctoral Researcher
Indiana University, Bloomington
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EDUCATION

PhD in Biology, Duke University 2016-2022
Advisor: Dr. Susan Alberts
Committee: Drs. Susan Alberts, Jenny Tung, Elizabeth Archie, Stephen Nowicki, Sönke Johnsen
Thesis: How the outside gets in: Linking the social and physical environment with physiology and body size in wild baboons

BA in Biology, concentration in Neuroscience, Williams College 2009-2013
Magna Cum Laude
Honor's Thesis Advisor: Dr. Betty Zimmerberg
Thesis: Effects of early deprivation on prosocial behavior in rats

ACADEMIC APPOINTMENTS

Postdoctoral Researcher in Evolution, Ecology and Behavior, Indiana University 2022-present
Advisor: Dr. Kimberly Rosvall
Topic: Evolution and proximate mechanisms of aggression in wild female songbirds

Intern, Northeast Climate Adaptation Science Center 2021
Advisor: Dr. Toni Lyn Morelli
Topic: Keeping cool: Assessing heat stress in northeastern American red squirrels

Sara Sparrow Fellow in Clinical Neuroscience, Yale University 2013-2015
Advisor: Dr. James McPartland
Topic: Neurological correlates of social perception in people with autism and schizophrenia

FELLOWSHIPS, GRANTS & AWARDS

Research Grants and Fellowships

Broadening Participation Travel Award, Society for Integrative and Comparative Biology (\$500) 2023
Executive Dean's Travel Award for Women in Science, Indiana University (\$650) 2023
Travel Award, Center for the Integrative Study of Animal Behavior, Indiana University (\$750) 2023
Graduate Research Fellowship Program, National Science Foundation (\$102,000) 2018-2022
James B. Duke Fellowship, Duke University (\$20,000) 2016-2020
Leakey Foundation Research Grant (\$15,000) 2019-2021
Duke Biology Department Grant in Aid of Research (\$1000, \$1000, \$1000) 2018, '19, '21
Animal Behavior Society Student Research Grant (\$2,000) 2019
Duke University Dissertation Research Travel Award (\$1,500, \$3,000, \$3,000) 2017, '18, '19
Duke Center for International and Global Studies Travel Award (\$1,500, \$1,500, \$2,000) 2017, '18, '19
Society for the Study of Evolution RC Lewontin Graduate Research Excellence Grant (\$2500) 2018
Sigma Xi Grant in Aid of Research (\$1000) 2018
International Society for Autism Research Travel Award (\$500, \$500) 2014, '15
Williams College Gaudino Award 2010

Teaching and Mentoring Awards and Fellowships

Dean's Award for Excellence in Mentoring, Duke University Graduate School (\$2000) 2022
Top 5% of Duke College of Arts & Sciences instructors for course evaluations 2021
Bass Teaching Fellowship: Instructor of Record, Duke University (\$12,000) 2021
Duke Data Expedition (\$1500, \$2500, \$2500) 2019, '20, '22

PUBLICATIONS (* indicates co-first authorship; undergraduate mentees are underlined)

[6] **Levy EJ**, Lee A, Helmich E, Malone E, McLean E, Pickard M, Ranjithkumar R, Siodi L, Tung J, Archie EA, Alberts SC. 2023. Early life drought predicts components of adult body size in wild female baboons. *American Journal of Biological Anthropology*. [Code. Data. doi.org/10.1002/ajpa.24849](https://doi.org/10.1002/ajpa.24849)

- [5] Richardson JL*, **Levy EJ***, [Ranjithkumar R](#), Yang H, Monson EM, Cronin A, Galbany J, Robbins MM, Alberts SC, Reeves ME, McFarlin SC. 2022. Automated, high-throughput image calibration for parallel-laser photogrammetry. *Mammalian Biology*. [Code](#). doi.org/10.1007/s42991-021-00174-7
- [4] **Levy EJ**, Eisenstein E, Foss-Feig J, Srihari V, Anticevic A, Naples AJ, McPartland JC. 2021. Review of electrophysiological indices of face and emotion perception in autism spectrum disorder and schizophrenia. *Review Journal of Autism and Developmental Disorders*. doi.org/10.1007/s40489-021-00260-z
- [3] **Levy EJ***, Zippel MN*, McLean E, Campos FA, Dasari M, Fogel AS, Franz M, Gesquiere LR, Grieneisen L, Habig B, Jansen DJ, Learn NH, Weibel CJ, Altmann J, Alberts SC, Archie EA. 2020. Comparing proportional and ordinal dominance ranks reveals multiple competitive landscapes in an animal society. *Proceedings of the Royal Society B*. doi.org/10.1098/rspb.2020.1013
- [2] **Levy EJ**, Gesquiere LR, McLean E, Franz M, Warutere JK, Sayialel SN, Mututua RS, Wango TL, Oudu VK, Altmann J, Archie EA, Alberts SC. 2020. Higher dominance rank is associated with lower glucocorticoids in wild female baboons: A rank metric comparison. *Hormones and Behavior*. [Code & data](#). [Press. doi.org/10.1016/j.yhbeh.2020.104826](https://doi.org/10.1016/j.yhbeh.2020.104826)
- [1] Kang E, Keifer C, **Levy EJ**, Foss-Feig J, McPartland JC & Lerner M. 2017. Atypicality of the N170 Event-Related Potential in Autism Spectrum Disorder: A Meta-Analysis. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*. doi.org/10.1016/j.bpsc.2017.11.003

TEACHING EXPERIENCE

Instructor of Record

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| Instructor of Record, Ecology & Evolution of Being Social Duke University Departments of Biology & Evolutionary Anthropology Course evaluations in top 5% of Duke College of Arts & Sciences undergraduate instructors | 2021 |
| Co-Instructor of Record, Why be Social? The Science of Animal Social Behavior Duke Osher Lifelong Learning Institute | 2022 |
| Instructor of Record, Foundations of Animal Behavior Duke Osher Lifelong Learning Institute | 2020 |

Teaching Assistance, Guest Lectures & Outdoor Science Education

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| Teaching Assistance (informal capacity) Field Ecology & Evolution: Course-based Undergraduate Research Experience, Indiana University | 2023-2024 |
| Teaching Assistant Ecology for a Crowded Planet, Duke University | 2018 |
| Teaching Assistant Genetics & Evolution, Duke University | 2017 |
| Guest Lecturer, How the Outside Gets In Animal Behavior, SUNY Geneseo | 2022 |
| Guest Lecturer, Neighbors or Evictors: How Does Human Population Density Affect Wildlife? Data Expedition in Ecology for a Crowded Planet, Duke University | 2022 |
| Guest Lecturer x 4, Baboon Sexual Swelling Data Expedition in Mechanisms of Animal Behavior, Duke University | 2019-2022 |
| AmeriCorps Field Intern and Field Instructor of Outdoor Science Teton Science Schools | 2015-2016 |

Curriculum Development

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| Curriculum Coordinator, Girls on outdoor Adventure for Leadership & Science Created or helped to create 17 lesson plans for outreach program curriculum | 2016-2019 |
| Lesson Plan, Finding Food Fast SciREN Triangle Network for K12 STEM teachers | 2019, '20 |
| Lesson Plan, Evolution & Natural Selection Simulation SciREN Triangle Network for K12 STEM teachers | 2017 |

UNDERGRADUATE MENTORING

Indiana University, Bloomington

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| Arianna Buehler, Research Scholars Cohort Program Mentee Territorial aggression in female birds: The role of adrenal glands in steroidogenesis | 2022-present |
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Duke University

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| Maggie Pickard, Senior Honor's Thesis & Research Assistant | 2018-2021 |
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| Thesis: Wild male baboon growth curves and effects of early-life adversity Aren Kalash, Senior Honor's Thesis & Research Assistant | 2018-2021 |
| Thesis: Predictors of juvenile male dominance status – a study of wild savannah baboons Anna Lee, Senior Honor's Thesis & Field Assistant | 2018-2019 |
| Thesis: Photogrammetric estimates of body size and its relationship to dominance rank in female baboons Riddhi Ranjithkumar, Research assistant | 2019-2021 |
| Methods development for photogrammetry automation & data collection Elise Malone, Research assistant | 2019-2020 |
| Methods development for photogrammetry & data collection Emma Helmich, Research assistant | 2019-2020 |
| Methods development for photogrammetry automation Sophia Li, Research assistant | 2017-2018 |
| Methods development for photogrammetry Well Witoonchart, Women in Science and Engineering Mentee | 2016-2020 |
| Academic and career advising | |

COMMUNITY OUTREACH

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| Guest presenter for Jim Holland Summer Science Research Program | 2023 |
| Presenter in Science Fest, Indiana University Bloomington | 2022 |
| Presenter in K12 classrooms in Durham Public Schools and Skype a Scientist | 2017-2023 |
| Presenter in Art of a Scientist , Duke University | 2021 |
| Math Tutor at El Centro Hispano, Durham, NC | 2021-2022 |
| Biology Department Steering Committee, Duke University | 2019-2020 |
| Co-founder & Co-director for Girls on outdoor Adventure for Leadership & Science | 2016-2019 |
| Trip Leader for Girls on outdoor Adventure for Leadership & Science | 2017, '18 |
| Science Day Presenter at Carolina Friends School, Durham, NC | 2017, '19 |
| Darwin Day Presenter at North Carolina Museum of Natural Sciences | 2017, '18 |
| Biology Outreach Committee, Duke University | 2016-2017 |
| GED Tutor at Achievement Academy of Durham | 2017 |
| Reading and SAT Tutor at New Haven Reads | 2013-2015 |

INVITED LECTURES

- Levy EJ. 2023, November. *Female fighters: Biology of aggression and dominance in birds and baboons*. Oral presentation at Evolution, Ecology & Behavior Brownbag Seminar Series, Indiana University, Bloomington, IN.
- Levy EJ. 2022, September. *Tracing long-term effects of early adversity on growth and inflammation in wild baboons*. Oral presentation at Evolution, Ecology & Behavior Brownbag Seminar Series, Indiana University, Bloomington, IN.
- Levy EJ. 2021, November. *Baboon queens: Perks of life at the top*. Oral presentation at Society of Duke Fellows Seminar Series, Duke University, Durham, NC.
- Levy EJ. 2020, January. *Baboon dominance rank: When and why it matters*. Oral presentation at PopBio Seminar Series, Duke University, Durham, NC.

SELECT CONFERENCE PODIUM & POSTER PRESENTATIONS (undergraduate mentees are underlined)

- Levy EJ**, George EM, Rosvall KA. 2024, January (upcoming). *Maternal aggression, brain metabolics, and neurotransmission: Insights from a feisty female bird*. Oral presentation at Society for Integrative and Comparative Biology Meeting, Seattle, WA.
- Buehler A, **Levy EJ**, Aguilar LA, Rosvall KA. 2023, January. *Adrenal steroidogenesis in territorial female tree swallows*. Poster at Society for Integrative and Comparative Biology Meeting, Austin, TX. [Link to poster](#).
- Levy EJ**, Kalash A, Alberts SC. 2021, August. *Alpha females are hard to beat: Juvenile male baboon rank attainment over adult females*. Oral presentation at Animal Behavior Society Meeting.
- Levy EJ**. 2021, August. *Social behavior as a conduit for engaged student learning in science*. Poster at Animal Behavior Society Meeting.
- Levy EJ**, Gesquiere LR, McLean E, Franz M, Warutere JK, Sayialel SN, Mututua RS, Wango TL, Oudu VK, Altmann J, Archie EA, Alberts SC. 2021, January-February. *Alpha female baboons have the lowest glucocorticoids: What we can learn from comparing rank metrics*. Oral presentation at Society for Integrative and Comparative Biology Meeting.

Levy EJ, Gesquiere LR, McLean E, Franz M, Warutere JK, Sayialel SN, Mututua RS, Wango TL, Oudu VK, Altmann J, Archie EA, Alberts SC. 2020, August. *Higher dominance rank is associated with lower glucocorticoids in wild female baboons: A rank metric comparison*. Oral presentation at Animal Behavior Society Meeting.

Levy EJ, Naples AJ, Foss-Feig J, Reuman H, Tillman R, Law K, McPartland JC. 2015, May. *Electrophysiological correlates of emotion processing across adults with autism and schizophrenia*. Poster at International Meeting for Autism Research, Salt Lake City, UT.

Levy EJ, Mukerji C, Foss-Feig J, Naples AJ, Bernier R, Tillman R, Perszyk D, McPartland JC. 2014, May. *Empathy in ASD: Using ERPs to identify atypical neural responses to physical and social pain*. Oral presentation at International Meeting for Autism Research, Atlanta, GA.

RELEVANT COURSEWORK & INTENSIVE TRAINING

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| Teaching Writing in the Disciplines Workshop Series, Duke University | 2022 |
| Introduction to Inclusion, Diversity, Equity & Anti-racism (IDEA) in Biology, Duke University | 2021 |
| College Teaching and Syllabus Design, Duke University | 2020 |
| Foundational Anti-Racism Workshop, Racial Equity Institute | 2019 |
| Grant Writing | 2018 |
| Introduction to College Teaching, Duke University | 2017 |

CERTIFICATIONS

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| Certificate in College Teaching, Duke University | 2022 |
| Preparing Future Faculty Program, Duke University | 2022 |
| Wilderness First Responder | 2016 |