

# Jacob A Feder, PhD

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## PROFESSIONAL APPOINTMENTS

- 2023-Present      **NSF SBE Postdoctoral Research Fellow**, Institute of Human Origins, Arizona State University
- 2023-Present      **Visiting Postdoctoral Researcher**, School of Human Evolution and Social Change, Arizona State University

## EDUCATION

- 2023                **Stony Brook University**, Stony Brook, NY  
PhD, Anthropological Sciences  
Advisor: Dr. Amy Lu
- 2019                **Stony Brook University**  
MA, Anthropological Sciences
- 2015                **Wesleyan University**, Middletown, CT  
BA, Biology and Music  
Honors in General Scholarship

## RESEARCH INTERESTS

social evolution, social network analysis, sexual conflict, reproduction, development, life history, stress physiology, immune function

## EXTERNAL FUNDING

- 2023                **National Science Foundation**, SBE Postdoctoral Research Fellowship. The ecology and evolution of social interdependence in primates, \$160,000.
- 2020                **National Science Foundation**, Doctoral Dissertation Research Improvement Grant. Patterns and outcomes of social bonds in juvenile geladas, \$28,152.
- 2020                **The Leakey Foundation**, Research Grant. Patterns and outcomes of social bonds in juvenile geladas, \$14,960.
- 2019                **Animal Behavior Society**, Graduate Student Research Grant. The influence of older offspring on sibling social and immune development, \$1000.
- 2019                **Sigma Xi, The Scientific Research Society**, Grants-in-Aid of Research. The influence of older offspring on sibling social and immune development, \$1000.
- 2018                **American Society of Primatologists**, Research Grant. The potential benefits of older offspring on sibling development in wild geladas, \$1500.

## INTERNAL FUNDING

- 2022                Presidential Dissertation Completion Fellowship, \$11,250
- 2017                IDPAS Student Research Award, Stony Brook University, \$700
- 2016                Graduate Council Fellowship, Stony Brook University, \$50,000
- 2013                College of the Environment Research Fellowship, Wesleyan University, \$4000

## PUBLICATIONS (\* indicates co-first authorship)

ORCID: 0000-0002-3087-7298

- 2023 Schneider-Crease I, **Feder JA**, Baniel A, McCann C, Haile AA, Abebe B, Fitzgerald L, Gomery MA, Simberloff RA, Petrie ZL, Gabriel S, Dorny P, Fashing PJ, Nguyen N, Bergman TJ, Beehner JC, Snyder-Mackler N, Lu A. Urinary neopterin reflects immunological variation linked to age, helminth parasitism, and the microbiome in a wild primate. *Scientific Reports* 12:21307.
- 2022 **Feder JA**, Beehner JC, Baniel A, Bergman TJ, Snyder-Mackler N, Lu A. Social predictors of maturation in female geladas. *Behav Ecol* 33:654-664.
- 2021 Tinsley Johnson E\*, **Feder JA\***, Lu A, Bergman TJ, Snyder-Mackler N, Beehner JC. The Goldilocks Effect: female geladas in mid-sized units have higher fitness. *Proc R Soc B Biol Sci* 288: 20210820.
- 2021 Lu A, **Feder JA**, Snyder-Mackler N, Bergman TJ, Beehner JC. Male-mediated maturation in wild geladas. *Curr Biol* 31:214-219.
- 2019 Lu A, Petrullo L, Carrera S, **Feder J**, Schneider-Crease I, Snyder-Mackler N. Developmental responses to early life adversity: evolutionary and mechanistic perspectives. *Evol Anthropol* 28:249-266.
- 2019 **Feder JA**, Lu A, Koenig A, Borries C. The costs of competition: injury patterns in 2 Asian colobine monkeys. *Behav Ecol* 30:1242-1253.

## PRESENTATIONS

### WITH PUBLISHED ABSTRACTS

- 2022 **Feder JA**, Beehner JC, Snyder-Mackler N, Lu A, Bergman TJ. Social precursors and fitness outcomes of fission in geladas. *Am J Phys Anthropol* S73:56.
- 2022 Carrera S, Baniel A, **Feder JA**, Snyder-Mackler N, Bergman TJ, Beehner JC, Lu A. Female geladas accelerate weaning in larger groups – possibly to reduce infanticide risk. *Am J Phys Anthropol* S73:29.
- 2020 **Feder JA**, Beehner JC, Lu A. Maturation responses to male takeovers in female geladas. *Am J Phys Anthropol* S69:83-84.
- 2020 Beehner JC, Baniel A, **Feder JA**, Bergman TJ, Lu A. The “Hoo-Haa effect”: An unfortunate name for a dramatic effect in female reproduction. *Am J Phys Anthropol* S69:23.
- 2019 **Feder JA**, Beehner JC, Lu A. Social influences on reproductive development and maturation in female geladas. *Am J Phys Anthropol* S68:72.
- 2019 Koenig A, **Feder JA**, Lu A, Borries C. Risk of injury in two Asian colobines. *Am J Phys Anthropol* 168 S68:129.
- 2018 **Feder JA**, Borries C, Koenig A, Lu A. Effects of age, sex, and reproductive state on injury in Phayre’s leaf monkeys. *Am J Primatol* 80 S1:13.

## WITHOUT PUBLISHED ABSTRACTS

- 2023 **Feder JA**, Beehner JC, Bergman TJ, Snyder-Mackler N, Lu A. Conditional benefits of social integration in wild female geladas. Animal Behavior Society, Portland, OR.
- 2022 **Feder JA**, Beehner JC, Bergman TJ, Snyder-Mackler N, Lu A. Fitness costs and benefits of social integration in wild female geladas. Northeastern Evolutionary Primatologists, Buffalo, NY.
- 2021 Tinsley Johnson E, **Feder JA**, Lu A, Bergman TJ, Snyder-Mackler N, Beehner JC. The Goldilocks Effect: female geladas in mid-sized units have higher fitness. Animal Behavior Society, Virtual Conference.
- 2019 **Feder JA**, Beehner JC, Lu A. Mechanisms of male-mediated maturation in wild geladas. Northeastern Evolutionary Primatologists, Amherst, MA.
- 2013 **Feder JA**, Clark RE, Singer MS. The effects of an ant-sapfeeder mutualism on food web dynamics. Department of Biology, Wesleyan University.

## INVITED TALKS

- 2024 The ecology and evolution of social interdependence in primates. Evolution of Social Complexity Series, Arizona State University, Tempe, AZ.
- 2019 Social, reproductive, and immune development in gelada monkeys. Department of Anthropology, Central Connecticut State University, New Britain, CT.

## PRESS COVERAGE

- 2021 Stony Brook University News. ["Study of Wild Geladas Reveals Mid-Size Group Living is Best for Survival and Fitness"](#)
- 2021 TBR News Media. ["SBU's Feder, Lu discover Goldilocks group size for gelada monkey females"](#)

## PRESENTATION HONORS

- 2023 Finalist, 3-Minute Thesis, Stony Brook University
- 2022 AABA Patricia Whitten Prize for Best Podium Presentation in Primatology
- 2019 NEEP Best Podium Presentation

## RESEARCH EXPERIENCE

(at Stony Brook University, unless otherwise noted)

- Aug 2022-Present **Database development and analysis:** development and finetuning long-term database for the Simien Mountains Gelada Research Project.
- May 2018-Present **Laboratory and data analysis:** Urinary neopterin and secretory IgA as measures of immune activity in wild geladas.
- May 2017-Dec 2018 **Graduate pilot field research:** Exploring social capital in juvenile geladas. Simien Mountains National Park, Ethiopia.
- Sep 2016-May 2019 **Data entry and analysis:** Effects of age, sex, and reproduction on injury in Phayre's leaf monkeys and Nepal gray langurs.

Sep-Dec 2015      **Data entry:** Department of Anthropology, American Museum of Natural History, NY.

Jun-Aug 2015      **Research internship:** Juvenile chimpanzee social behavior, Chimp Haven, LA.

Nov 2012-May 2014      **Laboratory and field research:** The effects of an ant-sapfeeder mutualism on food web dynamics, Wesleyan University, CT.

## TEACHING EXPERIENCE

### At Stony Brook University

#### *As Course Instructor*

Fall 2020	ANP 120	Introduction to Biological Anthropology
Fall 2020	ANP 475	Undergraduate Teaching Practicum I

#### *As Laboratory Instructor*

Fall 2021	EBH 230	Computer-Based Biostatistics
Fall 2019	EBH 230	Computer-Based Biostatistics
Fall 2017	EBH 230	Computer-Based Biostatistics

#### *As Teaching Assistant*

Spring 2022	ANT 102	What Makes Us Human?
Fall 2021	EBH 230	Computer-Based Biostatistics
Spring 2021	ANP 120	Introduction to Biological Anthropology
Spring 2020	ANP 220	Controversies in Human Biology & Behavior
Fall 2019	EBH 230	Computer-Based Biostatistics
Spring 2019	EBH 331	Hormones and Behavior
Spring 2018	ANP 120	Introduction to Biological Anthropology
Fall 2017	EBH 230	Computer-Based Biostatistics
Spring 2017	ANP 362	Evolution of Social Complexity
Fall 2016	ANT 260	How We Eat

### At Wildlife Conservation Society

Summer 2014	Teaching Fellow	Central Park Zoo
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### At Wesleyan University

#### *As Peer Mentor*

Fall 2012	BIO 181	Principles of Biology I
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## RESEARCH SKILLS AND TRAINING

**Statistical:** R, social network analysis (R packages 'igraph'), Bayesian implementations using Stan in R ('i.e., rstan' and 'brms')

**Laboratory:** Enzyme immunoassays (EIA)

**Field:** Mental Health Wilderness First Aid (MHWFA) Certification

## PROFESSIONAL ORGANIZATIONS

2018-Present      Animal Behavior Society  
2018-Present      American Association of Physical Anthropologists  
2017-2019         Sigma Xi, The Scientific Research Society  
2017-2019         American Society of Primatologists

## COMMUNITY OUTREACH

2020-2022         STEP Biological Anthropology, Stony Brook University, NY  
*Led and developed activities and lecture for an introductory biological anthropology course for high school-aged students*

2018-2020         Bookworm Biology, Stony Brook University & Central Islip Library, NY  
*Taught and devised programs for students ages 7-11 in topics ranging from primate taxonomy to social network principles*

2018                 Save the Simiens, Simien Mountains National Park, Ethiopia  
*Participated in clean-up days with local park residents*

2017                 Conservation Classes, Simien Lodge, Simien Mountains National Park  
*Led crafts, games, and a presentation with Ethiopian students to encourage environmental stewardship*

2011-2014         Wesleyan Science Outreach, Middletown Public Schools, CT  
*Guided elementary-aged students through simple scientific demonstrations*

## REVIEWER

*Animal Behaviour, Behavioral Ecology and Sociobiology, Biology Letters, Current Biology, Folia Primatologica, Frontiers in Ecology and Evolution, Royal Society Open Science*

## UNIVERSITY SERVICE

2022-2023         Executive Committee Student Member, IDPAS  
2022-2023         Treasurer, Behavioral Ecology Group  
2021-2022         Anthropology MA Admissions Committee Member  
2020-2021         Senator, Stony Brook Graduate Student Organization  
2019-2022         President, Behavioral Ecology Group, Stony Brook University  
2017-2018         Secretary, Behavioral Ecology Group, Stony Brook University