

## DUSTIN REID RUBENSTEIN

*Professor*

Columbia University • Department of Ecology, Evolution and Environmental Biology  
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### CURRENT RESEARCH AREAS AND APPROACHES

- animal behavior, behavioral ecology, evolutionary biology, evolutionary ecology
- social behavior, cooperation, natural selection, kin selection, sexual selection, social conflict
- environmental change, environmental coping, stress physiology, behavioral endocrinology
- epigenetics, functional genomics, evolutionary genetics, population genetics, gene expression
- mathematical modeling, game theory, evolutionary simulations, phylogenetic comparative methods

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### EDUCATION

Postdoc University of California, Berkeley, Integrative Biology & Museum of Vertebrate Zoology, 2006 – 2009  
Ph.D. Cornell University, Neurobiology and Behavior, 2006  
A.B. Dartmouth College, Biology & Environmental Studies & Earth Sciences (cum laude, high honors), 1999

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### POSITIONS

#### APPOINTMENTS

2023 – Director of Graduate Studies, Dept of Ecology, Evolution and Environmental Biology, Columbia University  
2021 – Professor, Department of Ecology, Evolution and Environmental Biology, Columbia University  
2014 – Founding Chair, The University Seminar in the Integrative Study of Animal Behavior, Columbia University

#### AFFILIATIONS

2021 – Affiliate Member, Data Science Institute, Columbia University  
2018 – Affiliate Member, Zuckerman Mind Brain Behavior Institute, Columbia University  
2015 – Affiliated Faculty, Center for Integrative Animal Behavior, Columbia University  
2015 – Affiliated Faculty, Initiative on Extreme Weather and Climate, Columbia University  
2014 – Affiliated Scientist, Kenya Wildlife Service  
2011 – Faculty Mentor, Program in Neurobiology and Behavior, Columbia University  
2010 – Research Associate, Division of Vertebrate Zoology, American Museum of Natural History  
2001 – Affiliated Scientist, Mpala Research Centre

#### PREVIOUS

2012 – 2023 Founding Director, Program in Tropical Biology and Sustainability, Columbia University  
2015 – 2023 Founding Director, Center for Integrative Animal Behavior, Columbia University  
2016 – 2021 Associate Professor (tenured), Department of Ecology, Evolution and Env Biology, Columbia University  
2018 – 2020 Founding Co-Director, sTEAM Fellows Program, Columbia University  
2001 – 2017 Affiliated Scientist, Ornithology Section, National Museums of Kenya  
2014 – 2016 Associate Professor (untenured), Department of Ecology, Evolution and Env Biology, Columbia University  
2010 – 2014 Co-Chair, The University Seminar in Population Biology, Columbia University  
2009 – 2014 Assistant Professor, Department of Ecology, Evolution and Environmental Biology, Columbia University  
2006 – 2014 Lab Associate, Fuller Evolutionary Biology Program, Cornell Lab of Ornithology  
2005 – 2010 Visiting Lecturer, Department of Ecology and Evolutionary Biology, Cornell University  
2006 – 2009 Miller Research Fellow, Integrative Biology & Museum Vert Zoology, University of California, Berkeley  
2005 – 2006 Excellence Fellow, Cornell University  
2000 – 2005 Howard Hughes Medical Institute Predoctoral Fellow, Cornell University  
2003 – 2004 Smithsonian Institution Predoctoral Fellow, Smithsonian Tropical Research Institute  
1999 – 2000 Reynolds Scholar, Dartmouth College

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### HONORS & AWARDS

2021 Fellow, American Association for the Advancement of Science  
2020 Best of Trends 2019: Best Review in *Trends in Ecology & Evolution*  
2018 Society of Columbia Graduates' Great Teacher Award  
2018 Fellow, American Ornithological Society  
2018, 2017 Columbia University Nomination for Blavatnik Award  
2017 Lenfest Distinguished Faculty Award, Columbia University  
2016 National Academies Education Fellow in the Sciences

2014	National Geographic Explorer
2013	Elective Member, American Ornithologists' Union
2012	Kavli Fellow, National Academy of Sciences
2011	Sackler Colloquium, Invited Speaker, National Academy of Sciences
2010	Outstanding New Investigator Award, Animal Behavior Society
2010	Ned K. Johnson Young Investigator Award, American Ornithologists' Union
2010	Faculty of 1000, Contributing Faculty Member
2010	Columbia University Nomination for Packard Fellowship for Science and Engineering
2010	Distinguished Graduates Hall of Fame, Hopewell Valley Central High School
2008	Young Investigators Symposium, American Ornithologists' Union
2007	Young Scientists Symposium, University of Michigan
2006	Young Investigator Award, Society for Behavioral Neuroendocrinology
2006	Society of Sigma Xi, Full Member, Cornell University
2004	Poster Award, Society for Behavioral Neuroendocrinology
2001	Presentation Award, Society for Conservation Biology
1999	First Prize, 8 <sup>th</sup> Annual Karen E. Wetterhahn Science Symposium, Dartmouth College
1999	Florence Fletcher Charles Botany Prize, Dartmouth College Department of Biological Sciences
1999	Society of Sigma Xi, Associate Member, Dartmouth College
1999	Second Honor Group, Dartmouth College
1998	Third Honor Group, Dartmouth College
1997	Citation of Academic Achievement, Dartmouth College Department of Earth Sciences
1994	Finalist, International Science and Engineering Fair
1994	Grand Prize, Mercer Science and Engineering Fair

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## FELLOWSHIPS & GRANTS

### FELLOWSHIPS

2006 – 2009	Miller Research Fellowship, University of California, Berkeley
2006 – 2009	Council on Science and Technology Postdoctoral Fellowship, Princeton University (declined)
2003 – 2004	Smithsonian Institution Predoctoral Fellowship, Smithsonian Tropical Research Institute
2000 – 2005	Howard Hughes Medical Institute Predoctoral Fellowship in Biological Sciences
2000 – 2003	National Science Foundation Graduate Research Fellowship (declined)
2000 – 2001	College of Agriculture and Life Sciences Excellence Fellowship, Cornell University (deferred)
1999 – 2000	James B. Reynolds Scholarship for Study Abroad, Dartmouth College

### GRANTS

2022 – 2026	Australian Research Council (Co-PI with R Firman)
2021 – 2025	Australian Research Council (Co-PI with M Whiting, G While)
2018 – 2019	Global Scholars Program, Columbia University
2018 – 2020	Provost's Large-Scale Teaching & Learning Grant, Columbia University (PI with D Kelley)
2017 – 2021	National Science Foundation, IOS Physiological and Structural Systems
2016 – 2017	National Science Foundation, IOS Behavioral Systems (Meeting) (PI with B Dantzer)
2016 – 2017	Columbia University Seminars
2015 – 2017	National Science Foundation, IOS Behavioral Systems (DDIG) (PI with S Guindre-Parker)
2014 – 2017	President's Global Innovation Fund, Columbia University
2014 – 2016	National Science Foundation, IOS Behavioral Systems (Workshop) (PI with H Hofmann)
2014 – 2015	National Geographic Society
2013 – 2017	National Science Foundation, IOS Behavioral Systems
2013	National Science Foundation, IOS Behavioral Systems (REU Supplement)
2012 – 2015	National Science Foundation, Extreme Science and Engineering Discovery Environment (XSEDE)
2011 – 2014	National Science Foundation, IOS Behavioral Systems
2011 – 2013	National Evolutionary Synthesis Center (NESCent) (PI with E Lacey, S Phelps, N Solomon)
2011 – 2012	National Evolutionary Synthesis Center (NESCent) (Co-PI with J Fewell, J Hunt)
2011	Earth Institute Research Assistantship, Columbia University Earth Institute
2010	Earth Institute Research Assistantship, Columbia University Earth Institute
2010	Earth Institute Course Field Work Support Grant, Columbia University Earth Institute
2010	Columbia University Seminars (PI with M Levandowsky)

**GRADUATE AND POSTDOC GRANTS**

2008	Conference Travel Award, National Academy of Sciences
2008	Conference Travel Award, American Ornithologists' Union
2007	National Science Foundation Research Coordination Network Exchange Visit, E-BIRD
2006	Student Research Grant in Animal Behavior, Cornell University
2006	National Science Foundation Travel Award, North American Ornithological Congress
2006	Conference Travel Award, International Society for Behavioral Ecology (declined)
2006	Conference Transportation Grant, Cornell University Graduate School
2005 – 2008	National Science Foundation, Systematic Biology (senior personnel with I Lovette)
2005	Lerner-Gray Grant for Marine Research, American Museum of Natural History
2005	Sigma Xi Grant-in-Aid of Research
2005	Walter E. Benning Fund Scholarship, Cornell Lab of Ornithology
2005	Research Travel Grant, Cornell University Graduate School
2005	Cornell Sigma Xi Research Grant
2005	Student Research Grant in Animal Behavior, Cornell University
2005	Conference Travel Award, Society for Behavioral Neuroendocrinology
2005	Conference Transportation Grant, Cornell University Graduate School
2004 – 2005	National Science Foundation, Doctoral Dissertation Improvement Grant (Co-PI with S Emlen)
2004	Bentinck-Smith Fund, Cornell University (Co-PI with I Lovette)
2004	Animal Behavior Society Student Research Grant
2004	Cornell Sigma Xi Research Grant
2004	Walter E. Benning Fund Scholarship, Cornell Lab of Ornithology
2004	Paul A. Stewart Award, Wilson Ornithological Society
2004	Student Research Grant in Animal Behavior, Cornell University
2004	Frank M. Chapman Memorial Fund Grant, American Museum of Natural History
2004	Research Travel Grant, Cornell University Graduate School
2004	Conference Travel Award, International Society for Behavioral Ecology
2004	Conference Transportation Grant, Cornell University Graduate School
2003	Society for Integrative and Comparative Biology Grant-in-Aid of Research
2003	Cornell Sigma Xi Research Grant
2003	Walter E. Benning Fund Scholarship, Cornell Lab of Ornithology
2003	Andrew W. Mellon Foundation Student Research Grant, Cornell University
2003	Harvard Travellers Club Permanent Fund Grant
2003	Research Travel Grant, Cornell University Graduate School
2003	Student Conference Support, Society for Integrative and Comparative Biology
2003	Conference Transportation Grant, Cornell University Graduate School
2002	Cornell Sigma Xi Research Grant
2002	Walter E. Benning Fund Scholarship, Cornell Lab of Ornithology
2002	Frank M. Chapman Memorial Fund Grant, American Museum of Natural History
2002	Andrew W. Mellon Foundation Student Research Grant, Cornell University
2002	American Ornithologists' Union Research Award
2002	Research Travel Grant, Cornell University Graduate School
2002	American Ornithologists' Union Membership Grant
2002	Conference Transportation Grant, Cornell University Graduate School
2001	Cornell Sigma Xi Research Grant
2001	Mario Einaudi Center for International Studies Research Travel Grant, Cornell University
2001	Conference Transportation Grant, Cornell University Graduate School
2001	Student Travel Award, Society for Conservation Biology

**UNDERGRADUATE GRANTS**

1999	Harvard Travellers Club Permanent Fund Grant
1999	Explorers Club Youth Activity Fund Grant
1999	Class of 1939 Senior Scholars Program Grant, Dartmouth College
1998	Howard Hughes Research Internship, Dartmouth College
1998	Andrew W. Mellon Foundation Student Research Grant, Dartmouth College
1998	Richter Senior Honors Thesis Research Grant, Dartmouth College
1996	First-Year Summer Research Project Grant, Dartmouth College
1996	Summer Research Experience for Undergraduates (REU), American Museum of Natural History (declined)

**PUBLICATIONS****IN PREPARATION**

133. Garcia Ruiz I and **DR Rubenstein**. Fitness drivers of division of labour in vertebrates.
132. Chan S-F, M Liu, **DR Rubenstein**, Y-A Chung, W Lin, L-Y Liao, and S-F Shen. Re-establishing niche space for endangered Formosan salmon through reintroduction to historical habitat.
131. Shen S-F and **DR Rubenstein**. The evolution of cooperative breeding: linking direct, indirect and dual benefits.
130. Siller Wilks SJ, DF Westneat, BJ Heidinger, J Solomon and **DR Rubenstein**. Developmental changes in DNA methylation have long-term fitness consequences in wild house sparrows (*Passer domesticus*).
129. Earl AD, GG Carter, SS Shah, AG Berlinger and **DR Rubenstein**. Nepotism conceals reciprocal helping relationships in a cooperatively breeding bird.
128. Chen B-F, Y-C Li, **DR Rubenstein**, S-J Sun, M Liu, D-P Chen and S-F Shen. Interspecific competition promotes cooperation and reduces thermal demands in a social burying beetle.
127. Li Y-C, **DR Rubenstein**, S-C Lin, G-S Mai, M Liu and S-F Shen. Extreme temperature-sensitive task allocation determines complex problem-solving in a social insect.
126. Chang C-F, S-F Chan, M Liu, **DR Rubenstein**, S-P Huang, S-C Chan, Y-Y Chen, Y-H Lin, Y Tang and S-F Shen. Interspecific competition constrains the elevational distribution of social insects through suppression of cooperation.
125. Wen Y-H, J Mai, **DR Rubenstein**, S Wu, J-C Lin, M Liu and S-F Shen. Generative artificial intelligence reveals how harsh environments promote the evolution of sexual dimorphism in moths.

**SUBMITTED**

124. Wikelski M, M Quetting, J Bates, T Berger-Wolf, G Bohrer, L Börger, T Chapple, M Crofoot, SC Davidson, DKN Dechmann, D Ellis-Soto, L Ellwood, W Fiedler, A Flack, B Fruth, N Franconi, RW Havmøller, J Hirt, NR Hussey, F Iannarilli, M Landwehr, ME Müller, T Müller, U Müller, R Oliver, J Partecke, L Pokrovskaya, **DR Rubenstein**, C Rutz, K Safi, A Santangeli, L van Schalkwyk, A Sequeira, T Ramesh, P Viljoen, K Wasik, S Yanco and R Kays. Introducing a unique animal ID and digital life history museum for wildlife.
123. Falk JJ, MS Webster and **DR Rubenstein**. The maintenance of adaptive polymorphism.
122. Mai J, J-P Huang, **DR Rubenstein**, Y-H Wen, M Liao, J-C Lin, S Wu, M Liu and S-F Shen. The rise of morphological diversity in butterflies and moths.
121. Chan S-F, **DR Rubenstein**, T-W Wang, Y-Y Chen, I-C Chen, D-Z Ni, W-K Shih and S-F Shen. Allee effects mediate the impact of land-use change on the thermal niche of social species.

**RESEARCH ARTICLES**

120. Shah SS and **DR Rubenstein**. 2024. Intraspecific variation in the social structure of a cooperative breeder arises due to fine-scale environmental conditions governing directional dispersal. *Journal of Animal Ecology* Provisionally accepted.
119. Siller Wilks SJ, BJ Heidinger, DF Westneat, J Solomon and **DR Rubenstein**. 2024. The impact of parental and developmental stress on DNA methylation in the avian hypothalamic-pituitary-adrenal axis. *Molecular Ecology* 00:e17291.
118. Rubenstein DI and **DR Rubenstein**. 2023. Social behavior and animal societies. In *Encyclopedia of Biodiversity, 3<sup>rd</sup> Edition* (Scheiner, S, ed.). Elsevier, New York.
117. Shen S-F, HK Reeve, ST Emlen, M Liu and **DR Rubenstein**. 2023. Group size and the resolution of insider-outsider conflict in animal societies. *Animal Behaviour* 205:107-116.
116. Siller Wilks SJ, DF Westneat, BJ Heidinger, J Solomon and **DR Rubenstein**. 2023. Epigenetic modification of the hypothalamic-pituitary-adrenal (HPA) axis during development in the house sparrow (*Passer domesticus*). *General and Comparative Endocrinology* 341:114336.
115. Lin Y-H, Y-Y Chen, **DR Rubenstein**, M Liu and S-F Shen. 2023. Environmental quality mediates the ecological dominance of cooperatively breeding birds. *Ecology Letters* 26:1145–1156.
114. Chan S-F, M Liu, **DR Rubenstein**, I-C Chen, Y-M Fan, Y-W Zheng and S-F Shen. 2023. Higher temperature variability in deforested mountain regions impacts the competitive advantage of nocturnal species. *Proceedings of the Royal Society of London B* 290:20230529.
113. Halupka, L, D Arlt, J Tolvanen, A Millon, P Bize, P Adamík, P Albert, WJ Arendt, AV Artemyev, V Baglione, J Bańbura, M Bańbura, E Barba, RT Barrett, PH Becker, E Belskii, M Bolton, EK Bowers, J Bried, LBrouwer, M Bukacińska, D Bukaciński, L Bulluck, KF Carstens, I Catry, M Charter, A Chernomoretz, R Covas, M Czuchra, DC Dearborn, F de Lope, AS Di Giacomo, VC Dombrovski, H Drummond, MJ Dunn, T Eeva, LM Emmerson, Y Espmark, JA Fargallo, SI Gashkov, EY Golubova, M Griesser, MP Harris, JP Hoover, ZC Jagiełło, P Karell, J Kloskowski, WD Koenig, H Kolunen, M Korczak-Abshire, E Korpimäki, I Krams, M Krist, SC Krüger, BD Kuranov, X Lambin, MP Lombardo, A Lyakhov, A Marzal, AP Møller, VC Neves, JT Nielsen, A Numerov, B Orłowska, D Oro, M Öst, RA Phillips, H Pietiäinen, V Polo, J Porkert, J Potti, H Pöysä, T Printemps, J Prop, P Quillfeldt, JA Ramos, P-A Ravussin, RN Rosenfield, Alexandre Roulin, **DR Rubenstein**, IE Samusenko, DA Saunders, M Schaub, J Senar, F Sergio, T Solonen, DV Solovyeva, J Stępniewski, PM Thompson, M Tobolka, J Török, M van de Pol, L Vernooij, ME Visser,

- DF Westneat, NT Wheelwright, J Wiącek, KL Wiebe, AG Wood, A Wuczyński, D Wysocki, M Zárybnická, A Margalida and K Halupka. 2023. The effect of climate change on offspring production in 201 avian populations: a global meta-analysis. *Proceedings of the National Academy of Sciences USA* 120:e2208389120.
112. Shah SS and **DR Rubenstein**. 2023. Group augmentation underlies the evolution of complex sociality in the face of environmental instability. *Proceedings of the National Academy of Sciences USA* 120:e2212211120.
111. **Rubenstein DR** and J Solomon. 2023. Target-enriched enzymatic methyl sequencing: flexible, scalable and inexpensive hybridization capture for quantifying DNA methylation. *PLOS ONE* 18:e0282672.
110. Chak STC, SE Harris, KM Hultgren, JE Duffy and **DR Rubenstein**. 2022. Demographic inference provides insights into the extirpation and ecological dominance of eusocial snapping shrimps. *Journal of Heredity* 113:552-562.
109. Falk JJ, **DR Rubenstein**, A Rico-Guevara and MS Webster. 2022. Intersexual social dominance mimicry drives female hummingbird polymorphism. *Proceedings of the Royal Society of London B* 289:20220332.
108. Firman RC, **DR Rubenstein** and BA Buzatto. 2022. The spatial and temporal distribution of females influence the evolution of testes size in Australian rodents. *Biology Letters* 18:20220058.
107. Little J, **DR Rubenstein** and S Guindre-Parker. 2022. Plasticity in social behaviour varies with reproductive status in an avian cooperative breeder. *Proceedings of the Royal Society of London B* 289:20220355.
106. Shah SS and **DR Rubenstein**. 2022. Prenatal environmental conditions underlie alternative reproductive tactics that drive the formation of a mixed-kin cooperative society. *Science Advances* 8:eabk2220.
105. Chen Y-Y, **DR Rubenstein** and S-F Shen. 2022. Cooperation and lateral forces: moving beyond bottom-up and top-down drivers of animal population dynamics. *Frontiers in Psychology* 13:768773.
104. Liu M, **DR Rubenstein**, SA Cheong and S-F Shen. 2021. Antagonistic effects of long- and short-term environmental variation on species coexistence. *Proceedings of the Royal Society of London B* 288:20211491.
103. Falk JJ, MS Webster and **DR Rubenstein**. 2021. Male-like ornamentation in female hummingbirds results from social harassment rather than sexual selection. *Current Biology* 31:4381-4387.
102. Guindre-Parker S and **DR Rubenstein**. 2021. Long-term measures of climate unpredictability shape the avian endocrine stress axis. *The American Naturalist* 198:394-405.
101. Mazzei R and **DR Rubenstein**. 2021. Larval ecology, dispersal and the evolution of sociality in the sea. *Ethology* 127:808-820.
100. Chak STC, SE Harris, KM Hultgren, NW Jeffrey and **DR Rubenstein**. 2021. Eusociality in snapping shrimps is associated with larger genomes and an accumulation of transposable elements. *Proceedings of the National Academy of Sciences USA* 118:e2025051118.
99. **Rubenstein DR**, A Corvelo, MD MacManes, R Maia, G Narzisi, A Rousaki, P Vandenabeele, M Shawkey and J Solomon. 2021. Feather gene expression elucidates the developmental basis of iridescence in African starlings. *Journal of Heredity* 112:417-429.
98. Diamant ES, JJ Falk and **DR Rubenstein**. 2021. Male-like female morphs in hummingbirds: the evolution of a widespread sex-limited plumage polymorphism. *Proceedings of the Royal Society of London B* 288:20203004.
97. Liu M, B-F Chen, **DR Rubenstein** and S-F Shen. 2020. Social rank modulates how environmental quality influences cooperation and conflict within animal societies. *Proceedings of the Royal Society of London B* 287:20201720.
96. Antonson ND, **DR Rubenstein**, ME Hauber and CA Botero. 2020. Ecological uncertainty favours the diversification of host use in avian brood parasites. *Nature Communications* 11:4185.
95. Tsai H-Y, **DR Rubenstein**, B-F Chen, M Liu, S-F Chan, Y-M Fan, D-P Chen, S-J Sun, T-N Yuan and S-F Shen. 2020. Antagonistic effects of intraspecific cooperation and interspecific competition on thermal performance. *eLife* 9:e57022.
94. Guindre-Parker S and **DR Rubenstein**. 2020. Survival benefits of group living in a fluctuating environment. *The American Naturalist* 195:1027-1036.
93. Liu M, S-F Chan, **DR Rubenstein**, S-J Sun, B-F Chen and S-F Shen. 2020. Ecological transitions in grouping benefits explain the paradox of environmental quality and sociality. *The American Naturalist* 195:818-832.
92. Tsai H-Y, **DR Rubenstein**, Y-M Fan, T-N Yuan, B-F Chen, Y Tang, I-C Chen and SF Shen. 2020. Locally-adapted reproductive photoperiodism determines population vulnerability to climate change. *Nature Communications* 11:1398.
91. Firman RC, **DR Rubenstein**, JM Moran, KC Rowe and BA Buzatto. 2020. Extreme and variable climatic conditions drive the evolution of sociality in Australian rodents. *Current Biology* 30:691-697.
90. Chen B-F, M Liu, **DR Rubenstein**, S-J Sun, J-N Liu, Y-H Lin and S-F Shen. 2020. A chemically triggered transition from conflict to cooperation in burying beetles. *Ecology Letters* 23:467-475.
89. Chak STC and **DR Rubenstein**. 2019. TERAD: Extraction of transposable element composition from RADseq data. *Molecular Ecology Resources* 19:1681-1688.
88. Liu M, **DR Rubenstein**, S-A Cheong and S-F Shen. 2019. A continuum of biological adaptations to environmental fluctuation. *Proceedings of the Royal Society of London B* 286:20191623.
87. Wu S, C-M Chang, **DR Rubenstein**, C-M Yang, Y-T Huang, H-H Lin, L-C Shih, S-W Chen and S-F Shen. 2019. Artificial intelligence reveals environmental constraints on colour diversity in insects. *Nature Communications* 10:4554.

86. Siller SJ and **DR Rubenstein**. 2019. A tissue comparison of DNA methylation in the glucocorticoid receptor (*Nr3c1*) gene promoter in the European starling. *Integrative and Comparative Biology* 59:264-272.
85. **Rubenstein DR**, JA Ågren, L Carbone, NC Elde, HE Hoekstra, KM Kapheim, L Keller, CS Moreau, AL Toth, S Yeaman and HA Hofmann. 2019. Coevolution of genome architecture and social behavior. *Trends in Ecology & Evolution* 34:844-855.
84. Cheng Y-R, **DR Rubenstein** and S-F Shen. 2019. Nest predation predicts infanticide in a cooperatively breeding bird. *Biology Letters* 15:20193014.
83. Chak STC and **DR Rubenstein**. 2019. Social transitions in sponge-dwelling snapping shrimp. *Current Opinion in Insect Science* 34:33-39.
82. Lin Y-H, S-F Chan, **DR Rubenstein**, M Liu and S-F Shen. 2019. Resolving the paradox of environmental quality and sociality: the ecological causes and consequences of cooperative breeding in two lineages of birds. *The American Naturalist* 194:207-216.
81. **Rubenstein DR**. 2019. Animal society. In *Encyclopedia of Animal Cognition and Behavior* (Vonk, J and TK Schelford, eds.). Springer, New York, pp. 1-3.
80. Ellis VA, EHR Sari, **DR Rubenstein**, RC Dickerson, S Bensch and RE Ricklefs. 2019. The global biogeography of avian haemosporidian parasites is characterized by local diversification and intercontinental dispersal. *Parasitology* 146:213-219.
79. Shen S-F and **DR Rubenstein**. 2019. Environmental uncertainty and social behavior. In *Encyclopedia of Animal Behavior, 2<sup>nd</sup> Edition* (Choe, J, ed.). Elsevier, New York, Volume 4, pp. 807-815.
78. Guindre-Parker, S and **DR Rubenstein**. 2018. No short-term physiological costs of offspring care in a cooperatively breeding bird. *Journal of Experimental Biology* 221:jeb186569.
77. Guindre-Parker, S and **DR Rubenstein**. 2018. The oxidative costs of parental care in cooperative and pair-breeding African starlings. *Oecologia* 188:53-63.
76. Liu M, **DR Rubenstein**, S-A Cheong and S-F Shen. 2018. Multitasking and the evolution of optimal clutch size in fluctuating environments. *Ecology and Evolution* 8:8803-8817.
75. Guindre-Parker S and **DR Rubenstein**. 2018. Multiple fitness benefits of alloparental care in a fluctuating environment. *Royal Society Open Science* 5:172406.
74. Pikus AE, S Guindre-Parker and **DR Rubenstein**. 2018. Testosterone, social status and parental care in a cooperatively breeding bird. *Hormones and Behavior* 97:85-93.
73. Gaynor KM, JW Solomon, JE Duffy, L Jessell, S Siller and **DR Rubenstein**. 2017. Development of genome- and transcriptome-derived microsatellites in related species of snapping shrimps with highly duplicated genomes. *Molecular Ecology Resources* 17:e160-e173.
72. Brooks KC, R Maia, JE Duffy, KM Hultgren and **DR Rubenstein**. 2017. Ecological generalism facilitates the evolution of sociality in snapping shrimps. *Ecology Letters* 20:1516-1525.
71. Dantzer B and **DR Rubenstein**. 2017. Introduction to symposium: the developmental and proximate mechanisms causing individual variation in cooperative behavior. *Integrative and Comparative Biology* 57:560-565.
70. Shen S-F, ST Emlen, WD Koenig and **DR Rubenstein**. 2017. The ecology of cooperative breeding behaviour. *Ecology Letters* 20:708-720.
69. Chak STC, JE Duffy, KM Hultgren and **DR Rubenstein**. 2017. Evolutionary transitions towards eusociality in snapping shrimps. *Nature Ecology & Evolution* 1:0096.
68. Cornwallis CK, CA Botero, **DR Rubenstein**, PA Downing, SA West and AS Griffin. 2017. Cooperation facilitates the colonization of harsh environments. *Nature Ecology & Evolution* 1:0057.
67. **Rubenstein DR** and P Abbot. 2017. The evolution of social evolution. In *Comparative Social Evolution* (Rubenstein DR and P Abbot, eds.). Cambridge University Press, Cambridge, pp. 1-18.
66. Hultgren KM, JE Duffy and **DR Rubenstein**. 2017. Sociality in snapping shrimps. In *Comparative Social Evolution* (Rubenstein DR and P Abbot, eds.). Cambridge University Press, Cambridge, 224-249.
65. **Rubenstein DR** and P Abbot. 2017. Social synthesis: opportunities for comparative social evolution. In *Comparative Social Evolution* (Rubenstein DR and P Abbot, eds.). Cambridge University Press, Cambridge, 427-452.
64. Hofmeister NR and **DR Rubenstein**. 2016. Environmental variability and the evolution of the glucocorticoid receptor (*Nr3c1*) in African starlings. *Ecology Letters* 19:1219-1227.
63. Hofmann HA, SCP Renn and **DR Rubenstein**. 2016. Introduction to symposium: new frontiers in the integrative study of animal behavior: nothing in neuroscience makes sense except in the light of behavior. *Integrative and Comparative Biology* 56:1192-1196.
62. Rubalcaba JG, V Polo, R Maia, **DR Rubenstein** and JP Veiga. 2016. Sexual and natural selection in the evolution of extended phenotypes: the use of green nesting material in starlings. *Journal of Evolutionary Biology* 29:1585-1592.
61. Jeffery NW, KM Hultgren, TCS Chak, TR Gregory and **DR Rubenstein**. 2016. Patterns of genome size variation in snapping shrimp. *Genome* 59:393-402.
60. Maia R, **DR Rubenstein** and MD Shawkey. 2016. Selection, constraint and the evolution of coloration in African starlings. *Evolution* 70:1064-1079.

59. **Rubenstein DR**, CA Botero and EA Lacey. 2016. Discrete but variable structure of animal societies leads to the false perception of a social continuum. *Royal Society Open Science* 3:160147.
58. Keen SC, CD Meliza, JA Piloswky and **DR Rubenstein**. 2016. Song in a social and sexual context: vocalizations signal identity and rank in both sexes of a cooperative breeder. *Frontiers in Ecology and Evolution* 4:46.
57. **Rubenstein DR**, HE Skolnik, A Berrio, F Champagne, S Phelps and J Solomon. 2016. Sex-specific fitness effects of unpredictable early life conditions are associated with DNA methylation in the avian glucocorticoid receptor. *Molecular Ecology* 25:1714-1728.
56. **Rubenstein DR**. 2016. Superb starlings: cooperation and conflict in an unpredictable environment. In *Cooperative Breeding in Vertebrates: Studies of Ecology, Evolution, and Behavior* (Koenig WD and JL Dickinson, eds.). Cambridge University Press, Cambridge, pp. 181-196.
55. **Rubenstein DR** and HA Hofmann. 2015. Proximate pathways underlying social behavior. *Current Opinion in Behavioral Sciences* 6:154-159.
54. Chak TCS, **DR Rubenstein** and JE Duffy. 2015. Social control of reproduction and breeding monopolization in the eusocial snapping shrimp *Synalpheus elizabethae*. *The American Naturalist* 186:660-668.
53. Pollack LJ and **DR Rubenstein**. 2015. The fitness consequences of kin-biased dispersal in a cooperatively breeding bird. *Biology Letters* 11:20150336.
52. Chak TCS, JE Duffy and **DR Rubenstein**. 2015. Reproductive skew drives patterns of sexual dimorphism in sponge-dwelling snapping shrimps. *Proceedings of the Royal Society of London B* 282:20150342.
51. Apakupakul K and **DR Rubenstein**. 2015. Bateman's principle is reversed in a cooperatively breeding bird. *Biology Letters* 11:20150034.
50. Taborsky M, HA Hofmann, AK Beery, DT Blumstein, LD Hayes, EA Lacey, EP Martins, SM Phelps, NG Solomon and **DR Rubenstein**. 2015. Taxon matters: promoting integrative studies of social behavior. *Trends in Neuroscience* 38:189-191.
49. Weinman LR, J Solomon and **DR Rubenstein**. 2015. A comparison of single nucleotide polymorphism and microsatellite markers for analysis of parentage and kinship in a cooperatively breeding bird. *Molecular Ecology Resources* 15:502-511.
48. Botero CA, FJ Weissing, J Wright and **DR Rubenstein**. 2015. Evolutionary tipping points in the capacity to adapt to environmental change. *Proceedings of the National Academy of Sciences USA* 112:184-189.
47. **Rubenstein DR** and HA Hofmann. 2015. The integrative study of animal behavior. *Current Opinion in Behavioral Sciences* 6:v-viii.
46. Hofmann HA, AK Beery, DT Blumstein, ID Couzin, RL Earley, LD Hayes, PL Hurd, EA Lacey, SM Phelps, NG Solomon, M Taborsky, LJ Young and **DR Rubenstein**. 2014. An evolutionary framework for studying mechanisms of social behavior. *Trends in Ecology & Evolution* 29:581-589.
45. Sun S-J, **DR Rubenstein**, J-N Liu, M Liu, B-F Chen, S-F Chan, W Hwang, P-S Yang and S-F Shen. 2014. Climate-mediated cooperation promotes niche expansion in burying beetles. *eLife* 3:e02440.
44. Shen S-F, E Akçay and **DR Rubenstein**. 2014. Group size and social conflict in complex societies. *The American Naturalist* 183:301-310.
43. Keen SC, CD Meliza and **DR Rubenstein**. 2013. Flight calls signal group and individual identity but not kinship in a cooperatively breeding bird. *Behavioral Ecology* 24:1279-1285.
42. Meliza CD, SC Keen and **DR Rubenstein**. 2013. Pitch- and spectral-based dynamic time warping methods for comparing field recordings of harmonic avian vocalizations. *Journal of the Acoustical Society of America* 134:1407-1415.
41. Seddon N, CA Botero, JA Tobias, PO Dunn, H MacGregor, **DR Rubenstein**, A Uy, JT Weir, LA Whittingham and RJ Safran. 2013. Sexual selection accelerates signal evolution during speciation in birds. *Proceedings of the Royal Society of London B* 280:20131065.
40. Maia R, **DR Rubenstein** and MD Shawkey. 2013. Key ornamental innovations facilitate diversification in an avian radiation. *Proceedings of the National Academy of Sciences USA* 110:10687-10692.
39. Mark MM and **DR Rubenstein**. 2013. Physiological costs and carry-over effects of avian interspecific brood parasitism influence reproductive tradeoffs. *Hormones and Behavior* 63:717-722.
38. Piloswky JA and **DR Rubenstein**. 2013. Social context and the lack of sexual dimorphism in song in an avian cooperative breeder. *Animal Behaviour* 85:709-714.
37. Rubenstein DI and **DR Rubenstein**. 2013. Social behavior. In *Encyclopedia of Biodiversity, 2<sup>nd</sup> Edition* (Levin, SA, ed.). Elsevier, New York, Volume 6, pp. 571-579.
36. Duffy JE, KS Macdonald, KM Hultgren, TCS Chak and **DR Rubenstein**. 2013. Decline and extinction of Caribbean eusocial shrimp. *PLOS ONE* 8:e54637.
35. Creel S, B Danzter, W Goymann and **DR Rubenstein**. 2013. The ecology of stress: effects of the social environment. *Functional Ecology* 27:66-80.
34. **Rubenstein DR**. 2012. Family feuds: social competition and sexual conflict in complex societies. *Philosophical Transactions of the Royal Society B* 367:2304-2313.

33. **Rubenstein DR**. 2012. Sexual and social competition: broadening perspectives by defining female roles. *Philosophical Transactions of the Royal Society B* 367:2248-2252.
32. Lovette IJ, BS Arbogast, RL Curry, RM Zink, CA Botero, JP Sullivan, AL Talba, RB Harris, **DR Rubenstein**, RE Ricklefs and E Bermingham. 2012. Phylogenetic relationships of the mockingbirds and thrashers (Aves: Mimidae). *Molecular Phylogenetics and Evolution* 63:219-229.
31. Botero CA and **DR Rubenstein**. 2012. Fluctuating environments, sexual selection and the evolution of flexible mate choice in birds. *PLOS ONE* 7:e32311.
30. **Rubenstein DR**. 2011. Spatiotemporal environmental variation, risk aversion and the evolution of cooperative breeding as a bet-hedging strategy. *Proceedings of the National Academy of Sciences USA* 108:10816-10822.
29. Jetz W\* and **DR Rubenstein**\*. 2011. Environmental uncertainty and the global biogeography of cooperative breeding in birds. *Current Biology* 21:72-78. \*contributed equally
28. **Rubenstein DR** and JA Kealey. 2010. Cooperation, conflict, and the evolution of complex animal societies. *Nature Education Knowledge* 1:47.
27. Blumstein DT, LA Ebensperger, LD Hayes, RA Vásquez, TH Ahern, JR Burger, AG Dolezal, A Dosmann, G González-Mariscal, BN Harris, EA Herrera, EA Lacey, J Mateo, L McGraw, D Olazabal, M Ramenofsky, **DR Rubenstein**, SA Sakhai, W Saltzman, C Sainz-Borgo, M Soto-Gamboa, ML Stewart, TW Wey, JC Wingfield and LJ Young. 2010. Towards an integrative understanding of social behavior: new models and new opportunities. *Frontiers in Neuroscience* 4:1-9.
26. **Rubenstein DR** and IJ Lovette. 2009. Reproductive skew and selection on female ornamentation in social species. *Nature* 462:786-789.
25. **Rubenstein DR** and S-F Shen. 2009. Reproductive conflict and the costs of social status in cooperatively breeding vertebrates. *The American Naturalist* 173:650-661.
24. **Rubenstein DR** and ME Hauber. 2008. Dynamic feedback between phenotype and physiology in sexually selected traits. *Trends in Ecology & Evolution* 23:655-658.
23. **Rubenstein DR**, AF Parlow, CR Hutch and LB Martin. 2008. Environmental and hormonal correlates of immune activity in a cooperatively breeding tropical bird. *General and Comparative Endocrinology* 159:10-15.
22. Vitousek MN, **DR Rubenstein**, K Nelson and M Wikelski. 2008. Are hotshots always hot? A longitudinal study of hormones, behavior, and reproductive success in male marine iguanas. *General and Comparative Endocrinology* 157:227-232.
21. Lovette IJ, BV McCleery, AL Talba and **DR Rubenstein**. 2008. A complete species-level molecular phylogeny for the “Eurasian” starlings (Sturnidae: *Sturnus*, *Acridotheres*, and allies): recent diversification in a highly social and dispersive avian group. *Molecular Phylogenetics and Evolution* 47:251-260.
20. **Rubenstein DR**, BV McCleery and JE Duffy. 2008. Microsatellite development suggests evidence of polyploidy in the social sponge-dwelling snapping shrimp *Zuzalpheus brooksi*. *Molecular Ecology Resources* 8:890-894.
19. Martin LB and **DR Rubenstein**. 2008. Stress hormones in tropical birds: patterns and future directions. *Ornitologia Neotropical* 19 (Suppl.):207-218.
18. **Rubenstein DR** and IJ Lovette. 2007. Temporal environmental variability drives the evolution of cooperative breeding in birds. *Current Biology* 17:1414-1419.
17. **Rubenstein DR**. 2007. Territory quality drives intraspecific patterns in extrapair paternity. *Behavioral Ecology* 18:1058-1064.
16. **Rubenstein DR**. 2007. Female extrapair mate choice in a cooperative breeder: trading sex for help and increasing offspring heterozygosity. *Proceedings of the Royal Society of London B* 274:1895-1903.
15. **Rubenstein DR**. 2007. Temporal but not spatial environmental variation drives adaptive offspring sex allocation in a plural cooperative breeder. *The American Naturalist* 170:155-165.
14. Lovette IJ and **DR Rubenstein**. 2007. A comprehensive molecular phylogeny of the starlings (Aves: Sturnidae) and mockingbirds (Aves: Mimidae): congruent mtDNA and nuclear trees for a cosmopolitan avian radiation. *Molecular Phylogenetics and Evolution* 44:1031-1056.
13. Sachs JL and **DR Rubenstein**. 2007. The evolution of cooperative breeding; is there cheating? *Behavioural Processes* 76:131-137.
12. **Rubenstein DR**. 2007. Stress hormones and sociality: integrating social and environmental stressors. *Proceedings of the Royal Society of London B* 274:967-975.
11. Vitousek MN, **DR Rubenstein** and M Wikelski. 2007. The evolution of foraging behavior in the Galápagos marine iguana: natural and sexual selection on body size drives ecological, morphological, and behavioral specialization. In *Foraging Behavior in Lizards* (Reilly SM, DB Miles and LD McBrayer, eds.). Cambridge University Press, Cambridge, pp. 491-507.
10. **Rubenstein DR**, DI Rubenstein, PW Sherman and TA Gavin. 2006. Pleistocene park: does re-wilding North America represent sound conservation for the 21<sup>st</sup> century? *Biological Conservation* 132:232-238.
9. Lovette IJ, **DR Rubenstein** and WN Watetu. 2006. Provisioning of fledgling conspecifics by males of the brood-parasitic cuckoos *Chrysococcyx klaas* and *C. caprius*. *The Wilson Journal of Ornithology* 118:99-101.

8. **Rubenstein DR** 2005. Isolation and characterization of polymorphic microsatellite loci in the plural cooperatively breeding superb starling, *Lamprolornis superbus*. *Molecular Ecology Notes* 5:739-744.
7. **Rubenstein DR** and M Wikelski. 2005. Steroid hormones and aggression in female Galápagos marine iguanas. *Hormones and Behavior* 48:329-341.
6. McRae SB, ST Emlen, **DR Rubenstein** and SM Bogdanowicz. 2005. Polymorphic microsatellite loci in a plural breeder, the grey-capped social weaver (*Pseudonigrita arnaudi*), isolated with an improved enrichment protocol using fragment size-selection. *Molecular Ecology Notes* 5:16-20.
5. Royle JA and **DR Rubenstein**. 2004. The role of species abundance in determining breeding origins of migratory birds with stable isotopes. *Ecological Applications* 14:1780-1788.
4. **Rubenstein DR** and KA Hobson. 2004. From birds to butterflies: animal movement patterns and stable isotopes. *Trends in Ecology & Evolution* 19:256-263.
3. **Rubenstein DR** and M Wikelski. 2003. Seasonal changes in food quality: a proximate cue for reproductive timing in marine iguanas. *Ecology* 84:3013-3023.
2. **Rubenstein DR**, CP Chamberlain, RT Holmes, MP Ayres, JR Waldbauer, GR Graves and NC Tuross. 2002. Linking breeding and wintering ranges of a migratory songbird using stable isotopes. *Science* 295:1062-1065.
1. Rittschof D, J Sarrica, and **DR Rubenstein**. 1995. Shell dynamics and microhabitat selection by striped legged hermit crabs, *Clibanarius vittatus* (Bosc). *Journal of Experimental Marine Biology and Ecology* 192:157-172.

#### OTHER ARTICLES

16. **Rubenstein DR**. 2021. Social evolution. *Henry Stewart Talks*.
15. **Rubenstein DR**. 2021. Darwinian puzzles: from natural to sexual to kin selection. *AMNH Seminars on Science*.
14. **Rubenstein DR** and DI Rubenstein. 2016. From Pleistocene to trophic rewilding: a wolf in sheep's clothing. *Proceedings of the National Academy of Sciences USA* 113:E1.
13. **Rubenstein DR**, H Hofmann, E Akçay, S Alonzo, E Archie, A Beery, R Calisi-Rodríguez, K Carleton, B Chow, J Dubnau, C Grozinger, E Ketterson, A Leifer, T Linksvayer, M MacManes, L Martin, K McGraw, L McGraw, T Mendelson, L O'Connell, A Ophir, L Remage-Healey, S Renn, T Roth, J Tung and S Woolley. 2014. New frontiers for the integrative study of animal behavior. *National Science Foundation White Paper*.
12. **Rubenstein DR**. 2012. The Flexible Phenotype: A Body-Centered Integration of Ecology, Physiology, and Behaviour (Book Review). *The Quarterly Review of Biology* 87:264.
11. **Rubenstein DR** and JE Duffy. 2012. Scientists at work: notes from the field in Belize. *The New York Times* July 18-27, 2012.
10. **Rubenstein DR**. 2011. From the big city to the bush. *Mpala Memos* July:7.
9. **Rubenstein DR**. 2010. Evolutionary Behavioral Ecology (Book Review). *The Quarterly Review of Biology* 85:504.
8. **Rubenstein DR**. 2010. Scientists at work: notes from the field in Kenya. *The New York Times* July 13-28, 2010.
7. **Rubenstein DR**. 2009. The secret lives of starlings. *Natural History* 118:28-33.
6. **Rubenstein DR**. 2009. Why I do science: the freedom to explore. *SEED* 21:34.
5. **Rubenstein DR**, PW Sherman, DI Rubenstein and TM Caro. 2007. Rewilding rebuttal. *Scientific American* October:12.
4. **Rubenstein DR**. 2006. Searching for starlings. *Travel News* April:58.
3. **Rubenstein DR**. 2006. Chasing starlings, chased by a lion. *Living Bird* 26:26-32.
2. **Rubenstein DR**. 2005. The uncommon lifestyle of the superb starling. *BirdScope* 19:20.
1. **Rubenstein DR**. 2001. The places you can go. *Dartmouth Alumni Magazine* May/June:24-25.

#### BOOKS

3. **Rubenstein DR**. TBD. *Animal Behavior, 13<sup>th</sup> Edition*. Oxford University Press, New York.
4. Kennedy P and **DR Rubenstein**. TBD. *Kin Selection*. Oxford University Press, New York.
3. **Rubenstein DR**. 2022. *Animal Behavior, 12<sup>th</sup> Edition*. Oxford University Press, New York.
2. **Rubenstein DR** and J Alcock. 2018. *Animal Behavior, 11<sup>th</sup> Edition*. Oxford University Press, New York.
1. **Rubenstein DR** and P Abbot. 2017. *Comparative Social Evolution*. Cambridge University Press, Cambridge.

#### EDITED VOLUMES

2. **Rubenstein DR** and HA Hofmann. 2015. New frontiers for the integrative study of animal behavior. *Current Opinion in Behavioral Sciences* 6:1-182.
1. **Rubenstein DR**, RO Prum and M Levandowsky. 2012. Sexual selection, social conflict and the female perspective. *Philosophical Transactions of the Royal Society B* 367:2248-2375.

**PRESENTATIONS****INVITED SEMINARS**

- 2025 – Department of Biological Sciences, Florida State University
- 2024 – Department of Earth, Ocean and Ecological Sciences, University of Liverpool
- 2023 Department of Biological Sciences, Macquarie University
- 2023 Department of Biological Sciences, University of Tasmania
- 2023 Department of Biology, Texas A&M University
- 2023 Centre for Evolutionary Biology, School of Biological Sciences, University of Western Australia
- 2023 Department of Ecology and Evolutionary Biology, Princeton University
- 2023 University Seminar in the Integrative Study of Animal Behavior, Columbia University
- 2022 Department of Neurobiology and Behavior, Cornell University (*Graduate Student Invited Speaker*)
- 2022 Biology Department, Queens College
- 2021 Biology Department, Queen's University
- 2021 International Remote Seminar on Frontiers in Social Evolution
- 2021 Department of Biological Sciences, North Dakota State University
- 2021 Center for Studies in Physics and Biology, Rockefeller University
- 2020 Long-Term Animal Research Seminar Series, Duke University
- 2020 City University of New York (CUNY) Neuroscience Collaborative, CUNY Graduate Center
- 2019 Federated Department of Biology, Rutgers University - Newark / New Jersey Institute of Technology
- 2019 Department of Biological Sciences, Columbia University
- 2018 Program in Ecology, Evolution and Conservation, University of Illinois, Urbana
- 2018 Institute of Ecology and Evolution, University of Bern
- 2018 Richard Gilder Graduate School, American Museum of Natural History
- 2017 Department of Collective Behaviour, University of Konstanz
- 2017 Division of Integrative Biology, University of South Florida
- 2017 Biodiversity Research Center, Academia Sinica, Taiwan
- 2017 Department of Biology, University of Kentucky
- 2017 Department of Ecology and Evolutionary Biology, University of Michigan (*Storer Lecture*)
- 2017 Department of Psychology, Cornell University
- 2017 Distinguished Speakers in Behavioral and Brain Sciences, Cornell University
- 2016 Centre for Ecology and Conservation, University of Exeter, Penryn
- 2016 Department of Biological Sciences, Dartmouth College
- 2015 University Seminar in the Integrative Study of Animal Behavior, Columbia University
- 2015 Department of Anthropology, Rutgers University
- 2015 Brain, Behavior and Evolution Group, University of Texas at Austin
- 2015 Department of Integrative Biology, University of Texas at Austin
- 2015 Behavioral Ecology Group, Department of Anthropology, Stony Brook University
- 2015 Ecology, Evolution, and Environmental Science Faculty, School of Life Sciences, Arizona State University
- 2015 Department of Biology, Brooklyn College
- 2015 Department of Biology, University of Miami
- 2014 Biology Department, University of Massachusetts Amherst
- 2014 Department of Biological Sciences, Vanderbilt University
- 2014 Centre for Ecology and Conservation, University of Exeter, Penryn
- 2014 Department of Molecular, Cellular and Biomedical Sciences, University of New Hampshire
- 2014 Department of Ecology and Evolutionary Biology, Tulane University
- 2014 Biology Department, Fairfield University
- 2013 Department of Neurobiology and Behavior, Cornell University
- 2013 National Evolutionary Synthesis Center, Duke University
- 2013 Department of Biology, Indiana University
- 2013 Biology Program, Bard College
- 2013 Department of Biology, North Carolina State University
- 2012 Department of Biology and Health Sciences, Pace University
- 2012 Department of Psychology, Columbia University
- 2012 Department of Biology, Boston University
- 2012 Empire State College
- 2012 Department of Ecology and Evolutionary Biology, Princeton University
- 2012 Department of Ecology and Evolutionary Biology, Univ of Connecticut (*Graduate Student Invited Speaker*)
- 2011 Richard Gilder Graduate School, American Museum of Natural History
- 2011 Biology Department, Tufts University (*Graduate Student Invited Speaker*)

2011 Ecology and Evolution Department, Stony Brook University  
 2011 Department of Zoology & Edward Grey Institute of Field Ornithology, Oxford University  
 2011 Department of Ecology and Evolutionary Biology, Yale University  
 2010 Department of Biology, Fordham University  
 2010 Department of Ecology, Evolution and Behavior, University of Minnesota  
 2010 University Seminar in Population Biology, Columbia University  
 2010 Department of Psychology, Hunter College  
 2010 Biology Department, Queens College  
 2010 Department of Biological Sciences, Columbia University  
 2010 Department of Animal Sciences, Rutgers University  
 2009 Department of Ecology, Evolution and Environmental Biology, Columbia University  
 2009 Department of Biological Sciences, Virginia Tech University  
 2009 Department of Biology, San Francisco State University  
 2009 Miller Institute for Basic Research, University of California, Berkeley  
 2008 School of Biological Sciences, University of Auckland  
 2008 Department of Ecology and Evolutionary Biology, University of California, Santa Cruz  
 2008 Division of Integrative Biology, University of South Florida  
 2008 Department of Biology, California State University, Fresno  
 2008 School of Biological Sciences, Washington State University  
 2008 Biology Department, University of Massachusetts Amherst  
 2007 Department of Ecology, Evolution and Environmental Biology, Columbia University  
 2007 Department of Integrative Biology, University of California, Berkeley  
 2007 Ecology, Evolution, and Environmental Science Faculty, School of Life Sciences, Arizona State University  
 2007 Section of Evolution and Ecology, University of California, Davis  
 2006 Museum of Vertebrate Zoology, University of California, Berkeley  
 2006 Department of Neurobiology and Behavior, Cornell University  
 1999 Museum of Vertebrate Zoology, University of California, Berkeley

**INVITED PAPERS**

2023 Plenary, Australasian Evolution Society, Adelaide  
 2023 Daniel Rubenstein's Festschrift, Princeton University  
 2023 Symposium, Ecology of Collective Behavior, Animal Behavior Society, Portland  
 2021 Symposium, The Evolution of Social Behaviour, University of Bern  
 2020 Keynote, Grand Challenges Symposium: Challenges of Scaling Research, Max Planck Institute  
 2020 Symposium, Epigenetic Mechanisms and Endocrine Systems, Soc for Int & Comp Bio, Austin  
 2019 Linking Individual Behavior to Community Responses in Changing Landscapes, Yale University  
 2019 Symposium, Stress Responses to Organismal Phenotype, Soc for Int & Comp Bio, Tampa  
 2018 Keynote Day 2, V Conference & X Symp of Psychobiology, Fed Univ of Rio Grande do Norte, Brazil  
 2018 Opening Keynote, V Conference & X Symp of Psychobiology, Fed Univ of Rio Grande do Norte, Brazil  
 2018 Symposium Keynote, Avian Ecological Epigenetics, International Ornithological Congress, Vancouver  
 2018 Symposium, Ecol & Evol Social Insect Brains, Int Union for the Study of Social Insects, Guarujá, Brazil  
 2018 Symposium, Comparative Social Evolution, Arrola  
 2018 Winter Animal Behavior Conference, Steamboat Springs  
 2017 Keynote, Social Complexity: Patterns, Processes and Evolution, German Primate Center, Gottigen  
 2017 Symposium, Pathways in Social Evolution, Behaviour, Estoril  
 2017 President's Symposium, Evol, Hormones & Behav, Society for Behav Neuroendocrinology, Long Beach  
 2017 Symposium, Social Evolution and Genome Complexity, New York  
 2017 Symposium, Mechanisms Underlying Variation in Pro-social Behavior, Soc Int & Comp Bio, New Orleans  
 2016 Symposium, Nothing in Neurosci Makes Sense Except in Light of Behavior, Soc Int & Comp Bio, Portland  
 2015 International Symposium on Biomathematics and Ecology Education and Research, Illinois State University  
 2015 Symposium, New Frontiers for the Int Study of Animal Behavior, Animal Behavior Society, Anchorage  
 2015 Plenary, Tipping Points in Medicine and Ecology, Institute for Systems Biology, Seattle  
 2014 A Festschrift in Honor of Daniel I. Rubenstein, Princeton University  
 2014 Symposium, Evolution in Stochastic Environments, Centre for Biodiversity Dynamics, NTNU, Trondheim  
 2013 A Symposium in Honor of Paul W. Sherman, Cornell University  
 2013 Winter Animal Behavior Conference, Steamboat Springs  
 2012 Japanese-American Kavli Frontiers of Science Symposium, National Academy of Sciences, Irvine  
 2012 Plenary, Ontario Ecology, Ethology and Evolution Colloquium, McMaster University  
 2011 Plenary, American Ornithologists' Union, Jacksonville

- 2011 Symposium, Sexual Selection, Social Conflict and the Female Perspective, New York  
 2011 Colloquium, In the Light of Evolution V, National Academy of Sciences Sackler Colloquium, Irvine  
 2010 Symposium, Evolution of Avian Breeding Systems, International Ornithological Congress, Campos Jordao  
 2009 Symposium, Integrative Studies Starlings and Mockingbirds, American Ornithologists' Union, Philadelphia  
 2008 Symposium, Reproductive Skew, International Society for Behavioral Ecology, Cornell University  
 2008 Young Investigators Symposium, Integrative Avian Biology, American Ornithologists' Union, Portland  
 2007 Young Scientists Symposium, Evolutionary Ecology, University of Michigan  
 2006 Young Investigators Symposium, Society for Behavioral Neuroendocrinology, Pittsburgh  
 2006 Symposium, Emerging Issues in Cooperative Breeding, International Ornithological Congress, Hamburg  
 2004 Symposium, Meeting of Predoctoral and Physician Postdoctoral Fellows, Howard Hughes Medical Institute

**INVITED WORKING GROUPS**

- 2020 National Academy of Sciences: Next Steps for Functional Genomics, Washington DC  
 2019 National Science Foundation: Reintegrating Biology, Atlanta  
 2019 Multi-Species Movement, Max Planck-Yale Center for Biodiv, Movement and Global Change, Yale Univ  
 2018 American Museum of Natural History, Invisible Worlds Exhibit Design Committee, New York  
 2017 National Science Foundation & Columbia Univ Seminars: Social Evol and Genome Complexity, New York  
 2016 Reflective Teaching Certificate Course, Center for Teaching and Learning, Columbia University  
 2016 Helmsley/National Academies Summer Institute on Undergraduate Education, University of Connecticut  
 2014 National Academies Keck Futures Initiative: Collective Behavior: From Cells to Societies, Irvine  
 2014 National Science Foundation: New Frontiers for the Integrative Study of Animal Behavior, New York  
 2013 National Evolutionary Synthesis Center: Sexual Selection: Challenges and Future Directions, Durham  
 2011 – 2013 National Evolutionary Synthesis Center: Demographic and Trait Analyses of Sociality, Durham  
 2011 – 2012 National Evolutionary Synthesis Center: Integrative Models of Vertebrate Sociality, Durham  
 2010 National Evolutionary Synthesis Center: Modeling Invertebrate Sociality, Durham  
 2009 – 2011 National Evolutionary Synthesis Center: Integrating Sexual Selection and Speciation, Durham  
 2009 National Science Foundation: Neuroendocrine and Genetic Mechanisms of Sociality, Santiago  
 2000 National Science Foundation: Connectivity of Migratory Birds, Smithsonian Institution

**INVITED PUBLIC LECTURES**

- 2022 Virtual Featured Class, Undergraduate Admissions Office, Columbia University  
 2021 Virtual Featured Class, Undergraduate Admissions Office, Columbia University  
 2018 Dean's Day Reunion Lecturer, Frontiers of Science Mini Course, Columbia University  
 2016 Dean's Day Reunion Lecturer, Frontiers of Science Mini Course, Columbia University  
 2015 Pint of Science, New York  
 2014 Master Class Leader, Science Invitational, Columbia University  
 2014 The Linnaean Society of New York  
 2014 Keynote Speaker, STEMposium, River Dell Regional High School  
 2010 The Linnaean Society of New York  
 2009 Café Science Columbia: Darwin Series, New York  
 2007 Cornell Lab of Ornithology, Ithaca

**CONTRIBUTED PAPERS (FIRST-AUTHORED ONLY)**

- 2022 International Society for Behavioral Ecology, Stockholm  
 2019 Assoc for the Study of Animal Behaviour, New Frontiers in the Study of Animal Behaviour, Univ Konstanz  
 2016 International Society for Behavioral Ecology, University of Exeter  
 2014 Animal Behavior Society, Princeton University  
 2014 International Society for Behavioral Ecology, Hunter College/NYU  
 2012 International Society for Behavioral Ecology, Lund University  
 2011 Animal Behavior Society, Indiana University  
 2008 In the Light of Evolution III, National Academy of Sciences Sackler Colloquium, Irvine  
 2008 International Society for Behavioral Ecology, Cornell University  
 2007 Ecological Society of America, San Jose  
 2007 Animal Behavior Society, Burlington  
 2007 Society for Behavioral Neuroendocrinology, Monterey  
 2006 North American Ornithological Congress, Veracruz  
 2005 Animal Behavior Society, Snowbird  
 2005 Society for Behavioral Neuroendocrinology, University of Texas at Austin  
 2004 Society for Behavioral Neuroendocrinology, Lisbon  
 2004 International Society for Behavioral Ecology, University of Jyväskylä

2004	Society for Integrative and Comparative Biology, New Orleans
2002	International Society for Behavioral Ecology, University of Québec at Montreal
2001	Society for Conservation Biology, University of Hawaii at Hilo
1999	American Ornithologists' Union, Cornell University

**CONFERENCES, SYMPOSIA & WORKING GROUPS CO-ORGANIZED**

2017	Social Evolution and Genome Complexity, New York
2017	Mechanisms Underlying Variation in Pro-social Behavior, Soc Int & Comp Bio, New Orleans
2016	Nothing in Neuroscience Makes Sense Except in the Light of Behavior, Soc Int & Comp Bio, Portland
2015	New Frontiers for the Integrative Study of Animal Behavior, Animal Behavior Society, Anchorage
2014	National Science Foundation: New Frontiers for the Integrative Study of Animal Behavior, New York
2014	15 <sup>th</sup> Congress of the International Society for Behavioral Ecology, Hunter College/NYU
2011 – 2013	National Evolutionary Synthesis Center: Demographic and Trait Analyses of Sociality, Durham
2011 – 2012	National Evolutionary Synthesis Center: Integrative Models of Vertebrate Sociality, Durham
2011	Sexual Selection, Social Conflict and the Female Perspective, New York
2009	Integrative Studies of Starlings and Mockingbirds, American Ornithologists' Union, Philadelphia

**EDITORIAL & REFEREE WORK****EDITORIAL POSITIONS**

2022 – 2024	Annual Review of Ecology, Evolution, and Systematics, Guest Editorial Committee
2021 –	Science Advances, Associate Editor
2019 – 2022	Behavioral Ecology, Editorial Board
2014 – 2015	Current Opinion in Behavioral Sciences, Guest Editor
2014 –	Frontiers in Ecology and Evolution, Social Evolution Section, Associate Editor
2014 – 2022	Frontiers in Ecology and Evolution, Behavioral and Evolutionary Ecology Section, Associate Editor
2013 – 2022	Frontiers in Ecology and Evolution, Behavioral and Evolutionary Ecology Section, Review Editor
2012 – 2019	F1000Research, Editorial Board
2011 – 2020	PLOS ONE, Editorial Board
2011 – 2016	Proceedings of the Royal Society of London B, Editorial Board
2011 – 2012	Philosophical Transactions of the Royal Society B, Guest Editor
2010 –	Behavioral Ecology and Sociobiology, Associate Editor
2010 – 2019	F1000Prime, Theoretical Ecology Section, Faculty Member

**JOURNALS ARTICLES (115 JOURNALS)**

African Journal of Ecology	The Condor	Frontiers in Genetics
Aging Research Reviews	Current Anthropology	Frontiers in Psychology
The American Naturalist	Current Biology	Frontiers in Social Evolution
Animals	Current Zoology	Frontiers in Zoology
Animal Behaviour	Diversity and Distribution	Functional Ecology
Ann Rev Ecol, Evol, and Systematics	Ecography	General and Comparative Endocrinology
Ardea	Ecological Applications	Geosciences
Asian Bioethics Review	Ecological Indicators	GigaScience
The Auk	Ecological Modelling	Global Change Biology
Basic and Applied Social Psychology	Ecology	Global Ecology and Biogeography
Behavioral and Brain Sciences	Ecology and Evolution	Heredity
Behavioral Ecology	Ecology Letters	Hormones and Behavior
Behavioral Ecology and Sociobiology	Ecosphere	Ibis
Behaviour	eLife	Integrative Organismal Biology
Biological Conservation	Endangered Species Research	iScience
Biology Letters	Emu	Journal of Animal Ecology
Biological Journal of Linnean Society	Environmental Epigenetics	Journal of Applied Entomology
Biological Reviews	Environmental Science & Technology	Journal of Asia-Pacific Entomology
Biomedical Journal	Estuaries and Coasts	Journal of Avian Biology
Bird Conservation International	Ethology	Journal of Biogeography
BMC Ecology	Evolution	Journal of Evolutionary Biology
BMC Evolutionary Biology	Evolution Letters	Journal of Experimental Biology
British J Medicine and Medical Research	Evolutionary Applications	Journal of Experimental Zoology Part A
Cell Systems	Evolutionary Ecology	Journal of Field Ornithology
Chemical Geology	F1000 Research	The Journal of Neuroscience
Communications Biology	Frontiers in Behav and Evol Ecology	Journal of Poultry Science

Journal of the Royal Society Interface	Oecologia	Sensors
Journal of Wildlife Management	The Open Evolution Journal	Science
Journal of Zoo and Aquarium Research	PCI Evolutionary Biology	Science Advances
Journal of Zoology	PeerJ	The Science of Nature
JSM Environmental Science & Ecology	Philosophical Transactions Royal Soc B	Science of the Total Environment
Molecular Biology Reports	Physiological and Biochemical Zoology	Scientific Reports
Molecular Ecology	PLOS Biology	Southwestern Naturalist
Movement Ecology	PLOS ONE	Trends in Ecology & Evolution
Nature	PNAS	Trends in Parasitology
Nature Communications	PNAS Nexus	The Wilson Journal of Ornithology
Nature Ecology & Evolution	Proceedings Royal Society of London B	Zoological Studies
Nature Education Knowledge	Restoration Ecology	
Naturwissenschaften	Royal Society Open Science	

**BOOKS**

Cambridge University Press	Sinauer Associates, Inc.	The University of Chicago Press
Elsevier Press	Springer	
McGraw Hill	Tropical Herping	

**RESEARCH GRANTS (APPOINTMENTS)**

Australian Research Council, Assessor  
 European Science Foundation, College of Expert Reviewers

**RESEARCH GRANTS (PANELS & COMMITTEES)**

Columbia Earth Institute Travel Grant Program  
 Columbia Global Scholars Program  
 Columbia President's Global Innovation Fund  
 Columbia Provost's Teaching & Learning Grants  
 Columbia Research Initiatives in Science & Engineering  
 Columbia Science Research Fellows Program  
 Columbia Internal NSF PIRE  
 Columbia Internal Packard Fellowships in Science and Engineering  
 Cornell Sigma Xi  
 National Geographic Society, Regional Mentor, East African Region  
 National Science Foundation, Environmental Biology (Dimensions of Biodiversity)  
 National Science Foundation, Integrative Organismal Systems (Behavioral Systems Doctoral Dissertation Improvement Grant)  
 National Science Foundation, Integrative Organismal Systems (Behavioral Systems Pre-proposal)  
 National Science Foundation, Integrative Organismal Systems (Behavioral Systems Full Proposal)

**RESEARCH GRANTS (OUTSIDE REFEREE)**

Animal Behavior Society Student Research Grants  
 American Association for the Advancement of Science  
 American Philosophical Society  
 Austrian Academy of Sciences  
 Austrian Science Fund  
 Chilean National Commission for Scientific and Technological Research  
 Cornell Center for the Environment  
 Columbia Research Initiatives in Science & Engineering  
 Columbia Internal Fulbright  
 Czech Science Foundation  
 European Research Council  
 French National Research Agency  
 German Academic Exchange Service  
 German Research Foundation  
 Graduate Women in Science  
 Human Frontiers Science Program  
 Israeli Science Foundation  
 Louisiana Board of Regents  
 Marsden Fund, New Zealand  
 Max Planck Society, Germany  
 Natural Environmental Research Council, United Kingdom

National Geographic Society  
 National Institutes of Health, Biobehavioral and Behavioral Processes  
 National Research, Development and Innovation Office, Hungary  
 National Science Centre, Poland  
 Natural Sciences and Engineering Research Council of Canada  
 National Science Foundation, LEAP  
 National Science Foundation, Division of Environmental Biology (Ecology)  
 National Science Foundation, Division of Environmental Biology (Population and Community Ecology)  
 National Science Foundation, Division of Environmental Biology (Population and Evolutionary Processes)  
 National Science Foundation, Division of Ocean Sciences (Biological Oceanography)  
 National Science Foundation, Integrative Organismal Systems (Animal Behavior)  
 National Oceanic and Atmospheric Administration / National Marine Fisheries Service  
 Netherlands Organisation for Scientific Research  
 New Zealand Ministry of Science and Innovation  
 Research Foundation Flanders  
 Royal Society, United Kingdom  
 Swiss National Science Foundation  
 United States - Israel Binational Science Foundation  
 UK Research and Innovation

**SYNERGISTIC REVIEWING**

Columbia Undergraduate Admissions Office

**SELECTED PRESS COVERAGE**

ABC News	German Public Radio	The Onion
AAAS Science Update Radio	The Guardian	San Diego Tribune
American Scientist	Huffington Post	Science 360
The Atlantic	HHMI Bulletin	Science Perspectives
BBC Radio	Miami Herald	ScienceNOW
California Academy Sciences	MSNBC	Science News
CNET	National Geographic	Scientific American
CNN	National Public Radio (NPR)	Smithsonian Magazine
Columbia College Annual Report	Nature	Sydney Morning Herald
Columbia College Today	Nature Abstractions	The Science Times
Columbia Magazine	Nature News	The Scientist
Cornell Chronicle	Nature Podcast	Thomson Reuters
Current Biology	Nature Science Update	Trends in Ecology & Evolution
Daily Mail	Nautilus	Today
Dartmouth News	Newsweek	US News & World Report
Discovery News	New Scientist	The Washington Post
The Economist	NPR Radio	The Weather Channel
ESPN Outside the Lines	New York Post	Wired Magazine
F1000Prime	The New York Times	Yahoo News

**TEACHING EXPERIENCE****INSTRUCTOR**

2021 Plasticity in a Changing World, Columbia University  
 2019 Scientific Analysis and Presentation, Columbia University  
 2019 Adaptation to Changing Climates, Taiwan National University  
 2019 Principles of Animal Behavior, Columbia University  
 2017 Animal Behavior Training Course, Institute of Zoology, Chinese Academy of Sciences  
 2015 – 2020 (8x) Frontiers of Science (Core Curriculum), Columbia University  
 2014 Social Evolution and Behavior, Rockefeller University  
 2013 – 2023 (7x) Biology of African Animals and Ecosystems (Kenya Study Abroad Program), Columbia University  
 2012 Comparative Social Evolution, Columbia University (with Arizona State, UC Berkeley, Vanderbilt)  
 2011 – (2x) Tropical Biology (Kenya Field Course), Columbia University  
 2010 – 2014 (3x) Thesis Development, Columbia University  
 2010 – 2021 (4x) Behavioral Ecology, Columbia University  
 2010 – 2011 (2x) Student Research Seminar, Columbia University

2009 – 2018 (8x) Environmental Biology I, Columbia University  
 2007 Animal Behavior, University of California, Berkeley  
 2005 – 2010 (6x) Tropical Field Ecology and Behavior (Kenya Field Course), Cornell University

**ASSISTANT**

2004 Head graduate teaching assistant, Introduction to Behavior, Cornell University  
 2003 Graduate teaching assistant, Introduction to Behavior, Cornell University  
 1998 Undergraduate teaching assistant, Animal Behavior, Dartmouth College  
 1996 – 1997 (2x) Undergraduate teaching assistant, Ecology and Evolution, Dartmouth College

**MENTORING****FACULTY**

2023 – Gerald Carter (The Ohio State University)  
 2016 – Andres Bendesky (Columbia University)  
 2017 – 2024 Deren Eaton (Columbia University)

**POSTDOC**

2023 – Irene Garcia Ruiz (Swiss National Science Foundation Early Postdoc.Mobility Fellowship)  
 2022 – Stefanie Siller Wilks (Columbia Frontiers of Science Fellowship)  
 2021 – 2023 Patrick Kennedy (Marie Skłodowska-Curie Fellowship & Simons Foundation Society Fellowship)  
*Current Position: Lecturer (Assistant Professor), University of Bristol*  
 2019 – 2021 Renata Mazzei (Swiss National Science Foundation Early Postdoc.Mobility Fellowship)  
*Current Position: Postdoctoral Associate, Université du Québec à Trois-Rivières*  
 2017 – 2020 Shana Caro (Simons Foundation Society Fellowship)  
*Current Position: Assistant Professor, Adelphi University*  
 2016 – 2019 Solomon Chak (Life Sciences Research Foundation Fellowship from Simons Foundation)  
*Current Position: Assistant Professor, Denison University*  
 2015 – 2018 Rafael Maia (Simons Foundation Society Fellowship)  
*Current Position: Data Scientist, Apple Inc.*  
 2014 – 2017 Katherine Brooks (Columbia Frontiers of Science Fellowship)  
*Current Position: Collection Analysis Librarian, Columbia University*  
 2015 – 2016 Stephen Harris (Columbia Frontiers of Science Fellowship)  
*Current Position: Assistant Professor, SUNY Purchase*  
 2009 – 2012 Melissa Mark (NSF Minority Postdoctoral Research Fellowship)  
*Current Position: Director of Conservation Programming, University of Washington*

**PH.D.**

2024 – Alexis Earl (NSF Graduate Research Fellowship Honorable Mention)  
 2022 Stefanie Siller (NSF Graduate Research Fellowship)  
*Current Position: Frontiers of Science Fellow and Lecturer in Discipline, Columbia University*  
 2022 Shailee Shah  
*Current Position: NSF Postdoctoral Fellow, Cornell University*  
 2021 Yi-Ru Cheng  
*Current Position: Postdoctoral Associate, Academia Sinica*  
 2020 Jay Falk (NSF Graduate Research Fellowship) (at Cornell University, co-advised with M. Webster)  
*Current Position: NSF Postdoctoral Fellow, University of Colorado at Boulder*  
 2017 Sarah Guindre-Parker (NSERC Postgraduate Scholarship)  
*Current Position: Assistant Professor, Kennesaw State University*

**M.A.**

2022 Jerry Shuzhe Guan  
*Current Position: Ph.D. student, Harvard University*  
 2021 Catherine Yung-Yi Lan  
*Current Position: M.D. student, Poznań University of Medical Sciences*  
 2017 Eleanor Diamant (NSF Graduate Research Fellowship Honorable Mention)  
*Current Position: Postdoctoral Fellow, Ben-Gurion University (Ph.D. UCLA)*  
 2017 Yuki Haba  
*Current Position: Postdoctoral Associate, Harvard University (Ph.D. Princeton University)*  
 2017 Alyxandra Pikus  
*Current Position: Senior Program Manager, Oxbridge Academic Programs*

- 2015 Natalie Hofmeister  
*Current Position: Fellow of the Michigan Society of Fellows (Ph.D. Cornell University)*
- 2013 Rebecca Kelley (NSF Graduate Research Fellowship Honorable Mention, 2x)  
*Current Position: Senior Data Scientist, Amazon (Ph.D. New Mexico State University)*
- 2012 Kathleen Apakupakul  
*Current Position: Research Associate, Institute for Conservation Medicine, Saint Louis Zoo*
- 2012 James Kealey  
*Current Position: Science Teacher, Richmond High School, Richmond CA*
- 2011 Sara Keen (NSF Graduate Research Fellowship Honorable Mention, 2x)  
*Current Position: Senior Research Scientist, Earth Species Project (Ph.D. Cornell University)*

**UNDERGRADUATE THESES**

- 2020 Arden Berlinger (Science Research Fellows Program)  
*Current Position: Ph.D. Student, University of Cambridge*
- 2015 Laura Booth  
*Current Position: Tennessee Valley Biologist, National Park Service*
- 2015 Hannah Skolnik (Amgen Scholars Program)  
*Current Position: Resident Veterinarian, University of San Francisco (D.V.M. University California, Davis)*
- 2014 Lucia Weinman  
*Current Position: Postdoctoral Scholar, University of California, Davis (Ph.D. Rutgers University)*
- 2012 Caitlin Dean  
*Current Position: Litigation Associate at Fish & Richardson P.C. (J.D. University of Michigan)*
- 2012 Julia Pilowsky (NSF Graduate Research Fellowship for graduate work)  
*Current Position: Postdoctoral Scientist, Cary Institute (M.A. Tufts Univ, Ph.D. Univ Copenhagen)*
- 2012 Lea Pollack (Summer Undergraduate Research Fellows Program)  
*Current Position: Postdoctoral Fellow, University of Minnesota, (Ph.D. Univ of California, Davis)*
- 2011 Jeremy Law  
*Current Position: Certified Arborist/Natural Resources Specialist, AKRF (M.A. Columbia University)*

**UNDERGRADUATE INTERNS**

- 2022 Eriifeoluwa Adelusimo (sTEAM Fellows Program)
- 2022 Yutian Lin (sTEAM Fellows Program)
- 2022 Ugochinyere Ndukwe (sTEAM Fellows Program)
- 2022 Riley Smith (sTEAM Fellows Program)
- 2022 Jacob Whitson (sTEAM Fellows Program)
- 2022 Nicolas Beltran (sTEAM Fellows Program)
- 2022 Sarah Marazzi-Sassoon
- 2021 Debbie Leung
- 2021 Victor Castanho
- 2021 Tatum McConnell
- 2021 Faith Ajayi (Rabi Scholars Program)
- 2021 One Jae Lee
- 2020 Shoshana Sernik
- 2020 Sophia Kislik
- 2020 Christian Eggers
- 2019 Joseph Knee
- 2019 Kaiulani Sakaguchi
- 2019 Jake Arlow
- 2018 Francesca Garofalo
- 2017 Tatini Mal-Sarkar (Rabi Scholars Program)
- 2017 Michael Spiotta
- 2016 Karen Bao
- 2016 Fayme Cai
- 2015 Catherine Chen
- 2015 Elora Lopez
- 2015 Brahadheeshwar Sundararaju
- 2014 Nathen Huang
- 2014 Kerstin Nolan
- 2014 Sonalee Rau
- 2013 Madeline Cohen (NOAA Hollings Scholarship)

2013 Ben Eckersley  
 2012 Nathan Bailey  
 2012 Heather D'Angelo  
 2012 Jordan Hollarsmith (NOAA Hollings Scholarship)  
 2006 Brynn McCleery

**POST BACCALAUREATE INTERNS**

2020 Shane Fallon  
 2015 Stefanie Siller

**HIGH SCHOOL INTERNS**

2018 Livia Marchese (Briarcliff High School)  
 2018 Hank Marriott (Ethical Culture Fieldston School)  
 2017 – 2019 Zhaleh Mahootian (Bronx High School of Science Biological and Physical Research Mentorship Program)  
 2017 Regina Hashim (home school student)  
 2016 – 2017 Myron Huang (Bronx High School of Science Biological and Physical Research Mentorship Program)  
 2016 – 2017 Rebecca Marcus (Mamaroneck High School Science Research Elective Program)  
 2016 Samuel Levy (Abram Joshua Heschel School Science Research Program)  
 2015 Katherine Grygieryczk (Valley Stream South High School Independent Science Research Program)  
 2011 – 2013 Gillian Carling (Bronx High School of Science Biological and Physical Research Mentorship Program)

**VISITORS**

2019 Yuqing Chen, University of Chinese Academy of Sciences  
 2018 – 2020 Timothy Grieves, North Dakota State University (NSF EPSCoR Res Infrastructure Improvement Grant)  
 2018 – 2019 Gabrielle Welsh, University of Maryland  
 2017 Alexander Gottdiener, Princeton University  
 2015 – 2016 Sarah Khalil, Cornell University  
 2015 Juan Rubalcaba, King Juan Carlos University (Spanish International Visiting Researcher Scholarship)  
 2015 Linnet Jessell, University of Kings College/Dalhousie University  
 2012 – 2013 Suraj Nagaraj, University of California, Berkeley  
 2011 – 2012 Joseph Solomon, Hunter College  
 2011 Rafael Maia, University of Akron (NSF Doctoral Dissertation Improvement Grant)  
 2011 Rebecca Harris, Cornell University  
 2008 – 2012 Daniel Meliza, University of Chicago (NIH-NIDCD Postdoctoral Fellowship)  
 2007 – 2008 Rebecca Calisi, University of California, Berkeley (Society for Integrative and Comparative Biology Grant)  
 2007 Brynn McCleery, Cornell University  
 2007 Tyler Davis, Cornell University (Explorers Club Grant)

**GRADUATE COMMITTEES (CHAIR)**

2026 – Wyatt Toure, Ph.D., E3B Columbia University (Major Advisor: Andres Bendesky)  
 2025 – Elissa Sorojsrisom, Ph.D., E3B Columbia University (Major Advisors: Deren Eaton and Barbara Ambrose)  
 2023 Natalie Niepoth, Ph.D., E3B Columbia University (Major Advisor: Andres Bendesky)  
 2023 Rie Kaneko, M.A. E3B Columbia University (Major Advisor: Peter Balsam)  
 2021 Hiroki Tomida, M.A. E3B Columbia University (Major Advisor: Andres Bendesky)  
 2019 Jacqueline Barry, M.A., ABD, E3B Columbia University (Major Advisor: Joel Cracraft)  
 2019 Montana Airey, M.A., E3B Columbia University (Major Advisor: Josh Drew)  
 2017 Brian Weeks, Ph.D., E3B Columbia University (Major Advisors: Shahid Naeem and Joel Cracraft)  
 2017 Aaron Owen, Ph.D., The City University of New York (Major Advisor: David Lahti)  
 2016 Charlotte Barkan, Ph.D., Neurobiology and Behavior Columbia University (Major Advisor: Darcy Kelley)  
 2016 Camillo Sanin, Ph.D., E3B Columbia University (Major Advisor: Joel Cracraft)  
 2016 Tin Chi Solomon Chak, Ph.D., College of William and Mary (Major Advisor: Emmett Duffy)  
 2016 Nathalia Rossi, Ph.D., E3B Columbia University (Major Advisor: Joshua Ginsberg)  
 2015 Allison Roth, M.A., E3B Columbia University (Major Advisor: Marina Cords)  
 2015 Benedicte Bachelot, Ph.D., E3B Columbia University (Major Advisor: Maria Uriarte)  
 2015 Gavin Leighton, Ph.D., University of Miami (Major Advisor: William Searcy)  
 2014 Robert Muscarella, Ph.D., E3B Columbia University (Major Advisor: Maria Uriarte)  
 2014 Rafael Maia, Ph.D., University of Akron (Major Advisor: Matthew Shawkey)  
 2014 Su-Jen Roberts, Ph.D., E3B Columbia University (Major Advisor: Marina Cords)  
 2014 Matthew Fagan, Ph.D., E3B Columbia University (Major Advisor: Ruth DeFries)  
 2013 Jacob Lowenstein, Ph.D., ABD, E3B Columbia University (Major Advisor: Melanie Stiassny)  
 2013 Irene Ballagh, Ph.D., Neurobiology and Behavior Columbia University (Major Advisor: Darcy Kelley)

2012	Snorri Sigurdsson, Ph.D., The City University of New York (Major Advisor: Joel Cracraft)
2012	James Fuller, Ph.D., E3B Columbia University (Major Advisor: Marina Cords)
2012	Marina Cortes, Ph.D., E3B Columbia University (Major Advisor: Maria Uriarte)
2012	Evan McCartney-Melstad, M.A., E3B Columbia University (Major Advisor: George Amato)
2011	Alicia Srinivas, M.A., E3B Columbia University (Major Advisor: Miguel Pinedo-Vasquez)
2010	Joseph Solomon, M.A., Hunter College (Major Advisor: Mark Hauber)
2010	Emily Schmidt, M.A., ABD, E3B Columbia University (Major Advisor: Christine Sheppard)
2010	Allisyn Gillet, M.A., E3B Columbia University (Major Advisor: Christine Sheppard)
2010	Danielle Adams, M.A., E3B Columbia University (Major Advisor: Christine Sheppard)

**GRADUATE ORAL EXAMINATION COMMITTEES**

2024	Vicens Vila-Coury (Major Advisor: Brian Smith and Andres Bendesky)
2022	Jared Meek (Major Advisor: Deren Eaton)
2020	Amanda Johnston (Major Advisor: Marina Cords)
2016	Andrew Quebbeman (Major Advisors: Duncan Menge and Maria Uriarte)
2016	Thomas Bytnerowicz (Major Advisor: Duncan Menge)
2016	Jay Falk (Major Advisors: Michael Webster and Dustin Rubenstein)
2016	Benton Taylor (Major Advisor: Duncan Menge)
2013	Brian Weeks (Major Advisors: Shahid Nacem and Joel Cracraft)
2012	Camillo Sanin (Major Advisor: Joel Cracraft)
2013	Nathalia Rossi (Major Advisor: Joshua Ginsberg)
2011	Robert Muscarella (Major Advisor: Maria Uriarte)

**GRADUATE OUTSIDE DISSERTATION READER**

2020	Martin Hing, University of Wollongong (Major Advisor: Marian Wong)
2017	David Seager, University of Exeter, Penryn (Major Advisor: Michael Cant)

**SYNERGISTIC ACTIVITIES****UNIVERSITY SERVICE**

2022 – 2025	Member, School of Professional Studies Executive Committee of the Faculty
2021	Member, Arts & Sciences Hiring Exemptions Committee
2020 – 2021	Co-Chair, PPC Subcommittee on Faculty Structure and Composition in the Arts & Sciences
2020 – 2021	Member, Faculty Budget Subcommittee on Undergraduate Teaching, Arts & Sciences
2020	Columbia Research Initiatives in Science & Engineering, Office of Research Initiatives
2020	Member, PPC Faculty Hiring Subcommittee, Arts & Sciences
2020	Member, Global Scholars Prgrm Com, Columbia Global Centers & Office Undergrad Global Engagement
2020	Chair, PPC Classrooms Subcommittee, Arts & Sciences
2020	External Member, Promotion and Tenure Committee, Arts & Sciences
2019 – 2020	Chair, PPC Childcare Subcommittee, Arts & Sciences
2019 – 2022	Elected Member, Arts & Sciences Policy and Planning Committee (PPC)
2019 – 2021	Member, Faculty Review Committee for Provost's Teaching & Learning Grants
2019	Member, Symposium Advisory Committee, Zuckerman Mind, Brain, Behavior Institute
2018 – 2019	Director, Global Scholars Program in China: Adapting to Changing Climates
2018 – 2019	Member, Department of Psychology Faculty Search Committee
2017 – 2019	Member, Columbia President's Global Innovation Fund Committee, Columbia Global Centers
2016 – 2019	Member, Columbia College-School of General Studies Joint Committee on Instruction (COI)
2016 –	Member, Zuckerman Mind, Brain, Behavior Institute Affiliate Membership Committee
2016 – 2017	Member, Columbia Center for Teaching and Learning Executive Director Search Committee
2016 – 2017	Chair, Junior Faculty Advisory Board
2016	Dean's Day Reunion Lecturer, Frontiers of Science Mini Course
2015 – 2016	Elected Member, Junior Faculty Advisory Board
2015	Guest Lecturer, Seminar on Science Writing, Columbia School of Journalism
2015	Member, Packard Fellowships in Science and Engineering Committee, Office of Res Initiatives
2014 –	Member, Faculty Steering Committee, Columbia Global Centers   Nairobi
2014 – 2016	Member, Joint Arts & Sciences and Zuckerman Mind, Brain, Behavior Initiative Faculty Search Committee
2014	Faculty Mentor, Presidential Global Fellowship Program, Office of Global Programs
2014	Founding Member, Junior Faculty Advisory Board, Arts & Sciences
2014	Member, NSF Advisory Committee, Office of Research Initiatives
2014	Master Class Leader, Science Invitational, Admissions Office
2013	Panelist, History of Neuroscience Reading Group, Heyman Center for the Humanities

2013 Faculty Mentor, Amgen Scholars Program  
 2012 – 2023 Director, Program in Tropical Biology and Sustainability  
 2012 Panelist, Psychology Department Graduate Student Development Panel  
 2011 – Department Liaison, Science Scholars Experience, Admissions Office  
 2011 – Member, Science Faculty Admissions Committee, Admissions Office  
 2011 Panelist, Columbia Neuroscience Society Annual Research Symposium  
 2011 Member, Fulbright Campus Committee, Office of Research Initiatives  
 2011 Panelist, Neuroscience and Behavior Graduate Student Recruitment Panel  
 2011 Member, Provost's Review Committee of the Guidelines for Laboratory Design Criteria  
 2010 – 2014 Co-Chair, The University Seminar in Population Biology, University Seminars  
 2010 – 2020 (11x) Guest Lecturer, Science Research Fellows Seminar, Columbia College

**DEPARTMENTAL SERVICE**

2023 – Director of Graduate Studies, E3B  
 2023 – Chair, E3B Curriculum Committee  
 2023 – 2024 Member, E3B Faculty Search Committee  
 2021 – 2022 Chair, E3B Faculty Search Committee  
 2015 – 2016 Chair, E3B Faculty Search Committee  
 2011 – 2012 Chair, E3B Curriculum Committee  
 2010 – 2011 Member, E3B M.A. Program Review Committee  
 2010 – 2011 Chair, E3B Faculty Search Committee  
 2010 – 2011 Member, E3B Ph.D. Program Review Committee  
 2010 – 2011 Organizer, E3B Seminar Series  
 2009 – 2013 Co-chair, E3B Lab Use Committee  
 2009 Rotating Member, E3B Standing Committee  
 2007 – 2009 Program Committee, Miller Institute Interdisciplinary Symposium (University of California, Berkeley)  
 2007 – 2008 Co-organizer, Department of Integrative Biology Behavior Lunch (University of California, Berkeley)  
 2005 Co-editor, Department of Neurobiology and Behavior Newsletter (Cornell University)  
 2001 – 2002 Co-organizer, Department of Neurobiology and Behavior Seminar Series (Cornell University)

**EXTERNAL UNIVERSITY PROGRAM REVIEWS**

2019 Carl R. Woese Institute for Genomic Biology, University of Illinois at Urbana-Champaign

**PROFESSIONAL SERVICE**

2013 – 2014 Local Committee, 15<sup>th</sup> Congress of the International Society for Behavioral Ecology, Hunter College/NYU  
 2011 Member, Animal Behavior Society Student Research Grant Committee  
 2010 – 2011 (2x) Mentor, Student Conference on Conservation Science, American Museum of Natural History  
 2009 Judge, student presentation awards, American Ornithologists' Union, Philadelphia  
 2007 Judge, student presentation awards, Ecological Society of America, San Jose

**CONSULTANCIES**

2022 Offspring Films (superb starlings)  
 2014 ESPN Outside the Lines (coevolution and baseball)  
 2011 Delphi Fellow, Big Think: Interdisciplinary Global Knowledge Forum  
 2000 BBC, The Blue Planet (Galápagos hawks and marine iguanas)

**EDUCATIONAL OUTREACH**

2010 Alumni interviewer, Dartmouth College (Manhattan Region)  
 2008 – Participant, Northern Kenya Conservation Clubs, Laikipia, Kenya  
 2004 Co-instructor, Workshop on Molecular Methods in Ornithology, National Museums of Kenya  
 2004 Organizer, Workshop on Comparative Methods, Cornell University  
 2000 – 2004 Alumni interviewer, Dartmouth College (Central New York Region)  
 1998 – 1999 Senior advisor, Office of the Dean of the College, Dartmouth College  
 1998 Founder, Conservation Lecture Series and Discussion Group, Dartmouth College

**ADVISORS**

Postdoc Roy Caldwell and Eileen Lacey, University of California, Berkeley  
 Ph.D. Paul Sherman and Stephen Emlen, Cornell University  
 A.B. Richard Holmes and C. Page Chamberlain, Dartmouth College

