
Education

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| 2017 - 2020 | Ph.D. in Ecology and Evolution
Australian National University (ANU), Research School of Biology
Thesis: <i>Evolutionary causes & ecological consequences of ageing in the wild</i>
Advisor: Dr. Loeske Kruuk |
| 2012 - 2016 | B.Sc. in Environmental Science: Ecology (honors)
University of Guelph (UoG)
Thesis: <i>Personality and dispersal in North American red squirrels</i>
Advisor: Dr. Andrew McAdam |
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Academic Positions

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| 2020 - present | Postdoctoral Research Fellow
New York University (NYU), Department of Anthropology
Research focus: <i>immune system function, aging, and sociality in rhesus macaques</i>
Supervisor: Dr. James Higham |
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Peer-Reviewed Publications

JP Higham, **EB Cooper**, C Whalen, C Stahl-Hennig, LD Giavedoni, M Heistermann. (2023). "Urinary cytokine measurements do not reflect surgery-induced inflammation in rhesus macaques" *American Journal of Primatology*, e23506. <https://doi.org/10.1002/ajp.23506>

RA Munds, **EB Cooper**, MC Janiak, LG Lam, AR DeCasien, SB Surratt, MJ Montague, MI Martinez, Cayo Biobank Research Unit, S Kawamura, JP Higham, AD Melin. (2022). "Variation and heritability of retinal cone ratios in a free-ranging population of rhesus macaques" *Evolution*, 76: 1776-1789. <https://doi.org/10.1111/evo.14552>

AE Colby, AR DeCasien, **EB Cooper**, JP Higham. (2022). "Greater variability in rhesus macaque (*Macaca mulatta*) endocranial volume among males than females." *Proceedings of the Royal Society B*, 289(1986), p.20220728. <https://doi.org/10.1098/rspb.2022.0728>

EB Cooper, LJN Brent, N Snyder-Mackler, M Singh, A Sengupta, S Khatriwada, S Malaivijitnond, JP Higham. (2022). "The Natural History of Model Organisms: The rhesus macaque as a success story of the Anthropocene" *Elife*, e78169. <https://doi.org/10.7554/eLife.78169>

EB Cooper, MM Watowich, N Beeby, C Whalen, MJ Montague, LJN Brent, N Snyder-Mackler, JP Higham. (2022). "Concentrations of urinary neopterin, but not suPAR, positively correlate with age in rhesus macaques" *Frontiers in Ecology and Evolution*, 1031. <https://doi.org/10.3389/fevo.2022.1007052>

EB Cooper, T Bonnet, H Osmond, A Cockburn, LEB Kruuk. (2021). "Aging and senescence across reproductive traits and survival in superb fairy-wrens (*Malurus cyaneus*)" *The American Naturalist*, 197:1, 111-127. <https://doi.org/10.1086/711755>

EB Cooper, T Bonnet, H Osmond, A Cockburn, LEB Kruuk. (2020). "Do the ages of parents or helpers affect offspring fitness in a cooperatively breeding bird?" *Journal of Evolutionary Biology*, 33: 1735–1748. <https://doi.org/10.1111/jeb.13712>

S Nakagawa, AG Dunn, M Lagisz, A Bannach-Brown, EM Grames, A Sánchez-Tójar, RE O’Dea, DWA Noble, MJ Westgate, PA Arnold, S Barrow, A Bethel, **EB Cooper**, YZ Foo, SR Geange, E Hennessy, W Mapanga, K Mengersen, C Munera, MJ Page, V Welch, NR Haddaway. (2020) "A new ecosystem for evidence synthesis" *Nature Ecology & Evolution*, 498–501. <https://doi.org/10.1038/s41559-020-1153-2>

EB Cooper, and LEB Kruuk. (2018) "Ageing with a silver-spoon: A meta-analysis of the effect of developmental environment on senescence" *Evolution Letters*, 2: 460-471. <https://doi.org/10.1002/evl3.79>

EB Cooper, RW Taylor, AD Kelley, AR Martinig, S Boutin, MM Humphries, B Dantzer, JE Lane, AG McAdam. (2017) "Personality is correlated with natal dispersal in North American red squirrels (*Tamiasciurus hudsonicus*)" *Behaviour*, 154, 939-961. <https://doi.org/10.1163/1568539X-00003450>

Pre-Prints

L Newman, C Testard, AR DeCasien, KL Chiou, MM Watowich, MC Janiak, MA Pavez-Fox, MR Sanchez Rosado, **EB Cooper**, CE Costa, RM Petersen, MM Montague, ML Platt, LJN Brent, N Snyder-Mackler, JP Higham. (2023). "The biology of aging in a social world: insights from free-ranging rhesus macaques" *bioRxiv*.

MR Sanchez Rosado, N Marzan-Rivera, MM Watowich, P Pantoja, MA Pavez-Fox, ER Siracusa, **EB Cooper**, JE Negron-Del Valle, D Phillips, A Ruiz-Lambides, Cayo Biobank Research Unit, MI Martinez, MJ Montague, ML Platt, JP Higham, LJN Brent, CA Sariol, N Snyder-Mackler. (2021). "Sociodemographic effects on immune cell composition in a free-ranging non-human primate" *bioRxiv*.

Conference Presentations

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| 2023 | EB Cooper , C Whalen, N Beeby, Cayo Biobank Research Unit, MJ Montague, N Snyder-Mackler, LJN Brent, JP Higham. Investigating links between sociality and biomarkers of health in the Cayo Santiago Rhesus macaques. <i>Poster presentation</i> . American Association of Biological Anthropology. |
| 2019 | EB Cooper , T Bonnet, H Osmond, A Cockburn, LEB Kruuk. Disentangling environmental and genetic effects of paternal age in a promiscuous songbird. <i>Oral presentation</i> . Australasian Evolution Society. |
| 2019 | EB Cooper , T Bonnet, H Osmond, A Cockburn, LEB Kruuk. Ageing and senescence across reproductive traits and survival in superb fairy-wrens. <i>Poster presentation</i> . European Society for Evolutionary Biology. |
| 2018 | EB Cooper and LEB Kruuk. The effects of early-life environment on senescence rates in birds and mammals. <i>Oral presentation</i> . Australasian Society for the Study of Animal Behaviour. |

Invited Presentations

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| 2023 | Animal Behavior Society Conference Symposium: The social domains of Aging |
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2023	<i>Friend & Enemies: How Social Behavior Modulates the Immune System</i> New York Consortium in Evolutionary Primatology <i>Aging and the Immune System in the Cayo Santiago Rhesus Macaques</i>
2020	University of Oxford, Field Ornithology Seminar Series (virtual) <i>The Evolutionary Ecology of Aging</i>
2019	University of Edinburgh, Evolutionary Ecology Seminar Series <i>Aging Varies Across Traits in the Superb Fairy-Wren</i>

Supervision & Mentorship

2023 - present	Research Supervision (Noor Naheed, Undergraduate Thesis at NYU) <i>Associations between cytokine concentrations and age in rhesus macaques</i>
2021 - present	Internship Director (Cayo Santiago Field Technicians) <ul style="list-style-type: none"> - Hiring, training, supervision, and mentorship of over 25 field technicians (2-5 interns active at a time)
2022 - 2023	Research Supervision (Madelynne Dudas, PhD student at NYU) <i>Quantitative genetics of bone morphology in rhesus macaques</i>
2021 - 2022	Research Supervision (Ailin Xu, Undergraduate Thesis at NYU) <i>Associations between aging and the metabolome in rhesus macaques</i>
2020 - 2021	Research Supervision (Clare Kimock, PhD student at NYU) <i>Quantitative genetics of age-specific body weight in rhesus macaques</i>
2019 - 2020	Research Supervision (Carolina Dolan, Masters student at ANU) <i>Reproductive and actuarial aging in Eastern grey kangaroos</i>

Teaching Positions

2023	Adjunct Instructor <i>Primate Behavior</i> (ANTH311), University of Calgary <ul style="list-style-type: none"> - Designed and delivered over 30 hours of lecture material to a class of 100 undergraduate students - Designed assessment material for the course, including a creative group project as well as traditional written examinations
2019, 2020	Teaching Assistant (2 semesters) <i>Genetics</i> (BIOL2151), Australian National University <ul style="list-style-type: none"> - 2-hour lab component (30 students, 2x per week for 13 weeks) - Mini lectures and hands-on practical assignments
2018	Course Development <i>Field Studies in Functional Ecology</i> (BIOL2203), Australian National University <ul style="list-style-type: none"> - Developed and facilitated a field-based undergraduate research project: <i>The behavioral ecology of ravens in Kosciuszko National Park</i>
2018	Teaching Assistant <i>Field Studies in Functional Ecology</i> (BIOL2203), Australian National University <ul style="list-style-type: none"> - field-based intensive (20 students, 2 weeks fulltime) - workshops, field data collection, 1-on-1 mentorship
2017, 2018	Teaching Assistant (2 semesters) <i>Environment & Social Research</i> (ENVS1003), Australian National University <ul style="list-style-type: none"> - 2-hour lab component (35 students, 2x per week for 13 weeks)

- Lectures and hands-on practical assignments

Teaching Professional Development

- 2018 **Principles of Tutoring and Demonstrating Certification**
 - Australian National University 20-hour course

Science Communication & Outreach

- 2021 Mentor and instructor for high-achieving high school students in a 6-week intensive 'Applied Research in Science and Engineering' (ARISE) program
- 2020 Digest for Evolution: *Indirect genetic effects of males on female reproductive traits in the wild*
- 2017 - 2019 Chair of *Ecology and Evolution Journal Club* (weekly), ANU
- 2018 Radio interview for ABC Saturday Morning: *The evolutionary ecology of aging*
- 2018 Invited blogpost for Evolution Letters: *The influence of the beginning of life on the end: A silver-spoon for senescence?*

Grants & Fellowships

- 2019 Vice Chancellor's Higher Degree Research Grant, ANU
- 2017 Holsworth Wildlife Research Endowment, Ecological Society of Australia
- 2017 - 2020 Higher Degree Research Scholarship (stipend & tuition waiver), ANU

Awards

- 2018 *Hiroto Naora Student Academic Achievement Award*, ANU
- 2018 *Outstanding Talk*, Australasian Society for the Study of Animal Behaviour

Training & Workshops

- 2019 *Methods in meta-analysis and comparative analysis*, ANU (3-day workshop)
- 2019 *Evidence Synthesis Hackathon*, ANU (3-day workshop)
- 2018 *Genomic estimation of relatedness*, Center for Biodiversity Analysis (4-day workshop)

Field Experience

- 2021 - present **Supervisor of field data collection on free-ranging rhesus macaque population**
 - Behavioral observation and non-invasive biological sample collection
 - Supervision and training of over 25 field technicians
- 2017 - 2019 **PhD data collection on wild superb fairy-wren population (Canberra, Australia)**
 - Small passerine mist netting & handling, behavioral observation
- 2016 **Head Field Technician for the Kluane Red Squirrel Project**
 - Training and supervision of a team of 5 field technicians
- 2015, 2016 **Field Technician for Kluane Red Squirrel Project**
 - Small mammal live-trapping and handling, biological material sampling, ear tagging, behavioral assays, telemetry

Laboratory Experience

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| 2021 – present | Enzyme-linked (ELISA) Immunoassays |
| | - 2 types of immunoassays (suPAR and neopterin) |
| | - Data generated for over 1000 urine samples |
| 2021 - present | Alcohol extractions for glucocorticoid assays |
| | - Data generated for hundreds of fecal samples |

Statistical & Coding Proficiencies

- R & SQL programming languages • Bayesian and Frequentist inference methods • generalized linear mixed modelling • generalized additive mixed modelling • quantitative genetic analysis • meta-analysis • genome-wide association studies •

Peer Review (~12 articles)

- The American Naturalist (3X) • Scientific Reports • Behavioural Ecology and Sociobiology • Frontiers in Ecology and Evolution • PLOS ONE (2X) • Evolution (2X) • Journal of Evolutionary Biology • Oecologia •
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