

DR NATALIE COOPER

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GOOGLE SCHOLAR PROFILE: [HTTP://GOO.GL/EHLTgG](http://GOO.GL/EHLTgG) FIGSHARE: [HTTP://GOO.GL/F2dPGH](http://GOO.GL/F2dPGH)

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Research Interests

My research interests are in macroecology and macroevolution, particularly the intersections between the two, for example, how ecological processes such as competition can lead to evolutionary changes in organisms. I work with morphological data collected from museum specimens, phylogenies, ecological data, species geographic range maps, fossils and various larger databases, to try and understand broad scale patterns of biodiversity and evolution.

Academic Career

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| 2012-present | Assistant Professor
School of Natural Sciences, Trinity College Dublin. |
| 2010-2011 | Postdoctoral Fellow
Human Evolutionary Biology, Harvard University. |
| 2009-2010 | Postdoctoral Associate
Ecology and Evolutionary Biology, Yale University. |

Education

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| 2005-2009 | Ph.D Ecology and Evolution
Phylogenetic approaches for studying competition in mammals
Imperial College London & Institute of Zoology. |
| 2004-2005 | M.Sc. (Distinction)
Advanced Methods in Taxonomy and Biodiversity
Imperial College London & Natural History Museum. |
| 2001-2004 | B.Sc. (1st class honours) Biological Sciences
University of Exeter. |

Grants and Awards

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| 2014 | Society of Systematic Biologists (SSB) funding for symposium at Evolution 2014 on <i>The Dark Side of Phylogenetic Comparative Methods</i> . | \$4,000 |
| 2012 | Marie Curie Career Integration Grant (CIG) for project <i>Evolutionary Ecology and Fossil Primates</i> . | €100,000 |
| 2012 | Irish Research Council Embark Initiative Postgraduate Scholarship for project <i>Convergent Evolution in Malagasy Tenrecs</i> for Sive Finlay. | €72,000 |
| 2009 | Seessel Postdoctoral Fellowship for <i>Innovative Research in Biological Sciences</i> . | \$37,000 |

Public Engagement and Outreach

Natalie Cooper

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| 2014 | Organiser of SoapBox Science Ireland - an outreach event featuring women in science explaining their research in an interactive way. |
| 2014 | Talk for Dublin University Zoological Society on <i>Gender Inequality in Science & the Media</i> . |
| 2014 | Interviewed on “The Morning Edition” on RTE1 and “FutureProof” on NewsTalk FM about our paper <i>Dying without wings</i> . See press release here . |
| 2013 | Arranged filming of Research Profiles for female staff and students as part of the INTEGER Gender Equality project. My video is on my website . |
| 2013 | Organised a Three Minute Thesis video competition for PhD students. |
| 2013 | Organiser and tour guide for Discover Research Dublin at the TCD Zoology Museum, as part of European Researcher’s Night. |
| 2013 & 2014 | Presented a session on <i>What can we learn from skeletons?</i> for Transition Year students (16-17 years). |
| 2013-present | EcoEvo@TCD blog developer and contributor. The blog has had over 36,000 views and almost 200 posts. |
| 2012-present | Active Twitter user (@nhcooper123) with over 1100 followers and over 4900 tweets. |
| 2013 & 2014 | Blog post contributor at SoapBoxScience and Science Policy and Outreach Online . |

International Conference Presentations

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| 2013 | ESEB | Ecological correlates of extrinsic mortality in mammals and birds (poster). |
| 2013 | Evolution | Dying without wings: ecological correlates of extrinsic mortality in mammals and birds. |
| 2012 | Evolution | Phylogenetic host specificity and understanding parasite sharing in primates and humans. |
| 2011 | EEID | Methods for detecting phylogenetic host specificity in parasites (poster). |
| 2010 | Evolution | Phylogenetic niche conservatism in mammals. |
| 2008 | Evolution | A common pattern of overdispersion in mammalian assemblages. |

Invited talks

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| 2014 | Biology & Environmental Science Seminar Series, University College Dublin. |
| 2013 | Ecology & Environment Seminar Series, University of Southampton. |
| 2013 | Ecology, Evolution & Environment Seminar Series, University of Sheffield. |
| 2013 | Biological Sciences Seminar Series, University of Liverpool. |
| 2013 | Evolutionary Morphology (EvMorph) Seminar Series, University of Chicago. |
| 2013 | Earth & Environment Seminar Series, Trinity College Dublin. |
| 2011 | Museum of Comparative Zoology Seminar Series, Harvard University. |

Postgraduate Student Supervision

PhD	2012-2015	Sive Finlay	Convergent evolution in Malagasy tenrecs	TCD
PhD	2012-2015	Thomas Guillerme	Evolutionary ecology and fossil primates	TCD
MSc	2013	Marta Capolei	Host phylospecificity in squirrel parasites	TCD
MSc	2008	Paddy Brock	Co-supervisor with Andy Purvis	Imperial
MSc	2007	Peter Hayward	Co-supervisor with Andy Purvis	Imperial
MSc	2007	Jack Lighten	Co-supervisor with Andy Purvis	Imperial

Teaching Experience**Undergraduate and Taught Postgraduate**

2012-present	Intro to Biodiversity, Evolution & the Environment	Year 1	TCD
2012-present	Comparative Physiology (Vertebrate Biomechanics)	Year 3	TCD
2013-present	Research Comprehension	Year 4	TCD
2013-present	Tropical Ecology Field Course	Year 4	TCD
2012-present	Final Year Research Projects	Year 4	TCD
2009	Biodiversity & Conservation	Year 3	Imperial
2012-present	Taxonomy & Systematics	MSc	TCD

Postgraduate, Postdocs and Staff

2013-present	Computer Skills (LaTeX, R, git etc.)	All	TCD
2013	Introduction to R for the terrified!	Staff	TCD
2012-present	Transferable Skills at NERD club	All	TCD
2010-2012	AnthroTree Phylogenetic Comparative Methods workshop	All	-
2010-2011	R (& Statistics) Help Hour	All	Harvard

Professional Service

- 2013-present Organiser of #MacroJC, a tri-continental online macroevolution journal club.
- 2013-present Member of School of Natural Sciences [INTEGER](#) committee on Gender Equality (and website maintainer).
- 2013-present Evolutionary Biology & Ecology seminar series organiser.
- 2012-present Staff administrator and developer of the [EcoEvo@TCD](#) blog and Twitter.
- 2012-present Organiser of NERD club, a weekly Ecology and Evolution research group meeting for staff and PhD students across the School of Natural Sciences.
- 2013 Organiser of “Spatial Analysis in R” workshop for BES Macroecology and Computational Ecology Special Interest Groups.
- 2013-present Grant reviewer for UK Natural Environment Research Council (NERC).
- 2013-present Grant reviewer for Canadian National Science Foundation (NSERC).

Journal Reviewing

The American Naturalist, Animal Conservation, BMC Evolutionary Biology, Conservation Biology, Ecology, Ecology and Evolution, Ecology Letters, Evolution, Global Ecology & Biogeography, International Journal of Primatology, Journal of Animal Ecology, Journal of Biogeography, Journal of Evolutionary Biology, Methods in Ecology & Evolution, Oecologia, Philosophical Transactions of the Royal Society: B, PLoS One, Proceedings of the National Academy of Sciences USA, Proceedings of the Royal Society: B, Trends in Ecology & Evolution.

Professional Society Memberships

British Ecological Society (BES) including Macroecology Special Interest Group.
European Society for Evolutionary Biology.
Society of Systematic Biologists.

Publications List

I have 19 peer-reviewed papers in internationally recognised journals (10 first authored, one joint first authored and one senior authored), with a mean 2012 impact factor of 5.32. My h-index is 13 on [Google Scholar](#) (12 on [ISI Web of Science](#)), and my papers have been cited over 550 times.

Peer-Reviewed Publications

In press and in review

Thomas, G.H., **Cooper, N.**, Venditti, C., Meade, A. & Freckleton, R.P. Bias and measurement error in comparative analyses: a case study with the Ornstein Uhlenbeck model. **In review at Systematic Biology**. Preprint on bioRxiv, doi: [10.1101/004036](https://doi.org/10.1101/004036).

Nunn, C.L., & **Cooper, N.** Investigating evolutionary lag using the species-pairs evolutionary lag test (SPELT). **In review at Evolution**.

2014

Healy, K., Guillerme, T., Finlay, S., Kane, A., Kelly, S.B.A., McClean, D., Kelly, D.J., Donohue, I., Jackson, A.L., & **Cooper, N.** 2014. Ecology and mode-of-life explain lifespan variation in birds and mammals. *Proceedings of the Royal Society of London Series B: Biological Sciences* [Impact Factor: 5.68]. **281**, 20140298. doi: [10.1098/rspb.2014.0298](https://doi.org/10.1098/rspb.2014.0298). See summary [here](#).

Kelly, S.B.A, Kelly, D.J., **Cooper, N.**, Bahrun, A., Analuddin, K. & Marples, N. 2014. Molecular and phenotypic data reveal a cryptic species (*Aves: Dicaeum*) from the unique and understudied Sulawesi region. *PLoS ONE* [Impact Factor: 3.73]. **9**, e98694. doi: [10.1371/journal.pone.0098694](https://doi.org/10.1371/journal.pone.0098694). See summary [here](#).

2013

Cooper, N., & Nunn, C.L. 2013. Identifying future zoonotic disease threats: Where are the gaps in our understanding of primate infectious diseases? *Evolution, Medicine and Public Health* [Impact Factor: new journal]. **2013**, 26-37. doi: [10.1093/emph/eoto01](https://doi.org/10.1093/emph/eoto01). See summary [here](#).

Kamilar, J.M. & **Cooper, N.** 2013. Phylogenetic signal in primate behaviour, ecology, and life history. *Philosophical Transactions of the Royal Society of London Series B: Biological Sciences* [Impact Factor: 6.23]. **368**, 20120341. doi: [10.1098/rstb.2012.0341](https://doi.org/10.1098/rstb.2012.0341).

Healy, K., McNally, L., Ruxton, G.D., **Cooper, N.**, & Jackson, A.L. 2013. Metabolic rate and body size linked with perception of temporal information. *Animal Behaviour* [Impact Factor: 3.07]. **86**, 685-696. doi: [10.1016/j.anbehav.2013.06.018](https://doi.org/10.1016/j.anbehav.2013.06.018). **F1000 recommended**.

2012

Cooper, N., Griffin, R., Franz, M., Omotayo, M., & Nunn, C.L. 2012. Phylogenetic host specificity and understanding parasite sharing in primates. *Ecology Letters* [Impact Factor: 17.95]. **15**, 1370-1377. doi: [10.1111/j.1461-0248.2012.01858.x](https://doi.org/10.1111/j.1461-0248.2012.01858.x). **F1000 recommended**.

Cooper, N., Kamilar, J.M., & Nunn, C.L. 2012. Host longevity and parasite species richness in mammals. *PLoS ONE* [Impact Factor: 3.73]. **7**, e42190. doi: [10.1371/journal.pone.0042190](https://doi.org/10.1371/journal.pone.0042190).

Davies, T.J., **Cooper, N.**, Diniz Filho, J.A.F, Thomas, G.H. & Meiri, S. 2012. Using phylogenetic trees to test for character displacement: a model and an empirical example from a desert mammal community. *Ecology* [Impact Factor: 5.18]. **93**, S44-S51. doi: [10.1890/11-0400.1](https://doi.org/10.1890/11-0400.1).

2011

Cooper, N., Freckleton, R.P. & Jetz, W. 2011. Phylogenetic conservatism of environmental niches in mammals. *Proceedings of the Royal Society of London Series B: Biological Sciences* [Impact Factor: 5.68]. **278**, 2384-2391. doi: [10.1098/rspb.2010.2207](https://doi.org/10.1098/rspb.2010.2207).

Freckleton, R.P., **Cooper, N.** & Jetz, W. 2011. Comparative methods as a statistical fix: the dangers of ignoring an evolutionary model. *The American Naturalist* [Impact Factor: 4.55]. **178**, E10-E17. doi: [10.1086/660272](https://doi.org/10.1086/660272).

Collen, B., McRae, L., Deinet, S., De Palma, A., Carranza, T., **Cooper, N.**, Loh, J. & Baillie, J.E.M. 2011. Predicting how populations decline to extinction. *Philosophical Transactions of the Royal Society of London Series B: Biological Sciences* [Impact Factor: 6.23]. **366**, 2577-2586. doi: [10.1098/rstb.2011.0015](https://doi.org/10.1098/rstb.2011.0015).

2010

Cooper, N., Jetz, W. & Freckleton, R.P. 2010. Phylogenetic comparative approaches for studying niche conservatism. *Journal of Evolutionary Biology* [Impact Factor: 3.48]. **23**, 2529-2539. doi: [10.1111/j.1420-9101.2010.02144.x](https://doi.org/10.1111/j.1420-9101.2010.02144.x).

Cooper, N. & Purvis, A. 2010. Body size evolution in mammals: complexity in tempo and mode. *The American Naturalist* [Impact Factor: 4.55]. **175**, 727-738. doi: [10.1111/j.1420-9101.2009.01714.x](https://doi.org/10.1111/j.1420-9101.2009.01714.x).

Belmaker, J., **Cooper, N.**, Lee, T.M. & Wilman, H. 2010. Specialization and the road to academic success. *Frontiers in Ecology and the Environment* [Impact Factor: 7.62]. **8**, 514-515. All authors contributed equally. doi: [10.1890/10.WB.25](https://doi.org/10.1890/10.WB.25).

2009

Cooper, N. & Purvis, A. 2009. What factors shape rates of phenotypic evolution? A comparative study of cranial morphology of four mammalian clades. *Journal of Evolutionary Biology* [Impact Factor: 3.48]. **22**, 1024-1035. doi: [10.1111/j.1420-9101.2009.01714.x](https://doi.org/10.1111/j.1420-9101.2009.01714.x).

Bielby, J., Cardillo, M. **Cooper, N.**, & Purvis, A. 2009. Modeling extinction risk in multispecies data sets: phylogenetically independent contrasts versus decision trees. *Biodiversity and Conservation* [Impact Factor: 2.26]. **19**, 113-127. doi: [10.1007/s10531-009-9709.0](https://doi.org/10.1007/s10531-009-9709.0).

2008

Cooper, N., Rodriguez, J. & Purvis, A. 2008. A common tendency for phylogenetic overdispersion in mammalian assemblages. *Proceedings of the Royal Society of London Series B: Biological Sciences* [Impact Factor: 5.68]. **275**, 2031-2037. doi: [10.1098/rspb.2008.0420](https://doi.org/10.1098/rspb.2008.0420).

Cooper, N., Bielby, J., Thomas, G.H. & Purvis, A. 2008. Macroecology and extinction risk correlates of frogs. *Global Ecology and Biogeography* [Impact Factor: 7.22]. **17**, 211-221. doi: [10.1111/j.1466-8238.2007.00355.x](https://doi.org/10.1111/j.1466-8238.2007.00355.x).

Meiri, S., **Cooper, N.** & Purvis, A. 2008. The island rule: made to be broken? *Proceedings of the Royal Society of London Series B: Biological Sciences* [Impact Factor: 5.68]. **275**, 141-148. doi: [0.1098/rspb.2007.1056](https://doi.org/10.1098/rspb.2007.1056).

Bielby, J., **Cooper, N.**, Cunningham, A., Garner, T. & Purvis, A. 2008. Predicting susceptibility to future declines in the world's frogs. *Conservation Letters* [Impact Factor: 4.36]. **1**, 82-90. doi: [10.1111/j.1755-263X.2008.00015.x](https://doi.org/10.1111/j.1755-263X.2008.00015.x).

Non Peer-Reviewed Publications

Cooper, N. & Belmaker, J. 2010. Opinion: Habitat data resolution and the detection of species interactions. *Frontiers of Biogeography*. **2**, 46.