A. Bradley Duthie

I am an evolutionary ecologist and ecological modeller with broad interests in developing theory across the biological and environmental sciences. My research primarily uses mathematical and individual-based models to understand complex interactions in populations, communities, and social-ecological systems. I am especially interested in applying these modelling approaches to questions concerning the evolution and maintenance of biodiversity, and the management of populations under conservation conflict.

Professional Appointments

Lecturer in Environmental Modelling, Nov. 2020 Biological and Environmental Sciences, University of Stirling

Leverhulme Trust Early Career Fellow, Nov. 2017 – Oct. 2020 Biological and Environmental Sciences, University of Stirling

ERC Postdoctoral Research Assistant, Nov. 2016 – Oct. 2017 Biological and Environmental Sciences, University of Stirling

ERC Postdoctoral Research Fellow, Jun. 2013 – Oct. 2016 School of Biological Sciences, University of Aberdeen

Education

Ph.D. Ecology and Evolutionary Biology, Spring 2013 Graduate Minor: Statistics

Certificate: Graduate Student Teaching Certificate Iowa State University

B.S. Biology (Magna cum laude), Spring 2007 Specialisation: Ecology, Evolution, Environment Southern Illinois University Edwardsville

B.S. Philosophy (Magna cum laude), Spring 2007 Minor: Chemistry Southern Illinois University Edwardsville

Publications

- 22. Duthie, AB. Sci. Rep. In revision.
- 21. Minderman, J, et al. 2019. Nat. Ecol. Evol. 3:318.
- 20. Cusack, JJ, et al. 2019. Conserv. Lett. 12:e23450.
- 19. Duthie, AB, et al. 2018. Method. Ecol. Evol. 9:2396-2401.
- 18. Paine, CET., et al. 2018. Funct. Ecol. 32 (7):1681-1692.
- 17. Redpath, SM, et al. 2018. Trends Ecol. Evol. 33 (6):415-426.
- 16. Duthie, AB, et al. 2018. J. Evol. Biol. 31:31-45.
- 15. Duthie, AB, et al. 2016. Proc. R. Soc. B. 282:20161845.
- 14. Duthie, AB, et al. 2016. Am. Nat. 188 (6):651-667.
- 13. Duthie, AB, et al. 2016. Oikos. 125 (11):1597-1606.
- 12. Duthie, AB, et al. 2016. Evolution. 70 (9):1927-1943.
- 11. Frater, PN & AB Duthie. 2016. Ideas Ecol. Evol.. 9:15-18.

A. Bradley Duthie Ph.D., FHEA

Evolutionary Ecologist Ecological Modeller Biostatistician

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- http://bradduthie.github.io
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- 10. Reid, JM, et al. 2016. Evolution. 70 (7):1512-1529.
- 9. Reid, JM, et al. 2015. Evolution. 69 (11):2846-2861.
- 8. Duthie, AB, et al. 2015. Am. Nat. 186 (1):151-158.
- 7. Reid, JM, et al. 2015. J. Anim. Ecol. 84 (4):1029-1040.
- 6. Duthie, AB & JM Reid. 2015. PLoS One. 10 (4):e0125140.
- 5. Duthie, AC & AB Duthie. 2015. Polymath. 5 (1):1-22.
- 4. Reid, JM, et al. 2015. Evolution. 69 (1):59-74.
- 3. Duthie, AB, et al. 2014. Am. Nat. 183 (6):826-841.
- 2. Duthie, AB & MR Falcy. 2013. Ecol. Modell.. 251:260-270.
- 1. Duthie, AB. 2004. J. Memetics. 8 (1).

Grants and Fellowships

| BBSRC-FAPESP-Newton Fund (Co-PI; 2019) | 620,956 GBP |
|--|-------------|
| Scottish Natural Heritage Tender (Co-PI; 2018) | 9,947 GBP |
| Leverhulme Trust Early Career Fellowship (2017) | 88,650 GBP |
| NSF Postdoctoral Research Fellowship in Biology (2013; award declined) | 138,000 USD |
| NSF Doctoral Dissertation Improvement Grant (2010) | 13,411 USD |
| Biotechnology Graduate Fellowship (ISU; 2007) | 20,000 USD |

Leadership

Manuscript reviewer: Acta Oecologica, American Naturalist, Annals of Human Biology, Arthropod-Plant Interactions, Behavioral Ecology, Behavioral Ecology and Sociobiology, Biology Letters (5), BMC Evolutionary Biology, Ecology and Evolution (2), Evolution (5), the Journal of Animal Ecology, the Journal of Applied Ecology (2), the Journal of Theoretical Biology (3), Landscape Ecology, Molecular Ecology (2), Oikos, PLoS One, Proceedings of the Royal Society B (2), Royal Society Open Science, and Symbiosis

Grant reviewer: National Science Foundation (USA), Université Bourgogne – Franche-Comté (UBFC)

Conference organiser: Midwest Ecology and Evolution Conference at Iowa State University (2010)

Workshop organiser: European Congress of Conservation Biology in Jyväskylä, Finland (2018)

Representative: Biological and Environmental Sciences Library (UoS; 2019), Post-doctoral researchers (organiser at UoS; 2017-2019), Graduate and Professional Student Senate (Senator at ISU; 2011-2013), and Graduate Research in Evolutionary Biology and Ecology (Vice President at ISU; 2009-2010)

Computer Skills

Statistics, mathematical & individual-based modelling, genetic algorithms, programming in C, R, and MATLAB Use of Linux, git, and high performance computing clusters

Knowledge of HTML, Markdown, IATEX, and MS Office Suite

Software Developed

- 2. **GMSE** *vo.*3.1.9. 2017. Generalised Management Strategy Evaluation Simulator. *Written in R and C.* R package link: < http://CRAN.R-project.org/package=GMSE > Website link: < https://confoobio.github.io/gmse/ >
- 1. **gamesGA** *v*1.1.3.2. 2017. Genetic Algorithm for Sequential Symmetric Games. *Written in R and C.* R package link: < http://CRAN.R-project.org/package=gamesGA >