Chris Brimacombe

Email: chris.brimacombe@mail.utoronto.ca

Education

University of Toronto (UofT) 2019–Current
PhD in ecology and evolutionary biology
Supervisor: Fortin MJ

University of Western Ontario (UWO) 2015–2018
BSc (Hons) in applied mathematics *with distinction*
Supervisors: Zamir M and Corless R

University of Ottawa 2008–2012
BSc (Hons) in biology with a specialization in ecology
Supervisors: Leroux S and Findlay CS

Publications

Under Review

1. Shortcomings of reusing species interaction networks created by different sets of researchers
Brimacombe C, Bodner K, Michalska-Smith MJ, Poisot T, and Fortin MJ
PLOS Biology, Major revisions

Articles

8. No strong evidence that modularity, specialization, or nestedness are linked to seasonal climatic variability in empirical bipartite networks
Brimacombe C, Bodner K, Michalska-Smith MJ, Gravel D, and Fortin MJ
Global Ecology and Biogeography, 2022, 31(12): 2510-2523
7. How network size strongly determines trophic specialization: a technical comment on Luna et al. (2022)
Brimacombe C, Bodner K, and Fortin MJ
Ecology Letters, 2022, 25(8): 1914–1916
6. Why body size matters: how larger fish ontogeny shapes ecological network topology
Bodner K, **Brimacombe C**, Fortin MJ, and Molnár P
Oikos, 2022, 2022(3): e08569
5. Computation and applications of Mathieu functions: A historical perspective
Brimacombe C, Corless RM, and Zamir M
SIAM Review, 2021, 63(4): 653–720
4. Network ecology in dynamic landscapes
Fortin MJ, Dale MRT, and **Brimacombe C**
Proceedings of the Royal Society B, 2021, 288(1949): 20201889
3. Inferred seasonal interaction rewiring of a freshwater stream fish network
Brimacombe C, Bodner K, and Fortin MJ
Ecography, 2021, 44(2): 219–230
2. Ten simple rules for tackling your first mathematical models: A guide for graduate students by graduate students
Bodner K, **Brimacombe C**, Chenery ES, Greiner A, McLeod AM, Penk SR, and Vargas Soto JS
PLOS Computational Biology, 2021, 17(1): e1008539

1. Legislative correlates of the size and number of protected areas in Canadian jurisdictions
   Leroux SJ, **Brimacombe C**, Khair S, Benidickson J, and Findlay CS
   Biological Conservation, 2015, 191: 375–382

Book Chapters

1. Network framework for forest management
   Filotas É, Aquilué N, **Brimacombe C**, Drapeau P, Keeton W, Kneeshaw D, Messier C, Witté I, and Fortin MJ
   Springer, 2023

Presentations

7. Empirical networks are messy: Inferential networks and their use across space and time
   Ecological Society of America, 2022
6. Are modularity, specialization, or nestedness linked to seasonal climatic variability in bipartite networks across large spatial extents?
   Ecological Society of America, 2022
5. Do bipartite networks exhibit structural patterns across large spatial extents?
   Canadian Society for Ecology and Evolution Annual Meeting, 2021
4. The importance of ecological networks
   Atwood graduate research conference, 2021
3. Seasonal interactions and rewiring in freshwater stream fish networks
   Ecological Society of America, 2020
2. Blood flow in tubes of elliptic cross section
   UWO Undergraduate Applied Math Research Conference, 2018
1. Blood flow in tubes of elliptic cross section
   UWO Undergraduate Applied Math Research Conference, 2017

Honours and Awards

Ontario Graduate Scholarship ($15,000)	2023
School of Graduate Studies Conference Grant ($460)	2022
Queen Elizabeth II Graduate Scholarship ($15,000)	2022
Ontario Graduate Scholarship ($15,000)	2021
A. Murray Fallis Graduate Award In Zoology ($3,617)	2020
Minns Family Bursary In Ecology and Evolution ($196)	2020
Canada Graduate Scholarship-Master's ($22,333)	2020
Frederick P. Ide Award In Ecology And Evolutionary Biology ($870)	2019
Best poster at Undergraduate Applied Math Research conference ($100)	2018
UWO Science undergraduate pre-thesis award ($4,500)	2016

Teaching (TA)

EEB365H1 S: Topics in Applied Conservation Biology (UofT)	2019–2022
EEB430H: Modeling in Ecology and Evolutionary Biology (UofT)	Fall 2019
BIO2244: Analysis and Interpretation of Biological Data (UWO)	2014–2015

Reviewer

Methods in Ecology and Evolution, Global Ecology and Biogeography, Ecology Letters, and Communications Biology

Skills

Programming: Maple, R, Matlab, and Python
Document presentation: Microsoft Office, LaTeX, and the Adobe suite