

# Chris Brimacombe

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## Education

<b>University of Toronto (UofT)</b> PhD in ecology and evolutionary biology Supervisor: Fortin MJ	Toronto, Ontario 2019–Current
<b>University of Western Ontario (UWO)</b> BSc (Hons) in applied mathematics <i>with distinction</i> Supervisors: Zamir M and Corless R	London, Ontario 2015–2018
<b>University of Ottawa</b> BSc (Hons) in biology with a specialization in ecology Supervisors: Leroux S and Findlay CS	Ottawa, Ontario 2008–2012

## 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

## Publications

### *Under Review*

**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*

**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

**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

**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

**Computation and applications of Mathieu functions: A historical perspective**

Brimacombe C, Corless RM, and Zamir M

*SIAM Review*, 2021, 63(4): 653–720

**Network ecology in dynamic landscapes**

Fortin MJ, Dale MRT, and Brimacombe C

*Proceedings of the Royal Society B*, 2021, 288(1949): 20201889

**Inferred seasonal interaction rewiring of a freshwater stream fish network**

Brimacombe C, Bodner K, and Fortin MJ

*Ecography*, 2021, 44(2): 219–230

**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

**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**

**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*, 2022

**Teaching (TA)**

**Ecology and Evolutionary Biology (UofT)**

2019–2022

EEB365H1 S: Topics in Applied Conservation Biology

**Ecology and Evolutionary Biology (UofT)**

Fall 2019

EEB430H: Modeling in Ecology and Evolutionary Biology

**Department of Biology (UWO)**

2014–2015

BIO2244: Analysis and Interpretation of Biological Data

**Talks and Posters**

**Talk: Empirical networks are messy: Inferential networks and their use across space and time**

Ecological Society of America, Montréal, Canada, 2022

**Talk: Are modularity, specialization, or nestedness linked to seasonal climatic variability in bipartite networks across large spatial extents?**

Ecological Society of America, Montréal, Canada, 2022

**Talk: Do bipartite networks exhibit structural patterns across large spatial extents?**

Canadian Society for Ecology and Evolution Annual Meeting, Online, 2021

**Talk: The importance of ecological networks**

Atwood graduate research conference, Online, 2021

**Poster: Seasonal interactions and rewiring in freshwater stream fish networks**

Ecological Society of America, Online, 2020

**Poster: Blood flow in elliptic tubes**

UWO Undergraduate Applied Math Research Conference, London, Canada, 2018

**Poster: Blood flow in elliptic tubes**

UWO Undergraduate Applied Math Research Conference, London, Canada, 2017

## Reviewer

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

## Skills

**Programming:** Maple, R, Matlab, and Python

**Document presentation:** Microsoft Office,  $\text{\LaTeX}$ , and the Adobe suite