

# 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

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*

**No strong evidence that modularity, specialization, or nestedness are linked to seasonal climatic variability in empirical bipartite networks on a global scale**  
Brimacombe C, Bodner K, Michalska-Smith M, Gravel D, and Fortin MJ  
*Global Ecology and Biogeography*

### *Published*

**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, 1–3, doi:10.1111/ele.14029

**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, doi: 10.1111/oik.08569

**Computation and applications of Mathieu functions: A historical perspective**  
Brimacombe C, Corless RM, and Zamir M  
*Siam Review*, 2021, 63(4): 653–720, doi: 10.1137/20M135786X

### **Network ecology in dynamic landscapes**

Fortin MJ, Dale MRT, and [Brimacombe C](#)

*Proceedings of the Royal Society B*, 2021, 288(1949): 20201889, doi: 10.1098/rspb.2020.1889

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

[Brimacombe C](#), Bodner K, and Fortin MJ

*Ecography*, 2021, 44(2): 219–230, doi: 10.1111/ecog.05452

### **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, doi: 10.1371/journal.pcbi.1008539

### **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 doi: 10.1016/j.biocon.2015.07.016

## ***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)**

2019–2021

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

Canadian Society for Ecology and Evolution Annual Meeting, 2021

### **Talk: The importance of ecological networks**

Atwood graduate research conference, 2021

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

Ecological Society of America, 2020

### **Poster: Blood flow in elliptic tubes**

UWO Undergraduate Applied Math Research Conference, 2018

### **Poster: Blood flow in elliptic tubes**

UWO Undergraduate Applied Math Research Conference, 2017

## **Reviewer**

## **Skills**

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

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