





# Benjamin Mercier

M.Sc. Student In Ecology

<  +  > Quantitative ecologist



## EDUCATION

- To this day  
|  
2020
- **M.Sc. in Ecology - Integrative Ecology Lab**  
Université de Sherbrooke - (4.00 / 4.3)  Sherbrooke, CA
    - Mecanistic predictive model of biomass flows in pairwise trophic interactions
  - **Microprogram in Scientific Interactions**  
Université de Sherbrooke  Sherbrooke, CA
  - **B.Sc. in Ecology**  
Université de Sherbrooke – (4.04 / 4.30)  Sherbrooke, CA
    - Undergraduate research project : « Structure of the reconstructed trophic networks of the terrestrial vertebrates of Quebec : an algorithmic approach (KNN) »
  - **Microprogram in Practical Ecology**  
Université de Sherbrooke  Sherbrooke, CA
- 2023  
|  
2020
- 2020  
|  
2016
- 2020  
|  
2016

## WORK


- 2023  
|  
2022
- **Course demonstrator - Graduate 2e cycle**  
Université de Sherbrooke  Sherbrooke, CA
    - Demonstrator BIO101
  - **Teachers assistant - Graduate 2e cycle**  
Université de Sherbrooke  Sherbrooke, CA
    - BIO109 and BIO 500
  - **Research assistant - Graduate 2e cycle**  
Université de Sherbrooke  Sherbrooke, CA
  - **Research assistant - Undergraduate 1er cycle**  
Marc Bélisle and Dominique Gravel Labs  Sherbrooke, CA
    - Nest analysis, ATLAS Database and KBA
- 2023  
|  
2021
- 2022
- 2020  
|  
2019

## INTERNSHIP

- 2021
- **KBA internship**  
KBA Canada  Remote
    - Developing a Shiny application to create KBA summaries
  - **Mangal database**  
Integrative Ecology Lab - Université de Sherbrooke  Sherbrooke, CA
    - Formatting ecological networks data and populate the Mangal database through an API
- 2019

## CONTACT

 Email

 BenMerSci

 0000-0002-4104-9463

## QUANTITATIVE SKILLS

Bayesian statistics, Data manipulation, Data visualization

## PROGRAMMING SKILLS

**Data analysis:**  
R, Stan

**Database:**  
SQL - Postgres

**Automation/reports:**  
Git, Markdown, LaTeX

## LANGUAGES

**French** Native  
**English** Level B2

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The source code is available at [github.com/BenMerSci/cv](https://github.com/BenMerSci/cv).

Last updated on 2024-08-15.

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- 2018 ● **GRIL - UQAM**  
 Yves Prairie, Beatrix Beisner and Paul Del Gorgio Labs 📍 Montreal, CA  
 • Water sample analysis in laboratory  
 • Spectrophotometry | Spectrofluorometry | Nutrient analysis | Isotopic carbon analysis
- 2018 ● **Bird surveys data analysis**  
 Marc Bélisle and Marc-André Villard Labs - Université de Sherbrooke | UQAM 📍 Sherbrooke, CA  
 • Nest inventory for parasites and photo analysis
- 2017 ● **Tree swallow project**  
 Marc Bélisle, Fanie Pelletier and Dany Garant Labs – Université de Sherbrooke 📍 Sherbrooke, CA  
 • Population survey and bird bandings  
 • Genetic analysis | Extraction & Dosage | PCR  
 • Nest inventory for parasites

## VOLUNTEERING

- 2021 | 2019 ● **Tutor, peer support biology center**  
 Département de biologie - Université de Sherbrooke 📍 Sherbrooke, CA  
 • Helping new students with different biology courses

## SELECTED TALKS AND POSTERS

- 2020 ● **Introduction to computational ecology**  
 Presentation to CÉGEP du Vieux Montréal students (45 min talk) 📍 Montréal, CA  
 • Preamble to computational ecology through the presentation of my honours undergraduate research project ([Presentation](#))

## SCHOLARSHIP

- 2023 | 2022 ● **Training fellowship**  
 BIOS2 📍 Sherbrooke, CA  
 • 8 500 \$ Master Scholarship
- 2022 | 2021 ● **Quebec Graduate Scholarship-Master**  
 FRQNT 📍 Sherbrooke, CA  
 • 17 500 \$ Master Scholarship
- 2021 | 2020 ● **Canada Graduate Scholarship-Master**  
 NSERC 📍 Sherbrooke, CA  
 • 17 500 \$ Master Scholarship
- 2020 ● **Undergraduate scholarship for training in computational ecology**  
 BIOS2 📍 Sherbrooke, CA  
 • 2 000 \$ Undergraduate Scholarship

- 2017 ● **Undergraduate Student Research Award**  
NSERC 📍 Sherbrooke, CA  
• 4 500 \$ Undergraduate Scholarship
- 2016 ● **Admission Scholarship**  
Université de Sherbrooke 📍 Sherbrooke, CA  
• 1000 \$ Admission Scholarship



## PUBLICATIONS

- 2023 ● **Graph embedding and transfer learning can help predict potential species interaction networks despite data limitations**  
Methods in Ecology and Evolution - [doi](#)  
• T Strydom, S Bouskila, F Banville, C Barros, D Caron, M J.Farrell, MJ Fortin, B Mercier, L J.Pollock, R Runghen, G V.Dalla Riva, T Poisot
- 2022 ● **Food web reconstruction through phylogenetic transfer of low-rank network representation**  
Methods in Ecology and Evolution - [doi](#)  
• T Strydom, S ouskila, F Banville, C Barros, D Caron, M J.Farrell, MJ Fortin, V Hemming, B Mercier, L J.Pollock, R Runghen, G V.Dalla Riva, T poisot
- 2021 ● **A roadmap towards predicting species interaction networks (across space and time)**  
Philosophical Transactions of the Royal Society B [doi](#)  
• T Strydom, MD Catchen, F Banville, D Caron, G Dansereau, P Desjardins-Proulx, NR Forero-Muñoz, G Higinio, B Mercier, A Gonzalez, D Gravel, L Pollock, T Poisot
- 2021 ● **Global knowledge gaps in species interaction networks data**  
Journal of Biogeography [doi](#)  
• T Poisot, G Bergeron, K Cazelles, T Dallas, D Gravel, A Macdonald, B Mercier, C Violet, S Vissault.
- 2019 ● **R package - *rmangal***  
• Vissault S, Cazelles K, Bergeron G, Mercier B, Violet C, Gravel D, Poisot T (2019). *rmangal: An R package to interact with Mangal database*. R package version 2.0.0.