Benjamin Mercier B.Sc. In Ecology

< 📊 + 💻 > Aspiring quantitative ecologist

🎓 EDUCATION

M.Sc. in Ecology
Integrative Ecology Lab - Université de Sherbrooke   📍 Sherbrooke, CA

2022 | September 2020

• Modelling the Arctic : Reconstruction of the ecological networks of Bylot (Canada), with a General Ecosystem Model approach.

B.Sc. in Ecology
Université de Sherbrooke   📍 Sherbrooke, CA

2020 | 2016

• 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

2020 | 2016

• Wildlife and vegetation identification, survey methods and site evaluation

✳ SCHOLARSHIP

Quebec Graduate Scholarship-Master
FRQNT   📍 Sherbrooke, CA
• 17 500 $ Master Scholarship

2022 | 2021

Canada Graduate Scholarship-Master
NSERC   📍 Sherbrooke, CA
• 17 500 $ Master Scholarship

2021 | 2020

Undergraduate scholarship for training in computational ecology
BIOS2   📍 Sherbrooke, CA
• 2 000 $ Undegraduate Scholarship

2020

Undergraduate Student Research Award
NSERC   📍 Sherbrooke, CA
• 4 500 $ Undergraduate Scholarship

2017

Admission Scholarship
Université de Sherbrooke   📍 Sherbrooke, CA
• 1000 $ Admission Scholarship

2016

CONTACT

✉ Email

🐦 BenMerSci

⬡ BenMerSci

ⓘ 0000-0002-4104-9463

QUANTITATIVE SKILLS

Regression, Basic knowledge in different modelling techniques (RandomForest, SDM, JSDM)

PROGRAMMING SKILLS

Data analysis:
R, Julia

Data base:
SQLite
(Basic knowledge)

Automation/reports:
Rmarkdown, Git, Bash, LaTeX

LANGUAGES

French Native
English Level B2

🖥 RESEARCH EXPERIENCE

2020

ATLAS – **Research assistant**
Integrative Ecology Lab - Université de Sherbrooke 📍 Sherbrooke, CA
• Formatting biodiversity occurrence data and populate the ATLAS database

2020

KBA Canada – **Research assistant**
Integrative Ecology Lab - Université de Sherbrooke 📍 Sherbrooke, CA
• Literature review of species with status to build a case
• Propose Key Biodiversity Areas for Quebec, Canada

2020
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2017

Tree swallow project – **Undergraduate Internship and Research assistant**
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

2019

Mangal – **Undergraduate Intership**
Integrative Ecology Lab - Université de Sherbrooke 📍 Sherbrooke, CA
• Formatting ecological networks data and populate the Mangal database through an API

2018

GRIL, Undergraduate Internship
Yves Prairie, Beatrix Beisner and Paul Del Gorgio Labs – UQAM 📍 Montréal, CA
• Water sample analysis in laboratory
• Spectrophotometry | Spectrofluorometry | Nutrient analysis | Isotopic carbon analysis

👨‍🏫 TEACHING EXPERIENCE

2020
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2019

Tutor, peer support biology center
Départament de biologie - Université de Sherbrooke 📍 Sherbrooke, CA
• Helping new students with different biology courses

✳ TRAINING

2020

Data-driven ecological synthesis
DDES summer school - Université de Montréal 📍 Remote
• Good practices in scientific computing
• Data management | Mathematical tools | Data analysis tools | Rreproducible science

2020

Deep learning with Julia
Short course - Ivado 📍 Montréal, CA
• Introduction to neural networks | Julia | machine learning | Flux.jl

2019

Biodiversity Modelling
Summer school - Université de Sherbrooke 📍 Magog, CA
• Theory and practice on different biodiversity modelling techniques
• Statistics | Differential equations | Stochastic simulations | Climate change models | uncertainty tracking

📖 PUBLICATIONS

2020

Environmental biases in the study of ecological networks at the planetary scale
BioRxiv - PrePrint 🔵
• Poisot T, Bergeron G, Cazelles K, Dallas T, Gravel D, Macdonald A, Mercier B, Violet C, Vissault S.

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.

📇 SELECTED TALKS AND POSTERS

2020

Introduction to computational ecology
Presentation to CÉGEP du Vieux Montréal students   📍 Montréal, CA
• Preamble to computational ecology through the presentation of my honours undergraduate research project (Presentation)