Dominique Caron

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Profile

I am currently completing my PhD in Laura Pollock's lab at McGill University. My thesis focuses on trait-based modeling of trophic interactions of terrestrial vertebrates and the seasonal movements of birds. I am particularly interested in biogeography, biodiversity modeling, and food web ecology. Through my academic and professional experience, I have developed advanced skills in quantitative analyses (R, Julia, QGIS), data management, and ecological modeling.

Education

McGill University	January 2020 - 2024
PhD in Biology	
Université de Montréal	September 2017 - December 2018
MSc in Quantitative and Computational Biology	
Université de Montréal	September 2014 - May 2017
BSc in Biological Sciences	
Polytechnique Montréal	October 2012 - May 2014
B.Eng. in Civil Engineering (unfinished)	

Experience

Software Developper, Environment and Climate Change Canada	2019 - 2022
Conservation Planning Assistant, Éco-corridors Laurentiens	2019
MSc Research Intern, Poisot Lab, Université de Montréal	2018
Research Assistant Ouranos Inc.	2018
MSc Research Intern, James Lab, Université de Montréal	2017
Field Assistant, Bélanger Lab, TÉLUQ	2017
Technical Assistant for the Collections of Marine Invertebrates, Institut québécois de la biodiversité (IQBIO)	2016

Teaching

Lab Coordinator - Methods in Biology of Organisms, McGill University.	2023
Teaching Assistant - Methods in Biology of Organisms, McGill University.	2021 & 2022
Teaching Development Fellow - Methods in Biology of Organisms, McGill University.	2020

Teaching Assistant - Biostatistics I, Université de Montréal.	2018
Tutor - Biostatistics I, Université de Montréal.	2018
Tutor - Biostatistics II, Université de Montréal.	2018

Grants, Honors, and Awards

Writing-Year Award, Department of Biology, McGill University.	2024
Graduate Research Ehancement and Travel Award, Department of Biology, McGill University.	2023
QCBS Excellence Award, Quebec Cener for Biodiversity Science, QCBS.	2023
Best Poster, Gordon Research Conference on Predictive Ecology, GRC.	2023
Learning and Development Award (LeaDA), Quebec Center for Biodiversity Science, QCBS.	2020-2022
Best Short Presentation, QCBS symposium 2020, QCBS.	2020
Undergraduate Student Research Award, Natural Sciences and Engineering Research Council of Canada, NSERC.	2017
Intensive Courses Award, Quebec Center for Biodiversity Science, QCBS.	2017
Dean's Honour List, Faculty of Arts and Science, Université de Montréal.	2015 - 2017

Publications

Caron, D., Brose, U., Lurgi, M., Blanchet, F., Gravel, D., & Pollock, L. Trait-matching models predict pairwise interactions across regions, not food web properties. Global Ecology and Biogeography, 33(4), e13807.	2024
Eckert, I., Brown, A., **Caron, D.**, Riva, F., & Pollock, L. 30×30 biodiversity gains rely on national coordination. Nature Communications, 14(1), 7113.	2023
Strydom, T., Bouskila, S., Banville, F., Barros, C., **Caron, D.**, Farrell, M., Fortin, M.J., Mercier, B., Pollock, L., Runghen, R., Dalla Riva, G., & Poisot, T. Graph embedding and transfer learning can help predict potential species interaction networks despite data limitations. Methods in Ecology and Evolution, 14(12), 2917–2930.	2023
Caron, D., Maiorano, L., Thuiller, W., & Pollock, L. Addressing the Eltonian shortfall with trait-based interaction models. Ecology Letters, ele.13966.	2022
Strydom, T., Bouskila, S., Banville, F., Barros, C., **Caron, D.**, Farrell, M., Fortin, M.J., Hemming, V., Mercier, B., Pollock, L., Runghen, R., Dalla Riva, G., & Poisot, T. Food web reconstruction through phylogenetic transfer of low-rank network representation. Methods in Ecology and Evolution, 13(12), 2838–2849.	2022
Strydom, T., Catchen, M., Banville, F., **Caron, D.**, Dansereau, G., Desjardins-Proulx, P., Forero-Muñoz, N., Higino, G., Mercier, B., Gonzalez, A., Gravel, D., Pollock, L., & Poisot, T. A roadmap towards predicting species interaction networks (across space and time). Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 376(1837), 20210063.	2021
Caron, D., Lessard, V., Wu, Q., & Poisot, T. (2019). [Re] Insect natural enemies as regulating factors. ReScience, 5(1), #1.	2019