

# Valentin Lucet

### **ECOLOGIST** · RESEARCH SOFTWARE ENGINEER

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🖸 vlucet | 🛅 valentin-lucet | 🎔 VLucet | 🕿 V. Lucet

As an ecologist, I am interested in complex working landscapes, social ecological systems, and interdisciplinary approaches.

Passionate about open and reproducible science, I develop tools for researchers and managers, and teach computational methods.

### Education

### M.Sc. in Landscape Ecology

Montreal, QC

GONZALEZ LAB, McGILL UNIVERSITY

2018 - 2020

- Thesis: Integrating land use and land cover change simulations, stakeholder understanding of the landscape, and connectivity modelling: a case study in the Montérégie region in southern Québec
- Connectivity and landscape change modelling & Stakeholder workshop

# B.Sc. (Hons) in Biology (Maj.) & Anthropology (Min.)

Montreal, QC & Barbados

GUICHARD LAB, McGILL UNIVERSITY

2014 - 2018

• Thesis: Grazing preferences of coral reefs fishes | Fieldwork with the University of the West Indies

### **French Baccalaureate Diploma**

France

GRADE: 17.5/20 - MENTION TRÈS BIEN / BAC S (SPÉ BIO)

2011 - 2014

### Skills

**Programming** R (advanced) / Python, Julia, Bash, SQL, Matlab (familiar) **GIS tools** GDAL, GRASS, QGIS, ArcGIS (proficient) - PostGIS (familiar)

**Other** Git & GitHub (incl. pages), HPCE (slurm), Docker, Markdown, LaTex, Hugo

**Languages** French (native) - English (fluent) - Spanish (basics)

# Experience \_\_\_\_\_

### **Research Software Developer**

Montreal, QC

CONCORDIA UNIVERSITY - PEDERSEN QUANTITATIVE FISHERIES ECOLOGY LAB

2021 - Present

- Development of the **sspm** and **csdm** R packages, workshop development and delivery with DFO
- Grad student mentoring: teaching of skills for open and reproducible science

Data Scientist QC

### Environment and Climate Change Canada · Landscape Science Unit

2021 - 2021

- Contributions to R packages **pfocal** and **LSTDConnect** (currently private)
- Contributions to a Canada-wide connectivity analysis (in prep)

# Landscape ecologist

QC

**APEX RESOURCES MANAGEMENT SOLUTIONS** 

2020 - 2021

• Projects: carbon cycle models, epidemiological models, **STSIM** development and maintenance

### **CONTRACTS & CONSULTING**

### **APEX Resources Management Solutions**

QC

R DEVELOPPER

2019 - 2020

• Improvement and CRAN submission for the R package **Rsyncrosim** 

### MELCC - Ministère de l'Environnement

QC

REPORTER

2019

• Contributions to an analysis of ecological connectivity for the Saint Lawrence Lowlands and translation to French

### MFFP - Ministère des Forêts, de la Faune et des Parcs

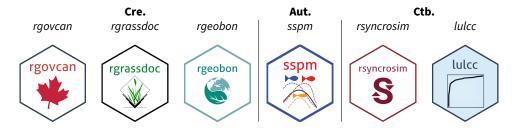
QC

#### REPORTER

2019

• Contributions to a report on ecological connectivity in the northwest America as part of the working group related to the 40-3 resolution

# Software \_\_\_\_\_



# **Teaching**

### **WORKSHOPS**

## R Package Development for Research: an Introduction

Online

OFFERED AT THE CSEE 2021 MEETING

2020

### **Version Control with RStudio and the Command Line**

Online/In person

OFFERED AT McGill and Concordia University

2019-20

### **A Very Short Introduction to Compute Canada Resources**

Online 2021

OFFERED AT CONCORDIA UNIVERSITY

# SQL for Ecologists with R and Tidyverse Equivalent

Online

OFFERED AT CONCORDIA UNIVERSITY

2021

### **ASSISTANTSHIPS**

2019 <b>Conservation Biology</b> , Tutorials, lectures and grading	McGill University
2018-19 <b>Animal Diversity</b> , Labs and grading	McGill University
2017-20 <b>Biometry</b> , Tutoring	McGill University

# Honors & Awards \_

2021	QCBS Learning and Development Award,	\$150
2020	QCBS Excellence Travel Award,	Waived
2020	QCDS Excellence Travel Award,	(COVID-19)
2019	FRQNT (Fonds de Recherche du Québec - Nature et Technologie) M.Sc. Bursary,	\$17,5k
2018	Frank Rigler Prize in Ecology,	\$785
2017	SURA (Student Undergraduate Research Award),	\$6,725

# **Volunteering**

Redpath Museum McGill University

**FUNDRAISING AMBASSADOR** 

2015 - 2017

- Seeds of Change Plesiosaur project \$13,000 raised
- Seeds of Change Cutting Edge Lectures project \$2,850 raised

**Redpath Museum Student Society** 

McGill University 2015-2018

VP COMMUNICATIONS, VP EVENTS, VP

Crete

**ARCHELON (Sea Turtle Protection Society of Greece)** 

2015. 2016

MORNING SURVEY VOLUNTEER FOR A TOTAL OF 5 MONTHS

McGill University

Undergraduate Volunteer

**Abouheif Lab** 

2015-2016

WWF Quebec - Project "Ours Polaire sur Glaces Ephémères

Montreal, QC

2015

2014

PUBLIC AWARENESS VOLUNTEER

McGill bird observatory
Morning Survey Volunteer

Montreal, QC

Editions Heloise D'Ormesson

Paris, France

INTERN - MANUSCRIPT PROOF READER

2012

### **Publications**

### **ARTICLES**

Integrating land use and climate change models with stakeholder understanding to evaluate habitat connectivity change: a case study in southern Québec

Valentin Lucet, Andrew Gonzalez

In Review. 2022

### **THESIS**

Integrating land use and land cover change simulations, stakeholder understanding of the landscape, and connectivity modelling: a case study in the Montérégie region in southern Québec, 2021

### **PRESENTATIONS**

The sspm R package: spatial surplus production models for the management of northern shrimp fisheries

Annual Meeting of the Quebec Center for Biodiversity Science, 2021

Integrating land use and land cover change simulations and connectivity modeling: a case study in the Monteregie region in southern Quebec

Annual Meeting of the International Association for Landscape Ecology - North America chapter (IALE-NA), 2020

Intégrer des simulations de changements d'utilisation des sols et des modèles de connectivité: un exemple en Montérégie dans le sud du Québec

Annual Meeting of the Quebec Center for Biodiversity Science, 2019

Differences in habitat use between two parrotfish grazers modulates the resilience of Caribbean coral reefs

Annual Meeting of the Quebec Center for Biodiversity Science, 2018

#### REPORTS

Annexe-Modélisation de la connectivité de l'habitat terrestre dans les Basses-Terres du Saint-Laurent selon différents scénarios de changements climatiques et d'occupation des sols

Bronwyn Rayfield, Guillaume Larocque, Kyle T Martins, Valentin Lucet, Colin Daniel, Andrew Gonzalez MELCC, 2021

Changing terrestrial habitat connectivity within the St. Lawrence Lowlands under scenarios of climate and landcover change Bronwyn Rayfield, Guillaume Larocque, Kyle T. Martins, Valentin Lucet Lucet, Colin Daniel, Andrew Gonzalez

MELCC, 2021

A review of ecological connectivity analysis in the Region of Resolution 40-3 Alex Arkilanian, Guillaume Larocque, Valentin Lucet, Deanna Schrock, Célia Denépoux, Andrew Gonzalez MFFP, 2020