I'm interested in using and developing new ecological sampling and modeling methods to inform biodiversity conservation at broad spatial scales by leveraging the power of today's tools, such as remote sensing and parallel computing.

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SOFTWARE

- R
- Vortex
- Program MARK
- QGIS
- Raven Pro
- Python
- R Shiny
- MATLAB
- Maxima
- Pplane
- Populus
- EasyPop
- GenePop
- GeneClass2
- Ne Estimator
- JAGS (in R)

Gaetan Loredon — Brock Dupont

EDUCATION

MASTER OF SCIENCE | Organismic and Evolutionary Biology — *Sept 2019 — Present*

University of Massachusetts Amherst

Dr. Christopher Sutherland, Dr. Ali Nawaz

Thesis: *Developing optimal sampling designs for spatial capture-recapture methods to estimate the range-wide density of Snow Leopards and other big cats to inform conservation.*

BACHELOR OF SCIENCE | Environmental and Sustainability Sciences — *Spring 2019*

Cornell University

Dr. Evan Cooch, Dr. David Bonter, Dr. Amanda Rodewald

Thesis: *Recent avian population dynamics in the Northeastern United States suggest persistent but diminished impacts of West Nile virus*

- Modeled spatiotemporal trends of avian populations from citizen-science count data
- Implemented statistical and machine learning models
- Identified novel conclusions to the fields of population and disease ecology

WORK EXPERIENCE

SUMMER FELLOW | Population Sustainability Group — *June – Sept 2019*

San Diego Zoo Global — Institute for Conservation Research

Dr. Mathias Tobler

- Built a website and database to compile camera trap survey data throughout Jaguar range
- Compiled spatial covariate data throughout Jaguar range
- Designed a simulation study to test and develop methods for species distribution modeling

AVIAN CONSERVATION INTERN — *May – Aug 2018*

Massachusetts Division of Fisheries and Wildlife

Dr. Andrew Vitz

- Conducted research with the State Ornithologist related to avian ecology and conservation
- Banded songbirds using a MAPS protocol, designed to inform natural resource management
- Fitted MESA-listed Eastern Whip-poor-wills with geolocator tracking devices

NSF REU — BIOACOUSTICS ANALYST | BirdVox — *July 2017 – May 2019*

Cornell Lab of Ornithology

Dr. Andrew Farnsworth

- Annotated nocturnal flight calls of migrating birds from overnight recordings
- Identified high-frequency short calls to species-level
- Learned about the automatic detection of bioacoustic data

OUTREACH

ECOTOURISM CONSULTANCY INTERNSHIP DESIGNER — *Oct 2017 – May 2018*

Cornell University

- Designed and coordinated an internship opportunity for undergraduates
- Collaborated with ecolodges to attract clients by incorporating sustainable practices
- Co-authored a consultancy guide to '*Aviturismo*' (a.k.a. bird-watching tourism)

GUEST EDUCATOR & CURRICULUM DESIGNER — *Jan 2018 – Present*

The Fenn School, Boy Scouts of America, Concord Public Schools

- Invited to present to K-12 students on birds, ecology and conservation
- Designed a curriculum to utilize newly-purchased land to teach students about ecology

FUNDING

Panthera's Sabin Snow Leopard Grant (2019). *Designing scalable study design protocols to estimate snow leopard (Panthera uncia) density and population size using non-invasive sampling. G. Dupont, C. Sutherland, M. Nawaz.* ***($8,600)***

Undergraduate Research Funds (2019). Cornell Lab of Ornithology. G. Dupont ***($1,593)***

American Ornithological Society Travel Award (2019). G. Dupont. ***($550)***

Funding for Undergraduate Research (2017). History Department, Cornell University ***($400)***

TALKS

American Ornithological Society 137th Stated Meeting *(2019)* — *Modeling Persistent Effects of West Nile Virus on Avian Population Dynamics in the Northeastern United States*

New York State Ornithological Association *(Invited, 2018)* — *Spatiotemporal Trends in Avian Populations Following the Introduction of West Nile Virus in North America*

Time, Space & Narrative in Medieval Icelandic Literature, University of Iceland, Reykjavik *(2017)* — *Seabirds to Starboard: Notes on Norse Navigational Technique*