

# Brendan Casey

ECOLOGIST

Edmonton, Alberta

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## Education

### PhD Ecology

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2017 - 2023

- Thesis: Evaluating remote sensing covariates for understanding habitat selection by boreal forest birds

### MSc Biodiversity and Conservation

TRINITY COLLEGE DUBLIN

Dublin, Ireland

2013 - 2014

- Thesis: Enhancing Connectivity Between Ireland's Native Woodlands.

### BFA Art and Design

ALFRED UNIVERSITY

Alfred, New York

2002 - 2007

## Employment

### Lab Coordinator

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2024 - Present

- Lab coordinator for graduate level landscape ecology course.
- Teach GIS applications in ecology.

### Postdoctoral Fellow

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2023 - Present

- Using remote sensing and GIS to improve avian songbird models.
- Manage GIS and remote sensing resources for the Bioacoustic Unit.

### Research Assistant

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2022 - Present

- Generated topographically downscaled climate layers using remote sensing, terrain modeling, and environmental data loggers.

### Graduate Research Assistant

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2017 - 2023

- Conducted bioacoustic and vegetation surveys in Alberta's boreal forests.
- Programmed, deployed, and maintained autonomous recording units.
- Managed field logistics and supervised wildlife technicians.

### Graduate Teaching Assistant

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2017 - 2021

- Facilitated undergraduate ecology and population ecology labs.
- Lab curriculum included experimental design, statistical analyses, and bioacoustics.

### Sustainability Scholar

UNIVERSITY OF ALBERTA

Edmonton, Alberta

2021 - 2021

- Edmonton River Valley Connectivity Analysis: Evaluated wildlife connectivity through Edmonton's city core using remote camera data, wildlife movement models, and GIS.
- Created communication materials including cross sectional maps and Shiny apps.

Yellowstone Program Supervisor

ECOLOGY PROJECT INTERNATIONAL

2016 - 2017

Missoula, Montana

- Supervised Yellowstone field programs including research on the population dynamics of cougar and bison and the impacts of grazing on grasslands.
- Partnered with park biologists, government agencies, landowners, and community stakeholders to develop conservation research and education programs.
- Recruited, trained, and supervised field staff.
- Coordinated service projects including invasive species removal and fence modification to remove barriers to wildlife migration.
- Drafted grant proposals and reports, and wrote social media content, program handbooks, and research summaries.
- Planned community outreach and fundraising events.

Chapter Services Program Coordinator

NATIONAL AUDUBON SOCIETY

2015 - 2016

Missoula, Montana

- Liaised with local chapters and partner organizations on programming that supports bird conservation across North America's major migratory flyways.
- Was the primary contact between the national office and local chapters on new conservation initiatives, policy changes, and annual financial reports.
- Managed organization databases and wrote monthly, quarterly, and annual reports.

Wilderness Expedition Supervisor

SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM

2009 - 2013

Sitka, Alaska

- Managed all aspects of the field program, including program development, budgeting, and the hiring, training, and supervision of field staff.
- Collaborated with tribal councils, state regulatory agencies, and community partners to develop substance abuse treatment programs in First Nations communities.
- Created program wide risk management protocols, an incident command system, medical standing orders, and a policies and procedures manual.
- Developed curriculum on Alaskan coastal ecology, wildlife biology, and human-carnivore conflict

Senior Field Instructor

THREE RIVERS MONTANA

2007 - 2009

Belgrade, Montana

- Supervised field operations and provided technical support to field crews.
- Designed and taught field courses on astronomy, ecology, and natural history.
- Managed expedition logistics including gear maintenance, risk management, and route planning.

Additional Experience

Wetland Restoration Volunteer

IRISH PEATLAND CONSERVATION COUNCIL

2013 - 2014

Dublin, Ireland

- Contributed to wetland restoration and monitoring projects.
- Surveyed peatland indicator species and installed peat dams and plastic drain pilings.

Pre-Doctoral Internship Orientation Faculty

ALASKA PSYCHOLOGY INTERNSHIP CONSORTIUM, SITKA, AK

2010 - 2012

Sitka, Alaska

- Taught pre-doctoral psychology interns courses on Southeast Alaskan coastal ecology and social-ecological resilience.

Certifications

Snowmobile Safety

ALBERTA SNOWMOBILE ASSOCIATION

2018

Edmonton, Alberta

ATV Safety

ALBERTA CONSERVATION ASSOCIATION

2017

Edmonton, Alberta

Chemical Dependency Counselor

ALASKAN COMMISSION FOR BEHAVIORAL HEALTH

2013

Sitka, Alaska

## Awards

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### Funded Fellow

*Sherbrooke, Québec*COMPUTATIONAL BIODIVERSITY SCIENCE AND SERVICES (BIOS<sub>2</sub>)

2021

### ACA Grants in Biodiversity

*Edmonton, Alberta*

ALBERTA CONSERVATION ASSOCIATION

2019

### U of A Northern Research Awards (UANRA)

*Edmonton, Alberta*

UNIVERSITY OF ALBERTA

2019

### Doctoral Recruitment Scholarship

*Edmonton, Alberta*

UNIVERSITY OF ALBERTA

2019

### Graduate Student Teaching Award

*Edmonton, Alberta*

UNIVERSITY OF ALBERTA

2019

### ISSS Teaching Award

*Edmonton, Alberta*

UNIVERSITY OF ALBERTA

2018

## Skills

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**Ecology** Ecological modelling, Remote sensing, Spatial analyses, Wildlife monitoring**GIS** Google Earth Engine, ArcGIS, R**Programming** R, Python, JavaScript, Shell