

PAUL JOSEPH DOUGHERTY

CURRICULUM VITAE

University of Wyoming, Department of Zoology and Physiology
1000 E. University Ave, Laramie, WY 82071
email: pdoughe1@uwyo.edu
phone: (508) 479-1910

EDUCATION

University of Wyoming, Laramie, WY, USA
Program in Ecology, Department of Zoology & Physiology
Minor: Statistics

Ph.D., Aug 2017 - Present
Advisor: Dr. Matthew Carling

Colby College, Waterville, ME, USA
GPA: 3.74 (Dean's List, Cum Laude)
Major: Biology (Ecology and Evolution Concentration)
Major: Classics

Bachelor of Arts, 2012 – 2016
Honors Thesis Advisor: Dr. Herbert Wilson

PUBLICATIONS

(peer reviewed)

Dougherty, PJ, RS Terrill, and MD Carling. Exploring the role of a neglected aspect of natural history in conservation: does molt-migration put birds at risk? *In prep.*

Minor, NR*, **PJ Dougherty***, SA Taylor, and MD Carling. 2021. Estimating hybridization in the wild using community science data: a path forward. *Evolution*. 76(2):362-372.

<https://doi.org/10.1111/evo.14392>.

**these authors contributed equally*

Dougherty, PJ, and WH Wilson Jr. 2018. Evidence for a relationship between the winter movements of the Common Redpoll (*Acanthis flammea*) and the American Goldfinch (*Spinus tristis*). *The Open Ornithology Journal* 11:1-26.

(non-peer reviewed)

Undergraduate Honors Thesis:

Dougherty, PJ. 2016. Spatial and temporal patterns in irruptive Fringillid movements. (2016). *Colby College Honors Theses*. <https://digitalcommons.colby.edu/honorsthesis/822>.

...**PJ Dougherty**...RA Gastaldo (10 authors). 2014. Conserving Maine's fossil heritage: the Trout Valley formation along Wadleigh Mountain Road, Scientific Forest Management Area. Report to the Baxter State Park Authority.

RESEARCH PRESENTATIONS

Dougherty, PJ, and MD Carling. Oral Presentation. "Climate change and the North American Monsoon: implications for western passerines." University of Wyoming Program in Ecology and Evolution (PiEE) Symposium. Laramie, WY. 2022.

Dougherty, PJ, and MD Carling. Oral presentation. “The role of molt phenology divergence in maintaining reproductive isolation between taxa that hybridize in the Great Plains.” American Ornithological Society. Virtual presentation. 2021.

Dougherty, PJ, and MD Carling. Oral presentation. “The influence of the North American monsoon on breeding abundance of western molt migrants.” North American Ornithological Conference. Virtual presentation. 2020.

Dougherty, PJ. Oral Presentation. “Molt, migration, and monsoons: revisiting the avian hybrid zones of the Great Plains.” University of Wyoming dissertation proposal defense talk. Virtual presentation. 2020.

Dougherty, PJ, and MD Carling. Oral Presentation. “The role of life history divergence in maintaining effective reproductive isolation between hybridizing species.” University of Wyoming Program in Ecology (PiE) Symposium. Laramie, WY. 2020.

Dougherty, PJ, Carling, MD, and SL Fossberg*. Oral Presentation. “Using museum specimens to investigate fitness variation across avian hybrid zones.” American Ornithological Society. Anchorage, AK. 2019.

**mentored undergraduate student*

Dougherty, PJ, and RP Olson. Poster Presentation. “Using measurements of museum specimens to investigate variation in fitness across an avian hybrid zone.” University of Wyoming Program in Ecology (PiE) Symposium. Laramie, WY. 2019.

Dougherty, PJ. Poster Presentation. “ $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values characterize molting behavior of Lazuli Buntings.” University of Wyoming Stable Isotope Ecology Poster Session. Laramie, WY. 2018.

Dougherty, PJ, and WH Wilson Jr. Oral Presentation. “Evidence for a relationship between the movements of boreal-breeding and temperate-breeding Fringillids.” American Ornithological Society. Tucson, AZ. 2018.

Dougherty, PJ. Oral Presentation. “Do differences in molt schedule or migratory orientation maintain divergence between hybridizing species?” University of Wyoming Department of Zoology & Physiology, FLaSH talks. Laramie, WY. 2017

Dougherty, PJ. Oral Presentation. “Spatial and temporal patterns in irruptive fringillid movements.” Colby College Liberal Arts Symposium, Biology Honors Theses. Waterville, ME. 2016.

RESEARCH GRANTS and FELLOWSHIPS

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| 2021 | Margaret and Sam Kelly Ornithology Research Fund, University of Wyoming: \$2,000 L. Floyd Clark Graduate Scholar Award, University of Wyoming: \$2,000 Dr. George Menkens Memorial Scholarship, University of Wyoming: \$10,000 |
| 2019 | Gardner & Fiske Physiology Graduate Research Award, University of Wyoming: \$6,000 RC Lewontin Early Award, Society for the Study of Evolution: \$2,000 Werner and Hildegard Hesse Award, American Ornithological Society: \$2,000 |
| 2018 | Graduate Student Research Award, Society of Systematic Biologists: \$1,000 Robert Berry Research Grant, University of Wyoming: \$4,000 |
| 2017 | Small Grant, Laramie Audubon Society: \$500 Berry Graduate Student Fellowship in Zoology, University of Wyoming: \$28,000 |

OUTREACH GRANTS

2020 Novel Outreach and Education Grant, University of Wyoming Biodiversity Institute. "The art of hybridization." Wommack, EA, **PJ Dougherty**, R Ratigan, and MD Carling: \$15,000

OTHER AWARDS and HONORS

2022 Program in Ecology and Evolution travel grant, University of Wyoming: \$500
Travel Grant, Wyoming NASA EPSCoR: \$500
Student Travel Award, American Ornithological Society: \$680
University of Wyoming Program in Ecology & Evolution Symposium, best 15-minute talk

2021 Wyoming NASA Space Grant Graduate Research Fellowship, runner-up

2019 Program in Ecology travel grant, University of Wyoming: \$500

2018 1st President's Lifer List Winner, American Ornithological Society
Program in Ecology travel grant, University of Wyoming: \$500

2017 Program in Ecology Augmentation Award, University of Wyoming: \$5,000

2016 Honors in Biology, Colby College
Distinction in Biology and Classics, Colby College
John B. Foster Prize in Classics, Colby College
NESCAC Spring All-Academic Team (also awarded in 2014 and 2015)
ECAC and NIRC Steward's All-Academic Team (also awarded in 2014 and 2015)

2015 Griffin Metto '15 Prize in Classics, Colby College

OUTREACH PRESENTATIONS

Dougherty, PJ. Oral Presentation. "Why I spend all day thinking about birds." University of Wyoming chapter of the Wildlife Society invited graduate student talk. Virtual presentation. 2020.

Dougherty, PJ. Oral Presentation. "Reproductive isolation between hybridizing bird species; why are there still two buntings in the Great Plains?" Laramie Audubon Society. Laramie, WY. 2018.

TEACHING EXPERIENCE

Graduate Teaching Assistant, University of Wyoming **Spring 2019, 2020, 2022**
Ornithology (ZOO 4350/5350)
Co-taught two lab sections of about 15 students

Graduate Teaching Assistant, University of Wyoming **Spring 2018**
Animal Biology (LIFE 2022)
Taught two lab sections of about 20 students
Provided instruction and mentorship for an Undergraduate Teaching Assistant

Graduate Teaching Assistant, University of Wyoming **Fall 2017**
General Biology (LIFE 1010)
Taught two lab sections of about 20 students

Biodiversity Lab General Assistant, Colby College **Fall 2014 – Spring 2016**
Helped to prepare for laboratory exercises pertaining to biodiversity

Latin Tutor, Colby College **Fall 2014 – Spring 2016**
Tutored undergraduate and high school students in elementary Latin and advanced Latin poetry

COLLECTIONS-BASED EXPERIENCE

Curatorial Assistant, **University of Wyoming Museum of Vertebrates** Summer 2018 – Present

Helped to accession and catalog specimens in the ARCTOS database
Prepared birds as round skins, spread wings, and skeletons (total preps: 129)
Helped to prepare for and co-lead museum outreach events
Assisted with collection efforts in the field

OTHER RESEARCH EXPERIENCE

Birds of Maine Book Project, Richmond, ME Summer 2017

Editing Assistant

Composed and edited species accounts that will appear in a published comprehensive guide to the birds of Maine.
Arranged existing accounts to conform to a provided style guide, looked up missing references and occurrence records.
Wrote original accounts on the historic and current abundance of individual bird species in Maine by synthesizing existing literature and occurrence data reported by citizen scientists.

IUP Research Institute, Indiana PA; **Cornell Lab of Ornithology**, Ithaca NY Spring, Summer 2017

Avian Field Technician

Surveyed breeding bird populations and plant regeneration in public and privately owned lands managed to create early successional forest habitat.
Worked closely with private landowners and tribal employees to arrange survey visits and communicate results.

National Audubon Society, Project Puffin, Bremen, ME

Summer 2014

Seabird Research Assistant

Collected data regarding nesting success, feeding patterns, and population trends of breeding seabirds in the Gulf of Maine.
Practiced skills such as bird banding, taking body measurements, and compiling data.

OTHER PROFESSIONAL EXPERIENCE

Tenacre Summer Programs, Wellesley, MA

Summer 2016

Nature and Science Activity Head

Designed and carried out lessons spanning a variety of topics in science for children ages 3-12.

Massachusetts Audubon Society, Broadmoor Wildlife Sanctuary, Natick, MA Summer 2012 - 2015

Environmental Educator

Designed and carried out activities relating to natural history. Topics included species interactions, evolution, avian ecology, and adaptation.
Oversaw lessons and the wellbeing of children ages 4–15.

OUTREACH and SERVICE

University of Wyoming Program in Ecology, Laramie, WY

Student Co-president

August 2021 – Present

Symposium Committee Co-chair

August 2020 – July 2021

New graduate student mentor

September 2019 – Present

Invited Speaker Committee Co-chair

March 2018 – July 2020

Outreach Committee Co-chair

August 2018 – July 2019

Laramie Audubon Society, Laramie Wyoming
Newsletter Chair
Board Member, Newsletter Co-chair

January 2019 – Present
November 2017 – January 2019

eBird, Cornell Lab of Ornithology
Reviewer for Wyoming (Albany and Carbon counties)

March 2022 - Present

Eastern Massachusetts National Wildlife Refuge Complex, Sudbury, MA
Birding Guide
Co-led a series of summer and fall birding walks as a USFWS volunteer.

July – October 2016

Manuscript Reviews: Western Birds (1), Avian Conservation & Ecology (1)

UNDERGRADUATE MENTEES and TRAINEES

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| Taylor Skiles, University of Wyoming | Fall 2021 - Present |
| Theresa Higgins, University of Wyoming | Summer 2021 |
| Rebecca Franke, University of Wyoming | Summer 2021 |
| Qingqing Yang, Colby College | Summer 2020 |
| Nick Pineschi, University of Wyoming | Summer 2020 |
| Domonique Jones, University of Wyoming | Fall 2019 – Spring 2020 |
| Ashley Townsend, University of Wyoming | Summer 2019 |
| Ashlynn Ballard, University of Wyoming | Summer 2019 |
| Sydney Fossberg, University of Wyoming | February 2019 - Present |

MEMBERSHIP

American Ornithological Society, Society for the Study of Evolution, Society of Systematic Biologists,
American Genetics Association