

# Paul J. Dougherty

PROGRAM IN ECOLOGY & EVOLUTION · DEPARTMENT OF ZOOLOGY & PHYSIOLOGY

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## Education

### University of Wyoming

PHD: ECOLOGY & EVOLUTIONARY BIOLOGY, MINOR: STATISTICS

Advisor: Dr. Matthew Carling

Laramie, WY

August 2017 - present

### Colby College

BACHELOR OF ARTS: BIOLOGY (ECOLOGY & EVOLUTION CONCENTRATION) AND CLASSICS

GPA: 3.74 (Dean's List, Cum Laude)

Honors thesis advisor: Dr. Herbert Wilson

Waterville, ME

August 2012 - May 2016

## Publications

### PEER REVIEWED

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. \*equal contribution

**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.

### IN PREP

**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?

### NON-PEER REVIEWED

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

## Awards, Fellowships, & Grants

### RESEARCH GRANTS

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

## OUTREACH GRANTS

- 2020 **Novel Outreach and Education Grant**, University of Wyoming Biodiversity Institute \$ 15,000  
Wommack, EA, **PJ Dougherty**, R Ratigan, and MD Carling. The Art of Hybridization.

## OTHER AWARDS AND HONORS

- 2022 **Program in Ecology and Evolution Travel Grant**, University of Wyoming (also in 2019, 2018) \$ 500  
**Travel Grant**, Wyoming NASA EPSCoR \$ 500  
**Student Travel Award**, American Ornithological Society \$ 680  
**Best 15-Minute Talk**, University of Wyoming Program in Ecology and Evolution Symposium
- 2021 **Runner-up**, Wyoming NASA Space Grant Graduate Research Fellowship
- 2018 **1st President's Lifer List Winner**, American Ornithological Society
- 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 \$ 100  
**All-Academic Team**, New England Small College Athletic Conference (also in 2015, 2014)  
**Steward's All-Academic Team**, Eastern College Athletic Conference (also in 2015, 2014)
- 2015 **Griffin Metto '15 Prize in Classics**, Colby College \$ 100

## Presentations

*\* mentored undergraduate*

### RESEARCH PRESENTATIONS

- Dougherty, PJ**, RS Terrill, and MD Carling. 2022. Climate change and the North American Monsoon: implications for western passerines. Oral Presentation: American Ornithological Society, San Juan, Puerto Rico.
- Dougherty, PJ** and MD Carling. 2022. Climate change and the North American Monsoon: implications for western passerines. Oral presentation: University of Wyoming Program in Ecology and Evolution (PiEE) Symposium, Laramie, WY.
- Dougherty, PJ** and MD Carling. 2021. The role of molt phenology divergence in maintaining reproductive isolation between taxa that hybridize in the Great Plains. Oral Presentation: American Ornithological Society, Virtual presentation.
- Dougherty, PJ** and MD Carling. 2020. The influence of the North American monsoon on breeding abundance of western molt migrants. Oral Presentation: North American Ornithological Conference, Virtual presentation.
- Dougherty, PJ**. 2020. Molt, migration, and monsoons: revisiting the avian hybrid zones of the Great Plains. Oral Presentation: University of Wyoming dissertation proposal defense talk, Virtual presentation.
- Dougherty, PJ** and MD Carling. 2020. The role of life history divergence in maintaining effective reproductive isolation between hybridizing species. Oral presentation: University of Wyoming Program in Ecology (PiE) Symposium, Laramie, WY.
- Dougherty, PJ**, SL Fossberg\*, and MD Carling. 2019. Using museum specimens to investigate fitness variation across avian hybrid zones. Oral presentation: American Ornithological Society, Anchorage, AK.
- Dougherty, PJ** and RP Olson. 2019. 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.
- Dougherty, PJ**. 2018.  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values characterize molting behavior of Lazuli Buntings. Poster: University of Wyoming Stable Isotope Ecology Poster Session, Laramie, WY.
- Dougherty, PJ** and WH Wilson. 2018. Evidence for a relationship between the movements of boreal-breeding and temperate-breeding Fringillids. Oral presentation: American Ornithological Society. Tucson, AZ.
- Dougherty, PJ**. 2017. Do differences in molt schedule or migratory orientation maintain divergence between hybridizing species? Oral presentation: University of Wyoming Department of Zoology & Physiology, FLASH talks. Laramie, WY.

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

## OUTREACH PRESENTATIONS

**Dougherty, PJ.** 2021. The Birds of Wyoming. Oral presentation: University of Wyoming Lab School Kindergarten Classes, Laramie, WY.

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

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

## Teaching Experience

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**Ornithology (ZOO 4350/5350)**, Graduate Teaching Assistant, University of Wyoming (Spring 2019, 2020, 2022)

**Animal Biology (LIFE 2022)**, Graduate Teaching Assistant, University of Wyoming (Spring 2018)

**General Biology (LIFE 1010)**, Graduate Teaching Assistant, University of Wyoming (Fall 2017)

**Biodiversity Lab General Assistant**, Colby College (Fall 2014 - Spring 2016)

**Latin Tutor**, Colby College (Fall 2014 - Spring 2016)

## Collections-Based Experience

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### University of Wyoming Museum of Vertebrates

Laramie, WY

#### CURATORIAL ASSISTANT

Summer 2018 - Present

- Prepared birds as round skins, spread wings, and skeletons (total preps: 192)
- Helped to accession and catalog specimens in the ARCTOS database
- Assisted with collection efforts in the field
- Helped to prepare for and co-led museum outreach events

## Other Professional Experience

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### Birds of Maine Book Project

Richmond, ME

#### EDITING ASSISTANT

Summer 2017

- Composed and edited species accounts that now 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, Cornell Lab of Ornithology

Indiana, PA; Ithaca, NY

#### AVIAN FIELD TECHNICIAN

Spring, Summer 2017

- 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 public land managers to arrange survey visits and communicate results

### National Audubon Society, Project Puffin

Bremen, ME

#### SEABIRD RESEARCH ASSISTANT

Summer 2014

- Collected data on the demography and feeding behavior of seabird populations breeding in the Gulf of Maine
- Banded and took body measurements from tern and alcid chicks

### Tenacre Summer Programs

Wellesley, MA

#### NATURE AND SCIENCE ACTIVITY HEAD

Summer 2016

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

## **Massachusetts Audubon Society, Broadmoor Wildlife Sanctuary**

### **ENVIRONMENTAL EDUCATOR**

- Designed and carried out activities related to natural history
- Oversaw the well-being of children ages 4–15

*Natick, MA*

*Summer 2012 - 2015*

## **Undergraduate Mentees and Trainees**

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- 2021 - 2022 **Taylor Skiles**, Undergraduate Assistant, University of Wyoming  
2021 **Theresa Higgins**, Avian Field Technician, University of Wyoming  
2021 **R Franke**, Avian Field Technician, University of Wyoming  
2020 **Qingqing Yang**, Undergraduate Researcher, Colby College  
2020 **Nick Pineschi**, Undergraduate Assistant, University of Wyoming  
2019 - 2020 **Domonique Jones**, Undergraduate Researcher, University of Wyoming  
2019 **Ashley Townsend**, Avian Field Technician, University of Wyoming  
2019 **Ashlynn Ballard**, Avian Field Technician, University of Wyoming  
2019 - 2022 **Sydney Fossberg**, Wyoming Research Scholar, University of Wyoming  
2018 **Daree Altergott**, Undergraduate Teaching Assistant, University of Wyoming

## **Outreach & Service**

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### **eBird, Cornell Lab of Ornithology**

REVIEWER (WYOMING, ALBANY AND CARBON COUNTIES)

*Ithaca, NY*

*March 2022 - Present*

### **University of Wyoming Program in Ecology & Evolution**

VOLUNTEER

- 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, WY*

*Spring 2018 - Present*

### **Laramie Audubon Society**

NEWSLETTER CHAIR, BOARD MEMBER

*Laramie, WY*

*Fall 2017 - Present*

### **Eastern Massachusetts National Wildlife Refuge Complex**

BIRDING GUIDE

*Sudbury, MA*

*Summer, Fall 2016*

### **PEER REVIEW**

Western Birds (1), Avian Conservation & Ecology (1)

### **PROFESSIONAL MEMBERSHIPS**

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