

Paul J. Dougherty

PROGRAM IN ECOLOGY & EVOLUTION · DEPARTMENT OF ZOOLOGY & PHYSIOLOGY

University of Wyoming, 1000 E. University Ave, Laramie, WY 82071

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Education

University of Wyoming

Laramie, WY

PHD: ECOLOGY & EVOLUTIONARY BIOLOGY, MINOR: STATISTICS

August 2017 - present

Advisor: Dr. Matthew Carling

Colby College

Waterville, ME

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

August 2012 - May 2016

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

Honors thesis advisor: Dr. Herbert Wilson

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, PE Thornton, MM Thornton, RS Terrill, and MD Carling. Exploring the role of a neglected aspect of natural history in conservation: does molt-migration put birds at risk?

Dougherty, PJ, RS Terrill, and MD Carling. Adaptive divergence in molting behavior mediates reproductive isolation and speciation in birds.

Dougherty, PJ and MD Carling. Recent spatio-temporal changes in the genetic structure of the *Passerina* bunting hybrid zone.

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	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 and 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 Robert Berry Research Grant , University of Wyoming	\$ 1,000 \$ 4,000
2017	Small Grant , Laramie Audubon Society Berry Graduate Student Fellowship in Zoology , University of Wyoming	\$ 500 \$ 28,000

OUTREACH GRANTS

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

2022	Program in Ecology and Evolution Travel Grant , University of Wyoming (also in 2019, 2018) Travel Grant , Wyoming NASA EPSCoR Student Travel Award , American Ornithological Society Best 15-Minute Talk , University of Wyoming Program in Ecology and Evolution Symposium	\$ 500 \$ 500 \$ 680
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 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)	\$ 100
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.
- Ratigan, R, EA Wommack, **PJ Dougherty**, and MD Carling. 2021. The Art of Hybridization. Oral presentation and Art Show: University of Wyoming Biodiversity Institute, 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

- Ornithology (ZOO 4350/5350)**, Instructor of Record, University of Wyoming (Spring 2023)
- 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

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

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*Natick, MA*

ENVIRONMENTAL EDUCATOR

Summer 2012 - 2015

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

Undergraduate Mentees and Trainees

- 2022 **Dylan Scherer**, Data Entry Assistant, University of Wyoming
- 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

University of Wyoming Department of Zoology & Physiology*Laramie, WY*

GRADUATE STUDENT REPRESENTATIVE TO FACULTY MEETINGS

*Fall 2022***eBird, Cornell Lab of Ornithology***Ithaca, NY*

REVIEWER (WYOMING, ALBANY AND CARBON COUNTIES)

*March 2022 - Present***University of Wyoming Program in Ecology & Evolution***Laramie, WY*

VOLUNTEER

Spring 2018 - Present

- Student Co-president (August 2021 - August 2022)
- 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, WY*

NEWSLETTER CHAIR, BOARD MEMBER

*Fall 2017 - Present***Eastern Massachusetts National Wildlife Refuge Complex***Sudbury, MA*

BIRDING GUIDE

*Summer, Fall 2016***PEER REVIEW**

Avian Conservation & Ecology (3), Western Birds (1)

PROFESSIONAL MEMBERSHIPS

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