

MOLLY TANKERSLEY McDERMOTT

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EDUCATION

- Ph.D. Ecology & Evolutionary Biology, University of Colorado Boulder *Expected 2021*
Environmental effects on sexual signaling and breeding phenology
Advisor: Rebecca Safran, Ph.D.
- M.S. Biological Sciences, University of Alaska Fairbanks *2017*
Arthropods and passerine diet: Effects of shrub expansion in W. Alaska
Advisor: Patricia Doak, Ph.D.
- B.S. Biology, B.A. Music, The Evergreen State College *2012*

PUBLICATIONS

- McDermott, M. T.**, and A. Treher. The Observation Station: Art, Ecology, and Culture in the Front Range of Colorado. Book chapter *in prep.* Bloomsbury Press.
- McDermott, M. T.**, P. Doak, C. M. Handel, G. A. Breed, and C. P. Mulder. (*In prep.*) Arthropod communities across tundra-shrub ecotones of northwestern Alaska: Implications of continued shrub expansion.
- McDermott, M. T.**, C. M. Handel, P. Doak, and G. A. Breed. (*In prep.*) High diet diversity of arctic passerine nestlings revealed by next-generation sequencing.
- McDermott, M. T.** (2019). How do non-breeding conditions affect Colorado's Barn Swallows? *Colorado Birds*, 53(2).
- Safran, R. J., Levin, I. I., **McDermott, M. T.**, Semenov, G., Hund, A. K., Scordato, E. S. C., Turbek, S. P., Fosdick, B. K. (2019). Connecting individual-level reproductive behavior to population patterns. *Trends in Ecology and Evolution*.
- Carscadden, K, SP Turbek, **MT McDermott**, A Martin. (2018). Building bridges: An active learning lesson in evolution and collaboration. *Journal of College Science Teaching*.
- Schroeter, I. M., Forrester, C. C., Brigham, L. M., Fried, E. R., Grabenstein, K. C., Karban, C. C., & **McDermott, M. T.** (2018). Diverging from the Dogma: A Call to Train Creative Thinkers in Science. *The Bulletin of the Ecological Society of America*, e01463.
- McDermott, M. T.**, New findings of twisted-wing parasites (Strepsiptera) in Alaska. (2016). *Newsletter of the Alaska Entomological Society*, 9(1).

FELLOWSHIPS

- 2018-2019 Center for the Study of Origins Graduate Research Fellowship - \$32,000
- 2018 NEST Studio for the Arts Summer Fellowship (w/ A. Treher, MFA) - \$5,000
- 2016-2017 Calvin Lensink Memorial Fellowship - \$10,000

GRANTS, SCHOLARSHIPS, AND AWARDS

- 2019 CU Boulder Ecology & Evolution Research Award - \$2,500
- Denver Field Ornithologists Research Grant - \$2,000
- Animal Behavior Society - \$1,500
- Colorado Field Ornithologists Grant - \$1,500
- Beverly Sears Graduate Student Award - \$1,000

- CU Graduate School Travel Grant - \$300
- 2018 National Geographic Early Career Grant - \$5,050
 American Ornithological Society Hesse Award - \$2,500
 CU Boulder Ecology & Evolution Research Award - \$2,500
 Colorado Field Ornithologists Grant - \$1,500
- 2017 Outstanding Teaching Assistant – University of Alaska Fairbanks
- 2016 UAF Graduate School Travel Grant - \$600
 David Burnett Dunn Memorial Scholarship - \$600
- 2015 UAF College of Natural Sciences and Mathematics Travel Award - \$740
 Graduate Climate Conference Travel Award - \$1,000
 Angus Gavin Migratory Bird Research Grant - \$6,150
 David Burnett Dunn Memorial Scholarship - \$2,500
 Arctic Audubon Small Grant - \$1,000
- 2014 UAF CLA Collaborative Arts Grant - \$650
- 2012 Byron Youtz Memorial Scholar - \$1,500
- 2008 Evergreen Transfer Incentive Scholarship - \$2,000
- 2006 National Merit Scholar - \$9,000

TEACHING EXPERIENCE

- Teaching Assistant, Ecology, University of Colorado 2020
- Teaching Assistant, Evolution, University of Colorado Boulder 2018, 2019
- Guest Lecturer, Evolution, University of Colorado Boulder 2018, 2019
- Topic: Sexual Selection and Speciation
- Substitute Instructor, Art of Science Communication, University of Colorado Boulder 2018
- Teaching Assistant, General Biology, University of Colorado Boulder 2017
- Instructor, Alaska Summer Research Academy, University of Alaska Fairbanks 2017
- Co-designed and -taught a two-week course on building electronic sensors and using them in environmental science projects as part of a high school science camp
- Teaching Assistant, Evolution, University of Alaska Fairbanks 2014 – 2016

RESEARCH EXPERIENCE

- Research Wildlife Biologist, U.S. Geological Survey 2013 - 2017
- Research Technician, University of Alaska Anchorage 2011, 2012-2013
- Laboratory Technician, The Evergreen State College 2011 - 2012

INVITED TALKS

- McDermott, MT, CM Handel, P Doak, and GA Breed. Arthropods and Songbird Diet in a Changing Arctic Ecosystem. Denali National Park, Alaska, *June 30, 2017*
- McDermott, MT, CM Handel, and P Doak. Consequences of shrub expansion: Effects on arctic songbirds. Arctic Audubon, Fairbanks, Alaska, *November 2, 2015*

PRESENTATIONS (*POSTER, †Undergraduate coauthor)

- McDermott, MT, NP Goodkind†, SA Maddent†, and RJ Safran. Manipulations of life history trade-offs in female Barn Swallows. Greater Rocky Mountain Ecologists and Evolutionary Biologists Meeting, Gothic, CO, *September 7, 2019*
- *McDermott, MT and Safran, RJ. A longitudinal perspective on the physiology of sexually selected traits. Gordon Research Conference on Speciation, Ventura, CA, *March 10-15 2019*
- McDermott, MT and Treher, A. Side-by-side: Coexistence in the built environment. Creative Districts Leadership Convening, Boulder, CO, *October 18, 2018*
- *McDermott, MT and Safran, RJ. How does non-breeding environment affect sexual signaling? A comparative analysis of migratory and non-migratory Barn Swallows (*Hirundo rustica*). EBIO Spring Symposium, Boulder, CO, *April 27, 2018*
- *McDermott, MT and Safran, RJ. How does non-breeding environment affect sexual signaling? A comparative analysis of migratory and non-migratory Barn Swallows (*Hirundo rustica*). American Ornithological Society, Tucson, AZ, *April 15, 2018*
- McDermott, MT, CM Handel, P Doak, GA Breed, and CP Mulder. Arthropod communities and passerine diet: Effects of shrub expansion in Western Alaska. University of Colorado Boulder department seminar, *November 29, 2017*
- McDermott, MT, CM Handel, and P Doak. Herbivores, pollinators, predators – who benefits from shrub growth? Midnight Sun Science Symposium, Fairbanks, AK, *April 14, 2017*
- McDermott, MT, CM Handel, and P Doak. No picky eaters: Nestling diet in W. Alaska. Alaska Bird Conference, Cordova, AK, *December 8, 2016 (Best student presentation)*
- McDermott, MT. Mating Systems. Earth Day Speed Talks, University of Alaska Fairbanks, Alaska, *April 22, 2016 (Best talk)*
- McDermott, MT, CM Handel, and P Doak. Response of arthropod communities to shrub expansion in W. Alaska. Midnight Sun Science Symposium, Fairbanks, AK, *April 8, 2016*
- McDermott, MT, CM Handel, and P Doak. Response of arthropod communities to shrub expansion in W. Alaska. Alaska Wildlife Society Meeting, Anchorage, AK, *March 31, 2016*
- McDermott, MT, CM Handel, and P Doak. Response of arthropod communities to shrub expansion in W. Alaska. Alaska Entomological Society, Anchorage, AK, *January 30, 2016 (Best student presentation)*
- McDermott, MT and P Doak. Impacts of shrub expansion on food availability for migratory passerines in W. Alaska. Graduate Climate Conference, Woods Hole, MA, *November 6, 2015*
- McDermott, MT and P Doak. Patterns of terrestrial insect diversity on the Seward Peninsula of Alaska. Alaska Entomological Society Meeting, Fairbanks, AK, *January 24, 2015*

OUTREACH AND SERVICE

- Co-organizer, Lunch & Learn Department Seminar, CU Boulder, *2018 - present*
- Member, Course Budget Improvement Committee, CU Boulder, *2017 - present*
- Organizer & Biologist, Side by Side: An art-science community event, *2018*
- Visiting Scientist, CU Discovery Science Camp, *2018*
- Outreach Volunteer, CU Museum of Natural History Family Days, *2018*
- Co-President, Biology Graduate Student Association, UAF, *2016-2017*
- Guest Instructor, Ryan Middle School, *2016*
- Scientist in the Classroom, Tanana Middle School, *2015 – 2016*

Science Fair Judge, Fairbanks Middle Schools, 2015, 2016
Outreach Educator and Fundraiser, Renewable Energy Alaska Project, 2012-2014
Workshop Instructor, Evergreen Science Carnival, 2011, 2012

MENTORING

Sage Madden, honor's thesis student, University of Colorado Boulder. 2018-present.
Awarded \$2500 as a Biological Sciences Initiative Scholar, fall 2019-spring 2020.
"Reproductive trade-offs in female Barn Swallows."
Awarded \$3000 as an Undergraduate Research Opportunities Program intern, summer 2019. "Spatial foraging patterns in response to brood size in female Barn Swallows."
Awarded \$2500 as a Biological Sciences Initiative Scholar, fall 2018-spring 2019.
"Quantifying the impacts of feather quality on reproductive success in Barn Swallows."
Jonté Allen, Independent Study, University of Colorado Boulder. Spring 2020.
Bryan Martino, Independent Study, University of Colorado Boulder. Spring 2020.
Brittney Lafond, Independent Study, University of Colorado Boulder. Fall 2019.
Noah Goodkind, University of Colorado Boulder. Summer 2019-Fall 2019.
Awarded \$2500 as a Biological Sciences Initiative Scholar. "GPS tracking of foraging behavior in an aerial insectivore."
Sabela Vasquez-Rey, Independent Study, University of Colorado Boulder. 2018-2019.
Christian Testerman, University of Colorado Boulder. Summer 2019-present.
Awarded \$2500 as a Biological Sciences Initiative Scholar.
Abby Marynowski, University of Colorado Boulder. Summer 2018.
Awarded \$2500 as a Biological Sciences Initiative Scholar. "How do non-breeding season events affect reproduction in a wild songbird?"
Hannah DeZara, field assistant, University of Colorado Boulder. Summer 2018.
Katie Sanko, field assistant, University of California Berkeley. Summer 2018.
Jessica Herzog, University of Alaska Fairbanks. Fall 2015- Spring 2017.
Awarded \$1500 by the Undergraduate Research & Scholarly Activity fund, results presented at UAF symposia and the AK Wildlife Society annual meeting. "Habitat selection by bees of the Seward Peninsula, Alaska."
Renee Nowicki, University of Alaska Fairbanks. Fall 2016- Spring 2017.
Tazheem Rubio, University of Alaska Fairbanks. Fall 2016.
Patrick Smith, University of Alaska Fairbanks. Summer 2015.

PRESS

["Pushing Boundaries: Graduate students think like barn swallows to craft an artistic nesting site"](#) CU Boulder Today, Sep 5, 2018
["Audubon Talk Looks at Impact of Shrub Expansion"](#) Fairbanks Daily News-Miner, Oct 29, 2015
["Bird Camp"](#) KNOM Radio Mission Feature, Jun 24, 2014

PROFESSIONAL MEMBERSHIPS

American Ornithological Society • Animal Behavior Society
American Genetics Association • Society for the Study of Evolution
Colorado Field Ornithologists