

AMANDA K. HUND

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ACADEMIC POSITIONS

Starting 2021: Grinnell College, Assistant Professor

2018 – *present:* JSMF Postdoctoral Fellow, University of Minnesota
Advisors: Dr. Emilie Snell-Rood & Dr. Daniel Bolnick (University of Connecticut)

2017 – 2018: Postdoctoral Researcher, University of Colorado at Boulder
Advisor: Dr. Scott A. Taylor

EDUCATION

2011 – 2017: Ph.D, University of Colorado at Boulder, Dept. of Ecology & Evolutionary Biology
Advisor: Dr. Rebecca J. Safran (*awarded December 2017*)

2006 – 2010: Bachelor of Arts in Biology, Carleton College
Research and Thesis Advisor: Dr. Matt Rand

PUBLICATIONS

Research Publications: * denotes undergraduate co-author

Hund AK, Hubbard JK, Krausová S, Munclinger P, Safran RJ (2020) “Different underlying mechanisms drive associations between multiple parasites and the same sexual signal.” *In press at Animal Behaviour*.

Hund AK, Hubbard JK, Albrecht T, Vortman Y, Munclinger P, Krausová S, Tomášek O, Safran RJ (2020) “Divergent sexual signals reflect costs of local parasites.” **Evolution**, 74(10): 2404-2418.

Carter, JK, and 32 coauthors including **Hund AK**, (2020) “Complete mitochondrial genomes provide current refined phylogenomic hypotheses for relationships among ten *Hirundo* species.” **Mitochondrial DNA**, 5(3): 2899-2903.

Turbek SP[‡], **Hund AK[‡]**, McCahill K*, Hernandez M*, Hubbard JK (2019) “Overlooked costs of coloniality: Mislaid eggs and the double incubation of separate nests.” **The American Midland Naturalist**, 182(1):52-62. [‡] **Co-first author**

Safran RJ, Iris II, Fosdick BK, Mcdermott MT, Semenov GA, **Hund AK**, Scordato ESC, Turbek SP (2019) “Using network to connect individual-level reproductive behavior to population patterns.” **Trends in Ecology and Evolution**, 34 (6):497-501.

Levin II, Fosdick BK, Tsunekage T, Aberle MA, Bergeon-Burns CM, **Hund AK**, Safran RJ. (2018) "Experimental manipulation of a signal trait reveals complex phenotypic-behavior coordination." **Scientific Reports**, 8:15533.

Theodosopoulos AN[‡], **Hund AK[‡]**, Taylor SA. (2018) "Parasites and host species barriers in animal hybrid zones." **Trends in Ecology and Evolution**, 34 (1):19-30. [‡] **Co-first author**

Smith CCR, Flaxman SM, Scordato ESC, Kane NC, **Hund AK**, Sheta BM, Safran RJ (2018) "Demographic inference in barn swallows using whole genome data shows signal for bottleneck and subspecies differentiation during the holocene." **Molecular Ecology**, 27 (21):420-4212.

Dube WC*[‡], **Hund AK[‡]**, Turbek SP, Safran RJ (2018) "Microclimate and host body condition influence mite population growth in a wild bird-ectoparasite system." **International Journal for Parasitology: Parasites and Wildlife**, 7 (3):301-308. [‡] **Co-first author**

Zelagin DM*, **Hund AK**, Breed MD (2018) "Spatial aspects of corpse removal in the western harvester ant, *Pogonomyrmex occidentalis*." **Journal of Insect Behavior**, (2018): 1-14.

Donahue KJ*, **Hund AK**, Levin II, Safran RJ (2018) "Predictors and consequences of nest-switching behavior in barn swallows (*Hirundo rustica erythrogaster*)." **The Auk**, 135 (2) 181-191.

Hubbard JK, **Hund AK**, Levin II, McGraw KJ, Wilkins MR, Safran RJ (2016) "The importance of cross-validation, accuracy, and precision for measuring plumage color: A comment on Vaquero-Alba et al. (2016)." **The Auk, Ornithological Advances**, 134: 24-38.

Wilkins MR, Karaardıç H, Vortman Y, Parchman RL, Albrecht T, Petrželková A, Özkan L, Pap PL, Hubbard JK, **Hund AK**, Safran RJ (2016) "Phenotypic differentiation is associated with divergent sexual selection among closely related barn swallow populations." **Journal of Evolutionary Biology**, 29:2410-2421.

Hund AK, Blair JT*, Hund FW (2015) "A review of available methods and description of a new method for eliminating ectoparasites from bird nests." **Journal of Field Ornithology**, 86 (3): 191-204.

Hund AK, Aberle MA*, Safran RJ (2015) "Parents respond in sex-specific and dynamic ways to nestling parasites." **Animal Behaviour**, 110: 187-196.

Moore AH, Bigbee MJ, Boynton GE, Wakeham CM, Rosenheim HM, Stalal CJ, Morrissey JL, **A.K. Hund** (2010) "Non-steroidal anti-inflammatory drugs in Alzheimer's Disease and Parkinson's Disease: Reconsidering the role of neuroinflammation." **Pharmaceuticals**. 3:1812-1841.

Peer-Reviewed Teaching and Mentoring Publications:

Emery N, **Hund AK**, Burks RL, Duffy M, Scoffoni C, Swei A (2019) "Students as ecologists: Strategies for successful mentorship of undergraduate researchers." **Ecology and Evolution**, 9:4316-4326.

Hund AK, Churchill AC, Faist AM, Havrilla CA, Love Stowell SM, McCreery HF, Ng J, Pinzone CA, Scordato ESC (2018) "Transforming mentorship in STEM by training scientists to be better leaders." **Ecology and Evolution**, 8:9962-9974. *One of the top downloaded articles from this journal for 2018*

Stowell SM, Churchill AC, **Hund AK**, Kelsey KC, Redmond MD, Seiter SA, Barger NN (2015) "Transforming graduate training in STEM education" **Ecological Society of America**, 96(2), 317-323.

In Review or Revision:

Hund AK, Fuess L, Kenney M, Maciejewski M, Marini J, Shim KC, Bolnick D. "Rapid evolution of parasite resistance via improved recognition and accelerated immune activation and deactivation. *Submitted to Evolution Letters, also on bioRxiv (2020):* www.biorxiv.org/content/10.1101/2020.07.03.186569v1

Koa AB, **Hund AK**, Santos FP, Young JG, Bhat D, Garland J, Oomen A, McCreery HF. "Changes in group size during resource shifts reveal drivers of sociality across the tree of life" *In Review at Proceedings B, also on bioRxiv (2020):* www.biorxiv.org/content/10.1101/2020.03.17.994343v1. *Funded working group through the Santa Fe Institute*

Levin II[‡], **Hund AK**[‡], Tsunekage T, Ibrahim AS, Stephens JQ, Wicker VV, Safran RJ, "Heritability of telomere length: An egg cross-foster experiment." *In revision to be submitted to Journal of Evolutionary Biology.* [‡] **Co-first author**

In Preparation (manuscripts available upon request):

Hund AK, McCahill K*, Ardia D, Safran RJ. "An experimental analysis of the fine-scale effects of nest ectoparasites on incubation behavior" *In Preparation.* *Invited for special issue on avian parasites at the Journal of Diversity*

Hund AK, Glidden C*, Safran RJ. "Small nestlings pay a higher cost when infected with ectoparasites" *In Preparation*

Hubbard JK, **Hund AK**, Safran RJ. "The influence of genes and environment on melanin-based coloration and the implications for mechanisms of sexual selection." *In Preparation*

Non-Peer Reviewed:

Hund AK, Greene K., Reeg H., Tomlin D. 2017. "Bird related science lessons for the middle level" four-week science curricula developed for Boulder Valley School District

Hund AK. 2016. "The science behind the vaccine controversy." workshop with classroom materials for high school teachers: University of Colorado Teaching Workshop.

Hund AK. 2015. "Emerging infectious disease and how it impacts our world" workshop with classroom materials for high school teachers: University of Colorado Teaching Workshop.

FELLOWSHIPS *Total Awarded: \$418,056*

- 2019: Fulbright Specialist, U.S. Department of State (\$10,000)
- 2017: Postdoctoral Fellowship Award, James S McDonnell Foundation (\$200,000)
 Dissertation Completion Fellowship, University of Colorado (\$11,022)
 Dissertation Completion Fellowship, EBIO Department (\$7,734)
- 2016: Carol Lynch Fellowship for Integrative Research, University of Colorado (\$2,500)
- 2015: Graduate Teaching Fellowship, EBIO Department (\$10,800)
- 2012: Graduate Research Fellowship, National Science Foundation (\$132,000)
 GK-12 Fellowship, National Science Foundation (\$44,000)
- 2011: Graduate Research Fellowship, *Honorable Mention*, National Science Foundation

AWARDS AND HONORS

- 2020: Julia B. Platt Best Postdoc Presentation Award, American Society of Naturalists
- 2017: Allee Award for Best Student Paper Finalist, Animal Behavior Society
- 2016: Excellence in Graduate Teaching Award, Ecology and Evolutionary Biology Dept.
 Ed Ricketts Best Student Presentation Award, American Society of Naturalists
- 2010: Magna Cum Laude, Carleton College

RESEARCH GRANTS: *Total Awarded: \$77,310*

- 2018: American Ornithological Society Research Grant (\$2,500)
- 2017: American Society of Naturalists Research Award (\$2,000)
 American Museum of Natural History Chapman Research Award (\$1,500)
 University of Colorado International Conference Travel Grant (\$500)
- 2016: Undergraduate Research Opportunities Program Team Grant (\$3,000)
 National Science Foundation Doctoral Dissertation Improvement Grant (\$19,900)
 EBIO Department Graduate Student Research Award (\$2,500)
 American Museum of Natural History Chapman Research Grant (\$3,000)
 University of Colorado Beverly Sears Student Research Grant (\$1,000)
- 2015: Undergraduate Research Opportunities Program Team Grant (\$3,000)
 EBIO Department Graduate Student Research Award (\$2,000)
 American Ornithologists' Union Conference Travel Grant (\$250)
- 2014: Undergraduate Research Opportunities Program Team Grant (\$3,000)
 EBIO Department Graduate Student Research Award (\$2,000)
 University of Colorado Dean's Grant Research Award (\$10,000)
- 2013: American Ornithologist's Union Student Research Grant (\$2,130)
 Undergraduate Research Opportunities Program Team Grant (\$3,000)
 American Museum of Natural History Chapman Research Grant (\$1,500)
 EBIO Department Graduate Student Research Award (\$2,500)
 University of Colorado Beverly Sears Student Research Grant (\$2,000)
- 2012: Animal Behavior Society Student Research Grant (\$1,230)
 Society for the Study of Evolution Rosemary Grant Award (\$2,000)
 EBIO Department Graduate Student Research Award (\$2,000)
 NSF Eco-Immunology Research Exchange Network Grant (\$2,500)
 University of Colorado United Graduate Government Travel Grant (\$300)
 University of Colorado Beverly Sears Student Research Grant (\$1,000)
- 2011: University of Colorado Beverly Sears Student Research Grant (\$1,000)

TEACHING

2020: Instructor of Record: University of Minnesota
Nature of Life: Itasca Field Station- July 2020
First year undergraduate field course
Canceled because of COVID-19

2019: Instructor of Record: Tel Hai College, Israel
Avian Parasitology on a Migratory Flyway- November 3-8, 2019
Graduate field course, 24 students from 7 countries, designed and taught course
Course supported by a Fulbright Specialist Award

2016: Instructor of Record: University of Colorado
Leadership & Mentoring in Science – EBIO 6100
Graduate Seminar with 12 students, designed & co-taught course

2016: Teaching Assistant: University of Colorado
Evolution Lab – EBIO 3080
Taught three lab sections of 20 students, helped re-design & update lab units

2015: Instructor of Record: University of Colorado
Ecology and Evolution of Disease – EBIO 4800
Upper division undergraduate course with 32 students, designed and taught course
Awarded fellowship to design and teach new course

2013: Instructor of Record: University of Colorado
Parasitology – EBIO 3600
Undergraduate course with 35 students, designed and co-taught course

2012- 2013: NSF GK-12 Fellow: Manhattan Middle School
7th Grade Life Science
Designed and taught units in classroom, helped run after-school science program

2011- 2012: Teaching Assistant: University of Colorado
General Biology I Lab – EBIO 1230
General Biology II Lab – EBIO 1240
Taught three lab sections of 20 students each

Invited Guest Lectures:

Evolution of Sex and Sexual Selection: (2016, 2018) Evolution Course
How to have a Good Mentoring Relationship: (2016, 2017) Graduate First Year Course
Global Infectious Disease: (2016) Presidential Leadership Course
Parasites and Behavior: (2015) Social and Sexual Behavior Course

MENTORING

Advised Independent Study Students:

2019-2020: Rose Newell, received internship funding for research
Jeanna Edlund, wrote & received grant
Karilyn Porter, presented work at research symposium
2015-2017: Mara Hernandez: wrote & received 3 grants, co-authored publication

Emily Sheridan: manuscript in-prep
2013-2014: Megan Miller: wrote & received grant, manuscript in-prep
Jessica Blair: wrote & received grant, co-authored publication

Advised Honors Thesis Students:

2016-2017: William Dube: NSF REU, co-authored publication
Kelley McCahill: NSF REU, co-authored publication
2013-2014: Matt Aberle: co-authored publication
2011-2012: Caroline Glidden: wrote & received grant, manuscript in-prep

Undergraduate Students in the Laboratory:

2011-2020: Mentored, trained, & organized 47 students involved in research

Field Crew Leader

2020: Minnesota- 3 undergraduates
2016: Colorado- 4 undergraduates, 3 middle school science teachers
2015: Israel- 3 local assistants
2014: Colorado- 4 undergraduates
2013: Colorado- 7 undergraduates

PRESENTATIONS

Invited Seminars:

Hund, Amanda "How can you become a good mentor?" FieldGuides grad-undergrad mentoring program, **University of Minnesota**, 2020
Hund, Amanda "Mentoring undergraduate researchers" Learning and Teaching Center, **Carleton College**, 2020, *Canceled because of COVID-19*
Hund, Amanda & Elizabeth Scordato. "Mentorship strategies for STEM researchers." **ESA Early Career Ecologists**, Webinar, 2019. [Link: vimeo.com/313861472](https://vimeo.com/313861472)
Hund, Amanda "How parasites shape host behavior and evolution." Seminar: **California State Polytechnic University, Pomona**, California, 2018
Hund, Amanda "How parasites shape behavior and evolution: Mechanistic experiments to population comparisons." Seminar: **Truman State University**, Missouri, 2018
Hund, Amanda "How parasites shape host behavior and evolution within and across populations." Seminar: **St. Thomas University**, Minnesota, 2018
Hund, Amanda "How parasites shape host behavior and evolution: Mechanistic experiments to population comparisons." Seminar: **Okinawa Institute of Science and Technology**, Japan, 2018
Hund, Amanda "Parasite mediated sexual signaling and its role in the evolution of new species." Seminar: **University of Colorado Boulder**, 2017
Hund, Amanda "The science behind the vaccine controversy" oregon child advocacy project seminar, **University of Oregon Law School**, 2015
Hund, Amanda et al. "Parasites mediated sexual signaling and its role in the evolution of new species." Seminar: **Institute of Vertebrate Biology, Czech Republic**, 2014
Hund, Amanda et al. "Parasites mediated sexual signaling and its role in the evolution of new species." Seminar: **National Academy of Science, Czech Republic**, 2014
Hund, Amanda and Joanna Hubbard "Plumage, parasites and parents" Seminar: **National Academy of Sciences, Czech Republic**, 2013

Invited Conference Presentations & Symposia:

- Hund, Amanda “Training scientists to be better mentors” Talk and Workshop: **American Association of Medical Colleges (AAMC) Graduate Research, Education, and Teaching (GREAT) Group Conference**, Seattle, WA, 2019
- Hund, Amanda et al. “Behavior mediates the association between sexual signals and costly parasites” Talk: **Animal Behavior Conference**, Toronto Canada, 2017 **Allee Competition Finalist**
- Hund, Amanda et. al. “Females gain information about local parasite costs using divergent sexual traits” Selected poster highlight talk, **Gordon Research Conference on Speciation**, Lucca Italy, 2017
- Hund, Amanda “Are parasites driving speciation” Talk: Fresh Minds Event: New Graduate Student Research. **University of Colorado**, 2015
- Hund, Amanda and Helen McCreery “How graduate students can lead science outreach.” Talk: **Science Communication Conference**, Lincoln, NE, 2015
- Hund, Amanda et al. “Parasite mediated sexual signaling: What do females gain?” Symposium Talk: **American Ornithologists’ Union Conference**, Estes CO, 2014

Selected Contributed Presentations and Posters:

- Hund, Amanda *et al.* “Parasite recognition and resistance varies among closely related stickleback populations.” Talk: **American Society of Naturalists**, Monterrey Bay CA, 2020. ***Won best postdoc presentation award.***
- Hund, Amanda et al. “Early environment and condition dependence: Gene expression and melanin in barn swallows.” Talk: **Society for Integrative and Comparative Biology Conference**, Tampa FL, 2019
- Hund, Amanda et al. “Divergent sexual traits signal relevant information about local parasites.” Talk: **International Society of Behavioral Ecology Conference**, Minneapolis MN, 2018
- Hund, Amanda et al. “Divergent sexual traits evolve independently with local parasites to signal relevant information to females” Talk: **American Society of Naturalists Conference**, Monterrey Bay CA, 2018
- Hund, Amanda et al. “Females gain information about local parasites using divergent sexual traits” Poster: **Gordon Research Conference on Speciation**, Italy, 2017
- Hund, Amanda et al. “Parasite mediated sexual selection in the barn swallow species complex” Talk: **North American Ornithological Conference**, Washington D.C., 2016
- Hund, Amanda et al. “Parasite mediated sexual selection and speciation in the barn swallow species complex” Talk: **American Society of Naturalists**, Monterrey Bay CA, 2016. ***Won best graduate student presentation award.***
- Hund, Amanda et al. “Are parasites mediating sexual trait divergence? Poster: **Gordon Research Conference on Speciation**, Ventura CA, 2015
- Hund, Amanda et al. “Parasite mediated sexual signaling: What do females gain?” Talk: **Evolution Conference**, Raleigh NC, 2014
- Hund, Amanda et al. “Parasite mediated signaling: what do females gain?” Talk: **Animal Behavior Conference**, Boulder CO, 2013
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SERVICE

- 2020-present Committee member: "Preparing our Undergraduates to Succeed"
2019-present Committee member: BREWs, Broadening Representation & Equity with Science
2019 Session leader & poster judge, Society for Integrative and Comparative Biology Conference
2018 Abstract review panel, International Society of Behavioral Ecology conference
2015-2017 Chair of the 2017 Gordon Research Seminar on Speciation, Lucca Italy
(Organized meeting: including topics and speakers, fund raising, and advertising)
2016 Elected Graduate Representative to the Faculty, EBIO department
(Attended faculty meetings, held weekly office hours, met regularly with chair and dean to work towards initiatives for graduate students)
2014-present Reviewer for: Molecular Ecology, Ibis, Animal Ecology, The Auk- Ornithological Advances, Behavioral Ecology and Sociobiology, Plos One, Journal of Field Ornithology, Texas Journal of Science, Canadian Field Naturalist, Oecologia, The American Naturalist, Ecological Monographs
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SOCIETY AFFILIATIONS

Society for the Study of Evolution, American Ornithological Society, American Society of Naturalists, Animal Behavior Society, Society for Integrative & Comparative Biology, International Society of Behavioral Ecology, American Society of Parasitologists, Ecological Society of America (Disease Ecology)

SELECTED OUTREACH

- 2020: Skype a Scientist for 7th grade classes
2019: Meet a scientist at Willow Lane Elementary School
Monarch watch citizen science project
2018: Volunteer at the Butterfly House Science Corner, Minnesota State Fair
2017: Volunteer judge for Boulder Valley District 7th grade science fair
Volunteer for Evolution Museum Day at University of Colorado Field Museum
2016: Presentation "Science of Vaccines", including classroom unit, at teaching workshop
Organized barn swallow research outreach event for site owners and community
2015: Presentation "Disease Evolution", including classroom unit at teaching workshop
2014-2016: Volunteer for University of Colorado Darwin Day celebrations
2014: Presented for the Girls in STEM Program at Campus Middle School
2013-2015: Organized evolution family day at University of Colorado Field Museum.
2013-2014: Volunteer for Manhattan Middle School Science Club
2013: Volunteer for Summit Middle School poster session
Led bird banding trip for Manhattan Middle School Science Club
Volunteer for Parasite Museum Day at University of Colorado Field Museum.
Organized barn swallow outreach event for field site owners
2012-2016: Chair of the Graduate Student Science Outreach Group
Organized teaching workshop for middle & high school science teachers
2011-2014: Helped write evolution connection curricula for general biology labs
2011: Volunteer for McNeil program for minority and underrepresented science students
Presentation on pollination for elementary school Arbor Day celebration
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REFERENCES: *While I was only able to list three references for this application, any of the following would be happy to provide a reference*

Dr. Emilie Snell-Rood (*Current Postdoctoral Advisor*)

Department of Ecology, Evolutionary, and Behavior, University of Minnesota
emilies@umn.edu

Dr. Dan Bolnick (*Current Postdoctoral Advisor*)

Department of Ecology and Evolutionary Biology, University of Connecticut
danbolnick@austin.utexas.edu

Dr. Scott Taylor (*Former Postdoctoral Advisor*)

Department of Ecology and Evolutionary Biology, University of Colorado, Boulder
Scott.A.Taylor@colorado.edu

Dr. Rebecca Safran (*Ph.D. Advisor*)

Department of Ecology and Evolutionary Biology, University of Colorado, Boulder
Rebecca.Safran@colorado.edu

Dr. Nichole Barger (*Teaching Mentor*)

Department of Ecology and Evolutionary Biology, University of Colorado, Boulder
Nichole.Barger@colorado.edu