

CURRICULUM VITAE
Jennifer A.H. Koop

Assistant Professor

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Education and Degrees

2011 Ph.D. in Biology, University of Utah
2004 B.S. in Zoology, Certificate in Environmental Studies,
 University of Wisconsin

Research Positions

2019-present Assistant Professor, Department of Biological Sciences, Northern Illinois University
 Affiliate with Institute for the Study of the Environment, Sustainability, and Energy
2019-present Adjunct Professor, Department of Biology, University of Massachusetts Dartmouth
2015-2019 Assistant Professor, Department of Biology, University of Massachusetts Dartmouth
2011-2014 NIH Postdoctoral Excellence in Research and Training Fellowship, University of Arizona
 Noah Whiteman, Ph.D.
2006-2011 Doctoral research, University of Utah
 Dale H. Clayton, Ph.D.
2004-06 Research Assistant, University of Wisconsin
 Janette Boughman, Ph.D.
2003-2004 Undergraduate Research Assistant, University of Wisconsin
 Janette Boughman, Ph.D.
2003 Undergraduate Research Assistant, University of Wisconsin
 Catherine Marler, Ph.D.

Grants, Fellowships, and Awards

2020 National Geographic/Lindblad Expeditions (PI, awarded ~\$15000 in accommodations costs) – delayed due to Covid
2020 Friends of Nachusa Grasslands 2020 Scientific Research Projects (co-PI, \$2940)
2020 NIU Great Journey Fellowship (PI, awarded one year RA stipend)
2019 National Geographic/Lindblad Expeditions (PI, awarded ~\$15000 in accommodations costs)
2019 USFWS and USGS Quick Response Projects Grant (senior personnel \$8,002)
2017 UMass Dartmouth Multidisciplinary SEED Grant (PI \$6045)
2016 NOAA Research Set-Aside Grant for Atlantic Sea Scallops (PI \$639,786 in total, \$179,140 to my lab)
2016 National Geographic Research and Exploration Award (PI \$22,553)
2011 NIH postdoctoral fellowship (3-year fellowship)
2011 Riser Award, Department of Biology, University of Utah
2010 Sigma Xi, Grant in aid of research
2010 NSF Research Collaborative Network: Refining and Diversifying Ecological Immunology
2010 Travel award, Graduate School, University of Utah
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2009	Travel award, Department of Biology, University of Utah
2008	Frank M. Chapman Research Grant
2008	American Ornithologists' Union Research Award
2008	Travel award, Department of Biology, University of Utah
2007	Sigma Xi, Grant in aid of research

Grants awarded to students

Emma Grindle (MS)	NIU Elwood and Ruth Briles Memorial Fund (2021) \$4000, Biological Sciences Departmental award to graduate students whose research involves genetics
Carly Crow (MS)	NIU Elwood and Ruth Briles Memorial Fund (2021) \$4000, Biological Sciences Departmental award to graduate students whose research involves genetics
Rebecca Bachtel (MS)	Biology Department Research Award (2019) \$500; Biology Department Travel Award, UMassD (2018) \$500; BS: Office of Undergraduate Research, UMassD (2016) \$500
Joseph Cronan (BS)	Office of Undergraduate Research, UMassD (2018) \$440
Alana McGraw (BS)	Office of Undergraduate Research, UMassD (2018) \$280
Harrison Tobi (MS)	Northeast Sustainable Agriculture Research and Education (2017) \$13,200
Lisa Bontemps (BS)	Office of Undergraduate Research, UMassD (2017) \$250
Madison Bailey-Schofield (BS)	Office of Undergraduate Research, UMassD (2016) \$400
Allison Cambra (BS)	Office of Undergraduate Research, UMassD (2016) \$500

Publications

21. **Koop, Jennifer A.H.**, Causton, Charlotte E., Bulgarella, Mariana, Cooper, Elizabeth, and George E. Heimpel (2020) Population structure of a nest parasite of Darwin's finches within its native and invasive ranges. *Conservation Genetics* <https://doi.org/10.1007/s10592-020-01315-0>
20. Tinghitella, Robin M., Lackey, Alycia C.R., Durso, Catherine, **Koop, Jennifer A.H.**, and Janette W. Boughman. (2020) The ecological stage changes benefits of mate choice and drives preference divergence. *Philosophical Transactions of the Royal Society B* 375: 20190546.
19. Beausoleil, Marc-Olivier, Frishkoff, Luke O., M'Gonigle, Leithen K., Raeymaekers, Joost A.M., Knutie, Sarah A., De Leon, Luis Fernando, Huber, Sarah K., Chaves, Jaime A., Clayton, Dale H., **Koop, Jennifer A.H.**, Podos, Jeffrey, Sharpe, Diana, Hendry, Andrew P., and Rowan D.H. Barrett. (2019) Temporally varying disruptive selection in Darwin's finches. *Proceedings of the Royal Society of London B*.
18. Bachtel, Rebecca Z., Rittenhouse, M., Sandland, Gregory J., and **Jennifer A.H. Koop**. (2018) Infection patterns of trematodes across size classes of an invasive snail species using field and laboratory studies. *Parasitology* <https://doi.org/10.1017/S0031182018001646>
17. Villa, Scott M., **Koop, Jennifer A.H.**, LeBohec, Celine, DiBlasi, Emily, and Dale H. Clayton. (2018) Beak of the pinch: anti-parasite traits are similar among Darwin's finch species. *Evolutionary Ecology* 32:443-452.

16. McNew, Sabrina M., Beck, Daniel, Sadler-Riggleman, Ingrid, Knutie, Sarah A., **Koop, Jennifer A.H.**, Clayton, Dale H., and Michael K. Skinner. (2017) Epigenetic variation between urban and rural populations of Darwin's finches. *BMC Evolutionary Biology* 17:183.
15. Yule, Kelsey, **Koop, Jennifer A.H.**, Alexandre, Nicolas, Johnston, Lauren, Whiteman, Noah K. (2016) Population structure of a vector-borne plant parasite. *Molecular Ecology* 25:3332-3343.
14. Knutie, Sarah A., Owen, Jeb P., McNew, Sabrina M., Barlow, Andrew W., Arriero, Elena, Herman, Jordan M., DiBlasi, Emily, Thompson, Michael, **Koop, Jennifer A.H.**, Clayton, Dale H. (2016) Galapagos mockingbirds tolerate introduced parasites that affect Darwin's finches. *Ecology* 97:940-950.
13. **Koop, Jennifer A.H.**, Kim, Peter A., Knutie, Sarah A., Adler, Fred, Clayton, Dale H. (2015) Introduced parasitic fly may lead to local extinction of Darwin's finch populations. *Journal of Applied Ecology* doi:10.1111/1365-2664.12575
12. **Koop, Jennifer A.H.**, DeMatteo, Karen E., Parker, Patricia G., Whiteman, Noah K. (2014) Birds are islands for parasites. *Biology Letters* doi:10.1098/rsbl.2014.0255
11. Skinner, Michael K., Guerrero-Bosagna, Carlos, Haque, Md. M., **Koop, Jennifer A.H.**, Knutie, Sarah A., Clayton, Dale H. (2014) Epigenetics and the evolution of Darwin's finches. *Genome Biology and Evolution* 6:1972-1989. (with cover)
10. **Koop, Jennifer A.H.**, Le Bohec, Celine, and Dale H. Clayton. (2013) Dry year does not reduce prevalence or abundance of *Philornis downsi* (Diptera: Muscidae) in Darwin's finch nests. *Reports in Parasitology* 3:11-17.
9. Villa, Scott M., Le Bohec, Celine, **Koop, Jennifer A.H.**, Proctor, Heather C., and Dale H. Clayton. (2013) Diversity of feather mites (Acari: Astigmata) on Darwin's finches. *Journal of Parasitology* 99:756-762.
8. Knutie, Sarah A.* & **Koop, Jennifer A. H.***, French, Susannah S., and Dale H. Clayton. (2013) Experimental test of the effect of introduced hematophagous flies on the corticosterone levels of breeding female Darwin's finches. *General and Comparative Endocrinology* 193:68-71. *Authors contributed equally to this work.
7. **Koop, Jennifer A.H.**, Owen, Jeb P., Knutie, Sarah A., Aguilar, M. Alejandra, and Dale H. Clayton. (2013) Experimental demonstration of a parasite-induced immune response in wild birds: Darwin's finches and introduced nest flies. *Ecology and Evolution*. doi: 10.1002/ece3.651.
6. **Koop, Jennifer A.H.** and Dale H. Clayton. (2013) Evaluation of two methods for quantifying passeriform lice. *Journal of Field Ornithology* 84:210-215.
5. **Koop, Jennifer A.H.**, Huber, Sarah K., and Dale H. Clayton. (2012) Does sunlight enhance the effectiveness of avian preening for ectoparasite control? *Journal of Parasitology*, 98:46-48.
4. **Koop, Jennifer A.H.**, Huber, Sarah K., Laverty, Sean M., and Dale H. Clayton (2011) Experimental demonstration of the fitness consequences of an introduced parasite of Darwin's finches. *PLoS ONE*, 6(5) e19706, doi:10.1371/journal.pone.0019706.

3. Shawkey, Matthew D., D'Alba, Liliana, Wozny, Joel, Eliason, Chad, **Koop, Jennifer A.H.**, and Li Jia. (2011) Structural color change following hydration and dehydration of iridescent mourning dove (*Zenaida macroura*) feathers. *Zoology*, 114:59-68. (with cover)
2. Huber, Sarah K., Owen, Jeb P., **Koop, Jennifer A.H.**, King, Marisa O., Grant, Peter R., Grant, B. Rosemary, and Dale H. Clayton. (2010) Ecoimmunity in Darwin's Finches: invasive parasites trigger acquired immunity in the Medium ground finch (*Geospiza fortis*). *PLoS ONE*, 5 e8605, doi:10.1381/journal.pone.0008605.
1. Clayton, Dale H., **Koop, Jennifer A.H.**, Harbison, Christopher W., Moyer, Brett R., and Sarah E. Bush. (2010) How birds combat ectoparasites. *Open Ornithology Journal*, 3:41-71, doi:10.2174/1874453201003020041

Research Presentations

(as lead presenter, list does not include student or collaborator presentations)

2020

Studies on the invasive faucet snail, its trematode parasites, and patterns of trematodiasis-induced waterfowl mortality in the UMRR. Invited conference presentation. Upper Mississippi River Conservation Consortium Quarterly Meeting.

Alien invaders: understanding the ecological and evolutionary processes that make for a successful parasite invasion. Invited Seminar. Kent State University.

2019

Invasion pathway of a parasitic nest fly of Darwin's finches. Society for the Study of Evolution annual meeting, Providence, RI.

Where did you come from and how did you get here?: Understanding the ecology and evolution of parasite invasions. Invited Seminar. University of Vermont.

2018

Biodiversity test plots and study overview. Reduced Mowing Symposium. UMass Dartmouth.

Women in STEM: Studying evolution and parasites. Our Sisters' School. New Bedford, MA.

2017

Invasion of the killer snails. College of Arts and Sciences Advisory Council Meeting. UMass Dartmouth.

Invasion of the killer snail: Understanding ecological and evolutionary consequences of parasite invasion in the Upper Mississippi River Region. New England Association of Parasitologists annual meeting, University of Massachusetts Amherst, Amherst, MA.

Infection dynamics of an invasive trematode in the Upper Mississippi River Region. Society for the Study of Evolution annual meeting, Portland, OR.

Examining the cause of gray meats in Atlantic sea scallops. Nonquitt Community Summer Seminar Series, UMass Dartmouth.

2016

Invasion history of a parasitic fly in the Galapagos Islands. Ecology and Evolution of Infectious Disease Annual Meeting. Ithaca, NY. Poster

Darwin's finches under attack: understanding the invasion of the parasitic nest fly, *Philornis downsi*. Invited talk, UMass Dartmouth, School for Marine and Science Technology.

2015

Evolutionary parasitology in the Galapagos. Invited talk, UMass Dartmouth.

2014

Dung-on-a-twig: the role of *Phainopepla* in the spread of Desert mistletoe. Invited talk, Living with Nature Lecture Series, Tucson Audubon Society, AZ.

Learning the ecology and evolution of vector-borne diseases. Invited talk, Discovery Saturday Lecture Series, Santa Rita Experimental Range Florida Station, AZ.

2013

Birds as islands: comparative population genetics of Galapagos hawks and their chewing lice. Invited talk, American Ornithologists Union annual meeting, Chicago.

Population biology of the vector-transmitted plant parasite, Desert mistletoe (*Phoradendron californicum*). Poster. Ecology and Evolution of Infectious Disease annual meeting, Penn State.

2012

A. The impact of *Philornis downsi* on medium ground finch fitness. B. Experimental methods to manipulate *Philornis downsi* abundance in finch nests. *Philornis* workshop, Galapagos Islands, Ecuador.

2011

Impact of an introduced parasitic nest fly on Darwin's finches. Ecology and Evolutionary Biology Seminar series, University of Arizona.

Flies, finches, and failure: effects of an invasive parasite on Darwin's finches. Invited talk, Recruits seminar, University of Utah.

Fitness consequences of a parasite specific immune response in Darwin's finches. Society of Integrative and Comparative Biology Annual Meeting, Salt Lake City, UT.

2010

Current Galapagos research: The impact of an invasive parasite on Darwin's finches. Invited talk, Charles Darwin Research Station, Galapagos Islands, Ecuador.

The demise of Darwin's finches? Invited talk, Math-Bio seminar series, University of Utah.

Specific immune defenses of Darwin's finches against an introduced parasite. Annual Society for the Study of Evolution meeting, Portland, OR.

Field work in the Galapagos. Invited talk, Science day at Herriman Middle School, Herriman, Utah.

Experimental science in the field. Invited talk, Science day at Bryant Middle School, Salt Lake City, Utah.

Defense mechanisms of the medium ground finch: preliminary results of 2010 field season. Charles Darwin Research Station, Galapagos.

2009

Effects of *Philornis downsi* on the Medium ground finch (*Geospiza fortis*). Guest lecture, Course: In Darwin's Footsteps: Evolutionary Biology in the 21st century University of Utah.

Fly versus finch: effects of an invasive parasite on an endemic host. Poster. Science Day, University of Utah.

2008

Have Darwin's finches met their doom? Invited talk, Biology staff brown bag seminar series, University of Utah.

The relationship of bill morphology to ectoparasite diversity and abundance in Darwin's finches. Annual Society for the Study of Evolution meeting, Minneapolis, MN.

Impact of bill morphology on the ectoparasites of European Starlings. Annual meeting of Utah Ornithological Society. Provo, UT.

Teaching Experience

Courses Taught as Primary Instructor

2021	Birds and Mammals (BIOS 457/557), NIU
2020	Ecology (BIOS 316), NIU
2020	Graduate Seminar (BIOS 761), NIU (Disease ecology)
2019	Conservation Biology (BIOS 406/506), NIU
2019	Animal Behavior: From Helpers to Traitors (2, 1-day courses at Brown University – Pre-college and STEM program initiatives)
2018-2019	Ecology and Evolution (BIO215), UMD
2018	Mechanisms of Evolution (2, 1-day courses at Brown University – Pre-college and STEM program initiatives)
2017	Capstone in Biology (BIO499), UMD
2017	Independent Study (BIO495), UMD
2017-2019	Conservation Biology (BIO411/511), UMD
2015-2019	Evolutionary Biology (BIO437/537), UMD
2015-2016	Introductory Biology Lab (BIO131), UMD
2012	Introductory Biology for Allied Health Professionals (BIO156), Pima Community College, Tucson, AZ

Guest Lecturer

2015-2019	Introduction to the College of Arts and Sciences
2016	Ecoimmunology
2015	Animal Diversity

*Graduate Students Mentored (*authored publication, +conference presentation, ‡grant awarded)*

2020-present	Carly Crow, Master's student [‡]
2020-present	Emma Grindle, Master's student [‡]

2018-2020 Rebecca Bachtel, Master's student^{*,+,‡}
 2017-2019 Harrison Tobi, Master's student^{+,‡}

Undergraduate Research Students Mentored in my lab

2020 Chiedu Okonmah, B.S. Biology
 2019 Arielle Enos, B.S. Biology
 2019 Nicole Sardelis, B.S. Biology
 2017-2019 Alana McGraw, B.S. Biology Honors[‡]
 2017-2019 Joseph Cronan, B.S. Biology
 2017-2019 Ashley Wellington, B.S. Biology, Graduated class of 2019^{+,‡}
 2017-2019 Mallory Kiernan, B.S. Biology
 2017-2018 Lisa Bontemps, B.S. Biology, Graduated class of 2018[‡]
 2018 Gretchen Johnson, Summer REU Student Researcher^{+,‡}
 2017-2018 Jillian Reichert, B.S. Biology, Graduated class of 2018
 2017 Julia Breed, B.S. Biology
 2016-2017 Stephanie Almeida, B.S. Biology, Graduated class of 2017
 2016-2017 Madison Bailey-Schofield, B.S. Biology, Graduated class of 2017[‡]
 2016-2017 Allison Cambra, B.S. Biology Honors, Graduated class of 2017[‡]
 2016-2017 Suzanne Sussman, B.S. Biology, Graduated class of 2017[‡]
 2016 Kaci Dumas, B.A. Graphic Design, Graduated class of 2016⁺
 2016-2017 Rebecca Bachtel, B.S. Biology, Graduated class of 2017^{*,+,‡}

Member of Graduate Student Committee

Jose Orench, M.S. Biology (NIU), in progress
 Chloe Gherardi, M.S. Biology (NIU), in progress
 Erin Rowland, Ph.D. Biology (NIU), in progress
 Laurie Spencer, Ph.D. Biology (NIU), in progress
 Antonio Del Valle, M.S. Biology (NIU), in progress
 Jessica Gutierrez, M.S. Biology (University of Connecticut), in progress
 Danielle Lavoie, M.S. Biology (UMassD), in progress
 Joshua Jacques, M.S. Biology (UMassD), in progress
 Ryan Higgins, M.S. Biology (UMassD), in progress
 Lucy McCully, Ph.D. Integrative Biology (UMassD), graduated 2019
 Rebecca Hamilton, M.S. Marine Science (UMassD), graduated 2019
 Marian Wahl, M.S. Biology (UMassD), graduated 2018
 Emily DiBlasi, Ph.D. Biology (University of Utah), graduated 2018

Service

Service to the department

2020-present Coordinator of Biology seminar series, NIU
 2020-present Graduate Committee, NIU
 2020-present Diversity, Equity, and Inclusion Committee, Chair, NIU
 2020 Website updates, NIU
 2019 Coordinator of Biology seminar series, UMassD
 2019 Member of Biology Curriculum Committee, UMassD
 2018 Member of Department Retreat Committee, UMassD
 2017 Coordinator of Biology seminar series, UMassD
 2017 Faculty representative of the Biology Association student club (2017), UMassD
 2017 Faculty representative of Paws for a Cause student club, UMassD
 2016-2017 Member of three search committees, UMassD
 2015-2019 Member of the Department Curriculum Committee, UMassD

- 2015-2019 Member of the Department Honors and Awards Committee, UMassD
 2015-2019 Assisted with the Biology Department's Open House presentation to prospective students, UMassD
 2015 Co-taught a voluntary preparatory course for writing an NSF-Graduate Research Fellowship application. This course was available to any undergraduate or beginning graduate student interested in applying for this fellowship. The course went over the RFP guidelines and provided detailed editing of application materials., UMassD

Service to the college or school

- 2015-2019 Reviewer for the Office of Undergraduate Research awards

Service to the university

- 2020 Dissertation Completion Fellowship Committee member, NIU
 2018 Spearheaded project and symposium to reduce mowing practices on campus as part of a multi-department research initiative aimed at restoring biodiversity on campus and adjusting public perceptions of natural beauty.
 2017-2019 Service Learning Fellow (2017-2019). Program run through the Leduc Center to facilitate civic engagement in class curriculum. Two-year commitment in which fellows learn about service learning pedagogy, then implement in their own classes.
 2016 Judge for the university 3-minute thesis competition
 2017 Participated as a core-member of the planning team for the Jane Goodall Event. I ran the Green Fair, involving 25 local K-12 schools. My responsibilities as part of this team also included logistical organization for the event as a whole; regular meetings with the donor and organization team.

Public Service

- 2020 Advisory committee member on Covid safety protocols and procedures for several churches and schools
 2017-2020 Co-founder of New Bedford Science Café and New Bedford Science Café Kids, outreach program aimed at connecting scientists with the public and K-12 students in a relaxed atmosphere (nbsciencecafe.com)

Manuscript reviewer for: *Annals of the Entomological Society of America, Animal Conservation, Biological Conservation, Biological Invasions, Condor, Ecology and Evolution, Journal of Medical Entomology, Ecology Letters, Evolution, International Journal of Parasitology, Journal of the Acadian Entomological Society, Journal of Animal Behavior, Journal of Animal Biology, Journal of Animal Ecology, Journal of Avian Biology, Journal of Medical Entomology, Journal of Field Ornithology, Medical and Veterinary Entomology, Molecular Ecology, Oecologia, PLoS ONE*