Sarah K. Winnicki

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EDUCATION

PhD (Program in Ecology, Evolution, & Conservation Biology) ***in progress,*** University of Illinois at Urbana-Champaign, Aug 2019-
Co-advisors: Dr. T.J. Benson and Dr. Mark E. Hauber

MSc (Biology), Kansas State University, 2019 (4.0)
with a Graduate Certificate in Applied Statistics
Growing up prairie: ecological drivers of grassland songbird nestling development
Advisor: Dr. W. Alice Boyle

BSc (Biology), Denison University, 2016, *Summa cum laude,* co-valedictorian (4.0)
Aggregation of Grasshopper Sparrow (Ammodramus savannarum) territories: effects on extra-pair copulation, cooperative care, and brood parasitism
Advisors: Dr. W. Alice Boyle (Kansas State University) and Dr. Thomas Schultz (DU)

BA (History), Denison University, 2016
The ideals of female sanctity in Merovingian and Carolingian vitae
Advisor: Dr. Adam Davis (DU)

PUBLICATIONS

S.L. Lawson, J.K. Enos, C.S. Wolf, K. Stenstrom, **S.K. Winnicki,** T.J. Benson, M.E. Hauber, and S.A. Gill. 2021. Referential alarm calling elicits future vigilance in a host of an avian brood parasite. Biology Letters. 17(9): 20210377. doi: 10.1098/rsbl.2021.0377.

M.E. Hauber, **S.K. Winnicki**, J.P. Hoover, D. Hanley, and I.R. Hays. 2021. The limits of egg recognition: Testing the acceptance thresholds of American robins in response to decreasingly egg-shaped objects in the nest. Royal Society Open Science. 8(1): 201615. doi: 10.1098/rsos.201615.

S.K. Winnicki, B.M. Strausberger, J. Lock, N.D. Antonson, D.E. Burhans, A.M. Kilpatrick, and M.E. Hauber. 2021. Developmental asynchrony and host species identity predict variability in nestling growth rates of an obligate brood parasite: a test of the "growth-tuning" hypothesis. The Canadian Journal of Zoology. 99(3): 213-220. doi: 10.1139/cjz-2020-0147.

S.K. Winnicki, S.M. Munguía, E.J. Williams, and W.A. Boyle. 2020. Social interactions do not drive territory aggregation in a grassland songbird. Ecology 101: e02927. doi: 10.1002/ecy.2927.

J.S. Marshall and **S.K. Winnicki.** Knemidokoptic mite infestation of island populations of Red-winged Blackbirds (*Agelaius phoeniceus*). *In review for* Wilson Journal of Ornithology.

Smith, D.J., A. Roe, K. Silber, E.J. Williams, **S.K. Winnicki,** and W.A. Boyle. Consequences of drought for grassland songbird reproduction. *In review for* Ecosphere.

B.H.F. Verheijen, A.N. Erickson, W.A. Boyle, K.S. Leveritte, J.L. Sojka, L.A. Spahr, C.C. Then, E.J. Williams, **S.K. Winnicki,** and B.K. Sandercock. Effects of patch-burn grazing on reproductive success of grassland songbirds. *In review for* The Condor: Ornithological Applications.

SCHOLARSHIPS & FELLOWSHIPS

Illinois Distinguished Fellowship, University of Illinois at Urbana-Champaign. For PhD research. $75,000. 2019-2024

FOSZ Conservation Scholarship, Friends of the Sunset Zoo, Manhattan KS. For purchase of VHF radio transmitters. $2000. 2018

Graduate Research Fellowship, National Science Foundation, Graduate support for studies in Life Science—Ecology. $132,000. 2016-2019

NSF Research Experience for Undergraduates (REU), Kansas State University, Advisor: Dr. W. Alice Boyle. Supplemental REU program extension, included peer mentoring. $5000. 2015

Kenneth I. Brown Scholarship, Denison University, for academic achievement. $2000. 2015

Allen Price Memorial Scholarship, Denison University, for achievement in the History Department. $1000. 2015

NSF Research Experience for Undergraduates (REU), Kansas State University, Advisor: Dr. W. Alice Boyle. $5000. 2014

Anderson Scholarship for Excellence in Science, Denison University, for research potential and academic achievement in the STEM fields. $89,340. 2014-2016

Research Experience for Undergraduates (REU), F.T. Stone Laboratory, The Ohio State University, Advisor: Dr. James Marshall (Rockford University). 2013

Paschal Carter Scholarship, Denison University, for National Merit Scholars. $160,000. 2012-2014

Great Opportunities Fellowship, Denison University, to assist with research supplies and travel. $3000. 2013

AWARDS & HONORS

Finalist, British Ornithological Union Science Communication Award 2020

Recognition of Achievement, Kansas State College of Arts and Sciences 2019

Science Communication Award, Kansas Science Communication Initiative, $500 2019

Invited Keynote Speaker, 12th Annual Ohio Young Birders Conference, $100. 2018

Student Presentation Award, Kansas Ornithological Society Fall Meeting, $50. 2018

Best Presentation Style Award, Ecology and Evolutionary Biology Graduate Students on Parade (internal). 2018

James E. Ackert Award, for Outstanding Graduate Student Presentation, awarded by the Kansas State University Division of Biology (internal), $500. 2018

Invited speaker at the Kansas State University of Biology 50th Anniversary Celebration, one of four graduate students invited.	2018
Student Presentation Award, Kansas Ornithological Society Fall Meeting, $50.	2016
William T. Utter Prize, Denison University History Department, for best year-long history thesis. $700.	2016
Michael and Amy Gordon Award in European History, Denison University History Department, for best European history thesis. $1868.	2016
President's Medal, Denison University, for academic achievement, service, and leadership.	2016
A. Blair Knapp Award, Denison University Gilpatrick Center, for academic achievement. $100.	2016
Senior Fellow, Denison University Biology Department.	2016
Sigma Xi Associate Membership, sponsored by the Denison Biology Department, for achievements in scientific research.	2016
Undergraduate Research Presentation Award, Ohio Avian Research Conference, crowd-voted best oral presentation.	2015
Phi Beta Kappa, Denison University, for academic achievement.	2015
Margaret Ann Watkins Award, Denison University Biology Department, for achievements in biology. $100.	2015
Mortar Board, Denison University, for academic achievement and service.	2015-2016
Dr. David R. Osborne Ornithology Prize, Ohio Avian Research Conference, for best student oral presentation. $100.	2014
Carolyn Craig & Carl M. Franklin Student Service Award, Denison University Libraries, for contributions as a library student employee. $100.	2014
Department Fellow, Denison University History Department.	2014-2016
Phi Alpha Theta, Denison University History Department, history honorary.	2014-2016
Phi Society, Denison University, academic honorary.	2013
Dean's List, Denison University, all semesters.	2012-2016
National Merit Scholar.	2012-2016

GRANTS & TRAVEL AWARDS

Summer Research Grant, UIUC PEEC, for dissertation research, $2000.	2021
Lebus Research Award, UIUC SIB, for dissertation research, $1000.	2021
Dissertation Travel Grant, UIUC Graduate College, for research travel, $2,474.42.	2020
Summer Research Grant, UIUC PEEC, for dissertation research, $1000.	2020
Harley J. Van Cleave Research Award, UIUC SIB, to support summer research, $1000.	2020
Student Travel Award, UIUC Graduate College, for travel to 2020 NAOC meeting in Puerto Rico, $325.	2019
PEEC Travel Grant, UIUC, for travel to 2020 NAOC meeting, $700.	2019
Student Travel Award, American Ornithological Society, for travel to 2019 meeting in Alaska, $580.	2019
Bruce Steward Travel Award, Southwestern Association of Naturalists, for travel to 2019 meeting in Mexico, $542.	2019

Student Travel Award, Kansas State University Graduate Student Council, to support travel to the 2018 IOC meeting, Vancouver, BC, $675.	2018
Student Travel Award, Kansas State University College of Arts & Sciences, to support travel to the 2018 IOC meeting, Vancouver, BC, $800.	2018
Student Research Grant, Kansas State University Biology Graduate Student Association, to purchase VHF radio transmitters, $500.	2018
American Ornithological Society Travel Award, to support travel to the 2018 AOS meeting, Tucson AZ, $300.	2018
Sigma Xi Grant-in-Aid of Research, Sigma Xi, $1000.	2017
Howard McCarley Student Research Award, Southwestern Association of Naturalists, to support student research, $1000.	2017
Wilson Ornithological Society Travel Award, to support travel to the North American Ornithological Conference, Washington DC, $170.	2016
Wilson Ornithological Society Travel Award, to support travel to the Wilson Ornithological Society/Society of Canadian Ornithologists/Societe des Ornithologistes du Canada /Association of Field Ornithologists joint meeting, Wolfsville NS, $1112.75.	2015
Gilpatrick Center Student Research Grant, Denison University, to support senior research. $200.	2015
Gilpatrick Center Student Research Grant, DU, to support genotyping research. $500.	2014
Student Research Grant, Kansas Ornithological Society, $600.	2014
Horizon Fund Grant, Denison University Division of Student Development, to support genotyping research. $1000.	2014

PRESENTATIONS

Winnicki, S.K., T.J. Benson, R.T. Paitz, and M.E. Hauber. "Egg-laying order, maternal effects, and embryonic growth in American Robins." American Ornithological Society (virtual), 13 Aug 2021.

Winnicki, S.K., T.J. Benson, and M.E. Hauber. "Egg-laying order, maternal effects, and embryonic growth in American Robins." Animal Behavior Twitter Conference (virtual), 27 Jan 2021.

Winnicki, S.K., T.J. Benson, M.E. Hauber, and R.T. Paitz. "Maternal hormone investment does not match embryonic growth rate in quail." North American Ornithological Conference, virtual (poster), 12 Aug 2020; Animal Behavior Society, virtual (oral), 31 Jul 2020.

Winnicki, S.K. and W.A. Boyle. "Direct effects of Brown-headed Cowbird (*Molothrus ater*) brood parasitism on the growth and development of grassland songbirds." American Ornithological Society meeting, Anchorage AK (oral), 27 Jun 2019.

Winnicki, S.K. and W.A. Boyle. "Direct effects of Brown-headed Cowbird (*Molothrus ater*) brood parasitism on the growth and development of grassland songbirds/ Efectos directos del parasitismo de cria por el vaquero de cabeza castaña (*Molothrus ater*) en el crecimiento y desarrollo de aves cantores de pastizales." Southwestern Association of Naturalists meeting, Chihuahua City Mexico (oral), 13 Apr 2019.

Winnicki, S.K. "Hashtags, captions, albums, lists? Observations about different audience-specific communication styles on Twitter, Facebook, and YouTube." SciComm 2019 conference, Manhattan KS (oral), 24 Mar 2019.

Winnicki, S.K., S.M. Munguía, E.J. Williams, and W.A. Boyle. "Territory aggregation is related to nest success but is not driven by social interactions in a grassland songbird." Kansas Natural Resources Conference, Manhattan KS (oral), 31 Jan 2019.

Winnicki, S.K. and W.A. Boyle. "Direct effects of Brown-headed Cowbird (*Molothrus ater*) brood parasitism on the growth and development of grassland songbirds." Kansas Ornithological Society fall meeting, Lawrence KS (oral), 6 Oct 2018; International Ornithological Congress, Vancouver BC Canada (poster), 23 August 2018.

Winnicki, S.K. and W.A. Boyle. "The direct effects of Brown-headed Cowbird brood parasitism on the growth and development of grassland songbirds." Kansas State University Division of Biology 50th Anniversary meeting (internal), Manhattan KS (invited oral), 21 April 2018.

Winnicki, S.K. and W.A. Boyle. "The effects of Brown-headed Cowbird brood parasitism on the growth and development of grassland songbirds." American Ornithological Society annual meeting, Tucson AZ (oral), 12 April 2018; Kansas Natural Resources Conference, Manhattan KS (oral), 9 Feb 2018.

Winnicki, S.K., E. Harris, B. Rosado Ramos, D. Savage, and W. A. Boyle. "The role of brood parasitism in shaping nestling growth and development strategies: preliminary results." Kansas Ornithological Society fall meeting, Junction City KS (oral), 7 Oct 2017.

Winnicki, S.K. and W.A. Boyle. "Complex drivers of Grasshopper Sparrow (*Ammodramus savannarum*) nest success." American Ornithological Society/Society of Canadian Ornithologists/SOC meeting, East Lansing, MI (poster), 3 Aug 2017; Kansas Natural Resources Conference, Wichita KS (poster), 26 Jan 2017.

Winnicki, S.K. and W.A. Boyle. "Causes of Grasshopper Sparrow (*Ammodramus savannarum*) density variation: parasitism, cooperative care, and extra-pair paternity" Kansas Ornithological Society fall meeting, Garden City KS (oral), 1 Oct 2016; North American Ornithological Conference, Washington DC (oral), 20 Aug 2016.

Winnicki, S.K. and W. A. Boyle. "Aggregation of Grasshopper Sparrow (*Ammodramus savannarum*) territories: effect of extra-pair paternity, cooperative care, and kinship" Ohio Avian Research Conference, Granville OH (oral), 17 Oct 2015; American Ornithologists' Union/Cooper Ornithological Society, Norman OK (oral), 31 Jul 2015; WOS/SCO-SOC/AFO, Wolfville NS (oral), 18 Jul 2015.

Winnicki, S.K. and W. A. Boyle. "Aggregation of Grasshopper Sparrow (*Ammodramus savannarum*) territories: a test of the extra pair mating and cooperative care hypotheses" Ohio Avian Research Conference, Granville OH (oral), 18 Oct 2014.

Winnicki, S.K. and J. Marshall. "Population Biology of the Red-winged Blackbirds on the Lake Erie Islands" Wilson Ornithological Society/Association of Field Ornithologists, Newport RI (poster), 30 May 2014; Ohio Avian Research and Conservation Conference (oral and poster), Granville OH, Oct 2013.

Teaching and Mentoring Experience

Co-mentored three REU students: E. Harris (Beloit College), B. Rosado Ramos (Universidad del Turabo), and D. Savage (Kansas State University), summer 2017
Trained field technicians: fifteen Kansas State undergraduate students from 2016-2018
Trained lab technicians: ten Kansas State undergraduate students from 2016-2019

Graduate Teaching Assistant, University of Illinois at Urbana-Champaign
IB 150: Organismal and Evolutionary Biology, Fall 2021
led four discussion sections
Graduate Teaching Assistant, Kansas State University
BIOL 513: Physiological Adaptations of Animals, Fall 2018
BIOL 543: Ornithology, Spring 2018
oversaw laboratory classes and bird ID lectures, led field trips
BIOL 513: Physiological Adaptations of Animals, Fall 2017
BIOL 543: Ornithology, Spring 2017
oversaw laboratory classes and led field trips
BIOL 198: Principles of Biology, Fall 2016
prepared and led the two-week ecology module
Undergraduate Teaching Assistant, Denison University
BIOL 103: Ecology of a Changing Planet, Spring 2016
BIOL 104: Biology of Color, Fall 2015
BIOL 356: Ornithology, Spring 2015
BIOL 150: Introduction to the Science of Biology, Fall 2014
BIOL 202: Ecology and Evolution, Spring 2014

Science Communication and Outreach

Presented "Teaching the Scientific Process: Linking Hypotheses to Data Using Migratory Birds" to the Western Cuyahoga (Ohio) Audubon Society; https://tinyurl.com/5akkjhzd — 2021
Presented "Evolution of brood parasitism" to Ayatana Artists Research Program — 2021
Presented "Cowbirds: villainous mobsters or falsely maligned native species? A biologists' perspective" to Black Swamp Bird Observatory (Ohio) Birds at Home Keynote; Chicago Ornithological Society: Birds & Bytes; and the K-State Johnson County Extension Master Naturalist Program — 2021
Presented on cowbird breeding biology to a SUNY Geneseo Animal Behavior class — 2021
Interviewed for The American Birding Podcast, spoke about cowbirds; https://tinyurl.com/yvdy5tzb — 2021
Presented "Cowbirds: villainous mobsters or falsely maligned native species? A biologist's perspective" to Wichita (Kansas) Audubon Society; https://tinyurl.com/dwupy3aw — 2020
Presented "Evolution of brood parasitism" to Ayatana Artists Research Program — 2020
Finalist, British Ornithological Union Science Communication Award — 2020

Managed symposium Twitter account for Graduates in Ecology and Evolutionary Biology research symposium 2020

Managed conference Twitter account for the Sensorium 2019 conference 2019

Featured Scientist, 46 Questions for Scientists program, https://tinyurl.com/t65f3jh 2019

Hosted a Twitter "Ornitholoday" event for the British Ornithologists' Union, tweeting about grassland bird development 170 times over 9 hours 2019

Interviewed for Audubon Magazine article about the Ohio Young Birders Club and my career: https://tinyurl.com/y42hss6s 2019

Presented "Growing up Prairie: Insights from the sparrows," invited keynote at the 12th Annual Ohio Young Birders Club conference, Columbus OH, 3 Nov 2018 2018

Radio guest on 89.7 NPR News' All Sides With Ann Fisher, promoting the Ohio Young Birders Club conference and answering questions about science communication 2018

Featured graduate student, fall 2018 SEEK magazine article "Taking research to the nest level: Prairie songbird biologist engages public in her work on nestlings" 2018

Featured Scientist at Science on Tap, Tallgrass Taphouse, Manhattan KS 2018

Radio guest on KSDB radio to promote Science on Tap program 2018

Participant in the Letters to a Pre-Scientist pen-pal program 2018-2019

Presented on wildlife career and research for the K-State Wildlife Society 2018

Featured on the "Fantastic Women in Science" blog, interviewed about my science and experiences with gender, sexuality, and mental illness: https://tinyurl.com/y7u6hfua 2018

Contributor to 500 Queer Scientists: https://tinyurl.com/y9wph98f 2018

Interviewed for Audubon article about human interference and cowbird parasitism: https://tinyurl.com/ycaxxlrd 2018

Led a discussion about ecology careers and a hands-on workshop about hypothesis testing and bird migration for middle school girls at the 2018 Enhancing Your Future event, Emporia KS 2018

Contributed blog posts to the Kansas State University science blog Science Snapshots 2018

Participant in the Three-Minute Thesis Competition "Effects of brood parasitism on nestling growth and development" Manhattan, KS 13 Feb 2018 2018

Participant in the Skype-A-Scientist program, 2018-2019
with three classrooms of eighth graders from Stetson Hills AZ, Spring 2018
with four classrooms of eleventh and twelfth graders from Aubrey TX, Fall 2018
with two classrooms of fifth graders from Tinley Park IL, Spring 2019
with two classrooms of fifth graders from Mansfield MA, Spring 2019
with one classroom of twelfth graders from Tulsa OK, Spring 2019
with two classrooms of tenth graders from Midlothian, VA, Fall 2019

Science Communication Fellow, Sunset Zoo, Manhattan KS. Completed communication training and designed a project that presents my research to school-age children. I have offered this outreach activity at the: 2017
University-wide science communication meet-and-greet, November 2017
Sunset Zoo Science Saturday, November 2017
Sunset Zoo Science Saturday, December 2017

Presented at "Think and Drink" community event, hosted by Arrow Coffee, Manhattan KS 2017

Guest on 91.9 KSDB radio, promoting the K-State Science Communication week and taking about my research, Manhattan KS 2017

Presented images at the Science Communication Scholarship Expo, Kansas State Libraries, Manhattan KS — 2017

Participated in the "Ask a Scientist" event, answering community members' questions about science, Manhattan KS — 2017

Guest on 13 WIBW "Red Couch" television segment, promoting the K-State Science Communication week, Topeka KS — 2017

Provided video/multimedia to and consulted on an educational videogame with the Kansas State University Advanced Landscape Immersion and Visualization Environment laboratory. The project, "Visualizing the Konza in 4D," is intended to educate students about the tallgrass prairie and specific research projects that take place there (including my projects) — 2017

Trained in Science Communication blog writing through a workshop with Kansas State and the Sunset Zoo, Manhattan KS — 2017

Prepared and presented a hands-on workshop with Dr. Alice Boyle that encouraged middle-school girls to make predictions and relate beak morphology, diet, and migration tendencies at the Enhancing Your Future 2017 event in Emporia KS — 2017

Designed and presented an educational game intended to teach middle-schoolers about the politics of science funding and medical responses to epidemics, at a GROW (Girls Researching Our World) workshop**,** Manhattan KS — 2016

Participated in an Active Learning workshop designed to teach science educators better teaching techniques, Division of Biology, Kansas State University — 2016

Presented "Avian Adieu," an introduction to bird migration and conservation, to elementary students at the Granville Public Library, Granville OH — 2015

Helped Junior Girl Scouts plan a conservation-based GS Journey/Bronze Award project, Newark OH — 2015

Presented "Surveying Natural Selection: Evolution in the Galapagos, on the Lake Erie Islands, and in Our Classrooms" to a public audience at a Kirtland Bird Club meeting Cleveland OH (oral), and the Medina County Parks District Environmental Speaker series Medina OH (oral) — 2014

Led community bird walks for the Central Ohio Audubon Club — 2012-2016

Presented "Birding With Your Family: Tips to Get the Whole Family Out Birding!" with W. Miller to a public audience at the Midwest Birding Symposium, Marblehead OH (oral) — 2011

Presented "Cornell Lab of Ornithology's Young Birders' Event Review" at the 4th Annual Ohio Young Birders Club Conference, Dayton OH (oral) — 2010

Presented "Birding 101" with W. Miller to a public audience at the Shreve Migration Sensation, Shreve OH (oral) — 2010

Presented "California Condors: A Conservation Story" at the 3rd Annual Ohio Young Birders Club Conference, Oak Harbor OH (oral), Nov 2009, and at a Kelley's Island Audubon Society Meeting, Kelley's Island OH (oral), Jun 2010. — 2009-2010

SERVICE

Webmaster, Graduates in Ecology and Evolution society — 2020-2021

SafeZone Advocate, trained ally to minority students — 2018

Reviewer, Journal of Field Ornithology — 2018

Web Manager, Reviewer, Author, Science Snapshots research blog	2018-2019
Contributor to the creation of K-State Biology's first Diversity Statement	2018
Secretary, Kansas State University Biology Graduate Student Association	2016-2017
Committee Member, Kansas State University Biology Graduate Student Association: Faculty Awards Committee and Manual Sales Committee	2016-2018
Treasurer, Denison University chapter of Phi Alpha Theta	2014-2015
Corresponding Secretary and Editor, Cleveland's Kirtland Bird Club	2013-2015
Secretary, Denison University Hillel	2013-2015
President, Denison University Quidditch Team	2014-2016
Secretary, Denison University Quidditch Team	2014-2016
Youth Advisory Board Panel, Ohio Young Birders Club	2009-2012

Other Employment and Internships

Field Technician and Crew Leader, Kansas State University	2016
Biology Head Tutor, Denison University Academic Support and Enrichment	2015-2016
Biology Drop-in Tutor, Denison University Biology Department	2014-2016
Student Research Assistant, Denison University Libraries	2014
Biology Tutor, Denison University Academic Support and Enrichment	2013-2016
Undergraduate Research Assistant, Denison University History Department	2014
Writing Associate, Denison University History Department	2014
Circulation Desk and Reference Desk Employee, Denison University Libraries	2013-2016
Archive Student Assistant, Denison University Libraries	2012-2014
Ecotourism Field Trip Leader Intern, Wildside Nature Tours, Inc., (sporadically)	2012-2015

Skills

Edited and helped produce lab promotional videos using **Adobe Premiere Pro**
Comfortable with Microsoft Office, especially **Word, PowerPoint, Excel,** and **Access**
Two semesters of classwork with **ESRI arcMap**, continued use ever since
Formal coursework and continued use of **R** and **RStudio,** especially *ggplot2*
Formal training with **Program MARK and *RMark***
Continued use of **Dropbox** to collaborate and manage data sets

Field skills from five years on the Konza project include mist netting, bleeding, measuring, and personally banding over 300 songbird individuals; resighting color-banded sparrows and completing formal surveys; nest searching by behavioral observations and rope-dragging (finding over 100 grassland songbird nests); measuring eggs; using GPS and maps; measuring and personally banding 140 nestlings; measuring vegetation using Robel poles and Daubenmire frames; behavioral observations from a blind; operating a quantitative magnetic resonance machine in a trailer; monitoring nests in person and by video recording; assembling and deploying nest cameras; operating field trucks and changing tires; and planning and coordinating the efforts of 6+ field crew technicians per year.