

Sarah K. Winnicki

515 Morrill Hall
505 S. Goodwin Ave.
Urbana, IL, USA 61801
MC-122

Email: sarahkw2@illinois.edu
Mobile: (330) 730-6899
Website: www.sarahwinnicki.com
ORCID: 0000-0001-8571-6259

EDUCATION

PhD candidate (Program in Ecology, Evolution, & Conservation Biology) *in progress*, University of Illinois at Urbana-Champaign, Aug 2019-present (GPA: 4.0)
Intraspecific variation in avian growth and development: patterns and mechanisms
Co-advisors: Dr. T.J. Benson and Dr. Mark E. Hauber

MSc (Biology), Kansas State University, 2019 (GPA: 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 (GPA: 4.0)
*Aggregation of Grasshopper Sparrow (*Ammodramus savannarum*) territories: effects on extra-pair copulation, cooperative care, and brood parasitism*
Co-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

9. E.B. Smith, A. Roe, K. Silber, E.J. Williams, **S.K. Winnicki**, and W.A. Boyle. 2024. Consequences of drought for grassland songbird reproduction. *Ecosphere* 15(1):e4746. doi: 10.1002/ecs2.4746.
8. K. Kuangyi, M.R. Servedio, **S.K. Winnicki**, C. Moskat, J. Hoover, A. Turner, and M.E. Hauber. 2023. Host learning selects for coevolution of greater egg-mimicry and narrower anti-parasitic egg-rejection thresholds. *Evolution Letters* 7(6):413-421. doi: 10.1093/evlett/grad041.
7. J.S. Marshall and **S.K. Winnicki**. 2022. Knemidokoptic mite infestation of island populations of Red-winged Blackbirds (*Agelaius phoeniceus*). *Wilson Journal of Ornithology* 134(1): 119-123. doi: 10.1676/21-00008.
6. **S.K. Winnicki**, M.E. Hauber, T.J. Benson, and M. Abolins-Abols. 2022. Ground-nesting by arboreal American robins (*Turdus migratorius*). *Ecology and Evolution* 12 (1), e8489. doi: 10.1002/ece3.8489.
5. 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. 2022. Predation, parasitism, and drought counteract

- the benefits of patch-burn grazing for the reproductive success of grassland songbirds. Ornithological Applications, duab066. doi: 10.1093/ornithapp/duab066.
4. 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.
 3. 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.
 2. **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.
 1. **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.

PUBLICATIONS IN REVISION

- S.K. Winnicki**, M.E. Hauber, R.T. Paitz, and T.J. Benson. Light exposure affects Japanese Quail yolk steroids during development but not embryonic growth. *In revision following review with Integrative and Organismal Biology*.
- S.K. Winnicki**, M.E. Hauber, R.T. Paitz, W.M. Schelsky, and T.J. Benson. Elevating testosterone and androstenedione produces temporary sex-dependent variation in Japanese Quail (*Coturnix japonica*) embryonic development. *In revision following review with General and Comparative Endocrinology*.
- S.K. Winnicki** and W.A. Boyle. Grassland songbird growth and development under intense predation and brood parasitism risk. *In revision following review with Functional Ecology*.

ANTICIPATED ADDITIONAL MANUSCRIPTS

- Working title: “Effects of elevated precursor hormones on robin embryonic development,” will be submitted as a first-author publication (PhD chapter)
- Working title: “Laying order predicts maternal investment of hormones and nutrients but not embryo growth in the asynchronously-hatching American Robin (*Turdus migratorius*),” will be submitted as a first-author publication (PhD chapter)
- Working title: “Experimental evidence that laying order predicts nestling growth in American Robins (*Turdus migratorius*),” will be submitted as a first-author publication (PhD chapter)
- Working title: “The effect of egg-laying order on the development of American Robin (*Turdus migratorius*) nestling gut microbial diversity,” will be submitted as a first-author publication (PhD collaboration with the lab of Dr. Angela Kent, UIUC)
- Working title: “Effects of provisioning rate and grassland bird host species on Brown-headed Cowbird (*Molothrus ater*) nestling development,” will be submitted as a first-author publication (MSc chapter)
- Working title: “Predatory snake behavior at grassland bird nests,” will be submitted as a first-author publication (MSc side project)
- Working title: “Long-term nesting data link habitat degradation to declines of grassland birds,” will be a co-author (lead author: E.B. Smith)

SCHOLARSHIPS & FELLOWSHIPS

Summer Research Fellowship , UIUC PEEC, \$4040.	2023
Summer Research Assistantship , UIUC NRES, \$650.	2023
Francis M. and Harlie M. Clark Summer Fellowship , UIUC SIB, \$5,100.	2022
Illinois Distinguished Fellowship , UIUC Graduate College, \$75,000.	2019-2024
Graduate Research Fellowship , National Science Foundation, \$132,000.	2016-2019
NSF Research Experience for Undergraduates (REU) , Kansas State, \$5000.	2015
Kenneth I. Brown Scholarship , Denison University, \$2000.	2015
Allen Price Memorial Scholarship , Denison University, \$1000.	2015
NSF Research Experience for Undergraduates (REU) , Kansas State, \$5000.	2014
Anderson Scholarship for Excellence in Science , Denison University, \$89,340.	2014-2016
Research Experience for Undergraduates (REU) , Ohio State University (Stone Lab).	2013
Paschal Carter Scholarship , Denison University, \$160,000.	2012-2014

RESEARCH GRANTS

Student Research Grant , Illinois Audubon Society, \$1000	2022
Summer Research Grant , UIUC PEEC, \$2000.	2022
Summer Research Grant , UIUC PEEC, \$2000.	2021
Lebus Research Award , UIUC SIB, \$1000.	2021
Dissertation Travel Grant , UIUC Graduate College, for research travel, \$2,474.42.	2020
Summer Research Grant , UIUC PEEC, \$1000.	2020
Harley J. Van Cleave Research Award , UIUC SIB, \$1000.	2020
Student Research Grant , KSU Biology Graduate Student Association, \$500.	2018
FOSZ Conservation Scholarship , Friends of the Sunset Zoo (Kansas) \$2000.	2018
Grant-in-Aid of Research , Sigma Xi, \$1000.	2017
Howard McCarley Award , Southwestern Association of Naturalists, \$1000.	2017
Gilpatrick Center Student Research Grant , Denison University, \$200.	2015
Gilpatrick Center Student Research Grant , Denison University, \$500.	2014
Student Research Grant , Kansas Ornithological Society, \$600.	2014
Horizon Fund Grant , Denison University Division of Student Development, \$1000.	2014
Great Opportunities Fellowship , Denison University, \$3000.	2013

ACADEMIC AWARDS & HONORS

Recognition of Achievement , Kansas State College of Arts and Sciences	2019
President's Medal , for achievement, service, and leadership, Denison University	2016
William T. Utter Prize , for best year-long history thesis, Denison University	2016
Michael and Amy Gordon Award in European History , Denison University	2016
A. Blair Knapp Award for academic achievement, Denison University	2016
Senior Fellow , Denison University Biology Department	2016
Sigma Xi Associate Membership , sponsored by the Denison Biology Department	2016
Phi Beta Kappa , academic achievement honorary, Denison University	2015

Margaret Ann Watkins Award for achievements in biology, Denison University	2015
Mortar Board , for academic achievement and service, Denison University	2015-2016
Carolyn Craig & Carl M. Franklin Student Service Award , Denison University	2014
Department Fellow , Denison University History Department	2014-2016
Phi Alpha Theta , history honorary, Denison University	2014-2016
Dean's List , Denison University, all semesters	2012-2016
National Merit Scholar	2012-2016

CONFERENCE TRAVEL AWARDS

Student Travel Award , Wilson Ornithological Society, \$700.	2022
Student Travel Award , UIUC Graduate College, \$325.	2019
Student Travel Award , UIUC School of Integrative Biology (PEEC), \$700.	2019
Student Travel Award , American Ornithological Society, \$580.	2019
Bruce Steward Travel Award , Southwestern Association of Naturalists, \$542.	2019
Student Travel Award , Kansas State University Graduate Student Council, \$675.	2018
Student Travel Award , Kansas State University College of Arts & Sciences, \$800.	2018
Student Travel Award , American Ornithological Society, \$300.	2018
Student Travel Award , Wilson Ornithological Society, \$170.	2016
Student Travel Award , Wilson Ornithological Society, \$1112.75.	2015

CONFERENCE PRESENTATIONS

- American Ornithological Society , London Ontario Canada (oral): Experimental evidence that egg-laying order impacts growth of American Robin nestlings, <i>student presentation award</i>	2023
- Wilson Ornithological Society , Santa Fe NM (oral in-person with virtual component): Laying order, incubation behavior, and hatching synchrony in American Robins (<i>Turdus migratorius</i>).	2022
- Animal Behavior Twitter Conference (virtual); American Ornithological Society (virtual): Egg-laying order, maternal effects, and embryonic growth in American Robins.	2021
- North American Ornithological Conference , virtual (poster); Animal Behavior Society , virtual (oral): Maternal hormone investment does not match embryonic growth rate in quail.	2020
- American Ornithological Society , Anchorage AK (oral): Direct effects of Brown-headed Cowbird (<i>Molothrus ater</i>) brood parasitism on the growth and development of grassland songbirds.	2019
- Southwestern Association of Naturalists , Chihuahua City Mexico (oral): Direct effects of Brown-headed Cowbird (<i>Molothrus ater</i>) brood parasitism on the growth and development of grassland songbirds/ Efectos directos del parasitismo de cria por el vaquero de cabeza castaña (<i>Molothrus ater</i>) en el crecimiento y desarrollo de aves cantores de pastizales.	2019
- Kansas Ornithological Society , Lawrence KS (oral); International Ornithological Congress , Vancouver BC Canada (poster): Direct effects of Brown-headed Cowbird (<i>Molothrus ater</i>) brood parasitism on the growth and development of grassland songbirds, <i>student presentation award (KOS)</i>	2018

- **American Ornithological Society**, Tucson AZ (oral); **Kansas Natural Resources Conference**, Manhattan KS (oral): The effects of Brown-headed Cowbird brood parasitism on the growth and development of grassland songbirds. 2018
- **Kansas Ornithological Society**, Junction City KS (oral): The role of brood parasitism in shaping nestling growth and development strategies: preliminary results. 2017
- **American Ornithological Society/Society of Canadian Ornithologists/SOC**, East Lansing MI (poster); **Kansas Natural Resources Conference**, Wichita KS (poster): Complex drivers of Grasshopper Sparrow (*Ammodramus savannarum*) nest success. 2017
- **Kansas Ornithological Society**, Garden City KS (oral); **North American Ornithological Conference**, Washington DC (oral): Causes of Grasshopper Sparrow (*Ammodramus savannarum*) density variation: parasitism, cooperative care, and extra-pair paternity. 2016
- **Ohio Avian Research Conference**, Granville OH (oral); **American Ornithologists' Union/Cooper Ornithological Society**, Norman OK (oral); **WOS/SCO-SOC/AFO**, Wolfville NS Canada (oral): Aggregation of Grasshopper Sparrow (*Ammodramus savannarum*) territories: effect of extra-pair paternity, cooperative care, and kinship, *student presentation award (OARC)* 2015
- **Ohio Avian Research Conference**, Granville OH (oral): Aggregation of Grasshopper Sparrow (*Ammodramus savannarum*) territories: a test of the extra pair mating and cooperative care hypotheses, *student presentation award* 2014
- **Wilson Ornithological Society/Association of Field Ornithologists**, Newport RI (poster); **Ohio Avian Research and Conservation Conference**, Granville OH (oral and poster): Population biology of the Red-winged Blackbirds on the Lake Erie islands. 2014
2013

SERVICE AND LEADERSHIP

- Board Chair**, (previously Web Manager) Rainbow Lorikeets (American Ornithology Society and Out to Innovate LGBTQIA+ caucus) 2022-present
- led initiatives to expand the Board, build a Lorikeets Community email listserv and (upcoming) Discord space, connect with other ornithological societies to build a broader queer ornithology community, generate discussion with #QueerOrnithology Twitter conversations, educate community members about the needs of queer ornithologists (writing an upcoming blog post for AOS's Wing Beat and Ornithology Exchange), plan social events at conferences; ran the Lorikeets' Twitter, doubling the presence of the caucus on the site in 6 weeks; organized and led monthly Board meetings
- Peer reviewer** for scientific manuscripts in: Journal of Field Ornithology, Journal of Animal Ecology, Animal Cognition, Ibis, Western Birds 2018-2024
- Web Manager**, Graduates in Ecology and Evolution society, UIUC 2020-2021
- managed the GEEB Twitter account, blog, website, and emailing listserv
- Social Media Manager** for the Sensorium (sensory biology) conference 2019
- Web Manager and Reviewer**, 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 (history honorary)	2014-2015
Corresponding Secretary and Editor , Cleveland's (Ohio) Kirtland Bird Club -maintained membership lists, produced the Kirtland Warbler quarterly newsletter	2013-2015
Secretary , Denison University Hillel	2013-2015
President , and (previously Secretary) of the Denison University Quadball Team	2014-2016
Youth Advisory Board Panel , Ohio Young Birders Club -led field trips, managed student-led publications, planned outreach projects, hosted conferences, consulted with community leaders (like the Governor of Ohio) on conservation projects	2009-2012

TEACHING AND MENTORING EXPERIENCE

Mentoring:

- Co-mentored (with M.E. Hauber) an independent undergraduate researcher studying robin parental care: A. Pelayo (UIUC)	2022
- Co-mentored (with W.A. Boyle) an independent undergraduate researcher writing a manuscript on prairie snake behavior: D. Stockman (Kansas State)	2019-2020
- Co-mentored (with W.A. Boyle) three summer REU students at Kansas State University doing grassland bird biology: E. Harris (Beloit College), B. Rosado Ramos (Universidad del Turabo), and D. Savage (Kansas State University)	2017
- Trained field technicians: fifteen Kansas State undergraduate students, one UIUC undergraduate student	2016-2022
- Trained lab technicians: ten Kansas State undergraduate students	2016-2019

Teaching Experience:

Graduate Teaching Assistant, University of Illinois at Urbana-Champaign

**indicates semesters where I was on the UIUC "List of Teachers Ranked as Excellent by Their Students"*

IB 202: Physiology and IB 299: Merit (Physiology) Managed the Canvas page/grading for the lecture portion of Physiology, and led an additional section for Merit Scholars (a UIUC program for high-potential students from under-represented minorities in STEM, more details: https://merit.illinois.edu/about-merit/)	Spring 2024
IB 204: Genetics* led two laboratory sections, designed introductory materials for labs, assisted with student discussions in lectures	Fall 2023
IB/NRES 461: Ornithology* led two laboratory sections; designed material, lectures, and evaluations; led field trips	Spring 2022
IB 150: Organismal and Evolutionary Biology* led four discussion sections	Fall 2021

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

Invited guest lectures to college students:

- Loyola Marymount University Behavioral Endocrinology class: “Hormones and Life History” (fall semester 2022 and 2023)	2022-2023
- SUNY Geneseo Animal Behavior class, cowbird breeding behavior	2020

Teaching/Mentoring Training and Certification:

- SafeZone Advocate, trained ally to minority students	2018
- Trained in Active Learning techniques at a Kansas State University workshop	2016

SCIENCE COMMUNICATION AND OUTREACH

Scientific Consultant for:

- upcoming television documentary on cowbirds produced by Wildstar Films for National Geographic/Disney+	2022
- “True Facts: Parasitic Birds” YouTube video in the “Ze Frank’s True Facts” series, viewed 2.2 million times since September 2022, https://tinyurl.com/yjkwpmua	2022
- educational videogame with the Kansas State University Advanced Landscape Immersion and Visualization Environment laboratory (Kansas). 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
- Junior Girl Scouts conservation-based GS Journey/Bronze Award project (Ohio)	2015

Guest interviews for multimedia public audiences:

- podcast: The American Birding Podcast, spoke about cowbirds; https://tinyurl.com/yvdy5tzb	2021
- radio: 89.7 NPR News (Ohio) All Sides With Ann Fisher, promoting the Ohio Young Birders Club conference and answering questions about science communication	2018
- radio: KSDB (Kansas) to promote Science on Tap program	2018
- radio: 91.9 KSDB (Kansas) promoting the K-State Science Communication week and my research	2017

- television: 13 WIBW (Kansas) “Red Couch” segment, promoting the K-State Science Communication week 2017

Interviewed for public print media:

- Birds and Bloom magazine article about cowbird biology (upcoming) 2023
- Birds and Bloom magazine article: “Get ready for Red-Winged Blackbird season”
<http://tinyurl.com/bdfnxxyb> 2022
- Birds and Bloom magazine article: “How long do baby birds stay in the nest and more nest facts” <https://tinyurl.com/2df86e8e> 2022
- Audubon Magazine article about the Ohio Young Birders Club and my career:
<https://tinyurl.com/y42hss6s> 2019
- 46 Questions for Scientists feature, <https://tinyurl.com/t65f3jh> 2019
- National Audubon Society article about human interference and cowbird parasitism:
<https://tinyurl.com/ycaxxlrld> 2018
- SEEK magazine (Kansas State): “Taking research to the nest level: Prairie songbird biologist engages public in her work on nestlings” 2018
- Fantastic Women in Science blog, interviewed about my experiences with science, gender, sexuality, and mental illness: <https://tinyurl.com/y7u6hfua> 2018

Public seminars:

- Invited panelist, Bruin Birding Club (UCLA Audubon chapter) Bird-themed LGBTQ+ Pride Festival 2023
- “Science Communication and Outreach,” UIUC Graduate Students in Ecology and Evolutionary Biology EcoLunch series 2022
- “Cowbirds: villainous mobsters or falsely maligned native species? A biologist’s perspective” to:
 - Fyke Nature Center (New Jersey) 2023
 - Will County Audubon (Illinois) 2022
 - Biggest Week in American Birding festival Expert Workshop (Ohio) 2022
 - Grosse Point Audubon Society (Michigan) 2021
 - K-State Johnson County Extension Master Naturalist Program (Kansas) 2021
 - Chicago Ornithological Society: Birds & Bytes (Illinois) 2021
 - Black Swamp Bird Observatory Birds at Home Keynote (Ohio) 2021
 - Wichita Audubon Society (Kansas): <https://tinyurl.com/dwupy3aw> 2020
- “Evolution of brood parasitism,” Ayatana Artists’ Research Program (4 classes) 2020-2022
- “Teaching the Scientific Process: Linking Hypotheses to Data Using Migratory Birds,” Western Cuyahoga Audubon Society (Ohio): <https://tinyurl.com/5akkjhzd> 2021
- presentation on wildlife career and research for the K-State Wildlife Society (Kansas) 2018
- “Effects of brood parasitism on nestling growth and development,” Three-Minute Thesis Competition (Kansas) 2018
- “Surveying Natural Selection: Evolution in the Galapagos, on the Lake Erie Islands, and in Our Classrooms,” Kirtland Bird Club (Ohio) and the Medina County Parks District Environmental Speaker Series (Ohio) 2014
- “Birding With Your Family: Tips to Get the Whole Family Out Birding!” with W. Miller, Midwest Birding Symposium (Ohio) 2011

- “Cornell Lab of Ornithology’s Young Birders’ Event Review,” Ohio Young Birders Club Conference (Ohio) 2010
- “Birding 101” with W. Miller, Shreve Migration Sensation (Ohio) 2010
- “California Condors: A Conservation Story,” Ohio Young Birders Club Conference (Ohio) and Kelley’s Island Audubon Society Meeting (Ohio) 2009-2010

K-12 Outreach:

- Pen-pal in the Letters to a Pre-Scientist program, exchanging letters with a middle-school student interested in a STEM career 2018-2024
- led discussion about ecology careers and a hands-on workshop about hypothesis testing/bird migration for middle school girls, Enhancing Your Future, Emporia State (Kansas) 2018
- led online workshops with the Skype-A-Scientist program:
 - with two classrooms of fifth graders from Tinley Park (Illinois) 2019
 - with two classrooms of fifth graders from Mansfield (Maryland) 2019
 - with one classroom of twelfth graders from Tulsa (Oklahoma) 2019
 - with two classrooms of tenth graders from Midlothian (Virginia) 2019
 - with three classrooms of eighth graders from Stetson Hills (Arizona) 2018
 - with four classrooms of eleventh and twelfth graders from Aubrey (Texas) 2018
- led a hands-on hypothesis testing/ bird biology workshop with W.A. Boyle for middle-school girls, Enhancing Your Future, Emporia State (Kansas) 2017
- created an educational game for middle-schoolers about the politics of science funding and medical responses to epidemics, GROW (Girls Researching Our World) program, KSU (Kansas) 2016
- presented “Avian Adieu,” an introduction to bird migration and conservation, to elementary students at the Granville Public Library (Ohio) 2015

Public workshops and outreach:

- Science on Tap, brewery science series, Tallgrass Taphouse (Kansas) 2018
- developed a game to teach all ages about grassland bird growth, biology, conservation, shared it at the:
 - Kansas State University science communication meet-and-greet 2017
 - Sunset Zoo (Kansas) Science Saturday, both November and December events 2017
- presented at the “Think and Drink” community event, Arrow Coffee (Kansas) 2017
- shared research images at the Science Communication Scholarship Expo (Kansas) 2017
- answered questions at a community “Ask a Scientist” event (Kansas) 2017
- led community bird walks for the Central Ohio Audubon Club 2012-2016

Online science communication and advocacy efforts:

- run a Twitter science communication account (@skwinnicki) with >10,000 followers 2018-
- post videos of wildlife, science methods to a YouTube account with >135,000 views 2015-
- hosted a Twitter “Ornitholoday” event for the British Ornithologists’ Union, tweeting about grassland bird development 170 times over 9 hours 2019
- featured on 500 Queer Scientists: <https://tinyurl.com/y9wph98f> 2018

- contributed blog posts to the Kansas State University science blog Science Snapshots 2018

Science Communication Awards and Honors:

- A. Brazier Howell Presentation Award for best presentation on any topic in ornithology, American Ornithological Society 2023
- Finalist, British Ornithological Union Science Communication Award 2020
- invited speaker, SciComm conference (Kansas), presented: “Hashtags, captions, albums, lists? Observations about different audience-specific communication styles on Twitter, Facebook, and YouTube.” 2019
- Science Communication Award, Kansas Science Communication Initiative 2019
- Invited Keynote Speaker, 12th Annual Ohio Young Birders Conference, presented “Growing up Prairie: Insights from the sparrows” 2018
- Student Presentation Award, Kansas Ornithological Society 2018
- one of four graduate students invited to speak at the Kansas State University Division of Biology 50th Anniversary meeting 2018
- James E. Ackert Award for Outstanding Graduate Student Presentation, Kansas State University Division of Biology 2018
- Best Presentation Style Award, Ecology and Evolutionary Biology Graduate Students on Parade (Kansas State University) 2018
- Student Presentation Award, Kansas Ornithological Society 2016
- crowd-voted best student science presentation, Ohio Avian Research Conference 2015
- Dr. David R. Osborne Ornithology Prize for best student oral presentation, Ohio Avian Research Conference 2014

Science Communication Training and Certifications:

- STEM workshop leader for the Education Justice Project, a prison outreach program (Illinois) with associated training for science communicators seeking to educate and advocate for incarcerated adults 2021-present
- Science Communication Fellow, Sunset Zoo (Kansas) 2017
- trained in science blog writing through a workshop with Kansas State and the Sunset Zoo (Kansas) 2017

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
Research Assistant and 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

RESEARCH SKILLS

Field skills:

Undergraduate research (2013): passive mist netting to capture songbirds; rowing boats to island research sites; recording and entering field data

Konza project (2014-2018): 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.

PhD research (2019-present): measuring nestling American Robins (*Turdus migratorius*) and eggs; nest searching in arbors, using phone GPS and maps; constructing nest cameras and monitoring nests; fostering and transporting eggs; collecting eggs for hormone content analyses; incubating robin eggs and measuring embryos; coordinating with a field technician; collecting fecal samples from nestling birds for microbiome sequencing; prepared model eggs and placed them in nests for egg-rejection studies.

Lab skills:

-Konza project (2014-2018): DNA extraction from bird blood with Qiagen kits; PCR and microsatellite ABI genotyping; developing protocols that were shared with other researchers

-PhD research (2019-present): Raising quail embryos in lab incubators; measuring developing embryos; extracting and preparing egg yolk hormone samples for mass spectrometry analysis; color analysis of eggshells and yolk images using ImageJ; PCR and molecular sexing of bird embryos; freeze-drying fecal samples; DNA extraction from blood, flesh, and fecal samples (Qiagen and FastDNA kits)

Computer skills:

- statistical analysis, data visualization, and data formatting in R/RStudio (primarily), but also JMP, SAS, Program MARK, and ESRI arcMap
- building/managing databases in Microsoft Access and online data entry forms on Microsoft Forms
- building and maintaining databases, files on Dropbox, Box, and Google Drive
- presenting scientific research in Word and PowerPoint
- data collection using ImageJ (for still photos) and DeepMeerkat (for video data)
- producing educational videos with Adobe Premiere Pro