

SAMNIQUEKA HALSEY

PhD Candidate

Program in Ecology, Evolution, and Conservation Biology-University of Illinois- Urbana/Champaign

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EDUCATION

University of Illinois <i>Ph.D. in Ecology, Evolution & Conservation Biology (in progress)</i> Advisor: Dr. James Miller	Urbana/Champaign, IL August 2014-Present
Chicago State University <i>Masters of Science in Biology, May 2013</i> Advisor: Dr. Timothy Bell	Chicago, IL
Northeastern Illinois University <i>Bachelors of Science in Biology, May 2011</i>	Chicago, IL

TEACHING EXPERIENCE

<u>University of Illinois</u> <i>Teaching Assistant</i> ~ IB 105-Environmental Biology ~ NRES 456-Integrative Ecosystem Management ~ IB 105- Environmental Biology	Urbana/Champaign, IL August 2016-December 2016 January 2015-May 2015 October 2014- December 2014
<u>College of Lake County</u> <i>Adjunct Instructor</i> ~ BIOL 140- Environmental Biology o <i>Non-lab course covering environmental issues that arise from the interaction of humans and the environment. Topics include ecology, population biology, and modification of our environment, resource use, land use planning, and energy.</i>	Vernon Hills, IL January 2014- May 2014
<u>CICS-LONGWOOD, CICS-PRAIRIE</u> <i>Substitute Teacher</i> ~ Grades K-12 o Implementation of lesson plans in absence of regular teacher for grade Maintenance of effective learning environment through practice of classroom management.	Chicago, IL January 2012-June 2014

RESEARCH EXPERIENCE

<u>University of Notre Dame</u> <i>Research Assistant I</i> ~ Digitization of Public Land Survey Notes for the Indiana and Illinois. ~ Visualization of northwest Indiana and Illinois vegetation via cartography.	Notre Dame, IN April 2016- August 2016
<u>Morton Arboretum</u> <i>Conservation Biology Research Assistant I</i> ~ Transcription and digitization of Public Land Survey Notes (PLS) for Northwest Indiana, Southwest Michigan, Southeast Wisconsin.	Lisle, IL January 2014- December 2015

- ~ Visualization of northwest Indiana's, Southwest Michigan, Southeast Wisconsin vegetation via cartography.
- ~ Preparation of bearing tree, vegetation and tree density data for analysis for Principal Investigator.
- ~ Responsible for completion of online interactive map of PLS vegetation

Morton Arboretum

Lisle, IL

Conservation Biology Intern

May 2012-December 2013

- ~ Assists Principal Investigator with collection of demographic data of federally endangered species of *Cirsium pitcheri*.
- ~ Data entry of both *Cirsium pitcheri* and *Platanthera leucophaea*.
- ~ Population viability analysis including LTRE of seed source effect on transplant survival on Illinois State Beach Reintroduction, weather correlations on survival, use of GIS variables to develop regression equations to predict growth and survival as well as LTRE to compare latitude and succession on survival.

CHICAGO STATE UNIVERSITY

Chicago, IL

Graduate Assistant

Sept 2012-June 2013

- ~ Analysis long-term dataset of *Cirsium pitcheri* from Indiana Dunes in order to determine the effect of two restorations on the metapopulation utilizing population viability analysis including projection modeling, Life Table Response Experiments (LTRE) and elasticity analysis.

INDIANA DUNES NATIONAL LAKESHORE

Porter, IN

Data Collection Volunteer

June 2012 & June 2013

- ~ Worked as part of a team collecting *C. pitcheri* demographic data at five local sites within state park.

PEGGY NOTEBAURT NATURE MUSEUM

Chicago, IL

Butterfly Lab Volunteer

July 2010-December 2010

- ~ Performed husbandry duties such as food preparation, pupae case cleaning and record keeping of emergence of many butterfly species in a contained environment following USDA procedures.

UNIVERSITY OF COLORADO

Boulder, CO

Field Assistant

May 2010-June 2010

- ~ Assisted doctoral student with population monitoring of *Cynomys gunnisoni* through trapping via live traps, anaesthetizing tagging and collection of blood, tissue and flea samples for research related to disease in relation to genetic diversity.

PROFESSIONAL SOCIETIES

Ecological Society of America
Society for Conservation Biology

PEER REVIEW

Ad Hoc Reviewer:
AoB PLANTS

PUBLICATIONS

Referred Journal articles

Halsey SJ, Bell TJ, McEachern K, Pavlovic N. (In Press) "Population-specific life histories in restoration contribute to metapopulation viability" *Ecosphere*.

Halsey SJ, Bell TJ, Bowles M (In Press). "Initial Transplant Size and Microsite Influences Transplant Survivorship and Growth of a Threatened Dune Thistle" *Ecological Restoration*.

Halsey SJ, Bell TJ, McEachern K, Pavlovic N. (2015) "Comparison of reintroduction and enhancement effects on metapopulation viability" *Restoration Ecology*. 23(4):375-384.

Unrefereed

Bowles M, **Halsey SJ**, McBride J, Pavlovic N (2015) Grassland-forest transition in the Prairie Peninsula region of northwest Indiana as recorded by the U.S. Public Land Survey (1829-1835).

Report to the Indiana Department of Natural Resources, Lake Michigan Coastal Program. The Morton Arboretum, Lisle, Illinois

Halsey SJ (2013) A metapopulation approach to examining the effect of restorations on population viability in the Indiana Dunes (Masters' thesis) Chicago State University. Chicago, IL.

In Revision

Nelson SB, Coon JJ, **Halsey SJ**, Kranz AJ, Swartz TM, Miller JR. (Accepted, pending revisions). Effects of Invasive Plants on Birds: A Review. *Biological Invasions*.

Halsey SJ, Cinel S, Bell TJ, Wilson J, Bowles M (In Review)" Predicting Population Viability of *Cirsium pitcheri* in Illinois Beach Using Individual-Based Models. *Ecological Modelling*.

In Prep

Halsey SJ, Miller JR. (In Prep) Population dynamics and host associations of *Ixodes scapularis*: a meta-analysis. Ticks and Tick-borne diseases.

Halsey SJ, Miller JR. (In Prep) Using Individual-based modelling to depict tick-environment-host associations. *Ecological Modelling*.

Bowles M, **Halsey SJ**, McBride J, Pavlovic N. (In Prep) Grassland-forest transition in the Prairie Peninsula region of northwest Indiana.

CONFERENCE PRESENTATIONS

Halsey SJ, Miller JR. Host diversity and population dynamics of *Ixodes scapularis* populations: a meta-analysis. **Ecological Society of America**, August 2016, Ft. Lauderdale, FL. (poster presentation)

Halsey SJ, Bell TJ, Cinel S, Wilson J, Bowles M. Predicting Population Viability of a Monocarpic Perennial Dune Thistle Using Individual-Based Models." **North American Congress for Conservation Biology**, July 2016, Madison, WI. (oral presentation)

Halsey SJ, Miller JR. Using Individual-based modelling to depict tick-environment-host associations" **Midwest Ecology and Evolution Conference**, March 2016, Oxford, OH. (oral presentation)

Halsey SJ, Miller JR. Using modelling to understanding Lyme disease ecology" **Community of Scholars Research Symposium**, March 2016, Urbana, IL. (oral presentation)

Halsey SJ, Miller JR. A Community modelling approach in understanding the ecology of Lyme disease. **18th Annual GEEB Symposium**, February 2016, Urbana, IL. (oral presentation)

Halsey SJ, Miller JR (2016) Modeling the relationships between ticks, hosts and the environment. **Recruitment Weekend Lighting talks for the Department of Natural Resources and Environmental Science**, February 2016, University of Illinois-Urbana/Champaign, Urbana, IL. (oral presentation)

Halsey SJ, Bell TJ, McEachern AK. A Metapopulation Approach to Examining Population Viability in the Indiana Dunes. **Ecological Society of America**, August 2013, Minneapolis, MN. (oral presentation)

Halsey SJ, Bell TJ, McEachern AK. A Metapopulation Approach to Examining Population Viability in the Indiana Dunes. **Indiana Dunes National Lakeshore Science Conference**, October 2011, Gary, IN. (oral presentation)

Halsey SJ. A Metapopulation Approach to Examining Population Viability in the Indiana Dunes (Progress Report). **Chicago State University Dept. of Biological Sciences Research Seminar Series, Chicago State University**, 2012, Chicago IL. (oral presentation)

Jacobs KA, Kirt S, Jackson L, **Halsey SJ**. Prairie Education, Research and Management at Chicago State University. **Schulenburg Prairie symposium at the Morton Arboretum**, September 2012, Lisle IL. (poster presentation)

SERVICE

UNIVERSITY OF ILLINOIS	Urbana/Champaign, IL
<i>STEM-Fem Alliance (Student organization)</i>	November 2014-Present
~ Outreach Coordinator: Responsible for overseeing the outreach component of this organization as a way to improve visibility of women in STEM fields.	
o Tap in Leadership STEAM Workshops	
▪ Pre-Kindergarteners	July 2016
▪ (3 rd -5 th graders)	June 2016
▪ (3 rd -5 th graders)	June 2015
o Girls Go for It (5 th graders)	February– April 2016
o Community of Scholars Table Talk Leader	March 2016
<i>Graduates in Ecology and Evolutionary Biology (Student Organization)</i>	
~ Member: Participates and volunteers in sponsored events	
o Leal Science Night	April 2016
o Leal Science Night	April 2015
o Fruit Forensics	June 2015
o National Pollinator Week Boot: Science at the Market	June 2015
CHICAGO STATE UNIVERSITY	Chicago, IL
<i>Friend of the Prairie (Student organization)</i>	September 2011-May 2013
~ Vice-President: Provide students, faculty and surrounding community with increase awareness about man-made prairie created in 2003 with DNR grant through educational and management activities such as plant identification, invasive species removal, seed collection and planting, composting, education tours including hands on experience as a way to gain and share knowledge and ensure biodiversity within.	

AWARDS

Computational and Data Science Fellowship	ACM SIGHPC/Intel	2016-2019
ACM SIGHPC/Intel Computational & Data Science Fellowship		
~ International-level fellowship providing stipend to defray expenses associated with research.		
~ \$15,000/year		
Graduate College Fellowship	University of Illinois U/C.	2014-2016
~ University-level fellowship providing two years of support.		
~ \$20,000/ year, tuition.		
Biological Sciences Graduate Assistantship	Chicago State University	2012-2013
~ Department-level fellowship providing one year of support.		
~ \$5,400/semester, tuition.		

PROFESSIONAL DEVELOPMENT

Graduate Academy for College Teaching	University of Illinois U/C.	2015
CLC Professional Development Course	College of Lake County	2014

~ Not Just for English Class: How Faculty in All Disciplines Can Use Writing Effectively in Their Courses.

SKILLS

Software: Experience with ArcGIS, ERDAS IMAGINE, Endnote, GRASS, LaTeX, MatLab, MultiSpec, MS Word, MS Excel, MS Access, Netlogo, R, Ramas Metapop, SPSS, QGIS.

Operating systems: Experience with Windows 7, 8.1, 10, Linux, Mc OS X