

Breh Ruger

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EDUCATION

The Ohio State University
M.S. in Entomology
Advisor: Dr. Ashley Leach

Wooster & Columbus, Ohio
August 2023 - Present

Albion College
B.A. in Biology and History
GPA: 3.98
Albion College Honors
Summa Cum Laude
Honors Thesis: *Distance from Prairie Strips and Cropping System Management as Effects on Natural Pest Suppression*

Albion, Michigan
September 2019 - April 2023

PEER-REVIEWED PUBLICATIONS

Cahill, A.E., C.J. Breen, I. Corona Avila, C. Cortes, R. Hernandez, S. Jost, **B. Ruger**, R.M.H. Stander, B. Tran. 2021. The relationship between species richness and abiotic stress in the invertebrates of a rare inland salt marsh. *Ecology and Evolution*, 11: 14351-14365.

PRESENTATIONS

Ruger, B. Distance from prairie strips and cropping system management as effects on natural pest suppression. Elkin R. Isaac Student Research Symposium. Albion, MI. 13 Apr. 2023.

Ruger, B. Distance from prairie strips and cropping system management as effects on natural pest suppression. Biology Research Symposium. Albion, MI. 24 Mar. 2023.

POSTERS

Martinez, A., **Ruger, B.** Investigating the euchromatic reference region of the Muller D element in *Drosophila kikkamai*. Elkin R. Isaac Student Research Symposium. Albion, MI. 13 Apr. 2023.

Ruger, B., Haan, N. Distance from prairie strips and cropping system management as effects on natural pest suppression. Society for Integrated and Comparative Biology Annual Conference. Austin, TX. 3-7 Jan. 2023.

Ruger, B., Haan, N. Effects of cropping system management and distance from prairie strips on natural pest suppression. W. K. Kellogg Biological Station Undergraduate Research Symposium. Hickory Corners, MI. 27 Jul. 2022.

Blackmon, E.A., Rodriguez-Salas, J., **Ruger, B.**, Stovall, S., Besant, Z., Martinez, L., Shepard, D., Swingewood, S., Wood, M. Identifying suitable habitat patches for monarch butterflies and milkweed on Albion's campus. Elkin R. Isaac Student Research Symposium. Albion, MI. 21 Apr. 2022.

Besant, Z., Martinez, L., Shepard, D., Swingewood, S., Wood, M., Blackmon, E.A., Rodriguez-Salas, J., **Ruger, B.**, Stovall, S. Waiter, what's in this sushi? Using DNA barcoding to identify fish species in Albion's restaurants. Elkin R. Isaac Student Research Symposium. Albion, MI. 21 Apr. 2022.

Ruger, B., Tran, B., Hernandez, R., Jost, S., A.E. Cahill. Macroinvertebrate species diversity in the Maple River salt marsh. Elkin R. Isaac Student Research Symposium. Albion, MI. 22 Apr. 2021.

RESEARCH EXPERIENCE

Michigan State University, W. K. Kellogg Biological Station

Research Experience for Undergraduates Student, May - July 2022

Advisor: Nate Haan, Ph.D.

Designed and carried out independent research at the Long-term Ecological Research (LTER) facility to further understand the effects of agricultural prairie strips on natural pest suppression. Gained experience in a variety of fieldwork in agricultural settings and sentinel prey data collection techniques. Collaborated with peer researchers, faculty researchers, and other staff to complete and formally present my research.

Albion College, Department of Biology

Student Research Partner, October 2019 - May 2021

Advisor: Dr. Abigail Cahill

Continued development of an ongoing research project under Dr. Abigail Cahill. Identified macroinvertebrates from a rare inland salt marsh in Michigan with taxonomic keys. Contributed to the publication of this research while collaborating with others from the lab.

RELEVANT EMPLOYMENT

Albion College, Department of Biology

Teaching Assistant for Invertebrate Zoology, Fall 2021, Fall 2022

Prepared and maintained a clean lab environment for class, which included preparing salt water and spring water tanks, sorting lab materials, and collecting needed supplies for lab activities (i.e. leaves for leaf packs). Cared for the organisms present, and communicated urgent messages promptly.

Albion College, Cutler Center for Student Success

Tutor for Introduction to Statistics, Summer 2021

Guided students through challenging coursework and answered questions when needed. Supervised groups of students and remained present to privately assist with any difficulties in the course material.

SKILLS

Research Techniques

Macroinvertebrate identification (Aquatic & Pollinator), sentinel prey methods, trained in field safety, WPS pesticide trained, trained in site-specific long-term ecological research main cropping system experiment (LTER MCSE), trained in research ethics

Programming

R, HTML/CSS

Systems

macOS, Windows, Unix

Software

Microsoft Office

Training

DEI Peer Training Program, Parallel Agency

SCHOLARSHIPS & AWARDS

2023	Lyman S.V. Judson Endowed Award in Biological Science, Albion College
2023	Outstanding Senior Thesis Award, Albion College
2022	REU Travel Grant, Rocky Mountain Biological Laboratory
2022	Corre Anding Stegall Collegiate Leadership Award, Kappa Delta Sorority
2022	Julian Rammelkamp Scholarship, Albion College
2022	Steven Reed Scholarship, Albion College
2022	Project 250 Scholarship, Albion College
2021	Marilyn Young Vitek Scholarship, Albion College
2020	Dr. Paul V. & Evelyn A. Ponitz Scholarship Award, Albion College
2019-2022	Dean's List, Albion College
2019	Amy Yeast Tennis Scholarship, Battle Creek Community Foundation
2019	Thomas H. Elliot Scholarship, Battle Creek Community Foundation
2019	Bakery, Confectionary, Tobacco Workers and Grain Millers International Union Scholarship, BCTGM

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Albion College, Prentiss M. Brown Honors Program

Member, September 2019 - April 2023

Participated in a variety of interdisciplinary honors courses that challenged me beyond just my majors. Formulated the culmination of my REU research experience as an Honors thesis titled "Effects of cropping system management and distance from prairie strips on natural pest suppression."

Albion College, Kappa Delta Sorority - Sigma Pi Chapter

President, Vice President of Finance, Committee Member, Alumni Member, January 2020 - Current

Led the Albion College chapter of Kappa Delta and tracked finances and the chapter budget. Communicated frequently with superiors at national headquarters and with other Greek and community leaders on campus and in the Albion community.

Albion College, Students for Reproductive Justice (SRJ)

Member, Member-at-Large, September 2021 - April 2023

Generated programming with the Executive Board of SRJ to motivate students and community members to uphold reproductive rights. Partnered with Planned Parenthood to educate and orchestrate student protest trips and petition signing on campus.

Albion College, Albion College Democrats

Member, September 2021 - April 2023

Collaborated with the members of Albion Democrats to register students and community members on campus to vote. Educated members of Albion's campus on prominent political issues and figures from all sides of the political spectrum.

Albion College, Panhellenic Council

Vice President of Finance, December 2021 - April 2022

Collected and tracked funds for the Panhellenic Council bank account. Communicated deadlines to the sororities and Greek leadership on campus.

Albion College, Women's Tennis Team

Member, September 2019-April 2022

Achieved several honors via participation in the Women's tennis team, such as NCAA Academic Honors, ITA Service Hours Honors, and having the highest GPA of any athletic team on Albion's campus. Managed tennis practices and matches around my various other involvements and classes. Gained leadership and teamwork skills with a variety of members, coaches, and other athletic leaders.

PROFESSIONAL MEMBERSHIPS

Michigan Entomological Society, Member (2022-Current)

Society for Integrative and Comparative Biology, Member (2022-2023)

HONORS

Sigma Xi, Scientific Research Honor Society, Associate Member (2022)

Mortar Board, National College Senior Honor Society, Member (2021-Present)

Phi Beta Kappa Society, Member (2022-Present)