

SARAH SCHROEDER

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EDUCATION

University of California, Riverside

Sep. 2022 – present

PhD - Entomology

Phylogenetic diversity of plant bugs (Miridae) endemic to the California Floristic Province

Taxonomy and phylogenetics of Phylinae (Heteroptera: Miridae)

Concordia College

Aug. 2017 – May 2021

Bachelor of arts in Biology, Environmental and Sustainability Studies

RESEARCH INTERESTS

• Systematics • Taxonomy • Phylogenetics • Phylogenetic diversity • Biodiversity • Conservation

RELEVANT COURSE WORK

• Theory of Systematics • Bioinformatics • Insect Genetics and Molecular Biology • Insect Physiology
• Insect Systematics • Insect Behavior • Insect Population Genetics • Plant Taxonomy • Biochemistry

EXPERIENCE

Teaching assistant - Insect Biodiversity

Jan. 2024 – April 2024

University of California, Riverside

- Lead weekly discussions with students and created engaging assignments.
- Provided weekly review sessions to assist students with material.
- Co-lead weekly lab with instructor and assisted in grading of assignments.

Entomology Research Assistant

May 2021 – June 2022

North Dakota State University - Fargo, ND

- Collaborated on multiple ongoing research projects. Responsibilities included field and green house experiments, creation of methods, data entry, processing, and analysis, and writing of journal articles. Also acted as teaching assistant for the General Entomology course
- Projects included: *Thinopyrum* genetic resistance to wheat stem sawfly, biological control of Canada Thistle and associated parasitoid distribution, exotic pest surveys and identification in grape fields, and distribution and trapping of spotted wing *Drosophila*.
- Responsible for organization and care of teaching insect collection, as well as curation of longhorn beetles (Cerambycidae) in the North Dakota State Insect Reference Collection.

Teaching assistant

Aug. 2020 – Dec. 2021

Concordia College - Moorhead, MN

North Dakota State University - Fargo, ND

- Courses included Entomology (Concordia and North Dakota State University), Mammalogy, Evolution and Diversity, Introductory Biology.
- Assisted professors in the creation and leading of lab and lecture activities.
- Maintained consistent communication with students and organized additional work sessions and supplemental video lectures.

Entomology Curator

Mar. 2020 – May 2021

Elsie Welter Natural History Museum - Moorhead, MN

- Identified and organized the insect collection of over 35,000 specimens to the family level making it functional for teaching, research, and outreach. Also constructed a specimen level database.
- Created intriguing displays utilizing the insect, mammal, and plant collections.
- Delivered presentation on work within the insect collection. This presentation was awarded inclusion within Concordia's library archives.
- Delivered presentation and research paper on the importance of natural history museums as well as proposed uses of the museum as a place for campus environmental education. These were also awarded inclusion within Concordia's library archives.

Childcare Assistant

Aug. 2020 – Dec. 2020

Cobber kids - Moorhead MN

- Assisted with daycare in the toddler room by creating safe and exciting activities, supervising playtime, and completing necessary clean up tasks.

Tamarac National Wildlife Refuge Volunteer

Aug. 2019 – Dec. 2019

Rochert, MN

- Led multiple elementary student classes engaging with the outdoors with emphasis on identifying plants, insects, and mammals, navigation and compass use, and behavior of local wildlife.

Biology Department Research Assistant

May 2019 – Aug. 2019

Concordia College - Moorhead, MN

- Assisted in Mammalogy and Plant Biology field research including surveys of plants and trapping of mammals.
- Assisted in preservation of collected mammals for research.

Exotic Animal Caretaker

May 2019 – May 2021

Concordia College - Moorhead, MN

- Provided dedicated daily care to several exotic animals including snakes, tortoises, axolotls, and other reptiles, amphibians, and insects.
- Actively researched best care for each animal and monitored necessary changes.
- Communicated care and concerns for each animal with other caretakers.

Undergraduate Tutor

Aug. 2018 – May 2021

Concordia College - Moorhead, MN

- Courses tutored include Introductory Biology, Cellular Biology, Evolution and Diversity, and Introductory Neuroscience.
- One-on-one and group tutoring sessions held twice a week for each subject.
- Acted as a reliable source of support and information for students while adapting to each individual learning style.
- Communicated questions and concerns with professors to ensure the success of each student.

Mayo Clinic Undergraduate Researcher

May 2018 – Aug. 2018

Departments of General Internal Medicine and Endocrinology

Mayo Clinic - Rochester, MN

- Shadowed physicians within the departments of General Internal Medicine and Endocrinology.
- Abstracted data from patients' medical records and performed data processing and analysis.
- Conducted literature reviews and contributed as co-author on three peer-reviewed publications. Presented these results at departmental seminars.

PUBLICATIONS

- [4] Swenson, S.J.; Bell-Clement, J.; **Schroeder, S.**; Prischmann-Voldseth, D.A. Predatory and Parasitic Insects Associated with *Urophora cardui* L. (Diptera: Tephritidae) Galls on Canada Thistle, *Cirsium arvense* L. (Asterales, Asteraceae) in North Dakota. *Insects* **2022**, *13*, 646.
- [3] Velapati S., **Schroeder S.**, et al. **2021**. Use of Home Enteral Nutrition in Malnourished Post Bariatric Surgery Patients. *JPEN*. 45(5): 1023-1031.
- [2] Croghan I., **Schroeder S.** **2019**. Quality of life and smoking. *Tabaccologia*. 17: 8-13.
- [1] Velapati S., **Schroeder S.**, et al. **2019**. Repair of Central Venous Catheter in a Single-Center Adult Home Parenteral Nutrition Cohort. *JPEN*. 44(2): 265-273.

RESEARCH PRESENTATIONS

- [10] **Schroeder S.**, Weirauch C. **2023**. New species of Phylinae (Heteroptera: Miridae) convergent coloration for disguise.
Entomological Society of America national meeting - National Harbor, MD
Student Seminar Day - University of California, Riverside
- [9] **Schroeder S.**, Weirauch C. **2023**. New species of Phylinae (Heteroptera: Miridae) associated with native Australian Casuarinaceae.
Entomological Society of America pacific branch meeting - Seattle, WA
International Heteropterists' Society - True Bug Tuesday Webinar
- [8] **Schroeder S.** **2022**. Environmental Careers Summit invited panel member.
Concordia College - Moorhead, MN
- [7] **Schroeder S.**, Bishop DB. **2021**. Digitizing Insects into Digisects.
Celebration of Student Scholarships - Concordia College - Moorhead, MN
- [6] **Schroeder S.** Sweatman J. **2021**. The Elsie Welter Natural History Museum: A Campus Connection to the Natural World.
Celebration of Student Scholarships - Concordia College - Moorhead, MN
- [5] **Schroeder S.**, Strand K. **2021**. Exotic Animal Care and Insect Breeding.
Celebration of Student Scholarships - Concordia College - Moorhead, MN
- [4] **Schroeder S.**, Bishop DB. **2020**. Academic and Cultural Importance of Insect Collections.
Undergraduate Research Seminar - Concordia College - Moorhead, MN
- [3] **Schroeder S.**, Whittaker J. **2019**. Effect of Historical Homesteads on Canopy Cover.
Celebration of Student Scholarships - Concordia College - Moorhead, MN
- [2] **Schroeder S.**, Croghan I. **2018**. Quality of Life and Smoking Cessation.
Intern Seminar - Mayo Clinic - Rochester, MN
- [1] **Schroeder, S.**, Velapati S. **2018**. Use and effects of Home Enteral and Parenteral Nutrition.
Intern Seminar - Mayo Clinic - Rochester, MN

OUTREACH PRESENTATIONS

- [4] **Schroeder S.**, Bui A. **2023**. Insects Native to California
California Botanic Garden - Claremont, CA
- [3] **Schroeder S.**, Van Raalte B. **2023**. Introduction to Pest Management and Population Genetics
Careers in Entomology Summer Camp - Riverside, CA
- [2] **Schroeder S.**, Nyman B. **2023**. Introduction to Forensic and Urban Entomology

Careers in Entomology Summer Camp - Riverside, CA

- [1] **Schroeder S. 2022.** Insects as bird food.
Detroit Lakes Birding Festival - Detroit Lakes, MN

AWARDS AND SCHOLARSHIPS

Outstanding graduate student <i>University of California, Riverside</i>	2024
Second Place Presentation in Student Competition <i>Entomological Society of America National Meeting - National Harbor, MD</i>	2023
GAAN Fellowship \$53,256.81 <i>University of California, Riverside</i>	2022 – 2023
Grad Edge/Jump Start Summer Internship Program \$6,000 <i>University of California, Riverside</i>	2022
Cobber Excellence Scholarship \$64,000 <i>Concordia College - Moorhead, MN</i>	2017 – 2021
Concordia Music Scholarship \$12,000 <i>Concordia College - Moorhead, MN</i>	2017 – 2021
Cobber Edge Award \$4,000 <i>Concordia College - Moorhead, MN</i>	2017 – 2021
Mayo Clinic Dependent Scholarship \$12,000 <i>Mayo Clinic - Rochester, MN</i>	2017 – 2021

INVOLVEMENT AND LEADERSHIP POSITIONS

Entomology Graduate Student Association Vice President <i>University of California, Riverside</i>	2024 – 2025
Diversity, Equity, and Inclusion committee member <i>University of California, Riverside</i>	2024
Riverside Insect Fair Co-Chair <i>University of California, Riverside</i> <ul style="list-style-type: none">Coordinated with city of Riverside to organize the insect fair, and event hosting over 12,000 people and teaching them about insects and the research done in UCR's entomology department.	2024 – 2025
Outreach committee member (75+ hours of outreach events) <i>University of California, Riverside</i> <ul style="list-style-type: none">Lead and participated in community and school outreach events teaching about insects and their importance. Also created a stuffed crochet insect model for use during outreach events and a promotional video for UCR's Natural History museum.	2023 – 2024
Co-Organizer and Counselor - Careers in Entomology Summer Camp <i>University of California, Riverside</i> <ul style="list-style-type: none">Developed week long curriculum for high school students to teach them about various areas of entomology (e.g., systematics, integrated pest management, molecular biology, population genetics, forensics, urban entomology) as well as valuable laboratory techniques (e.g., PCR).	2023
Seminar committee member <i>University of California, Riverside</i>	2022 – 2024

- Co-organized weekly seminars for UCR's entomology department, assisted in selecting speakers, and accompanied speakers to lunch each week.

Fargo-Moorhead Choral Artists member **2021 – 2022**

Fargo, ND

Marketing committee member 2021 – 2022

Students United for Reproductive Freedom (SURF) **2019 – 2021**

Concordia College - Moorhead, MN

Vice President and Co-founder 2019 – 2021

- Organized events engaging students with members of the community to provide education on freedoms, health, and equality among all people. Also coordinated fundraisers and drives for local women's shelters.

Exotic Animal Care and Husbandry Club member **2019 – 2021**

Concordia College - Moorhead, MN

Student Environmental Alliance member **2019 – 2021**

Concordia College - Moorhead, MN

Concordia Neuroscience Society member **2017 – 2019**

Concordia College - Moorhead, MN

Concordia Choir member **2017 – 2021**

Concordia College - Moorhead, MN

Choir President 2017 – 2018

- Organized volunteer events and social events for the choir members.
- Coordinated with conductor to organize concert setup and any choir announcements.

Honors Choir of SE MN member **2007 – 2017**

Rochester, MN

PROFESSIONAL SOCIETY MEMBERSHIPS

Entomological Society of America (ESA) **2021 – Present**

International Heteropterists' Society **2022 – Present**

Entomological Collections Network **2023 – present**

CONFERENCES AND WORKSHOPS

ESA National meeting - Presenter **Nov. 2023**

National Harbor, MD

Taxon Works Workshop - Participant **Oct. 2023**

Virtual

ESA Pacific branch meeting - Presenter **Apr. 2023**

Seattle, WA

SKILLS

- Rstudio • JMP • Linux • Python • LaTeX • Windows