

Jackson R. Strand

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EDUCATION

MS	Montana State University Entomology Department of Land Resources & Environmental Sciences Committee: Dr. David Weaver (co-chair) Dr. Tracy Sterling (co-chair) Dr. Robert Peterson	2021 - 2024
BS	University of Minnesota, Twin Cities Major: Biology Minor: Marine Biology	2013 - 2017

PUBLICATIONS

1. Strand JR, Peterson RKD, Sterling TM, Weaver DK. 2024. Sensory and behavioral responses of braconid parasitoids to changes in volatile emissions induced by wheat stem sawfly (Hymenoptera: Cephidae) larval feeding in winter wheat and smooth brome. *Journal of Insect Science*. (in review)
2. Strand JR, Peterson RKD, Sterling TM, Weaver DK. 2024. Agroecological importance of smooth brome in managing wheat stem sawfly (Hymenoptera: Cephidae) via associated braconid parasitoids. *Journal of Economic Entomology*. 1-11. DOI: 10.1093/jee/toae246.

HONORS & AWARDS

Graduate Land Grant Excellence Award Montana State University	2024
Open Access Author Fund (\$3,296) Montana State University Library Funded publication of " <i>Agroecological importance of smooth brome in managing wheat stem sawfly (Hymenoptera: Cephidae) via associated braconid parasitoids</i> "	2024
President's Prize – 2nd Place Speaker (\$50) Entomology 2023, National Harbor, MD Entomological Society of America	2023
Student Scholar Travel Award (\$500) College of Agriculture, Montana State University	2023
1st Place Speaker 2023 LRES GSO Colloquium LRES Graduate Student Organization, Montana State University	2023
Montana Grains Foundation Scholarship (\$2,500) Montana Grain Growers Association	2022
Professional Advancement Grant (\$500) The Graduate School, Montana State University	2021

SEMINARS & PRESENTATIONS (underline = presenter)

Contributed presentations at scientific meetings

1. SE Sing, **Strand JR**, Peterson RKD, Weaver DK. 2025. Evaluating Host Preferences in Biological Control: Behavioral and Electrophysiological Responses of *Mecinus janthinus* and *M. janthiniformis* to Invasive Toadflax Species. National Forum on Biological Control Conference. Annapolis, MD. (scheduled)
2. **Strand JR**, Peterson RKD, Sterling TM, Weaver DK. 2024. Agroecological importance of smooth brome in managing wheat stem sawfly (Hymenoptera: Cephidae) via its associated braconid parasitoids. Session: Grad Competition, Plant-Insect Ecosystems: IPM – General and Field Crops. Annual Meeting of the Entomological Society of America, Phoenix, AZ. (scheduled)
3. **Strand JR**, Weaver DK, Sterling TM, Peterson RKD. 2024. The role of chemical ecology and agroecological importance of smooth brome in biological control of the wheat stem sawfly by native parasitoids. Masters of Entomology Defense. Montana State University, Bozeman, MT.
4. Sing SE, Ward SM, Peterson RKD, **Strand JR**, Friesenhahn E, Hofland M, Hubbard CE, Randall CB, Weaver DK. 2024. *Biological control of hybrid toadflax: insights from chemical ecology*. National Forum on Biological Control Conference. Annapolis, MD.
5. **Strand JR**, Weaver DK, Sterling TM, Peterson RKD. 2023. Using organic volatile compounds to assess the relationship between wheat stem sawfly, parasitoids, and smooth brome. Session: Grad Competition, Plant-Insect Ecosystems: Chemical Ecology 2. Annual Meeting of the Entomological Society of America, National Harbor, MD. **Second place in section.**
6. **Strand JR**, Weaver DK, Sterling TM, Peterson RKD. 2023. The importance of smooth brome and parasitoids in wheat stem sawfly biocontrol. 2023 Land Resources and Environmental Sciences Graduate Student Organization Research Colloquium. Montana State University, Bozeman, MT. **First place overall.**
7. **Strand JR**, Weaver DK, Sterling TM, Peterson RKD. 2022. Using organic volatile compounds to assess the relationship between wheat stem sawfly, parasitoids, and smooth brome. Session: Grad Competition, Plant-Insect Ecosystems: Chemical Ecology 1. Annual Meeting of the Entomological Society of America. Vancouver, BC, Canada.
8. **Strand JR**, Weaver DK, Sterling TM, Peterson RKD. 2022. Importance of parasitoids and smooth brome for integrated pest management of wheat stem sawfly. 2022. Land Resources and Environmental Sciences Graduate Student Organization Research Colloquium. Montana State University, Bozeman, MT.
9. **Strand JR**, Weaver DK, Sterling TM, Peterson RKD. 2021. Importance of parasitoids and smooth brome for integrated pest management of wheat stem sawfly. Session: Plant Insect-Ecosystems: IPM – General. Annual Meeting of the Entomological Society of America, Denver, CO.

Workshops

1. Understanding Wheat Stem Sawfly. 2022 Integrated Pest Management Workshop. Montana State University, Bozeman, MT.

CO-HOSTED ACADEMIC EVENTS

2024 LRES-PSPP Student Research Symposium. Hosted by the Land Resources and Environmental Sciences Graduate Student Organization. April 2024. Montana State University, Bozeman, MT.

- Emcee of the event and co-chair of the LRES Graduate Student Organization
- Showcased graduate and undergraduate research in environmental and plant science.
- [Link to website](#)

2023 LRES GSO Colloquium. Hosted by the Land Resources and Environmental Sciences Graduate Student Organization. April 2023. Montana State University, Bozeman, MT.

- Co-chair of the LRES Graduate Student Organization.
- Showcased graduate and undergraduate research in environmental and land resource science.

2022 LRES Colloquium. Hosted by the Land Resources and Environmental Sciences Graduate Student Organization. April 2022. Montana State University, Bozeman, MT.

- Treasurer of the LRES Graduate Student Organization.
- Showcased graduate and undergraduate research in environmental and land resource science.

TEACHING

Montana State University

Integrated Pest Management (TA), 3 credits (AGSC 401)

Fall 2023, 20 undergraduates, 10 graduate students

Online course taught by Dr. David Weaver

SERVICE

Peer Review Activity

Journal of Environmental Entomology

2024 - present

Society Memberships

LRES Graduate Student Organization (Co-chair)

2022 - present

LRES Graduate Student Organization (Treasurer)

2021 - 2022

Entomological Society of America

2021 - present

Montana Grain Growers Association

2022 - present

Active Volunteer

Southwest Montana Mountain Bike Association

2021 - present

Gallatin Watershed Council

2021 - present

Gallatin Valley Land Trust

2021 - present

Lake Elmo Regional Park Invasive Species Removal

2020 - 2021

EMPLOYMENT HISTORY

Pace Analytical- Onsite at 3M – Regulatory IT Analyst
(Maplewood, MN)

2017 - 2021

- Provided digital support between 3M employees and the 3M Chemical Data Management System (CDMS).

- Integrated, tested, and supported user and data interface between CDMS and SAP.
- Generated, designed, and communicated unique, detailed reports of material information using SQL, Microsoft Excel, and SAP.

Metropolitan Mosquito Control District – Mosquito Inspector 2017
(Oakdale, MN)

- Worked on a team to collect and analyze mosquito larvae samples from wetland areas across the St. Paul metropolitan area.
- Independently maintained low adult mosquito populations in Oakdale, MN by surveying and treating both adults and larvae.

Leatherdale Equine Center – Barn Maintenance Crew 2015 - 2017
(St. Paul, MN)

- Maintained healthy conditions for equine patients at the University of Minnesota Horse Veterinary Center and Large Animal Hospital.
- Trained and managed new members of the crew.