## 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

## BS University of Minnesota, Twin Cities

2013 - 2017

Major: Biology

Minor: Marine Biology

## **PUBLICATIONS**

- 1. <u>Strand JR</u>, 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. <u>Strand JR</u>, 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**

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

#### **SEMINARS & PRESENTATIONS**

## **Paper Presentations**

- 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. <u>Strand JR</u>, 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. <u>Strand JR</u>, 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. <u>Strand JR</u>, 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.**
- 5. <u>Strand JR</u>, 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.**
- 6. <u>Strand JR</u>, 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.
- 7. <u>Strand JR</u>, 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.
- 8. <u>Strand JR</u>, 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.

## Contributed presentations at scientific meetings

1. Sing SE, Ward SM, Peterson RKD, <u>Strand JR</u>, 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.

## **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

## **SERVICE**

(Maplewood, MN)

Peer Review Activity Journal of Environmental Entomology	2024 - present
Society Memberships LRES Graduate Student Organization (Co-chair) LRES Graduate Student Organization (Treasurer) Entomological Society of America Montana Grain Growers Association	2022 - present 2021 - 2022 2021 - present 2022 - present
Active Volunteer Southwest Montana Mountain Bike Association Gallatin Watershed Council Gallatin Valley Land Trust Lake Elmo Regional Park Invasive Species Removal	2021 - present 2021 - present 2021 - present 2020 - 2021
NON-ACADEMIC EMPLOYMENT	
Pace Analytical- Onsite at 3M – Regulatory IT Analyst	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 (Oakdale, MN)

2017

- 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 (St. Paul, MN)

2015 - 2017

- 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.