

# **SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES**

## **STUDENT RESEARCH SYMPOSIUM**



<https://u.osu.edu/senrsrs/>  
#SENRStudentResearchSymposium

# **2023**

# SCHEDULE OF EVENTS

**8:00 - 9:00am** Registration/sign in, poster set up, coffee and breakfast

**9:00 - 9:10am** Opening remarks

**9:10 - 9:30am** Keynote presentation by Dr. Eric Toman

## **9:30 - 10:45am Oral Presentations**

**9:30am | Courtney Anderson\*, Amelia Zuckerwise, Robert Wallace, Guido Ayala, Maria Viscarra, Oswald Schmitz:** Felid species presence and differential response to varying levels of human activity in the Madidi National Protected Area, Bolivia

**9:45am | John Brett\*:** Comparison of Methods for Measuring Tree Crown Volume and Surface Area

**10:00am | Ryan Wagner\*:** Demographic Responses of the Common Mudpuppy to TFM exposure in the Great Lakes Region.

## **10:15 - 11:00am: Poster Presentations, Refreshments, Booths**

## **11:00am - 12:00pm Oral Presentations**

**11:00am | Sarah Francino\*, Matthew Davies:** Understanding Factors Controlling Fruit Productivity in Wild Pawpaw Patches

**11:15am | Airianna McGuire\*, Dr. Mackenzie Miller, Dr. Konrad Dabrowski:** An Evaluation of Tau Across Various Temperatures in Zebrafish (Danio Rerio)

**11:30am | Marissa Roseman\*:** Genomic Consequences of Population Isolation in Timber Rattlesnakes

**11:45am | Lily Mank\*, Yun Yi Amelie Thomas, Natalie Dugan:** The Power of Nature: Examining Impacts of a Nature Photography Program on Trauma Recovery in Adolescents

## **12:00 - 1:00pm: Lunch, Poster Presentations, Booths**

## **1:00 - 1:45pm Oral Presentations**

**1:00pm | Keely Fisher\*, Dr. Kristi S. Lekies, Valerie Hura, and John Rodi:** Community and Learning in Nature: Exploring the Benefits of Long-Term Participation in a Youth Outdoor Adventure Recreation Program

**1:15pm | Brian R. Tsuru\*, Elizabeth Ames, Christopher M. Tonra:** Post-breeding Ecology in the Prothonotary Warbler - Evaluating trade-offs between breeding, molt, and migration phenology

**1:30pm | Anna Rose\*, Dr. Christopher Tonra:** Spatial Habitat Selection in Wintering White-throated Sparrows

**1:45 pm Closing remarks, award judging**

**2:00 pm Awards given**

\*Denotes the author giving the oral presentation.

## **Awards**

### **Oral award:**

William J. Mitsch Best Oral Presentation award, given by Davey Resource Group, Inc.

### **Poster awards:**

ODNR Division of Forestry Undergraduate Research Award and  
ODNR Division of Forestry Graduate Research Award

**Scan for Abstracts**



# POSTER PRESENTATIONS

**8:00 - 9:00am: Poster Set Up and Presentations**

**10:15 - 11:00am: Poster Presentations**

**12:00 - 1:00pm: Poster Presentations**

**2:00pm: Poster Take Down**

**Shanvanth Arnipalli\***: Maternal Socialization Goals in Hong Kong and U.S. Families Shaped by Adoption of Socialization Goals and Sources

**Ningzhu Bai\***: Assessing impacts of White-tailed deer (*Odocoileus virginianus*) aggressive behaviors on the efficacy of 4-poster device

**Margaret Borders\*, Brian Slater, Nick Basta**: “These are the skills we need in our major”: bringing digital soil mapping skills to non-soils undergraduate environmental science students through urban soil and ecosystem restoration

**Cade Capper\***: Bioretention cells as reproductive habitat for monarch butterflies in urban areas

**Adriana Dacres\***: Assessing the influence of environmental gradients and forest composition on the soil carbon content

**Austen Dixon\***: Survival and Establishment of Pawpaw (*Asimina triloba* L. Dunal) and its effects on Oak-Hickory Regeneration

**Alexis Doerger\*, Stephen Matthews, Laura Kearns, Christopher Tonra, Matthew Shumar, Molly McDermott, Bryce Adams**: Understanding the factors behind cerulean warbler abundance in an Appalachian hardwood forest

**Ziyu Dong\***: Effects of Physiography and Fuel Characteristics on Fire Behavior

**Jess Dong\*, Stephen Matthews, Bill Peterman, Matthew Shumar, Pail Rodewald**: Do Species Functional Traits Mediate the Effects of Climate Change and Land-Cover-Land-Use on Bird Occurrence Across Ohio, USA?

**Josephine Duffy\*, Matt Davies**: Use of native vegetation in mine reclamation - effects on soil health indicators

**Dylan Darter\*, Bob Gates**: Wild Turkey (*Meleagris gallopavo*) Population Ecology and Management in Ohio

**Aaron Giganti\*, Rocky Smiley**: Storm-Driven Changes in Dissolved Oxygen and Primary Production in Agricultural Headwater Streams

**Marcos Gimenez Diaz\*, Matt Davies, Simon Power**: Species distribution model for invasive cheatgrass (*Bromus tectorum* L.) in relation to environmental gradient variations and disturbances in the western United States.

\*Denotes the author giving the poster presentation.

**Ashani Hangawatte\*, Danielle Dillard, Risa Pesapane:** Investigating mite diversity and associated epidemiological risk factors in Giant kangaroo rats in Carrizo Plain, San Joaquin Desert.

**Azmiri Jalil\*, Robyn S Wilson:** Peer-to-Peer Networks and Conservation Practice Adoption  
**MK Klenkar\*, Matt Davies, Kirsten Packer:** Plant community response to management in an invaded eastern hardwood forest.

**Rosemary Koontz\*, Kristin Mercer, Cornelia Pinchot, Charles Flower, Nancy Hayes-Plazolles, Kirsten Lehtoma, Stephen Matthews:** Evaluating phenological variation of DED-tolerant American elm to inform landscape level restoration opportunities.

**Matthew Lincicome\*, Mažeika Patricio Sulliván, Jason R. Bohenek:** Predator-prey interactions of largemouth bass in response to artificial lighting at night and turbidity

**Aidan McCarthy\*, William E. Peterman:** Fall 2022 Survey Results of an Endangered salamander, *Aneides aeneus*, in Ohio

**Monika Moreu Vicente\*, Matthew Davies:** Controls on wildfire behavior in traditionally managed northern European heathlands

**Jen Myers\*, Andrew Hoffman, Bill Peterman:** Assessing the influence of historic land use and current habitat features on site occupancy by *Sistrurus catenatus*.

**Grant Ravary\*, Bill Peterman and Bob Gates:** A Multiscale Landscape View on Ring-necked Pheasant Habitat Connectivity

**Peter Renz\*, Richard Dick:** Development of a novel Soil Health/Quality Model Based on Soybean Yield Data from Ohio Farm Field Sites

**Justin Chaffin\*:** The influence of experimental design on the results of nutrient limitation experiments

**Elizabeth Sakulich\*, James P. Strange:** Effects of landscape isolation on bumble bee population genetics

**Charlotte Solomon\*, Richard Dick, Nicola Lorenz:** Multi-Substrate and Single-Substrate Soil Enzyme Activity Assays as Soil Quality Indicator for Long-Term Soil Tillage and Crop Rotation Management in Ohio

**Andrea Spurck\*, Robert Gates, Brendan Shirkey:** Modeling Future Winter Waterfowl Distribution in Ohio and the Great Lakes Region

\*Denotes the author giving the poster presentation.

# HUGE THANK YOU TO OUR SPONSORS



## COMMITTEE

The committee organizing this event is entirely composed of SENR graduate students.

Chairs: Abby Thiemkey and Allison Williams  
Fundraisers: Tyler Johnson, Jess Dong, Kimberly Ordonez  
Communications: Zoe Korpi and Andrea Spurck  
Social Media: Ashlyn Halseth  
Moderators: Dylan Darter, Kimberly Ordonez

Share pictures of our event with the following hashtag!  
**#2023SENRResearchSymposium**