



**Biology Poster
and Oral Sessions
Schedule
Wednesday
May 10th, 2023
PUB NCR**



The Department of Biology
Eastern Washington University



Oral Sessions: May 10

Session A: Room 317 9:30 am - 2:25 pm

Mathematics and Biology

A4. 10:45 am-11:05 am

Levora, Sage, Mychael Henry, and Jake Hillyard

Biology

Krisztian Magori

Oral Presentation

Homeopathic and Allopathic Repellents Efficiency With Deterring Ticks

A5. 11:10 am-11:30 am

Flores, Sarah, Ben Wulfestieg, Madilyn Odiorne, Daniel Huizar, and Eric Greene

Biology

Krisztian Magori

Oral Presentation

Identification of *Contracaecum multipapillatum* at Turnbull National Wildlife Refuge within the components of its life cycle in the initial phases of infection

A6. 11:35 am-11:55 am

Perez, Jennifer

Biology

Bo Idsardi and Jenifer Walke

Oral Presentation

An effective multi-site course-based undergraduate research experience (CURE) implemented by early adopters

A7. 12:00 pm-12:20 pm

Arrasmith, Natasha, Natalie Barton, Cari Keyser, Clayton Schneider, and Abigail White

Biology

Krisztian Magori

Poster

Ectoparasites Among the Small Mammal Population on the Eastern Washington Prairie Restoration

A8. 12:25 pm-12:45 pm

Flores, Sarah

Biology

Paul Spruell and Krisztian Magori

Oral Presentation

Contracaecum multipapillatum prevalence and intensity of infection in the introduced brook stickleback as a case study of biotic resistance

A9. 12:50 pm-1:10 pm

Deshazer, Sarah

Biology

Krisztian Magori and Paul Spruell

Oral Presentation

Investigation of small mammal abundance, diversity, and dispersal on and around the Eastern Washington University Prairie Restoration Site

A10. 1:15 pm-1:35pm

Nguyen, Nguyen, and Ramanpreet Singh

Biology

Charles Herr

Oral Presentation

Canine testes thin section culture

A11. 1:40 pm-2:00 pm

Novak, Melanie, Emily Tyner, Autumn Grove, Blake Zimmermann

Biology

Krisztian Magori

Oral Presentation

Varying Disease Density of *Myotis lucifugus*

A12. 2:05 pm-2:25 pm

Collins, Kathryn

Biology

Luis Matos

Oral Presentation

Production and characterization of a phage endolysin with putative anti-microbial activity against *Cutibacterium acnes*

Session B: Room 319: 9:30 am-2:00 pm

Biology, Chemistry & Biochemistry, Engineering, and Geosciences

B1. 9:30-9:50 am

Jost, Talon

Biology

Jenifer Walke

Oral Presentation

Understanding the Role of Tetrodotoxin on Skin Microbiome Composition and Chytrid Fungal Infection in Rough-skinned Newts (*Taricha granulosa*)

B2. 9:55 am-10:15 am

Holley, Autumn

Biology

Jenifer Walke

Oral Presentation

Evaluating efficacy of anti-Batrachochytrium dendrobatidis probiotic treatment on Pacific chorus frogs (*Pseudacris regilla*) at current and modeled climate change temperatures

B3. 10:20 am-10:40 am

Rosenbaum, Gracie

Biology

David Daberkow

Oral Presentation

Investigating the influence of isoflurane and urethane anesthesia on dopamine signaling

B4. 10:45 am-11:05 am

Pfeffer, Bubba

Biology

Jessica Allen

Oral Presentation

Comparative population genomics of the leprose asexual lichenized fungi *Lepraria spp.*

B5. 11:10 am-11:30 am

Johnson, Thurman

Biology

Rebecca Brown

Oral Presentation

Palouse Prairie Restoration in Eastern Washington: First-year Plant Cover and Richness Driven by Topographic Variation, Not Seed Mix Diversity
composition for each treatment across three aspects: hilltop/south, north, and swale using mixed linear

B6. 11:35 am-11:55 am

Beaulaurier, Eric

Biology

Jason Ashley

Oral Presentation

Effects of α 2,3 Sialylation on CSF1R Signal Potency

Poster Sessions:

Group One: May 10, 8:45-10:45 am

4) Richardson, Claire and Carson Desimone

Environmental Science

Carmen Nezat

Poster

Elemental Concentrations in Urban and Rural Dust in Spokane County, WA

6 Lake, Meg and Elaine Larsen

Biology

Jessica Allen

Poster

Impact of secondary metabolites and primary reproductive mode on *Parmotrema* distribution in the Southeastern United States

18 Cummings, Lilijanna

Biology

Jason Ashley

Poster

Sexually-divergent differentiation and inflammatory response of osteoclast precursors

21 Bustos, Benjamin and Mason Matera

Biology

Luis Matos

Poster

Supplementing *Manduca sexta* Artificial Diet with Extra Vitamins Does Not Increase Growth Rate or Final Weight

23 Singh, Ramanpreet, Nguyen Nguyen, and Taylor Matteucci

Biology

Charles Herr

Poster

Developing Cryopreservation Methods of Wheat Roots

25 McPeck, Roxanne, Olivia Morgan, and Andrea Castillo, PhD

Biology

Andrea Castillo

Poster

Overexpressing two *Helicobacter pylori* small RNAs from a bacterial pathogenicity-related chromosomal region to investigate their regulation of virulence genes

28 Morgan, Olivia, RN McPeck, and AR Castillo, PhD

Biology

Andrea Castillo

Poster

Overexpressing sRNA in *Helicobacter pylori* with Cloning and Transformation

29 Odiorne, Madilyn, Ruby Hammond, and Brynn Richey

Environmental Science

Ruby Hammond

Poster

A Baseline Assessment of Migratory and Resident bird use of a Prairie Restoration Site in eastern Washington

31 Kaddoura, Mohammad, and Shayan Shahrabadi

Biology

Luis Matos

Poster

Drosophila melanogaster Potential as a Model System for Human Succinic Semialdehyde Dehydrogenase (SSADH) Deficiency

35 Long, Logan, Will Montgomery, and Mitchel Stefonowicz

Environmental Science

Richard Orndorff

Poster

Geotechnical Engineering Analysis of Soil Sample PP-4 from the EWU Palouse Prairie Restoration Project, Cheney, WA

36 Baker, Lyric and Zac Zeigler

Biology

Andrea Castillo

Poster

Determining if the Natural Antimicrobial Manuka Honey Induces Antibiotic Resistant Viable But Not Culturable Bacteria

37 Kenison, Kiler

Biology

Ross Black and Camille McNeely

Poster

The Sources and Fates of Nutrients in the Deep Lake Watershed

41 Gray, Aric

Biology

Jenifer Walke and Paul Spruell

Poster

Identification of *Batrachochytrium dendrobatidis* lineage in Turnbull National Wildlife Refuge

46 Hays, Alexa

Environmental Science

Richard Orndorff

Poster

The Johnstown Flood and its Impact on Dam Construction and Ownership in the United States

49 Desimone, Carson

Environmental Science

Carmen Nezat

Poster

Evaluating the Accuracy of Elemental Analysis of Soil and Rock Prepared by Microwave Acid Digestion

51 Morrison, Carissa

Biology

Jessica Allen

Poster

Survey of Lichens at Eastern Washington University as Bioindicators of Air Quality and Nitrogen Deposition

52 Frago, Jonah

Biology

Jenifer Walke

Poster

Strain variation in competency induction of the core honey bee gut bacterium, *Snodgrassella alvi*

53 Paulsen, Julianna

Biology

Jessica Allen

Poster

Geography, Climate, and Habitat Shape the Microbiome of the Endangered Rock Gnome Lichen (*Cetradonia linearis*)

54 Mumey, Devin

Biology

Jessica Allen

Poster

Lichens of Iller Creek: A Checklist for the Iller Creek Unit, a Division of Dishman Hills Conservation Area, Spokane Valley, WA

Group Two: May 10, 11:15-1:00 pm

57 Nguyen, Nguyen

Biology

Charles Herr

Poster

Bacteria chitinase production and activity

58 Alvarez, JJ

Biology

David Daberkow

Poster

Investigating the Effects of Pretreatment Intraperitoneal Oxytocin on Signs of Trauma

59 Sanchez, Citlalli

Biology

Jason Ashley

Poster

Knockout of LFNG gene using Di-Cas7-11 system in RAW264.7 macrophages

60 Kennerly, Sylvia

Biology

Jason Ashley

Poster

Overexpression of Fringe Protein in Osteoclast Macrophages

67 Barr, Seth

Biology

Paul Spruell

Poster

Aggregative predation responses from Walleye on White Sturgeon in Lake Roosevelt, WA.

68 Trier, Michael

Biology

Rebecca Brown

Poster

Using deep learning to understand and map the impact of large-scale dam removals on plant communities and fluvial landforms

69 Betz, Elizabeth

Biology

Luis Matos

Poster

Inserting phosphatase genes into an inducible plasmid vector for *Lactococcus lactis* farnesol production

72 Dodson, Rae

Environmental Science

Carmen Nezat

Poster

Lead in Soils at the EWU Palouse Prairie Restoration Site

74 Worrell, Emerson

Biology

Camille McNeely

Poster

Carbon Storage and Uptake in Woody Riparian Ecosystems in Eastern Washington

75 Boley, Adam

Physics

Andres Aragonese

Poster

The Most Beautiful Experiment in Physics: How the Double Slit Remained Relevant for Over Two Centuries

80 Carlson, Rayna

Biology

Andrea Castillo

Poster

Labile Antimicrobial Mechanisms of Manuka Honey Differentially Impact Pathogenic Bacteria

84 Tabino, Makenna

Biology

Rebecca Brown

Poster

Mowing Cattail Cover to Increase Aquatic Vegetation Diversity on the Coeur D'Alene River Floodplain in Cataldo, Idaho

87 Escalante, Claudio, Nicholas Gilchrist, and Amalia Farias

Biology

David Daberkow

Poster

The effects of fructose and caffeine on novel object recognition in male Sprague Dawley rats

89 Nagle, Sawyer

Biology

Camille McNeely

Poster

The Role of Porosity on the Efficacy of Beaver Dam Analogs

92 Garvey, Megan

Biology

Camille McNeely

Poster

Fairy Shrimp (*Anostraca*) Hatching in the Vernal Pools of Eastern Washington