

THE 21ST ANNUAL LEHIGH VALLEY ECOLOGY AND EVOLUTION SYMPOSIUM
SATURDAY, APRIL 26, 2025

POSTER SESSION ONE

1:45-2:45 PM

** indicates presenter*

4th and 5th Floor Hallways, Rockwell Integrated Sciences Center (RISC)

- 4-1 **Investigating the neuronal underpinnings of feeding behavior in *oca2* mutant *Astyanax mexicanus***
Gina Marie-Hazzard*, Dr. Johanna Kowalko
Department of Biological Sciences, Lehigh University, Bethlehem, PA
- 4-2 **Developing a novel way to quantify visual acuity in *Astyanax mexicanus***
Eesha Gudoor*, Dr. Johanna Kowalko
Department of Biological Sciences, Lehigh University, Bethlehem, PA
- 4-3 **Exploring the bystander effect on aggression in female convict cichlids**
Aryssa Ellerbee*, Nicole Moussa, **Melissa Peller***, and Dr. Joseph Leese
Department of Natural Science, DeSales University, Center Valley, PA
- 4-4 **The effect of prostaglandin F2a on pair formation and reproductive behavior in *Amatitlania nigrofasciata***
Alyssa King*, Avery Peluszak, and Dr. Joseph Leese
Department of Natural Science, DeSales University, Center Valley, PA
- 4-5 **DNA extraction and library preparation for fresh museum specimens of the arachnid order Opiliones**
Santoshi Mutyala*, Cielo Disla, Hailey Hoffman, Maria Lubbos, Caleb Gunkle and Dr. Daniel Proud
Department of Biological Sciences, Moravian University, Bethlehem, PA
- 4-6 **International research expeditions: fieldwork to collect harvesters (Opiliones) in Costa Rica**
Maria Lubbos*, Caleb Gunkle, Cielo Disla, and Dr. Daniel Proud
Department of Biological Sciences, Moravian University, Bethlehem, PA
- 5-1 **Habitat selection behaviors in two species of praying mantises**
Jonathan Katzenmoyer*, Autsin Dotta, Kade Lippitt, Caroline Maciejewski, James Knowles, Afaf Nazif, and Dr. Alex Van Huynh
Department of Natural Science, DeSales University, Center Valley, PA
- 5-2 **Impacts of microplastics on muscle performance in an amphibian model**
Shawn Woodring*, **Eric VanDerSluys***, and Dr. Sara J. McClelland
Department of Biological Sciences, Moravian University, Bethlehem, PA

- 5-3 **Investigating sex differences in the effect of habitat structure on nest site selection**
Paris Lopez*, Erin Wagner, and Dr. Joseph M. Leese
 Department of Natural Science, DeSales University, Center Valley, PA
- 5-4 **The use of a *Granisotoma raineri* antifreeze protein to cryopreserve *Drosophila melanogaster* eggs without the use of cryoprotectant agents**
Keyana Bradshaw*, and Dr. Christopher Jones
 Department of Biological Sciences, Moravian University, Bethlehem, PA
- 5-5 **Fire as an ecosystem management tool: does burn season affect plant composition?**
Kate Demaree*
 Environmental Science and Studies, Lafayette College, Easton, PA
- 5-6 **Investigation of below ground root growth on barrier islands**
Mia Espinal* and Howard K. Reinert
 Department of Biological Sciences, Moravian University, Bethlehem, PA
- 5-7 **Exploring the genetic input of germline development in the arachnid *Archegozetes longisetosus***
Caitlyn Ventura*, Christina Ventura, Austen Barnett
 Department of Biology, DeSales University, Center Valley, PA

POSTER SESSION TWO

3:00-4:00 PM

** indicates presenter*

4th and 5th Floor Hallways, Rockwell Integrated Sciences Center (RISC)

- 4-1 **Prescribed burns as an invasive species management strategy in Jacobsburg State Park, PA**
Connor Fanning* and Dr. Megan Rothenberger
 Environmental Science and Studies, Lafayette College, Easton, PA
- 4-2 **Fluorescent oligonucleotides as a safe alternative to radiolabeled oligonucleotides to measure telomere length as a technique for aging birds**
Natalie Skuza*, **Nia Tempest***, Jordyn Holjes, Kinjal Bhavsar, and Dr. Alex Van Huynh
 Department of Natural Science, DeSales University, Center Valley, PA

- 4-3 **Reconstructing the morphological evolution of Costa Rican cosmetidae, including the first species-level phylogenomic framework for Cosmetidae**
Caleb Gunkle* and Dr. Daniel Proud
 Department of Biological Sciences, Moravian University, Bethlehem, PA
- 4-4 Investigating the role of the gene *rgrb* in the evolution of *Astyanax mexicanus* cave fish
Chenxiao Shen*
 Department of Biological Sciences, Lehigh University, Bethlehem, PA
- 4-5 Measuring avoidance of predator odor cues in wild birds
Afaf Nazif* Austin Dotta, Jonathan Katzenmoyer, Kade Lippitt, Caroline Maciejewski, James Knowles, and Dr. Alex Van Huynh
 Department of Natural Science, DeSales University, Center Valley, PA
- 4-6 **The influence of hybridization on heart size**
Omar Mendez*
 Department of Biological Sciences, Lehigh University, Bethlehem, PA
- 5-1 **The effects of water availability on rhizobia allocation: A pilot study**
Meghan Cehlar* Sean Bradley, Alex Stump, Ja-kenya Stewart, and Hannah Locke
 Department of Biology, The College of New Jersey, Ewing, NJ
- 5-2 **Exploring the ecological and conservational potential of iNaturalist data**
Austin Dotta* and **James Knowles,*** Jonathan Katzenmoyer, Kade Lippitt, Caroline Maciejewski, Afaf Nazif, and Dr. Alex Van Huynh
 Department of Natural Science, DeSales University, Center Valley, PA
- 5-3 Showdowns in the salt marsh: Investigating mobbing behavior in aggressive grass shrimp
Makayla Excell,* and Joshua Lord
 Department of Biological Sciences, Moravian College, Bethlehem, PA
- 5-4 Comparison of energy investment strategies in wild-caught and captive chickadees
Elena Ray Kennedy*, and Dr. Amber Rice
 Department of Biological Sciences, Lehigh University, Bethlehem, PA
- 5-6 **The effect of prostaglandin F2a on pair formation and reproductive behavior in *Amatitlania nigrofasciata***
Alyss King* Avery Peluszak, and Dr. Joseph Leese
 Department of Natural Science, DeSales University, Center Valley, PA

5-7

Using google trends to improve monitoring of the invasive spotted lanternfly in the United States

Caroline Maciejewski,* Kade Lippitt, Emily Ringholm, Jonathan Katzenmoyer, and Dr. Alex Van Huynh