

SCHEDULE OF TALKS

*Regional Science Consortium
20th Annual Research Symposium
November 6-8, 2024
Tom Ridge Environmental Center
at Presque Isle State Park*

WEDNESDAY, NOVEMBER 6, 2024

- 8:30 – 9:30 **REGISTRATION OPENS**
 Register, upload presentations
- 8:30 – 9:30 **REFRESHMENTS**
- 9:30 – 9:40 **WELCOME**
 Jeanette Schnars, Ph.D., Executive Director, RSC

Presentations

Session Chair: Jeanette Schnars, RSC Executive Director

- 9:40 – 10:00 **The Role of SCAMP3 in APP Trafficking and β -amyloid Production**
 Ryan Fisher*+
 Biology Department, Gannon University, Erie, PA
- 10:00 – 10:20 **Pharmaceutical Intervention of the Obesity Crisis: From Origins to Innovation**
 Andrew D. Burton*+, Matthew C. Nichilo*+, He Liu, Prasad S. Dalvi
 Biology Department, Gannon University, Erie, PA
- 10:20 – 10:40 **Sigma factor B as a Potential Regulator of High Salinity Induced Conditional Bacterial Filamentation**
 Isabella A. Foriska*+, Rajinikanth Mohan
 Dept. of Biology, Mercyhurst University, Erie, PA 16546
- 10:40 – 11:00 **Comparison of UV light on Colony Growth on Cell Phones Between *Staphylococcus aureus* and *Escherichia coli***
 Ryan Zimmerman*+, Nancy Carter, Ph.D., Christopher C. Keller, Ph.D., FNAOME, Robert Waters, Ph.D.
 Lake Erie College of Osteopathic Medicine
- 11:00 – 12:00 **LUNCH**

Session Chair: Jen Salem, RSC Plant Lab Manager

12:00 – 12:20 **The Art of Science: A Multi-disciplinary Approach for all Students**

Ashley Pastore^{1*} and Jeanette Schnars, Ph.D.^{2*}

¹*Grounded Printshop*

²*Regional Science Consortium*

12:20 – 12:40 **Experiential Place-based Learning on Lake Erie: Regional Science Consortium Ship and Shore Program 2024-2025**

Jacob Korte*

Regional Science Consortium

12:40 – 1:00 **Four Seasons of STEAM – Education within the Regional Science Consortium**

Hailey Dahl*

Regional Science Consortium

1:00 – 1:15 **BREAK**

Session Chair: Hailey Dahl, RSC Education and Outreach Manager

1:15 – 1:35 **Evaluation of Seed Oils of Economic Importance**

J Esther Anuoluwapo Ominowa¹; Adebisi Olonisakin¹; Oluwabunmi Peace Femi-Oloye²; Charles Ayodeji Osunla³; Femi Francis Oloye^{4*}

¹*Department of Chemical Sciences, Faculty of Science, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria, PMB001.*

²*Division of Biological and Health Sciences, University of Pittsburgh at Bradford, Bradford, PA, USA, 16701.*

³*Department of Microbiology, Faculty of Science, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria, PMB 001.*

⁴*Department of Chemistry, Division of Physical and Computational Sciences, University of Pittsburgh at Bradford, Bradford, PA, USA, 16701.*

1:35 – 1:55 **When Serpents Shine: Exploring the Biofluorescent World of Snakes?**

Holden Cooper*+, Lynne Beaty

School of Science, Penn State Behrend, Erie, PA 16503

1:55 – 2:15 **Characterizing the Gut Microbiome of the River Otter (*Lontra canadensis*)**

Libby Babcock*¹⁺, Lorenzo Tovanche¹, Jenn Houtz², Kelly Pearce^{3, 4}

¹*Allegheny College, Undergraduate Student*

²*Allegheny College, Assistant Professor, Department of Biology*

³*Allegheny College, Assistant Professor, Department of Environmental Science and Sustainability*

⁴*Watershed Conservation Research Center, Allegheny College*

2:15 – 2:35 **Characterization of Bacteria from Wild Mushrooms in Allegheny National Forest**

Brice Hansen*+, Hannah Bojczuk, Rajinikanth Mohan

Dept. of Biology, Mercyhurst University, Erie, PA 16546

2:35 – 2:50 **BREAK**

Session Chair: Sarah Magyan, RSC Aquatic Biologist

2:50 – 3:10 **Decomposition Markers in Standard Soil Analysis**
*Hannah Skropits, Luis Cabo
Department of Applied Forensic Sciences, Mercyhurst University

3:10 – 3:30 **The Use of Anatomical Variation, Antemortem Skeletal Trauma and Pathology in Human Identification**
Rhiannon Toy*+, Aurora Vana*+, Joe Adserias-Garriga
Department of Applied Forensic Sciences, Mercyhurst University

3:30 – 3:50 **The Importance of Comprehensive Dental Records in Identification Efforts**
*Joe Adserias-Garriga^{1, 2}, *Hannah Skropits^{1, 2}, Rupina Bayrakdarian²
1: Department of Applied Forensic Sciences, Mercyhurst University
2: International Research Institute of North Carolina

3:50 – 4:10 **Quantifying Skeletal Variation in the Human Skeletal Collection of the Applied Forensic Sciences at Mercyhurst University**
Mikayla Brinkley*, Rhiannon Toy, Aurora Vana, Joe Adserias-Garriga
Department of Applied Forensic Sciences, Mercyhurst University

4:30 – 6:00 **RSC BOARD MEETING – RSC Board Members – Room 112**

6:00 – 8:00 **POSTER SESSION & ART EXHIBITION – All are welcome to attend**
(Refreshments provided)

THURSDAY, NOVEMBER 7, 2024

- 8:30 – 9:30 **REGISTRATION OPENS**
 Register, upload presentations
- 8:30 – 9:30 **REFRESHMENTS**
- 9:30 – 9:35 **WELCOME**
 Jen Salem, Plant Lab Manager, RSC

Presentations

Session Chair: Jen Salem, RSC Plant Lab Manager

- 9:35 – 9:55 **Underwater Archeological Field Program, Lake Erie, PA, USA**
 Carissa Stone*
 SUNY Buffalo State University
- 9:55 – 10:15 **Lake Science for Idiots**
 Michael Berlin*
 *Executive Producer of the Regional Emmy award winning ‘Chronicles’,
 WQLN/PBS/NPR*
- 10:15 – 10:35 **Mosaicking the PASST: Photogrammetry with the Pennsylvania
 Archaeology Shipwreck Survey Team**
 Sean Dalton*
 Regional Science Consortium

10:35 – 10:50 **BREAK**

Session Chair: Holly Best, RSC Executive Board Member

- 10:50 – 11:10 **Eight Years of Piping Plovers Nesting on Gull Point, Presque Isle State
 Park, Pennsylvania**
 Sarah Sargent, Ph.D.^{1*}, Mary Birdsong¹, Catherine Haffner²
 ¹*Erie Bird Observatory, 301 Peninsula Dr, Ste 14, Erie, PA 16505*
 ²*Pennsylvania Game Commission, Harrisburg, PA*
- 11:10 – 11:20 **Presque Isle Species Lists: A Work in Progress**
 Mark Lethaby*
 *The Natural History Museum at the Tom Ridge Environmental Center
 301 Peninsula Dr. Erie, PA. 16505*
 Speed Talk
- 11:20 – 11:40 **Utilizing Environmental DNA to Assess Aquatic Diversity at Presque Isle**
 Lauren C. Abbott*+, Dr. Louise Nicholson, Dr. David Argent, Dr.
 Robert Whyte
 *PennWest University California, Department of Biology, Earth, and
 Environmental Science*

11:40 – 12:00 **Trail of Trouble: Population and Movement Patterns of Invasive Snails**
Lynne Beaty^{1*}, Adam Simpson¹, and Sam Nutile¹
¹*School of Sciences, Penn State Erie - The Behrend College*

12:00 – 1:00 **LUNCH**

Session Chair: *Sean Dalton, RSC Lab and Field Manager*

1:00 – 1:20 **Living Bank Stabilization (Soil Bioengineering) on the Wild and Scenic Clarion River**
Bobnar, Luke P.*
Western Pennsylvania Conservancy

1:20 – 1:40 **Instream Habitat Improvement and Monitoring Updates in the Woodcock Creek Watershed**
Kelly Pearce^{1,2*}, Casey Bradshaw-Wilson^{1,2}, Mark Kirk^{1,2}
¹*Allegheny College, Department of Environmental Science and Sustainability*
²*Watershed Conservation Research Center, Allegheny College*

1:40 – 2:00 **AquaGator: Autonomous Underwater Robot for Water Quality Measurement of Northwest Pennsylvania Lakes**
Pallas-Athena Cain^{1*+}, Josephine Reiter¹, Benedek Kaibas¹, Janyl Jumadinova²,
Allegheny College

2:00 – 2:20 **Monitoring Multiple Cyanotoxins Along the Pennsylvania Coastline of Lake Erie**
Sarah Magyan*
Regional Science Consortium

2:20 – 2:35 **BREAK**

Session Chair: *Jacob Korte, RSC Environmental Education Specialist*

2:35 – 2:55 **Litter in Waterways and Marine Debris Infrastructure**
Don Benczkowski*
Program Coordinator – Lake Erie Region, Keep PA Beautiful

2:55 – 3:25 **Erie Water Works Source Water Assessment and Protection Program**
Katie Stofferahn*, Hannah Burawa*
Erie Water Works

3:25 – 3:45 **The Three Prongs of Project NePTWNE**
Sherrie A. Mason, Ph.D.*
Director, Project NePTWNE
Gannon University, Erie, PA

3:45 – 4:05

Making the Most of Every Drop: Supporting a Greenhouse Utilizing Stormwater

Jeanette Schnars, Ph.D.* and Jen Salem*
Regional Science Consortium

FRIDAY, NOVEMBER 8, 2024

- 8:30 – 9:00 **REGISTRATION OPENS**
 Register, upload presentations
- 8:30 – 9:00 **REFRESHMENTS**
- 9:00 – 9:10 **WELCOME**
 Jeanette Schnars, Ph.D., Executive Director, RSC

Presentations

Session Chair: Jeanette Schnars, RSC Executive Director

- 9:10 – 9:30 **Effects of Water Chemistry on Bosmina Reproduction**
 Tara Duffy*+
 Biology Department, Gannon University
- 9:30 – 9:50 **Evaluating the Effects of Safeners and Co-Herbicides on Aquatic Organisms: Toxicity Assessment and Recovery Insights**
 Oluwabunmi Femi-Oloye*
 Division of Biological and Health Sciences, University of Pittsburgh at Bradford, Bradford, PA 16701
 Speed Talk
- 9:50 – 10:10 **AMPed Up! The Impact of Anti-Microbial Peptides and the Skin Microbiome on American Bullfrog (*Lithobates catesbeianus*) Thermoregulation**
 Elise Rinke*+, Lucia Anaya, Dr. Michael Ohmer
 Department of Biological Sciences, University of Pittsburgh
- 10:10 – 10:30 **A Census of the Bat Population on the Campus of Gannon University in Erie, PA**
 Kira Armstrong*+, Katrina Orange*+, Dr. Stephen Ropski
 Biology Department, Gannon University Erie, PA 16541
- 10:30 – 10:50 **Behavioral Observation of Grant's Zebras, Spot-nosed Guenons, and Allen's Swamp Monkeys During the Non-circadian Light Levels of the April 8th, 2024 Solar Eclipse at the Erie Zoo**
 Chase Bell*+, Katrina Orange*+, Dr. Steve Ropski
 Biology Department – Gannon University
- 10:50 – 11:10 **Measuring Nationwide Atmospheric Changes During the April 8th, 2024 Total Solar Eclipse Using a Series of Compact Weather Sensors**
 David Horne*
 Gannon University
- 11:10 – 12:00 **LUNCH**

- 12:00 – 12:20 **Status of the Lake Erie Fishery**
Mark Haffley*
PA Fish and Boat Commission
- 12:20 – 12:40 **Evaluating the Population and Movement of Round Goby (*Neogobius melanostomus*) in Elk Creek, a Lake Erie Tributary**
Keri Saulino^{1*}+, Sam Nutile¹, Lynne Beaty¹
¹*Biology Department, School of Science, Pennsylvania State University - The Behrend College Erie, PA 16563*
- 12:40 – 1:00 **Use of eDNA as a Detection Tool for Prioritizing Invasive Round Goby Surveys in the French Creek Watershed**
Casey Bradshaw-Wilson, Ph.D.^{1, 2*}, Doug Fischer³, Vicki Muller⁴
¹*Allegheny College, Department of Environmental Science and Sustainability*
²*Watershed Conservation Research Center*
³*Pennsylvania Fish and Boat Commission*
⁴*Erie National Wildlife Refuge*
- 1:00 – 1:20 **Predation by Invasive Round Goby (*Neogobius melanostomus*) on Native and Introduced Bivalves in Tributaries of the Lower Great Lakes Basin in Western New York**
Angela Laier^{1*}*, Matthew Scott², Corey Krabbenhoft², and Isabel Porto-Hannes¹
¹*Department of Environment and Sustainability, University at Buffalo;*
²*Department of Biological Sciences, University at Buffalo*
Speed Talk
- 1:20 – 1:35 **BREAK**

- 1:35 – 1:55 **Assessing Recovery of the Presque Isle Wetlands from the Invasion of Giant Reed Grass (*Phragmites australis*)**
Joshua Ernst¹, Emma Burkett^{*1+}+, Robert Whyte²
¹*PennWest University Edinboro, Department of Biology, Earth, and Environmental Science*
²*PennWest University California, Department of Biology, Earth, and Environmental Science*
- 1:55 – 2:15 **Characterizing One of Western New York's Most Diverse Mussel Assemblages**
Max S. Striedl^{1*}*, Jonah A. Fronk¹, Corey A. Krabbenhoft¹, Isabel Porto-Hannes²
University at Buffalo
¹*Department of Biological Sciences*
²*Department of Environmental Sciences*

2:15 – 2:35

**Are we mussel ready? Evaluating Habitat Water Quality in the Upper
Niagara River for Native Mussels (Unionidae)**

Jonah A. Fronk^{1*}, Max S. Striedl¹, Corey A. Krabbenhoft¹, Isabel Porto-
Hannes²

University at Buffalo

¹*Department of Biological Sciences*

²*Department of Environmental Sciences*

2:35 – 3:00

BREAK

3:00 – 3:15

PRESENTATION OF THE JERRY COVERT STUDENT RESEARCH AWARDS

Jeanette Schnars, Ph.D., Executive Director, RSC

Jerry Covert, Ph.D., Past Executive Director, RSC

Student Award Presentations

Closing Remarks

3:15 – 4:00

RESEARCH WING TOURS
