

# SCHEDULE OF TALKS

*Regional Science Consortium  
12<sup>th</sup> Annual Research Symposium  
November 2 – 6, 2016  
Tom Ridge Environmental Center  
at Presque Isle State Park*

**WEDNESDAY, NOVEMBER 2, 2016**

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9:00 – 9:55            **REGISTRATION OPENS**  
                                 Register, upload presentations

9:55 – 10:00        **Welcome**  
                                 Jeanette Schnars, Ph.D., Executive Director, RSC

## **Presentations**

### ***Session Chair:***

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10:00 – 10:20        **Effects of the Medieval Climate Anomaly on the Great Plains Region of North America**  
                                 Maraina Miles\*, Dr. Patrick Burkhart, Geography, Geology, and Environment, Slippery Rock University

10:20 – 10:40        **Building our understanding of marina debris impacts—Sea Grant Efforts and potential collaborations**  
                                 Marti Martz\*, Pennsylvania Sea Grant

10:40 – 11:00        **Emerging environmental pollutants: platinum group elements in automobile catalytic converter nanotechnology**  
                                 Deborah M. Aruguete<sup>1\*</sup>, Mitsuhiro Murayama<sup>2,3</sup>, Christopher Winkler<sup>3</sup>  
<sup>1</sup>Department of Environmental Science, Penn State Behrend, Erie, PA,  
<sup>2</sup>Department of Materials Science and Engineering, Virginia Tech, Blacksburg, VA, <sup>3</sup>Institute for Critical Technologies and Applied Science, Virginia Tech, Blacksburg, VA

11:00 – 11:20        **A comparison of illegal dump sites in Erie over ten years**  
                                 Molly Mills\*, Mercyhurst University

11:20 – 11:40        **Occurrence of Pharmaceutical and Personal Care Products in stream (raw) and drinking-water (finished) samples in the Susquehanna and Delaware Watersheds 2007-2009 compared to 2016 and in the Lake Erie Watershed in 2016**  
                                 Robin A. Brightbill\*, Andrew G. Reif, US Geological Survey

11:40 – 1:20        **LUNCH – THE SUNSET CAFÉ**

***Session Chair:***

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- 1:20 – 1:40            **Identification of the microflora found on the feathers of Purple Martins compared to the microflora found on eggs**  
MaryAnn Mason\*, Kristen Webster, and Beth Potter, Penn State Behrend—Biology
- 1:40 – 2:00            **Tracking songbirds with nano-tags during spring migration**  
Sara Sargent\*, National Audubon Society
- 2:00 – 2:20            **A census of the bat population of Gannon University, Erie, PA**  
Nick Bengel\* and Dr. Steve Ropski, Biology Department, Gannon University, Erie, PA
- 2:20 – 2:40            **Exploring neuronal connections between the mediodorsal thalamus and the brainstem in Cynomolgus monkeys**  
Kyle Duffer\* and Darlene S. Melchitzky, Mercyhurst University, Department of Biology, Erie, PA
- 2:20 – 3:10            **BREAK**

***Session Chair:***

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- 3:10 – 3:15            **Temperature variability influencing mosquito egg deposition**  
Angelea Belfiore\*, Mercyhurst University  
(*Speed Talk*)
- 3:15 – 3:20            **Organic matter and environmental factors as predictors of mosquito larva growth in illegally dumped tires**  
Ann Helms\*, Mercyhurst University  
(*Speed Talk*)
- 3:20 – 3:25            ***Sciara coprophila*: an alternative fly model system with unique and interesting biological characteristics**  
Michael Foulk\*, Mercyhurst University  
(*Speed Talk*)
- 3:25 – 3:30            **Wild bee assemblages on a land-use gradient in Meadville, PA**  
Erica Moretti\* and Beth Choate, Department of Environmental Science, Allegheny College, Meadville, PA  
(*Speed Talk*)
- 3:30 – 3:35            **Developing an eDNA system to detect and monitor the spread of the invasive Round Goby (*Negobius melanostomus*) in the waterways of Northwestern Pennsylvania**  
Zachary Gribik\* and Kristen Webb, Biology, Allegheny College  
(*Speed Talk*)

- 4:00 – 6:00                    **RSC BOARD MEETING** – RSC Board Members
- 6:00 – 8:00                    **POSTER SESSION**  
All are welcome to attend – *Refreshments provided*

**THURSDAY, NOVEMBER 3, 2016**

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- 8:00 – 9:45                    **Breakwater & Sand Erosion Committee Meeting**
- 9:00 – 9:55                    **REGISTRATION OPENS**  
Register, upload presentations,  
*Continental Breakfast*
- 9:55 – 10:00                  **Welcome**  
Jeanette Schnars, Ph.D., Executive Director, RSC

**Presentations**

***Session Chair:***

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- 10:00 – 10:20                  **The fate of terrestrially derived dissolved organic carbon in one sub-tropical and three temperate lakes**  
Christopher Dempsey<sup>1\*</sup>, Jennie Brenttrup<sup>2</sup>, Sarah Magyan<sup>1</sup>, Lesley B. Knoll<sup>3</sup>, and Craig E. Williamson<sup>2</sup>  
<sup>1</sup>Gannon University, Biology Department, Erie, PA, <sup>2</sup>Miami University, Global Change Limnology Laboratory, Department of Biology, Oxford, OH, <sup>3</sup>University of Minnesota, Itasca Biological Station and Laboratories, Lake Itasca, MN
- 10:20 – 10:40                  **Development of a real-time PCR method for the early detection of aquatic invasive species in Pennsylvania watersheds**  
Benoit Van Aken\*, Temple University
- 10:40 – 11:00                  **Genetic analysis of deer dispersal patterns through mitochondrial DNA sequence analysis**  
Stephanie Judd\*, Brendan McCreath, Caitlin Goncz, Kelly Cowher, Anna Conner, Fred. J. Brenner, Grove City College, Hopeman School of Science, Engineering, and Mathematics
- 11:00 – 11:20                  **Synergistic effects of Resveratrol and Quercetin on cancerous mouse cell line**  
Katie Baldwin\*, Brooke Knisely, Haley Stephens, Fred J. Brenner, PH.D., and Durwood Ray, Ph.D., Grove City College, Grove City, PA
- 11:20 – 11:25                  **The role of SCAMP3 in amyloid precursor protein (APP) processing**  
Daniel Cooney\*, Gannon University
- 11:25 – 12:40                  **LUNCH – THE SUNSET CAFÉ**

**Session Chair:**

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- 12:40 – 1:00            **Completed development of online public tools and research goals**  
Michael Curtis\* and Michael Naber, Penn State Behrend, Science
- 1:00 – 1:20            **Water-based outdoor recreation users' attitudes towards potential offshore wind energy development in the Great Lakes**  
Michael D. Ferguson\*, Ph.D., Andrew J. Mowen, Ph.D., and Alan R. Graefe, Ph.D.
- 1:20 – 1:40            **Limnology and phytoplankton community structure of Bear Lake (Chautauqua County, NY)**  
Jennifer Wasielewski\*, Courtney Wigdahl-Perry, Jeffrey Diers, State University of New York at Fredonia, Fredonia, NY
- 1:40 – 2:00            **Determining the presence and possible effects of Round Gobies in the French Creek Watershed on native benthic fishes**  
Hannah Eisemann\*, Allyson Wood\*, Casey Brashaw-Wilson, Ph.D., Allegheny College, Environmental Science Department
- 2:00 – 2:05            **The effects of plastic pollution on zooplanktons ability to feed and reproduce**  
Heather Barrett\*, Courtney Wigdahl-Perry, and Sherri Mason, State University of New York at Fredonia  
(Speed Talk)
- 2:05 – 2:40            **BREAK**

**Session Chair:**

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- 2:40 – 3:00            **The behavior of bring shrimp (*Artemia salina*) in turbulence**  
Kato, D.K.\*, Wolfe, T.P., Marys, K.A., and Anderson, E.J., Grove City College, Grove City, PA
- 3:00 – 3:20            **Comparison of tailbeat kinematics during swimming in striped bass (*Morone saxitalis*) of different lengths**  
Daningburg<sup>1</sup>, K.M.\*, Noll<sup>1</sup>, A.R., and Anderson<sup>1, 2</sup>, E.J.  
<sup>1</sup>Grove City College, Grove City, PA, <sup>2</sup>Woods Hole Oceanographic Institution, Woods Hole, MA
- 3:20 – 3:40            **Investigation of boundary layer flow in swimming squid by flow visualization**  
Allen<sup>1</sup>, G.C.\*, Noll<sup>1</sup>, A.R., Turner<sup>1</sup>, E.L., and Anderson<sup>1, 2</sup>, E. J.  
<sup>1</sup>Grove City College, Grove City, PA, <sup>2</sup>Woods Hole Oceanographic Institution, Woods Hole, MA

- 3:40 – 4:00            **The forces on an undulating plastic panel determined by boundary layer flow visualization and transducer measurements**  
 Noll<sup>1</sup>, A.R.\*, Garborg<sup>1</sup>, C.S., Lauder<sup>2</sup>, G.V., and Anderson<sup>1</sup>, E.J.  
<sup>1</sup>Grove City College, Grove City PA, <sup>2</sup>Harvard University, Cambridge, MA
- 4:00 – 6:00            **BREAK**
- 6:00 – 9:00            **DINNER RECEPTION**  
*Food by the Sunset Café, drinks, and entertainment*  
*Presentation of the Hornady Award and Guest Speaker*  
*Need a ticket? It's not too late! Please see Registration Table*

**FRIDAY, NOVEMBER 4, 2016**

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- 8:00 – 8:55            **REGISTRATION OPENS**  
*Register, Upload presentations*  
*Continental Breakfast*
- 8:55 – 9:00            **Welcome**  
 Jeanette Schnars, Ph.D., Executive Director, RSC

**Presentations**

***Session Chair:***

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- 9:00 – 9:20            **Aquatic species inventories of ten state parks in the Commonwealth of Pennsylvania**  
 Joshua Wisor\* and Kyle Clark, MS Wildlife and Fisheries Science, Penn State University
- 9:20 – 9:40            **Comparison of macroinvertebrate fauna across three Pennsylvania drainages**  
 Miranda Mussoline\*, Sara Mueller, Jar R. Stauffer Jr., The Pennsylvania University
- 9:40 – 10:00            **Chironomid diversity of Elk Creek, Erie, PA**  
 Daniel Vogel \*, Sara Mueller, Jar R. Stauffer Jr., The Pennsylvania University
- 10:00 – 10:20            **Separate vs. combined effects of snails, tadpoles, and caddisflies on detritus decomposition in montane kettle ponds**  
 Liana Leja, Allegheny College
- 10:20 – 10:40            **Use of DNA technologies in macroinvertebrate bioassessments**  
 Sara Mueller<sup>1</sup> \*, Aaron Aunins<sup>2</sup>, Timothy King<sup>2</sup>, Jay R. Stauffer Jr.<sup>1</sup>  
<sup>1</sup>The Pennsylvania State University, <sup>2</sup>U.s. Geological Survey

10:40 – 10:45      **Lake Malawi Cichlids**  
Danielle Pierone, Dr. Jay Stauffer, The Pennsylvania State University  
(*Speed Talk*)

10:45 – 11:20      **BREAK**

***Session Chair:***

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11:20 – 11:40      **Multiparameter analysis of *Escherichia coli* bacteria in sand on six Presque Isle State Park beaches, Erie, PA**  
Amber Stilwell\*, Regional Science Consortium, Erie, PA

11:40 – 12:00      **How does the use of Agion Silver Technology change the bacterial flora found on door handles?**  
Michelle Hornedo\*, Kathryn Carl\*, and Beth Potter, Penn State Behrend, Biology

12:00 – 1:00      **LUNCH – THE SUNSET CAFÉ**

***Session Chair:***

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1:00 – 1:20      **Comparison of diatoms found in restored and unrestored sections of Dead Pond, Presque Isle, State Park, Erie, PA**  
Andrew Kubaney \*, Mercyhurst Preparatory School, Regional Science Consortium, Erie, PA

1:20 – 1:40      **Aquatic ecosystem modeling to understand Harmful Algal Blooms in Presque Isle Bay, Erie, PA**  
Dr. Rick Diz, PE \*, Department of Environmental Science and Engineering, Gannon University

1:40 – 2:00      **Interaction of light, phytoplankton, and zooplankton in Presque Isle Bay during development of a cyanobacterial bloom in summer 2016**  
J. Michael Campbell<sup>1</sup>\*, Trevor Surgener<sup>1</sup>, Angelea Belfiore<sup>1</sup>, Rick Diz<sup>2</sup>  
<sup>1</sup>Biology Department, Mercyhurst University, <sup>2</sup>Department of Environmental Science and Engineering, Gannon University

2:00 – 2:20      **BREAK**

2:20 – 2:40      **STUDENT AWARDS AND CLOSING REMARKS**  
Jeanette Schnars, Ph.D., RSC, Executive Director  
*Announcement of RSC Fellowship Program*  
*Student award presentations*  
*Closing remarks*