



# **9<sup>TH</sup> HELLBENDER SYMPOSIUM**

**JUNE 17 – 20, 2019**

**BLACKSBURG, VIRGINIA**

# AGENDA & PRESENTATIONS

JUNE 17 – JUNE 20, 2019

## Monday, June 17

<b>3:00 – 5:00 p.m. Registration &amp; Check-In</b>	Hyatt Place Hotel
4:40 p.m.	Shuttles begin to depart from Hyatt to Holtzman Meet in Hyatt Place Lobby
5:00 – 5:45	Social/mixer Live music by Chloé and Stewart Scales Holtzman Center Terrace
5:45 – 6:00	Opening remarks Holtzman Center General Assembly Hall
<b>6:00 – 7:00</b>	<b>Keynote Address: Fifty-two years searching hollows, ridges, and rivers in West Virginia</b> Dr. Thomas Pauley, Professor Emeritus of Biological Sciences, Marshall University
7:00 – 9:30	Dinner & Keynote Reception Live music by New Standard Bluegrass Holtzman Center Terrace

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## Tuesday, June 18

6:30 – 9:00 a.m.	Complimentary breakfast for hotel guests Hyatt Place Hotel
9:00 – 9:10	Welcome & Logistics Hyatt Place Meeting Room
<b>9:10 a.m. – 12:00 p.m. SESSION I: SURVEYS, MOVEMENT, AND STATUS ASSESSMENTS</b>	
<i>Moderator: Paul Hime, University of Kansas</i>	
9:10 – 9:30	<b>The Bumpy Road to Recovery of the Eastern Hellbender in Ohio</b> Gregory Lipps, Ohio State University
9:30 – 9:50	<b>Ongoing Restoration of an Eastern Hellbender Population in the Upper Susquehanna River Watershed</b> Michelle Herman (Grad), State University of New York
9:50 – 10:10	<b>Spatial ecology of Hellbender Salamanders prior to translocation</b> Bradley Nissen (Grad), Tennessee State University
10:10 – 10:30	<b>Behavioral analysis of electroshocked post-metamorphic juvenile <i>Cryptobranchus alleganiensis bishopi</i> and subadult <i>Cryptobranchus alleganiensis alleganiensis</i></b> Stephanie Morrison (Grad), Missouri State University
<b>10:30 – 10:50</b>	<b>Break</b>

*Moderator: William Hopkins, Virginia Tech*

10:50 – 11:20 **A Species Status Assessment and 12-month petition finding for the Eastern Hellbender (*Cryptobranchus a. alleganiensis*)**

Jeromy Applegate, US Fish & Wildlife Service

11:20 – 12:00 Discussion: Species Status Assessment

**12:00 – 1:20 Break for Lunch (on own)**

**1:20 – 2:40 p.m. SESSION II: JAPANESE GIANT SALAMANDER; PUBLIC ENGAGEMENT**

*Moderator: Mizuki Takahashi, Bucknell University*

1:20 – 1:40 **Long term comparison in the estimated population and the structure of Japanese giant salamander in Matsuzai stream, Kita-Hiroshima-Cho, Hiroshima, Japan**

Yuki Taguchi, Asa Zoo, Hiroshima, Japan

1:40 – 2:00 **Effectiveness of the giant salamander bypass slopes at small dams in a small tributary stream, Tottori Prefecture, western Honshu, Japan**

Sumio Okada, Hanzaki Research Institute of Japan

2:00 – 2:20 **Engaging North Carolina's Trout Anglers and Other Stakeholders to Help Conserve Eastern Hellbenders**

Lori Williams, NC Wildlife Resources Commission

2:20 – 2:40 **Positive Perceptions About an Enigmatic Animal Follows the Conservation Biology Era: Content Analysis from 153 Years of Print and Online Media**

Shem Unger, Wingate University

**2:40 – 3:00 Break**

*Moderator: Rod Williams, Purdue University*

**3:00 – 5:00 EXHIBITION SESSION: Education & Outreach Materials** Hyatt Place Meeting Room & Foyer

5:30 p.m. Shuttles begin to depart from Hyatt to Lane Stadium Meet in Hyatt Place Lobby

5:30 – 6:00 Poster presentation set-up Lane Stadium South End Zone Club Room

6:00 – 9:30 Dinner & Poster Session Reception; State Updates Lane Stadium South End Zone Club Room  
Music DJ Bobby Parker

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## Wednesday, June 19

6:30 – 9:00 a.m. Complimentary breakfast for hotel guests Hyatt Place Hotel

9:00 – 9:10 Welcome & Logistics Hyatt Place Meeting Room

### 9:10 – 11:50 a.m. SESSION III: DISEASE AND PHYSIOLOGY

*Moderator: Amy McMillan, SUNY Buffalo State*

- 9:10 – 9:30      **Associations between land cover and corticosterone profiles of free-ranging eastern and Ozark hellbenders from Missouri**  
Cathy Bodinof Jachowski, Clemson University
- 9:30 – 9:50      **Neutrophil: lymphocyte ratios as a measure of chronic stress in populations of the hellbender (*Cryptobranchus alleganiensis*) across a habitat quality gradient**  
Allison Litmer (**GRAD**), University of Arkansas
- 9:50 – 10:10    **Assessing Presence and Concentration of Herbicides and Heavy Metals at Current and Historical Hellbender (*Cryptobranchus alleganiensis*) Sites**  
Jeronimo Silva, Tennessee State University
- 10:10 – 10:30   **Captivity-induced changes in the skin microbial communities of hellbenders (*Cryptobranchus alleganiensis*)**  
Obed Hernandez-Gomez, University of California Berkeley
- 10:30 – 10:50   Break**
- 10:50 – 11:10   **Lesion Severity and Associated Skin Health Parameters in Endangered Ozark Hellbender**  
Rebecca Hardman (**GRAD**), University of Tennessee
- 11:10 – 11:30   **Release of captive-raised Eastern hellbenders (*Cryptobranchus alleganiensis alleganiensis*) to test the success of a chytrid vaccine and cage release method**  
Megan Kocher (**GRAD**), Buffalo State College
- 11:30 – 11:50   **Some Skin Secretions of Hellbender Salamanders: A Review**  
Max Nickerson, University of Florida
- 11:50 – 1:20    Break for Lunch (on own)**

### 1:20 – 2:40 p.m. SESSION IV: ARTIFICIAL SHELTERS

*Moderator: Lorie Stroup, USDA Forest Service*

- 1:20 – 1:40      **Use of Artificial Shelters (Nest Boxes) to Supplement Breeding Habitat for Hellbenders (*Cryptobranchus alleganiensis*)**  
Jeff Briggler, Missouri Department of Conservation
- 1:40 – 2:00      **Resiliency of Artificial Shelters to Dynamic Stream Conditions in North Carolina**  
Lauren Diaz (**GRAD**), Clemson University
- 2:00 – 2:20      **Improving the efficacy of artificial shelters as tools for studying eastern hellbenders: lessons learned over 5+ years of shelter deployment**  
Sky Button (**GRAD**), Virginia Tech

2:20 – 2:40	<b>Detection of Hellbenders (<i>Cryptobranchus alleganiensis</i>) occupying artificial shelters using remote passive integrated transponder (PIT) tag scanning technology</b> Brian Case (GRAD), Virginia Tech	
<b>2:40 – 3:00</b>	<b>Break</b>	
<i>Moderator: William Hopkins, Virginia Tech</i>		
<b>3:00 – 5:00</b>	<b>EXHIBITION SESSION: Artificial Shelters</b>	Hyatt Place Foyer
5:40 p.m.	Shuttles begin to depart from Hyatt to Rising Silo	Meet in Hyatt Place Lobby
6:00 – 10:00	Dinner & Social; Outstanding Graduate Student Presentation Award Live music by Clover Hollow	Rising Silo Brewery

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## Thursday, June 20

6:30 – 9:00 a.m.	Complimentary breakfast for hotel guests	Hyatt Place Hotel
8:55 – 9:00	Welcome	Hyatt Place Meeting Room
<b>9:00 – 10:20 a.m.</b>	<b>SESSION V: NON-INVASIVE MONITORING; CAPTIVE PROPAGATION</b>	
<i>Moderator: Michael Freake, Lee University</i>		
9:00 – 9:20	<b>Development of an Instream Tag Monitoring System for the Eastern Hellbender Salamander</b> Peter J. Petokas, Lycoming College	
9:20 – 9:40	<b>Site occupancy and concentrations of hellbender environmental DNA in a large river</b> Mizuki Takahashi, Bucknell University	
9:40 – 10:00	<b>A Review of a Long-Term Program to Develop Reproduction Technologies for Eastern Hellbenders (<i>Cryptobranchus a. alleganiensis</i>) at the Nashville Zoo</b> Sherri Reinsch, Nashville Zoo	
10:00 – 10:20	<b>Comparing the effects of environmental conditioning on survivorship of captive-reared hellbenders</b> Nick Burgmeier, Purdue University	
<b>10:20 – 10:40</b>	<b>Break</b>	
<b>10:40 – 12:00</b>	<b>Follow-up Discussions and Planning for 10<sup>th</sup> Hellbender Symposium</b>	
12:00 p.m.	Adjourn	
1:30 p.m.	Shuttles begin to depart from Hyatt to New River	Meet in Hyatt Place Lobby
2:00 – 8:00	Social & picnic on the New River	