

# American Malacological Society

89th Annual Meeting  
Tuscaloosa AL  
August 1 - 5, 2023



Sponsored By:

Tuesday - Aug 1st



Wednesday - Aug 2nd Rast A+B

Wednesday - Aug 2nd

## President's Symposium: Freshwater Mollusk Diversity in a Biodiversity Hotspot

9<sup>00</sup>

**Kevin Kocot**  
Welcome

9<sup>15</sup>

**Carla Atkinson**  
President's Symposium Opening

9<sup>30</sup>

**Dave Strayer**  
Hard problems for freshwater mussel conservation: lagged effects and effective monitoring

10<sup>30</sup>

Coffee Break

11<sup>00</sup>

**Nathan Whelan**  
Conservation genetics research is critical for freshwater mollusk conservation: recent applications and surprising data

11<sup>30</sup>

**Arthur Bogan**  
50 years of freshwater bivalves: Shells to DNA

12<sup>00</sup>

Lunch Break

1<sup>30</sup>

**Caryn Vaughn**  
Spatial variation in mussel community composition and richness results in distinct stoichiometric hotspots in rivers across a biogeographic region

2<sup>00</sup>

**Alexa Maine**  
Freshwater Mussels as a First Food: Cultural and Ecological Significance to the Confederated Tribes of the Umatilla Indian Reservation

2<sup>30</sup>

**Ellen Strong**  
New insights into the relationships of freshwater gastropods with a new universal probe set for the Caenogastropoda

3<sup>00</sup>

Coffee Break

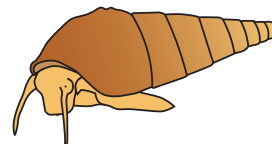
## Selected Contributed Talks

3<sup>20</sup>

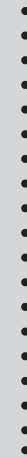
**Daniel Graf**  
Unionoid cladomics: a novel biodiversity informatics approach to the new freshwater mussel taxonomy

3<sup>40</sup>

**Elizabeth Davis-Berg**  
Anderson County Kansas, diversity differences in the Tallgrass Prairie



4<sup>00</sup>



6<sup>30</sup>

Poster Session

Bryant Conference Center Rast A+B

Student and Postdoc Mixer



Black Warrior Brewing Company



Program and Abstracts

3<sup>00</sup>

AMS Council Meeting  
(AMS Council Members Only)



5<sup>00</sup>

Mary Harmon Bryant Hall  
328

6<sup>00</sup>

Welcome Reception:  
Registration and  
Ice Breaker



10<sup>00</sup>

Grand Gallery  
Alabama Museum of Natural History/Smith Hall

### Ecology and Diversity of Freshwater Mollusks

**9:00** **Matthew Lodato**  
Linking morphology to resource assimilation: An evaluation of the trophic niche, morphology, and their relationship in functionally similar aquatic species.

**9:20** **Russel Minton**  
Diversity in the desert: Conservation and microbiomics of endemic freshwater snails in West Texas

**9:40** **Sabrina Robinson**  
Mollusk Populations in Loon Lake, Whitley County, Indiana, from 1926 and 2022

**10:00** **Yu Kai Tan**  
Cost of Living: Morphometry Reveals Patterns of Clinal Variations in US Freshwater Mussels (Family Unionidae)

**10:20** **Coffee Break** 

**10:40** **Hannah Adkins**  
Linking Physiology, Behavior, and Thermal Tolerance in Freshwater Mussels.

**11:00** **Hannah Collins**  
Determination of the upper size limit of microplastic particles that can be ingested by the Quagga mussel, *Dreissena bugensis*

**11:20** **Irene Sánchez-González**  
Phenotypic responses to environmental gradients: a three-dimensional quantitative approach to assess mussel shell plasticity

**11:40** **Jonathan Lopez**  
High and low flows place hydrodynamic constraints on freshwater mussel communities

### Biodiversity, Taxonomy, and Phylogenetics

**9:00** **Megan Smith**  
Inferring phylogenetic relationships and testing for introgression in taildropper slugs

**9:20** **Kevin Kocot**  
Scaphopoda is the sister taxon to Bivalvia: evidence of ancient incomplete lineage sorting

**9:40** **Nickellaus Roberts**  
Phylogenetic Placement of Mollusca and its Evolutionary Implications

**10:00** **Alexandra Tew**  
A Resolved Phylogeny of Cephalopoda Yields New Insights into This Ancient Invertebrate Lineage

**10:40** **David Campbell**  
What good is a broken barcode: *cox1* in pleurocerids and semisulcospirids

**11:00** **Jesús Martínez Sanjuán**  
Morphoanatomic study and molecular systematics of the family Pruvotiniidae (Mollusca, Solemgastres)

**11:20** **Timothy Campbell**  
Molecular Phylogeny and Resulting Classification of Caenogastropoda, Utilizing 28S and *cox1*

**11:40** **William Farris**  
A striking new species of *Dondersia* (Mollusca, Aplacophora) from the Gulf of Mexico and new data from other species of the genus

### Ecology and Diversity of Freshwater Mollusks

**9:00** **W.A.N.U. Abeyrathna**  
Unusually high levels of connectivity in the invasive gastropod, *Callinina georgiana* (Caenogastropoda: Viviparidae) across a fragmented aquatic landscape: a mitochondrial perspective.

**9:20** **Jamie Bucholz**  
Hierarchical structuring of genomic differentiation and beta diversity within freshwater mussel communities

**9:40** **Steven George**  
A comparison of freshwater mussel populations in the Boeuf River, Northeast Louisiana: 550 A.D. to recent times

**10:00** **Jay Cordeiro**  
Integrating the Museum Voucher Specimen into Academic Curricula: A Case Study with Freshwater Mollusks

**10:20** **Coffee Break** 

**10:40** **Paul Johnson**  
Recovery of the pale lilliput, *Toxolasma cylindrellus*: a federally endangered freshwater mussel in Alabama and Tennessee.

**11:00** **Monika Bohm**  
Saving Mussels from Extinction: strengthening the role of zoos and aquariums

**11:20** **Daya Hall-Stratton**  
Species Confirmation and Population Genetics of the Non-native Mystery Snails *Heterogen japonica* and *Cipangopaludina chinensis* Within the Eastern United States

**11:40** **Carla Atkinson**  
Interspecific and intraspecific variation in freshwater mussel tissue stoichiometry

### Ecological Interactions and Adaptations

**9:00** **John Wares**  
The Genomic Ghosts of *Geukensia granosissima*

**9:20** **Casey Richart**  
Pharmarhabditis hermaphrodita, a biocontrol nematode species, infects and increases mortality of *Monadenia fidelis*, a non-target terrestrial gastropod species endemic to the Pacific Northwest of North

**9:40** **Thomas Duda**  
Effect of habitat type on size-frequency distributions of *Conus* species from seaward and lagoon reefs of Rangiroa (Tuamotu Archipelago, French Polynesia)

**10:00** **Tyler Griffin**  
A multi-study analysis of gut microbiome data from the blue mussel (*Mytilus edulis*) emphasizes the methodological impact of gut voidance on biological interpretation

**10:20** **Coffee Break** 

**10:40** **Meagan Haubner**  
Using microbiomics to determine why some snails become pests and others are in peril

**11:00** **Timothy Pearce**  
Land slugs and snails eaten by juvenile salmonid fish in two Seattle creeks.

**12:00** **Lunch Break**  **JEDI Panel @ 12:30**  Rast B **Lunch Break** 


### Physiology and Molecular Biology

**2:00** **Jingchun Li**  
Comparative transcriptomics revealed molecular mechanisms in bivalve photosymbiosis

**2:20** **Matthew McDonald**  
The Development of Amino Acid Racemization Age Models Based on New and Historically Collected Terrestrial Snails from Jamaica.

**2:40** **Giovanna Omura**  
Evolutionary Adaptations and sensory differentiation: Exploring olfactory receptors in the Phylum Mollusca

**3:00** **Andy Tan**  
Complete Mitogenomes of Photosymbiotic Bivalves Reveal Elaborate Repeats within Non-Coding Regions

**3:20** **Coffee Break** 

**3:40** **Meghan Yap-Chiongco**  
Tracing the Evolutionary Origins of Biomimicry: Insights from Two Aplacophoran Genomes

### Biodiversity, Taxonomy, and Phylogenetics

**2:00** **Chandler Olson**  
Islandic Aplacophora: Remarkable undescribed diversity in the deep sea

**2:20** **Adam Frankiewicz**  
Using Geometric Morphometric Analysis to Differentiate Two Species of Sphaeriidae (Sphaerium simile and Sphaerium striatinum)

**2:40** **Emily McLaughlin**  
A monograph of Antarctic Solemgastres

**3:00** **Nancy Treneman**  
We're not just in the shallows: shipworm diversity and distribution in marine habitats

### Natural History Collections

**2:00** **Paul Callomon**  
HaptoNet: digitizing adherent organisms in museum collections

**2:20** **Meghan Yap-Chiongco**  
AplacBase: A Digital Database to Make Aplacophora Less Obscure and Difficult

**2:40** **Gary Rosenberg**  
Determining live- versus dead-collected status of mollusks

**3:00** **Carmen Cobo**  
Uncovering marine biodiversity through Natural History Collections: Solemgastres (Mollusca, Aplacophora) from New Zealand as a case study


**3:20** **Coffee Break** 

**4:00** **Society Wide Business Meeting**


**6:00** **Banquet**  Grand Gallery  
Alabama Museum of Natural History/Smith Hall

### Saturday - Aug 5th

**9:00** **Field Trip**  
Catered Lunch

 **In front of Hotel Capstone**

**11:00** **HaptoNet Workshop**

 **Mary Harmon Bryant Hall 328**

Thanks for coming!

