



FINAL CALL FOR ABSTRACTS for

FMCS 2023 SYMPOSIUM
April 10-14, 2023



The 13th Biennial symposium of the Freshwater Mollusk Conservation Society will be held from April 10-14, 2023, at the Hilton DoubleTree hotel in Portland, Oregon. The theme for the symposium is

From the Mountains to the Sea and Mollusks in Between.

Traditional topics for past presentations have included: Life History & Ecology, Status and Distribution of Mollusks, Surveys and Monitoring, Propagation, Ecosystems and Community Ecology, Genetics and Phylogeny, Ecosystem Services, Habitat and Mollusk Community Restoration, Contaminants and Ecotoxicology, Outreach, Climate Change, Invasive Mollusks, and Mollusk Kills.

INSTRUCTIONS FOR AUTHORS

Abstracts will be due by 11:59 pm Eastern U.S. on **Friday, January 27, 2023**.

We may be able to accommodate pre-recorded presentations for some individuals who find they cannot attend in person.

In addition, we will offer opportunities for 5-minute “**lightning talks**,” for those who want to share quick updates or just early results on a project. Please email Patricia Morrison at pearlymussel@gmail.com if you are interested in presenting one, no full abstract is required.

Submittal: Abstracts should be submitted as an email attachment in Microsoft Word® or Rich Text format to Patricia Morrison at pearlymussel@gmail.com.

File name should include presenter’s last name and initials (e.g., jonesjm.doc). Acknowledgment of abstract receipt, if requested, will be provided by e-mail.

Abstract format: The abstract should be typed in **Calibri 12-pt font**, and contain the title in **BOLD, CAPITAL** letters, followed by the author(s), and address(es). Underscore the presenter's name. Skip one line and begin the text including a clear summary of presentation including objectives, results, and conclusions. Please keep abstracts to 300 words or less (see example below) and be sure to include the information at the bottom for us:

DROUGHT-INDUCED MASS MORTALITY OF FRESHWATER MUSSELS ALTERS ECOSYSTEM FUNCTION: A MESOCOSM EXPERIMENT. Traci P Dubose¹, Carla L Atkinson², Caryn C Vaughn¹ & Stephen W Golladay³. 1University of Oklahoma, Norman, OK; 2University of Alabama, Tuscaloosa, AL; 3Jones Center at Ichauway, Newton, GA.

Droughts are becoming more frequent and intense globally. As sedentary organisms, native freshwater mussels are vulnerable to the high water temperatures and shrinking aquatic habitat caused by extreme events. While drought-driven die offs have been documented in the southern Great Plains, the ecosystem impacts of these droughts have not been completely quantified. To better quantify impacts of mussel mass mortality events on ecological function, we conducted a mesocosm experiment that simulated a mussel die-off. We created three scenarios in eighteen 946L mesocosms: nine control mesocosms without freshwater mussels, four mesocosms with a live mussel community, and five mesocosms with a mussel community that experienced a die-off. We measured water column nutrients, primary production, and the macroinvertebrate community before (3 samples over 20 days) and after (4 samples over 39 days) the mussel mortality event. We also measured mussel decomposition following the die-off. In the week after the die-off, ammonium increased by 94% in the mortality mesocosms and was significantly higher than the control mesocosms, but not the live mesocosms. Soluble reactive phosphorus increased in mortality mesocosms but was not significantly different than the control or live mesocosms. The rapid nutrient release following mussel mortality likely stimulates both the autotrophic and heterotrophic components of river food webs. Benthic gross primary production was greater in mortality and live mesocosms than in control mesocosms. Decomposition of organic matter increased immediately following mussel death in mortality mesocosms and was statistically different than live mesocosms. We combined our mesocosm experiment results with field observations and the literature to build a conceptual model of how unionid mass mortality events likely impact ecosystem function across short and long time scales. This conceptual model should aid development of conservation and management strategies that sustain stream structure and function in the face of drought-driven mussel losses.

Presentation format: Please select one:

Oral Platform (15 minutes plus 5 minutes for questions) or

Poster (The poster should be readable from 5 feet, titles from 10 feet; and the poster should not exceed a size of 4 feet high by 4 feet wide. Authors must be present at the designated poster session.)

Student: Yes/No? *

Willingness to switch formats (platform to poster or vice versa): Yes/No

Interested in submitting as a pre-recorded talk : Yes/No

*Note: All students submitting abstracts, provided they meet eligibility requirements, will be judged for the best student platform or poster presentation, unless otherwise indicated.