

Dedicated to the Conservation of North America's Arid Land Ecosystems

# 53rd Annual Meeting Short Program

17-18 November 2021 Online Hosted by Texas A&M University

### **Overview**

Date and Time	Event
Wednesday, 17 November 2021	
09:00-09:30	Welcome
09:30-12:00	General Session I
12:00-13:00	Lunch
13:00-15:00	General Session II
15:00-16:00	Interactive Poster Session I
Thursday, 18 November 2021	
9:00-10:00	Business Meeting
10:00-12:00	General Session III
12:00-13:00	Lunch
13:00-14:45	Pre-Recorded Presentations
14:45-15:45	Interactive Poster Session II
15:45-16:00	Awards

### **Important Information**

Note that all times are U.S. Mountain Standard Time. Please take this into consideration if you are participating from a different time zone.

Posters are listed at the end of the program and will be available for viewing on a website throughout the meeting . Sessions to interact with the authors occur after the oral presentations each day. Posters have been assigned to either the Wednesday or Thursday interactive session. Depending on participation there may be flexibility, so authors *may* wish to attend both sessions.

Submissions competing for one of the student awards are indicated in superscript in the left column of the Program. CLH = Carl Hubbs Award; PA = Student Poster Award.

Details for logging into the meeting, uploading oral presentations and posters and viewing prerecorded presentations as well as other pertinent information will be forthcoming prior to the meeting.

## Short Program Detail

Wednesday, November 17

9:00-9:30	Welcome
9:30-12:00	General Session I
9:30	Crosby Hedden, David Rogowski, Jan Boyer and Lauren Mason-Sarantopulos. Dam its Cold: Spatial and Temporal Changes in Fish Occurrence in the Grand Canyon
<del>9:45</del>	Zachary Beard. Development of a routine monitoring schedule for Roundtail Chub in Arizona
10:00	David Rogowski, Pilar Wolters and Cory Nielson. Assessing competition between Razorback Sucker and Flannelmouth Sucker?
10:15	Elizabeth Renner, Michael Schwemm, Brandon Albrecht and Ron Rogers. The food web has not moved a mussel: no evidence of quagga mussel effects on plankton communities, endangered Razorback Sucker ( <i>Xyrauchen texanus</i> ) abundance after 15 years of monitoring in Lake Mead, Nevada-Arizona, USA
10:30 <sup>сін</sup>	Reece Samuelson, Derek Houston, Russ Japuntich, Daniel Cammack and Hannah Carrol. Three-Species on the move: tracking movement patterns to inform conservation of three native fishes in the Dolores River basin
10:45	Kevin Guadalupe, Brandon Senger and James Harter. Ten-year review of conservation actions and status of the Pahrump Poolfish
11:00	Skyler Hedden, Julie Carter, Brandon Albrecht, Ron Rogers, Kevin Guadalupe and Brandon Senger. Re-Purifying the Virgin (River): Alleviating Native Fish Stressors through Red Shiner Management
11:15	David Syzdek. Ongoing restoration projects for the endangered Moapa dace, <i>Moapa coriacea</i> , at the Warm Springs Natural Area, Clark County, Nevada
11:30 <sup>сլн</sup>	Bridger J. Scraper, Sekhar M. A., Cody M. Anderson, Shawn C. Goodchild, Brian D. Wisenden and Craig A. Stockwell. Does evolutionary naïveté explain the anti-predator response of the Moapa White River Springfish ( <i>Crenichthys baileyi moapae</i> )?
11:45	Christopher Hoagstrom and Anthony Echelle. Southwestern endemic Macrhybopsis: legacies of peripheral isolation
12:00-13:00	Lunch
13:00-15:00	General Session II
13:00	Elizabeth Grube, Brian Hickerson and Anthony Robinson. Evaluating Gila Topminnow <i>Poeciliopsis occidentalis</i> Survival During Transport

13:15	Jeffrey Goldstein, Ambre Chaudoin, Kevin Wilson, John Wullschleger, Michael Schwemm, Olin Feuerbacher, Jennifer Gumm, Alex Jones, Michael Bower, Javier Linares-Casenave and Brandon Senger. Managing an iconic species during a global pandemic
13:30	Olin Feuerbacher, Jennifer Gumm, Kevin Wilson, Jeffrey Goldstein, Ambre Chaudoin, Michael Schwemm, Mitchell R. Stanton, Brandon Senger, Alex Jones, John Wullschleger, Javier Linares and Corey Lee. Advances in Captive Rearing of the Devils Hole Pupfish, <i>Cyprinodon diabolis</i>
13:45	Jennifer Gumm, Mitchell Stanton and Olin Feuerbacher. Staying true to form? Growth rates and morphology of wild, refuge and lab derived Devils Hole pupfish ( <i>Cyprinodon diabolis</i> )
14:00	Michael Schwemm, Jennifer Gumm, Olin Feuerbacher, Jeffrey Goldstein, Ambre Chaudoin, Kevin Wilson, John Wullschleger, Brandon Senger and Alex Jones. Genetic management of the Devils Hole pupfish: More fish, more fins, more data
14:15	Peter Unmack, Karl Moy and Alejandro Trujillo-Gonzalez. Unprecedented decline of fishes in the northern Murray-Darling Basin, Australia: Darling Hardyhead experience major losses
14:30 <sup>CLH</sup>	Nicolas Alexandre, Alexander Cameron, David Tian, Faisal Alzaben, Sree Kolora, Manjusha Chintalapati, Kamalakar Chatla, Thomas Turner, Priya Moorjani, Peter Sudmant, Noah Whiteman and Peter Reinthal. Using Conservation Genomics Inference and Prediction to Inform Future Management Decisions
14:45	Peter Reinthal, Nicolas Alexandre, Alexander Cameron, Thomas Turner and Noah Whiteman. A Comparison of Effective Population Size (Ne) of Spikedace, <i>Meda fulgida</i> , in Aravaipa Creek, using Population Estimate and Census Methods versus Whole Genomic Inferences.
15:00-16:00	Interactive Poster Session I (posters listed at end of program)

End of Day 1

### Thursday, November 18th

9:00-10:00	Business Meeting
10:00-12:00	General Session III
10:00	Patrick Donnelly. The Endangered Species Act Is Good, Actually
10:15	Lindsey Bruckerhoff, Kevin Wheeler, Kimberly Dibble, Bryce Mihalevich, Bethany Neilson, Jian Wang, Charles Yackulic and Jack Schmidt. Water Storage Decisions and Consumptive Use Constrain Ecosystem Management under Severe Sustained Drought
10:30	Michael Bogan. Reviving a desert river: benefits, challenges, and opportunities of a multi-stakeholder effort to restore flow in the Santa Cruz River
10:45	Yale Passamaneck, William Stewart and Kent Mosher. Non-Native Fish Detection in the Central Arizona Project Canal Using eDNA Metabarcoding
11:00	Lindsey Elkins, Matthew Acre, Joshuah Perkin, Megan Bean, Sarah Robertson, Ryan Smith and Stephanie Parker. Going the distance: Multiscale assessment of Conchos Pupfish ( <i>Cyprinodon eximius</i> ) abundance and distribution in West Texas
11:15	Joshuah Perkin, Matthew Acre and Megan Bean. Multiple survey methods reveal greater abundance of endangered pupfish in restored habitats
11:30	Jordan Holcomb, Keith Lawrence, Alan Ward, Jack Dudding and Weston Pearce. Use of Spray Marking as a Tool to Mark Least Chub ( <i>lotichthys phlegethontis</i> ) for Mark- Recapture Studies
11:45	Scott Bonar. Statement of World Aquatic Scientific Societies on the Need to Take Urgent Action against Human-Caused Climate Change, Based on Scientific Evidence: Development and Overview.
12:00-13:00	Lunch
13:00-14:45	Pre-recorded Presentations
13:00	Edward Wild, Keith Gido and Lindsey Bruckerhoff. Behavioral response of loach minnow, <i>Tiaroga cobitis</i> , to nonnative predators
13:15 <sup>CLH</sup>	Sophia M. Bonjour, Keith B. Gido, Mark C. McKinstry, Charles N. Cathcart and Matthew R. Bogaard. Fidelity, proximity, and climate determine tributary use of spawning flannelmouth sucker in a desert river
13:30	Drew Dittmer. 2021 Bonneville Basin Coordinator Update
13:45 <sup>clh</sup>	Cody M. Anderson, Brian D. Wisenden and Craig A. Stockwell. Evaluation of Antipredator Responses and Evolutionary Naïveté for Three Western Fish Species

15:45-16:00	Awards
14:45-15:45	Interactive Poster Session II (posters listed at end of program)
14:30 <sup>CLH</sup>	Matthew Bogaard, Keith Gido, Mark McKinstry, Casey Pennock, Adam Barkalow, Benjamin J. Schleicher, Brian Hines, Katherine Creighton, Sophia Bonjour, Jerrod Bowman and T. Kim Yazzie. Assessing a capture-translocation strategy to improve spawning migration connectivity of Razorback Suckers, <i>Xyrauchen texanus</i> , in the San Juan River.
14:15 <sup>CLH</sup>	Chad Teal, Daniel Schill, D. Katharine Coykendall, Matthew Campbell, Susan Fogelson, Daniel Eardley, Thomas Delomas, Colby Roberts, Melanie Culver, Kevin Fitzsimmons and Scott Bonar. Efforts in the development of Trojan sex chromosome carrying Red Shiner ( <i>Cyprinella lutrensis</i> ) and Green Sunfish ( <i>Lepomis cyanellus</i> ) for the control of nuisance populations in the Southwest
14:00	Koreen Zelasko, Kevin Bestgen and Gary White. Incorporating passive antenna detections with physical recaptures improves survival rate estimates for Razorback Suckers, <i>Xyrauchen texanus</i> , stocked in the Upper Colorado River Basin

#### End of Meeting

	Posters
Posters will be available for viewing throughout the meeting.	
	(PA indicates posters competing for the Student Poster Award)
Wednesday	Brian Hickerson, Evan Booher, Elizabeth Grube and Anthony Robinson. Assessing conservation potential of streams for Spikedace and Loach Minnow using species distribution modeling
Wednesday <sup>PA</sup>	Michaela Fishback, James Whitney, Blake Hansen and Amber Bell. Nonnative Virile Crayfish ( <i>Faxonius virilis</i> ) Distribution and Density in Secondary Channel and Island Backwaters of the San Juan River, NM, CO, and UT
Wednesday	Lauren Mason-Sarantopulos Lauren, David Rogowski, Jan Boyer and Crosby Hedden. So Long Sucker: Comparing Growth Rates among Purebred Suckers and their Hybrids in a Laboratory Setting
Wednesday <sup>PA</sup>	Lauren Yancy, Joshuah Perkin and Matt Acre. Diel fluctuations in Comanche Springs Pupfish Abundances in San Solomon Springs, Balmorhea State Park
Thursday	David Speas. 2021 Upper Colorado Area Report
Thursday	Ronald Rogers. Lower Colorado River Area Report
Thursday <sup>PA</sup>	Justin Waraniak, David Rogowski and Craig Stockwell. Trade-offs among life history traits and parasite intensity in the White Sands pupfish ( <i>Cyprinodon tularosa</i> )
Thursday <sup>PA</sup>	Robert Chadwick, David Rogowski and Crosby Hedden. Measuring Activity Levels in Razorback Sucker <i>Xyrauchen texanus</i> and Flannelmouth Sucker <i>Catastomus latipinnis</i>
Thursday <sup>PA</sup>	Maddie Housh and Sean Lema. Effects of thermal environment on reproductive physiology in Amargosa pupfish, Cyprinodon nevadensis amargosae