NOVEMBER 2023

ON THE WATER

Texas Aquatic Plant Management Society Newsletter

HERE'S WHAT'S UP!

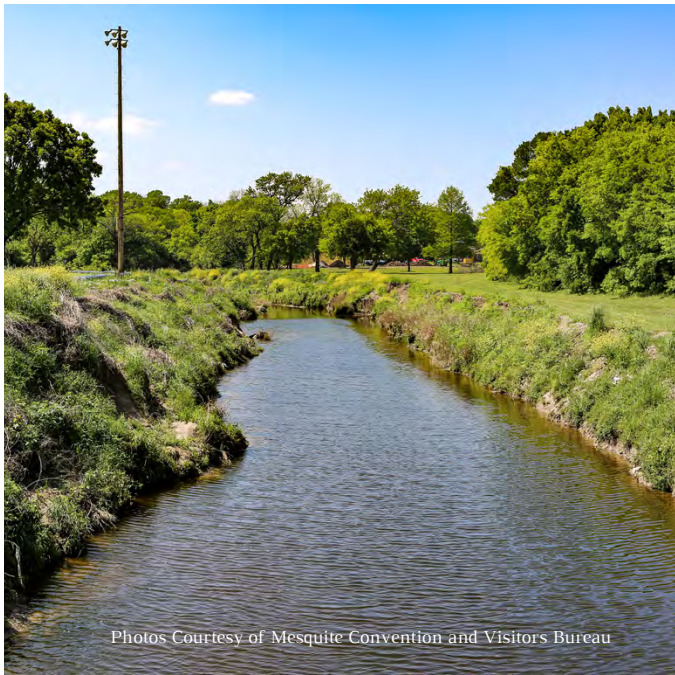
See You Soon!

By Haley Kokel, President-Elect

I hope you are excited to meet in North Texas and the unique opportunity to visit the John Bunker Sands Wetland Center. This year we have several new topics and speakers on the agenda. I am very thankful for the board of directors and the contributions made for making this meeting program possible. I will see you in Mesquite!

Visit our 2023 TAPMS Annual Meeting website to learn more about how to register and book your hotel room at the Mesquite Hampton Inn. We hope that you will join us November 15-17 in Mesquite!!

Remember you can always stay up to date by following our social media accounts or subscribing our email blasts on our website: https://www.tapms.org/



Photos Courtesy of Mesquite Convention and Visitors Bureau

Plant Highlight

Pontederia cordata

by Haley Kokel

Pontederia cordata, pickerelweed, is most easily recognized by its eye-catching purple flower spikes that you can might find from February to November depending on where you are in Texas.

When not in bloom, it can still be identified by the dark green heart shaped leaves that usually grow 3'-4' tall.

Pickerelweed reproduces vegetatively by growing new plants along the rhizome and also by the seeds

.

Pickerelweed is one of my favorite plants because it can be incorporated to help meet a variety of goals in your pond and is resilient to flooding and drought, once established. Growing in up to 2 feet of water, pickerelweed provides underwater structure and habitat for invertebrates and fish. The vegetation above ground is beneficial as well creating a home for spiders and insects. The nectar and pollen attract numerous butterflies and bees to the flowers and dragonflies use them as a place to land. The dense root systems contribute to holding soil in place to prevent erosion. During drought, vegetative material will likely be absent, but the rhizomes can survive long periods of time out of the water with their roots able to find underground moisture. You may still see some of the purple pickerelweed flowers, but most plants are going dormant with only vegetation and seeds left.

Presentation Spotlight!

Keep an eye out for these 3 student presentations at the TAPMS Annual Meeting!

Kristina Hellinghausen

University of North Texas

Examining the Effects of Nitrogen Enrichment on Growth Patterns of Smooth Cordgrass Cultivated in Various Sediment Regimes

A primary concern in coastal ecosystems is the increasing threat of nitrogen (N) pollution, in which salt marshes serve as buffers by retaining, transforming, and recycling nitrogen. Further, beneficial use of dredged material (BUDM) is an increasingly prevalent strategy for wetland mitigation projects. Smooth cordgrass (*Spartina alterniflora*) is a predominant interceptor of N and an essential halophyte in restoration of salt marshes, yet little is known regarding the impact of N on its allocation of biomass and photosynthetic capacity when cultivated in dredged material. This study was designed to fill this knowledge gap by determining the effect of N on stem height (cm) , above and belowground biomass (DW g) , and total chlorophyll (mg/L) over a 7-week period across a gradient of four N concentrations and three sediment types. The data suggests that increasing N generally promoted an increase in stem height and aboveground biomass, while growth of belowground biomass was stimulated to a lesser extent. Plants grown in all-purpose soil and dredged material tended to favor the more mid-level N concentrations for growth of both tissue types, while those in native estuarine sediment favored high N. The results of this study pose important implications for ecological restoration practitioners aiming to enhance vegetation establishment in wetlands created with the beneficial use of dredged material.

Tighearnan Juarez Murphy

Texas State University

Geomorphic Response of Saltcedar Management in the Upper Brazos River

Saltcedar (*Tamarix spp.*) is an invasive phreatophyte originating from the Mediterranean, North Africa, and Asia. Brought to the United States for ornamental plantings and erosion control in the 19th century, it has since become invasive, particularly in the southwest. Within the upper Brazos River (UBR) watershed, this invasive species has altered instream sedimentation dynamics along with channel and floodplain morphologies. The armoring of stream banks by saltcedar has reduced stream width, deepened channels, and increased velocities. Saltcedar is also suspected of using greater quantities of groundwater than native vegetation, furthering the need for management. The UBR is also the critical habitat of two endangered fish species: the Sharpnose Shiner (*Notropis oxyrhynchus*) and Smalleye Shiner (*Notropis buccula*). These fish require wide, shallow and sandy instream conditions that saltcedar is threatening. Since 2016, Texas Parks and Wildlife Department (TPWD) has treated saltcedar along the UBR with the herbicide imazapyr via helicopter application. Studies have shown that there has been an overall decrease in saltcedar in managed areas, although it remains an ongoing issue within the UBR. This presentation will explore the differences in grain sizes from sediment samples taken in 2017 and 2022 to understand the geomorphic responses of the UBR to the management of saltcedar. The results of the comparative analysis will be discussed at the conference.

Katie Vasquez
University of North Texas

Restoration of Aquatic and Riparian Ecosystems

Lady Bird Lake and Lake Austin are adjacent reservoirs in Austin, Texas with the primary functions of electrical power generation, flood control, and recreation. In 1999, the invasive submerged aquatic macrophyte (SAV), Hydrilla verticillata was observed in Lake Austin where it established over the span of the lake, though never establishing in Lady Bird Lake. Management strategies to eradicate Hydrilla included the stocking of sterile Asian grass carp, Ctenopharyngodon idella. This practice nearly eliminated Hydrilla and resulted in the decline of native aquatic vegetation and increased shoreline erosion. Conservation efforts to reestablish the vegetation are underway. SAV, in addition to facilitating nutrient uptake and retention, enhancing water clarity, stabilizing substrate, and attenuating wave energy, provides food and refugia for aquatic fauna. My research aims to understand the biological implications of the restoration of various SAV assemblages by analyzing the macroinvertebrate communities present within bare, mixed, and monocultured habitat regimes. The data suggests that mixed-cultured SAV, site disturbance, and macroinvertebrate taxonomic resolution are the primary determinants of macroinvertebrate richness, abundance, and diversity.

The Doppelgangers

Cabomba caroliniana vs *Limnophila sessiliflora*

by Casey Williams

One of the most important aspects of proper aquatic vegetation management is accurate identification of the target species. This can be difficult in aquatic plants as many share similarities and characteristics even though they may not be closely related. Confusion is exacerbated if one has no way to directly compare between the plants or unaware that a doppelganger species even exists. Education and awareness is vital. Two species which are very much similar in appearance and could be easily confused by the aquatic management professional are *Cabomba caroliniana* and *Limnophila sessiliflora*.

Neither species is closely related, belonging to separate plant families, yet share very similar foliage traits and growth forms. Subtle differences in leaf arrangement and flowering are key to separating the species. Although flowers are not always present.

Cabomba caroliniana is somewhat common in the eastern third of Texas but can also be found introduced into other Texas regions. While native it can become problematic in neutral waters with high amounts of CO2. *Limnophila sessiliflora* is introduced to North America. Although not common in Texas it could be more widespread than currently assumed due to lack of knowledge regarding the plant. It is popular in the aquarium trade. Currently *Limnophila sessilflora* range is centered in central Texas and a few locations along the coast.

Both species have a very similar submersed growth form with upright stems reaching the surface. Leaves on both species are fan like, highly dissected and similar in size. In *Cabomba caroliniana* leaves are arranged in an opposite configuration along the stem with distinctive petioles. In *Limnophila sessiliflora*, leaves are arranged around the stem, a true whorl, and maintains a similar look with *Cabomba caroliniana* but leaves lack distinctive petioles.

When in flower the plants can be easily distinguished. *Cabomba caroliniana* flowers are white and float on the surface of the water. No other part of the plant will rise above the water. *Limnophila sessilflora* produces an emergent tip of growth with lanceolate leaves and a pink flower.

In Texas, *Cabomba caroliniana* will bloom from late spring through summer. *Limnophila sessiflora* has been observed blooming midsummer to late summer however since observations of the species are limited it could bloom at different times in other ecoregions. Be on the lookout for either of these doppelgangers and don't be fooled.

LIMNOPHILA SESSILIFLORA, ON THE LEFT, LACKS PETIOLES CONNECTING THE LEAF TO THE STEM. IN *CABOMBA CAROLINIANA*, ON THE RIGHT, LEAVES ARE ATTACHED TO THE STEM WITH A PETIOLE INDICATED BY THE BLACK ARROW. FOR MORE INFORMATION ON THESE SPECIES GO TO HTTPS://PLANTS.IFAS.UFL.EDU

APMS & Regional Updates

by Regional Representatives

- 2024 Annual APMS Meeting
  - July 15-18, 2024 St. Petersburg, FL
- International Aquatic Plants Group
  - November 13-17, 2023 Antwerp, Belgium
- Midwest APMS Annual Meeting
  - February 26-29, 2024 Columbus, OH
- Weed Science Society of America
  - January 22-25, 2024 San Antonio, TX
- Western APMS Annual Meeting
  - March 18-22, 2024 Las Vegas. NV

THE AQUATIC PLANT MANAGEMENT SOCIETY, Inc.
PO Box 754
Holly Springs, NC 27540
www.apms.org

ANNOUNCEMENT

Michael D. Netherland
APMS GRADUATE STUDENT RESEARCH GRANT

***Subject Matter*:** A graduate student research grant (GSRG) in the area of aquatic plant or algae management or ecology is being offered by the Aquatic Plant Management Society. Co-sponsors of this academic award include regional APMS chapters: Florida, MidSouth, Midwest, Northeast, South Carolina, Texas, and Western.

Objective: Provide a grant for a full-time graduate student to conduct research in aquatic plant or algae management techniques (used alone or integrated with other management approaches) or in aquatic ecology related to the biology or management of regionally or nationally recognized nuisance aquatic vegetation (macrophytes, algae, or cyanobacteria).

Applicants: Solicitation for proposals is open to any full-time faculty member and/or graduate student of an accredited U.S. academic institution. A faculty sponsor must be identified if the application is submitted by a graduate student.

Amount: $40,000 (APMS does not pay overhead or indirect charges).

Duration: Two (2) years ($20,000 per year).

Proposal Deadline: Applications must be received by the APMS GSRG Coordinator no later than May 31, 2024.

Guidelines for Proposals: Proposals should contain a concise statement of the project, including its purpose and justification, as well as sections that discuss study objectives, methodology, schedule, budget, and planned publication of results. The résumé of the faculty applicant and graduate student (if known) should not exceed two (2) pages each. Proposals should not exceed ten (10) pages, and must be signed by the applicant (principal investigator) and an appropriate university official. Include copies or links of your five (5) most recent peer reviewed publications.

Please submit a pdf file of your full application via email to Lyn Gettys, APMS Vice President at: lgettys@ufl.edu

Award: Notification of award will be provided to the faculty member in time to make arrangements to attend the APMS 64th Annual Meeting (July 14-18, 2024 – Hilton St. Petersburg Bayfront, St. Petersburg, FL). Formal announcement of the recipient will be made at the Annual Meeting, with initiation of the grant scheduled for the 2024-2025 academic year. Payments in the amount of $20,000 will be made before January 31st of 2025 and 2026.

Requirements: Semi-annual progress reports must be submitted to APMS prior to June 30th and December 31st for each year of the grant. The faculty member and student must participate in at least one APMS Board of Directors meeting and attend the APMS Annual Meeting. The student must present results of the funded research at least one time over the duration of the grant, although it is preferred that presentations are made annually. Upon completion, a final report must be submitted to APMS.

For more information on the APMS Michael D. Netherland Graduate Student Research Grant
Visit the APMS website: http://www.apms.org

Inquiries: Dr. Lyn Gettys
APMS Vice President
lgettys@ufl.edu

Texas Aquatic Plant Management Society

Join our Board of Directors!

TAPMS is now accepting nominations for the following Board Member positions:
President Elect, Director, Treasurer, Secretary, and **Editor.**

Nominations can be submitted to txamps@gmail.com by noon Thursday, November 16. Please include the name and contact information of the nominee. You may nominate yourself for any of these positions!

Click HERE to view the TAPMS By-Laws

ABOUT THE TEXAS AQUATIC PLANT MANAGEMENT SOCIETY (TAPMS)

The TAPMS is a regional chapter of the Aquatic Plant Management Society—an international organization of scientists, educators, students, aquatic herbicide applicators, administrators, and concerned individuals interested in the management and study of aquatic plants. The Texas Aquatic Plant Management Society consists of aquatic vegetation management professionals, companies, researchers, students, and Extension specialists dedicated to aquatic vegetation management issues in Texas. Our focus is informing youth and adults about aquatic vegetation management and preservation of natural aquatic environments, including control of invasive aquatic plant species and conservation and propagation of native aquatic plant species including rare or threatened species.

Webpage: http://www.tapms.org

2023 TAPMS BOARD OF DIRECTORS

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Special Acknowledgments: The 2023 Texas Aquatic Plant Management Society Annual Conference would not have been possible without the efforts of Carlton Layne / Aquatic Ecosystem Restoration Foundation for student presenter travel support, the TAPMS Board of Directors, and the many presenters and exhibitors who helped to make this conference an outstanding event. We are especially grateful for the support of our conference sponsors, which are acknowledged in this program.

DAILY EVENTS-AT-A-GLANCE

See Agenda on the following pages for event times.

WEDNESDAY - NOVEMBER 15, 2023

Tour of John Bunker Sands Wetland Center
Exhibits Setup
TAPMS Pre-Conference Board of Directors Meeting & Work Session
Conference Check-In and Onsite Registration
President's Reception

Presidents' Reception *Sponsored by: Edwards Aquifer Habitat Conservation Plan* *(Diamond Sponsor)*

THURSDAY - NOVEMBER 16, 2023

Morning

Conference Check-In and Onsite Registration
Continental Breakfast
Meeting Opens – President's Welcome - General Session

Luncheon Sponsored by: Edwards Aquifer Habitat Conservation Plan *(Diamond Sponsor),* ***Nufarm*** *(Gold Sponsor)*

Afternoon

General Session
Business Meeting
Pesticide Applicators Receive CEU Certificates
Awards Banquet - TAPMS Awards Presentations & Election Results
Closing Cocktail Hour

FRIDAY - NOVEMBER 17, 2023

Conference Check-In and Onsite Registration
Continental Breakfast
General Session
Post-Conference Board Meeting

Breaks sponsored by: Edwards Aquifer Habitat Conservation Plant *(Diamond Sponsor),* ***Nufarm*** *(Gold Sponsor),* ***Syngenta*** *(Silver Sponsor),* ***BioSafe Systems*** *(Silver Sponsor),* ***SePRO*** *(Silver Sponsor),* ***UPL Environmental Solutions*** *(Silver Sponsor)*

AGENDA-AT-A-GLANCE

WEDNESDAY - NOVEMBER 15, 2023

1:00 PM - 3:00 PM	Tour of John Bunker Sands Wetland Center
3:30 PM – 4:00 PM	Pre-Conference Board Meeting/Work Session (*Registration Desk, near Ballroom B)*
2:00 PM - 6:00 PM	Conference Early Check-In and Onsite Registration *(Ballroom B Hallway)*
4:00 PM - 6:00 PM	Exhibits Set-up *(Ballroom B)*
6:30 PM - 8:30 PM	President's Reception *(Ballroom B)*

THURSDAY - NOVEMBER 16, 2023

6:00 AM - 8:30 AM	Continental Breakfast *(Hotel Lobby)*
7:00 AM - 8:00 AM	Conference Check-In and Onsite Registration *(Ballroom B Hallway)*
	Raffle-Drawing #1
8:30 AM - 10:20 AM	President's Welcome & CEU Session *(Ballroom CDE)*
10:20 AM - 10:40 AM	Morning Refreshment Break *(Ballroom B)*
10:40 AM - 11:30 AM	CEU Session Continued *(Ballroom CDE)*
	CEU applicators must complete TDA sign-in (*Ballroom CDE*)
11:30 PM - 12:45 PM	Lunch *(Ballroom B)*
12:45 PM - 3:05 PM	CEU Session *(Ballroom CDE)*
	CEU applicators must complete TDA sign-in (*Ballroom CDE*)
	Raffle-Drawing #2
3:05 PM - 3:25 PM	Afternoon Refreshment Break *(Ballroom B)*
3:25 PM - 4:45 PM	Student Presentations & Judging *(Ballroom CDE)*
4:45 PM - 5:30 PM	Annual TAPMS Business Meeting *(Ballroom CDE)*
	Plant ID/Exhibitor Visit Raffle Drawing ($100)
5:30 PM – 5:45 PM	Pesticide Applicators Receive CEU Certificates *(Ballroom CDE)*
6:30 PM - 8:00 PM	Banquet Dinner & Awards *(Ballroom B)*
8:00 PM - 9:00 PM	Closing Cocktail Hour *(Ballroom B)*

FRIDAY - NOVEMBER 17, 2023

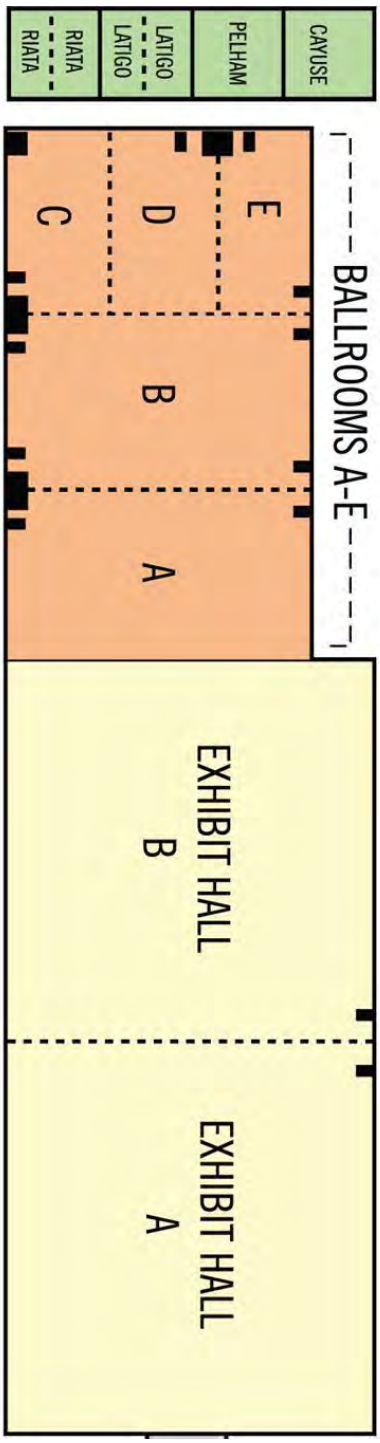
6:00 AM - 8:30 AM	Continental Breakfast *(Hotel Lobby)*
7:00 AM - 8:00 AM	Conference Check-In and Onsite Registration *(Ballroom B Hallway)*
	Raffle-Drawing #3
8:30 AM - 10:05 AM	President's Announcements and General Session *(Ballroom CDE)*
10:05 AM - 10:30 AM	Morning Refreshment Break *(Ballroom B)*
	Plant ID/Exhibitor Visit Raffle Drawing ($100)
10:30 AM - 11:45 AM	General Session Continued *(Ballroom CDE)*
11:45 AM - 12:00 PM	Closing remarks *(Ballroom CDE)*
	Raffle-Drawing #4
11:00 AM - 12:30 PM	Exhibitor Break Down *(Ballroom B)*
11:00 AM - 2:30 PM	Post-Conference Board Meeting *(Registration Desk)*

SITE INFORMATION & MAP

Mesquite Hotel and Conference Center

1750 Rodeo Dr., Mesquite, TX 75149

Phone: (972) 329-3100



SOCIAL EVENTS INFORMATION

PRESIDENT'S RECEPTION: *Wednesday, November 15, 6:30 pm to 9:00 pm, Ballroom B*

Join your TAPMS friends and colleagues at the Presidents' Reception to network and socialize while enjoying food and beverages. The President's Reception is open to all registered attendees. Non-registered guests may purchase tickets at the meeting registration desk.
Sponsored by: ***Edwards Aquifer Habitat Conservation Plan*** *(Diamond Sponsor)*

Plant ID/Exhibitor Visit Raffle: *Thursday, November 16, 8:00 pm to 5:00 pm, Ballroom B*
Meeting attendees will have the chance to win a raffle drawing if they visit each vendor booth, writing down the name of the vendor and plant pictured at each booth. One drawing will be held at the end of Thursday's general session and one following the Friday morning break.

ANNUAL BUSINESS MEETING: *Thursday, November 16, 4:45 pm to 5:30 pm, Ballroom CDE*

All TAPMS members are encouraged to attend the TAPMS Annual Business Meeting for Society updates. It will be held following the conclusion of the Thursday General Session.

BANQUET DINNER & AWARDS: *Thursday, November 16, 6:30 pm to 8:00 pm, Ballroom B*

Registered attendees are invited to attend the Awards Banquet. Non-registered guests may purchase tickets at the meeting registration desk. During/after dinner, we will recognize those who have served TAPMS, welcome new officers and directors, and present this year's student presentation award and scholarship recipients.

CLOSING COCKTAIL HOUR: *Thursday, November 16, 8:00 pm to 9:00 pm, Ballroom B*

Enjoy socializing with your TAPMS friends and colleagues at the cocktail hour while enjoying beverages.

BREAKS SPONSORED BY: ***Edwards Aquifer Habitat Conservation Plan*** *(Diamond Sponsor),* ***Nufarm*** *(Gold Sponsor),* ***Syngenta*** *(Silver Sponsor),* ***BioSafe Systems*** *(Silver Sponsor),* ***SePRO*** *(Silver Sponsor),* ***UPL Environmental Solutions*** *(Silver Sponsor)*

DETAILED AGENDA

* Indicates student presentation.

CEU indicates attendance credit of 1.0 CEU

WEDNESDAY - NOVEMBER 15, 2023

1:00 PM - 3:00 PM Tour of John Bunker Sands Wetland Center

3:30 PM – 4:00 PM Pre-conference board meeting/work session *(Board Members; Riata Boardroom)*

4:00 PM - 6:00 PM Conference early check-in and onsite registration *(Ballroom B Hallway)*

4:00 PM - 6:00 PM Exhibitor set up *(Ballroom B)*

6:30 PM - 8:30 PM President's reception *(Ballroom B)*

THURSDAY - NOVEMBER 16, 2023

7:00 AM - 8:00 AM Conference check-in and onsite registration *(Ballroom B Hallway)*

7:00 AM - 8:30 AM Continental breakfast *(Hotel Lobby)*

Opening Remarks

8:00 AM - 8:15 AM Welcome & Announcements
(Kristina Tolman; TAPMS President)

Session 1 (Ballroom CDE, Moderator: Kristina Tolman)

8:15 AM - 9:15 AM *CEU* Vegetation Management on a Large Scale Water Reuse Constructed Wetland
(Wells Shartle; Tarrant Regional Water District)

9:15 AM - 10:15 AM *CEU* The Clean Water Act and Landowners: WOTUS After Sackett
(*Jim Bradbury; James D. Bradbury, PLLC*)

10:15 AM - 10:35 AM Morning Refreshment Break (*Ballroom B*)

10:35 AM - 11:35 AM *CEU* Statewide Integrated Pest Management of Aquatic and Riparian Invasive Species
(John Findeisen and Monica McGarrity; Texas Parks and Wildlife Department)

CEU applicators must complete TDA sign-in (*Ballroom CDE*)

11:35 AM - 12:45 PM Lunch (*Ballroom B*)

Session 2 (Ballroom CDE, Moderator: Olivia Ybarra)

12:45 PM - 1:45 PM *CEU* Strategies for Success With Public Interactions
(Levi Sparks; Bandera County River Authority & Groundwater District)

THURSDAY - NOVEMBER 16, 2023

1:45 PM – 2:45 PM [CEU] Harmful Algal Proliferation Management: Trying to Further Limit a Limiting Nutrient
(Brent Bellinger, PhD; City of Austin)

CEU applicators must complete TDA sign-in (*Ballroom CDE*)

2:45 PM - 3:05 PM Afternoon Refreshment Break (*Ballroom B*)

3:05 PM - 3:25 PM State of Mechanical Harvesting in Texas
(Trent Lewis; PondMedics)

3:25 PM - 3:45 PM An Update on the Aquatic Ecosystem Restoration Foundation
(John Madsen; Aquatic Ecosystem Restoration Foundation)

3:45 PM - 4:05 PM * Using Macroinvertebrates to Assess Aquatic Macrophyte Restoration in Austin Texas Reservoirs Post Hydrilla Invasion
(Katie Vasquez; University of North Texas)

4:05 PM - 4:25 PM * Geomorphic Response of Saltcedar Management in the Upper Brazos River
(Tighearnan Juarez Murphy, Texas State University)

4:25 PM - 4:45 PM * Examining the effects of nitrogen enrichment on growth patterns of smooth cordgrass cultivated in various sediment regimes.
(Kristina Hellinghausen; University of North Texas)

Thursday Post-Session Events

4:45 PM - 5:30 PM Annual TAPMS Business Meeting (*Ballroom CDE*)

5:30 PM - 5:45 PM Applicators receive CEU certificates (*Ballroom CDE*)

6:30 PM – 8:00 PM Banquet Dinner & Awards *(Ballroom B)*

8:00 PM – 9:00 PM Closing Cocktail Hour *(Ballroom B)*

Friday- NOVEMBER 17, 2023

7:00 AM - 8:30 AM Conference check-in and onsite registration *(Ballroom B Hallway)*

7:30 AM - 8:30 AM Continental breakfast *(Hotel Lobby)*

Opening Remarks

8:30 AM - 8:40 AM Welcome & Announcements
(Kristina Tolman; TAPMS President)

Session 3 (Ballroom CDE, Moderator: Haley Kokel)

8:40 AM – 9:00 AM Design and Implementation of Texas' Habitat and Angler Access Program *(Michael Homer; Texas Parks and Wildlife Department)*

9:00 AM – 9:20 AM Helicopter Application with Organic Sticker on Aquatic Weeds
(Lucy Marshall, PhD; BioSorb Inc.)

9:20 AM – 9:40 AM Herbicides for management of water hyacinth in the Sacramento–San Joaquin River Delta, California
(John Madsen; Aquatic Ecosystem Restoration Foundation)

9:40 AM - 10:00 AM Importance of Surface Aeration in Shallow Pond Management
(Cory Richmond; Kasco Marine)

10:00 AM - 10:20 AM A Cost-benefit Analysis of Restoration Techniques to Address Internal Nutrient Loading from Anoxic Sediments
(Patrick Goodwin, Natural Lake)

10:20 AM - 10:40 AM Morning Refreshment Break (*Ballroom B)*

Session 4 (Ballroom CDE, Moderator: Kelly Duffie)

10:40 AM – 11:00 AM Effects of Draw-Down on Growth of Ex Situ Texas Wild-Rice
(Chris Hathcock; US Fish and Wildlife Service)

11:00 AM - 11:20 AM Assessing 10 years of Aquatic Restoration in Comal River and San Marcos River
(Kristina Tolman; Edwards Aquifer Authority)

11:20 AM - 11:40 AM The Pondweeds of Texas: Their Ecology and Identification
(Casey Williams; BIO-WEST Inc.)

11:45 AM - 12:00 PM Conference Final Address and looking forward to the 2024 Meeting
(Kristina Tolman; TAPMS president)

Post-Conference Events

12:30 PM - 2:00 PM Post-Conference Board Meeting *(Registration Desk)*