



# Aquatic Plant News

The Newsletter of the Aquatic Plant Management Society, Inc.

November, 2022 – Issue 131



*Yellow floating heart (Nymphoides peltata) is an invasive aquatic plant that forms dense floating mats, supports mosquito breeding habitat, shades out SAV, and decreases water quality overall. (Image, courtesy of Dr. Brett Hartis, Duke Energy)*

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# APMS President's Update

Dear APMS members,

I think many of us, with perhaps the exception of our Florida colleagues, are collectively breathing a sigh of relief as the first truly cold days of the year begin to roll in. This is usually a time for each of us to get caught up after a busy field season. Our work in aquatic plant management is not done, however! Many of our regional chapters and other aquatic societies are busy holding their annual meetings and sharing the critical work that many of you do. I implore you to have a look at the regional chapter closest to you and participate in their upcoming meetings. It is the work being done in our network of regional chapters that ultimately drives collaboration at the national level, and I sure hope you will take advantage of what our regional chapters have to offer. For more information on our regional chapter, visit [Regional Chapters – Aquatic Plant Management Society \(apms.org\)](https://apms.org/Regional-Chapters-Aquatic-Plant-Management-Society).



Although our own annual meeting is many weeks away, our board and committees are hard at work. Our Membership and Education and Outreach committees continue to find ways in which we can collaborate with other organizations. As I write this note, we have members actively staffing exhibits at the annual meetings of the North American Lake Management Society (NALMS) and North American Invasive Species Management Association (NAISMA). Our Meeting Planning Committee has been busy securing contracts, reviewing venues, and making sure that we have another successful meeting in Indianapolis in 2023. Speaking of our meeting, the Program Committee has something special in store for our attendees. Our meeting will open with a special session entitled “Navigating Conflict with Improved Communication” highlighting how we can best utilize shared values to bridge the gap and avoid polarization in developing stakeholder relationships. For more information and upcoming announcements, check out our meeting page on the APMS website - [2023 Annual Meeting – Aquatic Plant Management Society \(apms.org\)](https://apms.org/2023-Annual-Meeting-Aquatic-Plant-Management-Society). Our board, committees, and special representatives will be meeting in Indianapolis on January 30th, 2023, to discuss these items and more in implementation of our Society's strategic planning. If you are interested in serving on one of our committees, please visit the website and get in contact with one of our committee chairs.

We are also in the final stages of converting APMS to a 501(c)(3) organization. This conversion will enable tax-deductible contributions, which is important to our strategic vision of making the Michael D. Netherland Graduate Student Research Grant self-sustaining. This research grant is currently offered every other year and provides a grant for a full-time graduate student to conduct research in aquatic plant management or ecology of regionally or nationally recognized nuisance aquatic vegetation. The grant is currently co-sponsored by APMS and many of our regional APMS chapters. Our goal is to have this research grant awarded yearly, and to be self-sustaining from annual returns. For more information on the Michael D. Netherland Graduate Student Research Grant, visit our website - [Graduate Student Research Grant – Aquatic Plant Management Society \(apms.org\)](https://apms.org/Graduate-Student-Research-Grant-Aquatic-Plant-Management-Society).

Finally, I want to wish you all a happy holiday season. To each of you, we thank you for your dedication to APMS all year long. As we spend time with our friends and families, we hope you are spending quality time with those you love, creating memories, and living your lives to the fullest. Thank you again for all that you do, and we look forward to seeing you all in the New Year!

All the very best,  
Brett Hartis

# Membership Update

Are you and the key staff of your organization members of The Aquatic Plant Management Society? APMS board of directors and committees are working hard to continue to advance and protect the APM industry. We need your help! Our Membership Committee is identifying and communicating with commercial applicators, government agencies, students, and stakeholders to strengthen awareness about our professional Society. We also want to make sure that we are engaged with our current membership. Not only do we need financial support through memberships, we also need members that will actively engage in this Society and join in the efforts to build awareness about the important APM work that we do. Please continue to get more involved in the ongoing efforts of APMS, and please make sure your staff and colleagues are active as well!

As you budget for 2023, make sure to keep your APMS membership active and up-to-date. There are also ways to support APMS beyond an individual or student membership. Please consider a sustaining membership for 2023 <https://apms.org/sustaining-members/>. This is a great way to not only support your industry, but also get your company a little recognition and publicity.

Your color logo, a short company description, and a link to your website is included in the Sustaining Membership.

If you are feeling extremely thankful for the success of your business and appreciative of the ongoing support that APMS provides, consider becoming a 2023 Sponsor of our Annual Conference and support the efforts in providing a forum for the discovery and dissemination of scientific and technical information that advances aquatic plant and algae management policy and practice. Sponsorship information for APMS 2023 will be available on the website very soon at <https://apms.org/2023-annual-meeting/>.

Membership knows about our existing partnerships with regional chapters, as well as national organizations like NALMS, RISE, BASS, CAST, WSSA, and Women of Aquatics. Our most recent strategic planning session emphasized continued interaction and cultivating relationships with these groups, as well as identifying others for future collaboration and partnerships. There is power in numbers...we want your help in building our membership numbers so we can continue to focus our efforts in Protecting, Promoting, and Prospering our Aquatic Plant Management stewardship efforts.

Thank you for your ongoing contributions and dedication to APMS. You are making a difference in this Society, and we look forward to continued growth!



# APMS thanks Regional Chapters for Supporting the Michael D. Netherland Graduate Student Research Grant

In 2019, the APMS Graduate Student Research Grant was officially renamed the Michael D. Netherland Graduate Student Research Grant (MDNGSRG) in honor of our friend and colleague who made unparalleled contributions to the field of aquatic plant research. We are proud to announce that this year, the academic grant is supported by APMS and the following regional chapters: SCAPMS, TAPMS, FAPMS, MSAPMS, and NEAPMS. APMS would like to extend our thanks to those chapters and 2022 Annual Meeting Attendees who supported this important initiative. A special thank you to Erika Haug and JJ Ferris and the generosity of raffle ticket buyers – your contributions helped us raise over \$5,900 for the MDNSRG this year!

The \$40,000 Michael D. Netherland Graduate Student Research Grant is awarded biannually by the Aquatic Plant Management Society (APMS) for the most qualified proposal submitted. The objective is to provide a grant for a full-time graduate student to conduct research in an area involving aquatic plant 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).

Mike published high-impact applied studies including numerous papers in the *Journal of Aquatic Plant Management*. He was a phenomenal technical resource to public agencies and private management firms nationally and abroad. His support and related research led to adoption of many new herbicide use patterns that fundamentally improved control practices in all types of aquatic systems. Mike had an unrivaled passion for the science and practice of aquatic plant management. He trained under some of the discipline's most productive scientists. He worked in government research, academia, and private industry – sharing with us all his tremendous expertise and the gift of collaboration. He studied all aspects of aquatic plant management including basic biology, ecology, plant physiology, and genetics.

To learn more about the Michael D. Netherland Graduate Student Research Grant, please visit <https://apms.org/graduate-student-research-grant/>



MIDSOUTH AQUATIC PLANT



MANAGEMENT SOCIETY

est. 1982

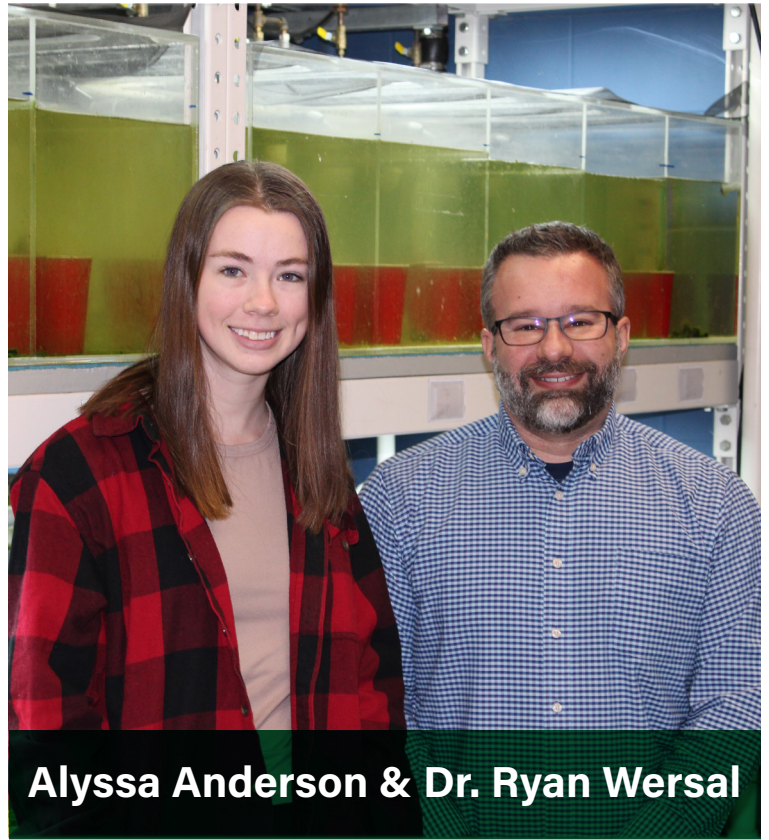
←  
NEW  
LOGO!



## 2022 Recipient of the Michael D. Netherland Graduate Student Research Award

**Dr. Ryan Wersal was first awarded the Michael D. Netherland Graduate Student Research Award in 2007 as a graduate student with the project *The Seasonal Phenology, Ecology and Management of Parrotfeather [Myriophyllum aquaticum (Vellozo) Verdecourt]*. Ryan's career has come full circle as he was just awarded the 2022 Michael D. Netherland Graduate Student Research Grant as a professor with his masters student Alyssa Anderson for the project *The Photosynthetic Ecology of Parrotfeather (Myriophyllum aquaticum) and Implications for Future Spread*.**

Dr. Wersal is a native of Minnesota and is currently an assistant professor of aquatic plant ecology at Minnesota State University – Mankato, where he teaches General Ecology, Lake Ecology, Wetlands, Weed Science, and a graduate course in Aquatic Plant Management. His research focuses on invasive aquatic plant management, native plant impacts from management, aquatic plant ecology, and aquatic plant sampling techniques. Outside of his University duties, he is active in the Aquatic Plant Management Society and Weed Science Society of America. He also serves as an Associate Editor for the *Journal of Aquatic Plant Management*, *Invasive Plant Science and Management*, and serves on the editorial board for the *Journal of Freshwater Ecology*.



**Alyssa Anderson & Dr. Ryan Wersal**

In his current role, Dr. Wersal is actively mentoring graduate students at Minnesota State University – Mankato. He feels that the mentorship component of career development is critical, and it is important to continue that legacy in this field. Dr. Wersal adds that, “Mentorship is a strength of The Aquatic Plant Management Society as an organization.” He learned early in his career that he could contact anyone in the Society, and not only would they help, but they were *happy* to help... because they are passionate about what they do, and they want the next generation of managers, regulators, and scientists to be well educated and to succeed. Dr. Wersal said it is fitting that the Grant was named after Dr. Netherland because Dr. Netherland epitomized passion for aquatic plant management, but more importantly - he was a friend to everyone and was always willing to help.

Dr. Wersal will be working cooperatively with his graduate student, Alyssa Anderson. Alyssa a master's student in the Department of Biological Sciences at Minnesota State University, Mankato. She received her B.S. in December of 2021 in environmental science where she developed a keen interest in aquatic invasive plants. Her current research focuses on the ecophysiology of the invasive plant parrotfeather (*Myriophyllum aquaticum*). Parrotfeather has not yet invaded Minnesota, however, she is examining parrotfeather's photosynthetic capabilities at a range of temperatures in effort to see if an invasion into climates like Minnesota's is possible. She and Dr. Wersal are honored and excited to conduct and present this research on parrotfeather, and to show the potential geographic spread that this plant possesses.

So, 15 years after having received the Michael D. Netherland Graduate Student Research Grant; Dr. Wersal is able to put his skills in technical expertise, instruction, and leadership to use teaching and mentoring the next generation of aquatic plant scientists and trying to follow in the large footprints of Dr. Michael D. Netherland.



# APMS Call for Awards Nominations

It is time to recognize your colleagues and fellow members for their contributions to APMS and the broader field of aquatic plant management. Please consider nominating those who you feel make an impact to our Society.

**The awards criteria can be found at:**

<https://apms.org/wp-content/uploads/2021/09/Awards-Criteria.pdf>

**Nomination forms:**

<https://apms.org/wp-content/uploads/2021/09/awardform.pdf>

Please send nominations & questions to Ryan Wersal (Awards Committee Chair) [ryan.wersal@mnsu.edu](mailto:ryan.wersal@mnsu.edu)



# REMINDER

## APMS Meeting Minutes

A reminder that APMS Meeting Minutes are posted online and available to members by logging in to the [apms.org](https://apms.org) website under MEMBERS ONLY, and then selecting **SOCIETY DOCUMENTS**.



The screenshot shows the website for the Aquatic Plant Management Society. The header is blue with the society's logo on the left and the name "Aquatic Plant Management Society" in white. Below the header is a navigation bar with links: SOCIETY, ANNUAL MEETINGS, JOURNAL, NEWSLETTERS, RESOURCES, MEMBERS ONLY (highlighted in orange), FOLLOW US, and CONTACT. The main content area has a dark green background with the text "Society Documents" in white. Below this, there is a list of documents in orange text: Bylaws – Amended 07-21-20, Operating Manual, Board Meeting Minutes, 2017-2021 Strategic Plan, Awards Criteria, Meeting Management Timetable, and Board-Only Documents. At the bottom, there is a dark green footer with white text. On the left, it describes the society as an international organization of scientists, educators, students, commercial pesticide applicators, administrators, and concerned individuals interested in the management and study of aquatic plants. In the center, under "Quick Links", are links for Home, Login, and Contact. On the right, under "Other Pages", are links for Privacy Policy and Diversity Statement. On the far right, under "Mailing Address", is the address: APMS, PO Box 754, Holly Springs, NC 27540.

**Aquatic Plant Management Society**

SOCIETY ANNUAL MEETINGS JOURNAL NEWSLETTERS RESOURCES **MEMBERS ONLY** FOLLOW US CONTACT

### Society Documents

- Bylaws – Amended 07-21-20
- Operating Manual
- Board Meeting Minutes
- 2017-2021 Strategic Plan
- Awards Criteria
- Meeting Management Timetable
- Board-Only Documents

The Aquatic Plant Management Society, Inc. is an international organization of scientists, educators, students, commercial pesticide applicators, administrators, and concerned individuals interested in the management and study of aquatic plants.

**Quick Links**

- Home
- Login
- Contact

**Other Pages**

- Privacy Policy
- Diversity Statement

**Mailing Address**

APMS  
PO Box 754  
Holly Springs, NC 27540

# Women of Aquatics



We are so excited to announce a Women of Aquatics reboot! After a few challenging and life-changing years we are ready to hit the ground running – we hope that you are ready to join us too!

Save the date for our MEMBER'S RETREAT, Friday January 27th – Sunday the 29th in sunny Florida, directly following Society of Lake Management Professionals Summit in Daytona.

Please join us for a weekend event full of building connections with other women in the field, sharing knowledge, vulnerability coupled with safety and support, and just plain FUN! The board of directors welcome you to partake in this annual tradition to refresh and rejuvenate for the upcoming year of 2023! Mark your calendars, let us know if you're interested, and keep an eye out for future details!

Are you looking to become a leader, get more involved, and make an impact in the aquatics field? The Women of Aquatics Board of Directors needs your help! We are in the process of updating our strategic plan, securing sponsors, and planning our 2023 events – send us an email at [info@womenofaquatics.org](mailto:info@womenofaquatics.org) to start making a difference today!

Thanks,

**Women of Aquatics  
Board of Directors**



# APMS IS 'RACING' TO INDY IN 2023!

**APMS 2023 is moving to Indianapolis.... Not the Speedway, but to the Hyatt Regency from July 24-27!**

**Be on the lookout for the Call for Papers and other Meeting details coming soon!**

**Check the 2023 Annual Meeting site <https://apms.org/2023-annual-meeting/> and follow our social media channels for updates and information.**

Hyatt Regency Indianapolis  
One South Capitol Avenue Indianapolis, Indiana  
Guest room rate \$169/night

*NOTE: the Hyatt has a dedicated website for APMS guests to book their hotel reservations online.  
<https://www.hyatt.com/en-US/group-booking/INDRI/G-APMS>*



## Looking Ahead & Upcoming Changes:

Annual Meeting Registration Costs will increase by 20% beginning July 2023. New fees are:

- Early registration \$475
- Late registration \$565
- One-day registration \$120
- Guest registration \$155
- Exhibitors \$1,000

In the summer of 2022, APMS Membership voted to increase Annual Membership Dues by 20% beginning in July 2023 for the 2023-24 calendar year.

# 2023 Calendar of Events

## for Regional Chapter Meetings & Related Events



**24<sup>th</sup> Annual Meeting of the  
Northeast Aquatic Plant  
Management Society**

**Jan. 10-12, 2023**

*The Resort and Conference Center at  
Hyannis - Cape Cod, MA*

<https://www.neapms.org/details-original>



**Weed Science Society of  
America Annual Meeting**

**Jan. 30 - Feb. 2, 2023**

*Crystal Gateway Marriott - Arlington, VA*

<https://wssa.net/current-annual-meeting/>



**Western Aquatic Plant  
Management Society Meeting**

**Feb. 27 - March 3, 2023**

*(Joint Meeting with Western Society of  
Weed Science) Grove Hotel - Boise, ID*

<https://wsweedscience.org/annual-meeting-2023/>

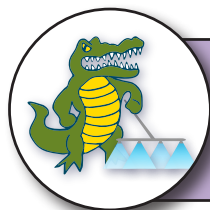


**43<sup>rd</sup> Annual Midwest Aquatic Plant  
Management Society Conference**

**March 13-16, 2023**

*Amway Grand - Grand Rapids, MI*

<https://www.mapms.org/conferences/2022-conference/>



**UF/IFAS Aquatic Weed Control  
Short Course**

**May 15-18, 2023**

*Orlando, FL*

<https://sfyl.ifas.ufl.edu/aquatic-weed-short-course/>

# 2023 Calendar of Events

## for Regional Chapter Meetings & Related Events

*(continued)*



### 63<sup>rd</sup> Annual Meeting of the Aquatic Plant Management Society

**July 24-27, 2023**

**Hyatt Regency Indianapolis  
Indianapolis, IN**

See meeting details in the coming weeks/  
months: <https://www.apms.org>

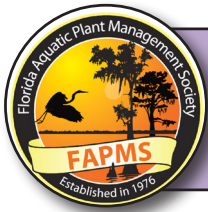


### South Carolina Aquatic Plant Management Society Annual Conference

**TBD Fall 2023**

**Ocean Drive Beach and Golf Resort -  
North Myrtle Beach, SC**

[http://www.msapms.org/  
conferences/2022/](http://www.msapms.org/conferences/2022/)



### 47<sup>th</sup> Annual Florida Aquatic Plant Management Society Annual Training Conference

**October 16-19, 2023**

**Hilton St. Petersburg Bayfront  
St. Petersburg, FL**

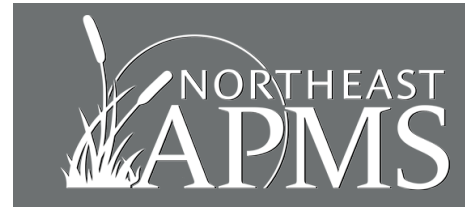
[https://fapms.org/conference/2023-  
conference/](https://fapms.org/conference/2023-conference/)



# Regional Chapter Updates

## NEAPMS UPDATE

NEAPMS Website: <https://www.neapms.org>



After more than a year of preparation led by the New York State Department of Environmental Conservation, the Northeast Aquatic Plant Management Society (NEAPMS) kicked off its inaugural Plant Camp on September 13-15, 2022, at the Taconic Outdoor Education Center in Cold Spring, NY. Forty-three campers from more than six states registered for the event: school teachers, college students, consultants, state government employees, and non-profit employees. Both NEAPMS and the North American Lakes Management Society provided scholarships for two students: Derek Shea and Lauren Hwang-Finkelman. All registrants attended multiple indoor sessions focused on plant identification, aquatic invasive plants, management, harmful algal blooms, and data collection tools. Folks spent the first afternoon practicing rake toss and identification skills at nearby Duck Pond. The second day was mostly spent in the field at Canopus Lake in Fahnestock State Park where campers helped to conduct aquatic plant surveys and found a new plant at that location: fanwort (*Cabomba caroliniana*). Many conversations continued through dinner and evenings by the campfire. On the third day camp ended with an evaluation session and a plant quiz with prizes (donated by the planning committee) for the high scorers: Devin DiGiacopo, Brian Greene, and Brittney Rogers. Congratulations to Kristen Veinotte of SOLitude Lake Management who was the grand prize winner of free registration to the next NEAPMS annual meeting! Using the feedback from this year's camp, planning for potential 2023 and 2024 camps has already begun and we look forward to training more campers who can monitor and survey for aquatic invasive plants across the Northeast!



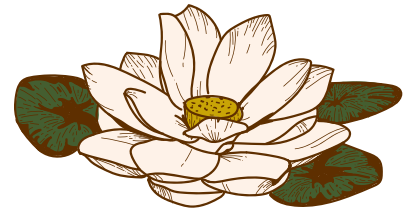
# Regional Chapter Updates

## MidSouth APMS

MidSouth is excited to share the launch of their brand new website - <https://msapms.org> - and to introduce their new logo. It is full of information about Membership, the 2022 Annual Conference (held during October 24-26, 2022), Publications, Society Information, and more! Watch updates for the release of their new logo – coming soon!

You can also follow MidSouth APMS on social media to get the latest information on meeting announcements, aquatic plant updates, and more! It's a great way to network and stay connected to colleagues and friends. MidSouth APMS is on LinkedIn (@MidSouth Aquatic Plant Management Society) and on Facebook (@msapms1982). Give us a like, follow, share, and we look forward to interacting with you about invasive plant management in Arkansas, Tennessee, Georgia, Alabama, Mississippi, and Louisiana!

MIDSOUTH AQUATIC PLANT



MANAGEMENT SOCIETY

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MANAGEMENT SOCIETY

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@MidSouth Aquatic Plant  
Management Society

# Regional Chapter Updates

## SCAPMS UPDATE

Justin Nawrocki, PhD (UPL) and Carl Bussells (Santee Cooper)

SCAPMS Website: <http://scapms.org>

### SCAPMS Board & Conference Updates

The SCAPMS Board is excited to welcome JJ Ferris as President and Ryan Stanley as Vice President, as well as Matt Puckhaber and Trent Nelson as Directors as of the 2022 Joint APMS/SCAPMS Conference. Although we're fortunate to have a driven, reliable team, help is always needed for committees; the committees currently most in need are the Publicity Committee, which generates and distributes news, and the Membership Committee, which promotes memberships to the Society. Board meetings have a virtual option, so travel will not be necessary. Please send an email to [Board@scapms.gov](mailto:Board@scapms.gov) if you are interested or have any questions.

The 2023 SCAPMS Annual Conference will be held at the Ocean Drive Beach and Golf Resort in North Myrtle Beach. A date has not been set, but it will most likely be held in early October.

### Regional Management Challenges

The Southeast is beginning to witness the vast potential of one of the most aggressive aquatic invasive plants in the world, Giant Salvinia, *Salvinia molesta*. North Carolina Department of Environmental Quality staff are battling Salvinia in Richardson Pond and Buffkin Pond, and South Carolina Department of Natural Resources staff are currently seeking funding sources to combat giant salvinia in private ponds throughout the state. Santee Cooper Lake Management staff and contractors have treated roughly 3,500 acres of Salvinia in 2022 as of October 1st and will continue to apply herbicides throughout the winter. A greenhouse has also been constructed for Giant Salvinia Weevil rearing and is on target for stocking in April of 2023.

Lyngbya also continues to be a tremendous challenge throughout the southeast, and resource managers including Duke Energy, Santee Cooper, SC Department of Natural Resources, NC Department of Environmental Quality, and NC State Aquatic Plant Management Research Team are eager to find better management solutions. Lyngbya is not only equipped with the standard traits of a nuisance species such as rapid growth and navigation impairment; it's also unsightly, it's foul-smelling, the standard herbicide treatment is harmful to fish and invertebrates at high rates, and as a blue-green algae, infestations draw extra attention from the media.

Other significant challenges in the Southeast include a recent Water Chestnut, *Trapa bispinosa* infestation near Cullen, Virginia that was reported to a NC State extension office agent and the NC Department of Environmental Quality as well as a 300 acre infestation of Cuban bulrush in Donnelley Wildlife Management Area (WMA) in South Carolina. Cuban bulrush is beginning to spread from Donnelley WMA throughout ponds in the ACE Basin.





# Regional Chapter Updates

## FAPMS UPDATE

FAPMS Website: <https://www.fapms.org>

### Kelli Gladding (University of Florida)

The 46th Annual Training Conference of the Florida Aquatic Plant Management Society (FAPMS) was held October 3-6, 2022 at the Hilton Daytona Beach Oceanfront Resort located on the world-famous Daytona Beach, FL. This year FAPMS offered a Communications Workshop that was held on Monday, October 3rd presented by UF/ IFAS Center for Aquatic and Invasive Plants to build knowledge on how to communicate to stakeholder and the public regarding aquatic plant management and science. It was an excellent workshop with a full limit of 30 attendees.

The 2022, Dr. Michael D. Netherland Exemplary Colleague Award was presented to Dr. Brett Bultemeier of the University of Florida, Pesticide Information Office, Gainesville, FL. As a reminder, nominees can be current or former member of ANY recognized APMS Affiliate. The criteria for this award along with how to nominate a colleague are on the FAPMS website and can be found here: <https://fapms.org/wp-content/uploads/2022/07/2022-2.pdf> This award is in remembrance of our colleague, Dr. Michael D. Netherland to honor his lifelong dedication to research and camaraderie in the field of aquatic plant management and FAPMS is proud of Dr. Bultemeier's award for all of his accomplishments.

Please look for a full update regarding the conference in the next *Aquatics* magazine written by the FAPMS new president, Dr. Lyn Gettys of the University of Florida, Associate Professor of Agronomy.

The FAPMS Scholarship committee received two applications for the Paul C. Myers Applicator Dependent Scholarship. The committee is pleased to announce that both applicants were awarded scholarships in the sum of \$3,500.00. We encourage our FAPMS members to be looking for the upcoming scholarship applications posted online, in the newsletter and in *Aquatics* to ensure your children have the opportunity to participate in this scholarship, deadline for submission is June 1, 2023. Please visit the website for detailed information: <https://fapms.org/scholarships/myers-scholarship/>



## MAPMS UPDATE

MAPMS Website: <https://www.mapms.org>

Amway Grand Plaza Hotel - Grand Rapids, MI  
March 13, 2023 - March 16, 2023

The Midwest Aquatic Plant Management Society (MAPMS) is currently accepting applications for the Robert L. Johnson Memorial graduate student research grant. Each year MAPMS will consider applications for a graduate student grant of up to \$10,000. Funds are collected through donations, sponsorships and various activities at the annual conference.

### 2022 winners:

- \$6,000 Sydney Van Frost, University of Wisconsin (pictured)
- \$4,000 Lacey R zodkiewicz, University of Pittsburgh



# APMS National Meeting Presence

APMS has had an active presence at two national meetings this fall in addition to supporting our regional chapters.



- The North American Invasive Species Management Association (NAISMA) celebrated its 30th Anniversary at their Annual Meeting November 7-10th in Kissimmee, FL. APMS was both a sponsor and an exhibitor at this event that included invasive species managers from all over the USA and Canada. It was great to connect with new colleagues who were curiously interested in aquatic plant management.

<https://conference.naisma.org>



- The North American Lake Management Society (NALMS) met in Minneapolis, MN, November 14-17, and APMS participated as an exhibitor with the Midwest regional chapter and with two featured presentations by APMS President-Elect Dr. Jason Ferrell and APMS Past-President Dr. Mark Heilman.

<https://www.nalms.org/nalms2022/our-exhibitors/>



# Sustaining Members

## *Membership does have its privileges!*

The Aquatic Plant Management Society is grateful for our Sustaining Members whose generous annual contributions sponsor our most important core values, especially education and outreach initiatives. Sustaining Membership costs \$500 and includes membership privileges for one designated representative; subscription to the Journal of Aquatic Plant Management; access to the APMS newsletters and social media content; recognition as a Sustaining Member in newsletters, the Annual Meeting Program, and on the APMS website.

For more information on what Sustaining Membership entails, please visit <https://apms.org/sustaining-members/>

## *Thank you all for your support in 2022!*



[AgroShield](https://www.agro-shield.com/our-products/algacides) has been serving the Agriculture and Aquatic industries since 2015. Our Vodaguard product was developed to cure infections in the upper water column. Vodaguard's unique follow the bloom technology concentrates the cure where it is needed the most. Vodaguard C is a copper sulphate pentahydrate product. Vodaguard O is a sodium percarbonate that becomes hydrogen peroxide when introduced to water. Both products have a patented formulation that allows them to be buoyant for 24 to 36 hours. Reduces manpower, machinery, and un-necessary product which reduces cost. Please visit us at: <https://www.agro-shield.com/our-products/algacides>.



Since 1981, [Applied Aquatic Management](https://www.applied-aquatic.com), Inc., (AAM) has provided innovative and effective water management services, selective vegetation control, wetland management and exotic weed control. AAM has clients throughout Florida including developers, homeowners associations, golf courses, mobile home communities, utilities, local, state and federal government agencies and industry. Our experienced professional staff provides unique knowledge along with advanced equipment to manage all types of waterway, right-of-way, wetland, and upland systems.



[AquaMaster Fountains and Aerators](https://www.aquamaster.com) is the industry leader for quality and dependable Fountains and Aerators for all your aquatic requirements. Awareness of water quality management has never been higher. In our environmentally conscious world, today's successful aquatic managers are making aeration equipment the foundation of their aquatic management programs. Their goal is to increase the dissolved oxygen level, which stimulates the natural cleanup process, resulting in an aesthetically pleasing, healthy body of water.



# Sustaining Members



[Aqua Services, Inc.](#) is a full-service water resource management company that has operated continuously in business for 40 years. In addition to its original focus on aquatic weed management operations for federal, state, and private entities, Aqua Services now provides superior fisheries population management, HAB and cyanobacteria control, lake design services, aeration design and installation, and soil sealant services to mitigate lake and pond seepage. Our experienced biologists and technicians work throughout the Southeast and Midwest to provide critical services to numerous clients. Successful projects have also been completed internationally, including Mexico and The Bahamas.



[AquaTechnex, LLC](#) is a lake and aquatic plant management firm that operates in the Western United States. The company is expert in the use of aerial and boat GIS/GPS technologies to assess aquatic environments. The firm is also expert in the management of invasive aquatic weed species and phosphorous mitigation to suppress toxic cyanobacteria blooms. Our web site is [www.aquatechnex.com](http://www.aquatechnex.com); please drop by regularly to get news updates as we have moved our blog onto the site.



[Aquatic Control, Inc.](#) has been managing aquatic resources since 1966. As a distributor of lake management supplies, floating fountain aerators, and diffused aeration systems, Aquatic Control represents all of the major brands of quality supplies and equipment. Aquatic Control has eight offices that offer aquatic vegetation management services including vegetation mapping, application services, fountain and aeration system installation, equipment maintenance, and factory-trained service and warranty repair throughout the Midwest. Harmful Algae Bloom monitoring programs with our in-house laboratory allow us to customize treatment plan design through control of the algae causing taste and odor or toxin production issues. Learn more at [www.aquaticcontrol.com](http://www.aquaticcontrol.com).



[Aquatic Vegetation Control, Inc.](#) (AVC) is a Florida corporation founded in 1986 offering vegetation management and general environmental consulting services throughout the southeast. Since its establishment as an exotic/nuisance vegetation management company specializing in the control of invasive wetland, aquatic and upland species, AVC has broadened its scope of capabilities to include; certified lake management, fish stocking, re-vegetation, mitigation and restoration services, mitigation monitoring services, aquatic, roadside, forestry and utility vegetation management, and environmental/ecological consulting.



[BioSafe Systems](#) has been offering sustainable and effective solutions for lake management, municipal and wastewater treatments and other water resources since 1998. Our uniquely balanced, broad-spectrum chemistries are designed to enhance your water's health, quality and appearance. Alternatives to products that utilize copper, or other harsh and sometimes toxic chemicals, BioSafe Systems' complete line of products are EPA registered, USDA NOP compliant, OMRI listed and effectively alleviate algal issues with minimal impact on the environment.



[Chem One](#) is a national leader of Organic Copper Sulfate for aquatic management. With eight standard EPA label grades; Fine 20, 25, 30, 100, 200, Small, Medium and Large. Chem One has a grade to meet every customer's needs. With our corporate offices and 78,000+ square foot warehouse in Houston, Texas, Chem One is a national wholesale company that is certified to ISO 9001, ISO 14001, OHSAS 18001.

# Sustaining Members



[Clarke Aquatic Services](#) is a global environmental products and services company. Our mission is to make communities around the world more livable, safe, and comfortable. By understanding our customers' needs, we tailor service programs that draw on our unmatched breadth of industry experience, expertise, and resources. Clarke pioneers, develops, and delivers environmentally responsible mosquito control and aquatic services to help control nuisances, prevent disease, and create healthy waterways.



[Compliance Services International](#) (CSI) is a leading regulatory consultancy providing innovative solutions for organizations faced with regulatory and environmental challenges. CSI's experienced scientists and regulatory specialists in the USA and the EU provide innovative approaches to solving regulatory and environmental challenges – combining traditional sciences with developing technologies to deliver economically sensible and scientifically sound results.



[Cygnet Enterprises, Inc.](#) is a national single source distributor of aquatic management products with offices and warehouses in Michigan, Indiana, Pennsylvania, North Carolina, California and Idaho. Cygnet is proud of its reputation for outstanding service, friendly, knowledgeable staff and our unmatched support of the aquatics industry. Cygnet Enterprises is the only aquatic distributor at the Charter Gold Member level in the Aquatic Ecosystem Restoration Foundation (AERF).



Since 1973, [Diversified Waterscapes, Inc.](#) has offered lake management services and ecological products to professional applicators. Our proven field experience in pond and lake cleaning enabled us to develop an eco-friendly line of products that show dramatic results in any aquatic environment. With more than 45 years of experience, we have been providing aquatic treatment products and maintenance service for some of the world's best water features, including the famous Bellagio Fountain in Las Vegas – delivering clearly better results without harming the environment. Our mission is to combine extensive industry experience, mechanical aptitude and scientific knowledge to bring clarity, cleanliness and beauty to water features across the country.



[Duke Energy](#) "Building a smarter energy future". Duke Energy (NYSE: DUK), a Fortune 150 company headquartered in Charlotte, N.C., is one of the largest energy-holding companies in the U.S. It employs 30,000 people and has an electric generating capacity of 51,000 megawatts through its regulated utilities, and 3,000 megawatts through its nonregulated Duke Energy Renewables unit. Duke Energy is transforming its customers' experience, modernizing the energy grid, generating cleaner energy, and expanding natural gas infrastructure to create a smarter energy future for the people and communities it serves. More information about the company is available at [duke-energy.com](http://duke-energy.com). Follow Duke Energy on Twitter, LinkedIn, Instagram and Facebook.

# Sustaining Members



[Lake Restoration](#), located in MN, has specialized in controlling pond weeds, lake weeds, and nuisance algae since 1977. Lake Restoration's product line-up includes: Mizzen, a copper based algaecide, Spritflo and Dibrox herbicides, a variety of pond dyes and nutrient reducers. Lake Restoration also manufactures the TORMADA product application boat, Vitaflume floating fountains, the retractable Goose D-Fence system, and the patented LAKEMAID to eliminate lake weeds automatically.



The [Lee County Hyacinth Control District](#) was formed by the Florida Legislature in June 1961 to curtail excessive growths of water hyacinth. That same year, water managers from across the state convened in Lee County and formed the Hyacinth Control Society, now APMS, to share control strategies and develop a comprehensive management approach to Florida's most prolific aquatic plant. T. Wayne Miller, Jr. of Lee County served as the Society's President for the first two years and Lee County has been a supporting member of APMS since its inception.



[Maxunitech](#) is an integrated enterprise focusing on the Research and Development, production, sales of agrochemicals, and relevant intermediates and other fine chemicals. Established in 2000, under the principles of "people oriented, united for innovation and pursue excellence", we have been researching and developing new products, solving commercial issues from the perspective of technology, and fulfilling enterprise value with value added for our clients.



Invasive weeds can devastate both natural and commercial habitats. [Syngenta](#) provides high performance products to control destructive weeds while helping to restore the habitat of aquatic environments. Syngenta offers proven aquatic herbicides like Reward® and Tribune™ that provide fast burn-down, work well in cool weather and are rainfast in as little as 30 minutes. The active ingredient, diquat dibromide, has been used successfully in sensitive aquatic areas for over 25 years.



ENVIRONMENTAL  
SOLUTIONS

[UPL NA, Inc.](#) is a premier supplier of crop protection products and technologies designed for the agricultural, specialty, fumigation and aquatic markets. The Aquatics Division is part of the Environmental

Solutions group which has manufactured aquatic herbicides and algaecides for the management of lakes, ponds, rivers and irrigation canals for more than 40 years. These products are marketed as Aquathol®, Hydrothol®, AquaStrike®, Current®, Symmetry®, Cascade®, Teton®, and Top Deck™. Most recently the development and commercialization of the ADAPT aquatic drone boat for improved application accuracy and efficiency was launched. With a customer-centric focus, UPL is committed to providing product stewardship and technical support to ensure your plant management operations are successful. Visit us at: <https://uplaquatics.com/>



**Incorporated in 1961 as a forum to share  
water hyacinth control experiences,  
today APMS and its seven Regional  
Chapters promote research and outreach  
to manage all species of aquatic plants  
and algae.**



# General Info for Membership, Etc.

The Aquatic Plant Management Society, Inc. is an international organization of scientists, educators, students, commercial pesticide applicators, administrators, and concerned individuals interested in the management and study of aquatic plants and algae. The membership reflects a diversity of federal, state, and local agencies, universities and colleges around the world, corporations, and small businesses.

## ● VISION

The Vision of the Aquatic Plant Management Society is to be the leading international organization for scientific information on aquatic plant and algae management.

## ● MISSION

The Mission of the Aquatic Plant Management Society is to provide a forum for the discovery and dissemination of scientific information that advances aquatic plant and algae management policy and practice.

## ● STATEMENT ON EQUITY, DIVERSITY, & INCLUSION

Creating an atmosphere of inclusion is vital to the Aquatic Plant Management Society (APMS). Contributions and perspectives from all members, students, event participants, and our local and international communities are important. Diversity includes age, culture, disability, ethnicity, gender, national origin, color, race, religion, sexual orientation, and diversity of thoughts and ideas. We recognize that embracing and encouraging diversity is critical to fulfilling our mission to 'Provide a forum for the discovery and dissemination of scientific information that advances aquatic plant and algae management policy and practice'. APMS will strive to further cultivate a Society built on mentorship, encouragement, tolerance, and mutual respect, and foster a welcoming environment for all.

To join, visit this link: <http://www.apms.org/society/membership/>

To renew a membership, login and visit this link: <http://www.apms.org/member-login/>

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Many of our regional chapters are active on social media, too. Give them a like and a follow!