



*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.*

# Aquatic Plant News

The Newsletter of the Aquatic Plant Management Society, Inc.  
7922 NW 71<sup>st</sup> Street, Gainesville, FL 32653

Jeffrey D. Schardt, Newsletter Editor

Celebrating 60 Years

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## Message from APMS President Mark Heilman

Dear APMS Members,  
I hope you, family, friends, and colleagues are well and have been in good health of body, mind, and spirit over

the last few months despite the unprecedented events of 2020. If these events have had direct impact on you or those you know, I extend thoughts and prayers for health and better times on behalf of your wider APMS family. It is difficult to capture the scope and impact of all that has happened so far this year. I thank our Board of Directors and Meeting Planning Committee and the Texas APMS Board of Directors for their hard work this spring on resolving status of the joint conference. We all regret the necessary cancellation of the APMS annual meeting for the first time in the Society's 60-year history due to COVID-19. Moving forward and echoing the energy associated with John Krasinski's recent 'Some Good News' web series, I will focus on recent positive events and ongoing work by all of us for a better finish to 2020 and our strong support of APMS and its mission in the future.

One of the primary strategic activities of APMS is the Dr. Michael D. Netherland APMS Graduate Student Research Grant. After recognizing Dr. Netherland's unparalleled positive impact and unique character in San Diego last year, the recent solicitation for new APMS GSRG proposals had a strong response with what I believe is a record 9 proposals. I would like to thank Dr. Stephen Enloe from University of Florida for chairing the proposal review committee that is currently working hard to assess these strong science proposals so APMS can announce the 2020 grant award in mid-July. It is fantastic to see such a strong response to the grant program that continues to drive important science and needed academic focus in this discipline. APMS will continue to foster growth of the Netherland GSRG and welcomes continued member and sponsor contributions to its scholarship efforts so the grant can eventually be offered annually versus biannually.

The disruption of physical technical conferences and the wider, near-term move away from in-person professional activities has led to a major shift towards expanded use of online tools to disseminate technical information. This shift has been a little tough at times...I am sure many have used the term 'Zoomed Out' or similar over the last few months with this transition. However, there are countless examples of improved utilization of online communications as a result of the current situation. Along these lines, APMS member scientists have recently contributed a number of effective online presentations. Dr. Rob Richardson (APMS Past President) with North Carolina State University recently provided a broad review of aquatic plant management as part of National Invasive Species Awareness Week (NISAW) activities in late May. In early June, Dr. Ken Wagner (NEAPMS Past President) presented an overview of Harmful Algal Bloom (HAB) management in a National Coalition of Food and Agricultural Research (NC-FAR) online seminar sponsored by the Weed Science Society of America (WSSA...thanks, Dr. Lee Van Wychen!) with organizational support from APMS. ([https://www.ncfar.org/HSS\\_20200608\\_Presentation.pdf](https://www.ncfar.org/HSS_20200608_Presentation.pdf)). Finally, the USACE Invasive Species Leadership Team is hosting weekly invasive species webinars scheduled on Wednesdays through mid-July at 1:00 CDT in partnership with the University of Florida Institute for Food and Agricultural Services (UF/IFAS) Center for Aquatic and Invasive Plants (CAIP). The webinar schedule is included in this newsletter.

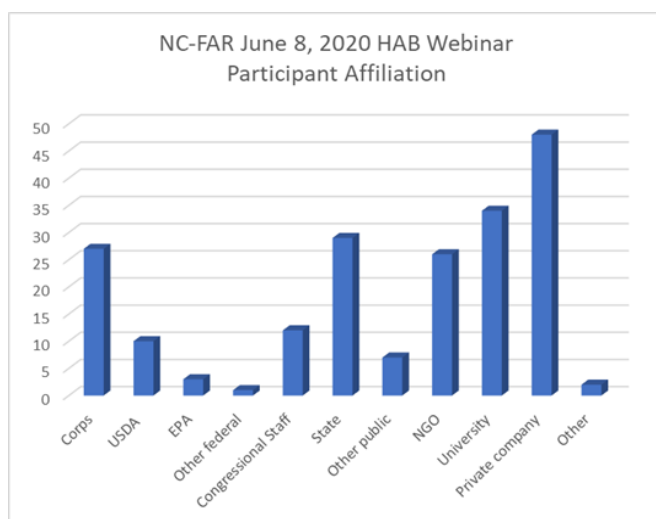
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These are just a few of the examples of new online efforts by APMS and its members. If you have events that you would like to publicize, please reach out to our Education and Outreach Committee Chair and APMS Social Media Manager, Amy Giannotti at: ([amy@aquastemconsulting.com](mailto:amy@aquastemconsulting.com)).

In addition to these recent examples of effective technical exchange and outreach, an ad hoc group of APMS Board and Committee members is in early discussion of other potential online efforts that would provide value to our membership and promote our Society mission. Some of these efforts may be near-term responses to disruption of physical meetings, but they also represent a valuable ongoing opportunity to reach entirely new audiences of scientists, managers, and stakeholders that might not otherwise learn about APMS and the science it supports. As an example of this new outreach opportunity, the recent HAB webinar had 200 registered participants. This number is similar to total attendance of our APMS annual meeting. However, only 14% of participants are active APMS members (an added ~4% are known regional chapter members). So, over 160 participants now have a new positive awareness of APMS and our work. Besides U.S. attendees, there were participants from 8 different countries. The audience was wide-ranging in roles and interests (see graph below). While online events are less personal



than physical conferences, the footprint of their outreach is global and offers the potential to attract new members, their ideas, and their energy to our Society.

APMS has also had positive interactions with the North American Lake Management Society (NALMS) over the last few months regarding resuming collaborative efforts first fostered several years ago. I would like to personally thank NALMS President Perry Thomas and the NALMS Executive Board for their dialogue and partnership. There are solid plans for joint technical sessions on HAB management at each Society's upcoming conferences that have been disrupted temporarily by physical meeting issues but will occur in the coming year whether online or in-person. Other joint education and outreach strategies are being discussed. APMS and NALMS have much to offer managers and policy makers on the latest strategies for addressing HAB, and collaborative technical exchange and outreach by the two Societies should have high value.

In conclusion, we live and work in unprecedented times. As we see in the ecological systems that we study and manage, major disturbance like today's events can create rapid change and, in many cases, lead to a new equilibrium of ecological conditions. In that vein, we often hear the phrase 'new normal' thrown around about where things are headed. Adaptation is critical—ecologically and in response to current challenges. I have confidence that APMS and its members will adapt effectively to changing conditions over the next year and beyond. However, it will likely not be easy, and all member feedback on how the Society can adjust and improve over the coming months is highly valued. I also invite our sponsors to continue their history of strong financial support of APMS and its regional chapters in these uncertain times. The model of how we collectively meet and support the mission will look somewhat different in the near term and may see longer term change, but APMS can and will adapt for an ultimately stronger Society. Please reach out to the APMS Board if you have thoughts to contribute that that would help the Society adapt and grow for the future. Join committees or enhance your existing efforts to fulfill the APMS mission. Let us work hard together in response to current challenges and there will be plenty of good news on the horizon.

Mark Heilman  
APMS President



# USACE INVASIVE SPECIES WEBINARS

*Learn about research and management to help minimize invasive species' impact to USACE missions.*

**JUN 10**

**Aquatic Plant Management: A Florida Perspective**

by Dr. Ben Sperry, UF/IFAS

**New Aquatic Herbicide Treatment for Hydrilla:  
Efficacy of an Operational Treatment in Florida**

by Dr. James Leary, UF/IFAS

**JUN 17**

**Mechanical Harvesting – Large-scale field trials**

by Dr. James Leary, UF/IFAS

**Aquatic Weed Control: Myths and Misconceptions**

by Dr. Ben Sperry, UF/IFAS

**JUN 24**

**Wild Pigs on USACE Projects: Management  
Challenges, Research Opportunities and Lessons Learned**

by Dr. Nathan Beane, ERDC; Eric Lemons, MVS; Stacy Dunkin, SWT; and  
Brandon Randig, SWF

**JUL 1**

**The Triclopyr Shift to Trycera**

by Dr. Stephen Enloe, UF/IFAS

**JUL 8**

**Herbicide Residues in Lake Sediments:  
Understanding Herbicide Fate**

by Dr. Jason Ferrell, UF/IFAS

**JUL 15**

**Identification and Management of Invasive Grasses**

by Dr. Candice Prince, UF/IFAS

**Join Us Wednesdays from 1:00 - 2:00 CDT**

<https://usace.webex.com/meet/courtney.e.chambers>

## Notice of 2020 APMS Annual Business Meeting and Voter Eligibility

*ARTICLE IX. MEETINGS* of the APMS Bylaws requires that there shall be an annual meeting of the Society during which time the membership will elect officers and directors for the ensuing year as well as conduct other business as deemed necessary. APMS has traditionally fulfilled these requirements during the July Annual Meeting. Other business has historically included membership votes on proposed changes to the Bylaws and approval of officer and committee reports presented to the general membership in attendance during the Annual Business Meeting.

The 2020 Annual Meeting scheduled for July 19-22 in San Antonio has been canceled; however, to satisfy Bylaws requisites, the Board intends to provide officer and committee reports, as well as a slate of officers and directors and Bylaws amendments proposed by the Board for approval by members in good standing with the Society. Members in good standing are described in *ARTICLE XII. MEMBERSHIP* of the APMS Bylaws as all Individual, Student, Honorary and one representative from a Sustaining Membership with cur-

rent, paid-up dues. Therefore, all members are encouraged to check their membership status on the [APMS web site](#) under the Members Only tab to ensure your 2020 dues are paid so you can vote on these important matters that will shape the future of the Society. Also, please check that your email address and Username are up to date so you can be sure to receive future emails.

The APMS Board is developing an online platform to cast votes for the slate of officers and directors and the proposed Bylaws amendment prior to an online Annual Business Meeting tentatively scheduled for July 21, 2020. The 2020-2021 slate of officers and directors is presented below. The proposed amendments to the Bylaws are on the following page. Officer and committee reports will be posted for review on the APMS web site on or about July 13. Members will be notified via the APMS email service in late June 2020 when and how to cast votes.



## 2020-2021 APMS Officer and Director Nominee Slate

The following candidates have been selected by the Nominating Committee for consideration to serve on the APMS Board of Directors. The Nominating Committee suggests a slate of candidates for positions that are about to come open on the Board. Each candidate must meet specific criteria set forth in the APMS By-

laws. The Board of Directors has approved the slate and active members will vote to approve or amend the slate for new officers and directors. Members will be notified in late June when and how to cast votes prior to the Annual Business Meeting tentatively scheduled for July 21, 2020.

Office	Name	Affiliation	City	State
Vice President	Brett Hartis	Duke Energy Carolinas	Huntersville	North Carolina
Treasurer	Justin Nawrocki	UPL NA	Holly Springs	North Carolina
Secretary	Amy Giannotti	AquaSTEM Consulting LLC	Winter Park	Florida
Director	Michael Greer	U.S. Army Corps of Engineers	Buffalo	New York
Director	Erika Haug	North Carolina State University	Raleigh	North Carolina

### Vice President—Brett Hartis

Brett Hartis is the lead scientist for Duke Energy Corporation's Aquatic Plant Management Program, located in Charlotte, North Carolina. He earned his B.S. degree in Fisheries Science at East Carolina University

and his M.S. and Ph.D. degrees in Fisheries, Wildlife, and Conservation Biology from North Carolina State University (NCSU). After completing his Ph.D., Brett worked as an extension associate with NCSU's Department of Crop Science, focusing on aquatic plant man-

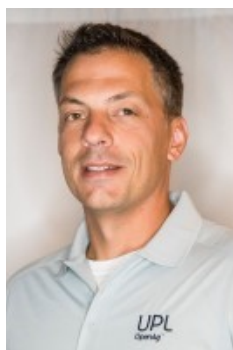


## 2020 APMS Officer and Director Nominee Slate ...continued from p. 4

agement issues. Following work with NCSU, Brett accepted a position with the Tennessee Valley Authority (TVA) as manager of the multi-state public utilities' Aquatic Plant Management Program, where he worked for four years prior to joining Duke Energy. His current work responsibilities include addressing threats posed by invasive plants to Duke Energy's 44 reservoirs as well as various generation project water bodies. He has served various roles on the MSAPMS, SCAPMS, and APMS Board of Directors and currently serves as President of MSAPMS.



### Treasurer—Justin Nawrocki



Justin received his B.S. degree from the University of Idaho in Environmental Science with an emphasis on groundwater and aquatic ecology. He then took a job in Michigan as a professional aquatic herbicide applicator and after two years moved to North Carolina to work on the lakes there. While in North Carolina, Justin met Dr. Rob Richardson of

NCSU and was offered the opportunity to continue his education. Justin spent eight years at NC State earning his M.S. and Ph.D. studying impacts of invasive species, particularly hydrilla, on sport fish, macroinvertebrates and the ecosystem as a whole. While at NCSU he was also in charge of all herbicide field research as well as working as the Extension Specialist (Lake Manager) for Lake Gaston during his last two years. After finishing his Ph.D. he took a job with UPL NA as an Eastern U.S. Territory Manager. Justin has participated and presented at nearly all the APMS Chapter meetings. He also was the Student Director for APMS and is the current President of SCAPMS.

### Secretary—Amy Giannotti

Amy Giannotti holds a B.S. degree in biology from Marietta College (Ohio) and earned her M.S. degree in environmental science from the University of Virginia,

with a specialty in marine ecology. She is a Certified Lake Manager and has over 20 years of experience working in temperate and subtropical aquatic systems, including freshwater and marine vegetation dynamics, exotic species management, impacts of nutrient enrichment and remediation efforts, storm-water management, and public speaking on environmental issues affecting lakes and springs. Amy has more than 15 years' experience in aquatic plant management as Regional Biologist with the Florida Fish and Wildlife Conservation Commission's Invasive Plant Management Section and most recently as Lakes Division Manager with the City of Winter Park, FL. Duties included managing invasive species, field operations for NPDES compliance, fisheries habitat management, water quality monitoring, shoreline permitting, enforcement and compliance associated with regulatory authority, and educational outreach initiatives.

Amy lead conservation initiatives in the U.S. and in several Central American and Caribbean countries. As the president of the Cambrian Foundation, a 501(c)(3) organization, she led scientific expeditions in Bermuda, Mexico and Florida and implemented expedition participation programs for students and teachers in the U.S. and abroad. She is the founder of AquaSTEM Consulting, LLC - an environmental consulting company specializing in lake and aquatic plant management, aquatic habitat restoration, and STEM initiatives.



Amy Giannotti designed and developed curricular programs for elementary, middle, and high school students emphasizing threats to Florida waters from exotic plant species. She serves on the Advisory Board of the Center for Aquatic and Invasive Plants at the University of Florida, is on the Board of Directors of FAPMS, and is a member of the Florida Fish and Wildlife Conservation Commission's Technical Assistance Group for Invasive Plant Management. Amy is the Editor of the FAPMS *Aquatics* magazine and manages the APMS social media platforms (Twitter, Facebook, and Instagram).

## 2020 APMS Officer and Director Nominee Slate ...continued from p. 5

### Director—Michael Greer

Mike Greer earned his B.S. degree in Biology in 1995, and his M.S. degree in Environmental Science in 2000, both from the State University of New York (SUNY) College at Buffalo. He is currently the Regional Technical Specialist for the planning and formulation of complex ecosystem restoration projects and invasive species management.



Mike is a subject matter expert on U.S. Army Corps of Engineers (USACE) Civil Works Planning policies, procedures, and authorizations; particularly as they deal with ecosystem restoration and invasive species. He has twenty-one years of experience in water resource planning and management. His expertise is in ecosystem restoration, including invasive species management, and watershed planning. He has extensive experience in addressing Great Lakes habitat and related issues at the basin-wide and project-specific levels.

Mike Greer has supervised the production of decision documents for ecosystem restoration, invasive species management, flood risk management, navigation, and coastal storm damage reduction. As a Regional Technical Specialist, he routinely conducts technical reviews of decision documents and related items for Districts throughout the USACE and has supported several initiatives as part of Civil Works transformation. He also has programmatic experience as the Great Lakes Restoration Initiative Program Manager for the Buffalo District.

Mike Greer's management experience includes leading a program in partnership with stakeholders and the USACE Engineer Research Development Center to eliminate monocious hydrilla in or adjacent to the Great Lakes basin. The program includes demonstration projects that are actively managed with aquatic herbicides, technical support and monitoring assis-

tance at several other locations, and hosting the Great Lakes Hydrilla Collaborative. Other leadership roles include the Great Lakes Fishery and Ecosystem Restoration Program addressing fish passage, riparian corridor restoration, and invasive species management, and Great Lakes Habitat Initiative implementing a plan for habitat restoration and conservation projects in the basin.

### Director—Erika Haug

Dr. Erika Haug is a Research Scholar at North Carolina State University (NCSU) in the Aquatic Plant Management Program. Erika's career in invasive aquatic plant management began in 2005 with an internship under the direction of Ms. Amy Smagula at the New Hampshire Department of Environmental Services. Following graduation with a B.S. degree in Biology from McGill University, Erika worked for six years as an Aquatic Plant Biologist for Aquatic Control Technology, LLC in Massachusetts, managing numerous lakes and ponds throughout the northeast. In the Spring of 2018, Erika completed her Ph.D. in Fisheries, Wildlife and Conservation Biology at NCSU with a focus on the biology and control of monoecious hydrilla and crested floating heart.



Erika has served as a director for the Massachusetts Congress of Lake and Pond Associations, a Student Director on the APMS Board, and a Student Director for the Weed Science Society of North Carolina (WSSNC). She has received several presentation awards, the APMS Outstanding Graduate Student Award and the NEAPMS Graduate Student Scholarship. Erika has three publications in the APMS Journal of Aquatic Plant Management and one publication in Aquatic Botany. In her current role, Erika oversees NCSU aquatic plant herbicide trials, collects and analyzes field data, lectures in extension and outreach programs, and mentors graduate students.



## Proposed APMS Bylaws Amendments

### Proposed Bylaws Amendment #1

The Board and general membership approved a revision to the Bylaws on July 18, 2016 whereby the APMS Proposal Review Committee was created to review all funding proposals submitted to the Society in excess of \$5,000. The following year (July 17, 2017) the Board voted that the Proposal Review Committee

should review all externally submitted funding requests, regardless of the amount. This appeared to conflict with the Bylaws. Accordingly, the following motion and proposed amendment to the Bylaws was approved by the Board. This proposed amendment must now be approved by the general membership.

***Jeff Schardt motioned the Board to amend Article XIII, No. 12. of the Bylaws to reflect the Board's desire for the Proposal Review Committee to review and make recommendations to the Board for all external proposals submitted to APMS that include APMS funding. Scott Nissen seconded the motion. The motion passed without dissenting vote.***

#### ARTICLE XIII. COMMITTEES and REPRESENTATIVES

12. Proposal Review Committee. This Committee shall be responsible for reviewing and making recommendations to the Board for all proposals externally submitted funding requests / proposals to the Society ~~equal to or in excess of \$5,000, regardless of the funding amount,~~ excluding proposals for the Society's Graduate Student Research Grant. The Committee shall consist of the Immediate Past President, President Elect, Treasurer, one Director, and one member at-large. The Committee will be chaired by the Immediate Past President who will appoint the Director and member at-large. Upon review of each proposal, the Committee will submit a written recommendation with justification to the Board for final decision.

### Proposed Bylaws Amendment #2

Ryan Thum pointed out that the Vice President is the obligatory Chair of the Regional Chapters Committee. Often, the Vice President has not served on the Board, so may not be current with issues affecting the Chapters. Thum suggested the Vice President can serve on the Committee but not be required to Chair the Com-

mittee. Secretary Schardt suggested that the Vice President could still Chair the Committee if there were long-term Regional Chapter Committee members that are aware of Chapter issues. Someone on the Committee should have ability to attend many of the Chapter meetings.

***Amy Kay motioned the Board to amend Article XIII. Committees and Representatives, 14. Regional Chapters Committee: to remove the requirement that the Vice President chairs the Committee (see below). Ryan Wersal seconded the motion. The motion passed without dissenting vote.***

#### ARTICLE XIII. COMMITTEES and REPRESENTATIVES

14. Regional Chapters Committee. This committee shall be responsible for promoting and forming regional chapters of the Society. It shall evaluate requests from groups wishing to affiliate with the Society as regional chapters. The committee shall be responsible for enhancing communications and coordination among the regional chapters and the Society. The committee shall be responsible for collecting and displaying information about job opportunities in the field of aquatic plant management. Appropriate information should be made available at the annual meeting and in the Newsletter. The committee shall consist of at least one representative of each recognized regional chapter and include the Vice President of the Society ~~who shall be Chair.~~

*Note: underlined text = proposed new language - strikethrough text = proposed deleted language*



## Opportunities made Corps a compelling career choice

By Holly Kuzmitski

U.S. Army Engineer and Research Center

Looking back on her 35-year career, the U.S. Army Engineer Research and Development Center's Dr. Linda Nelson thinks the opportunities were so plentiful, she couldn't resist staying with the U.S. Army Corps of Engineers.

The associate technical director for Civil Works, Environmental Engineering and Sciences, wore three hats until she retired, Feb. 28, 2020, serving also as program manager for the Aquatic Nuisance Species Research and the Aquatic Plant Control Research programs.

"You know, when I started in the ERDC's Environmental Laboratory in '85, I thought, 'I'll get some experience, and I'll be on my way,' and lo and behold, it turned into a permanent position, and I really enjoyed the work," she said.

Nelson began her career as a contract employee on an intergovernmental personnel agreement through Iowa State University. After becoming a permanent employee in 1989, she worked as a plant physiologist on the Chemical Control and Physiological Processes Team in the Environmental Laboratory's Environmental Processes Branch.

"It was always exciting, there were new projects all the time, and I loved the team I was working on, and what I also enjoyed was working nationally," she said. "I didn't just run experiments in the lab, I went out in the field and worked with USACE district partners and other agencies, doing field studies in Washington, Florida and Puerto Rico."

Nelson conducted research to identify and evaluate chemical techniques for managing invasive aquatic, wetland and terrestrial vegetation. She documented her research in 20 scientific papers in peer-reviewed journals and more than 25 ERDC reports on aquatic and wetland invasive plant management.

"That was so much fun; I worked on military installations and on Corps projects," she said. "To be able to see and understand the variety of invasive plant problems in the field was key to finding appropriate solutions for management — it was great."

In 2009, she had the opportunity to

manage the ANSRP, and in 2010 she accepted the associate technical director position.

"I was fortunate that after working for many years as a research scientist, I was able to apply for the ATD (associate technical director) position and continue to do program management. I feel like that was the next step for me in my career," she said.

In 2010, she also shouldered the program manager responsibilities for the APCRP.

Nelson felt that stepping into managing

Interbasin Study Technology Team; served on the Corps' Invasive Species Leadership Team and formed a team with the Buffalo District to eradicate invasive hydrilla in the Erie Canal," she said, citing examples of projects she thought were particularly fulfilling.

Dr. Beth Fleming, ERDC deputy director, said that Nelson's professional approach to her work has been an example for others, and has had widespread and enduring impacts for the Department of the Army.

"She has an incredible work ethic that makes others' job easier — just the leader you want in charge of a team or on your team," Fleming said.

Wearing three hats has become a lot more complex in recent years because of increases in funding for the two programs Nelson managed and the increased congressional interest in invasive species.

"The ANSRP has been in the president's budget for these last few years for approximately \$675,000, but we had supplemental funding this year up to \$16 million in that program, so that's a substantial increase," she said. "And the APCRP also received \$5 million in congressional supplemental funding this year. So now, that's someone who manages \$21 million, plus serves as ATD."

As a result, her single position has split into two separate ones.

Upon her retirement, Nelson reflects fondly on her co-workers in the Corps and at the ERDC.

"It was great working with Dr. Al Cofrancesco in so many aspects — I just got to see another side of the Corps completely," the South Dakota native said. "Yeah, it was a great career, that's what kept me here. Vicksburg, Mississippi, wasn't my home; I was the furthest one from home in my family."

Nelson offers some advice for researchers starting their careers.

"Take advantage of everything that is offered within the Corps and at ERDC," she said. "We have so many opportunities: participating in interagency committees, detail assignments, emergency operations, long-term training, leadership programs — there are so many opportunities. I took advantage of several of them, and I wish I would have done more."



(Photo by Jeff Schardt)

**Dr. Cody Gray presents Dr. Linda Nelson with the President's Award from the Aquatic Plant Management Society for her career dedication to the organization. Nelson retired from the U.S. Army Engineer Research and Development Center's Environmental Laboratory, Feb. 28, 2020.**

research programs enabled her to interact a lot more with districts and use her skills from both the research and programmatic perspectives to try to solve invasive species problems.

"I was able to use my skills to build partnerships with districts and divisions and ERDC, and I'm very proud of that," she said.

"I worked with the Chicago District on the Great Lakes and Mississippi River



# ERDC research titan retires after 40 years

By Holly Kuzmitski

U.S. Army Engineer Research and Development Center

A noteworthy but humble figure exited the U.S. Army Engineer Research and Development Center's Environmental Laboratory for the last time, Feb. 28, 2020.

Dr. Alfred Cofrancesco, Jr. retired from his position as senior scientific technical manager and director of the civil works environmental research area for the U.S. Army Corps of Engineers.

The magnitude of the research programs developed under his leadership and the breadth of environmental research that ERDC is doing are likely his greatest legacies. Cofrancesco's career illustrates how marrying technical expertise with relationship-building skills can bring success for the individual, the team and the organization.

"The biggest challenges I tackled in civil works are the annual budget funding cycles and building relationships to help you out with that," he explained. "If I had to put it all into one perspective, I think I'm most proud of the relationships I helped to build between the ERDC, USACE Headquarters and the scientific community at large."

Cofrancesco oversaw several research programs during his 13-year tenure in the ERDC's Environmental Laboratory technical director's office, including the Water Operations Technical Support program as well as the Aquatic Nuisance Species Research Program, the Aquatic Plant Control Research Program, the Recreation Management Support Program, the Wetlands Regulatory Assistance Program and the Ecosystem Management and Restoration Program.

One of the best ways to convey how these initiatives flourished under his direction is to describe how much their funding increased.

"EMRRP was about \$900,000 — it's about \$6.5 million now; ANSRRP started at \$1 million, and this year we have \$16

million in the program," he said. "APCRP is always zeroed out in the initial budget, but we have a lot of congressional support, and we're at \$5 million there — that's all building relationships, working for sponsors, working for people and having them support us, and we're supporting what they need."

At his retirement ceremony, Dr.

described Cofrancesco as world-class, saying, "I don't know how you did it all, man."

Cofrancesco pointed to his wife, Debbie, and said simply, "Support."

The former entomologist found a lot to be inspired about at ERDC. Going back to his research on the bench, he said that working with biocontrol agents amazed him at first.

"The flea beetle that controlled invasive alligator weed by bringing natural pressures to bear on the weed devastated it, and that was 'an aha moment'," he said.

Cofrancesco also felt the researchers have an energy when they do their work that he was able to see in the products being developed.

He was intrigued recently by the concept one team advanced that there are quantifiable goods and services derived from the ecosystem, and there needed to be a rigorous methodology to effectively account for them.

"We are on the cusp right now of having the Corps take the framework this team built and integrating it into the planning process," he said. "Once that happens, the Corps is going to be able to justify ecosystem restoration activities in a much clearer way."

When asked what he will miss most about his work, Cofrancesco said that it would likely be interacting with the ecosystem restoration and invasive species researchers throughout the world.

He predicted it was unlikely that he would interact with researchers "in New Zealand, Europe, or wherever else" on as much a regular basis as he currently does.

"I chair the U.S. Department of Agriculture's working group for Biological Control Agents of Weeds," he noted. "And I've been with that organization since 1987 and have seen it under various names at various stages, and every biocontrol agent that is released in the U.S. goes through that organization's review process, and you build up a very good camaraderie with the community, and I'll miss that."



(Photo by Oscar Reibsmann)

*Dr. Alfred Cofrancesco, Jr. retired from his position as senior scientific technical manager and director of the civil works environmental research area for the Corps on Feb. 28, 2020.*

Beth Fleming, ERDC deputy director and former Environmental Laboratory director said there was a point when the APCRP was really suffering. She described Cofrancesco as having a tireless work ethic to turn the program around, coming into her office every day to strategize when she was director.

"Every bit of his success involved doing whatever it took to make it happen; sometimes it was working over the weekend, sometimes staying until late at night," Fleming said. "He would say it wasn't him, though."

Dr. David Pittman, ERDC director

## Historical Information Available in the APMS Web Site Archives

The [APMS web site](http://www.apms.org) offers a wealth of scientific information as well as insight to the events and people that have shaped the Society through the first 60 years. Most of the Society's archival documents are now scanned and available to all APMS members.

Every Journal article (first published in 1962) and Newsletter (first issued in 1966) are accessible from the web site Home Page ([www.apms.org](http://www.apms.org)). Programs and Abstracts dating back to 1964 and 1981, respectively are posted under the Annual Meeting Archives tab. Members of each Board and Committee Chairs are listed by year under the Society tab beginning with the first Board of Directors in 1961.

APMS Members can access Board and Annual Business Meeting Minutes dating back to the mid-1970s

under the Members Only tab. To access Members Only / Documents, your Username is your email address entered in the APMS Membership Database and you can set your own Password. Here you will also find the current Society Bylaws, Operating Manual and the 5-year Strategic Plan for 2017-2021.

If you want to dig even deeper into APMS history, look under the Documents / Documents and Archives tab for previous Member Directories, Board Books, Articles of Incorporation, Bylaws, Operating Manuals, and Strategic Plans.

If you have APMS archival information that may be missing from the aforementioned files, especially Annual Meeting photos, please forward to Jeff Schardt ([jeff.schardt@gmail.com](mailto:jeff.schardt@gmail.com)).



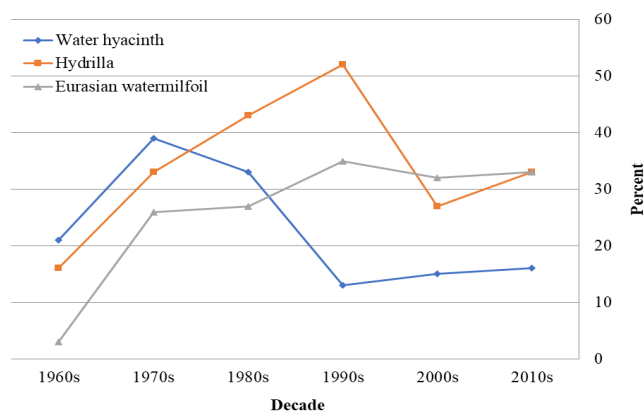
Registrants at the Second Annual Meeting of The Hyacinth Control Society. Governor's Club Hotel, Fort Lauderdale, Florida, July 8-11, 1962.

## APMS by the Decade – A 60-Year Review

As we celebrate the 60<sup>th</sup> Anniversary of the Aquatic Plant Management Society, it is insightful to look back at the events that have led us to today. A 60-year synopsis of major trends and events are summarized on the [APMS web site](http://www.apms.org) under the Society tab. Data is from the Society's Journal articles, Newsletters and Board and Annual Business Meeting Minutes over the previous six decades as well as issues in the headlines related to aquatic plant management.



### Percent Journal Articles of the Most Problematic Invasive Aquatic Plants



See the full summary on the APMS web site under the Society tab

## APMS Thanks Our Sustaining Members

APMS is grateful for our Sustaining Members who have continued to support the Society through these challenging times. Half of all Sustaining Membership dues are deposited in the APMS Scholastic Endowment Account that is used solely to fund the Michael

D. Netherland Graduate Student Research Grant. Please review the information below and follow the links to learn more about each of the 2020 APMS Sustaining Members. To become an APMS Sustaining Member, visit the APMS Web site at [www.apms.org](http://www.apms.org).



**Alligare** LISTENS>LEARNS>DELIVERS. As a member of the ADAMA Group, Alligare is connected to one of the largest chemical supply chains in the world, offering branded, post-patent herbicides for vegetation management - serving aquatic, forestry, range/pasture, roadway, utility/pipeline, and railroad markets. Alligare's field sales team is strategically located across the U.S. and offers technical expertise, training and support for clients. We LISTEN to your needs, LEARN how to help, and DELIVER solutions, it's that simple!



Since 1981, **Applied Aquatic Management, 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, homeowner associations, golf courses, mobile home communities, utilities, local, state and federal government agencies and industry. Our experienced professional staff provides unique knowledge and advanced equipment to manage all types of aquatic, right-of-way, wetland, and upland systems.



**Applied Biochemists** is proud of its active membership and participation with the APMS for nearly 50 years. As a manufacturer and supplier of algaecides, aquatic herbicides and other water management products, we highly value the science and integrity the APMS brings to our industry. We are a leading life sciences company, dedicated to the development, production and application of a wide variety of products to improve the recreational and functional value of water, and quality of life throughout the world.



**Aqua Services, Inc.** is a full-service, aquatic resource management company that specializes in aquatic vegetation management. Established in 1983, the company has provided aquatic plant management for entities in the southeastern U.S. that include the Corps of Engineers, Tennessee Valley Authority, Southern Company, and the Tennessee Wildlife Resource Agency. Aqua Services also provides lake management consulting including electro-fishing assessments, water quality analysis and enhancement, and recreational lake design.



**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 Applied Biochemists, AquaBlok, BioSafe Systems, Brewer International, SePRO, Syngenta, United Phosphorus, AquaMaster, Kasco, and Otterbine. Aquatic Control's five offices offer aquatic vegetation management plans including vegetation mapping and application services, fountain and aeration system installation, maintenance, and service throughout the Midwest.



## APMS Thanks Our Sustaining Members ...continued from p. 12



**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 LLC** has offered 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.



**Brewer International**, in Vero Beach, Florida, has been a chemical manufacturer since 1973. This location is perfect because the company purchases limonene, a low viscosity oil derived from the peel of citrus fruit. This natural ingredient is used in many of Brewer's formulations including two OMRI Listed Organic surfactants: Organic-Kick and Vin-Kick. Brewer offers aquatic surfactants Cide-Kick, Cide-Kick II, Cygnet Plus, I'Vod, Sun Wet, and Poly Control 2. Check out our web site at [www.brewerint.com](http://www.brewerint.com) and visit us on our Facebook page.



**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.



**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. We pioneer, develop and deliver environmentally responsible mosquito control and aquatic services to help control nuisances, prevent disease, and create healthy waterways.

Specialists in Regulatory & Scientific Consulting!



**Compliance Services International (CSI)** specializes in global regulatory and scientific consulting services for product registration and risk assessment. Our services include USA & EU regulatory affairs, ecological risk assessment, toxicology / ecotoxicology / chemistry consulting, agricultural economic analysis, environmental fate and modeling, study monitoring / data development, exposure modeling and spatial analysis, endangered species assessment, geospatial technologies, and litigation / scientific support. Serving industry since 1988 with offices in the USA and Europe.

## APMS Thanks Our Sustaining Members ...continued from p. 13



*Cygnet Enterprises, Inc.*

**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). Please visit [www.cygnetenterprises.com](http://www.cygnetenterprises.com).



**Duke Energy** (NYSE: DUK), 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. The Electric Utilities and Infrastructure unit's regulated utilities serve approximately 7.7 million customers in— North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky. The Duke Energy Renewables unit operates wind and solar generation facilities across the U.S., as well as energy storage and microgrid projects. [duke-energy.com](http://duke-energy.com)



**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. For more information, visit our website [www.lakerestoration.com](http://www.lakerestoration.com).



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.



Valent Corporation signed a formal agreement with **Nufarm Americas** giving them exclusive distributorship of its products. All of Valent's Professional Products, including its aquatics products, Clipper and Tradewind, will now be sold by Nufarm. This allows Nufarm to offer a portfolio of 10 products labeled for aquatics. Nufarm provides a wide variety of products labeled for aquatics, both systemic and contact, that can be used selectively or broad spectrum depending on their use.

## APMS Thanks Our Sustaining Members ...continued from p. 14



**Nutrien Solutions** is a full-service vegetation management company, providing innovative solutions and quality products for the aquatic plant management industry. The cornerstone of our success is our highly educated and trained field staff. With strong commitments to environmental stewardship, innovation, and technology, Nutrien Solutions provides customized programs tailored to specific locations throughout the U.S. We are the country's leading vegetation management provider, and we're excited to introduce you to everything Nutrien Solutions has to offer. Visit: [NutrienAgSolutions.com/Specialty](https://NutrienAgSolutions.com/Specialty).



For 25 years, **SePRO Corporation** has developed innovative technologies to advance the science of water management. The SePRO team provides comprehensive assessment, planning and implementation solutions. Our focused disciplines include aquatic plant and algae management, water quality restoration, laboratory analysis, mapping and data management. Whether you are looking to assess a water resource, design a prescription plan or implement a restoration program, SePRO provides expertise and solutions to preserve our most precious natural resource – water. [www.sepro.com](http://www.sepro.com)



**SOLitude Lake Management** is an environmental firm committed to providing sustainable solutions that improve water quality, enhance beauty, preserve natural resources, educate communities and reduce our environmental footprint. SOLitude's team of Aquatic Biologists, Ecologists and Environmental Scientists specializes in the execution of customized lake, pond, wetland and fisheries management programs that include algae and aquatic weed control, water quality testing and restoration, nutrient remediation, vegetation studies and biological assessments for clients across the United States.



**SOX Erosion Solutions™** has mastered erosion control and restoration of living shorelines and hillsides. SOX manufactures and distributes a suite of patented, bioengineered erosion control solutions that are stable, long-lasting and compliant with all BMP's (Best Management Practices) of Living Shoreline erosion control systems. SOX uses environmentally-focused methodology that gets high marks from engineers and environmentalists alike and is a cost-efficient and long-lasting solution to shoreline & hillside erosion.



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.



For over 30 years, **UPL** has been a premier supplier of crop protection products and plant technologies designed for agricultural, specialty and aquatics markets. UPL manufactures aquatic herbicides and algaecides for lakes, ponds, rivers and irrigation canals. These products are marketed as Aquathol®, Hydrothol®, AquaStrike®, Chinook®, Current®, Cascade®, and Teton®. UPL is an industry leader with time-tested and trusted products and a strong commitment to product stewardship, including research and development of new uses, techniques, and formulations. Visit us at <https://uplaquatics.com/>.



**Vertex Water Features**, a division of Aquatic Systems, Inc. is a science and engineering based aeration system manufacturer that provides custom designed water quality solutions distributed through its dealer network to interested lake owners, lake managers, developers and government agencies throughout North America and internationally.



## APMS Social Media Outreach is Growing Faster Than Water Hyacinth!

APMS currently has an active presence on Facebook (@APMS1961), Instagram (@apmsociety), and Twitter (@APMSociety), and is expanding our network to connect with grass roots and professional interest groups, management agencies, extension offices, industry, individual followers, and research institutions worldwide. Our platforms are posting content an average of three times per week, and we have been featuring news about integrated IPM efforts, species identification, and historical profiles thanks to the generous photo contributions provided by APMS Secretary Jeff Schardt. Due to seminar and conference disruptions associated with COVID-19, there have also been a number of featured webinars and learning opportunities we have been able to advertise and promote re-

lated to invasive species management and awareness. Plans for future content include featuring profiles of APMS members focusing on their professional contributions to the field of aquatic plant management!



Feel free to reach out to APMS Social Media Manager, Amy Giannotti, ([amy@aquastemconsulting.com](mailto:amy@aquastemconsulting.com)) if you have ideas or suggestions for content! She would love to hear from you!

## APMS Chapter and Related Meetings

Through an abundance of caution regarding health and uncertainty over member's ability for interstate travel related to the COVID-19 pandemic, APMS has cancelled the July 2020 Joint Annual Meeting with the Texas APMS Chapter. TAPMS has rescheduled their Annual Meeting for November 16-18 2020 in Bryan,

Texas. The next scheduled APMS Annual Meeting is a joint affair with the MidSouth APMS Chapter July 12-15, 2021 in New Orleans, Louisiana. Following are current meeting dates for other conferences of interest to APMS Members. Please check each organization's web site frequently for any updated information.

Date	Meeting	Location
<b>2020</b>		
Sep 30 - Oct 2	<a href="#">South Carolina Aquatic Plant Management Society</a>	North Myrtle Beach, SC
October 5-8	<a href="#">Florida Aquatic Plant Management Society</a>	Daytona Beach, Florida
(Canceled)	<a href="#">Western Aquatic Plant Management Society</a>	Tucson, Arizona
(Canceled)	<a href="#">MidSouth Aquatic Plant Management Society</a>	Mobile, Alabama
October 27-30	<a href="#">Florida Aquatic Weed Short Course</a>	Coral Springs, Florida
November 16-18	<a href="#">Texas Aquatic Plant Management Society</a>	Bryan, Texas
November 16-20	<a href="#">North American Lake Management Society</a>	Minneapolis, Minnesota
<b>2021</b>		
January 12-14	<a href="#">Northeast Aquatic Plant Management Society</a>	Hyannis, Massachusetts
February 22-25	<a href="#">Midwest Aquatic Plant Management Society</a>	Grand Rapids, Michigan
March 1-4	<a href="#">Western Aquatic Plant Management Society</a>	
	Joint Meeting with	Boise, Idaho
	<a href="#">Western Society of Weed Science</a>	
July 12-15	<a href="#">Aquatic Plant Management Society</a>	
	Joint Meeting With	New Orleans, Louisiana
	<a href="#">MidSouth Aquatic Plant Management Society</a>	

## Washington Report—Lee Van Wyche, Executive Director of Science Policy

### **2020 WOTUS Rule Published**

On April 21, 2020, the EPA and the U.S. Army Corp of Engineers published their final Navigable Waters Protection Rule that defines which waters are “waters of the United States” (WOTUS). The 2020 WOTUS Rule represents the final version of the 2018 draft rule. The 2020 WOTUS Rule will go into effect nationwide on June 22, 2020, but 17 states and various environmental groups have already filed suit seeking to challenge the rule.

The 2020 WOTUS Rule seeks to provide certainty by explicitly describing those waters or features that it seeks to cover as well as those that are explicitly excluded. The following waters are explicitly covered by the 2020 WOTUS Rule:

- Territorial seas and traditional navigable waters,
- Perennial and intermittent tributaries to those waters,
- Lakes, ponds, and impoundments that contribute surface flow to territorial seas and traditional navigable waters, and
- Wetlands adjacent to jurisdictional waters.

The 2020 WOTUS Rule also explicitly excludes twelve categories of waters and features from the WOTUS definition, including the following:

- Groundwater, including groundwater drained through subsurface drainage systems,
- Ephemeral streams and features like swales, gullies, and pools that flow only in direct response to precipitation,
- Ditches, including agricultural ditches, that are not traditional navigable waters and are not constructed in adjacent wetlands and do not relocate a tributary of traditional navigable waters,
- Prior converted cropland, and
- Artificially irrigated areas that would revert to upland if artificial irrigation ceases.

When determining if a water body or feature meets one of the jurisdictional definitions or exclusions, federal agencies will consider the circumstances during a “typical year.” This definition will be important in determining the division between an ephemeral stream,

which only flows due to precipitation, and a perennial or intermittent stream, which flows seasonally or annually. The 2020 WOTUS Rule defines a “typical year” to mean “when precipitation and other climatic variables are within the normal periodic range for the geographic area ... based on a rolling thirty-year period.”

Lastly, the explicit exclusion of groundwater is a noteworthy feature of the 2020 WOTUS Rule. Just two days after the 2020 WOTUS Rule was released, the U.S. Supreme Court ruled in *County of Maui v. Hawaii Wildlife Fund* that discharges into groundwater may fall under the jurisdiction of the Clean Water Act (CWA) to the extent that they represent the “functional equivalent” of a discharge directly into navigable waters. That is to say, according to the Supreme Court, in at least some cases, groundwater will fall under the jurisdiction of the CWA, whereas the 2020 WOTUS Rule states that groundwater is completely excluded from CWA jurisdiction. This direct contradiction will need to be further addressed by the EPA and U.S. Army Corp of Engineers.

### **Harmful Algal Blooms Webinar Targets Capitol Hill and Federal Agency Staff**

On June 8, Dr. Ken Wagner, Director of Water Resource Services, presented a webinar titled “Slowing the Spread of Harmful Algal Blooms.” Dr. Wagner has a distinguished career of service in water supply protection and lake management including leadership roles with the North American Lake Management Society (NALMS). His presentation summarized the science behind available management techniques – science that has been in large part driven by federal research funding. However, increasing HAB outbreaks in the United States, and globally, highlight the urgent need for continued federal research support and national-level coordination to address both short-term risks and long-term solutions for HABs.

The webinar was part of the [National Coalition for Food and Agricultural Research’s \(NCFAR\) Lunch~N~Learn Capitol Hill Seminar Series](#) that serves as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education. WSSA is a sponsor of the seminar series. I’d also like to thank Dr. Mark Heilman, APMS President, for his leadership in

## Washington Report *...continued from p. 16*

helping organize and coordinate the event as well as serving as the moderator. The webinar was well received and had 200 registrants. [Click here for the recorded webinar.](#)

### **Richardson Presents Webinar on Successful Aquatic Plant Management Strategies During National Invasive Species Awareness Week**

"Slow the spread" is an unexpected catchphrase from this spring due to the global coronavirus pandemic and was the theme of [National Invasive Species Awareness Week \(NISAW\)](#) that occurred May 16 – 23, 2020. Dr. Rob Richardson, APMS Past President and chair of WSSA's Noxious and Invasive Weeds Committee, presented the May 21 webinar titled "Successful Aquatic Plant Management Strategies Across the United States." The webinar was well attended with over 200 registered for the event. Richardson noted that it's critical we use integrated approaches with a combination of biological controls, cultural practices, herbicides, mechanical tools, nutrient management and prevention efforts to help stop the spread of invasive aquatic weeds. [Click here for the recorded webinar.](#)

### **10 Ways to Take Action and "Slow the Spread" of Noxious and Invasive Weeds**

1. Learn about invasive weeds, especially those found in your region. Your county extension office and the National Invasive Species Information Center are both trusted resources.
2. Clean your hiking boots, waders, boats and trailers, off-road vehicles and other gear to stop invasive weeds from hitching a ride to a new location. Learn more at [www.playcleango.org](http://www.playcleango.org).
3. Avoid dumping aquariums or live bait into waterways. Learn more at [www.habitattitude.net](http://www.habitattitude.net).
4. Clean your fishing equipment and don't dump live bait. Learn more: <http://stopaquatichitchhikers.org>
5. Don't move firewood over long distances. Instead, buy it where you'll burn it, or gather on site when permitted. [www.dontmovefirewood.org](http://www.dontmovefirewood.org)
6. Buy forage, hay, mulch and soil that are certified "weed free." Learn more at [www.naisma.org/programs/weed-free-standards](http://www.naisma.org/programs/weed-free-standards).
7. Report new or expanding invasive weed infestations to authorities at [www.invasive.org/report.cfm](http://www.invasive.org/report.cfm).

8. Ask your local, state and national political representatives to support invasive and noxious weed management efforts.
9. Plant only non-invasive plants in your garden and remove any known invaders.
10. Share your NISAW activities with friends and followers via text message and social media. Don't forget to use the hashtags #NISAW and #InvasiveSpecies!

### **USDA Updates Biotech Regulations**

On May 18, USDA-APHIS published a final rule intended to modernize USDA's biotechnology regulations under the Plant Protection Act. The new rule marks the first comprehensive revision of USDA biotech regulations since they were established in 1986 under the "Coordinated Framework for Regulation of Biotechnology." The final rule amends the regulations regarding the movement (importation, interstate movement, and environmental release) of certain genetically engineered (GE) organisms in response to advances in genetic engineering and APHIS's understanding of the plant pest risk posed by GE organisms. APHIS states that the new rule provides "a clear, predictable, and efficient regulatory pathway for innovators, facilitating the development of genetically engineered organisms that are unlikely to pose plant pest risks."

The new rule, known as the "SECURE" rule (Sustainable, Ecological, Consistent, Uniform, Responsible, Efficient) differs from the previous regulatory framework by focusing on an organism's properties and not on the method used to produce it. APHIS states that this approach enables it to regulate organisms developed using genetic engineering for plant pest risk with greater precision than the previous approach. This method will reduce regulatory burden for developers of organisms that are unlikely to pose plant pest risks and will continue to provide oversight of organisms developed using genetic engineering that pose a plant pest risk.

The new regulatory process for organisms developed using genetic engineering consists of the following steps:

- **Exemptions:** Determine whether the plant meets the criteria for an exemption with the option for requesting



## Washington Report *...continued from p. 17*

confirmation of the plant's exempt status. This step will be implemented starting **August 16, 2020**.

- **Regulatory status review (RSR):** Request a RSR to determine if a plant developed using genetic engineering poses a plant pest risk. This step will be implemented for certain crops on **April 5, 2021**, and will be fully implemented on **October 1, 2021**.

- **Permitting:** Apply for a permit for a regulated organism that does not undergo or pass the RSR. An RSR request may be submitted for most plants moved under permit. This step will be implemented on **April 5, 2021**.

The final rule is a welcome change for most biotechnology stakeholders. The Biotechnology Industry Organization (BIO) praised the final rule, welcoming the diminished barriers to innovation as sensible and efficient. The Center for Food Safety condemned the final rule, noting that under it, "the overwhelming majority of GE plant trials would not have to be reported to USDA, or have their risks analyzed before being allowed to go to market."

One issue the National and Regional Weed Science Societies asked APHIS to address in their proposed rule last year was the issue of asynchronous approval of a herbicide-tolerant crop by APHIS and the concomitant approval by EPA of the herbicide for use on that crop. An example of this occurred when APHIS approved dicamba-tolerant soybeans in 2015, but the concomitant herbicides were not registered by EPA until 2017. However, APHIS cannot legally delay approval of a biotech crop if it does not pose a plant pest risk, nor can EPA "speed up" a registration of a herbicide (especially if they don't have the entire data submission package). Thus, the recommendation was for registrants to better time their applications so that the herbicide-tolerant crop and its corresponding herbicide are approved during the same crop year.

### **Global HRAC Updates Herbicide MOA Classifications**

The global herbicide resistance action committee (HRAC) has worked to update and revise the herbicide mode of action (MOA) classification system. The goal is to gradually phase out the old alphanumeric codes. The WSSA board of directors approved the revised HRAC classification system at their annual meeting in March. The updated 2020 Herbicide MOA map, which is divid-

ed into three areas: 1) Light Activation of Reactive Oxygen Species, 2) Cellular Metabolism, and 3) Cell Division and Growth can be found at: <https://hracglobal.com/tools/hrac-mode-of-action-classification-2020-map>

### **Bill Authorizing 600 New Agricultural Inspectors Signed into Law**

On March 4, "The Protecting America's Food & Agriculture Act of 2019" was signed into law, which addresses the shortage of agricultural inspectors who protect the nation's food supply and agriculture industry and ensure safe and secure trade of agricultural goods across borders. The act authorizes U.S. Customs & Border Protection (CBP) to hire additional inspectors, support staff and K-9 teams to fully staff America's airports, seaports and land ports of entry.

The USDA and CBP work together to facilitate safe and secure importation of agricultural goods into the U.S. The program's agricultural specialists and K-9 units conduct inspections of passengers, commercial vessels, trucks, aircraft and railcars at U.S. ports of entry to protect health and safety by preventing the entry of harmful goods and invasive species that may pose a threat to American food and agriculture. On a typical day (prior to COVID-19), inspectors process more than 1 million passengers and 78,000 truck, rail and sea containers carrying goods worth approximately \$7.2 billion.

The act authorizes the annual hiring of 240 agricultural specialists a year until the workforce shortage is filled and 200 agricultural technicians a year to carry out administrative and support functions. The act also authorizes the training and assignment of 20 new K-9 teams a year, which have proven valuable in detecting illicit fruits, vegetables and animal products that may have otherwise been missed in initial inspections. Finally, it authorizes supplemental appropriations each year to pay for the activities of the agriculture specialists, technicians and K-9 teams.

[Lee Van Wychen, Ph.D.](#)

Executive Director of Science Policy

National and Regional Weed Science Societies

[Lee.VanWychen@wssa.net](mailto:Lee.VanWychen@wssa.net)

202-746-4686

## 2019-2020 Officers, Directors, Committee Chairs, and Special Representatives

Office	Name	Affiliation	City, State
President	Mark Heilman	SePRO Corporation	Carmel, IN
Immediate Past President	Craig Aguillard	Alligare	Villa Platte, LA
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Director	Deborah Hofstra	NIWA, New Zealand	Hamilton, NZ
Director	Amy Kay	Clean Lakes Midwest, Inc.	Oakwood Hills, IL
Director	Amy Ferriter	Nutrien Solutions	Gainesville, FL
Director	Marc Bellaud	SOLitude Lake Management	Shrewsbury, MA
Director	Lyn Gettys	University of Florida	Davie, FL
Director	Chris Mudge	U.S. Army Corps of Engineers	Baton Rouge, LA
Student Director	Jens Beets	North Carolina State University	Raleigh, NC
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Awards	Jason Ferrell	University of Florida	Gainesville, FL
Bylaws and Resolutions	James Leary	University of Florida	Gainesville, FL
Education and Outreach	Amy Giannotti	AquaSTEM Consulting LLC	Winter Park, FL
Exhibits	Dean Jones	University of Florida	Auburndale, FL
Finance	Andy Fuhrman	Allstate Resource Management, Inc.	Davie, FL
Legislative	Rob Richardson	North Carolina State University	Raleigh, NC
Meeting Planning	Rob Richardson	North Carolina State University	Raleigh, NC
Membership	Marc Bellaud	SOLitude Lake Management	Shrewsbury, MA
Nominating	Craig Aguillard	Alligare	Villa Platte, LA
Past President's Advisory Program	Craig Aguillard	Alligare	Villa Platte, LA
Proposal Review	Ryan Wersal	Minnesota State University, Mankato	Mankato, MN
Publications	Craig Aguillard	Alligare	Villa Platte, LA
Regional Chapters	Jason Ferrell	University of Florida	Gainesville, FL
Scholastic Endowment	Ryan Thum	Montana State University	Bozeman, ID
Strategic Planning	Tom Warmuth	BioSafe Systems, Inc.	East Hartford, CT
Student Affairs	Mark Heilman	SePRO Corporation	Carmel, IN
Website	Sam Sardes	SOLitude Lake Management	West Palm Beach, FL
	Brett Hartis	Duke Energy Carolinas	Huntersville, NC
Special Representative	Name	Affiliation	
AERF Representative	Carlton Layne	AERF	Marietta, GA
BASS Representative	Jeremy Slade	UPL NA Inc.	Gainesville, FL
CAST Representative	Lyn Gettys	University of Florida	Davie, FL
NALMS Representative	Terry McNabb	AquaTechnex, LLC	Bellingham, WA
RISE Representative	Sam Barrick	SePRO Corporation	Carmel, IN
Women of Aquatics	Amy Kay	Clean Lakes Midwest, Inc.	Oakwood Hills, IL
WSSA Representative	Rob Richardson	North Carolina State University	Raleigh, NC
Director of Science Policy	Lee Van Wyche	Weed Science Society of America	Alexandria, VA



## ***The Aquatic Plant Management Society, Inc.***

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.

### ***Join APMS / Renew Membership***

Follow the link below to join the Aquatic Plant Management Society

<http://www.apms.org/society/membership/>

Members can renew membership for 2020 at the

Following link:

[www.apms.org/member-page/renew-membership/](http://www.apms.org/member-page/renew-membership/)

### ***Regional Chapters***

Seven Regional Chapters of the Aquatic Plant Management Society provide members with current management tools and strategies and administrative information of local and regional importance.



Florida



MidSouth



Midwest



Northeast



South Carolina



Texas



Western