

Since 1961

Organized as a forum to share water hyacinth control experiences, the APMS Mission now encompasses research and management of all vascular 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

We're on the Web!  
[apms.org](http://apms.org)

Issue 117

March 2018

## Niagara Falls is calling you!



Hyatt Regency Buffalo  
Hotel & Conference Center  
Two Fountain Plaza  
Buffalo, NY, US, 14202  
844-219-4602

Hotel reservations:

<https://aws.passkey.com/e/13947061>

Conference registration and information:

<https://www.apms.org/annual-meeting>

Things to do around Buffalo:

<http://www.visitbuffaloniagara.com/see-do/>

Make your reservations now to attend the 58<sup>th</sup> Annual Meeting of the Aquatic Plant Management Society to be held July 15-18 at the Hyatt Regency Buffalo Hotel and Conference Center. In addition to aquatic plant research and operational updates, the Program Committee is scheduling special sessions on starry stonewort and harmful algae bloom problems and management. Please take advantage of the \$159 group rate for the conference; three days before and after the conference, subject to availability.

Enjoy the Hyatt in downtown Buffalo with over 20 restaurants within a 10-minute walk, and many attractions close to the hotel. Beautiful Niagara Falls is only about 30 minutes from the Hyatt. Remember your passport if your plans include crossing between the US into Canada.

### Inside this Issue:

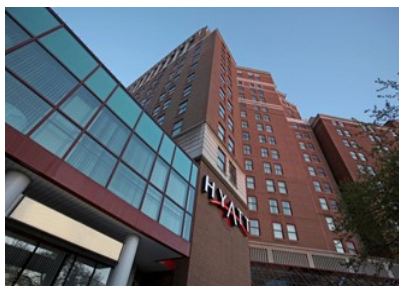
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## Make your Reservations NOW for the 58<sup>th</sup> APMS Annual Meeting!

The APMS Board continues a concerted effort to keep registration costs at a reasonable level. Registration fees this year are the same as 2017—\$300.00 for a delegate and \$130.00 for a guest (spouse, partner, child over 12 years of age) if received by June 15, 2018. After this date, registration fees at the door will be \$375.00 for a delegate and \$155.00 for a guest. The meeting registration fee for a student competing in the student paper contest (oral or poster) is waived and the registration fee for a student not competing is \$75.00.

Delegate and student registration includes all technical sessions, President's Reception, continental breakfasts, refreshment breaks, Poster Reception, and Awards Reception and Banquet. Guest registration includes President's Reception, continental breakfast and breaks, Poster Reception, and Awards Reception and Banquet. Non-registered guests may purchase individual tickets for these events.

The 2018 Annual Meeting will begin with the President's Reception on Sunday evening. As the official welcoming event of the meeting,



this reception is an excellent time to re-acquaint with colleagues, meet new friends, and just relax. Heavy hors d'oeuvres and beverages will be served. All students registered for the conference will have an opportunity to meet one another and become familiar with the conference format at the Student Meet-and-Greet scheduled one hour prior to the President's Reception.

The Program will commence at 8:00 am Monday and adjourn at noon on Wednesday. The 2018 Annual Meeting site lies within the boundaries of the Northeast APMS Regional Chapter and we encourage researchers and program managers to attend

and share your latest findings or operational strategies via oral or poster presentations.

The Monday Poster Reception is scheduled for early in the evening with all poster presenters in attendance explaining their work and answering questions.

The Poster Reception is



held in the Exhibit

Hall to enhance networking among vendors and sponsors along with researchers. Light hors d'oeuvres and beverages will be served. There is sufficient time afterwards to further discuss research or business on site or at a local restaurant.

The APMS Reception and Awards Banquet on Tuesday evening will be another memorable event where we recognize those who have served and contributed to our Society, welcome new officers and directors, and present student paper and other awards.

Please make your hotel reservations early. When making reservations by phone, be sure to mention that you are part of the Aquatic Plant Management Society. The cutoff date for reservations at the special group rate is June 24, 2018. Our special APMS guest room rate is \$159.00 for single and double occupancy per night plus applicable tax. These group rates are available three days prior to the conference and three days post conference subject to availability. Check in time is 4:00 pm; checkout time is 12:00 pm. If you depart earlier than your reserved departure date, the hotel will charge one night room and tax.

We hope to see you and your family in Buffalo as we celebrate the 58<sup>th</sup> Annual Meeting of the Aquatic Plant Management Society!

# 58th Annual Meeting of the APMS Registration Form

## Delegate/Student/Guest Information

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ M.I: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Province: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Country: \_\_\_\_\_ E-mail Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

## Registration *(Includes Refreshment Breaks, President's Reception, Poster Reception, and Banquet)*

	<b>Early</b> <i>(by June 15, 2018)</i>	<b>On-site</b>	
<input type="checkbox"/> Delegate Registration	\$ 300.00	\$ 375.00	\$ _____
<input type="checkbox"/> Student Paper Competition Registration	\$ 0.00	\$ 0.00	\$ 0.00
<input type="checkbox"/> Regular Student Registration (non-competing)	\$ 75.00	\$ 75.00	\$ _____
<input type="checkbox"/> Guest Registration (spouse, partner, child over 12 years-of-age) <i>(also includes the Guest Tour)</i>			
Name(s): _____	\$ 130.00	\$ 155.00	\$ _____
<input type="checkbox"/> One-day Meeting Registration <i>(includes refreshment breaks on day of attendance only)</i>			
Day of Attendance: _____	\$ 100.00	\$ 100.00	\$ _____

### Individual Special Event Tickets for Non-registered Guests

<input type="checkbox"/> President's Reception	Name(s): _____	\$ 40.00	\$ 50.00	\$ _____
<input type="checkbox"/> Poster Reception	Name(s): _____	\$ 40.00	\$ 50.00	\$ _____
<input type="checkbox"/> Banquet	Name(s): _____	\$ 55.00	\$ 65.00	\$ _____

## Membership Dues (2018)

<input type="checkbox"/> Individual	\$ 75.00	\$ _____
<input type="checkbox"/> Student	\$ 20.00	\$ _____
<input type="checkbox"/> Sustaining	\$500.00	\$ _____

### **Total Payment Amount:**

\$ \_\_\_\_\_

## Payment Method (Check One)

☐ Check *(Make Payable to APMS, Inc.)* Credit Card: ☐ Visa ☐ Master Card ☐ American Express

Credit Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Name as it Appears on Card: \_\_\_\_\_ Signature of Card Holder: \_\_\_\_\_

### **Send Completed Form and Payment to:**

The Aquatic Plant Management Society, Inc.

7922 NW 71<sup>st</sup> Street

Gainesville, FL 32653

Fax: 352-392-3462

**Early registration accepted if form and payment received by June 15, 2018. Registration questions, please phone: 662-617-4571 or E-mail: APMS14@Hotmail.com**

**Cancellation/Refund Policy:** Registration fees are fully refundable prior to June 29, 2018, less a \$25.00 processing and handling fee. No refund of any fees will be issued if cancellation of participation is received after June 29, 2018. Notice of cancellation must be received by APMS via mail, fax, or e-mail. **Phone cancellations will not be accepted.**

## Call for Papers—2018 APMS Annual Meeting

### Present Your Original Research

You are invited to submit a title and abstract for the 58<sup>th</sup> Annual Meeting of the Aquatic Plant Management Society to be held July 15-18 at the Hyatt Regency Hotel and Conference Center, Buffalo, New York. Both oral and poster presentations are solicited for original research on the biology or ecology of aquatic and wetland plants, control methods (biological, chemical, cultural, mechanical) for invasive, exotic or nuisance plant or algal species, and restoration projects involving wetland or aquatic plants and algae.

This year's meeting is in the region of the Northeast Aquatic Plant Management Society, so regional presenters are strongly encouraged to submit abstracts. Presentations of original research will be given preference, and should be indicated by including results in the abstract. Summaries of government management or regulatory programs, particularly those implementing novel aquatic plant management or organizational approaches, are also welcome.

### Student Incentives

The Aquatic Plant Management Society especially invites student abstracts for oral and poster presentations. The Annual Meeting presents an opportunity for students to network with key government, university and industry representatives and peers with similar educational and professional interests. The society will provide all student presenters with room accommodations and complimentary registration. First, 2<sup>nd</sup>, and 3<sup>rd</sup> place prize money will be awarded in separate contests for both oral and poster presentations. In addition, all students are invited to attend a hands-on tour of aquatic plant management activities on surrounding waters beginning Thursday morning following the Annual Meeting.

Students may contact the APMS Student Affairs

Committee Chair, Dr. Chris Mudge, with any questions at: [CMudge@agcenter.lsu.edu](mailto:CMudge@agcenter.lsu.edu).

### Interactive Presentation Format

Oral presentations will be allotted a total of 15 minutes with an additional five minutes for questions and discussion. Contributed oral presentations should be scientific or technical in nature, which will be determined from the submitted abstract. An LCD projector/computer and laser pointer will be available for oral presentations. Only PC-based PowerPoint presentations will be accepted. All presenters will be required to upload their final PowerPoint presentation to the abstract submission portal prior to the meeting.

*Note:* All presentations that include externally run programs, models or special animation, must be reviewed and approved by the Program Chair prior to the meeting. You will not be allowed to set up a personal computer for your presentation.

A 90-minute poster reception is scheduled for Monday, July 16. Poster presenters discuss their research with attendees in the Exhibit hall while enjoying hors d'oeuvres and beverages. Free-standing display boards (4' x 4') will be provided for posters.

Please submit your information online on the WSSA Title and Abstract Submission System at <https://wssaabstracts.com/>. Instructions for abstract submittal are on the following page in this Newsletter. Acceptance of contributed papers will not occur until after the April 30, 2018 abstract deadline, and will be confirmed by a separate e-mail.

The WSSA Title and Abstract Submission System is now active and will remain open until April 30, 2018.

<https://wssaabstracts.com/>



## Navigating the WSSA Title and Abstract Submission System



The Aquatic Plant Management Society uses the Weed Science Society of America (WSSA) Title and Abstract Submission System, available at:

[www.wssaabstracts.com](http://www.wssaabstracts.com)

### Logging in to the WSSA System

If you have used the WSSA system before, enter your e-mail address and password to sign on to the system. If you cannot remember your password, there is a link on the right-hand side to reset the password.

If you do not have an account with the WSSA Abstract Submission System, you can create a new account with a link on the right-hand side of the webpage. Click on the "Setup New Account" link, and add your e-mail address (as the login), your name and affiliation, and contact phone number.

After you log in, click "Join a Conference" to access the **2018 Aquatic Plant Management Society** meeting. Click "Enter" then "My Titles and Abstracts" to submit your information. Follow instructions to enter a title and abstract.

### Entering a Title and Abstract

To enter a new title and abstract, click on the link on the left-hand side of the 2018 Aquatic Plant Management Society conference webpage, "My Titles and Abstracts." Then click on "Add New Title / Abstract." Type in the title capitalizing key words (e.g., Response of Eurasian and Hybrid Watermilfoil to Five Auxin-mimic Herbicides). Please do not submit your title in bold typeface or all caps. Just capitalize the major words in the title.

### Student Competition Presenters

Indicate whether or not you are a student and if you are planning on being judged in the poster or oral presentation contest.

### Program Information Format

Be sure to add the full names and contact information of all authors. **Please be sure to enter all authors in the correct order, the author's university or business entity, department, home city and state as you want these to appear in the program.** Type the text of your abstract into the abstract box. It is probably easiest to type this in a word processor file and copy and paste the abstract text into the abstract text box.

Please limit your abstract to 300 words.

### Title and Abstract Submittal Deadlines

Abstracts must be submitted on the WSSA abstract system. Do not e-mail these to the Program Chair and expect to be included in the program.

The deadline for title and abstract submission is April 30, 2018. Please do not wait until the last minute. Abstracts will be accepted for oral presentations on a first come, first served basis. Poster presentations will also be accepted on a first come, first served basis. PowerPoint presentations for oral presentations should be uploaded to the WSSA Abstract Submission site no later than July 9, 2018.

If you have any questions, please contact:

**Mr. Craig Aguillard**  
**2018 Program Chair**  
**[caguillard@landolakes.com](mailto:caguillard@landolakes.com)**



## Student Presentation Contests and Incentives for the July 2018 Meeting

The Aquatic Plant Management Society (APMS) is inviting student presentations for the upcoming 58<sup>th</sup> Annual Meeting. The meeting will be held July 15-18, 2018 at the Hyatt Regency Buffalo Hotel and Conference Center in Buffalo, New York.

### Oral and Poster Presentations

Oral and poster presentations of original research are solicited on the biology or ecology of aquatic and wetland plants, harmful algal blooms, control methods (biological, chemical, cultural, mechanical) for invasive exotic or nuisance native plant species, and restoration projects involving wetland or aquatic plants. Seventeen graduate students from six universities participated in the 2017 Annual Meeting in Daytona Beach, Florida and we hope to have strong student attendance again this year.

### Student Incentives

The APMS has a strong ethic of student support. This meeting provides an opportunity for students to develop their presentation skills, learn about the field of aquatic plant management, and network with key government, university and industry representatives and peers with similar educational and professional interests. The Poster Reception on Monday evening is a good opportunity for students to interact directly with meeting delegates. Authors present their research in a personal, face-to-face format during the 90 minute food and beverage reception, to university instructors as well as government administrators and industry representatives.

The Society will provide all student presenters with complimentary room accommodations and meeting registration. First, 2<sup>nd</sup>, and 3<sup>rd</sup> place prize money will be awarded in separate contests for both oral and poster presentations. Due to the limited number of spots available in the program, the society encourages students to consider presenting a poster, especially for those students that have given oral presentations at previous meetings. During the conference, the Student Affairs Luncheon will be held on Monday July 16<sup>th</sup> for all registered students to network with other attendees. Guest speakers from state and gov-

ernment agencies, as well as private industry will answer questions and provide insight to career opportunities.

### Post-conference Student Tour

Following the conference, all students are invited to attend a hands-on tour of aquatic plant control in the Buffalo and the surrounding Great Lakes Region. APMS will provide transportation for students who will travel with Dr. Christopher Mudge of the USACE, leaving the hotel at 7:00 am on Thursday morning. Students will interact with government and private plant and water resource managers responsible for managing invasive plants in the region. Herbicides, harvesters, biocontrols, and water level manipulation are integrated to manage invasive plants like hydrilla, water chestnut, starry stonewort, phragmites, harmful algal blooms, and other invasive species to conserve attributes such as flood control, water supply, and navigation. The tour will conclude Thursday afternoon and students will be dropped off at the Buffalo airport for flights home or the conference hotel.

Please log on to [www.apms.org](http://www.apms.org) to learn more about the Aquatic Plant Management Society and this year's meeting. Students may register and submit an abstract by following the instructions under the "Annual Meeting" link.

The deadline for Title and Abstract submission is April 30, 2018.

### For more information please contact:

Christopher Mudge, PhD  
APMS Student Affairs Committee Chair  
U.S. Army Engineer Research &  
Development Center  
108 Sturgis Hall  
Baton Rouge, LA 70803  
225-578-1208

Christopher.R.Mudge@usace.army.mil  
or  
CMudge@agcenter.lsu.edu



## THE AQUATIC PLANT MANAGEMENT SOCIETY, Inc.

7922 NW 71st Street  
Gainesville, FL 32653  
[www.apms.org](http://www.apms.org)

### ANNOUNCEMENT

### APMS GRADUATE STUDENT RESEARCH GRANT

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

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

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

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

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

**Proposal Deadline:** Applications must be postmarked no later than April 15<sup>th</sup>, 2018.

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

**Please submit a pdf file of your full application via email to Mark Heilman,  
APMS Vice President at: [markh@sepro.com](mailto:markh@sepro.com)**

**Award:** Notification of award will be provided to the faculty member in time to make arrangements to attend the APMS 58<sup>th</sup> Annual Meeting (July 16-18, 2018 – Hyatt Regency, Buffalo, NY). Formal announcement of the recipient will be made at the Annual Meeting, with initiation of the grant scheduled for the 2019-2020 academic year. Payments in the amount of \$20,000 will be made before January 31<sup>st</sup> of 2019 and 2020.

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

For more information on the APMS  
Graduate Student Research Grant  
Visit the APMS website at:  
<http://www.apms.org>

Inquiries: Mark Heilman  
APMS Vice President  
317-388-3336  
[markh@sepro.com](mailto:markh@sepro.com)

## Be a Sponsor or Exhibitor at the 2018 Annual Meeting

**Sponsors:** Sponsors are essential to the success of the Annual Meeting. After meeting with sponsors and conference attendees, APMS revised the benefits for the various sponsorship levels to acknowledge and show appreciation to Sponsors for their contributions. Please see the following link ([APMS Sponsorship](#)) for a complete list of benefits for each Annual Meeting Sponsorship Level.

**Exhibitors:** The APMS Annual Meeting offers an excellent opportunity to exhibit products and services and interact with key people in aquatic plant management across the country. The Exhibit Hall is also the site of daily continental breakfasts and refreshment breaks as well as the Monday evening Poster Reception to increase interactions and discussion among Exhibitors and meeting attendees.

*For more information on Meeting Sponsorship and Exhibiting, please contact APMS Exhibits Committee Chair Dean Jones ([kdjones@ufl.edu](mailto:kdjones@ufl.edu)) or visit the web site at ([www.apms.org/annual-meeting](http://www.apms.org/annual-meeting))*

## Call for 2018 APMS Award Nominations

It is time to recognize your colleagues for exemplary achievements and service. The Society provides a number of different awards in research and management for both long-time and short-term accomplishments and to established researchers and graduate students just beginning their journeys in aquatic plant control. Visit the [Awards page](#) on the

APMS website for more information on each Award and a list of past recipients. Criteria and Nomination Forms are at the end of the Awards page on the web site. The deadline for nominations is March 15, 2018.



*Please send your Award Nominations to Jay Ferrell, Awards Committee Chair at: ([jferrell@ufl.edu](mailto:jferrell@ufl.edu))*


### JOURNAL OF AQUATIC PLANT MANAGEMENT RESEARCH METHODS

Weed management in aquatic environments presents unique challenges that are not commonly faced in weed science research. This publication contains 14 chapters from leading researchers to explain the difficulties and detail how to generate repeatable data in aquatic systems.

**Cost \$35**

**Go to [www.apms.org](http://www.apms.org) to order your copy today!**





# 58<sup>th</sup> Annual Meeting of the APMS

## Exhibit Booth Form

### **Contact Information**

Contract must be signed by the individual who is responsible for the exhibit.

Print Name: \_\_\_\_\_ Signature of Acceptance: \_\_\_\_\_

### **Exhibit Booth Information**

Company: \_\_\_\_\_

Booth Staffer Name: \_\_\_\_\_

*Exhibit booth fee includes one (1) free meeting registration.*

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail Address: \_\_\_\_\_

### **Exhibit Booth Fees**

☐ Single Exhibit Booth (8'x10') - \$800.00 \$ \_\_\_\_\_

### **Other Fees**

☐ Non-profit Table - \$0 \$ \_\_\_\_\_

☐ Additional contribution (Sponsorship): \_\_\_\_\_ \$ \_\_\_\_\_

\* *Optional:* Electricity – See attached hotel form. \$ pay hotel directly

**Total Amount** \$ \_\_\_\_\_

### **Type of Exhibit**

☐ Table Top ☐ Screens ☐ 8 x 10 ☐ Other: \_\_\_\_\_

### **Payment Method** (Check One)

☐ Check (*Make Payable to APMS, Inc.*)

Credit Card: ☐ Visa ☐ Master Card ☐ American Express

Credit Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Name as it Appears on Card: \_\_\_\_\_ Signature: \_\_\_\_\_

### **Please Mail or Fax Completed Form and Payment by June 15, 2018 to:**

The Aquatic Plant Management Society, Inc.

7922 NW 71<sup>st</sup> Street

Gainesville, Florida 32653

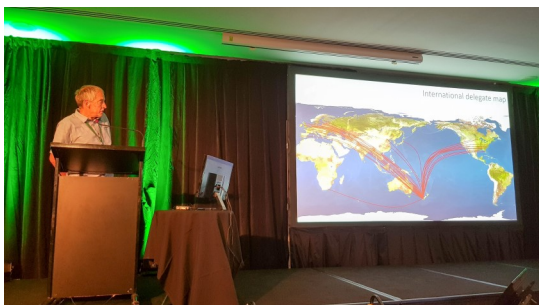
E-Mail: APMS14@Hotmail.com

Phone: 662-617-4571

Fax: 352-392-3462

## APMS—A Proud Sponsor of 15<sup>th</sup> International Symposium on Aquatic Plants

The 15<sup>th</sup> International Symposium on Aquatic Plants convened in Queenstown, New Zealand on February 18<sup>th</sup>, 2018. This is the first time this meeting was held outside Europe. The meeting was attended by 140 delegates and 15 PhD graduate students, repre-



senting 20 countries. Presentations covered topics from biodiversity to management and ecosystem responses to restoration.

The driving forces behind the Symposium's success were Dr. Deborah Hofstra, Paul Champion, and John Clayton from New Zealand's National Institute of Water and Atmospheric Research (NIWA), with support from APMS, AERF, Land Information New Zealand (LINZ), Boffa Miskell, and New Zealand's Ministry of Primary Industries (MPI). In addition to meeting sponsorship, APMS was represented with keynote presentations from our own Drs. Ryan Thum and Lars Anderson, and research presentations from Drs. Rob Richardson, John Madsen, Cody Gray, Susan Wilde, Jay Ferrell, and Mark Heilman. APMS graduate students were represented with oral presentations from Andrew Howell (NC State), Ericka Haug (NC State) and several posters provided by Mirella Ortiz (Colorado State University).



APMS Members attending the ISAP Symposium

The Conference underscored the importance of sharing perspectives on aquatic plants and their control.

Presentations revealed a variety of approaches among researchers and managers as well as regional differences regarding aquatic plant control and ecosystem management.

Our Kiwi colleagues have similar goals to those outlined by APMS. NIWA is aggressively protecting the uniqueness that is New Zealand. Major weeds of concern include *Ceratophyllum demersum* (hornwort or coontail) which poses challenges in the country's hydroelectric reservoirs, *Lagarosiphon major* (African elodea) that threatens pristine lake systems on the



South Island, *Egeria densa* (Brazilian elodea), *Myriophyllum aquaticum* (parrotfeather), and *Alternanthera philoxeroides* (alligatorweed). New Zealand's lakes are highly vulnerable to invasion based on its island biogeography, so NIWA is working hard to manage and hopefully eradicate invasive threats to preserve native ecosystems and all water uses.

For our European and Asian colleagues, the establishment of sustainable aquatic macrophyte communities and massive reductions in fish populations are the primary steps to restoring clear water in aquatic ecosystems. Eurasian watermilfoil is not the enemy, but a highly desirable species and in some cases one of the key species for aquatic restoration. The use of aquatic herbicides is absolutely unheard of for our European colleagues.

The NIWA folks did a great job putting together a first-class meeting. It was well attended, and diverse perspectives were presented. Both sides came away from the meeting with a newfound respect for "the other side of coin".

from APMS Director Scott Nissen

## TVA Expands Plant Camp Activities

In September 2017, educators from Tennessee and Mississippi attended “TVA Plant Camp”, a 3-day workshop focusing on non-native and invasive plant species in the Tennessee Valley. Twenty-four (24) educators were selected from nearly 100 applicants to attend the camp where they learned about some of the Tennessee Valley’s most problematic and invasive plants. Elementary through high school teachers were



taught basic plant identification, aquatic and terrestrial plant science, fisheries management, as well as aquatic plant management tools and techniques.

Working from the University of Florida model, this workshop gives teachers the background and materials to teach students about environmental and economic impacts of invasive species in and on local lands and waters. The camp was led by TVA Aquatic Plant Management Program Manager and APMS Director, Brett Hartis and his staff, along with guest speakers from Mississippi State University, AERF, and Aqua Services, Inc.

On day one, participants were introduced to invasive species which included the recently released [National Silent Invaders Video](#). Day two provided hands-on experience with aquatic plant identification and wetland functions as well as management demonstrations and an airboat tour of Watts Bar Reservoir. On



day three, the teachers learned relationships between plants and fish and were able to take part in electrofishing surveys. The group was also taken on a hike showcasing the region’s troublesome terrestrial invaders and were introduced to prescribed fire as a management tool.

Lastly, teachers were introduced to [Lakeville-A Natural Resource Management Activity](#) designed specifically for the mid-south region by the University of Florida. The event was co-sponsored by the Aquatic Plant Management Society, Aquatic Ecosystem Restoration Foundation, Mississippi Department of Natural Resources, and the MidSouth Aquatic Plant Management Society.

*from APMS Director Brett Hartis*

## Silent Invaders Video Available to All

If you are planning an entry level invasive plant workshop or know a teacher looking for instructional materials related to environmental management, please consider the [National Silent Invaders Video](#).

The Aquatic Plant Management Society worked with the University of Florida to create a national version of the Silent Invaders Video, relevant to all regions across the U.S. Teachers and environmental learning center instructors from anywhere in the country can now introduce students to the differences among plant types and how some invasive plants are impacting the nation’s waterways; lakes, rivers, wetlands and natural areas.

The Silent Invaders audio-visual presentation is the core lesson upon which all other aquatic plant activities and lessons are based. The 20-minute presentation provides a basic (and fun) introduction to aquatic and terrestrial plants along with the key concepts of aquatic versus terrestrial, and native, non-native and invasive plant species. The National version addresses these concepts with examples from across the country. The lesson ends with positive actions we can all take to help prevent the spread of invasive plants in our own neighborhoods.

## Washington Report—Lee Van Wychen, APMS Science Policy Director

### Kruger New WSSA-EPA Liaison



Mike Barrett, University of Kentucky, served as the WSSA-EPA Liaison for the past four years and made his last visit to EPA in December. His visit overlapped with **Greg Kruger's** second visit as the new WSSA-EPA Liaison.

Dr. Kruger (photo left) earned his Ph.D. in Weed Science from Purdue University in 2010 and is now an associate professor with both research and extension responsibilities located at the University of Nebraska's West Central Research and Extension Center in North Platte, NE. His research interests include mitigating pesticide drift, optimizing pesticide application technologies, and management of herbicide-resistant weeds.

### Congress Avoids Sequestration with 2-Year Budget Agreement

Congress approved a two-year budget plan on February 9 that would increase authorizations for federal spending. The agreement passed in the Senate (71-28) and House (240-186) and was signed into law by President Trump. The bipartisan agreement raised the sequestration caps on defense and nondefense discretionary spending by nearly \$300 billion over two years, with nondefense discretionary spending - the biggest source of research funding - getting a \$63 billion boost in FY 2018 and an additional \$68 billion in FY 2019.

While Congress now has a budget blueprint, they still have to modify and pass an FY 2018 omnibus appropriations bill. Federal agencies will continue to operate on a Continuing Resolution (CR) under FY 2017 levels through March 23, 2018. If an appropriations package has not been passed by March 23, the government will once again face another shutdown.

An issue related to the on-going CR is that the Army Corp of Engineers has indicated it will not disburse funds to the Aquatic Plant Control Research Program (APCRP) because they did not request funding in FY 2018. This is despite that APCRP received \$4 million in funding in FY 2017 and the FY 2018 Senate appropriations bill includes \$5 million for APCRP.

### Aquatics Programs in FY 2019 Budget Proposal are Parched Again

The Administration released its FY 2019 budget proposal on February 12, and like last year, several aquatic programs important to aquatic plant research and management were greatly reduced or zeroed out. The Great Lakes Restoration Initiative (GLRI) that is administered by the EPA is only budgeted for \$30 million, compared to \$300 million it received in FY 2017. The Corp of Engineers' APCRP and NOAA's National Sea Grant College Program were both zeroed out once again in the President's FY 2019 proposal. We will once again have to generate stakeholder support for these programs so Congress restores funding like they did last year.

### R.D. James Confirmed as Assistant Secretary of the Army for Civil Works



R.D. James, a farmer and cotton ginner from the Missouri Bootheel and long time member of the Mississippi River Commission, has been confirmed by the Senate in January by a 89 – 1 vote so serve as the Assistant Secretary of the Army for Civil Works. The position has oversight of the U.S. Corps of Engineers, which has 37,000 civilian/soldier employees delivering engineering services to 130 countries worldwide.

R.D. James brings a wealth of experience to the position. James earned his degree in civil engineering at the University of Kentucky, and he and his family have had farming, ginning, and grain elevator operations in the Bootheel for decades. In 1981, he was appoint-



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ed by President Reagan to serve on the Mississippi River Commission, and since then has provided leadership of the organization that is charged with the ongoing development of plans to improve the condition of the Mississippi River, foster navigation, promote commerce, and prevent destructive floods. In his new position, he will establish policy direction and provide supervision of the Department of the Army functions relating to all aspects of the Civil Works program, including the Aquatic Plant Control Research Program.

### **Glyphosate Not Carcinogenic**

On November 9, 2017, updated results from the Agricultural Health Study regarding glyphosate use and cancer incidence were published in the Journal of the National Cancer Institute: <https://academic.oup.com/jnci/advance-article/doi/10.1093/jnci/djx233/4590280>. The Agricultural Health Study (<https://aghealth.nih.gov/>) has monitored the health outcomes of over 89,000 licensed pesticide applicators and their spouses from Iowa and North Carolina since 1993. In this large, prospective cohort study, **no association was apparent between glyphosate and any solid tumors or lymphoid malignancies overall, including NHL and its subtypes**. Specifically, among 54,251 applicators, 44,932 used glyphosate, including 5,779 incident cancer cases. In unlagged analyses, glyphosate was not statistically significantly associated with cancer at any site.

On December 19, 2017, EPA released its [human health draft risk assessment and supporting documents](#) that concludes that glyphosate is not likely to be carcinogenic to humans and found no other meaningful risks to human health when the product is used according to the label. EPA will be opening a **60-day public comment period in early 2018** that will be posted in glyphosate's registration review docket EPA-HQ-OPP-2009-0361 on [www.regulations.gov](http://www.regulations.gov).

### **EPA Finalizes Herbicide Resistance Management Guidance**

After many years of collaboration between EPA and weed scientists, EPA published its "Guidance for Herbicide Resistance Management Labeling, Education, Training, and Stewardship", which is referred to as Pesticide Registration Notice (PRN) 2017-2. Please see: <https://www.epa.gov/pesticide-registration/prn-2017-2-guidance-herbicide-resistance-management-labeling-education>.

This guidance applies to all herbicide uses, except for those applied in residential settings (i.e. lawns). One use category that we asked EPA to exclude from this guidance was herbicides applied for aquatic weed control due to the very different nature in how aquatic weeds are managed. As most of you know, using the full-labeled rate for aquatic herbicides is often not feasible and actually in direct conflict with NPDES permit requirements that mandate the "lowest possible discharge" be conducted. However, **the resistance management guidance in PRN 2017-2 will still apply to aquatic herbicides**.

PRN 2017-2 will apply to any **new** herbicide products as well as existing herbicides that go through registration review. Most of the resistance management "elements" will be addressed on the herbicide label, including:

- Placing the herbicide mechanism of action (MOA) on the label (using the WSSA MOA classification)
- Clearly expressing application parameters and full-labeled use rates
- Recommendations to scout the treatment area both before and after application
- How to identify suspected resistance
- How to report lack of performance to the registrant and proactively take action before escaped weeds become widespread
- Information to make growers and applicators aware of herbicide resistant weeds found in their local area
- A list of herbicide resistance BMP's (using WSSA and HRAC guidance)

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Registrants will be responsible for reporting new cases of suspected and confirmed resistance to EPA and users, and in certain situations, may be required to follow additional guidance such as “apply only with another MOA”.

The last major part of PRN-2017-2 will be dependent upon the weed management stakeholder community (weed management consultants, university extension, registrants, etc...) to provide educational and training materials for applicators and users **at the local level**. EPA states “the most successful strategies for herbicide resistance management will be tailored for local conditions” and that the stakeholder community “work collaboratively” to design effective material. Further guidance for developing resistance management plans and remedial action plans are provided in Appendix 1 at the end of PRN 2017-2.

### **PRIA Reauthorization Path Forward Unclear**

The Pesticide Registration Improvement Act (PRIA) sets a fee schedule for registrants (~\$46 million in FY 2017) in exchange for specified time frames for regulatory decisions on low risk products and increased funds for pesticide education and training. PRIA 3 expired on Sept. 30, 2017, but has been temporarily extended in the Continuing Resolution funding the government through March 23. Reauthorization was expected in 2017, similar to 2007 and 2013, but environmentalists have connected it to protests over other regulatory decisions unrelated to PRIA. If PRIA is not re-authorized, we could see the elimination of approximately 200 positions from the EPA Office of Pesticide Programs: equating to about a third of their workforce. More details about PRIA: <https://www.epa.gov/sites/production/files/2017-10/documents/session-6-pesticide-registration-improvement-act-update.pdf>

### **Federal Rule Delays 2015 WOTUS “Applicability Date” to 2020**

The EPA and the Army Corps of Engineers (The Agencies) finalized a rule on January 31 that delays the “Applicability Date” of the 2015 Waters of the United States (WOTUS) rule in order to provide regulatory certainty and prevent any confusion from a recent Supreme Court decision. The 2015 WOTUS rule had an applicability date of August 28, 2015, but the implementation of the rule was stayed nationwide by the Sixth Circuit Court. However, on January 22, 2018, the U.S. Supreme Court ruled that the U.S. District Courts retain jurisdiction over challenges to the 2015 WOTUS Rule, a decision that resulted in lifting the Sixth Circuit stay of the 2015 WOTUS Rule across the United States, except in 13 states (Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming). For the other 37 states, the 2015 WOTUS Rule could have become effective immediately.

The 2015 WOTUS rule will now have an applicability date of February 6, 2020. The Jan. 31 WOTUS Applicability Rule does not affect the Agencies’ current two-step proposed rulemaking under the President’s Executive Order issued last year that is intended to review and revise the definition of “waters of the United States.” The Agencies have already proposed a first step (or “step-one”) rule, which would rescind the definition of the term “waters of the United States” under the 2015 WOTUS Rule. The comment period for the proposed step-one rule closed in September 2017, and a final rule could be released at any time. A proposed second step (or “step-two”) rule to revise the definition of “waters of the United States” has yet to be published.

### **NPDES Fix Legislation**

There is a renewed effort on the Senate side to pass a NPDES fix bill, S. 340, which is the companion bill to H.R. 953 on the House side that was passed on May 24, 2017. The bills amend FIFRA and the Clean Water Act to prohibit the EPA from requiring duplicative permitting under the National Pollutant Discharge Elimination System (NPDES) for a pesticide application into navigable waters if the pesticide is already approved for aquatic use under FIFRA. The six national and regional weed science societies endorsed letters of support to both the [House on](#)

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[H.R. 953](#) and the [Senate on S. 340](#) and recently endorsed a letter urging the House Ag Committee to include the NPDES-fix language in the 2018 Farm Bill.

### **Harmful Algal Blooms Fact Sheet**

The WSSA Public Awareness Committee worked with Dr. John Rodgers and other APMS members to develop a fact sheet on harmful algal blooms and issue a press release on October 16, 2017. For details: <http://wssa.net/2017/10/experts-say-its-time-to-get-the-facts-and-take-action-against-algal-bloom/>

**National Invasive Species Awareness Week (NISAW)** will occur during the week of **February 26 – March 2, 2018**. By the time you read this, another NISAW will be completed, but I encourage you to visit [www.nisaw.org](http://www.nisaw.org) to check out the activities that occurred during the week and view recordings of some of the Capitol Hill lunch seminars:

- “Invasive Species and Infrastructure” will be led by Michael Vissichelli, Wildlife Biologist at U.S. Army Corps of Engineers.
- “Unmanned Aerial Vehicles” will be led by Sinan Abood, Ph.D., of the USDA Forest Service.
- “Gene Drives 101: Perspectives on Potential Invasive Species Management” will be led by Heath Packard, Director of Government and Public Relations for Island Conservation.
- “Early Detection and Rapid Response” will be led by Stas Burgiel of the Department of Interior and will be followed by a panel discussion moderated by the Secretariat of the National Invasive Species Council.

The National Association of Invasive Plant Councils (NAIPC) will also offer a number of webinars on invasive species management that will be recorded for later viewing, including:

- SIIPA Model: Webmap on Early Detection and Rapid Response
- Legal Issues Surrounding Invasive Species Management
- Climate Change and Invasive Species
- The Indiana Cisma Project



Next year will be the 20<sup>th</sup> NISAW! If you are interested in getting involved with NISAW or would like to sponsor events during the week, please contact me at [Lee.VanWyche@wssa.net](mailto:Lee.VanWyche@wssa.net) or Rick Otis with the Reduce Risks from Invasive Species Coalition (RRISC) at [rick.otis@rrisc.org](mailto:rick.otis@rrisc.org).

### **2018 Weed Survey Will Focus on Aquatic Weeds**

The 2018 National and Regional Weed Science Societies survey of the most common and troublesome weeds in the U.S. and Canada will focus on weeds in the following areas: **1) Aquatic: irrigation & flood control, 2) Aquatic: lakes, rivers, reservoirs, 3) Aquatic: ponds,** 4) Forestry, 5) Natural areas: parks, wildlife refuges, 6) Ornamentals: field nursery crops, outdoor containers, Christmas trees, and 7) Right-Of-Ways: railways, roads, public utilities. I'll be sending out the 2018 survey link shortly and asking APMS and its regional and state chapters to distribute the survey widely among your members. Our goal is to surpass the 84 total survey responses for the three aquatic areas in 2015. See: <http://wssa.net/wp-content/uploads/2015-Baseline-Survey-results.pptx>

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## APMS Sustaining Membership

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 all membership privileges for one designated representative; subscription to the [\*Journal of Aquatic Plant Management\*](#), [APMS Newsletters](#), and access to

social media content; quarterly issues of [Aquatics](#) magazine; recognition as a [Sustaining Member](#) in Newsletters, the Annual Meeting Program, and on the APMS website. Please read about APMS Sustaining Members and learn more about them by visiting their websites.

Please join APMS as a Sustaining Member at [apms.org/society/membership/](http://apms.org/society/membership/)

## 2018 APMS Sustaining Members

- Alligare, LLC
- Applied Aquatic Management, Inc.
- Aqua Services, Inc.
- AquaTechnex, LLC
- Aquatic Control, Inc.
- Aquatic Vegetation Control, Inc.
- BioSafe Systems, LLC
- Brewer International
- Chem One Ltd.
- Clarke Aquatic Services, Inc.
- Crop Production Services
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- Lake Restoration, Inc.
- Lee County Hyacinth Control District
- Lonza Water Treatment
- Maxunitech, Inc.
- Nufarm Americas
- Oase Living Water
- Santee Cooper
- SePRO Corporation
- SOLitude Lake Management
- Sox Erosion Solutions
- Syngenta
- UPI
- Vertex Water Features

## APMS Chapter and Related Meetings

Date	Meeting	Location
<b>2018</b>		
March 26-28	<a href="#">Western Aquatic Plant Management Society</a>	Reno, Nevada
July 15-18	<a href="#">Aquatic Plant Management Society</a>	Buffalo, New York
August 19-23	<a href="#">American Fisheries Society</a>	Atlantic City, New Jersey
October 3-5	<a href="#">South Carolina Aquatic Plant Management Society</a>	N. Myrtle Beach, South Carolina
October 15-18	<a href="#">Florida Aquatic Plant Management Society</a>	Daytona Beach, Florida
November 5-8	<a href="#">MidSouth Aquatic Plant Management Society</a>	Chattanooga, Tennessee
Oct 30-Nov 2	<a href="#">North American Lake Management Society</a>	Cincinnati, Ohio
November 26-28	<a href="#">Texas Aquatic Plant Management Society</a>	San Antonio, Texas
<b>2019</b>		
January 8-10	<a href="#">Northeast Aquatic Plant Management Society</a>	Albany, New York
February 11-14	<a href="#">Weed Science Society of America</a>	New Orleans, Louisiana
February 25-28	<a href="#">Midwest Aquatic Plant Management Society</a>	Chicago, Illinois



## 2017-2018 Officers, Directors, Committee Chairs, and Special Representatives

<u>Office</u>	<u>Name</u>	<u>Affiliation</u>
President	John Rodgers	Clemson University
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President Elect	Craig Aguillard	Winfield United
Vice President	Mark Heilman	SePRO Corporation
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Secretary	Jeff Schardt	Florida FWC- Retired
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Director	Scott Nissen	Colorado State University
Director	Todd Olson	Aquatic Vegetation Control, Inc.
Director	Deborah Hofstra	NIWA, New Zealand
Director	Amy Kay	Clean Lakes Midwest, Inc.
Student Director	Andrew Howell	North Carolina State University
<u>Committee</u>	<u>Chair</u>	<u>Affiliation</u>
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Bylaws and Resolutions	Vernon Vandiver	University of Florida - Retired
Education and Outreach	Jeff Schardt	Florida FWC- Retired
Exhibits	Dean Jones	University of Florida
Finance	John Gardner	Vertex Water Features
Legislative	Rob Richardson	North Carolina State University
Meeting Planning	Tommy Bowen	Duke Energy Carolinas
Membership	Mark Heilman	SePRO Corporation
Nominating	John Madsen	USDA ARS
Past President's Advisory Program	John Madsen	USDA ARS
Proposal Review	Craig Aguillard	Winfield United
Publications	John Madsen	USDA ARS
Regional Chapters	Jason Ferrell	University of Florida
Scholastic Endowment	Mark Heilman	SePRO Corporation
Strategic Planning	Tom Warmuth	BioSafe Systems, Inc.
Student Affairs	Mark Heilman	SePRO Corporation
Website	Chris Mudge	Louisiana State University
	Karen Brown	University of Florida
<u>Special Representative</u>	<u>Name</u>	<u>Affiliation</u>
AERF Representative	Carlton Layne	AERF
BASS Representative	Gerald Adrian	UPI
CAST Representative	Joe Vassios	UPI
NALMS Representative	Terry McNabb	AquaTechnex, LLC
RISE Representative	Sam Barrick	SePRO Corporation
Women of Aquatics	Amy Kay	Clean Lakes Midwest, Inc.
WSSA Representative	Rob Richardson	North Carolina State University
Director of Science Policy	Lee Van Wychen	WSSA



## ***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. 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 and Renew Membership***

Follow the link below to join the Aquatic Plant Management Society

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

Members can renew membership for 2018 at the following link:

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

**We're on the Web!**  
[apms.org](http://apms.org)