



# Aquatic Plant News

The Newsletter of The Aquatic Plant Management Society, Inc.  
7922 NW 71st Street, Gainesville, FL 32653  
Jeffrey Schardt, Newsletter Editor

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October 2015

## Message from President Rob Richardson

Another year is flying by and fall is here. It's hard to believe that the annual meeting is already three months past. Our 2015 joint meeting with SCAPMS in Myrtle Beach was a great success. Attendance was near record highs with a continued strong student presence. The speakers delivered outstanding content and I also want to thank our sponsors for their excellent support. A new meeting feature was the inaugural "Women of Aquatics" luncheon. We hope this can continue to be a feature of APMS meetings moving forward.



The weather for our annual meeting was far better than what South Carolina has experienced in recent weeks. A lot of people have suffered due to the record flooding and our thoughts and prayers are with them. The United Way has been very involved with flood assistance and they have established a SC Flood Fund. Please consider making a donation.

In legal news, the "Waters of the United States" (WOTUS) rule created by the U.S. Environmental Protection Agency (EPA) has been blocked by a federal appeals court. Please refer to Lee Van Wychen's report for details, but it is safe to say that a long legal process will follow before anything is resolved. Another recent legal event is that California EPA has provided a notice of intent to list glyphosate as known to the state of California to cause cancer. This follows a ruling by the International Agency for Research on Cancer to classify glyphosate as "probably" carcinogenic. We will continue to provide updates as these issues unfold. It should also be noted that the U.S. EPA has reviewed glyphosate many times with all relevant research data and reached a different conclusion.

Our next APMS board meeting will be January 26, 2016 at the site of our upcoming 2016 meeting. If anyone has any topics that they would like the board

to consider, please send them to me or any board member. We would love to discuss any items that would improve the function of APMS.

Finally, be sure to put the 2016 APMS Annual Meeting on your calendars. The 56th annual meeting will take place in Grand Rapids, Michigan from July 17-20. Grand Rapids is a great conference venue with a vibrant downtown and some fabulous craft breweries. It's also a very short drive to the west coast of Michigan where you can find sandy beaches, historic lighthouses, and numerous awesome vacation stops.

Look for the Call for Papers and other meeting information on the APMS website soon!

Best regards,



Rob Richardson, President

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## Start Planning Now to Attend the 2016 APMS Annual Meeting !



### ***Grand Rapids***, The heart of what Forbes Magazine calls: “One of the 10 Best Downtowns in the U.S.A.”

Walk out the doors of the Amway Grand and it won't take you more than a minute or two to find something to see, eat, drink or do. The Amway Grand Hotel, considered the finest hotel in West Michigan, sits snuggled in downtown Grand Rapids – surrounded by art museums, stunning architecture, a lively music, sports and theater scene and arguably some of the best restaurants and the very best breweries in the entire country. Not to mention the incredible scene surrounding you before you even walk out of our doors.

The Meeting Planning Committee is planning exciting and entertaining events for relaxing, visiting, and chatting with friends and colleagues. The Program Committee pledges a diverse and educational program of oral and poster presentations on aquatic plant research and management. Bring your students!

Join us for the 56th Annual Meeting of the Aquatic Plant Management Society at the Amway Grand Plaza in Grand Rapids July 17-20, 2016. If you're like me, you will want to put it on your calendar right now. Below is the link to reservations at the Amway Grand:

[https://resweb.passkey.com/Resweb.do?mode=welcome\\_ei\\_new&eventID=14232510](https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=14232510)

Reservations Toll Free: (800) 253-3590

Reservations Local Phone: (616) 776-6450

More meeting information will be coming soon to the APMS website at [www.apms.org](http://www.apms.org) and in future newsletters.

**Tommy Bowen,**  
**Meeting Planning Committee**

## Highlights from the APMS 55th Annual Meeting — Myrtle Beach, SC

Delegates and guests of the Aquatic Plant Management Society (APMS) met for the 55th Annual Meeting in conjunction with the South Carolina Chapter of APMS (SCAPMS) in Myrtle Beach, South Carolina from July 12-15, 2015. About 220 members from 28 states and the District of Columbia shared new research findings and operational experiences via 26 Exhibitors, 50 oral, and 11 poster presentations.

APMS was formed in 1961 to provide a forum to exchange ideas and develop strategies to control nuisance aquatic plants. In keeping with the Society's original intent, the Annual Meeting not only offers formal presentations, but also provides opportunities to interact throughout the week during continental breakfasts, extended breaks, focus group luncheons, evening receptions, and an Awards Banquet to honor members' outstanding achievements.

A core function of the APMS is promoting educational and student-related activities. Both APMS and SCAPMS sponsored fund raising activities during the week including a golf tournament prior to the meeting, silent auction, prize raffle, and a Duck Race and reception before the Awards Banquet. These events generated more than \$8,000 for student initiatives.

### Student Awards

The Awards Banquet was held on Tuesday evening to recognize Member accomplishments. SCAPMS lead off the Awards ceremonies by presenting Shannon Auell of Clemson University with the \$3,000 Phillip M. Fields Scholarship Award. Dr. Brett Hartis of the Tennessee Valley Authority received the SCAPMS Member of the Year Award.

The APMS Student Presentation awards followed. Students are encouraged to report at the Annual Meeting on current research via oral or poster presentations. Judges evaluate students on their Abstract submission, project design, data organization and interpretation, on-time delivery, and professionalism in responding to questions. Cash prizes are offered for first (\$300) through third (\$100) place finishers.



Ken Manuel presents Shannon Auell with the SCAPMS Phillip M. Fields Scholarship Award.



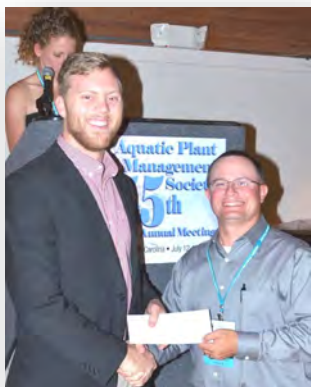
Thirteen students representing six universities entered this year's competitions. Evan Calloway of North Carolina State University placed second in the Poster Competition while Tyler D. Geer of Clemson University placed first for his poster entitled *Sediment Copper Concentrations, in situ Benthic Abundance, and Sediment Toxicity: Comparison of Coves Treated with Copper-Based Algaecides and Untreated Coves in a Southern Reservoir*.

Student Affairs Committee Chair Rebecca Haynie (back) introduces student presentation competitors.



## Highlights from the APMS 55th Annual Meeting — continued...

Amanda West of Colorado State University and Alyssa Calomeni of Clemson University tied for third place in the oral presentations, with Kallie Kessler of Colorado State coming in second. Erika J. Haug of North Carolina State University placed first with her oral presentation entitled *Modes of Reproduction in Crested Floating Heart* (*Nymphaeodes cristata*).



APMS President Cody Gray congratulates Student Poster Presentation Award winner, Tyler Geer (left) and Student Oral Presentation winner Erika Haug (right). Each received a \$300 award.



APMS also funds lodging and a text book of the student's choice for student competition presenters. All students are invited to a Student Luncheon to interact and share ideas. This year's format included a career panel discussion with Shanta Adeeb, EPA Herbicide Registration Division; Gray Turnage, Mississippi State University; Amy Kay, Clean Lakes; and Ben Powell, Clemson Extension. Dan Kenny, Emily Schroder, Sarah True Meadows, and Beth Benbow, biologists in EPA's Herbicide Registration Division, also attended the luncheon and general sessions.

Students elect a representative to serve a one-year term as Student Director on the APMS Board of Directors. Kallie Kessler of Colorado State University was elected by her peers to serve as the 2015-2016 Student Director, among great interest and enthusiasm, with three students vying for the honor!

Seven students and three EPA staff members participated in our student tour of local aquatic plant management activities. This year's tour was funded by APMS sponsors and was planned and hosted by Santee Cooper Power. We took an airboat tour through wildlife management areas on Lake Moultrie and observed native aquatic plant diversity as well as several aquatic plant treatment sites, including crested floating heart. The group also saw managed areas of hydrilla and water hyacinth along with a few large remnant

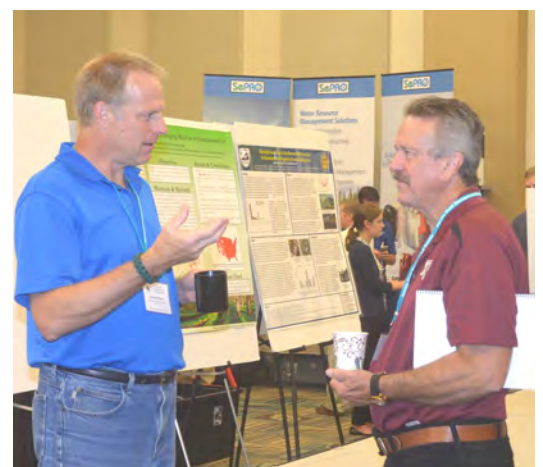
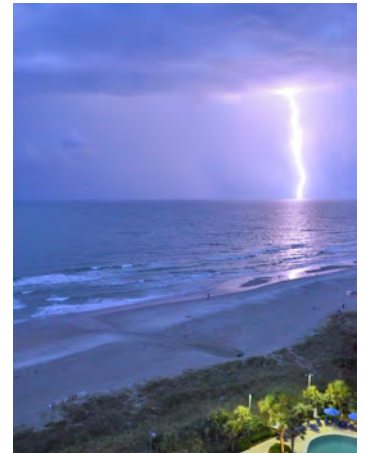


grass carp from previous stockings. They enjoyed getting some great shots of eagles, nesting ospreys and alligators! We were treated to a home-cooked lunch at Black's Camp before touring Santee Cooper's newly updated environmental resources center. Our tour closed with the students enjoying a final evening in Myrtle Beach.

Student Tour participants pause for a moment after lunch at Black's Camp on Santee Cooper.

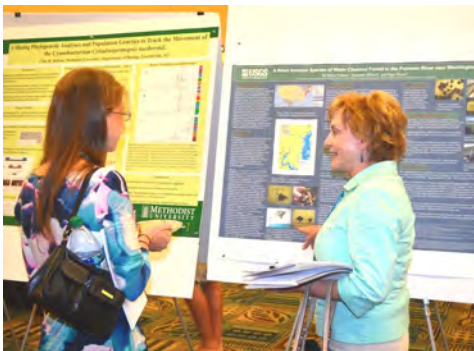
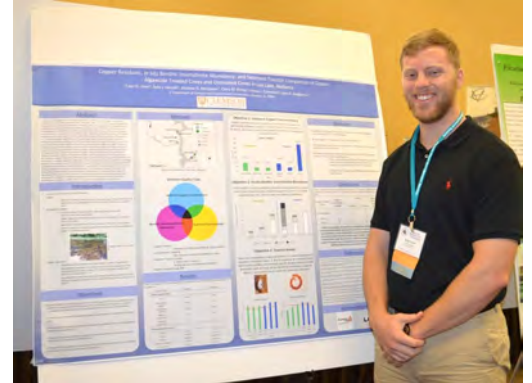


## Highlights from the APMS 55th Annual Meeting — continued...





## Highlights from the APMS 55th Annual Meeting — continued...



## Highlights from the APMS 55th Annual Meeting — continued...

The Aquatic Plant Management Society's most ambitious education initiative is a two-year, \$40,000 Graduate Student Research Grant. Half of the funding for the grant is from the collective contributions of the seven Regional Chapters. With sufficient funding available in the APMS Treasury, the Board solicited proposals for an additional grant for 2016-2017 funded entirely by APMS. Judges, consisting of a PhD representative from each Regional Chapter, selected Dr. Robert Richardson of North Carolina State University as recipient of the APMS Graduate Student Research Grant for 2016-2017 for his proposal: *Aspects of Monoecious Hydrilla Physiology and Response to Herbicide Combination Treatments*.

### APMS Standing Awards

APMS presents several awards each year to members and others who have contributed to the Society or to the general field of aquatic plant management.

### Honorary Membership

Honorary Membership is bestowed upon a person with at least ten years of membership in the Aquatic Plant Management Society, and who has retired after a distinguished career in aquatic plant management. At least ten members in good standing with the Society must petition for the Honorary Membership and there must be a majority vote of approval from the Board of Directors. Honorary Membership was awarded in 2015 to Dr. David Spencer, who recently retired from USDA, ARS, for his many years as a Research Ecologist and for prolific publication in the field of aquatic plant ecology and management. David has been a Member of APMS since 1984, served on the Board, and was President of APMS in 1998-1999.



### President's Award

Two President's Awards were presented in 2015, each for extended years in aquatic plant management research and publication. Dr. Greg MacDonald is a Professor of Weed Science and Agronomy at the University of Florida, has been an APMS Member since 1990, and served as APMS President in 2009-2010. He has authored or co-authored over 450 refereed journal articles, abstracts, and non-refereed papers and articles. Greg has served on the board of directors for the Southern Weed Science Society, the Florida Weed Science Society and the Florida Exotic Pest Plant Council. He also executed two terms as the APMS representative to the Weed Science Society of America from 2001-2007 and was on the WSSA board of directors from 2004-2007.

Dr. Linda Nelson is the Assistant Technical Director for Civil Works Environmental Engineering and Sciences at the U.S. Army Engineer Research and Development Center (ERDC), Environmental Laboratory. She joined APMS in 1991, chaired the Student Affairs Committee, served as APMS Secretary and Newsletter Editor (2001-2007), and as President in 2010-2011. She has authored and co-authored 20 scientific papers in peer-reviewed journals and more than 25 ERDC reports on aquatic and wetland invasive plant management.



## Highlights from the APMS 55th Annual Meeting — continued...



Greg MacDonald and Linda Nelson receive congratulations and the APMS President's Award from President Cody Gray for their long-time service to aquatic plant management.



### Max McCowen Friendship Award



Steve Hoyle (center) receives the 2015 Max McCowen Friendship Award from Rob Richardson (left) and Cody Gray (right).

The Max McCowen Friendship Award is presented to a member of the Society whose demeanor and actions display sincerity and friendship as an ambassador of the APMS. The recipient of this award in 2015, Steve Hoyle of North Carolina State University, has been a positive representative of the Society since joining in 1997 and is also a long-time member and President of the SCAPMS. In addition to 30+ years of technical contributions, Steve has conducted innumerable outreach and extension activities, including graduate student training, guest lecturing, and service to APMS and SCAPMS as well as other regional societies and groups, all with a positive approach and friendly disposition.

### Outstanding Graduate Student Award



Erika Haug of North Carolina State University was recognized as the APMS Outstanding Graduate Student for 2015. Erika joined APMS as a student in 2014 and was elected by fellow students as the 2014-2015 APMS Student Director. She also won the APMS Student Oral Presentation competition in 2015.

Erika Haug receives the Outstanding Graduate Student Award from major professor Rob Richardson and President Cody Gray.

## Highlights from the APMS 55th Annual Meeting — continued...

### Outstanding *Journal of Aquatic Plant Management* (JAPM) Article Award

This award is judged by the APMS Editor and Associate Editors, particularly for project design, content, and relevance from the articles published in the JAPM during the previous year. Dr. Mike Netherland and LeeAnn Glomski won the Outstanding JAPM Article Award for their 2014 contribution: *Mesocosm evaluation of triclopyr on Eurasian watermilfoil and three native submersed species: The role of treatment timing and herbicide exposure*.

Mike Netherland accepts the 2014 Outstanding JAPM Article Award.



### Outstanding Research and Technical Contribution



Dr. John Rodgers of Clemson University received the Outstanding Research and Technical Contribution Award for 2015 honoring nearly 40 years of research and numerous publications with three different universities. Dr. Rodgers is a pioneer in the management of harmful algal blooms and has mentored more than 90 graduate students. Dr. Rodgers has been a Member of APMS since 1999, has overseen two five-year APMS strategic planning sessions, and was elected as APMS Vice President for 2015-2016.

John Rodgers receives the Outstanding Research and Technical Contribution Award from Cody Gray.

### T. Wayne Miller Distinguished Service Award

The T. Wayne Miller Distinguished Service Award was presented to Jeffrey Schardt for his 39-year career organizing and promoting aquatic plant management in Florida public waters. Jeff joined APMS in 1996 and has served on the Board since 2003 as Director, President (2005-2006) and as Secretary since 2009. He represented aquatic plant management interests during two three-year terms on the Invasive Species Advisory Committee and was active in shaping state and federal implementation of NPDES aquatic pesticide use regulations. Jeff was also influential in developing and distributing educational and outreach materials related to aquatic plants and their management for the state of Florida and for APMS.



Jeff Schardt receives the T. Wayne Miller Distinguished Service Award from Vice President John Madsen (left) and President Cody Gray (right).



## 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 membership privileges for one designated representative; subscription to the [Journal of Aquatic Plant Management](#), [APMS newsletters](#), and access to the [APMS Blog](#) and 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/)

## 2016 Sustaining Members

- Alligare, LLC
- Applied Aquatic Management, Inc.
- Applied Biochemists, A Lonza Business
- Aqua Services, Inc.
- AquaTechnex, LLC
- Aquatic Control, Inc.
- BioSafe Systems, LLC
- Brewer International
- Chem One Ltd.
- Crop Production Services
- Cygnet Enterprises, Inc.
- Lake Restoration, Inc.
- Lee County Hyacinth Control District
- Nufarm Americas
- Pond Boss PRO
- Santee Cooper
- SePRO Corporation
- Syngenta
- UPI
- Vertex Water Features

## APMS Chapter and Related Annual Meetings

Date	Meeting	Location
October 5-8, 2015	<a href="#">Florida Aquatic Plant Management Society</a>	Lake Buena Vista, FL
October 12-14, 2015	<a href="#">Texas Aquatic Plant Management Society</a>	Boerne, TX
November 17-20, 2015	<a href="#">North American Lake Management Society</a>	Saratoga Springs, NY
January 12-14, 2016	<a href="#">Northeast Aquatic Plant Management Society</a>	Saratoga Springs, NY
February 8-11, 2016	<a href="#">Weed Science Society of America</a>	San Juan, Puerto Rico
March 6-9, 2016	<a href="#">Midwest Aquatic Plant Management Society</a>	Grand Rapids, MI
March 21-23, 2016	<a href="#">Western Aquatic Plant Management Society</a>	San Diego, CA
October TBD, 2016	<a href="#">South Carolina Aquatic Plant Management Society</a>	Myrtle Beach, SC

## APMS Sponsors Alabama Teachers at Plant Camp *Brett Hartis, TVA*

In 2007, the University of Florida's Center for Aquatic and Invasive Plants (CAIP) began the innovative process of reaching out to educators in the State of Florida regarding aquatic and invasive plants. Thus far, Plant Camp has reached more than 300 teachers and 72,000 students across the Sunshine State. In 2014, the Aquatic Plant Management Society sponsored one teacher from North Carolina and one from South Carolina to attend CAIP's Plant Camp and take information learned there back to their districts to establish aquatic plant and management outreach efforts.

In 2015, APMS sponsored two teachers from Northeast Alabama to attend Plant Camp; Ms. Jane Latimer and Mr. Cameron Mitchell. Latimer and Mitchell teach in Jackson and Marshall Counties, whose borders collectively contain Lake Guntersville. Lake Guntersville has become a well known hot spot in the aquatic plant management arena for aquatic plant management issues. Thus, APMS and the Lake Guntersville Stakeholders Board (LGSB) worked diligently to sponsor two teachers from the area to attend the week long camp and bring back what they had learned to share with others in the area.

Following UF Plant Camp in June, Latimer and Mitchell were given the opportunity to do just that. On Friday, September 19th, a "mini-Plant Camp" was held at the picturesque Lake Guntersville State Park. In total, 17 educators from across Northern Alabama and Southern Tennessee attended the event sponsored by the Tennessee Valley Authority (TVA). During the morning hours, speakers gave lectures



on reservoir ecology, aquatic plant identification, management history, and more. In the afternoon, the educators were introduced to various tools used in aquatic plant management and given an airboat tour of invasive plant issues on Lake Guntersville.

The MidSouth Aquatic Plant Management Society (MS-APMS) sponsored the creation of a regional based "Lakeville" unit; a learning tool designed to teach students the environmental and economic impacts of invasive plants and animals being introduced into an environment. Five loaner kits were created and are available to teachers within the MidSouth region upon request. A big thanks to APMS, MS-APMS, TVA, Aquatic Ecosystem Restoration Foundation, Alabama Power, LGSB, Aqua Services Inc., and the UF-CAIP for their contributions to the camp. A similar mini-camp is planned for 2016.





## APMS Graduate Student Research Grant

Student initiatives are among the most important core values of the Aquatic Plant Management Society. High on the list of student support programs is the Graduate Student Research Grant offered by APMS in the area of aquatic plant management and ecology. This academic grant is co-sponsored by APMS and the seven regional APMS chapters: Florida, MidSouth, Midwest, Northeast, South Carolina, Texas, and Western.

The \$40,000 Graduate Student Research Grant is awarded biannually for the most qualified proposal submitted. The objective is to provide a grant for a full-time graduate student to conduct research in an area involving aquatic plant management techniques (used alone or integrated with other management approaches) or in aquatic ecology related to the biology or management of regionally or nationally recognized nuisance aquatic vegetation. Proposals are scored by an eight-member panel consisting of academic judges from APMS and each of the regional chapters. Grants are awarded at the July APMS Annual Meeting.

APMS and chapters have contributed toward \$340,000 in Graduate Student Research Grants since 1999. Below is a list of the Graduate Student Research Grants funded under this program.

Recipient	Affiliation	Year	Amount
Mary Bremigan	Michigan State University	1999	\$34,000
<i>The Indirect Effects of Sonar Application on Lake Food Webs</i>			
Katia Englehardt	University of Maryland	2001	\$40,000
<i>Controlling Non-native Submersed Aquatic Macrophyte Species in Maryland Reservoirs: Plant Competition Mediated by Selective Control</i>			
Susan Wilde	University of South Carolina	2005	\$40,000
<i>Investigating the Role of Invasive Aquatic Plants and Epiphytic Cyanobacteria on Expression of Avian Vacuolar Myelinopathy (AVM)</i>			
John Madsen	Mississippi State University	2007	\$60,000
<i>The Seasonal Phenology, Ecology and Management of Parrotfeather[Myriophyllum aquaticum (Vellozo) Verdecourt]</i>			
Rob Richardson	North Carolina State University	2010	\$40,000
<i>Monoecious Hydrilla: Phenology and Competition</i>			
Ryan Thum	Grand Valley State University	2012	\$40,000
<i>A Quantitative Genetics Approach to Identifying the Genetic Architecture of Herbicide Susceptibility, Tolerance, and Resistance in Hybrid Watermilfoils (Myriophyllum spicatum x sibiricum)</i>			
Scott Nissen	Colorado State University	2014	\$40,000
<i>Exploring the Physiological Basis of 2,4-D Tolerance in Northern Watermilfoil x Eurasian Watermilfoil Hybrids</i>			
Rob Richardson	North Carolina State University	2015	\$40,000
<i>Aspects of Monoecious Hydrilla Physiology and Response to Herbicide Combination Treatments</i>			



## THE AQUATIC PLANT MANAGEMENT SOCIETY, Inc.

7922 NW 71st Street  
Gainesville, FL 32653  
www.apms.org

## ANNOUNCEMENT

### APMS GRADUATE STUDENT RESEARCH GRANT

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

**Objective:** To provide a grant for a full-time graduate student to conduct research in an area involving aquatic plant management techniques (used alone or integrated with other management approaches) or in aquatic ecology related to the biology or management of regionally or nationally recognized nuisance aquatic vegetation.

**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>, 2016.

**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 Jeff Schardt, APMS Secretary at:**  
**jeff.schardt@gmail.com**

**Award:** Notification of award will be provided to the faculty member in time to make arrangements to attend the APMS 56<sup>th</sup> Annual Meeting (July 17-20, 2016 – Grand Rapids, Michigan). Formal announcement of the recipient will be made at the Annual Meeting, with initiation of the grant scheduled for the 2017-2018 academic year. Payments will be made before January 31<sup>st</sup> of 2017 and 2018.

**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.

**Inquiries:** Jeffrey D. Schardt  
APMS Secretary  
850-591-1242  
jeff.schardt@gmail.com



## **Washington Report** - Lee VanWyche - WSSA Science Policy Director

### **Court Stops Nationwide Implementation of WOTUS Expansion Rule**

An Ohio federal appeals court ordered a nationwide hold on the Waters of the United States (WOTUS) rule on October 9, amid disparate rulings by courts around the country on the Environmental Protection Agency's ability to define which waters fall under the Clean Water Act.

The stay was granted so the court may determine jurisdiction on the several pending WOTUS lawsuits challenging the rule, and sort out confusion about its requirements. A North Dakota federal court had blocked enforcement of the rule in 13 states in August. The EPA said after the August ruling that it would still enforce the rule in the rest of the nation even though numerous lawsuits to overturn it were still pending in other federal courts.

The EPA and Army Corps of Engineers first proposed the WOTUS rule in April 2014 and finalized it in May 2015. The rule has been controversial from the start because it greatly expands the jurisdiction of the Clean Water Act by adding some two million acres of streams and 20 million acres of wetlands.

The Ohio federal appeals court decision was agreed upon 2 – 1 by the three-judge panel. "A stay allows for a more deliberate determination whether this exercise of executive power, enabled by Congress and explicated by the Supreme Court, is proper under the dictates of federal law. A stay temporarily silences the whirlwind of confusion that springs from uncertainty about the requirements of the new rule and whether they will survive legal testing," the opinion states. "A stay honors the policy of cooperative federalism that informs the Clean Water Act and must attend the shared responsibility for safeguarding the nation's waters."

The stay in implementation will only last until the judges determine whether the law gives them authority over the measure or the case must be remanded to a district court. Whatever the court decides will have to be in line with a ruling from the 11th U.S. Circuit Court of Appeals, which is considering the same issue. If the circuit courts don't agree, the jurisdictional issue will have to be decided by the Supreme Court, which could take several years.

A better fix to all of this would be for Congress to pass the bipartisan Federal Water Quality Protection Act (H.R. 1732, S. 1140). This legislation would repeal the WOTUS rule and require the administration to develop an alternative rule in consultation with state and local governments. In May, the House voted 261-155 to pass H.R. 1732. In the Senate, S. 1140 was passed by the Environment and Public Works Committee in June, but is awaiting a vote from the full Senate. The Administration said it would likely veto the House and Senate bills, so a two-thirds majority would be needed in both chambers.

**Aquatic Plant Control Research Program (APCRP) Gets Support in Both the House and Senate** For the first time in 4 years, the House included \$4 million in their mark-up of the Energy and Water Development Appropriations Bill for APCRP. During that time, support from the Senate has been carrying APCRP. The House support was likely due to the new authorizing language in the Water Resources Reform and Development Act of 2014 (WRRDA), which increased the authorization of funding for APCRP from \$15 million to \$20 million per year and expanded the scope of research directed to control not just aquatic plant growths, but all aquatic invasive species. FY 2016 funding levels are still undetermined though as Congress passed a continuing resolution on October 1 funding the government through December 11, 2015 at FY 2015 levels. The next step is for policy-makers to negotiate an agreement for the remainder of FY 2016.

## Washington Report - Lee VanWychen - WSSA Science Policy Director

### Definition of a "Weed"

At their summer board meeting in July, the Weed Science Society of America (WSSA) Board of Directors unanimously approved the following definition of a weed:

***A plant that causes economic losses or ecological damage, creates health problems for humans or animals, or is undesirable where it is growing.***

The WSSA Public Awareness committee plans to do a press release on this and then incorporate it into a WSSA Fact Sheet that will include definitions for other specific types of weeds such as noxious weed, invasive weed, and "superweed".

### Milkweed, Monarchs, and Pollinator Protection

The issues of milkweed, monarchs, and pollinator protection continues to be a hot topic in Washington D.C. In mid-May, the White House, through the Office of Science and Technology Policy issued the Pollinator Research Action Plan. The plan focuses on increasing honeybee and monarch butterfly numbers through the creation and maintenance of pollinator habitat.

On June 24, the EPA published a white paper for comment titled "**Risk Management Approach to Identifying Options for Protecting the Monarch Butterfly**". Comments were due August 24. The National and Regional Weed Science Societies (APMS, NCWSS, NEWSS, SWSS, WSSA, and WWSWS) submitted the following comments:

*Our scientific societies are nonprofit professional associations of academic research, extension, government, and industry scientists committed to improving the knowledge and management of weeds in managed and natural ecosystems. We appreciate the opportunity to comment on EPA's white paper titled "Risk Management Approach to Identifying Options for Protecting the Monarch Butterfly."*

*As stated in the white paper, this is the start of a process of stakeholder input and collaboration that will balance weed management needs with the conservation of milkweed for protecting the monarch butterfly. We are happy to be part of that process and would like to emphasize the following points:*

*More research is needed on milkweed species (Asclepias spp.).  
Consideration for the management of herbicide resistant weeds.  
Utilizing noncropped areas for milkweed habitat.  
A complex issue without a "one size fits all" answer.*

#### **More research is needed on milkweed species (Asclepias spp.)**

*There are 100 plus species of Asclepias across the United States. While some research has been done on common milkweed (Asclepias syriaca), there is a paucity of scientific information on the Asclepiadaceae family, whose members are the main food source for monarch butterfly larvae. Because common milkweed typically does not drive weed management decisions, there has been little public or private investment on researching this perennial weed's long term growth and reproduction, population dynamics, response to herbicides, impact on crop yield, and distribution. We agree with the white paper that this type of scientific information will be crucial in developing options to conserve monarch butterfly habitat.*



## Washington Report - Lee VanWychen - WSSA Science Policy Director

### ***Consideration for the management of herbicide resistant weeds***

*We believe it is critical for the Agency to balance weed management needs, especially the management of herbicide resistant weeds, with efforts to assist the monarch butterfly. Programs for herbicide-resistance management should employ the following best management practices:*

- 1. Understand the biology of the weeds present.*
- 2. Use a diversified approach toward weed management focused on preventing weed seed production and reducing the number of weed seed in the soil seedbank.*
- 3. Plant into weed-free fields and then keep fields as weed free as possible.*
- 4. Plant weed-free crop seed.*
- 5. Scout fields routinely.*
- 6. Use multiple herbicide mechanisms of action (MOAs) that are effective against the most troublesome weeds or those most prone to herbicide resistance.*
- 7. Apply the labeled herbicide rate at recommended weed sizes.*
- 8. Emphasize cultural practices that suppress weeds by using crop competitiveness.*
- 9. Use mechanical and biological management practices where appropriate.*
- 10. Prevent field-to-field and within-field movement of weed seed or vegetative propagules.*
- 11. Manage weed seed at harvest and after harvest to prevent a buildup of the weed seedbank.*
- 12. Prevent an influx of weeds into the field by managing field borders.*

*Some of the above best management practices counter what is outlined in the white paper's "Analysis and Actions" section that discusses the possibility of lowering herbicide rates, modifying application timing, or establishing field buffers. These are all critical areas of concern to agricultural producers and should not be considered without a thorough discussion with producers and registrants to gauge their impact.*

### ***Utilizing noncropped areas for milkweed habitat***

*The utilization of noncropped lands to develop perennial milkweed habitat makes good biological sense. In general, higher infestations of perennial plants are expected in undisturbed areas. In addition, transportation rights-of-ways and utility corridors are uniformly distributed across the landscape which may aid monarch butterfly migration.*

*Weed scientists can advocate steps to promote habitats where pollinators and other iconic insects such as the monarch butterfly can flourish, beginning with the adoption of a prudent approach to weed management. While it is crucial that we control invasive, noxious, and herbicide-resistant weeds that can overtake crops and native plants, other weeds such as common milkweed might be left to grow in areas where it is likely to do no harm. The key is to exercise good judgment about which weeds to control, when and where.*

### ***A complex issue without a "one size fits all" answer***

*Initiatives like the Monarch Butterfly Conservation Fund, the Iowa Monarch Conservation Consortium, and other science-based conservation initiatives will allow private and public landowners to develop local knowledge of milkweed species for their area. Milkweed conservation efforts will vary*

**Washington Report** - Lee VanWychen - WSSA Science Policy Director

*according to the management of other weed species present in their area and there will not be a "one size fits all" solution. For example, recommending reduced mowing or herbicide use on weeds in ditches where kochia (i.e. tumbleweed) is prevalent could create a public safety hazard due to the buildup of kochia carcasses.*

*We hope that EPA's actions are consistent with the Interagency Pollinator Health Task Force Report that recognized the importance of evidence-based decision making, collaborative public private partnerships, and expanded research that will balance local weed management needs with the conservation of the monarch butterfly.*

*We appreciate this opportunity to make initial comments on the white paper "Risk Management Approach to Identifying Options for Protecting the Monarch Butterfly" and look forward to working with the Agency on this important topic.*

*Sincerely,*

*Dr. Dallas Peterson  
President  
Weed Science Society of America*

*Dr. Rob Richardson  
President  
Aquatic Plant Management Society*

*Dr. John Hinz  
President  
North Central Weed Science Society*

*Dr. Rakesh Chandran  
President  
Northeastern Weed Science Society*

*Dr. Brad Minton  
President  
Southern Weed Science Society*

*Dr. Joe Yenish  
President  
Western Society of Weed Science*

## Other News - Lee VanWychen - WSSA Science Policy Director

1. The National Invasive Species Council (NISC) is requesting nominations for the Invasive Species Advisory Committee (ISAC). Nominations must be postmarked by November 30, 2015. Any interested person or entity may nominate one or more qualified individuals for membership on the ISAC. Self-nominations are also accepted. Both Joe DiTomaso and Janis McFarland currently serve on ISAC and can help answer any questions.

Details are at: <http://www.gpo.gov/fdsys/pkg/FR-2015-09-30/pdf/2015-24818.pdf>

2. The National Academy of Sciences (NAS) has convened an ad hoc committee to: "Review the state of the science of gene drive research that relies on genome editing techniques, such as CRISPR/Cas9 and other endonucleases, or other genetic modification approaches."

A workshop and a series of webinars are being organized as part of the committee's information gathering process, and will feature presentations and Q&A sessions with the leading researchers and decision-makers in the field. These events are free and open to the public, and we'd be honored if you could attend and help us spread the word to others who might be interested.

The first webinar, *Gene Drive Research in Different Organisms*, is Thursday, October 15, at 10:00 am with topics including:

*The Landscape of Gene Drive Research in Different Organisms* – Fred Gould, Professor of Entomology at North Carolina State University

*Gene Drives in Mosquitoes for Disease Vector Control* – Zachary Adelman, Associate Professor of Entomology at Virginia Tech

*Gene Drives in Rodents for Invasive Species Control* – John Godwin, Associate Professor of Biology at North Carolina State University

For information about the rest of the webinar series, please visit the study website, <http://nas-sites.org/gene-drives/>.

The workshop, *Science, Ethics, and Governance Considerations for Gene Drive Research*, is on Monday, October 28, in Washington DC and webcast. It will feature discussions of the state of the science of gene drive research, responsible conduct and ethics, perspectives on opportunities and limitations in low and middle income countries, and scales of governance (see preliminary agenda here). Researchers will share the capabilities and tradeoffs of gene drive techniques, the ethics of research on emerging technologies, and mechanisms for the governance of advances in biotechnology.



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<b><u>Office</u></b>	<b><u>Name</u></b>	<b><u>Telephone</u></b>	<b><u>E-mail</u></b>
President	Rob Richardson	(919) 515-5653	rob_richardson@ncsu.edu
Immediate Past President	Cody Gray	(954) 562-0254	cody.gray@uniphos.com
President Elect	John Madsen	(530) 752-7870	jmadson@ucdavis.edu
Vice President	John Rodgers	(864) 656-0492	jrodger@clemson.edu
Treasurer	Jeremy Slade	(662) 617-4571	jeremy.slade@uniphos.com
Editor	Jason Ferrell	(352) 392-7512	jferrell@ufl.edu
Secretary	Jeff Schardt	(850) 591-1242	jeff.schardt@gmail.com
Director	Rebecca Haynie	(317) 573-6173	rebeccah@sepro.com
Director	Vernon Vandiver	(352) 376-9333	vvv@ufl.edu
Director	Dick Pinagel	(248) 634-8388	dick@aquaweed.com
Director	Ryan Wersal	(678) 624-5891	ryan.wersal@lonza.com
Director	Brett Hartis	(256) 891-6607	bmhartis@tva.gov
Director	Ryan Thum	(406) 994-4039	ryan.thum@montana.edu
Student Director	Kallie Kessler	(970) 445-0305	kallie.kessler@gmail.com
<b><u>Committee</u></b>	<b><u>Chair</u></b>	<b><u>Telephone</u></b>	<b><u>E-mail</u></b>
Awards	Michael Netherland	(352) 392-0335	mdnether@ifas.ufl.edu
Bylaws and Resolutions	Vernon Vandiver	(954) 683-1764	vvv@ufl.edu
Education and Outreach	Jeff Schardt	(850) 591-1242	jeff.schardt@gmail.com
Exhibits	Craig Aguiard	(337) 290-1096	caguillard@landolakes.com
Finance	John Gardner	(954) 977-7736	john.gardner@aquaticsystems.com
Legislative	John Madsen	(530) 752-7870	jmadson@ucdavis.edu
Meeting Planning	Tommy Bowen	(704) 875-5422	tommy.bowen@duke-energy.com
Membership	Joe Vassios	(719) 740-9291	joseph.vassios@uniphos.com
Nominating	Cody Gray	(954) 562-0254	cody.gray@uniphos.com
Past President's Advisory	Cody Gray	(954) 562-0254	cody.gray@uniphos.com
Program	John Madsen	(530) 752-7870	jmadson@ucdavis.edu
Publications	Jason Ferrell	(352) 392-7512	jferrell@ufl.edu
Regional Chapters	John Rodgers, Jr.	(864) 656-0492	jrodgers@clemson.edu
Scholastic Endowment	Tom Warmuth	(336) 402-4449	twarmuth@biosafesystems.com
Strategic Planning	Bo Burns	(919) 605-8016	bo.burns@us.nufarm.com
Student Affairs	Rebecca Haynie	(317) 452-0579	rebeccah@sepro.com
Website	Karen Brown	(352) 273-3667	kpbrown@ufl.edu
<b><u>Special Representative</u></b>	<b><u>Name</u></b>	<b><u>Telephone</u></b>	<b><u>E-mail</u></b>
AERF Representative	Carlton Layne	(678) 773-1364	laynlll@bellsouth.net
BASS Representative	Gerald Adrian	(610) 594-1948	gerald.adrian@uniphos.com
CAST Representative	Joe Vassios	(719) 740-9291	joseph.vassios@uniphos.com
NALMS Representative	Terry McNabb	(360) 527-1271	tmcnabb@aquatechnex.com
RISE Representative	Sam Barrick	(317) 216-8073	samb@sepro.com
WSSA Representative	Rob Richardson	(919) 515-5653	rob_richardson@ncsu.edu
Director of Science Policy	Lee Van Wychen	(202) 746-4686	lee.vanwychen@wssa.net

## ***Mission***

**The Aquatic Plant Management Society (APMS) strives to promote environmental stewardship through scientific innovation and development of technology related to integrated plant management in aquatic and riparian systems.**

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