

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

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Message from President John Madsen

Our 2016 Annual Meeting in Grand Rapids, Michigan was a great success, and

the Amway Grand Hotel was a beautiful venue on the edge of the Grand River which afforded a view of aquatic plant growth if attendees needed a breath of fresh air. Our speakers provided great information, not to mention the 21 student oral and poster presentations that bode well for the future of the society. I want to thank the sponsors for supporting our meeting, and all of the volunteers who work so diligently to make this society function.

During the meeting, we awarded the 2016 APMS Graduate Student Research Grant to Dr. Christopher Mudge, Adjunct Professor at the Louisiana State University (and Research Biologist with the U.S. Army



Engineer Research and Development Center), for support of his graduate student, Bradley Sartain, working on a project entitled "Exploring Alternative Giant Salvinia (*Salvinia molesta* D.S. Mitchell) Management Strategies." Our five judges selected this proposal from among five excellent entries.

At our board of director's meeting, we approved going forward with a twoyear, \$30,000 per year, call for proposals for a special Graduate Student Research Grant, specifically targeting the biology, ecology, and management of the new invasive species, starry stonewort (*Nitellopsis obtusa* L.). This grant will be co-funded by the Aquatic Plant Management Society, Midwest Aquatic Plant Management Society, Northeast Aquatic Plant Management Society, Applied Biochemists (A Lonza Company), SePRO, and UPI. More details will be forthcoming. — *Continued next page*



Message from President John Madsen—continued...

I contacted the program chairs of all of the APMS regional chapters regarding presenting an APMS Update at upcoming regional chapter annual meetings. With the exception of Florida, which already had their meeting agenda complete, I am pleased to report that an APMS Update will be given at all of the regional chapter meetings. I have already presented an update at the MidSouth APMS Annual Meeting in Baton Rouge, LA, and have made preliminary arrangements to personally present the update at the Midwest, Northeast, and Western APMS meetings in the coming year. Jeremy Slade and Rob Richardson have agreed to present at the remaining two chapters on my behalf.

As President, I am involved with the Weed Science Society of America (WSSA) Science Policy Committee. Our most recent issues have included the FIFRA review of glyphosate toxicity and carcinogenicity, potential restrictions on the uses of Atrazine, a review of herbicide resistance management and dicamba, and more discussion on NPDES and the NPDES "fix." Dr. Rob Richardson is the new chair of the APMS Legislative Committee; if you have more comments on legislation, please contact him.

Our next board meeting will be January 24 and 25, 2017 in Daytona Beach, FL. We have scheduled two days for the meeting, dedicating a full day to strategic planning. The APMS Board participates in strategic planning exercises every five years to re-evaluate core values and ensure sustainability. Dr. Mark Heilman hopes to have a survey out to membership before that event to find out your opinions on crucial topics. However, feel free to call or e-mail any of the board members with your thoughts on the future of our society.

Finally, be sure to mark the dates July 16 through 19, 2017 on your calendars. Those are the dates of the 57th APMS Annual Meeting in Daytona Beach, Florida. Program Chair Dr. John Rodgers is already hard at work on the theme and topics for the meeting. The Meeting Planning Committee is scheduling events for delegates and families. Keep an eye out for the first call for papers.

From Sunny California,

John Madsen, President

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Begin Planning for the 2017 Annual Meeting in Daytona Beach, Florida



Mark your calendar now to join us for the 57th Annual Meeting of the Aquatic Plant Management Society at the Hilton Daytona Beach Resort / Ocean Walk Village, July 16-19, 2017. The meeting is sure to be one of the best in recent years. We have secured a fantastic \$139 room rate for the meeting as well as three days before and after the meeting. One of the many highlights will be our President's Reception hosted by the famous Daytona Beach Mai Tai on the beach.

The Program Committee pledges a diverse and educational program of oral and poster presentations on aquatic plant research and management. The Meeting Planning Committee is preparing many exciting and entertaining events for relaxing, visiting, and chatting with friends and colleagues, so bring your family as well and plan to explore all that Daytona Beach and the surrounding area have to offer.

More meeting information will be coming soon on the APMS website at www.apms.org and in future Newsletters

Reservations Toll Free: 866-536-8477 Reservations Local Phone: 386-254-8200

Below is the link to reservations at the Daytona Beach Resort:

www.hilton.com/en/hi/groups/personalized/D/DABDHHF-APMS17-20170715/index.jhtml?WT.mc_id=POG

Tommy Bowen: Meeting Planning Committee Chair

APMS Sponsors Plant Camp 2016—In Florida and Tennessee

The UF/IFAS Center for Aquatic and Invasive Plants (CAIP) Education Initiative was created in 2005 to provide educators with the information and resources needed to teach students about the harmful impacts of invasive plants on our natural areas and neighborhoods. The Education Initiative has offered top-notch workshops, lesson plans, and educational resources for teachers and informal educators throughout the State of Florida.

One of the primary components of the Education Initiative is Plant Camp, an annual 5-day teacher workshop, that focuses on introducing teachers to the topics of invasive plants and their management, and providing them with the curriculum, information from experts, and hands-on experience they need to teach about invasive species with confidence. In addition to providing curriculum and knowledge, preand post-test results from the annual workshop suggest that the training is raising awareness and acceptance of invasive plant management methods among participants. Over 300 teachers have attended the workshops and, in turn, have taught approximately 78,000 students over the last 10 years!



Plant recognition testing

Pond ecology

Ecology and plant management field trip

Beginning in 2014, APMS has sponsored two teachers from outside the State of Florida to attend the workshop each year. The goal for these teachers is to take information back to their districts to establish aquatic plant management outreach efforts. This year, APMS sponsored two teachers from Tennessee, Lee Core and Danielle McBath, to attend the Florida Plant Camp. The Tennessee Valley Authority then hosted their very own Plant Camp on September 21st and 22nd.

APMS Sponsors National Silent Invaders Video

Another key component of the CAIP Education Initiative is *Lakeville: A Natural Resource Management Activity*. Lakeville teaches students about ecosystems, natural resource management, and civic responsibility. Three "sessions" make up the Lakeville Unit, each designed to encourage critical thinking while enhancing students' environmental knowledge. Sessions 1 and 2 provide students with background information and



Teachers participate in the Lakeville Activity

Session 3 brings it all together in a fun game-show style activity that gives students a chance to use their persuasive debate skills and make management decisions about a local freshwater habitat. The goal of the Lakeville activity is to prepare students for their future role as citizens and environmental

APMS Sponsors Plant Camp 2016—In Florida and Tennessee — continued...

stewards. Last year, the MidSouth Aquatic Plant Management Society (MS-APMS) sponsored the creation of a regional "Lakeville" unit.

Silent Invaders is a short video used to provide background information on native, non-native, and invasive plants for Plant Camp and Lakeville and is also used with other lesson plans provided by the CAIP Education Initiative. This year, the creation of a national version of this video was generously sponsored by APMS. The national Silent Invaders will be extremely beneficial in teaching about invasive species and continuing to expand Plant Camp and Lakeville into other regions. The video was pilot-tested with the Tennessee Valley Authority's Plant Camp and is currently in the final editing stages. The video will be available on both the CAIP Education Initiative and the APMS website as soon as it is completed.

For more information about the Center for Aquatic and Invasive Plants Education Initiative, please see their website at <u>plants.ifas.ufl.edu/education</u> or send an email to <u>caip-education@ufl.edu</u>

By: Dehlia Albrecht, Education Initiative Coordinator UF/IFAS Center for Aquatic and Invasive Plants

TVA Holds First Plant Camp

Teachers from across the Tennessee Valley recently attended "Tennessee Plant Camp", a two-day workshop focusing on non-native and invasive plant species in the Tennessee Valley. Approximately 21 educators and three state resource officers attended the event where they learned about some of Tennessee's most problematic plants. Elementary through high school teachers were taught basic plant identification and aquatic and terrestrial plant science, as well as aquatic plant management tools and techniques. A spin-off of the popular Florida Plant Camp, 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 the Tennessee Valley Authority, and co-sponsored by the Aquatic Plant Management Society, Aquatic Ecosystem Restoration Foundation, and the MidSouth Aquatic Plant Management Society.

Scenes from Tennessee Plant Camp 2016

By: Brett M. Hartis, Program Manager Aquatic Plant Management Program Tennessee Valley Authority

Recap of the 56th APMS Annual Meeting—Grand Rapids, Michigan

Nearly 175 members and guests met at the Amway Grand Plaza Hotel in Grand Rapids, Michigan on July 17-20, 2016 for the 56th Annual Meeting of the Aquatic Plant Management Society. The Annual Meeting provides an opportunity for researchers, managers, and industry representatives to share new



President Rob Richardson welcomes delegates to the 56th APMS Annual Meeting in Grand Rapids, Michigan information through formal presentations and the many social events scheduled during the week. There were 54 oral and nine poster presentations. Twenty-one students from nine universities presented research updates on aquatic plant control, ecology and physiology, integrated management, and modelling.

Events

The APMS Annual Meeting complements a full agenda of technical information with opportunities for informal and focused discussions. Delegates gather on Sunday evening for the Presidents' Reception to get reacquainted, and again on Monday evening for a Poster Reception in the exhibit hall to interact with researchers and vendors. Continental breakfasts and extended breaks are offered each day in the exhibit hall to provide more time to network with colleagues. A Guest Tour is arranged on Monday for spouses and others to visit area attractions and sample local cuisine. Presidents and a guest from each APMS Chapter meet during a Monday luncheon to share regional issues and provide Chapter insight while a Student Luncheon offers all students registered for the meeting time to interact and discuss research and

career perspectives in aquatic plant management. Students elect a Student Director to serve a one-year term on the APMS Board of Directors. APMS Past Presidents gather at a Tuesday luncheon to advise the Board of Directors on current matters, while the newly sanctioned Women of Aquatics Luncheon offers a forum to discuss topics of the day. See pages 9-10 for photos taken during the Annual Meeting.

Awards

The feature social event during the APMS Annual Meeting is the Tuesday evening Awards Banquet. APMS honors long-term member achievements as well as research contributions presented by students during the meeting. Following is a list of the awards presented at the 2016 APMS Annual Meeting.



Student Presentations

Twenty-one students competed in oral (17) and poster (4) presentations. Cash awards are presented for first (\$300), second (\$200), and third (\$100) place in each presentation category. Erika Haug, from North Carolina State University, placed first in the Student Oral Presentations with her project: *Evaluating the Sensitivity of Seven Aquatic Plants to Procellacor*TM *Herbicide.* Tyler Geer and Kyla Iwinski,

Erica Haug receives First Place Award for Oral Presentations from Student Affairs Committee Chair Chris Mudge both from Clemson University, tied for second place while Afsari Banu at the University of Florida finished third.

Recap of the 56th APMS Annual Meeting—continued...

Sasha Soto of Texas Tech University took first place in the Poster Competition with her presentation: *Incorporation of Biotype Alters Species Distribution Model Predictions of Suitable Habitat for the Invasive Aquatic Macrophyte, Hydrilla verticillata*. Patrick Goodwin of the State University of New York, Oneonta took second place.



Outstanding Graduate Student Award

Kyla Iwinski of Clemson University received the Outstanding Graduate Student Award, recognizing her outstanding achievements during graduate studies in the field of aquatic plant management.



Kyla lwinski is presented the Outstanding Graduate Student Award from major professor, John Rodgers

APMS Graduate Student Research Grant

APMS Student Director

Sasha Soto is presented with the First Place Poster Presentation Award

Samantha Sardes from the University of Florida was voted by her peers to serve a oneyear term as Student Director on the APMS Board of Directors.



The Graduate Student Research Grant is the premier education initiative offered by the Aquatic Plant Management Society. The \$40,000 grant is awarded every two years for the most qualified proposal submitted in the area of aquatic plant management and ecology. 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. This



academic grant is co-sponsored by APMS and the seven regional APMS chapters. The grant has been presented nine times since 1999, totaling \$374,000.

The recipients of the grant for 2016 are Christopher R. Mudge and graduate student Bradley T. Sartain from Louisiana State University for their proposal: *Exploring Alternative Giant Salvinia (Salvinia molesta D.S. Mitchell) Management Strategies.*

President John Madsen congratulates Chris Mudge (left) and Bradley Sartain (right) for receiving the 2016 APMS Graduate Student Research Grant

Recap of the 56th APMS Annual Meeting—continued...

Outstanding Research / Technical Contribution Award

Dr. Rob Richardson of North Carolina State University received the Outstanding Research / Technical



Contribution Award for leadership and research on issues related to integrated management of monoecious hydrilla in flowing water systems of the Carolinas and Eastern United States. Rob's encouragement of graduate student education and the retention of many of these students in the field of aquatic plant management is a great benefit both to our field of study and to the APMS.

Rob Richardson (left) receives the 2016 Outstanding Research and Technical Contribution Award from APMS Editor Jay Ferrell (right).

Outstanding Journal Article

The Outstanding Journal Article Award is relatively new for APMS, first presented in 2012. An author and co-author(s) are recognized for research published in the Journal of Aquatic Plant Management (JAPM) during the previous year that is unique and will further the science of aquatic plant management. The Editor and Associate Editors vote on this award. Greg Bugbee, M. Gibbons, and M.J. Wells were presented the award for their 2015 article: *Efficacy of Single and Consecutive Early-season Diquat Treatments on Curlyleaf Pondweed and Associated Aquatic Macrophytes: A Case Study.* (J. Aquatic Plant Manage. 53:170-178).

Outstanding International Contribution Award

Paul Champion of the National Institute of Water & Atmospheric Research, Hamilton, New Zealand received the Outstanding International Contribution Award for his continued research and management of invasive plants as well as for his work toward organizing a Pacific Ocean Nations APMS Regional Chapter and

hosting a 2018 international symposium on invasive plants in New Zealand.

Paul Champion (left) is presented with the Outstanding International Contribution Award from President Elect, John Madsen.



Max McCowen Friendship Award

Kenneth Manuel of Duke Energy Carolinas, Huntersville, NC received the 2016 Max McCowen Friendship Award. This award is a special recognition given to an APMS member whose demeanor and actions display sincerity and friendship in the spirit of being an ambassador for the APMS. Criteria include warmth and outgoing friendship, sincerity and genuine concern, gracious hospitality, and positive attitude. Ken has been a member of APMS since 1984 and was President in 2004.

> Ken Manual (left) receives the Max McCowen Friendship Award from President Rob Richardson.



Recap of the 56th APMS Annual Meeting—continued...

T. Wayne Miller Distinguished Service Award

Craig Aguillard from Winfield, Ville Platte, LA, received the T. Wayne Miller Distinguished Service Award, presented to an individual to recognize "Service to the Society and the Profession." Craig has been an APMS member since 1999. He has worked with annual conference exhibitors and sponsors for many years to ensure successful and productive meetings.

Craig Aguillard (left) receives the T. Wayne Miller Distinguished Service Award from President Rob Richardson.



President's Award

John Madsen and Mike Netherland each received the 2016 President's Award for their outstanding careers in aquatic plant research and extensive publication of technical papers. Each was further recognized for his ability and willingness to effectively translate research findings to managers and the public. John Madsen has been an APMS since 1988, has previously served on the APMS Board of Directors, and is the current APMS President. Mike Netherland first joined APMS in 1996, also served on the Board of Directors, and was APMS President during 2014.



Mike Netherland of the U.S. Army Corps of Engineers / University of Florida, Gainesville (left) presents information at the 2016 Annual Meeting.

John Madsen of the U.S. Department of Agriculture / University of California, Davis (left) receives the 2016 President's Award from APMS President, Rob Richardson (right).

Honorary Membership

Jim Schmidt was granted APMS Honorary Membership in 2016. Honorary Members must have been an APMS Member for at least 10 years, be retired from their major field, and have contributed significantly to APMS and aquatic plant control. Twenty-one Honorary Memberships have been bestowed in the 56-year history of APMS.

Jim Schmidt worked for Applied Biochemists / Lonza during most of his 47 years of APMS membership that began in 1970. He served on the APMS Board of Directors for seven years; as Director (1992-1995) and President (2001). He was the long-term Chair of the Bylaws Committee. Jim is a Charter member and current President of the Aquatic Ecosystem Restoration Foundation. He authored numerous guides and manuals for algae and aquatic plant management.



Bill Ratajczyk (left) introduces and presents the 2016 APMS Honorary Membership to long-time friend and colleague Jim Schmidt (right).

Photos from the 56th APMS Annual Meeting













Photos from the 56th APMS Annual Meeting



Job Opportunity—National Invasive Species Council (NISC)

Senior Scientific and Technical Analyst National Invasive Species Council (NISC) Office of the Secretary of the Interior 1 Vacancy – Washington, DC Work Schedule is Full-Time – Permanent Opened Wednesday 9/28/2016 – Closes Thursday 10/13/2016 Salary Range \$92,145.00 to \$160,300.00 / Per Year

Job Overview:

This position is located within the Department of the Interior, Office of the Secretary, National Invasive Species Council, in Washington, DC. This is a permanent, senior-level position with substantial, high-profile responsibilities. The incumbent serves as the National Invasive Species Council (NISC) Secretariat's Senior Scientific and Technical Analyst. NISC was established by Executive Order 13112 (EO 13112; Invasive Species Executive Order). The Department of the Interior, Office of Policy, Management and Budget, has responsibility for providing administrative and staffing support to the NISC Secretariat. Following priorities, guidelines, and strategic plans established by the Executive Director, the incumbent ensures effective day-to-day leadership and coordination of the scientific and technical activities necessary for the NISC Secretariat to implement its duties in a timely, credible, and highly effective manner.

Details: https://www.usajobs.gov/GetJob/ViewDetails/451852600

About NISC:

National Invasive Species Council membership resides with the highest level of Federal leadership. The overarching duty of the Council is to provide the high-level vision and leadership necessary to sustain and expand Federal efforts to safeguard interests of the United States by preventing, eradicating, and controlling invasive species, as well as restoring ecosystems and other assets impacted by invasive species. NISC's policy and planning activities benefit from the technical input provided by Federal agency staff and Federal interagency bodies working on invasive species issues, as well as non-Federal stakeholders.

Federal Government Funded on Continuing Resolution Until December 9

A day before FY 2016 government funding expired on September 29, Congress passed a continuing resolution (CR), H.R. 5325 that extends government funding FY 2016 levels until Dec. 9, when lawmakers are expected to be in Washington for a lame-duck session after the election. The CR was cleared by the House on a 342-85 vote and earlier in the day was passed by the Senate, 72-26. The legislation includes \$1.1 billion in Zika response funding, \$500 million for flood relief in Louisiana and other states, and fiscal 2017 appropriations for military construction and veterans. The initial conference report back in July contained language that would have provided mosquito sprayers, including vector control districts, a 180-day waiver from NPDES permit requirements for applying FIFRA approved insecticides near waters of the United States. Unfortunately, that language was eventually removed due to concerns from a handful of Senators and Representatives related to objections from environmental groups.

Water Resources Development Act of 2016 Heads to Conference Committee

On September 15, the Senate passed S. 2848, the Water Resources Development Act (WRDA) of 2016, by a vote of 95-3. The House passed its version of the bill, H.R. 5303, on September 28 by a vote of 399-25. Both House and Senate leadership have made the bill a priority because it would return water resources authorization to a two-year cycle, allowing Congress to regularly oversee development and authorize new maritime navigation, environmental and flood mitigation projects. The last water projects authorization bill was passed in 2014 (WRRDA).

The House and Senate bills both reauthorize the Aquatic Plant Control Research Program (APCRP) and the watercraft inspection stations in the Pacific Northwest at \$40 million per year. The Senate bill also extends the Great Lakes Restoration Initiative funding through FY2021. During the election recess, members of the House and Senate can still work on aligning their separate versions of the legislation in a conference committee for final passage, hopefully during the lame duck session.

MIT Researchers Find New Way to Make Pesticides Stick to Leaves 10 Times Better?

Massachusetts Institute of Technology. "Making pesticide droplets less bouncy could cut agricultural runoff: Researchers find a way to make pesticides stick to leaves instead of bouncing off." ScienceDaily, 30 Aug 2016. www.sciencedaily.com/releases/2016/08/160830121724.htm

By using a clever combination of two inexpensive polymer additives, called polyelectrolytes, MIT researchers found they could drastically cut down on the amount of liquid that bounces off plants. The new approach uses two different kinds of additives. The spray is divided into two portions, each receiving a different polymer substance. One gives the solution a negative electric charge; the other causes a positive charge. When two of the oppositely-charged droplets meet on a leaf surface, they form a hydrophilic (water attracting) "defect" that sticks to the surface and increases the retention of further droplets.

Based on the laboratory tests, the team estimates that the new system could allow farmers to get the same effects by using only 1/10 as much of the pesticide or other spray. And the polymer additives themselves are natural and biodegradable, so will not contribute to runoff pollution.

Journal Reference: Maher Damak, Seyed Reza Mahmoudi, Md Nasim Hyder, Kripa K. Varanasi. Enhancing droplet deposition through *in-situ* precipitation. *Nature Communications*, 2016; 7: 12560 DOI: <u>10.1038/ncomms12560</u>

Abstract: Retention of agricultural sprays on plant surfaces is an important challenge. Bouncing of sprayed pesticide droplets from leaves is a major source of soil and groundwater pollution and pesticide overuse. Here we report a method to increase droplet deposition through *in-situ* formation of hydrophilic surface defects that can arrest droplets during impact. Defects are created by simultaneously spraying oppositely charged polyelectrolytes that induce surface precipitation when two droplets come into contact. Using high-speed imaging, we study the coupled dynamics of drop impact and surface precipitate formation. We develop a physical model to estimate the energy dissipation by the defects and predict the transition from bouncing to sticking. We demonstrate macroscopic enhancements in spray retention and surface coverage for natural and synthetic non-wetting surfaces and provide insights into designing effective agricultural sprays.

EPA says Glyphosate "Not Likely to be Carcinogenic to Humans"

In September, EPA officially released its cancer review assessment and background paper on glyphosate along with more than 100 other documents that will be the focus of a FIFRA Scientific Advisory Panel (SAP) review that is scheduled for October 18-21. Based on their extensive and comprehensive review, EPA has concluded for the third time that glyphosate is not likely carcinogenic to humans.

Because glyphosate is so widely used in both agricultural and non-agricultural settings and so many weed scientists have been getting questions about the erroneous and misleading IARC classification, I recommend you read the four page "executive summary" from the EPA's Cancer Assessment Review Committee (CARC), which lays out their assessment while describing shortcomings of the IARC findings. EPA's CARC report on glyphosate is available at: <u>https://www.regulations.gov/document?D=EPA-HQ-OPP-2016-0385-0014</u>

EPA Manual Available on How to Comply with the Revised Worker Protection Standards

The EPA in conjunction with the <u>Pesticide Educational Resources Collaborative (PERC)</u> has made available a guide to help users of agricultural pesticides comply with the requirements of the 2015 revised federal Worker Protection Standard (WPS). You should read this manual if you employ agricultural workers or handlers, are involved in the production of agricultural plants as an owner/manager of an agricultural establishment or a commercial (for-hire) pesticide handling establishment, or work as a crop advisor. The "How to Comply" manual includes:

- details to help you determine if the WPS requirements apply to you;
- information on how to comply with the WPS requirements, including exceptions, restrictions, exemptions, options, and examples;
- a "Quick Reference Guide" a list of the basic requirements (excluding exemptions, exceptions, etc.);
- new or revised definitions that may affect your WPS responsibilities; and explanations to help you better understand the WPS requirements and how they may apply to you.

The revised EPA Pesticide Worker Protection Standard "How to Comply" Manual is available at: <u>https://www.epa.gov/pesticide-worker-safety/pesticide-worker-protection-standard-how-comply-manual</u>

NISC Adopts New Management Plan

The National Invasive Species Council (NISC) announced the release of their 2016-2018 Management Plan. The plan sets forth high priority, interdepartmental actions for the Federal government and its partners to take to prevent, eradicate, and control invasive species, as well as restore ecosystems and other assets adversely

impacted by invasive species. The thirteen Federal Departments and Agencies whose senior officials comprise NISC will:

- provide Federal leadership on invasive species issues by establishing the structures, policy, and planning priorities necessary to enable Federal agencies to effectively prevent, eradicate, and/or control invasive species, as well as restore impacted ecosystems and other assets;
- limit the spread and impact of invasive species through high-level policy and planning by strengthening coordination between the United States and other governments, across the Federal government, and between the Federal government and non-governmental stakeholders;
- raise awareness of the invasive species issue and mobilize the policies, programs, and financial resources necessary to minimize the spread and impact of invasive species;
- remove institutional and policy barriers to the Federal actions needed to prevent, eradicate, and control invasive species, as well as restore ecosystems and other assets;
- conduct assessments of Federal capacities to meet the duties set forth in Executive Order 13112, as well as other high-level policy priorities, and build Federal capacities, as needed;
- foster the scientific, technical, and programmatic innovation necessary to enable Federal agencies and their partners to prevent and mitigate the impacts of invasive species in a timely and cost-effective manner with negligible impacts to human and environmental health.

The 2016-2018 NISC Management Plan is available at: <u>https://www.doi.gov/sites/doi.gov/files/uploads/2016-2018-nisc-management-plan.pdf</u>

CISP Petitions FWS to Prevent the Spread/Introduction of 43 Aquatic Species:

The Center for Invasive Species Prevention (CISP) filed a petition in September urging the U.S. Fish and Wildlife Service (FWS) to act, via the Lacey Act, to prevent the introduction and spread of 43 aquatic species that would probably be invasive in the U.S. For background and explanation of the petition, please go to: <u>http://www.nivemnic.us/cisp-files-multi-species-listing-petition-with-us-fish-wildlife-service-per-lacey-act/</u>

The 43 "high risk" species proposed in the petition include the following:

Mollusks

- (A) Bithynia tentaculata (faucet snail)
- (B) Corbicula fluminea (Asian clam)
- (C) Dreissena rostriformis bugensis (Quagga mussel)
- (D) Limnoperna fortune (golden mussel)
- (E) Potamopyrgus antipodarum (New Zealand mudsnail)
- (F) Sinanodonta woodiana (Chinese pond mussel)

Fish

- (A) Acanthogobius flavimanus (yellowfin goby)
- (B) Alburnus alburnus (bleak)
- (C) Alosa pseudoharengus (alewife)
- (D) Cichlasoma bimaculatum (black acara)
- (E) Coregonus lavaretus (powan)
- (F) Ctenopharyngodon idella (grass carp)

(G) Cyprinella lutrensis (red shiner)

- (H) Cyprinus carpio (common carp)
- (I) *Gymnocephalus cernua* (ruffe)
- (J) Hypomesus nipponensis (wakasagi)
- (K) *Ictalurus furcatus* (blue catfish)
- (L) Misgurnus anguillicaudatus (Oriental weatherfish)
- (M) Morone americana (white perch)
- (N) *Neogobius melanostomus* (round goby)
- (O) Odontesthes bonariensis (Argentinian silverside)
- (P) Oreochromis aureus (blue tilapia)
- (Q) Oreochromis mossambicus (Mozambique tilapia)
- (R) Oreochromis niloticus (Nile tilapia)
- (S) Parachromis managuensis (Jaguar guapote)
- (T) Poecilia reticulate (guppy)
- (U) Pterois miles (devil firefish)
- (V) Pterois volitans (red lionfish)
- (W) Pterygoplichthys pardalis (Amazon sailfin catfish)
- (X) Pterygoplichthys multiradiatus (Orinoco sailfin catfish)
- (Y) Pterygoplichthys disjunctivus (vermiculated sailfin catfish)
- (Z) *Pylodictis olivaris* (flathead catfish)
- (AA) Rhodeus ocellatus (rose bitterling)
- (BB) Sarotherodon melanotheron (blackchin tilapia)
- (CC) Scardinius erythrophthalmus (rudd)
- (DD) Tilapia mariae (spotted tilapia)
- (EE) Tilapia zillii (redbelly tilapia)

Crayfish

- (A) Oronectes limosus (spiny-cheek crayfish)
- (B) Oronectes propinquus (northern clearwater crayfish)
- (C) Oronectes rusticus (rusty crayfish)
- (D) Oronectes virilis (virile crayfish)
- (E) Pacifastacus leniusculus (signal crayfish)
- (F) Procambarus clarkia (red swamp crayfish)

Lee Van Wychen, Ph.D. Science Policy Director National and Regional Weed Science Societies Lee.VanWychen@wssa.net cell: 202-746-4686 www.wssa.net

Remembering Wendy Andrew

One of our own, Wendy Andrew, left us on June 8th, 2016. Wendy was President of the Florida Aquatic Plant Management Society in 1994. She served on the APMS Board as Newsletter Editor from 1992-1994, and as Secretary from 1994-1998.

"Wendy May Andrew passed away on June 8, 2016, from breast cancer. She was 54. Born in Anaheim, California, she moved as a child to Central Florida where she grew to love its natural beauty and habitat. A 1980 graduate of West Orange High School, Wendy went on to the University of Florida where she earned a BS in Forest Resources and Conservation and an MS in Agronomy. She began her professional life in 1985, as a Staff Assistant on the Environment to Senator Lawton Chiles. In 1986, she became one of the first women employed as an Aquatic Plant Manager for the Southwest Florida Water Management District.



She launched a 24-year career with Walt Disney World in 1992. As Horticulture Manager for Disney's Animal Kingdom since 2000, Wendy lived her professional dream. Along the way she met the love of her life, Michael Andrew, while engaged as a diver at EPCOT's Living Seas Pavilion. She took her passion for the natural world beyond her professional duties by consulting on environmental projects within Florida and around the world, including Uganda, South Africa, Tanzania, Mexico, Cambodia, and Thailand. She served on the Florida Department of Agriculture Endangered Species Task Force, as a Director and Treasurer of the Association of Zoological Horticulture, President of the Florida Aquatic Plant Management Society, and Newsletter Editor and Secretary of the Aquatic Plant Management Society.

The Florida Audubon Society recognized Wendy as Volunteer of the Year in 2012. Wendy cared as deeply about people as she did about the environment. She loved the Southwest Community Church. In 2006, she melded her faith, her concern for the environment, and her compassion for people in her service work with ECHO, a faith-based organization dedicated to solving global hunger through sustainable farming. Acting as an ECHO Board Member from 2013 to 2016 became a richly rewarding experience for her. She was an accomplished amateur photographer, a prolific reader, and a great and generous cook. She enjoyed swimming, fishing, kayaking, and volleyball. Wendy completed over 20 triathlons – all since her initial cancer diagnosis in 2008. She was inherently curious and instinctively kind. Wendy loved her family and she lived her faith. She was the beloved daughter of Kathy Matheison who predeceased her in 2004. She is survived by her husband of 27 years Michael Andrew, her father Robert K. Matheison and his wife Arra Mae, her aunt Linda Palmer Garberson, her siblings Cindy, Molly, and Robert, and her nine adoring nephews and one niece. Wendy encouraged us all to never fear our challenges, to live life to the fullest, and to love God by loving each other.

Please consider a contribution to ECHOnet.org."

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 represent-ative; subscription to the *Journal of Aquatic Plant Management*, <u>APMS Newsletters</u>, and access to social media content; quarterly issues of <u>Aquatics</u> magazine; recognition as a Sustaining Member in Newsletters, the Annual Meeting Program, and on the APMS website. Please read about <u>APMS Sustaining Members</u> and learn more about them by visiting their websites.

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APMS Chapter and Related Annual Meetings

Date	Meeting	Location
2016		
October 5-7	South Carolina Aquatic Plant Management Society	Springmaid Beach, SC
October 10-12	Texas Aquatic Plant Management Society	Boerne, TX
October 17-20	Florida Aquatic Plant Management Society	Daytona Beach, FL
November 1-4	North American Lake Management Society	Banff, Alberta, Canada
2017		
January 9-11	Northeast Aquatic Plant Management Society	Portsmouth, NH
February 6-9	Weed Science Society of America	Tucson, AZ
Feb 27 - Mar 1	Midwest Aquatic Plant Management Society	Milwaukee, WI
March 13-16	Western Aquatic Plant Management Society	Coeur D'Alene, ID
August 20-24	American Fisheries Society	Tampa, FL
July 16-19	Aquatic Plant Management Society	Daytona Beach, FL
September TBA	MidSouth Aquatic Plant Management Society	ТВА

2016-2017 APMS Officers, Directors, Committee Chairs, and Special Representatives

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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.

Mission

The Aquatic Plant Management Society 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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