



AQUATIC PLANT NEWS

A Newsletter of The Aquatic Plant Management Society,
Inc., P.O. Box 821265, Vicksburg, MS 39182-1265
Chetta Owens, Editor Issue Number 88, June 2008

Mission: "The Aquatic Plant Management Society, Inc., strives to promote environmental stewardship through operations, research, education and outreach related to integrated management of vegetation in aquatic systems"

Message from the President, Jim Petta

How quickly the year goes by! Many things are going on with aquatic plant management from the USA to around the globe from China to Brazil, Africa, New Zealand, and the Middle East!

Within the USA, many states are already in the "heat of battle" with lesser known problems such as water chestnut, East Indian hygrophylla, West Indian marshgrass, water spinach, Brazilian elodea, and the two biggees, Eurasian watermilfoil and hydrilla. Least we forget, water hyacinth remains the world's leader as a problem aquatic plant! What is disturbing is the apparent ease in which invasives enter a system either by direct or indirect means. Recently discovered in warm springs of Idaho were both hydrilla and water lettuce. Where did this infestation come from? To the credit of the folks in Idaho: a rapid response was initiated and a management program implemented. We seem to be learning that education and rapid response are the keys to success; before an infestation becomes too large to manage!

Aquatic plant management is becoming more important than ever. With our growing population, the urbanization of lakes and rivers, and the scarcity of good, clean water, APMS is critical to insuring a

future supply. But the two sides of aquatic plant management are critical to success: management programs and education. We still find that a large part of the general population simply do not understand aquatic ecosystems. The various chapter meetings are important venues to share information and provide the education needed to fulfill our mission. But beyond our membership, we need to move into the schools and local constituencies to educate others. Only through systematic education can we hope to preserve the water supply for the future.

With that, I want to encourage everyone to attend the annual conference in Charleston, SC, July 13-16th. The site selection and program committee's have been working hard to get ready for our meeting. I hear rumors of ducks and other events intended to keep us focused on aquatics! Carlton Layne and others have been working hard to get the program set for an informative and exciting meeting.

So I hope to see everyone in Charleston. Bring family and friends for a good time and the best information on aquatic plant management!

Kindest regards,

Jim Petta

Historic Charleston, SC Hotel Site of the 48th Annual APMS Meeting

The time is here to make your hotel reservations and register for the 48th Annual Meeting of the Aquatic Plant Management Society. This year the meeting is being held in Charleston, South Carolina. Make your arrangements by June 12 and join your friends at The Mills House, July 13-16, 2008.

The Meeting Planning Committee is busy arranging a number of exciting special events for all attendees. This year's special events include the President's Reception, Poster Session Reception, and Banquet. Our meeting will kick off with a President's Reception on Sunday evening. The Poster Session Reception on Monday evening will provide for the viewing of posters and professional interactions/discussions in a casual setting. This year's banquet will once again prove to be memorable occasion. The banquet will include an extraordinary dinner and a full host bar. The APMS awards program and grand prize drawing will be held after dinner. During the awards program, individuals who have served and contributed to the Society will be recognized, new officers and directors will be welcomed, and student paper participants will be presented awards. The banquet is open to all registered delegates, guests, and students. Non-registered guests may purchase individual tickets for these events at the registration desk.

Another exciting special event being planned is the Guest Tour on Monday. This year's Guest Tour will begin with a continental breakfast at the Mills House Hotel. After breakfast a native Charlestonian will guide guests on a stroll through historic and beautiful Charleston. Highlights will include rainbow row, antebellum mansions, hidden gardens, churches, and historic buildings. After strolling the streets of Charleston, lunch will be served at Magnolias, one of the city's finest dining establishments. The Guest Tour is open to all registered guests (spouse, partner, or child over 12 years of age).



Non-registered guests may purchase tickets for this event by submitting the Meeting Registration Form or at the meeting registration desk. Please help us in planning for this event by submitting the Meeting Registration Form by June 12, 2008.

To make your hotel reservation, call The Mills House Hotel directly at 843-577-2400 or 800-874-9600 between the hours of 9:00 a.m. and 4:00 p.m. and ask to speak with Mary or Latoya. You must make your reservation on or before **June 12, 2008**, and be sure to mention that you are part of the Aquatic Plant Management Society. Our special APMS guest room rate is \$155.00 for single and double occupancy per night plus applicable tax, currently 12.5%. The Mills House Hotel requires that all reservations be guaranteed with a major credit card or a deposit. The credit card will be charged if the reservation is cancelled within 48 hours prior to arrival. The deposit will be refunded if the reservation is canceled at least 48 hours prior to arrival date. Check in time is 3:00 p.m. and checkout time is 11:00 a.m.

The meeting registration fees are \$225.00 for delegates and \$100.00 for guests (spouse, partner, child over 12 years-of-age) if received by June 12, 2008. After this date, registration fees at the door will be \$275.00 for delegates and \$125.00 for guests. The meeting registration fee for students competing in the student paper contest (oral or poster) is waived and the registration fee for a student not competing is \$50.00. Delegate and student registration includes all technical sessions, President's Reception, refreshment breaks, Poster Reception, and Banquet. Guest registration includes President's Reception, refreshment breaks, Guest Tour, Poster Reception, and Banquet. Non-registered guests may purchase individual tickets for the following events: President's Reception, Guest Tour, Poster Reception, and Banquet.

Please help us in planning for the meeting by completing the Registration Form included in this newsletter and submitting it prior to June 12, 2008. The Registration Form is also available on the APMS website. This will be an extraordinary meeting, so plan to come and bring the family!

Annual Meeting Deadline Dates

Early Registration - June 12, 2008
Hotel Registration – June 12, 2008

Annual Student Paper and Poster Contests in Charleston

The Aquatic Plant Management Society is soliciting student papers for the upcoming 48th Annual Meeting to be held July 13-16, 2008 at the Mills House Hotel in Charleston, SC. Oral and poster presentations of original research on the biology or ecology of aquatic or wetland plants, control methods (biological, chemical, mechanical, physical) for invasive plant species (introduced or native), and restoration projects using wetland or aquatic plants will be accepted.

The APMS provides student support and all qualified students will be provided room accommodations (based on double occupancy) and registration fees will be waived. In addition, 1st, 2nd, and 3rd place prize money will be awarded in separate contests for both oral and poster

presentations. This meeting provides students with an opportunity to develop presentation skills, learn more about aquatic plant management, and meet government, university and industry representatives as well as other student presenters.

Please log onto www.apms.org to learn more about the 2008 meeting. Students can register for the contest(s) by submitting an abstract as per website instructions or by using the forms included in this newsletter. For more information about the student contest(s), please contact

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2008 APMS New Officers and Directors Nominations Biographical Information

Vice President: Linda S. Nelson

Dr. Linda S. Nelson is a Plant Physiologist in the Environmental Laboratory at the U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi. In this capacity, Nelson coordinates and conducts research on chemical strategies for managing nuisance aquatic and wetland vegetation. Linda received a B.S. degree in Biology from the University of South Dakota, a M.S. degree in Crop Production and Physiology from Iowa State University, and a Ph.D. degree in Botany/Weed Science from Purdue University. She has been a member of the APMS since 1992, chaired the Student Affairs Committee from 2000-2001, and served as Secretary on the Board of Directors from 2001-2007. Nelson is currently the APMS representative on the Board of Directors for the Weed Science Society of America.

Treasurer: Sherry Whitaker

Sherry G. Whitaker is a Computer Scientist with the U.S. Army Engineer Research and Development

Center, Environmental Laboratory in Vicksburg, MS and has served in that position since May 1994. In this position, Sherry is responsible primarily for the development and maintenance of several information/expert systems. Sherry earned a Bachelor of Science degree in Mathematics and Computer Science from the University of Southern Mississippi and a Master of Science degree in Computer Science from Mississippi State University.

Director: Alan “Bo” Burns

Bo Burns has worked in aquatic plant management and exotic plant management for the last 20 years. He received a BA in Biology from Hiram College and a MEM (Masters of Environmental Management) in Resource and Wetland Ecology from Duke University. He worked for the State of NC for four years as an Environmental Specialist with the Division of Water Resources. Responsibilities included management of field operations for aquatic plant management. He also worked for six years as a Vegetation Specialist for American Cyanamid Company conducting research and sales for vegetation management in aquatics, forestry and utility rights of way management. He also spent 9 years working for SePRO Corporation as an Aquatic Specialist working in aquatic plant management. He currently is starting his fifth year with BASF working as an Aquatic Market Development Specialist. He is a past president for the NEAPMS, SCAPMS and past board member for the Mid West APMS.

Director: Susan Wilde

Susan Wilde is a Research Assistant Professor at the University of Georgia, Warnell School of Forestry and Natural Resources. Her research interests include toxic cyanobacteria, invasive plants, reservoir limnology, and Avian Vacuolar Myelinopathy. Recently as a Professor at the University of South Carolina, she directed the Algal Ecology Laboratory in Charleston, SC. This program was responsible for monitoring and investigating ecological impacts of harmful algal blooms in freshwater and marine systems on fish and wildlife. Susan received her bachelor of

science from the University of Illinois in Ecology, Ethology and Evolution. She completed her master of science in the Department of Zoology, University of Georgia and her Ph.D from the School of Forest Resources, University of Georgia. In addition to serving on the graduate faculty at the University of Georgia, she currently holds adjunct faculty status and mentors graduate students at the University of Charleston, Clemson University, and University of South Carolina.

Council for Agricultural Science and Technology Update (CAST)

John D. Madsen, Mississippi State University

The Aquatic Plant Management Society has been a member of the Council for Agricultural Science and Technology, better known as CAST, since 1979. While on the face of it this may appear to be an odd choice, a better knowledge of CAST and its mission helps to explain the fit.

The mission of CAST is as follows: “CAST assembles, interprets, and communicates credible, science-based information regionally, nationally, and internationally to legislators, regulators, policymakers, the media, the private sector, and the public.” To carry out this process, each member society selects a representative to work as a board member to develop peer-reviewed reports that address specific issues or concerns. These reports attempt to bring the best scientific information to bear, rather than formulating specific policy. While most of the topics address agricultural issues, CAST has also worked on invasive plant, pesticide, and irrigation water issues. Past reports have included issue papers on invasive plant species and pesticides in water and groundwater. A list of reports is available at the webpage, <http://www.cast-science.org>.

One of the main issues that will be of interest to APMS members that is being addressed by CAST during the coming year will be the interaction of the Endangered Species Act with plant management activities, pesticide registration and reregistration. Specific proposals for addressing these issues is still pending, but look for a series of issue papers or

reports to be developed on this topic of great importance to the aquatic plant management industry.

If you have specific ideas or issues of interest to the Aquatic Plant Management Society that you would like CAST to address, I am the new CAST representative for APMS, and you can contact me at jmadsen@gri.msstate.edu.

The APMS Newsletter is Going Electronic

As costs increase for copying and mailing, the APMS Board of Directors decided to make the newsletter electronic. All members will receive the newsletter via email 3 times annually (March, June and October). The registration form will have a box to check if you do not have an email address, or you want to continue receiving the newsletter in hard copy. Please check the registration form for the 2008 Annual Conference in Charleston, SC.

Planned Giving to the Aquatic Plant Management Society

Extend your support and commitment to the Society into the future by including the Aquatic Plant Management Society in your estate planning.

Bylaw Change From Jim Schmidt, Chairman of the APMS Bylaws and Resolution Committee

Committee members: Ken Manuel, Terry Goldsby, Toni Pennington, LeeAnn Glomski

RE: Bylaws and Resolutions Committee Report

The BOD passed a motion at the July 2007 Annual Board Meeting to give the Student Representative, appointed by the Student Affairs Committee and participating Student Members full voting rights as a Director. This requires a Bylaws change. A rough draft of these proposed changes was provided

at the Post annual meeting of the Board of Directors. Upon further review of the Bylaws, the following additions and changes are proposed. Additions and changes are underlined.

ARTICLE IV OFFICERS

Section A... The Board of Directors of the Society shall consist of not more than fourteen (14) members...

Section I. **Directors.** Directors shall assist in administering the affairs of the Society, and shall include one student member nominated by his/her peers in accordance with Article XIII, Item 15. The Student Director shall bring the interests of fellow student members to the Board of Directors.

ARTICLE V TERM OF OFFICE

Directors shall serve a three-year term with the exception of the Student Director who shall serve a one-year renewable term, if so appointed in accordance with Article XIII Item 15. Terms for all Officers and Directors shall begin at the close of the business meeting at which they were elected.

ARTICLE XI ELECTION OF OFFICERS

Section B...Two (2) new Directors shall also be elected each year for a term of three (3) years and one Student Director for a one (1) year renewable term or until their successors shall be duly elected and qualified Section C. With the exception of the Student Director, no member shall be eligible for office who has not been a voting member of the Society for the immediate past three (3) consecutive years.

ARTICLE XIII COMMITTEES AND REPRESENTATIVES

Section A. Standing Committee

8. **Nominating Committee...** This committee shall inform the Society membership of the slate of nominees for office at least 30 days prior to the annual business meeting, (an exception may be made for Student Director if selection of a nominee

by the Student Affairs Committee cannot meet that deadline).

15. Student Affairs Committee... The duties of this Committee shall be to investigate and promote membership of students into the Society and make recommendations to the Board of Directors as to means of enhancing and encouraging student participation in the Society. Prior to the Annual Business Meeting, this Committee shall provide the Nominating Committee the name of their selected current student member willing to serve on the Board as a Student Director for the up-coming year.

In summary, this essentially limits the Student Affairs Committee to making a nomination/recommendation for a candidate to the Nominating Committee and does provide the membership to formally vote on the Student Director nomination at the Annual Business meeting. Note that an exception is made for posting of this nomination, since flexibility is needed in terms of when the decision is made. I (*APMS Bylaws and Resolution Committee*) believe this is much cleaner, more appropriate and has more meaning than an informal appointment process to a voting position.

Upon the Board's approval (January 12, 2008) of the above (and/or receipt of additional Board approved revisions), finalized proposed changes will be posted in the APMS Newsletter (March 2008) 30 days prior to the annual meeting.

2008 Sustaining Members

Applied Aquatic Management, Inc.
Applied Biochemists
AquaMaster Fountains & Aerators
Aquarius Systems
Aquatic Control, Inc.
Aquatic Weed Technologies, Inc.
Becker Underwood
BioSonics, Inc.
Brewer International
Cygnet Enterprises, Inc.
Diversified Waterscapes, Inc.
Phoenix Environmental Care, LLC
ReMetrix, LLC
SePRO Corporation

Syngenta Professional Products, Inc.
UAP Distribution
United Phosphorus, Inc.

A Weed By Any Other Name...

John D. Madsen, Mississippi State University

Those of you who have been in the aquatic plant management industry for a number of years may be puzzled by the profusion of names and terms to refer to the targets of your industry. Natural resource managers use terms like exotic, nonnative, invasive, noxious plant, and (more rarely) weed. What do they all mean?

Weed. A weed is a plant that causes economic, ecological, or aesthetic harm. It interferes with the use of land or water as determined by the user. Obviously, any plant can be a weed, and one person's weed is another person's treasure. That being said, a general consensus emerges on plants that tend to be weeds more often than others.

Exotic. Exotic is a now archaic term to refer to any organism that is found outside their native range. Exotic is more commonly referred to species that are introduced to a new continent, as opposed to a range extension in the same continent; the more inclusive use is not uncommon. Since exotic sounds exciting and desirable to some folks, the term **nonnative** was brought forward by well-meaning wordsmiths. Both terms, exotic and nonnative, can refer to species that are beneficial, neutral, or troublesome. While some nonnative species cause problems, the vast majority does not and in fact may be economically beneficial. The term **alien** is also used in this context, but most folks tend to think of that as extraterrestrial rather than extracontinental.

Invasive. Beginning about 20 years ago, a new term was developed to specifically target nonnative species that cause economic harm. This was in part to allay the concerns of the horticultural industry over the growing activism regarding nonnative plants invading natural areas. The National Invasive Species Council defines an invasive species as a nonnative species "whose introduction

does or is likely to cause economic or environmental harm or harm to human health.” This one term then combines both the concept of nonnative and harm in one word. Therefore, and invasive plant is a nonnative weed, but a weed may not necessarily be invasive based on this definition.

Noxious. While noxious is a term that is used in common terms to define species that create problems, this term is used almost exclusively now to refer to species (mostly plants) that are regulated by law as a nuisance. Both the federal government and many state governments have codified into law various restricted, regulated, and managed weeds through “Noxious Weed Law.”

I hope this overview helps in understanding the profusion of terms regarding weeds. If you are still a little confused, don’t feel bad. The Weed Science Society of America committees have been debating a definition of “weed” for over a year now, and a resolution is nowhere in site.

2008 MidSouth Aquatic Plant Management Society Scholarship Opportunity

The MSAPMS is seeking applications for the 2008 scholarship to be awarded at the 27th annual meeting in Mobile, AL. One scholarship of \$2,000 will be awarded to a qualified student applicant.

To apply, The Scholarship Committee should receive the following information on or before June 14, 2008:

1. Official transcripts of undergraduate and any graduate work completed to date;
2. A letter from the student's major professor recommending the student for the scholarship, indicating that the student is currently enrolled and in good standing and has had their research proposal approved by their graduate advisory committee;
3. A copy of the research proposal; and
4. Two letters of recommendation (other than the major professor)

To enter an application or request more information, contact:

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CLIMATE CHANGE MAY BE FUELING A NEW GENERATION OF MORE AGGRESSIVE WEEDS

Weed Science Society of America

(LAWRENCE, Kansas) — Is global warming fueling a new generation of more aggressive weeds? According to recent research, the answer may be yes.

One of the major characteristics of a warming planet is an increase in the amount of carbon dioxide in the atmosphere. Rising carbon dioxide has been shown to help vegetable and grain crops grow more quickly, become more drought-resistant and produce potentially higher yields. Unfortunately, though, the impact of rising carbon dioxide seems to be far more pronounced in the weeds that compete with crops than in the crops themselves.

“Weeds are survivors,” said Lee Van Wychen, director of science policy for the Weed Science Society of America. “They can fill various niches and thrive under a wide range of conditions. While we have about 45 major crops in the U.S., there are more than 400 species of different weeds associated with those crops. There is always another weed species ready to become a major competitor with a crop if growing conditions change, such as an increase in carbon dioxide levels.”

The impact of rising carbon dioxide levels on weeds can be striking. In a study conducted by Dr. Lewis Ziska of the U.S. Department of Agriculture’s Agricultural Research Service,

weeds grown under urban conditions of warmer temperatures and more carbon dioxide – conditions anticipated for the rest of the world in 50 years – grew to *four times* the height of those in a country plot 40 miles outside the city, where carbon dioxide and temperature reflected background conditions.

So what if there are a few more weeds? Well, Ziska's research shows that common ragweed plants exposed to higher levels of carbon dioxide dramatically increased the amount of pollen they produced. A doubling in carbon dioxide led to a quadrupling of pollen. Some people are allergic to ragweed pollen, resulting in the "hay fever" response, including sneezing and watery eyes. Additional work by Ziska also suggests that even recent increases in carbon dioxide during the last 50 years may have led to bigger poison ivy plants with a more virulent form of the oil that causes people to break out in a rash.

"As the climate and carbon dioxide levels change, we can no longer assume the weed control strategies we used in the past will continue to work," Ziska said. "Not only are some of the nation's most invasive weeds spreading, but they are becoming more difficult and costly to control. Understanding the impact of increasing carbon dioxide on weed control is still in its infancy. While researchers explore new approaches, we will need to mix and match the strategies currently available."

About the Weed Science Society of America

The Weed Science Society of America, a nonprofit professional society, was founded in 1956 to encourage and promote the development of knowledge concerning weeds and their impact on the environment. The Weed Science Society of America promotes research, education and extension outreach activities related to weeds, provides science-based information to the public and policy makers, and fosters awareness of weeds and their impacts on managed and natural ecosystems. For more information, visit www.wssa.net.

Have You Checked the APMS Member Directory Lately?

We need your help to update the mailing and E-mail addresses and phone numbers in our on-line Membership Directory. To do this, go to the APMS website at www.apms.org and click on "Member Directory." This member's only feature can be accessed by typing:

Username = apms

Password = duckweed

Username and password are case sensitive (no caps). Please check your personal data and send any changes to the Webmaster, Dave Petty at dpetty@ndrsite.com.

APMS Promotional Information Available

The APMS has revised its two tabletop displays and posters, suitable for presentation at conferences and stakeholder meetings. Also available are tri-fold membership brochures and a newly completed eight-page color booklet with additional information about the APMS programs and initiatives. You may borrow the display for your next conference and obtain copies of the brochure and booklet by contacting the APMS Secretary or President whose contact information is on the APMS website at www.apms.org.

~ CALENDAR OF EVENTS ~

Date:	Event:	Contact/Go to:
June 13-14, 2008	New England Chapter of the North American Lake Management Society (NEC-NALMS), Lake Morey Resort, Fairlee, VT	Susan.Warren@state.vt.us www.vtwaterquality.org/lakes.htm .
June 23-27, 2008	5th International Weed Congress, Vancouver, Canada	http://iws.ucdavis.edu/5intlweedcong.htm
July 13-16, 2008	Aquatic Plant Management Society , Charleston, SC	www.apms.org
September 8-10, 2008	Texas Aquatic Plant Management Society annual Conference, The Mayan Dude Ranch, Bandera, TX	www.tapms.org
September 21-25, 2008	5 th World Congress on Allelopathy, Saratoga Springs, NY	www.iascongress5.org
October 13-16, 2008	Florida Aquatic Plant Management Society 32 nd Annual Training Conference, Daytona, Beach, FL	www.famps.org
October 14-17, 2008	Natural Areas Association and the National Association of Exotic Pest Plants Councils, Nashville, TN	www.naturalarea.org mail@naturalarea.org
October 21-23, 2008	Midsouth Aquatic Plant Management Society Annual Conference , Mobile, AL	www.msapms.org
January 12-14, 2009	Northeast Aquatic Plant Management Society Annual Conference, Saratoga Springs, NY	www.neapms.net
January 27-31, 2009	2 nd Golden Alga Symposium, Fort Worth, TX	
March 1-4, 2009	Midwest Aquatic Plant Management Society Annual Conference , Chicago, Ill	www.mapms.org
March 3-6, 2009	Western Aquatic Plant Management Society Annual Conference, Lake Tahoe, CA	www.wapms.org
March 24-29, 2009	6 th Intenational IPM (Integrated Pest Management) Symposium, Transcending Boundaries, Portland, OR	http://www.ipmcenters.org/ipmsymposium09/

ACKNOWLEDGEMENTS

Special thanks to LeeAnn Glomski and Julie Nachtrieb for review, assistance and guidance on this newsletter!

WSSA UNDERGRADUATE RESEARCH AWARD – 2009

The Weed Science Society of America (WSSA) has developed an Undergraduate Student Research Grant designed to encourage and involve exceptional undergraduates in agricultural research. Interested faculty members are encouraged to identify potential award candidates and discuss the possibility of sponsoring a research project. Awards may be used as a stipend, for research budget expenses (travel, supplies, etc.), to defer fees, to defray living expenses for summer research, or any combination of these items.

AWARD: Up to \$1000 for support of undergraduate research to be conducted over a minimum of one quarter/semester during 2009. This award may be used to defray the cost of research supplies or as a stipend. Support of a faculty sponsor is required. Awards will be made to the student, to be administered by the faculty sponsor's department.

APPLICANT: The applicant is an undergraduate student with a strong interest in Weed Science. Students majoring in all related disciplines may apply.

TO APPLY: Applicants should prepare a 2-3 page research proposal including name, address, phone number, E-mail address, title, objective, experimental approach, discussion, budget and references. The discussion section of the proposal should describe the expected results and their possible significance to Weed Science. The student should provide a cover letter in which general academic and career goals are discussed. A copy of the student's academic transcripts must also be provided.

FACULTY SPONSOR: Any faculty member who is actively engaged in Weed Science research is qualified to be a sponsor. The faculty sponsor should review the research proposal with special attention to the budget; the distribution of funds should be approved by both the student and sponsor. In addition, the sponsor should provide a letter of reference including a statement of his/her willingness to supervise the proposed research and to provide needed space, equipment and supplies above those requested in the proposal. The sponsor is encouraged to assist the student in presenting his/her results at a regional Weed Science Meeting.

HOW TO APPLY: The completed proposal, academic transcripts, cover letter and faculty letter of support should be forwarded to: Dr. John Jachetta, Dow AgroSciences, 9330 Zionsville Road, Indianapolis, IN 46268-1054; Phone: (317) 337-4686, Fax (317) 337-4649, E-mail: jjjachetta@dow.com. Proposals should be received no later than November 14, 2008. Funding decisions will be made by January 26, 2009 and presented at the 2009 WSSA National Meeting General Session.

2008 APMS Officers, Directors, Committee Chairs and Special Representatives

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Strategic Planning	John Rodgers, Jr.	(864) 656-0492	jrodger@clemson.edu
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Web Site	Michael Grodowitz	(601) 634-2972	michael.j.grodowitz@usace.army.mil

Special Representatives

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APMS Web Master	David Petty	(317) 838-7383	dpetty@ndrsite.com
Director of Science Policy	Lee Van Wychen	(202) 408-5388	lee.vanwychen@weedscienceorgs.com

Visit the APMS WEB SITE
www.apms.org

For members only features: username = apms
password = duckweed

Pre-Final Program

Sunday, July 13

Sunday's Agenda-at-a-Glance

- 7:30 am - 5:00 pm APMS Board of Directors Meeting (*Indigo and Cotton Exchange Rooms*)
12:00 pm - 5:00 pm Exhibits Setup (*Hibernian Hall, First Floor*)
12:00 pm - 5:00 pm Posters Setup (*Hibernian Hall, First Floor*)
1:00 pm - 5:00 pm Registration (*Lobby*)
1:00 pm - 5:00 pm Speaker Ready Room (*Robert E. Lee Room*)
3:00 pm - 5:00 pm SCAPMS Board of Directors Meeting (*Lynch Room*)
7:00 pm - 9:00 pm President's Reception (*Pool Deck*)
Sponsored by SePRO Corporation

Monday, July 14

Monday's Agenda-at-a-Glance

- 7:30 am - 8:00 am Continental Breakfast (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 7:30 am - 5:00 pm Registration (*Lobby*)
- 7:30 am - 5:00 pm Speaker Ready Room (*Robert E. Lee Room*)
- 7:30 am - 5:00 pm Exhibits Open (*Hibernian Hall, First Floor*)
- 7:30 am - 5:00 pm Posters Open (*Hibernian Hall, First Floor*)
- 8:00 am - 12:00 pm Session I: Presidential Address and Special Session on Economic Impacts of Invasive and Nuisance Aquatic Plant Species and Models for Funding (*Hibernian Hall, Second Floor*)
- 8:00 am - 1:00 pm Guest Tour (*Planters Suite*)
Sponsored by Applied Biochemists
- 9:30 am - 10:00 am Refreshment Break (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 12:00 pm - 1:30 pm Lunch on Own
- 12:00 pm - 1:30 pm Aquatic Ecosystem Restoration Foundation Meeting (*Heyward and Lynch Rooms*)
- 12:00 pm - 1:30 pm Student Affairs Luncheon (*Rutledge Room*)
Sponsored by Phoenix Environmental Care, LLC
- 1:30 pm - 4:15 pm Session II (*Hibernian Hall, Second Floor*)
- 3:00 pm - 3:30 pm Refreshment Break (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 4:15 pm - 5:00 pm APMS Annual Business Meeting (*Hibernian Hall, Second Floor*)
- 5:30 pm - 7:00 pm Poster Session and Reception (*Hibernian Hall, First Floor*)
Sponsored by BASF Professional Vegetation Management

Session I: Presidential Address and Special Session on Economic Impacts of Invasive and Nuisance Aquatic Plant Species and Models for Funding

8:00 am - 12:00 pm

Hibernian Hall, Second Floor

Moderator: Jim Petta, APMS President, Syngenta Professional Products, Corpus Christi, Texas

8:00 am **Opening Remarks and Announcements**

8:05 am **Presidential Address**
Jim Petta

Syngenta Professional Products, Corpus Christi, Texas

8:25 am **Keynote Speaker: Economics of Invasive and Nuisance Aquatic Species**
TBA

8:50 am **South Carolina**
Steve DeKoslowski
South Carolina Department of Natural Resources, Columbia, South Carolina

9:10 am **Louisiana**
Rachael Walley
Louisiana Department of Wildlife and Fisheries, Baton Rouge, Louisiana

9:30 am **Refreshment Break** (*Hibernian Hall, First Floor*)

10:00 am **Indiana**
David Isaacs
Aquatic Control, Inc., Seymour, Indiana

10:20 am **Florida**
Jeff Schardt
Florida Department of Environmental Protection, Tallahassee, Florida

10:40 am **California**
Robert Leavitt
Sacramento, California

11:00 am **Idaho**
Eric Anderson, State Representative
Priest Lake, Idaho

11:20 am **The Federal Perspective**
Jim Skillen
Responsible Industry for a Sound Environment (RISE), Washington, DC

11:40 am **Panel Discussion: All Session Presenters**
Please submit questions to the moderator prior to discussion.

12:00 pm **Lunch on Own**

Session II

1:30 pm - 4:30 pm
Hibernian Hall, Second Floor

Moderator: TBA

1:30 pm **A Foundation You Can Use**
Carlton Layne
Aquatic Ecosystem Restoration Foundation, Marietta, Georgia

1:45 pm **TBA**
Jim Skillen
Responsible Industry for a Sound Environment, Washington, DC

2:00 pm **Aquatic Weed Risk Assessment as a Tool to Manage Potential Weeds in the Aquarium/Pond Plant Trade**
P. D. Champion
National Institute of Water & Atmospheric Research (NIWA), Hamilton, New Zealand

2:15 pm **Developing Use Patterns for Emergent and Submersed Vegetation with the Newly Registered Aquatic**

Herbicide Clearcast®
Dan Beran
BASF Corporation, Des Moines, Iowa

- 2:30 pm **Impact of Aquatic Vegetation Management on the Ecology of Small Empoundments**
Trevor Knight
Texas A&M University, College Station, Texas
- 2:45 pm **Lake-Wide Temporal Surveys to Assess Aquatic Vegetation and Herbicide Efficacy of Waterhyacinth Control (Student Paper)**
Wilfredo Robles
GeoResources Institute, Mississippi State University, Mississippi State, Mississippi
- 3:00 pm **Refreshment Break (Hibernian Hall, First Floor)**
- 3:30 pm **Cooperative Aquatic Invasive Species Control Programs in the Winyah Bay Focus Area, SC**
Jack M. Whetstone
Clemson University, Clemson, South Carolina
- 3:45 pm **Evaluation of Diets in Bluegill (*Lepomis macrochirus*) After a Shift in a Plant Community Due to the Eradication of Eurasian Watermilfoil (Student Paper)**
Krisan M. Webb
Mississippi State University, Mississippi State, Mississippi
- 4:00 pm **Assessing the Potential of Creating Management-Quality Invasive Plant Maps of Lake Gaston with Data Generated by Volunteer Scouts (Student Paper)**
Bridget R. Lassiter
Department of Crop Science, North Carolina State University, Raleigh, North Carolina
- 4:15 pm **Adjourn**

Poster Session

5:30 pm - 7:00 pm

Hibernian Hall, First Floor

Comparison of Subsurface and Foliar Herbicide Applications for Control of Parrotfeather (*Myriophyllum aquaticum* Vell. Verdc.)

Ryan M. Wersal and John D. Madsen
GeoResources Institute, Mississippi State University, Mississippi State, Mississippi

Restoring Native Aquatic Macrophytes in Little Bear Creek Reservoir

Jonathan P. Fleming, Joshua C. Cheshier, and John D. Madsen
GeoResources Institute, Mississippi State University, Mississippi State, Mississippi

Responses of Several Aquatic Weeds to ALS Inhibiting Herbicides

Rory L. Roten, Sarah L. True, Amanda M. West, and Robert J. Richardson
North Carolina State University, Raleigh, North Carolina

Flumioxazin and Carfentrazone Efficacy on Selected Weeds

Amanda M. West, Rory L. Roten, Sarah L. True, and Robert J. Richardson
North Carolina State University, Raleigh, North Carolina

Turfgrass Response to Herbicide Treated Irrigation Water

Andrew P. Gardner, Rory L. Roten, and Robert J. Richardson
North Carolina State University, Raleigh, North Carolina

Tobacco Response to Herbicide Treated Irrigation Water

Virginia A. Johnson, Andrew P. Gardner, Rory L. Roten, and Robert J. Richardson
North Carolina State University, Raleigh, North Carolina

A New Web Database for Aquatic Weed Information

Steve T. Hoyle, Michael G. Burton, Jenifer J. Reynolds, Emily J. Erickson, and Robert J. Richardson
North Carolina State University, Raleigh, North Carolina

Summary of Three Years of Watermeal Control Trials

Sarah L. True, Andrew P. Gardner, Justin J. Nawrocki, and Robert J. Richardson
North Carolina State University, Raleigh, North Carolina

Hydrilla Sensitivity to Imazamox and Imazapyr: Growth and ALS Activity

Mercedes Royuela^{1,3}, Atul Puri², William T. Haller², and Gregory E. MacDonald¹

¹*University of Florida, Agronomy Department, Gainesville, Florida*

²*University of Florida, Center for Aquatic and Invasive Plants, Gainesville, Florida*

³*Universidad Pública de Navarra, Pamplona, Spain*

Integration of Chemical and Biological Control of Waterhyacinth using Neochetina spp. Weevils and Fungal Plant Pathogens

Patrick Moran

USDA-ARS, Beneficial Insects Research Unit, Weslaco, Texas

Monitoring Aquatic Vegetation Using High-Resolution, Hyperspectral Aerial Imagery in Lakes Marion and Moultrie, SC

Richard Dirks¹ and Michael Frank²

¹*ReMetrix LLC, Carmel, Indiana*

²*Galileo Group, Inc., Melbourne, Florida*

The Application of Grass Carp (*Ctenopharyngodon idella*) as Biological Control Agent for the Over-Abundant Growth of Aquatic Weeds in Irrigation Canal Systems of Sugar Company, Richard Toll in North Senegal

A.A. Badiane¹, D. Jeandrain², C. Mélard³, F. X. Cogels³, C. Rougeot³, C. Prignon³, and I. Sow⁴

¹*Aquaculture Promotion Agency (APA)*

²*APEFE*

³*University of Liège, Aquaculture Research and Education Center (CEFRA)*

⁴*Compagnie Sucrière Sénégalaise*

Comparing Survey Techniques to Assess a Submersed Aquatic Plant Community Following a Systemic Herbicide Treatment

Theel, H. J.^{1,2}, K. D. Getsinger¹, C. Owens³, L. Esmán⁴, and E. Dibble²

¹*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, Mississippi*

²*Mississippi State University, Department of Wildlife and Fisheries, Mississippi State, Mississippi*

³*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Lewisville Aquatic Ecosystem Research Facility, Lewisville, Texas*

⁴*Purdue University, West Lafayette, Indiana*

Tuesday, July 15

Tuesday's Agenda-at-a-Glance

- 6:30 am - 8:00 am Regional Chapters Presidents' Breakfast (Indigo and Cotton Exchange Rooms)
Sponsored by Helena Chemical Company
- 7:30 am - 8:00 am Continental Breakfast (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 7:30 am - 5:00 pm Registration (*Lobby*)
- 7:30 am - 5:00 pm Speaker Ready Room (*Robert E. Lee Room*)
- 7:30 am - 5:00 pm Exhibits Open (*Hibernian Hall, First Floor*)
- 7:30 am - 5:00 pm Posters Open (*Hibernian Hall, First Floor*)
- 8:00 am - 9:30 am Session III (*Hibernian Hall, Second Floor*)
- 9:30 am - 10:00 am Refreshment Break (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products

- 10:00 am - 12:00 pm Session IV: Special Session on Impacts of Water Exchange on Herbicide Effectiveness
(*Hibernian Hall, Second Floor*)
- 12:00 pm - 1:30 pm Lunch on Own
- 12:00 pm - 1:30 pm Past Presidents' Luncheon (*Indigo and Cotton Exchange Rooms*)
Sponsored by Valent Professional Products
- 12:00 pm - 1:30 pm SCAPMS Board/Committee Chairs Recognition Luncheon (*Tea Cozy Room*)
Sponsored by SePRO Corporation
- 1:30 pm - 4:30 pm Session V (*Hibernian Hall, Second Floor*)
- 3:00 pm - 3:30 pm Refreshment Break (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 4:30 pm - 5:00 pm SCAPMS Annual Business Meeting (*Lynch Room*)
- 5:30 pm - 6:30 pm 2nd Annual APMS/SCAPMS Scholarship Fund Duck Racing Competition and Reception
(*Pool Deck*)
Sponsored by BASF Professional Vegetation Management and SCAPMS
- 6:30 pm - 10:00 pm Awards Banquet (*Hibernian Hall, Second Floor*)
Sponsored by United Phosphorus, Inc.

Session III

8:00 am - 9:30 am
Hibernian Hall, Second Floor

Moderator: TBA

- 8:00 am **Eurasian Watermilfoil Monitoring and Eradication Assessment in the Pend Oreille Lake and River System, Idaho**
John D. Madsen
GeoResources Institute, Mississippi State University, Mississippi State, Mississippi
- 8:15 am **Comparative Response of Eurasian, Hybrid, and Northern Watermilfoil to Aquatic Herbicides and Environmental Conditions**
Michael D. Netherland
U.S. Army Engineer Research and Development Center, Environmental Laboratory, Gainesville, Florida
- 8:30 am **Response of Hybrid Milfoil to Low Use Rates and Extended Exposures to 2,4-D and Triclopyr**
LeeAnn Glomski
U.S. Army Engineer Research and Development Center, Environmental Laboratory, Lewisville Aquatic Ecosystem Research Facility, Lewisville, Texas
- 8:45 am **Influences of Water Column Nutrient Loading on the Growth of Parrotfeather (*Student Paper*)**
Ryan Wersal
GeoResources Institute, Mississippi State University, Mississippi State, Mississippi
- 9:00 am **The Impact of Various Growth Solutions on the Photosynthesis of Hydrilla verticillata: Implications on the Importance of Nutrients and Carbon Availability for Aquatic Plants Grown Without Sediments**
Brett Bultemeier
University of Florida, Gainesville, Florida
- 9:15 am **Monoecious Hydrilla Tuber Bank Response to Management (*Student Paper*)**
Justin J. Nawrocki
North Carolina State University, Raleigh, North Carolina
- 9:30 am **Refreshment Break (*Hibernian Hall, First Floor*)**

Session IV: Special Session on Impacts of Water Exchange on Herbicide Effectiveness

10:00 am - 12:00 pm
Hibernian Hall, Second Floor

Moderator: TBA

- 10:00 am **Use of Herbicides in High Water Exchange Environments: Overview**

Kurt Getsinger

U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, Mississippi

10:20 am **Managing Aquatic Weeds in Tidal Systems: Going with the Flow Pays Off!**
Lars Anderson
U.S. Department of Agriculture, Agricultural Research Service, Davis, California

10:40 am **Partial Lake Treatments in New Zealand Lakes**
John Clayton and Fleur Matheson
National Institute of Water and Atmospheric Research, Hamilton, New Zealand

11:00 am **Aquatic Herbicides in Flowing Water**
Donald R. Stubbs
U.S. Environmental Protection Agency, Office of Pesticide Programs, Washington, DC

11:20 am **Do's and Don't's, This and That, and the Challenge of the Future**
William T. Haller
University of Florida, Center for Aquatic and Invasive Weeds, Gainesville, Florida

11:40 am **Panel Discussion: All Session Presenters**
Please submit questions to the moderator or designee prior to discussion.

12:00 pm **Lunch on Own**

Session V

1:30 pm - 4:30 pm

Hibernian Hall, Second Floor

Moderator: TBA

1:30 pm **Influence of pH on Flumioxazin Selectivity of Submersed Aquatic Plants**
Christopher R. Mudge
U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, Mississippi

1:45 pm **ALS Enzyme Assay as a Tool for Herbicide Resistant Management in Hydrilla**
Atul Puri
University of Florida, Center for Aquatic and Invasive Plants, Gainesville, Florida

2:00 pm **Controlling Sago Pondweed with Endothall**
Cody J. Gray
United Phosphorous Inc., Peyton, Colorado

2:15 pm **Evaluation of Sago Pondweed (*Stuckenia pectinatus*) Control In Dewatered Irrigation Canals Using Imazamox, Imazapyr, Flumioxazin, Fluridone, and Penoxsulam (Student Paper)**
Joseph D. Vassios, Scott J. Nissen, and Galen R. Brunk
Colorado State University, Fort Collins, Colorado

2:30 pm **Efficacy of Dry Ground Applications of Penoxsulam and Fluridone on Sago Pondweed**
Tyler Koschnick
SePRO Corporation, Carmel, Indiana

2:45 pm **Responses of Seven Algal Species to Exposures of Algimycin[®]-PWF (Student Paper)**
West M. Bishop, Brenda M. Johnson, and John H. Rodgers, Jr.
Clemson University, Department of Forestry and Natural Resources, Clemson, South Carolina

3:00 pm **Refreshment Break (Hibernian Hall, First Floor)**

3:30 pm **A Risk and Management Assessment for *Lyngbya wollei* in Kings Bay/Crystal River, Florida (Student Paper)**
Brenda M. Johnson

Clemson University, Department of Forestry and Natural Resources, Clemson, South Carolina

- 3:45 pm **Progress with Targeted Algal Management**
John H. Rodgers, Jr., Brenda M. Johnson, and West M. Bishop
Clemson University, Department of Forestry and Natural Resources, Clemson, South Carolina
- 4:00 pm **Development and Impact of Biological Control of Giant Reed, *Arundo donax*, in the Rio Grande Basin of the U.S. and Mexico**
Patrick Moran
USDA-ARS, Beneficial Insects Research Unit, Weslaco, Texas
- 4:15 pm **The Explosion of the Exotic Island Apple Snails in Florida – Impact and Control**
William T. Haller
University of Florida, Gainesville, Florida
- 4:30 pm **Adjourn**

Wednesday, July 16

Wednesday's Agenda-at-a-Glance

- 7:30 am - 8:00 am Continental Breakfast (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 7:30 am - 12:00 pm Registration (*Lobby*)
- 7:30 am - 12:00 pm Speaker Ready Room (*Robert E. Lee Room*)
- 7:30 am - 12:00 pm Exhibits Open (*Hibernian Hall, First Floor*)
- 7:30 am - 12:00 pm Posters Open (*Hibernian Hall, First Floor*)
- 8:00 am - 12:00 pm Session VI (*Hibernian Hall, Second Floor*)
- 9:30 am - 10:00 am Refreshment Break (*Hibernian Hall, First Floor*)
Sponsored by Syngenta Professional Products
- 12:00 pm - 5:00 pm APMS Board of Directors Meeting (*Lynch Room*)
- 12:00 pm - 5:00 pm Exhibits Teardown (*Hibernian Hall, First Floor*)
- 12:00 pm - 5:00 pm Posters Teardown (*Hibernian Hall, First Floor*)

Session VI

8:00 am - 12:00 pm
Hibernian Hall, Second Floor

Moderator: TBA

- 8:30 am **Alligator weed – Trials for Control**
Deborah Hofstra and Paul Champion
National Institute of Water and Atmospheric Research (NIWA), Hamilton, New Zealand.
- 8:45 am **Herbicide Resistance in Aquatics**
Greg MacDonald
University of Florida, Gainesville, Florida
- 9:00 am **Assessing Progress in Brazilian Waterweed Management in the Sacramento-San Joaquin Delta, ca: Efficacy Results from 2007 Broad-scale Herbicide Treatment in Frank's Tract**
Scott A. Ruch
ReMetrix LLC, Berkeley, California
- 9:15 am **Use of Diquat and Suction Dredging in the Management of *Lagarosiphon major* in New Zealand Lakes**
John Clayton and Fleur Matheson
National Institute of Water and Atmospheric Research, Hamilton, New Zealand
- 9:00 am **Ultrasonic and Biofilm Control**
Kevin Hutchinson

McClellanville, South Carolina

- 9:15 am **Macrophytes and Algae in the Cacota Lagoon**
Gina Suescun Otero
Columbia, South America
- 9:30 am **Refreshment Break** (*Hibernian Hall, First Floor*)
- 10:00 am **TBA**
- 10:15 am **TBA**
- 10:30 am **TBA**
- 10:45 am **TBA**
- 11:00 am **TBA**
- 11:15 am **APMS Chapter Updates**
Brazil, Florida, MidSouth, Midwest, Nile Basin, Northeast, South Carolina, Texas, Western
- 12:00 pm **Closing Remarks and Adjourn 48th Annual Meeting**
Jim Petta, Syngenta Professional Products, Corpus Christi, Texas

NEXT YEAR
49th Annual Meeting
July 12-15, 2009
Hyatt Regency
Milwaukee, Wisconsin