

# 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 92 October 2009

**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, Greg MacDonald

From our humble beginnings in 1961, the Aquatic Plant Management Society has grown to over 300 members from across the country and the globe. Our membership is unique among scientific societies, as we embrace the entire scope of aquatic plant management. From the airboat to the lab, our membership understands the need for scientific research, but also realizes the importance of translating science based information to solve real-world problems.

This year is expected to be quite busy for the Aquatic Plant Management Society as we have several changes and challenges to address and accomplish. The NPDES permitting issue still looms overhead. We as a society are working closely with our colleagues in sister societies to develop sound recommendations to help resolve this dilemma. Our affiliated members such as WSSA, BASS, RISE, NALMS, CAST and ISAC are also weighing in with their comments as this process moves forward.

APMS is also going through a period of decisions. Our editor for the journal, Mike Netherland, has informed the board of his departure from that role in July 2010, so the board of directors has initiated criteria and will begin a search for a new editor. We are also developing a request for proposal (RFP) for a meeting manager and hope to get a person hired by the mid-winter BOD meeting.

In other news, the society had a record number of students attending the annual meeting this year in Milwaukee, Wisconsin. Over 25 students presented an oral paper or a poster from several schools across the country – from California and Colorado, to Michigan and Indiana, Wisconsin and Minnesota, to North and South Carolina, Texas, Mississippi, Georgia, Alabama, and Florida. The meeting was a great time for all and a great deal of thanks goes to our local arrangements and meeting planning committees. Without good people doing great things, our society wouldn't be what it is today.

Speaking of meetings, this coming year marks the 50<sup>th</sup> Annual Meeting of the Aquatic Plant Management Society. This meeting will be held in Bonita Springs, FL – very close to the original meeting site where the society was formed. The board and our program chair Linda Nelson are planning an historic meeting to commemorate the past 50 years. So please make plans to attend!

# **Record Setting Year: APMS Student Participation Exceeds Expectations**

**By: Tyler Koschnick**

During the 2009 annual conference in Milwaukee, WI, there was another outstanding student paper and poster session. There were a total of 26 students participating from 12 Universities; this was the highest level of student participation ever at the annual meeting. All the students gave exceptional presentations and made a significant contribution to the program. APMS would like to thank those students for participating and congratulate the winners of the paper and poster contests:

## **PAPER CONTEST (Top three outstanding papers)**

- Josh Cheshier, Mississippi State University:  
*The use of aquatic herbicides to control common reed: Phragmites australis;*
- Brenda Johnson, Clemson University:  
*Response of cyanobacteria to algaecides: efficacy and microcystin measurements;*
- James Johnson, University of Minnesota:  
*Evaluation of lake-wide herbicide treatments for controlling curlyleaf pondweed (Potamogeton crispus) in Minnesota Lakes.*

## **POSTER CONTEST**

- 1<sup>st</sup> - Ajay Jones, University of Minnesota:  
*Native macrophyte community response to herbicidal treatments of Potamogeton crispus;*
- 2<sup>nd</sup> - Rory Roten, North Carolina State University: *Watermeal control with flumioxazin and other herbicides;*
- 3<sup>rd</sup> (tie) - Joe Vassios, Colorado State University: *Quinclorac dissipation and control of Eurasian watermilfoil (Myriophyllum spicatum);*
- 3<sup>rd</sup> (tie) - Nathan Harms, University of North Texas: *Insect herbivores of Heteranthera dubia in the United States.*

Congratulations to all the students. APMS would like to thank all those who sponsored or assisted with portions of the various student

events (AERF, SePRO Corporation, USCE, and WI DNR). We look forward to learning about the progress of their studies and getting more students involved at the 2010 conference and in the Society.

## **Student Tour 2009 Summary: Heather Theel**

Immediately following the annual meeting, students participated in an AERF sponsored tour to observe and learn about regional aquatic plant management issues in Wisconsin. The first stop was Kelly Lakes, an urban lake restoration project in the Milwaukee metro area. Students were briefed on the aquatic plant management history on Lake Pewaukee and experienced mechanical harvesting firsthand. Students also toured the Madison chain of lakes by pontoon while observing Dane County aquatic plant management activities, and the Turville Bay research plots, a joint project between WI Department of Natural Resources and U.S. Army Engineer Research and Development Center. The tour was complete after stopping at the UW Memorial Union Terrace overlooking beautiful Lake Mendota, and eating at the Great Dane, where many experienced fried cheese curds for the first time. Overnight accommodations were provided at the Aldo Leopold Nature Center, Black Earth Campus,



where the group had an entire 3-story rustic lodge at the 38-acre wooded site all to themselves. Special thanks to Tim Asplund, Heidi Bunk, Charlie Shong, Jim Leverance, Sue

Jones, and John Skogerboe for their assistance and involvement with the tour.

## **New APMS Student Representative: Brett Bultemeier**

Brett was first introduced into the world of aquatic plant management while working summers during undergraduate school for Weed Patrol Inc. While working at Weed Patrol he became a certified applicator, member of the MAPMS regional chapter and killed many weeds. After completing a B.S. in 2005 at Manchester College, in Northern Indiana, Brett joyfully relocated to warmer more southern climates to pursue a Master's degree at the University of Florida. Under direction of Dr. Michael Netherland he worked on the management and population differences observed in the increasingly invasive submersed plant Cabomba. In 2008 he received a M.S. in agronomy and continued on at the University of Florida in pursuit of a PhD. Brett is currently working under Dr. William Haller researching aquatic herbicide physiology and field characteristics.

## **Thanks to Our 2009 Commercial Sustaining Members for Their Valuable Support to the APMS**

---

**Applied Aquatic Management, Inc.**  
**Applied Biochemists, Inc.**  
**Aqua Control Water Features**  
**Aquatic Control, Inc.**  
**Aquarius Systems**  
**Aquatic Eco-Systems, Inc.**  
**Aquatic Weed Technologies, Inc.**  
**BASF, Corp.**  
**Becker Underwood, Inc.**  
**BioSonics, Inc.**  
**Brewer International**  
**Cygnets Enterprises**  
**Diversified Waterscapes, Inc.**  
**Phoenix Environmental Care**  
**ReMetrix, LLC**  
**SePRO Corporation**  
**Syngenta Professional Products**  
**United Phosphorus, Inc.**

## **50<sup>th</sup> Annual Aquatic Plant Management Society, 2010 Meeting, Bonita Springs, FL**

The 50th Annual Meeting of the Aquatic Plant Management Society will be held July 11-14, 2010 at the Hyatt Regency Coconut Point; Bonita Springs, FL.

The Planning Committee (which always needs volunteers) is planning exciting and entertaining events for relaxing, visiting, and chatting with friends and colleagues. The Program Committee (also seeking volunteers) pledges a diverse and educational program of oral and poster presentations on aquatic plant research and management.

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

## **Hydrilla Found in Kansas**

Hydrilla (biotype unknown) was recently (2008) found in Black Bob Park Pond, Olathe, KS according to Jason Goeckler, the ANS coordinator for the Kansas Department of Wildlife and Parks. The method of introduction is not known; however, evidence of aquarium dumping has been observed. This small 1 acre lake also drains the local park, and while fishing is allowed, boating is not permitted. According to Jason, about 25 % of the lake is infested with hydrilla, but was recently treated with fluridone. A hydrilla management plan has been established and the Kansas Department of Agriculture, Department of Wildlife and Parks, and City of Olathe are cooperating to eradicate the population. The Black Bob Pond infestation is the first wild infestation confirmed in Kansas.

**Northeast APMS: Call for papers**  
*Gideon Putnam Resort*  
*Saratoga Springs, NY*  
*January 18-20, 2010*

**Would you like to Exhibit at and/or  
be a Sponsor for the 11th Annual  
Northeast APMS Meeting?**

**Sponsorship:** Sponsors contribute financially to the Society to help support programs and events. Time is allocated during the conference for sponsors to provide industry updates or related informational presentations, and sponsors are acknowledged through signage and inclusion of their company name or logo on our final program. Distinguished Sponsorship Opportunities:

Awards Banquet - \$5,000

President's Reception - \$3,000

Luncheon - \$2,000

Additional Sponsorship Levels:

Platinum - \$1,000

Gold - \$750

Silver - \$500

Bronze - \$250

**Exhibits:** Exhibitor space will be available during the conference. The cost for exhibit space is \$300 per booth (*note that if you register as a sustaining member the cost of the exhibit space is included in the \$500 membership fee. Please notify us if you do not wish to exhibit as part of your sustaining membership*).

A 6-foot table is included with the booth space, and electrical hook-up can be provided with prior notice. Space is allocated on a first-come, first-served basis. Exhibits that focus on plant management products and education are encouraged.

**Anyone interested in exhibiting or sponsoring  
may contact:**

Glenn Sullivan

Allied Biological

580 Rockport Road, Hackettstown, NJ 07840

908-850-0303 or [glenn@alliedbiological.com](mailto:glenn@alliedbiological.com)

*Visit our website at*

*[www.neapms.net](http://www.neapms.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](http://www.apms.org) and click on "Member Directory." This member only feature can be accessed by typing:

Username = apms

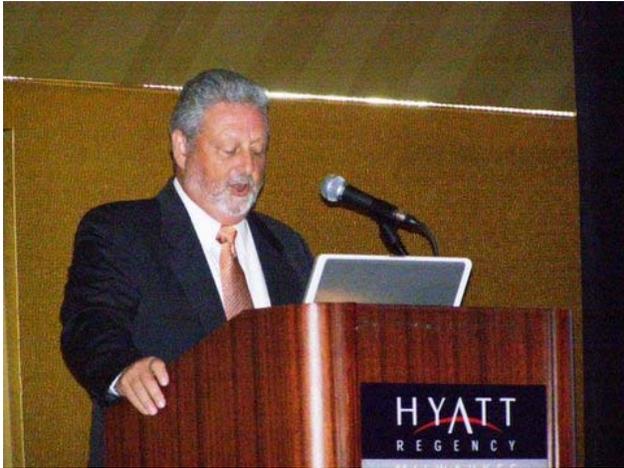
Password = duckweed

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](mailto: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](http://www.apms.org).

# 49<sup>th</sup> Annual Meeting in Milwaukee, WI



Carlton Layne



Greg Macdonald



Tyler and students!



Fun times!



Registration



Exhibits!



Parade



Parade



Parade



Session Room

## ~ CALENDAR OF EVENTS ~

<b>Date:</b>	<b>Event:</b>	<b>Contact/Go to:</b>
October 20-22, 2009	Introduction to Taxonomy and Pollution Ecology of Aquatic Insects, Workshop; Asheville, NC	<a href="http://www.bae.ncsu.edu/programs/extension/wqg/srp/pt_workshop.html">http://www.bae.ncsu.edu/programs/extension/wqg/srp/pt_workshop.html</a>
October 27-30, 2009	6 <sup>th</sup> International Symposium, Limnology and Aquatic Birds; Huesca, Spain	<a href="http://www.ipe.csic.es/congreso/principal.html">http://www.ipe.csic.es/congreso/principal.html</a>
October 27-31, 2009	29 <sup>th</sup> Annual International Symposium, North American Lake Management Society (NALMS); Hartford, CT	<a href="http://www.nalms.org/nalmsnew/">http://www.nalms.org/nalmsnew/</a>
November 1-5, 2009	20 <sup>th</sup> Biennial Conference, Coastal & Estuarine Research Federation (CERF); Portland, OR	<a href="http://www.sgmeet.com/cerf2009/">http://www.sgmeet.com/cerf2009/</a>
November 1-5, 2009	International Annual Meetings of the American Society of Agronomy (ASA), Crop Science Society of America (CSSA) and Soil Science Society of America (SSSA); Pittsburgh, PA	<a href="https://www.acsmeetings.org/">https://www.acsmeetings.org/</a>
November 1-8, 2009	Wetlands 2009 International Symposium; Cienaga de Zapata (Zapata Wetlands), Cuba	<a href="http://www.globalexchange.org/tours/1008.html">http://www.globalexchange.org/tours/1008.html</a>
November 2-4, 2009	Texas Aquatic Plant Management Society (TAPMS) Annual Meeting; Bandera, TX	<a href="http://www.tapms.org/">http://www.tapms.org/</a>
November 9-12, 2009	2009 Annual Conference, American Water Resources Association (AWRA); Seattle, WA	<a href="http://www.awra.org/meetings/Seattle2009/">http://www.awra.org/meetings/Seattle2009/</a>
November 19-23, 2009	30 <sup>th</sup> Annual Meeting, Society of Environmental Toxicology and Chemistry (SETAC), New Orleans, LA	<a href="http://neworleans.setac.org/">http://neworleans.setac.org/</a>
December 15-18, 2009	11 <sup>th</sup> International Paleolimnology Symposium; Guadalajara, Jalisco, Mexico	<a href="http://www.geofisica.unam.mx/paleolimnologia/">http://www.geofisica.unam.mx/paleolimnologia/</a>
January 18-20, 2010	11 <sup>th</sup> Annual Northeast Aquatic Plant Management Society (NEAPMS) Conference; Saratoga Springs, NY	<a href="http://www.neapms.net/">http://www.neapms.net/</a>
January 29-31, 2010	The Role of Littoral Processes in Lake Ecology, International Symposium; Hegne (near Konstanz), Germany	<a href="http://www.uni-konstanz.de/sfb454/symp/littoral_processes.html">http://www.uni-konstanz.de/sfb454/symp/littoral_processes.html</a>
February 7-11, 2010	2010 Annual Meeting, Weed Science Society of America, (WSSA); Denver, CO	<a href="http://www.wssa.net/Meetings/WSSAAnnual/Info.htm">http://www.wssa.net/Meetings/WSSAAnnual/Info.htm</a>
February 28-March 2, 2010	2010 Conference, Midwest Aquatic Plant Management Society, (MAPMS); Indianapolis, IN	<a href="http://www.mapms.org/">http://www.mapms.org/</a>
March 28-31, 2010	Western Aquatic Plant Management Society 2010 Conference; Seattle, WA	<a href="http://www.wapms.org/wapms_conference.htm">http://www.wapms.org/wapms_conference.htm</a>

# 2009 APMS Officers, Directors, Committee Chairs and Special Representatives

<u>Office</u>	<u>Name</u>	<u>Telephone</u>	<u>E-mail</u>
President	Greg MacDonald	(352) 392-1811	pineacre@ufl.edu
Immediate Past President	Carlton Layne	(678) 773-1364	layn1111@bellsouth.net
President Elect	Linda Nelson	(601) 634-2656	Linda.S.Nelson@usace.army.mil
Vice President	Tyler Koschnick	(440) 665-2748	tylerk@sepro.com
Treasurer	Sherry Whitaker	(601) 634-2990	Sherry.L.Whitaker@usace.army.mil
Editor	Michael D. Netherland	(352) 392-0335	mdnether@ifas.ufl.edu
Secretary	Jeff Schardt	(850) 245-2815	Jeff.Schardt@MyFWC.com
Director	Rob Richardson	(919) 515 5653	rob_richardson@ncsu.edu
Director	Chetta Owens	(972) 436-2215	chetta@laerf.org
Director	Alan "Bo" Burns	(919) 844-5375	burnsaj@basf.com
Director	Susan Wilde	(706) 542-3346	swilde@warnell.uga.edu
Director	Brad Howell	(262) 255-4999	bradhowell@appliedbiochemists.com
Director	John Gardner	(954)977-7736	jwg@aquaticsystems.com
Student Representative	Brett Bultemeier	(352) 392-5126	brett_bultemeier@yahoo.com

<u>Committee</u>	<u>Chair</u>	<u>Telephone</u>	<u>E-mail</u>
Bylaws and Resolutions	Jim Schmidt	(800) 558-5106; x305	jimschmidt@appliedbiochemists.com
Education and Outreach	Susan Wilde	(706) 542-3346	swilde@warnell.uga.edu
Exhibits	Harry Knight	(256) 796-8704	harryknight@appliedbiochemists.com
Finance	Richard Hinterman	(810) 744-0540	cygnetent@aol.com
Legislative	Joe Bondra	(810) 744-0540	joebondra@sbcglobal.net
Meeting Planning	Alan "Bo" Burns	(919) 844-5375	burnsaj@basf.com
Membership	Joshua Cheshier	(662) 323-9128	cheshier@gri.msstate.edu
Nominating	Carlton Layne	(678) 773-1364	layn1111@bellsouth.net
Past President's Advisory	Carlton Layne	(678) 773-1364	layn1111@bellsouth.net
Program	Linda Nelson	(601) 634-2656	Linda.S.Nelson@usace.army.mil
Publications	Michael D. Netherland	(352) 392-0335	mdnether@ifas.ufl.edu
Regional Chapters	Tyler Koschnick	(440) 665-2748	tylerk@sepro.com
Scholastic Endowment	Chris Cheek	(616) 891 1294	chris@prolakemgmt.com
Strategic Planning	John Rodgers, Jr.	(864) 656-0492	jrodger@clemson.edu
Student Affairs	Rebecca Haynie	(843) 991 8069	hayniers@warnell.uga.edu
Web Site	Michael Grodowitz	(601) 634-2972	michael.j.grodowitz@usace.army.mil

## Special Representatives

B.A.S.S. Representative	Gerald Adrian	(610) 594-1948	gerald.adrian@uniphos.com
C.A.S.T. Representative	John Madsen	(662) 325-2428	jmadsen@gri.msstate.edu
N.A.L.M.S. Representative	Michael D. Netherland	(352) 392-0335	mdnether@ifas.ufl.edu
R.I.S.E. Representative	Joe Bondra	(810) 744-0540	joebondra@sbcglobal.net
W.S.S.A. Representative	Cody Gray	(719) 886 4708	cody.gray@uniphos.com
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

## ACKNOWLEDGEMENTS

Special thanks to LeeAnn Glomski for review, assistance and guidance on this newsletter! And Dwilette McFarland for helping with the Calendar of Events!

## **WSSA UNDERGRADUATE RESEARCH AWARD – 2010**

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 2010. 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](mailto:jjjachetta@dow.com). Proposals should be received no later than November 16, 2009. Funding decisions will be made by January 22, 2010 and presented at the 2010 WSSA National Meeting Awards Ceremony.

**MAPMS  
CALL FOR PAPERS  
AND POSTERS**

The 2010 Midwest Aquatic Plant Management Society annual conference will be held at the Marriott Indianapolis North, Indianapolis, Indiana on February 28 – March 2, 2010. There will be two full days of technical presentations on Monday and Tuesday, March 1 & 2. We are currently seeking presenters for the conference.

All oral presentations will be 15 minutes in length and will include topics on all aspects of aquatic plant management including ecology or biology of aquatic plants and control of aquatic plants utilizing chemical, mechanical, or biological techniques. All talks must be in Microsoft PowerPoint format. A laptop at the podium pre-loaded with the presentations will be provided. Slide and overhead projectors will not be available. A special student paper session may be part of the agenda again for 2010 (see attached).

The 2010 conference will continue the poster session opportunity started at the 2009 conference. All posters will be on display throughout the conference with a dedicated Monday evening session during which poster presenters should plan to be available to answer questions. Easels will be provided for displaying posters. Tables will not be provided.

Deadline for submittals is December 18, 2009. Please complete the appropriate attached submittal form and email to Jim Kannenberg prior to the deadline. If you have questions or need additional information, contact Jim Kannenberg.

Jim Kannenberg  
Program Chair – MAPMS  
Marine Biochemists  
An Arch Chemicals, Inc. company  
[jimkannenberg@marinebiochemists.com](mailto:jimkannenberg@marinebiochemists.com)  
262-509-5672

**CALL FOR PAPERS**  
**THE AQUATIC PLANT MANAGEMENT SOCIETY**

50<sup>th</sup> ANNUAL MEETING  
BONITA SPRINGS, FLORIDA – JULY 11-14, 2010

You are invited to submit a title and abstract for the 50<sup>th</sup> Annual Meeting of the Aquatic Plant Management Society to be held July 11 – 14, 2010 at the Hyatt Regency Coconut Point in Bonita Springs, Florida. Presentations on all aspects of aquatic plant management, biology and ecology will be considered. Oral presentations are allotted a total of **15 minutes**. A special poster session is also scheduled.

An LCD projector/computer, projection screen, and a laser pointer will be available for oral presentations. **Only PC-based PowerPoint presentations will be accepted.** You will not be allowed to set up a personal computer to run your presentation. Free-standing display boards (4' by 4') will be provided for velcro-backed posters.

Please type the title, author(s), organization(s) and address on the form below exactly as you wish them to appear in the program. Submit this sheet along with an attached abstract of up to 350 words. Abstracts will be printed and provided to meeting participants.

**The Submission Deadline for Title and Abstract is April 16, 2010**

Presentation Format: Oral Presentation \_\_\_ or Poster \_\_\_ (Please check one)

Student Paper Competition: Yes \_\_\_ No \_\_\_ (Please check one)

Title of Paper/Poster: \_\_\_\_\_

1st Author: Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_

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

City, State, Postal Code, Country: \_\_\_\_\_

2nd Author: Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_

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

City, State, Postal Code, Country: \_\_\_\_\_

3rd Author: Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_

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

City, State, Postal Code, Country: \_\_\_\_\_

**\*for additional authors please use a separate page**

**Presenter Contact Information:**

Name: \_\_\_\_\_

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

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

E-mail: \_\_\_\_\_

**Submit Completed Form & Abstract To:**

Linda Nelson, APMS Program Chair  
US Army Engineer R&D Center, EM-W  
3909 Halls Ferry Road  
Vicksburg, MS 39180-6199  
E-mail: Linda.S.Nelson@usace.army.mil  
Phone: 601-634-2656

**NOTE:** You will be required to submit a CD or flash drive with your final PowerPoint presentation upon registration. All presentations that include externally run programs, models, or special animation must be reviewed and approved by the Program Chair **1 week** before the meeting. No Exceptions!

# The new AERF Handbook: Biology and Control of Aquatic Plants: A Best Management Practices Handbook, 2<sup>nd</sup> Edition

<http://www.aquatics.org/bmp.htm>

## BIOLOGY AND CONTROL OF AQUATIC PLANTS



### A Best Management Practices Handbook

Lyn A. Gettys, William T. Haller and Marc Bellaud, editors

Biology and Control of Aquatic Plants: A Best Management Practices Handbook is the second edition of a handbook produced by the not for profit Aquatic Ecosystem Restoration Foundation (AERF). The mission of the AERF is to support research and development which provides strategies and techniques for the environmentally and scientifically sound management, conservation and restoration of aquatic ecosystems.

One way the Foundation accomplishes this mission is by producing this handbook to provide information to the public regarding the benefits of aquatic ecosystem conservation and aquatic plant management. The first edition of this handbook became one of the most widely consulted references in the aquatic plant management community. This second edition has been specifically designed with water resource managers, water management associations, homeowners and customers and operators of aquatic plant management companies and districts in mind. Our goal in preparing this handbook is to provide basic, scientifically sound information to assist decision makers with their water management questions.

A PDF version of this book is available on the AERF website ([www.aquatics.org/bmp.htm](http://www.aquatics.org/bmp.htm)), or hard copies can be ordered from Carlton Layne, Executive Director.

# Biofuels: Cultivating Energy, not Invasive Species (White paper)

Approved by the Invasive Species Advisory Committee (ISAC) on August 11, 2009

## ISSUE

To provide alternatives to petroleum-based energy, the United States (U.S.) government has mandated a greater proportion of plant-based biofuels be integrated into its energy portfolio. However, **certain plant species being proposed for biofuel production in the U.S. are invasive species or are likely to escape cultivation and become invasive.**

U.S. Executive Order (E.O.) 13112<sup>1</sup> defines invasive species as “alien [non-native] species whose introduction does or is likely to cause economic or environmental harm or harm to human health” and states:

“Each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law” “not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.”

The socio-economic and ecological costs of certain biofuel crops could greatly exceed their benefits. Thus, the Federal government needs to take strategic action to avoid inadvertently facilitating the introduction and spread of invasive species through its development, encouragement, funding, or other support of biofuels programs.

For more information on this white paper go to:

[http://www.invasivespecies.gov/home\\_documents/BiofuelWhitePaper.pdf](http://www.invasivespecies.gov/home_documents/BiofuelWhitePaper.pdf)

**Visit the APMS WEB SITE**  
**www.apms.org**

**For members only features: username = apms**  
**password = duckweed**