Midsouth Aquatic Plant Management Society
Newsletter

Volume 29 Number 2 **May 2011**

To the Membership:

I certainly hope that everyone is doing well, and are as busy as they would like to be. It is certainly the time of year for aquatics to be booming, and hard to believe that we are nearly halfway through 2011! It is even more difficult to believe that the MSAPMS meeting is in 4 ½ months. Of course, I still don't have the agenda finalized.

The beautiful Lake Guntersville State Park will be hosting our annual meeting for 2011. Everyone has enjoyed that venue so much that we decided to meet there once again. The State Park, like many areas in north Alabama, was hit hard by the recent tornadoes, but it should be in great shape by October. On that note, I certainly hope that all who were affected by the severe weather have recovered, and let's please keep those folks in our thoughts and prayers.

Although I don't have the agenda finalized, it is well on its way. We will have several river system updates, a plant identification session, a restoration session, a workshop, and, of course, an NPDES session. Hopefully, we will have legislation in place by then, and we will be able to abbreviate that session. If not, it will be a timely meeting for updates before the October 31st permit deadline.

I would suggest that if you have topics of interest that have not been discussed in the past few years, please let me know. I will be happy to try and secure presentations on those subjects. I'm sure that there are several topics that haven't occurred to me.

Once again, I hope all of you are well and I can't wait to see you all very soon. If you need to contact me for any reason, please email troyg@aquaservicesinc.com. You may also call my cell – 256.572.4464.

Thanks you,

Troy Goldsby

Troy Goldsby
President Elect

MSAPMS 30th Annual Conference
2nd Call for Papers
October 4-6, 2011
Lake Guntersville State Park
Guntersville, Alabama

Oral presentations will be 15 minutes, including questions. Presentations are encouraged on all aspects of aquatic and wetland plant management, biology, and ecology. Presenters are requested to register for the conference.

Please e-mail the Title Form, attached below, and a brief abstract (250 words or less) by July 31, 2011:

Troy Goldsby
Aqua Services, Inc.
23360 Hwy. 431
Guntersville, AL 35976
troyg@aquaservicesinc.com

A computer and projector to handle Power Point presentations will be provided. No other presentation format will be supported. Please bring your presentation on a USB compatible flash or CD.

Title Form

Title: _____

Corresponding Author: _____

Affiliation:_____

Address: _____

Phone: _____ E-mail: _____

PLEASE DO NOT DELAY. MAKE PLANS TO ATTEND, PRESENT, AND PARTICIPATE IN THIS CONFERENCE. INVITE THOSE YOU ASSOCIATE WITH TO SUBMIT AN ABSTRACT AS WELL!

Editorial Guidelines

The MidSouth Aquatic Plant Management Society

Font: Times New Roman, size 12

Title: Bold, upper case. Align Left. End with period.

Author: Name follows Title, sentence case. Underline name of presenting author. Separate authors with commas. End with semicolon.

Affiliation: Sentence case. Include author's affiliation, address with zip code, e-mail address. If needed, insert semicolon and follow with second author's information. If there are three or more authors, add superscripts for clarity (for example, John Smith[1]). Justify.

Body of Abstract: Leave one blank line between title/author/affiliations and the body of the abstract. No indentation; one paragraph only. Justify.

Scientific Names: For plants, animals, and microbes, etc., use the WSSA approved common name followed by the genus and species names in italics, wherever possible (for example, diquat dibromide).

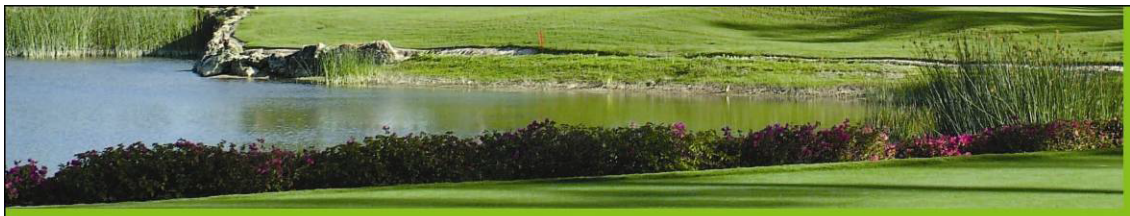
Scientific Units: Use of Metric or English units are acceptable. Use of standard abbreviations is acceptable.

See example below:

LITTORAL ZONE PLANT COMMUNITIES IN THE ROSS BARNETT RESERVOIR, MS.

Wersal, R.M[1], J.D. Madsen[1] and M.L. Tagert[2]; [1]GeoResouces Institute, Mississippi State University, Box 9652 Mississippi State, MS 39762-9652, rwersal@gri.msstate.edu. [2] Mississippi Water Resources Research Institute, Mississippi State University, Box 9680 Mississippi State, MS 39762-9680

The Ross Barnett Reservoir is a 33,000 acre surface water impoundment created on the Pearl River near Jackson, Mississippi. The Reservoir is the primary source of potable water for the city of Jackson. It provides recreational opportunities in the form of fishing, boating, water sports, and onshore camping and hiking. In recent years, non-native aquatic macrophytes have increased in distribution, impeding navigation, fishing, and reduced the aesthetics of waterfront properties. We conducted a whole-lake survey in June 2005 to assess the distribution and abundance of plant communities in the Reservoir to serve as a starting point for a long term management plan. In October 2006 a survey of the littoral zone (water depths of ≤ 10 feet) was conducted based on the points sampled in 2005. A plant rake was deployed at each of 508 points visited. Species presence was mapped using handheld computers outfitted with GPS receivers, and data stored in database templates using Farm Site Mate software. A total of 21 aquatic or riparian plant species were observed growing in or along the shoreline of the littoral zone. American lotus and water primrose were the most common plant species observed in the littoral zone (17.7 % and 7.4% respectively). Non-native plants included alligatorweed (*Alternanthera philoxeroides*) (3.9%), waterhyacinth (*Eichhornia crassipes*) (2.9%), and hydrilla (*Hydrilla verticillata*) (0.6%). Bladderwort (*Utricularia vulgaris*), a native submersed aquatic plant was also observed (0.4%) for the first time. Overall, species occurrence was lower during in 2006 than in 2005.



Reward® Landscape and aquatic herbicide

Refuge™ Herbicide

syngenta®

2011 H_2O Pro™ Aquatic Herbicide Performance Guarantee

QUALIFYING PARTICIPANT: Professional aquatic applicators with total purchases of Qualifying Products during the 2010 Program Period (October 1, 2009 through September 30, 2010) of $7,500 or greater **OR** total purchases of Qualifying Products during the 2011 Program Period of $7,500 or greater.

QUALIFYING PRODUCTS: All Syngenta Products labeled for aquatic use and purchased from a Syngenta Authorized Distributor/Retailer/Agent, including but not limited to all package sizes of Reward® Landscape and Aquatic Herbicide and Refuge™ Herbicide.

TREAT WITH CONFIDENCE:
During the 2011 Program Period—October 1, 2010 through September 30, 2011:

- Apply Qualifying Products at the maximum labeled rate for the treatment area and in accordance with the product label(s). Use Qualifying Products in combination with any approved tank-mix partner in accordance with the label. For your convenience, the tank-mix partners for Reward are listed below.

...AND YOU'RE COVERED:

- If the Qualifying Product does not perform as stated under the Guarantee Terms and Conditions below, Syngenta will share up to 50% of the total cost of the Syngenta Qualifying Product used for retreatment.

GUARANTEE TERMS AND CONDITIONS:

- The Qualifying Product will control at least 70% of the treated, labeled weed(s) as compared to untreated areas with similar weed infestation, environment, weather, and other conditions.
- Claims must be filed within thirty (30) calendar days of application so that the claim may be verified and evaluated.
- Any claims under the H_2O Pro ™ Aquatic Herbicide Performance Guarantee must be received by Syngenta on or before October 30, 2011. Go to **www.syngentavm.com** to file a claim.
- Only licensed professional aquatic herbicide applicators may participate in the H_2O Pro Aquatic Herbicide Performance Guarantee Program.
- To qualify, Claim Form must be filled out in its entirety.
- Syngenta reserves the right to verify all purchases. Syngenta reserves the right to add or delete Qualifying Products at its discretion.
- Syngenta will reimburse up to 50% of the cost of the Qualifying Product for one (1) retreatment. Claim subject to verification by Syngenta territory manager or other party designated by Syngenta. Reimbursement is at the sole discretion of Syngenta. Cost and reimbursement amount is based on price of the Qualifying Product used at the time of treatment. Syngenta may, at its discretion, reimburse with product or cash.
- Syngenta will not pay for the application or other costs of retreatment. The maximum benefit any individual claimant may receive for the 2011 Program Period is a $50,000 contribution toward the cost of the retreatment.
- Program benefit is for weed control only; Syngenta will not pay for any other service, product, loss, or damages.
- Surface application of floating weeds (including surface algae) and submersed weeds (excluding subsurface algae) on Reward label are covered by the 2011 H_2O Pro Aquatic Herbicide Guarantee.
  - —Minimum application rates for Reward are listed in the accompanying chart.
  - —For very dense submersed populations of weeds, it is recommended to use Reward in combination with a copper-based aquatic herbicide or an endothall product from the approved tank-mix partner list set forth herein.

PERFORMANCE GUARANTEE RATES FOR REWARD*

Weed species	Gallons per surface acre
Algae (*Spirogyra* spp. & *Pithophora* spp.)	2
Bladderwort (*Utricularia* spp.)	2
Coontail (*Ceratophyllum demersum*)	2
Duckweed (*Lemna* spp.)	1
Elodea (*Elodea* spp.)	2
Frog's Bit (*Limnobium spongia*)	.75
Hydrilla (*Hydrilla verticillata*)	2
Naiad (*Najas* spp.)	2
Pennywort (*Hydrocotyle* spp.)	.75
Pondweeds (*Potamogeton* spp.)	2
Salvinia (*Salvinia* spp.)	.75
Waterhyacinth (*Eichhornia crassipes*)	.75
Waterlettuce (*Pistia stratiotes*)	.75
Watermilfoils (*Myriophyllum* spp.)	2

*Always follow product label use directions. The Performance Guarantee is valid only when Reward is applied at the rates identified above.

APPROVED TANK-MIX PARTNERS FOR REWARD**

Clearigate® copper-herbicide/algaecide	Nautique™ herbicide
K-Tea™ algaecide	Captain™ algaecide
Komeen™ herbicide	Aquathol® herbicide
Cutrine®-Plus herbicide/algaecide	Hydrothol® herbicide

**Other tank-mix combinations must be approved by a Syngenta territory manager prior to use to retain eligibility for the H_2O Pro Aquatic Herbicide Performance Guarantee.

To learn more about the 2011 H_2O Pro Aquatic Herbicide Performance Guarantee, contact Melissa Barron at 407.257.8043 or melissa.barron@syngenta.com.

Aquatic Plant Management Applicator Workshop, October 4, 2011

We will hold a four-hour pre-conference workshop on aquatic plant management for applicators covering integrated pest management, herbicide application methods, pesticide label restrictions, application gear, compliance, and aquatic plant identification. The fee for this workshop will again be $50. The workshop will be held on the afternoon of October 4, 2011. More details will be forthcoming on the webpage, with the annual meeting announcements, and in the final pre-conference newsletter. Please plan to attend!

For more information, contact Dr. John D. Madsen, Associate Professor, Mississippi State University, jmadsen@gri.msstate.edu

2011 MidSouth Aquatic Plant Management Society Scholarship Opportunity

The MSAPMS is seeking applications for the 2011 graduate student scholarship to be awarded at the 30th annual meeting at Lake Guntersville State Park. 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 3, 2011:

1. A cover letter which includes the applicant's previous, current, and future relationship to the aquatic plant management industry, and a comment on the importance of their proposed research to aquatic plant management.

2. Copies of official transcripts of undergraduate and any graduate work completed to date (these transcripts may be those issued directly to the student by the institution);

3. 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;

4. A copy of the approved graduate research proposal; and

5. One letter of recommendation, other than the major professor.

To enter an application or request more information, contact:

Dr. John D. Madsen
Mississippi State University
Geosystems Research Institute
Box 9652
Mississippi State, MS 39762-9652
Ph. 662-325-2428
E-mail. jmadsen@gri.msstate.edu

Keep Your Membership Current

The MidSouth Aquatic Plant Management Society wants to ensure that everyone is being kept up to date on issues facing our Society, Industry, and Research. In order to accomplish this, we need to have updated information regarding our membership, most notably email addresses. The best way to stay involved with Society issues is to renew your membership and maintain your membership status each year. Renewing your membership can be accomplished via sending payment to the treasurer or, easier yet, to attend the annual meetings. Please take time to update your membership status, contact information, and encourage colleagues to join the MidSouth Aquatic Plant Management Society.

If you are a current member in good standing please email any updated contact information to Secretary Sherry Whitaker at:

sherry.l.whitaker@usace.army.mil.

LittLine®

Littoral Zone Treatment Technology (Patent Pending)

BEST AVAILABLE TECHNOLOGIES (BAT) TO MEET THE 2011 NPDES PESTICIDES GENERAL PERMIT (NPDES PGP) REQUIREMENTS

The *LittLine*® is a Patent Pending Littoral Zone Treatment Technology that was developed to support increased efficacy from aquatic pesticide applications for the control of Aquatic Invasive Species (aquatic vegetation, cyanobacteria, mussels and fish). The 2011 NPDES PGP will require that all permittees minimize discharges through the use of the lowest effective amount of pesticides.

Through the use of the *LittLine*® technology, aquatic pesticides applications can target any portion of the water column, rather than the entire water column, thus allowing increased efficacy through the use of the lowest effective amount of pesticides in compliance with the 2011 NPDES PGP requirements.

The *LittLine*® has been used to control Hydrilla in Florida (25% aquatic herbicide reduction), and Eurasian Watermilfoil in California, Idaho, Montana and Wisconsin with up to a 50% reduction in aquatic herbicide use and increased efficacy in some areas (2008 Pend Oreille System, Pack River Idaho)

On October 28, 2009, the US Army Engineer Research and Development Center, Environmental Laboratory (ERDC-EL), and Clean Lakes, Inc. entered into a Cooperative Research and Development Agreement for the "Research and Testing of a System for Precision Littoral Zone Application of Aquatic Herbicides". The Scope of the Cooperative Research and Development Program is to provide for the joint conduct of research and development investigations related to coupling the LittLine® System (Littoral Zone Treatment Technology) with ERDC-EL Hydroacoustic Submersed Plant Mapping capabilities (SAVEWS™ and related developments). It is envisioned that these two technologies will be used together to achieve precision application of herbicides to submerged, nuisance aquatic vegetation.

The *LittLine*® is available for hire throughout the U.S., and or through a license agreement to meet your NPDES PGP requirements.

LITTLINE®
Littoral Zone Treatment Technology
www.littline.com
P. O. Box 3548
Coeur d'Alene, Idaho 83816
Phone: 208-665-1475

CLEAN LAKES INC.
Aquatic Ecosystem Restoration & Maintenance

clarke

Officer and Director Nominations 2011

The following names are proposed for consideration for officer and/or Director positions for 2011-2012:

President-Elect – Gerald Adrian, UPI

Secretary - Sherry Whitaker, USACE, R&D Center

Treasurer - Craig Aguillard, WinField Solutions

Editor - Dr. Ryan Wersal, Mississippi State University

Directors

Josh Yerby, Aquaservices, Inc.
Director (1yr term to replace Craig Aguillard)

Jim Petta, Valent
Director (1 yr term to replace Gerald Adrian)

Tom Warmouth, Cygnet Enterprises, Inc.
Director (2 yr term)

Cliff Young, Alabama Power Co.
Director (2 yr term)

Also: Troy Goldsby – President
Harry Knight – Past President

Proposed By-Laws Changes

Jason Carlee
April, 2011

Currently the By-laws read as follows:

ARTICLE XI: COMMITTEES
Standing committee chairs shall be recommended by the President and approved by the Board of Directors to serve during his term as President as follows:

1. Membership Committee: This committee shall consist of not less than three (3) members, one of whom shall be the Secretary. This committee shall promote memberships in the Society.

2. Editorial Committee: This committee shall consist of at least three (3) members who shall assist the Editor in generating and distributing newsworthy and educational items of the Society.

3. Program Committee: The program committee shall consist of the members of the Board of Directors, chaired by the President Elect and its duty shall be to provide programs for each annual meeting.

4. Nominating Committee: The nominating committee shall consist of not less than three (3) members, one of whom shall be the Immediate Past President, who shall serve as chair of this committee and recommend to the Society candidates for election to the several offices.

5. Special Committee: Such other committees as from time to time may be deemed necessary shall be appointed by the President with the concurrence of the Board of Directors.

6. Internal Audit Committee: This committee shall consist of at least two (2) members who shall audit all books and fiscal documents of the Society annually, prior to the annual meeting.

7. Scholarship Committee: This committee shall consist of a chair and at least two (2) other members. Duties of the committee shall include promoting awareness of scholarships to worthy candidates and their major professors, review and determination of qualified applicants and to make recommendations to the Board as to how scholarship(s) should be awarded.

The following additions in italics are proposed:

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8. Website Committee: This committee shall consist of at least three (3) members, one of whom shall be the Editor, who shall serve as chair of this committee. Duties shall include maintaining the Society's website to provide information and newsworthy items relevant to the mission of the Society and ensuring that all links and information are current and functional.

9. Sponsorship Committee: This committee shall consist of a chair and at least two (2) other members. Duties of the committee shall include soliciting and securing donations / sponsorships for meeting functions from vendors and other potential donors, coordinating with Program Committee regarding funds available for annual meetings, and communicating possible changes to sponsorship levels.

MSAPMS Board of Directors will hold their next board meeting at Lake Guntersville State Park on October 4, 2011.

Aquatic Plant Management in Puerto Rico

The 64th annual meeting of the Southern Weed Science Society was held at the Caribe Hilton in San Jaun, Puerto Rico on January 24-26. As part of the meeting Dr. Wilfredo Robles, University of Puerto Rico, organized a session titled "Monitoring and Managing Invasive Aquatic Plants in Tropical Freshwater Systems" to familiarize resource managers in Puerto Rico with current research being conducted in the United States with respect to aquatic plant management. Dr. Robles invited scientists from universities as well as state and federal agencies and herbicide applicators. Topics covered included troublesome aquatic plants in Puerto Rico, herbicide modes of action, herbicide toxicology, economic impacts of aquatic plants, management techniques, chemical control, biological control, surveying and mapping of aquatic plants, and ongoing management programs in Florida and the Caribbean. Presenters at the meeting also got to see firsthand a hydrilla infestation at a local golf course (see photo below). It was also a good time for the golf course managers to pick the brains of some of the leading experts in aquatic plant management, as they were a captive audience. All in all it was good meeting, excellent trip to Puerto Rico, and both Puerto Ricans and mainlanders benefited from the many conversations that took place.

Photo: (Left to Right) Terry Goldsby, Aqua Services Inc. Guntersville, Alabama; Mike Netherland, US Army Corps Engineers, Gainesville, Florida; Ryan Wersal, Mississippi State University, Starkville, Mississippi; Wilfredo Robles, University of Puerto Rico, Mayaguez, Puerto Rico; Marcela Cañón, Bahia Beach Resort, Rio Grande, Puerto Rico; Bill Haller, University of Florida, Gainesville, Florida; Greg MacDonald, University of Florida, Gainesville, Florida; Andrew Thompson, Department of Environmental Health, The Bahamas; Lucia Marshall, BioSorb Inc., Saint Charles, Missouri; Luis Almodovar, University of Puerto Rico, Mayaguez, Puerto Rico; Mara Castro, Bahia Beach Resort, Rio Grande, Puerto Rico.

AERF Newsletter

David Petty, AERF Editor

The Aquatic Ecosystem Restoration Foundation is now publishing a quarterly newsletter which is delivered as a PDF email attachment. The next issue will be published in June. If you received the February newsletter or any of the Action Alert emails about the NPDES issue, you are already subscribed. New subscribers can sign up by visiting the AERF website at www.aquatics.org, clicking on the Subscribe button, and completing the opt-in form. You will receive a confirmation email.
If you don't receive this email, please whitelist aquatics.org as described below. This will also subscribe you to the occasional Action Alerts we issue. Each mailing will include a link that will allow you to unsubscribe.

If you are subscribed, and don't receive a confirmation email, or the newsletter mailings, please have your IT person "whitelist" the AERF domain aquatics.org on both your email server and your individual email account.

Send us your old newsletters and meeting abstracts.
The website committee is in the process of creating an archive section on the website to accommodate this historical information about the society.

Aquatic Plant Management Society is now on LinkedIn!

John D. Madsen

The Aquatic Plant Management Society now has an online group through the social network LinkedIn, which is at http://www.linkedin.com. LinkedIn is a social network for professionals which emphasize developing a professional network of business colleagues. The APMS group has a discussion board, jobs board, and membership list. Opened by the Membership committee and moderated by the current chair, it is open to all individuals interested in aquatic plant management issues. So long as the discussions remain polite, all membership and postings will be open.

Of the more than 60 current members of this group, less than half are members of the national APMS. Our goal is to use this tool to encourage membership in the national and regional APMS and involvement at conferences.

To create an account on LinkedIn, go to http://www.linkedin.com or use the LinkedIn link under Social Networks on the APMS webpage. Once you have an account on LinkedIn, search for the Aquatic Plant Management Society group under the Groups Directory in LinkedIn.

Come join the discussion!

Clipper™ Aquatic Herbicide Registered for Use on Tough Aquatic Plants

WALNUT CREEK, Calif.—Jan. 27, 2011—Valent Professional Products announced that Clipper™ Aquatic Herbicide has been registered by the Environmental Protection Agency (EPA) for use against a variety of aquatic plants. Clipper provides aquatic managers with a fast, effective and much needed new tool for selective aquatic plant control and resistance management.

A fast-acting contact herbicide, Clipper is the only PPO inhibitor with proven activity on both floating and submersed plants, providing valuable flexibility for applicators. Clipper selectively controls a number of invasive and nuisance aquatic plants, including submersed plants such as hydrilla, Eurasian watermilfoil, curlyleaf pondweed and cabomba as well as floating plants such as duckweed, giant salvinia, water lettuce and watermeal.

With a new chemistry and a new mode of action for the aquatics market, Clipper plays an important role in herbicide resistance management programs. In addition to providing consistent and effective selective plant control, *Clipper* works swiftly and then dissipates quickly from the water column and does not accumulate in sediment.

Additionally, *Clipper* offers reduced personal protective equipment (PPE)requirements compared to many other products, a convenient package size and a non-corrosive, dry, flowable formulation for easy mixing, transport and application.

“The aquatics industry has had very limited options when it comes to selecting an aquatic herbicide for a given problem, and you need new products for resistance management,” said Dr. Mike Riffle, research and development manager for Valent Professional Products. “*Clipper* provides aquatic managers with a fast and effective new option for controlling a variety of tough plants and a valuable rotation partner for their herbicide resistance management programs.”

For more information about Clipper, please visit www.valentpro.com/clipper.

To learn more about Valent Professional Products’ portfolio of aquatics products, please visit www.valent.com/professional/aquatics.

New Analytical and Treatment Prescription Services

New in 2011! SePRO has introduced SeSCRIPT* Analysis, a complete portfolio of analytical and treatment prescription services for the assessment and management of water quality and algae. The SeSCRIPT Analysis services range from basic algae identification to a complete screening of water quality parameters, algae treatment products and a custom treatment prescription by waterbody. SeSCRIPT provides rapid, accurate and economical analysis and reporting.

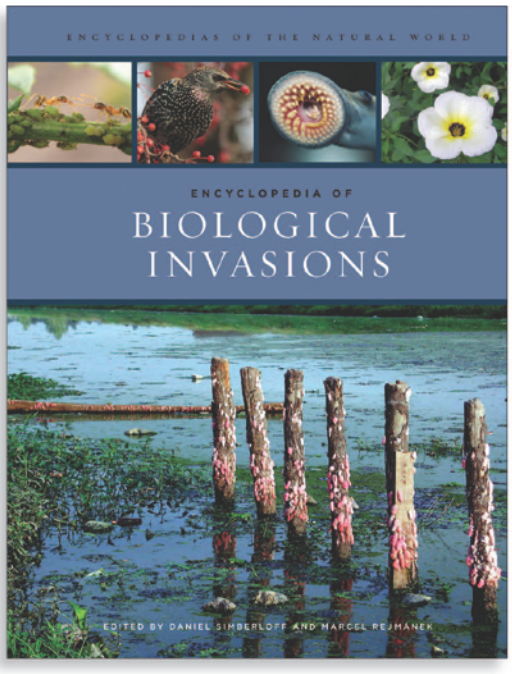
Why monitor water? Assessment and routine monitoring of key water quality parameters, such as alkalinity, hardness, nutrients and algae, provide valuable information about the health of a waterbody. Analysis and documentation of these parameters (over the course of a season or year to year) provide critical data needed to assess management activities, comply with established ecological or regulatory thresholds and trigger management activities.

FasTEST Analysis. Since 1996, SePRO Corporation has provided analytical services for the measurement of aquatic herbicide concentrations in water, known as FasTEST* analysis. These services have been an important tool in the implementation of Sonar* treatment programs and for regulatory compliance documentation. Today the laboratories at the SePRO Research and Technology Campus provide accurate and rapid analytical services for the quantitation of not only Sonar aquatic herbicide but nine additional aquatic active ingredients, including triclopyr (Renovate*), imazamox (Habitat*) and penoxsulam (Galleon*).

For more information about SeSCRIPT and FasTEST analytical and treatment prescription services, contact Todd Horton, Aquatic Market Development Manager, toddh@sepro.com or visit www.sepro.com

A New Textbook Available Regarding Invasive Species and Relevant Issues These Species Pose

UNIVERSITY OF CALIFORNIA PRESS



Encyclopedia of Biological Invasions

DANIEL SIMBERLOFF and MARCEL REJMÁNEK, Editors

"This work will be of great value in ecology and conservation science. Invasive species are a severe and exponentially growing problem of the environment, and one difficult even to characterize, much less contain."—Edward O. Wilson, author and scientist

"Second only to habitat loss mixed with climate disruption, invasive species represent the next most serious threat to biodiversity. The *Encyclopedia of Biological Invasions,* written by an impressive group of experts, now makes available to conservation biologists, managers, decision makers, and concerned citizens a comprehensive single source of this key topic."
—Paul R. Ehrlich, co-author of *The Dominant Animal*

"This magnificent collection of well-selected essays will immediately become a standard guide to understanding one of the key biological problems of our times. With contributions from virtually every active participant, and thus collectively telling the story of biological invasion well.... This book belongs in every biological library and will be an asset to many individuals in their work, whether fundamental science or the many practical applications associated with invasion, its management and control."
—Peter H. Raven, President, Missouri Botanical Garden

"An extraordinarily useful and authoritative compilation.... The invasion biology research area is undergoing explosive development and thus this encyclopedia is timely, bringing a single source of information, by leading experts, in a well-organized, beautifully illustrated, and thoughtfully produced format."
—Harold Mooney, Stanford University

This pioneering encyclopedia illuminates a topic at the forefront of global ecology—biological invasions, or organisms that come to live in the wrong place. Written by leading scientists from around the world, *Encyclopedia of Biological Invasions* addresses all aspects of this subject at a global level—including invasions by animals, plants, fungi, and bacteria—in succinct, alphabetically arranged articles. Scientifically uncompromising, yet clearly written and free of jargon, the volume encompasses fields of study including biology, demography, geography, ecology, evolution, sociology, and natural history.

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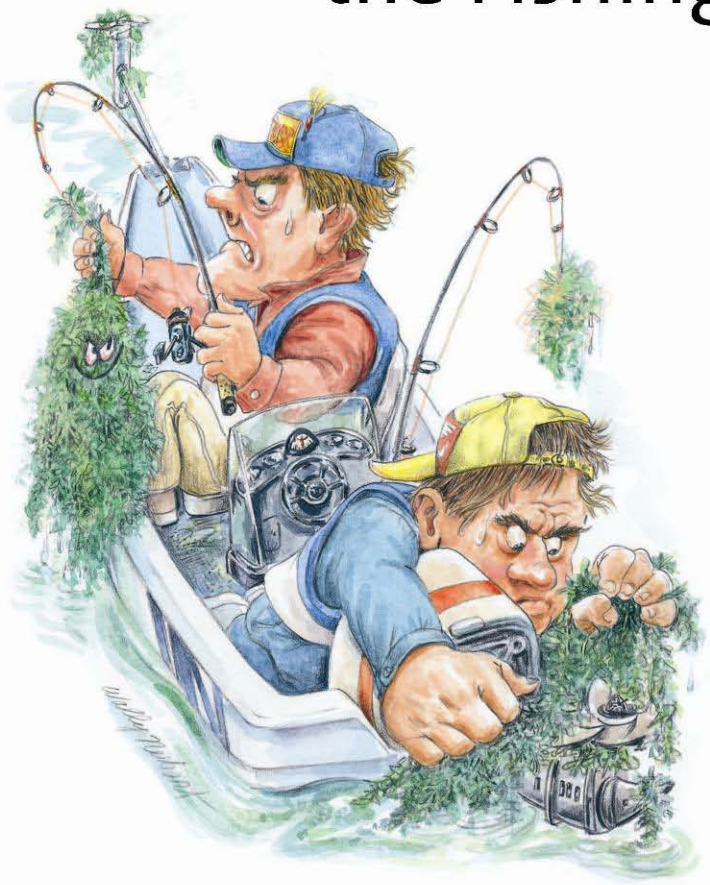
Daniel Simberloff is Nancy Gore Hunger Professor of Environmental Studies in the Department of Ecology and Evolutionary Biology at the University of Tennessee, Knoxville. His previous books include *Ecological Communities: Conceptual Issues and the Evidence* and *Strangers in Paradise: Impact and Management of Nonindigenous Species in Florida*. **Marcel Rejmánek** is Professor in the Department of Evolution and Ecology at the University of California, Davis. Among other books and publications he coedited *Plant Invasions: General Aspects and Special Problems* and *Biological Invasions: A Global Perspective*.

Encyclopedias of the Natural World, 3
792 pages, 8-1/2 x 11", 400 color illustrations, 58 tables
$95.00 cloth 978-0-520-26421-2

Too Many Weeds Spoil the Fishing



Exotic invasive aquatic plants such as Hydrilla, Eurasian Water Milfoil, Curlyleaf Pondweed, Water Chestnut and Water Hyacinth can be detrimental to a healthy fishery in lakes across the country.

These invasive plants when left unmanaged can alter the ecosystem of lakes and reservoirs, causing a decline in the fishery, as well as interfering with other valued uses of waterbodies.

The Authoritative Leader in Aquatic Habitat Management

Successful aquatic habitat management is all about achieving a balance in the aquatic ecosystem. United Phosporus, Inc. offers assistance and a full line of aquatic products for properly managing exotic and invasive plants and algae to achieve and maintain a healthy aquatic environment for native aquatic plants.

TO OBTAIN A COPY OF OUR VIDEO, *AQUATIC PLANT AND HABITAT MANAGEMENT*, CALL 1-800-438-6071

AQUATHOL • HYDROTHOL
AQUATIC HABITAT MANAGEMENT

Aquathol® K and Aquathol® Super K Aquatic Herbicide
For selective control of Hydrilla, Curlyleaf Pondweed, Coontail and other Invasive and Nuisance aquatic plants.

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NPDES Pesticide General Permit Update

Jason Carlee

It's been more than two years since the Sixth Circuit Court ruled that an NPDES permit would be required for the application of pesticides to, over, or near waters of the US. During that time, there has been an extensive campaign by APMS, regional APMS Chapters, and national industry groups including RISE and AERF to bring awareness to the issue and get stakeholders involved in the permit process. Things have quieted down a bit but lest you should think the issue is dead, I'd like to provide a few updates to the ongoing saga.

On March 28th, just one week before the deadline of the court's original two-year stay, the Sixth Circuit Court granted a request by EPA for an additional 6 month stay to continue developing a national NPDES permit. The new deadline is October 31, 2011. It is unlikely there will be any additional stays issued by the court so unless there is success in the legislative arena, a permit will be required for applications made after this date. All states in the Mid-South region have been given the authority to create and implement their own permit once approved by EPA. By now, even those states that waited until the last minute for a final permit from EPA have developed at least a draft of their state permit. Check with your individual state or follow the "NPDES News" link at www.msapms.org for current info in your state.

On the legislative side, H.R. 872 - "Reducing Regulatory Burdens Act of 2011" was passed by the US House of Representatives on March 31st by a margin of 292-134. This act will amend the Federal Insecticide Fungicide Rodenticide Act (FIFRA) to specifically exempt applications of pesticides already covered by FIFRA from additional permit requirements such as the Clean Water Act. The legislation still has a long way to go before becoming law. It must first be brought up for a vote and passed by the Senate before being signed by the President.

Many people have spent a LOT of time and resources working to reduce the burden this permit

requirement will have on aquatic applicators, public health professionals, and the MSAPMS membership. Issues like this are why the MSAPMS continues to support groups such as RISE and AERF and why you need to stay involved as well. Between work, family, church, and other activities, contacting our legislators about important issues is the last thing we want to fool with. I want to remind you that our legislators are elected to vote in the interests of their constituents. If they aren't hearing from you, who are they hearing from?

Stay tuned,

Jason

Immediate Past-President MSAPMS

MSAPMS Board of Directors will hold their next board meeting at Lake Guntersville State Park on October 4, 2011.

Weed alert

Red Root floater

(Phyllanthus fluitans)

Phyllanthus fluitans is a freshwater species native to South America and is the sole free-floating aquatic species of the large genus *Phyllanthus*. Common names of *P. fluitans* include red root floater and floating spurge. In 2010, red root floater was found growing in a canal and tributaries in, and near, the Peace River, Desoto County, Florida.

Because red root floater is a popular aquarium plant, it may have been introduced via the aquarium-plant trade. Red root floater can produce a closed canopy over water; and in backwater areas, small isolated populations can be difficult to find. Scientists fear if this species expands its range, it may become as problematical in Florida as have the South American water lettuce and water hyacinth, also canopy-producers.

Red root floater mat

Close up of red root floater

Red root floater growth form – shoots and flowers

Guide to identification:

Foliage leaves – These are distichously arranged, range from 9 to 17 mm long and are separated by internodes 5 to 20 mm long. Each leaf exhibits a lamina, a petiole less than 1 mm long, and two brown-transparent stipules. The lamina (the distal expanded portion of the leaf) is more or less orbicular (circular), entire and unlobed marginally, cordate basally, and with a shallow notch distally. It exhibits two deep pockets – one on each side of the midrib. The leaves exhibit a light blue-green color.

Shoots and stems – Shoots of *P. fluitans* either float on the water surface or, where plants bunch together, they may also extend a short distance into the air. The stems are brittle, are approximately 1 to 1.5 mm in diameter, and range up to 130 mm long.

Cymules and flowers – Most cymules are three-flowered, but two or four flowers may occur. Each cymule exhibits at least one staminate flower and one pistillate flower. Flowers are short-pedicellate, radially symmetrical, and normally exhibit three sepals and three petals. Because sepals and petals are comparable in color, size and shape, they are called tepals. The tepals are white or greenish-white and are not fused together. The flowers vary from 2 to 3.5 mm in diameter.

Fruits – The fruit, a capsule, is subtended by persistent tepals. It is depressed-globose and 3 mm wide. The capsule is trilocular and six-seeded, with two seeds filling each locule. The seeds, which outwardly resemble orange segments, exhibit numerous minute, dark-brown, superficial processes over a light brown background.

Florida Fish and Wildlife Conservation Commission
MyFWC.com
Division of Habitat and Species Conservation
Invasive Plant Management Section
620 South Meridian St.
Tallahassee, FL 32399-1600
850-487-3796

THANK YOU TO OUR SUSTAINING MEMBERS FOR SUPPORTING THE MIDSOUTH AQUATIC PLANT MANAGEMENT SOCIETY

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Calendar of Events

51st Aquatic Plant Management Society Meeting
July 24-27, 2011
Baltimore, MD
www.apms.org

96th Meeting of the Ecological Society of America
Aug 7-12, 2011
Austin, TX
www.esa.org

South Carolina Aquatic Plant Management Society
August 17-19, 2011
Clemson University, SC
www.scapms.org

Florida Aquatic Plant Management Society
October 10-13, 2011
St. Augustine, FL
www.fapms.org

North American Lake Management Society Meeting
October 26-28, 2011
Spokane, WA
www.nalsm.org

May Newsletter Deadline
September 15, 2011
Send Newsletter Items to:
Ryan Wersal
E-mail: rwersal@gri.msstate.edu