

# The MidSouth Aquatic Plant Management Society

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## AnnualMSAPMS Meeting

The 22<sup>nd</sup> Annual Meeting of the MidSouth Aquatic Plant Management Society will be held October 22-23, 2003 at the Auburn University Hotel & Dixon Conference Center in Auburn, Alabama. Centrally located in the historical downtown Auburn area, the hotel offers convenient access to the university campus and safe walking distance to many shops and restaurants. For the members and guests flying to the meeting, Atlanta's Hartsfield Airport (95 miles), Columbus, GA (35 miles) and Montgomery (65 miles) offer convenient access.

With a more compact format, the meeting program will offer a full agenda of water resource management topics that will be interesting to all attendees. Beginning with a welcome from Dr. John Jensen, Dean of Agriculture - Auburn University, the program will feature a keynote address by Bill Culpepper, President of SePro Corporation. Other speakers include Dr. Ken Manuel, The Aquatic Plant Management Society President and Dr. Kurt Getsinger, speaking on the jointly funded Scholarship Endowment of Aquatic Ecosystem Restoration Foundation and APMS. The Wednesday evening banquet will be an old-fashioned catfish fry presented by Randall Goodman and the staff of the North Auburn Fisheries Unit, Renee Beam, chief chef.

To make your hotel reservations, call the Auburn Hotel & Dixon Conference Center at 1-800-228-2876. Special guestroom rates are \$79.00, single or double occupancy per night plus applicable taxes. Ask for the MSAPMS rate. Rooms have been blocked for the 21<sup>st</sup> and 22<sup>nd</sup> and the reservation deadline is Monday, September 22, 2003. Detailed meeting information and an agenda will be published in the September newsletter.

Individuals are invited to submit a proposal for a presentation during the meeting. Presentations on all aspects of aquatic plant management, biology and ecology will be considered. Since the number of presentations is limited, proposals must be submitted by June 30, 2003. Contact Eric Barkemeyer at 1-800-661-7909 or [ebarkemeyer@cygnetenterprises.com](mailto:ebarkemeyer@cygnetenterprises.com).

This year's program will also feature a student paper competition with the opportunity for four students selected to give presentations on their research on aquatic or wetland plants, control methods for invasive or nuisance plants and restoration projects involving wetland or aquatic plants. For information on the student paper competition, contact Dr. David Bayne, Auburn University at 334-844-9321 or [dbayne@acesag.auburn.edu](mailto:dbayne@acesag.auburn.edu).

# Web Page/Newsletter

Our society web page is up and running ([www.msapms.org](http://www.msapms.org)). Current newsletters will be posted on this site, although we will continue to send them via snail mail to all members until the 2003 annual meeting. After the meeting, newsletters will be sent via snail mail only to those indicating this is their preference on the pre-registration form. Everyone else, for whom we have a working e-mail address, will receive notification that the newsletter is on the web-site. Please ensure that your e-mail address is included on the pre-registration form in order to receive all future mailings.

## USGS Salvinia Update

### April 2003

- *Salvinia minima* is expanding its range in the Lower St. Johns drainage in Clay County, Florida. A subdivision retention pond is completely covered after only a short period of time.
- USDA Entomologist Dr. Phil Tipping and cooperating agency biologists were pleased to report successful overwintering and springtime mating of the salvinia weevil on giant salvinia at ongoing trials in Texas and Louisiana. Similar trial sites on common salvinia in Louisiana were not as positive; however, the establishment of weevils at these sites will be aggressively pursued through new releases and the creation of an outdoor nursery.

### March 2003

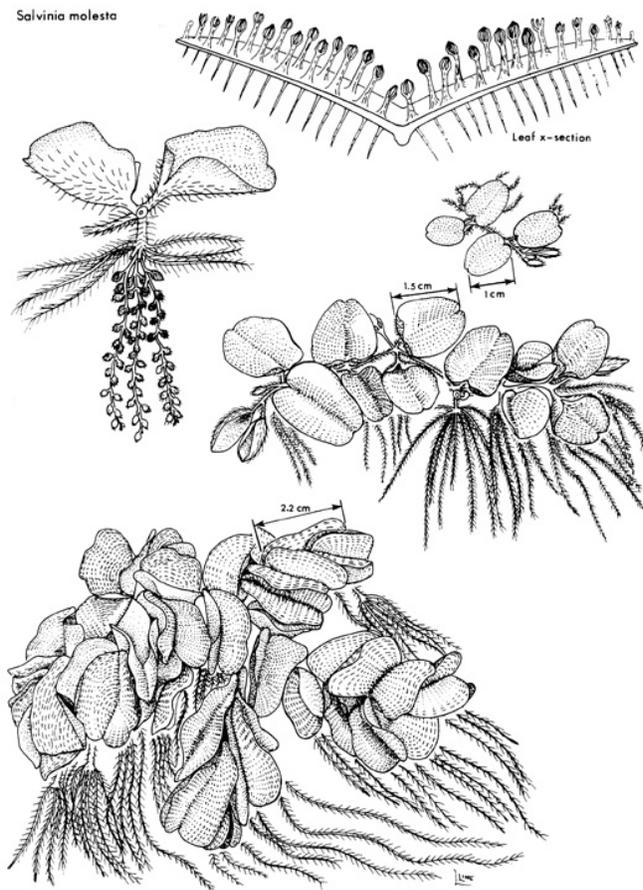
- *Salvinia molesta* continues its spread in the Buffalo-San Jacinto drainage with the latest report just east of Houston in Channelview, TX in a private pond. This population is established and has been present for at least one year.

### February 2003

- Especially large, mature plants of *Salvinia molesta* found in the Lower Colorado River near Yuma, Arizona.
- *Salvinia molesta* now completely covers the 300-acre Lake Wilson, and Hawaii struggles to clear this species from the lake. Local news from the Honolulu Advertiser describes their battle with *Salvinia*.

### January 2003

- The earliest record of *Salvinia molesta* in Lake Wilson, Hawaii described less than one acre of plants in the spring of 1999. Local news from the Honolulu Advertiser now describes an infestation of economic and environmental concern.
- December's storms in southern Louisiana caused extremely high flood conditions that washed *Salvinia molesta* out of the Cameron Canal and into an extensive marsh system that could easily affect hundreds of acres.



## 2002 MSAPMS Scholarship recipient

Shelley McNamara received the 2002 MSAPMS scholarship. She is currently attending Mississippi State University where she is conducting research on the “Establishment of Native Aquatic Plants in Lake Charlie Capps, Mississippi”. Shelley hails from Michigan, but has been in Mississippi since attending undergraduate school at MSU.

### Shelley’s Thesis Research Proposal

#### Introduction

The term restoration may be defined as re-establishment of an ecosystem to a former natural condition before disturbance. Often, restoration requires one or more of the following

processes: “antecedent physical conditions; chemical adjustment of the soil and water; and biological manipulation, including the reintroduction of absent flora and fauna or those made nonviable by ecological disturbances.”

Terrestrial and aquatic ecosystems are interconnected physically, chemically, and biologically with riparian habitats being the product. These riparian zones are areas directly next to streams, rivers, ponds, lakes, and wetlands. They are essential habitats that produce unique soil and vegetation characteristics concurrently with diverse biological communities. Riparian areas are important habitats for many terrestrial and aquatic wildlife species. These areas also are important because they make up only about 1% of the landscape in the United States.

An important factor in aquatic ecosystems is the amount and type of native vegetation, which benefits both fish and wildlife species. Restoring these plant communities may create shade in the littoral zone, reduce shoreline erosion and bottom turbulence. They also can buffer nutrient fluxes, outcompete and replace exotic plant species, stabilize sediments, and improve water clarity.

Aquatic systems that do not have any aquatic vegetation typically are not as capable of supporting healthy fish populations as vegetated ecosystems. Stresses to lakes arise from many identifiable sources, such as excessive eutrophication from nutrient loading, siltation from poor erosion control in surrounding areas, and introduction of exotic species. The specific impacts of stresses on lake ecosystems depend on the source of the stress and how the lake responds to the stress. Lakes that are under stress conditions may lose native sensitive species first. They are then replaced by stress-tolerant natives or exotic species. High densities of plants and plant growth can have adverse effects on fish populations. Exotic or nuisance species develop into high density, monotypic coverage across the entire lake affecting lake habitat and balance. Dense monotypic beds of plants can significantly reduce growth and condition of fish species. They also can trap

small fish and exclude large ones. Recreational use on lakes dominated by dense plant cover also may be limited around boat launches, piers, and secluded coves.

### **Goal:**

My primary goal is to successfully establish a variety of emergent and submersed native plant species that can best compete and offer protection against invasive, nuisance, and exotic species in the littoral zone of Lake Charlie Capps.

### **Objectives:**

1. Collect emergent and submergent native aquatic plant species from other Mississippi River delta water systems and culture them in Lake Charlie Capps.
2. Establish a variety of native aquatic plant species to discourage establishment and compete with nuisance and exotic plant species.
3. Determine which species are suitable candidates for re-establishment in the future under predicted conditions in the lake, relative to management practices.

## **Problematic Aquatics**

Joe Jernigan, Aquatic Plant Management Supervisor, Division of Wildlife and Freshwater Fisheries

It's first light of a warm summer day as your boat glides into your favorite fishing hole. You have been dreaming about this spot: a big shallow cove with plenty of places for bass and bream to hide. Suddenly the motor quits; "That's unusual," you think as you try to restart the motor. "This thing never quits. I just had it serviced." That's when you notice that your honey hole has changed. It is now full of weeds. After lifting the motor and clearing the prop of all the thick growth of weeds, you try to fish, casting to all the best hiding places. Weeds tangle your hook each and every cast. Nothing in

your tackle box seems to work. Finally, in disgust, you leave. You have just had an experience with an aquatic nuisance species.

## **What Is an Aquatic Nuisance Species?**

Most aquatic nuisance species (ANS) are exotic plants and animals that adversely impact our native species and the commercial and recreational uses of a waterway. Exotic plants and animals impact native species by eating them, out-competing them for limited habitat, or causing extensive changes to the ecosystem.

ANS impact more than just native species. Waterfront property owners, lake managers, and recreational water users spend millions of dollars annually on equipment maintenance, herbicides, and other control measures in attempts to manage or utilize aquatic resources impacted by ANS. Municipal and industrial water users also spend millions of dollars each year cleaning clogged intake pipes. ANS are also responsible for human health risks -- for example, the outbreak of a South American form of human cholera in Mobile Bay in 1991.

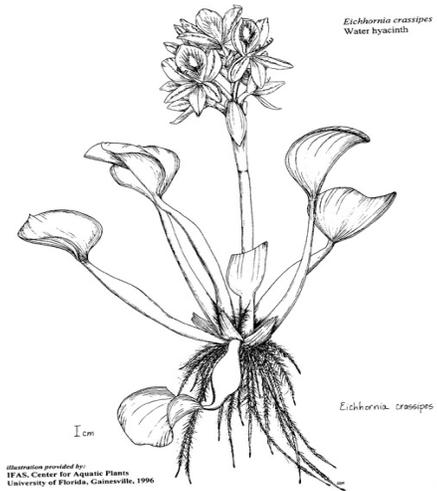
Submerged aquatic plants, such as Eurasian watermilfoil or hydrilla, are exotic ANS that can establish themselves in suitable environments where they quickly replace native species creating vast monoculture stands of vegetation. These stands not only degrade water quality and fish and wildlife habitat, but they also make both recreational and commercial access to the water difficult, if not impossible.

Many bass anglers sing the praises of fishing "in the grass." What they do not realize is that ideal plant coverage for a fishery is between 20-40 percent. Unfortunately, when the plant communities are exotic, plant coverage rarely stops at 20-40 percent unless the plants are actively managed. As weed beds expand and utilize all available shallow water habitat, sport fish growth rates often slow considerably. This reduction in growth occurs not only because of poor water quality but also because the fish cannot forage efficiently. In dense weed beds there are many places for small fish to hide, causing predator fish to expend a great deal of

energy to capture their prey. With so many small fish able to avoid predation and survive in the weeds, the number of aquatic insects and other prey available decreases. The result is many small, slow-growing fish in areas with dense weed beds.

Even though 20-40 percent plant coverage of a lake is ideal for a fishery, it can be less than desirable for other water-based recreation. A lake front property owner, unable to get his boat in the water because of excessive weeds around his dock, will not care whether plants might improve fishing! Therefore, when they are managing aquatic plant communities, lake managers must balance the needs of many resource user groups including municipal power

generation, property owners, anglers, and other recreational boaters.





# MIDSOUTH AQUATIC PLANT MANAGEMENT SOCIETY



22<sup>nd</sup> ANNUAL MEETING  
Auburn University Hotel  
and Conference Center  
Auburn, Alabama  
October 22-23, 2003

## PRE-REGISTRATION FORM

NAME: \_\_\_\_\_ WORK PHONE: \_\_\_\_\_  
E-MAIL ADDRESS: \_\_\_\_\_ FAX: \_\_\_\_\_  
AFFILIATION: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY, STATE, ZIP: \_\_\_\_\_

If you prefer to receive your newsletter through snail mail rather than e-mail notification check here:

<b>Registration*:</b> (includes 2 lunches and a banquet ticket!)	Pre-registration	\$50	\$ _____
	Late Registration (at the door)	\$70	
	Student	\$10	
<b>2001-2002 Membership dues:</b>	Regular	\$10	\$ _____
	Student	\$5	
	Sustaining	\$50	
<b>Raffle Tickets:</b>	Requested Quantity _____ x	\$1/each	\$ _____
		<b>TOTAL</b>	\$ _____

\*All registrants (non-student) who do not pre-register or whose form is postmarked or faxed later than October 1, 2003 will incur a late fee of \$20.

- ✓ Make checks payable to: MidSouth APMS
- ✓ Pre-registration does not require pre-payment

**Return this completed form via mail or fax by October 1, 2003 to:**

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