

WAPMS NEWS- Summer 1999 Issue

Newsletter of the
Western Aquatic Plant Management Society

Editor's note:

Hello everyone. Once again I am sending you the newsletter electronically. If you experience problems with it, please let me know and I will send you a hard copy. Thanks!

- Jenifer Parsons jenp461@ecy.wa.gov

Make Plans for Montana in March, 2000!

The officers of WAPMS want to extend to you and your associates an invitation to our annual meeting to be held **March 28-30, 2000 in Bozeman, Montana**. Our meetings will be held at the Best Western Grantree Inn located in downtown Bozeman (406-587-5261)

I am looking forward to a great formal program to compliment the conversations and associated activities surrounding the meeting. Bozeman is home to Montana State University, and the campus of MSU is located a short distance from our hotel.

If you are planning to present a paper, please give me call @ 360-892-9884 or EMail: ron.p.crockett@monsanto.com. Formal paper submission and Abstract requests will be forthcoming in the next newsletter, but by committing early, you'll have a few extra months to get ready. Submit an abstract and help a student submit one, as well.

March, in Montana, is a great time to enjoy the outdoors. Bozeman sits at the doorstep to Yellowstone Park. There are snowmobile rentals available outside the Park and Park-guided snow coaches available for touring inside the Park. There are usually some outstanding fly fishing opportunities along the Gallatin

River. The water is low and clear, and the trout are hungry. If you are a snow boarder or skier, either alpine or Nordic, several outstanding resorts are within a short drive of Bozeman. If you haven't skied the Tram at Big Sky reserve an extra day or two to enjoy a special treat.

Be sure to mark your calendars, gather up your data, and plan to participate with us in Bozeman. I look forward to having you make this meeting a memorable and positive event.

- Ron P. Crockett

Vice President and Program Chair.

(editor's note: please post the following notice if you have the opportunity)

Aquatic Plant Scholarship Announcement

The Western Aquatic Plant Management Society (WAPMS) announces a scholarship to support students in their pursuit of a degree in aquatic sciences. WAPMS is a professional and scientific society of western aquatic plant managers and scientists. Members include research scientists, aquatic vegetation managers, agency personnel, and industry interested in all aspects of aquatic plant biology, ecology, and management.

WAPMS will present one \$1000-scholarship in 2000. Scholarship funds may be used by the recipient to cover costs associated with education and/or research expenses. Eligible applicants must be enrolled as a full-time undergraduate or graduate student in an accredited college or university in the western United States. Course work or research in an area related to the biology, ecology, or management of aquatic plants in the West is also required. The guidelines for applying are described below.

All scholarship applicants will receive a one-year membership in WAPMS and a waiver of registration fees for the 2000 meeting in Bozeman. The scholarship recipient will be invited to make a presentation at the annual meeting in 2001. Applications will be judged by a committee consisting of academic, industry, agency, and applicator representatives. Judging will not be done by individuals with a personal or institutional affiliation with the applicant.

Application Procedure:

1. The applicant must provide a short resume; transcripts of all college/university course work; and a statement of their interests, career goals, and intended use of scholarship funds. The statement should be limited to four pages.
2. Two letters of support must also be submitted. One must be from a college or university faculty member familiar with the students abilities, interests, and career goals. Support letters must be sent separately.
3. All application materials should be send to the WAPMS Scholarship Program Chair by December 3, 1999 (post-mark date). Announcement of the scholarship winner will be at the WAPMS annual meeting in March 2000.

Please send five copies of all application materials to:

Mark D. Sytsma
WAPMS Scholarship Program
Environmental Biology Department
Portland State University
Portland OR 97207-0751
Phone: 503-725-3833
email: sytsmam@pdx.edu
- Mark Sytsma

Report from the APMS Meeting

The thirty-ninth annual meeting of the Aquatic Plant Management Society was held in Asheville North Carolina July 11-14, 1999. Uncharacteristically, the weather was rainy and cool, but participants still had a great time. A number of excellent papers were presented and our **Rob DuVall** (UC/Davis) won the best student paper award with his presentation on an evaluation of microbiobial products and chemical algaecides. **Dave Spencer** kicked off the meeting with an excellent talk. In the future - look for tiny robot fish to control our nuisance species.

A big topic at the conference was the emergence of *Salvinia molesta* as a major problem in Texas and Louisiana. *Salvinia molesta* established extensive populations in these two states

within a year of introduction. There was a great deal of concern about the sale of federally listed noxious weeds by nurseries nation wide. *Salvinia molesta* is currently being sold by nurseries in Washington, Oregon, and California. It also appears to be coming in as a contaminant with commonly sold aquatic garden plants. Another area for concern was sales of these noxious species over the Internet. The states and federal government need to work together to educate nurseries and others about the damage caused by the sale of these noxious species and, where appropriate, take enforcement action.

Another interesting topic was the emphasis on the selective removal of noxious species like hydrilla and Eurasian watermilfoil to promote the growth of native aquatic plants. Some interesting research using very low levels of herbicides to selectively remove these exotic species was presented. The future of aquatic plant management seems to be heading in the direction of selectively removing exotic problem species to enhance and encourage the growth of beneficial native species. This seems to be a very appropriate direction.

- Kathy Hamel

Membership Dues

Please support our organization through your annual dues. If you attend the annual meetings, then your dues are paid up.

Send your dues of \$10 to:

Nate Dechoretz

CA Department of Food and Agriculture

1220 N. Street, Rm A-357

Sacramento, CA 94527-0001

Calendar:

AQUATIC WEED SCHOOL 1999 at UC DAVIS. A two day session October 6th, 7th 1999. You can find out current info at: <http://wric.ucdavis.edu>. Hosted by the University of California Weed Research and Information Center. Learn about the biology, ecology and management of important aquatic weeds and algae. All methods of practical management including mechanical, biological and chemical will be discussed. Nancy Muller is handling sign-ups at:

muller@vegemail.ucdavis.edu

MARKETING & SHIPPING LIVE AQUATIC PRODUCTS 99. November 14-17, 1999. Seattle, Washington.

"Technological refinements are revitalizing the centuries old practice of providing live aquatic products for display or consumption far from the point of harvest...This conference will assist fishermen, growers and marketers of aquatic products to supply the expanding market while complying with increased restrictions and regulations." Major topics include: resources, shipping, harvesting, physiology, exotics, holding, reconditioning, regulations, packaging, water quality, marketing, research, and environmental, sociological, political and humanitarian considerations.

Contact Conference Manager, John B. Peters, Nor'Westerly Food Technology Services, 20455 - 1st Ave. NE, Suite C 303, Poulsbo, WA 98370-9329. E-mail: johnbpeters@compuserve.com

NORTH AMERICAN LAKE MANAGEMENT SOCIETY. California Lakes Management Society is hosting the annual conference. December 1-4, 1999. Reno, Nevada. The title for this year's conference is 'Water, 21st Century Gold'. The call for papers is out for this conference! More Information at <http://www.nalms.org>.

40th ANNUAL MEETING, AQUATIC PLANT MANAGEMENT SOCIETY. July 2000. San Diego, CA. Look on the APMS website for updates <http://www.apms.org>.

Giant Salvinia Found on Lower Colorado River; Meeting Notes



The following is a summary of the meeting notes from the first giant salvinia meeting held at the California Fish and Game office in Blythe on 20 August 1999.

On 20 August 1999 a meeting was held at the California Game and Fish Department to discuss the recent discovery of the noxious aquatic weed giant salvinia, ***Salvinia molesta*** in the lower Colorado River. This initial meeting was attended by fifty persons representing State, Federal, Tribal, and private interests.

Distribution in Lower Colorado River as of 8/20/99.

The following information was not presented at the meeting and is summarized from a memo from Tony Velasco of the Arizona Ecological Services Office to "the files" dated 6 August 1999. Giant salvinia was first reported by Tony Velasco and Kirke King of the Arizona Ecological Services Office, Phoenix and Julia Wesley (volunteer) floating downstream in the Colorado River on Imperial National Wildlife Refuge (INWR) on 4 August. Additional observations of it floating in the river were made on 10 August by the above persons and Brenda Zaun, biologist at Cibola National Wildlife Refuge (CNWR) near "Monkey Island" on INWR. It was also found in a small unconnected temporary pool on that island.

The initial survey of CNWR was reported by Brenda Zaun. Giant salvinia was found between 4-6 August floating in the Palo Verde drain, the outfall of Three Fingers Lake, and near pretty water. All of the plants observed were the small floating stage.

Helicopter Survey:

Terry Murphy, Bureau of Reclamation, Boulder City reported the results of a helicopter survey conducted on 13 August 1999 by himself, Glen Gould (BOR), and Chuck Minckley. The flight was from Parker Dam to INWR in the vicinity of Walker Lake. The Colorado River and associated backwaters, and drains were checked. Giant salvinia was not found in the Colorado River and was initially observed in the outflow of the Palo Verde Drain near Walter's Camp. Numerous small clumps were along shore and the plant was also floating downstream into INWR. Returning upstream giant salvinia was observed throughout the drain up to Ripley where it appeared to stop. However, after refueling and traversing other drains enroute to the airport, it was rediscovered and appears to be entering the system through the westside drain.

Terry also spent three days in the area "ground proofing" sites and presented a map with the localities where giant salvinia was found. He also reported that some of the larger concentrations observed were actually duckweed (*Lemna sp.*).

Briefing on Giant Salvinia:

Ms. Tracy Davern a species expert from USDA/ARS Ft. Lauderdale, Florida then presented further information on giant salvinia to include:

- Giant salvinia is a hybrid floating fern and is more aggressive than other species of salvinia.
- There are 8 species in the genus.
- Reproduction is only by fragmentation
- Its native range is in southeastern Brazil and was first reported in Louisiana and Texas in the United States.
- There are three growth stages. *Salvinia molesta* and *S. minima* are very similar in appearance during the early growth stage.
- Mature forms of those two species can be differentiated by hairs. In giant salvinia they the hairs join together at the tips forming an eggbeater type structure. In *S. minima* the hairs are not fused together.
- It can double in size in 2-3 days.

- The plants can form layers 3-4 ft. deep.
- Giant salvinia can withstand extreme temperatures (0-45°C) resisting frost.
- Plant is highly salt intolerant and very resistant to desiccation, must be dry for extended period of time to effectively kill plant

Control:

- Mechanical control (physical removal) is feasible in only the smallest infestations.
- Plants can be held in place by booms to slow its movement in a given system.
- Chemical Control using diquat and/or other herbicides is the control method used. When using chemical control all of the plants must be sprayed or it will reinvade.
- Biological Control can be done using the weevil, *Cyrtobagous salviniae*. This weevil came to the U.S. with the plant and feeds only on the genus *Salvinia*. The weevil lays its eggs on rhizomes/hairs. The larvae burrow through the plant killing it. If the plant is destroyed the weevil disperses but will die without *Salvinia* to feed on. The weevil cannot withstand salt water and works best in tertiary control situations. Populations of weevils are established by introducing individuals to plant concentrations. Once established weevil infested plants can be introduced to other plant concentrations. The number of weevils used to establish a population can be small (<20). The weevil was effective over an 13 month period in a 14 hectare Australian lake in 1980.

General Session:

The next meeting was tentatively scheduled for Blythe on 15 September. Minckley will take the lead in notifying current participants. All participants were encouraged to invite other agencies/individuals which they feel should participate in this process and were not represented at the current meeting.

- The U.S. Fish and Wildlife will be the lead agency for this project; however, the U.S. Department of Agriculture has jurisdiction for the lower basin.
- There was a question of the difference between *S. molesta* and *S. minima* which was addressed by Tracy Davern. Basically, it was a matter of the morphology of the root hairs. This is also addressed on the brochure from Texas which was handed out at the meeting.
- It was recommended by personnel from USDA-APHIS-PPQ that if the weevil is to be considered the associated paperwork should be initiated immediately so any introductions could be made as soon as possible. It was pointed out that the process to do this varies with the agency and generally includes a thorough review process, possible pilot programs and other administrative matters which can be very lengthy. This recommendation was presented to alert the group about the process and to enhance discussions about possible introduction of the weevil at the September meeting. April Fletcher, FWS Albuquerque, agreed to bring up this matter to Nancy Kaufmann, FWS Regional Director prior to the September meeting in order to present the Service perspective at that time.
- United States Department of Agriculture presented information about their recent efforts in eradicating giant salvinia from 37 nurseries in California. This program was conducted from May-August and is ongoing. It resulted in the removal of this plant in the nurseries where it occurred. The program is part of the integrated pest control-noxious weed projects administered by USDA-CDFR in California.
- It was also noted that any interstate movement or eradication programs must obtain permits through these agencies before proceeding.
- Bureau of Reclamation offered to provide GIS maps so the overall effort can be better coordinated.

- Fish & Wildlife suggested using the phrase "controlling the infestation" rather than eradicate. It was felt that this might be more appropriate. Concern was also expressed by the Service about the use of the chemical Diquat in relation to the potential contamination of drinking water in the United States and Mexico. The Service also mentioned concerns on listed species, recreational fisheries, aquatic recreation and water movement through the irrigation systems and the main river if this plant became well established.
 - California Fish & Game also expressed concern on the impact on threatened and endangered species occurring in this area, sportfishing, and overall aquatic recreation.
 - Other concerns expressed were what impact giant salvinia would have on hydropower generation in the lower basin? What level of evapotranspiration does this plant exhibit and how will this affect irrigation districts, and what salt concentrations will kill giant salvinia?
 - Mr. Mike Ielmini, Invasive Species Coordinator for the Divisions of Refuges, Washington D.C. strongly suggested that immediate action be taken on this problem and pledged 100% support of his office. This was the consensus of the group which also realized that this must be a cooperative venture if it is to succeed.
 - It was suggested that when sufficient documentation about the potential impacts of giant salvinia on power production, water delivery systems, listed species, and aquatic recreation in the lower basin is available, an emergency request to the governors of Arizona, California, Nevada, and their respective federal and state legislators be made to address this problem.
 - Bureau of Land Management mentioned a possible funding source through the BLM "Pulling Together Program" a partnership with the U.S. Fish and Wildlife Foundation.
 - It was asked what can be done now? Several suggestions were made to include: contain plant with barriers, dry drains, start mechanical removal, public educations, emergency actions, contact companies that do surveys.
 - Particular concern was voiced over the potential for recreational boaters to disperse the plant throughout the lower Colorado River on their boats and trailers during the upcoming holiday weekend.
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- With these thoughts in mind the following decisions were made as to what needs to be done prior to the September meeting.
 - Survey the lower river from the interstate 40 bridge downstream to the International Border for giant salvinia.
 - Began an initial public education program targeting boat ramps, guides, bait shops, and other such areas along the lower river prior to the labor day holiday to inform the general public about giant salvinia and the importance of examining their boats/trailers.
 - Examine the possibilities of using herbivorous fish to control giant salvinia
 - Develop a committee made up of the various agencies to determine the roles/responsibilities of their agencies and, if possible, initiate necessary clearance procedures prior to the next meeting. Attend the next meeting prepared to form a Giant salvinia task force for the lower Colorado River Basin. Volunteers for the committee are presented in Appendix 3.

In relation to this last point it was made clear that there are several documents are available from which such a task force plan can be formatted. It is not necessary to recreate the wheel, many things are in place which can be used.

Noxious Weed Introduced in U.S.; Sold as Pond Plant

By ROBERT WELLER

Associated Press Writer, From Seattle Daily Journal of Commerce August 19, 1999

DENVER (AP) -- A noxious weed banned by the government has found its way into as many as 35 states, from Alaska to Georgia, after Home Depot received it in a shipment of exotic reeds from Holland and sold it as a pond plant.

State and federal agriculture inspectors have scrambled to recover most of the plants from gardeners over the summer, but fear that the bulbous, reedy plant may be impossible to trace because of cash sales. "We're hoping to get as many of them out of circulation as possible," said Randy Westbrooks, coordinator of the Agriculture Department's noxious weed program.

"Chances are most of them will die, but some will live and we will have another invasive species." Inspectors also plan to scrutinize imported plants more closely now, and have asked the Netherlands to stop any further shipments of the unwanted plant, Westbrooks said.

Known as the bur reed, or sparganium erectum, the weed can choke waterways and interfere with recreation in shallow waters without its natural predators. The 6-foot-long, green reed has a small yellow flower that contains a bur-like fruit. Federal plant inspectors inadvertently allowed about 4,200 bur reed plants into the country in the shipment from Holland in May, Westbrooks said. The plant was not known to exist in the United States before the Dutch shipment arrived. A note was attached to the container stating it was a pre-cleared shipment, he said. Under an agreement, the United States and Holland certify some shipments to each other's country do not contain plants that are contaminated or banned. Westbrooks said the noxious weed was identified near the bottom of the shipping papers. "You can say our folks on this side were kind of lulled into this. They didn't look at all the paperwork," he said.

Jerry Shields, a spokesman for the Atlanta-based Home Depot, said the home improvement chain was cooperating with inspectors to recover the plants. David Reeves, the Agriculture Department official who issued the alert on the importation of the plants, said they have reached 35 states. That was based on an estimate, however, and no list was immediately available.

Susan A. Greer of Garden State Bulb Co., which imported the plants, said she had no state-by-state breakdown of where the plants went. They were sold to four separate divisions of Home Depot, not to individual stores. She noted agriculture had written her company complimenting it on its cooperation in the recovery of the plants. As of this week, she said, 91 percent had been recovered. "USDA has accepted that the importation of the Sparganium erectum was an accident and that Garden State Bulb Co. was unaware that the plant is on the federal noxious weeds list," said a letter from Alexander F. Nappi of the department's New Jersey office.

Colorado weed coordinator Eric Lane said state officials planned to write the federal department to request a review of procedures. "It needs to be corrected, especially if plants like these are going to get into Wal-Marts or Home Depots," he said. "Even if they recover 95 percent of it there would still be 5 percent of them out there and that's not good. "The only thing that could be worse would be to start mixing it into the little shaker seed canisters that nurseries sell."