

900

PROGRAM

**TWENTY-NINTH
ANNUAL MEETING**

**THE
AQUATIC PLANT
MANAGEMENT
SOCIETY, INC.**



**HYATT REGENCY SCOTTSDALE
Scottsdale, Arizona
July 16-19, 1989
Sunday Through Wednesday**

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Center for Aquatic Plants
7922 Northwest 71st Street
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THE PROGRAM

TWENTY-NINTH ANNUAL MEETING OF THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.

July 16-19, 1989

HYATT REGENCY SCOTTSDALE
Scottsdale, Arizona

SUNDAY, JULY 16, 1989

- 10 a.m. COMMITTEE MEETINGS
TO BE ANNOUNCED
- 12:00 Noon BOARD LUNCHEON AND
BOARD OF DIRECTORS MEETING
Dunes A & B
- 3:00 p.m.- REGISTRATION
- 6:00 p.m. Regency Foyer
- 6:30 p.m.- PRESIDENT'S RECEPTION
- 7:30 p.m. Regency Foyer
Exhibits on Display

MONDAY, JULY 17, 1989

- REGISTRATION
8:00 a.m. — 5:00 p.m.
Regency Foyer
- EXHIBITS ON DISPLAY
9:00 a.m. — 5:00 p.m.
Regency Foyer
- SESSION I
8:30 a.m. — 5:00 p.m.
Regency Ballrooms A & B
- Presiding: Richard Couch, President
- 8:30 a.m. CALL TO ORDER
- 8:30 a.m. INVOCATION: G. Douglas Pullman
- 8:35 a.m. WELCOME: Lowell Reese, President,
Arizona Chamber of Commerce, Phoenix
- 9 a.m. ANNOUNCEMENTS: David L. Sutton,
Program Chairman
- 8:50 a.m. APMS CHAPTER REPORTS
- Florida APMS: Bill Moore
South Carolina APMS: Cindy Aulbach-Smith
Midsouth APMS: Raymond Cooper
Midwest APMS: Howard Krosch
Western APMS: Tom McNabb

- 9:15 a.m. **PRESIDENTIAL ADDRESS:** Richard Couch
- 9:30 a.m. **ANNUAL BUSINESS MEETING**
Presiding, Richard Couch, President
- 10:15 a.m. **BREAK**
- 10:45 a.m. **KEYNOTE ADDRESS:** Dr. David S. Mitchell,
Director, The Murray-Darling Freshwater Research
Centre, Albury, Australia. 272-1841 (202)
- 11:45 a.m. **ADJOURN FOR LUNCH** WASH D.C.

MANAGEMENT OF AQUATIC PLANTS IN IRRIGATION SYSTEMS

Presiding: Bill Zattau
Operations Support Center, Jacksonville District
Corps of Engineers, Jacksonville, Florida

- 1:00 p.m. **Implications of Changing Management Pressures for
Aquatic Vegetation in British Drainage Channel
Systems**
Kevin Murphy, Department of Botany, University
of Glasgow, Glasgow G12 8QQ, Scotland.
- 1:15 p.m. **Control of Aquatic Plants in Texas Canals**
John H. Rodgers, Jr., University of North Texas,
Department of Biological Sciences, Denton, TX
76203.
- 1:30 p.m. **AQUAMOG UPDATE: New Tools and Applications
to Meet Mechanical Water Management/Aquatic
Plant Problems**
Tom McNabb, Aquatics Unlimited/American Lake
and Canal, 2150 Franklin Canyon Road, Martinez,
CA 94553.
- 1:45 p.m. **Sonar™ Treatment Techniques for Large Water
Bodies and Flowing Canals**
David P. Tarver, Eli Lilly — Elanco Products Co.,
1499 Morning Dove Road, Tallahassee, FL 32312.
- 2:00 p.m. **An Update on the Toxicological Data Generated for
the Aquatic Herbicide, Endothal**
Abraham J. Tobia, Manager of Toxicology,
Pennwalt Corp. Agchem Division, Three Parkway,
Room 619, Philadelphia, PA 19102.
- 2:15 p.m. **Aquatic Uses for Triclopyr**
Bill Kline, Dow Chemical Co., 115 Perimeter
Center Place, Suite 590, Atlanta, GA 30346.
- 2:30 p.m. **Grass Carp for Control of Hydrilla and Hygrophila
in Agricultural and Urban Waterways**
Vernon V. Vandiver, Jr. and David L. Sutton,
University of Florida, Institute of Food and
Agricultural Sciences, Fort Lauderdale Research
and Education Center, 3205 College Avenue,
Ft. Lauderdale, FL 33314-7799.
- 2:45 p.m. **Triploid Grass Carp Stocking Project — Lake
Marion, South Carolina**
Steven J. de Kozlowski, South Carolina Water
Resources Commission, 1201 Main Street, Suite
1100, Columbia, SC 20201.
- 3:00 p.m. **BREAK**
- 3:15 p.m. **Practice of Biological Control of Aquatic Weeds in
Egypt Using the Grass Carp**
Ahmed F. Khattab and Zenab El-Gharably,
Ministry of Irrigation, Water Research Center,
22 El-Galaa St., Cairo, Egypt.

- 3:30 p.m. **CORPS OF ENGINEERS In-House A.P.C.**
Edward D. Knight, U.S. Army CORPS of
Engineers, P.O. Box 1317, Palatka, FL 32078.
- 3:45 p.m. **Managing Monoecious Hydrilla in the Potomac River**
Debra J. Jellick and Thomas R. Schueler,
Metropolitan Washington Council of Governments,
1875 Eye Street, N.W., Suite 200, Washington, DC
20006.
- 4:00 p.m. **Hydrilla Eradication in San Francisco: A Unique
Experience**
Nate Dechoretz, California Department of Food &
Agriculture, Control and Eradication, 1220 N
Street, Room A-357, Sacramento, CA 94271-0001.
- 4:15 p.m. **Thermal Stratification and Submersed Application
Techniques**
Kurt D. Getsinger, W. T. Haller & A. M. Fox,
U.S. Army Engineer Waterways Experiment
Station, P.O. Box 631, Vicksburg, MS 39180 and
University of Florida, IFAS, Center for Aquatic
Plants, 7922 N.W. 71st Street, Gainesville, FL
32606.
- 4:30 p.m. **Flowering Rush — A Recent Arrival in Western
Water Systems**
Fred L. Nibling, Jr. and John E. Boutwell, U.S.
Bureau of Reclamation, Denver, CO 80225.
- 4:45 p.m. **Emerging Aquatic Weed Problems in Columbia,
South America**
Mario Sanchez, Corporation Autonoma Regional,
CRA 10 No. 16-82, Bogata, D.E. Columbia,
South America.
- 5:00 p.m. **ADJOURN**
- 5:15 p.m. **Committee Meetings**
To Be Announced — Dunes A
- 5:15 p.m. **Federal Aquatic Plant Management Working Group**
Dunes B

TUESDAY, JULY 18, 1989

Local Chapter President's Breakfast

6:45 — 8:00 a.m.

Arroyo C

Sponsor: Valent USA

REGISTRATION

8:00 a.m. — 3:00 p.m.

Regency Foyer

EXHIBITS ON DISPLAY

8:00 a.m. — 3:00 p.m.

Regency Foyer

SESSION II

Regency Ballrooms A & B
CONTRIBUTED PAPERS

Chairperson & Moderator: Joe Joyce
Director, Center for Aquatic Plants
University of Florida — IFAS
Gainesville, Florida

- 8:00 a.m. **Recent Findings Regarding the Efficacy of Benthic Barriers**
G. Douglas Pullman, Cygnet Enterprises, 1014 North Bridge Street, P.O. Box 248, Linden, MI 48451.
- 8:15 a.m. **Effects of Late Season Application of MARINER™ Herbicide to an Australian Aquatic Weed, *Potamogeton tricarlinatus* (Floating Leaf Pondweed)**
Lars W. J. Anderson, K. H. Bowner & C. Ripper, USDA/ARS, Aquatic Weed Control Research, Botany Dept., University of California, Davis, CA 95616; CSIRO, Division of Water Resources, Griffith, NSW., Australia 2680; and Dept. of Water Resources, P.O. Box 492, Griffith, NSW 2680.
- 8:30 a.m. **Field Dissipation of MARINER™ in Lake Seminole, Ga.: Results to Date**
H. E. Wester Dahl and K. Langeland, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 39181 and Center for Aquatic Plants, University of Florida, IFAS, 7922 N.W. 71st Street, Gainesville, FL 32606.
- 8:45 a.m. **Advances in Alligatorweed Management**
K. H. Bowmer, P. J. M. Sale, G. McCorkelle, P. Eberbach & L. W. J. Anderson, CSIRO Division of Water Resources, Griffith Laboratory, NSW., Australia 2680.
- 9:00 a.m. **The Absorption and Translocation of Glyphosate in Waterhyacinth**
Bao L. Tsai, F. T. Corbin & A. M. Witherspoon, Dept. of Botany, P.O. Box 7612, North Carolina State University, Raleigh, NC 27695-7612.
STUDENT CONTEST PAPER

- 9:15 a.m. **Use of MARINER™ for Aquatic Weed Management and Reduction of Dispersal Propagules of Monoecious Hydrilla and American Pondweed**
Lars W. J. Anderson, USDA/ARS, Aquatic Weed Control Research Laboratory, Botany Dept., University of California, Davis, CA 95616.
- 9:30 a.m. **Modeling Exposure Route, Tissue Concentrations, and Effects of 2,4-D on *Eichhornia crassipes***
Philip A. Clifford and John H. Rodgers, Jr., University of North Texas, Department of Biological Sciences, Denton, Texas 76203
STUDENT CONTEST PAPER
- 9:45 a.m. **Giant Cutgrass — A Strategy for Rapid Colonization**
A. M. Fox and W. T. Haller, IFAS, Center for Aquatic Plants, University of Florida, 7922 N.W. 71st Street, Gainesville, FL 32606.
- 10:00 a.m. **BREAK**
- 10:15 a.m. **Effects of Exposure of *Potamogeton tricarlinatus* on Grass Carp Feeding**
Karen Kracko, Department of Zoology, Box 7617, North Carolina State University, Raleigh, NC 27695.
STUDENT CONTEST PAPER
- 10:30 a.m. **Attempted Control of Phytoplankton with Sacramento Blackfish**
Richard G. Thiery, Coachella Valley Water District, P.O. Box 1058, Coachella, CA 92236.
- 10:45 a.m. **Efficacy of Early-Season Fluridone Treatments for Control of Watermeal**
Stratford H. Kay, Crop Science Department, North Carolina State University, P.O. Box 7620, Raleigh, NC 27695.
- 11:00 a.m. **Biology and Management of New Exotic Plants in Florida**
Rob Kipker, Florida Department of Natural Resources, Bureau of Aquatic Plant Management, 3917 Commonwealth Blvd., Tallahassee, FL 32399.
- 11:15 a.m. **Techniques Investigated for Capture and/or Removal of Triploid Grass Carp**
Rte S. Hestand, B. Z. Thompson & D. F. Clapp, Florida Game and Freshwater Fish Commission, P.O. Box 1903, Eustis, Florida 32727-1903.
- 11:30 a.m. **Movement of Triploid Grass Carp in Florida Lake Systems**
D. F. Clapp, R. S. Hestand & B. Z. Thompson, Florida Game and Freshwater Fish Commission, 601 W. Woodward Ave., P.O. Box 1903, Eustis, FL 32727-1903.
- 11:45 a.m. **Update on Grass Carp Research in Lee County, Florida**
John Cassani, Lee County Hyacinth Control District, P.O. Box 06005, Fort Myers, FL 33906.

12:00 Noon **ADJOURN FOR LUNCH**

INVITED AND CONTRIBUTED PAPERS

Chairperson & Moderator: Randy Stocker
Imperial Irrigation District
Imperial, California

- 1:00 p.m. **Computer Controlled Application of Multiple Herbicides with Cibolo Sprayers**
Johnny Kubacak, Cibolo Sprayers, 1105 Simmons, Jourdanon, TX 78026.
- 1:15 p.m. **A Review of Ditchbank and Aquatic Weed Control Opportunities Using Glyphosate**
Nelroy Jackson, R. P. Crockett, T. E. Dutt & M. S. Wildman, Monsanto Agricultural Co., St. Louis, Missouri, A Division of Monsanto Company, 400 S. Ramona Blvd., Suite 212, Corona, CA 91719.
- 1:30 p.m. **Saltcedar and Purple Loosestrife Control with Triclopyr**
Jesse Richardson, Dow Chemical Company, 9330 10th Avenue, Hesperia, CA 92345.
- 1:45 p.m. **Salt Cedar Control with ArsenalTM Herbicide**
Mike Carrigan, Vegetation Specialist, American Cyanamide, P.O. Box 687, Roswell, NM 88201.
- 2:00 p.m. **Aquatic and Ditchbank Plant Management in an Arizona Irrigation System**
Gary Colvin, Buckeye Irrigation District, P.O. Box 726, Buckeye, AZ 85326.
- 2:15 p.m. **Aquatic and Ditchbank Plant Management and Grass Carp Studies in Canadian Irrigation Systems**
Ducan Lloyd, Alberta Agriculture, Project Planning Branch, Agriculture Center, Jail Road, Lethbridge, Alberta, Canada T1J 4C7.
- 2:30 p.m. **New Uses for Acrolein?**
K. H. Bowmer and W. A. Muirhead, CSIRO Division of Water Resources, Griffith Laboratory, Private Bag No. 3, Griffith, NSW., Australia 2680.
- 2:45 p.m. **Hydrilla Control in Northern Mexico Irrigation Canals Using Triploid Grass Carp**
Miguel Cota and Pat Gomes, United States Department of Agriculture, Latin American Region, Cristobal Colon 1136, Fraccionamiento, Hipico, Mexicali, Mexico.
- 3:00 p.m. **BREAK**
- 3:15 p.m. **Aquatic Plant Management in Egyptian Canals and Waterways**
Ron Merkle, Salt River Project, Water C & M, P.O. Box 1980, Phoenix, AZ 85001.
- 3:30 p.m. **Weed Control in the Salt River Project**
Winn Winkyaw, Salt River Project, P.O. Box 52025, Phoenix, AZ 85072-2025.
- 3:45 p.m. **Video of Salt River Project**
- 4:00 p.m. **ADJOURN for Field Trip to the Salt River Project**
- 4:00 p.m.-
6:00 p.m. **Visit to various activities of the Salt River Project to observe fish control and chemical treatments**
Transportation provided by the Salt River Project Employees Association
- 6:30 p.m. **Arrive at Salt River Project Employees Recreation Facility for Dinner**

TUESDAY EVENING PROGRAM

JULY 18, 1989

6:30 - 8:00 p.m.

Dinner at Salt River Project
Drinks provided by Magna Corporation

8:00 - 8:05 p.m.

Introduction of Speaker
Local Chair — Winn Winkyaw

8:05 - 8:15 p.m.

Welcome by Sid Wilson,
Associate General Manager

8:15 - 8:30 p.m.

APMS Awards & Presentations
Richard Couch, President

8:30 - 12 Midnight

Dance and Social
Music provided by Pennwalt Corporation

WEDNESDAY, JULY 19, 1989

SESSION III

CONTRIBUTED PAPERS

Regency Ballrooms A & B

Chairperson & Moderator: Ken Langeland
Assistant Professor, Center for Aquatic Plants
University of Florida — IFAS
Gainesville, Florida

- 8:45 a.m. **Maintenance Control, Florida's Aquatic Plant Management Program**
Jeff Schardt, Florida Department of Natural Resources, Bureau of Aquatic Plant Management, 2639 North Monroe Street, Building B, Box 19, Tallahassee, FL 32303.
- 9:00 a.m. **Educational Program Needs Assessment of Aquatic Pesticide Applicators and Supervisors in Florida**
Victor Alan Ramey and Karen Brown, University of Florida, IFAS, Center for Aquatic Plants, 7922 N.W. 71st Street, Gainesville, FL 32606.
- 9:15 a.m. **Georgia Station's State and Regional Extension Training in Aquatic Plant Management**
Jay Shelton and Tim Murphy, The Georgia Station, Griffin, GA 30223.
- 9:30 a.m. **Hydrilla in California, Getting the Word Out!**
Nate Dechoretz, State of California Food and Agriculture Department, Control and Eradication Branch, Sacramento, CA 94271-0001.
- 9:45 a.m. **Center for Aquatic Plants APM Extension Activities**
Victor Ramey, Karen Brown, Phil Chiocchio, Joe Joyce, Bill Haller and Ken Langeland, University of Florida, IFAS, Center for Aquatic Plants, 7922 N.W. 71st Street, Gainesville, FL 32606.
- 10:30 a.m. **DISCUSSION**
- 10:45 a.m. **BREAK**
- 11:00 a.m. **BUSINESS MEETING AND INSTALLATION OF 1989-90 OFFICERS**
President Richard Couch, Presiding
- 11:30 a.m. **ADJOURNMENT OF 29th ANNUAL MEETING**
- 12:00 Noon **BOARD OF DIRECTORS LUNCHEON AND MEETING**
Dunes A & B

**Proposed Amendments
to the Certificate of Incorporation and Bylaws
to be voted upon by the membership at the
1989 Annual Meeting in Scottsdale, Arizona.**

1. The following statement would be added at the end of Article IV.

Any officer or director of the Society who fails to fulfill the duties of the office without valid reasons, may be removed from office by a two-thirds vote of the Board of Directors. The vacant office shall be filled as described in ARTICLE X, Section C.

2. The following statement would amend Section C, Article XV of the Bylaws.

Section C. Selection of Honorary Members. Nominees for honorary membership shall be submitted to the Bylaws and Resolutions Committee in the form of a petition signed by no less than ten (10) active members or may originate with the Bylaws and Resolutions Committee. Nominees will be evaluated by the Bylaws and Resolutions Committee to insure that they meet selection criteria. Eligible nominees will be presented to the Board of Directors and the Past Presidents Advisory Committee by the Bylaws and Resolutions Committee. Honorary membership shall be approved by a majority vote of the Past Presidents Advisory Committee and conferred by a majority vote of the Board of Directors.

3. The following statement would amend Section 8, Article XII of the Bylaws.

The duties of this committee shall be to examine the aims and goals of the Society and make recommendations to the Board of Directors related to achieving these aims and goals, and to approve the granting of honorary membership.

4. Certificate of Incorporation

Article II—(Objectives of Society) — Reword and expand.

As written: The general nature of the objects of this Society shall be to assist in promoting the control and management of aquatic plants, to provide for the scientific advancement of members of the Society, to encourage scientific research, to promote university scholarships, and to extend and develop public interest in the aquatic science discipline.

Suggested new wording and content:

The objectives of the Society shall be to:

1. Encourage scientific research and assist in promoting the control and management of aquatic plants through scientifically sound procedures.
2. Recognize and promote scientific advancement of the members and facilitate the education of aquatic plant scientists through scholarships and other assistance programs.
3. Publish the results of meritorious research and other information of value that pertains to aquatic plants and their management.
4. Extend and develop public interest in, and understanding of, aquatic plant management problems and solutions.
5. Cooperate with local chapters and other societies and organizations with similar and related interests.

**Proposed Amendments
(Continued)**

Bylaws

Objectives of the Society are not included in our current Bylaws.

Suggested Amendment:

Include the objectives of the Society, as approved for the Certificate of Incorporation above, in the Bylaws of the Society. If approved, the objectives would become Article II of the Bylaws and all current Bylaws would be renumbered, but otherwise unchanged.

NOTES

APPLICATION FOR MEMBERSHIP IN:

**THE AQUATIC PLANT
MANAGEMENT SOCIETY, INC.**

WILLIAM N. RUSHING, Secretary-Treasurer
Post Office Box 2695
Washington, DC 20013-2695

There are three regular classes of membership available upon application made in accordance with the Charter. These classes are: (A) ACTIVE MEMBERSHIP (\$35.00); (B) STUDENT MEMBERSHIP (\$5.00); and (C) SUSTAINING MEMBERSHIP (\$200.00).

Applicant's Name _____

Home Address _____

City, State, Zip _____

Home Telephone _____

Title _____

Employer _____

Business Address _____

City, State, Zip _____

Business Telephone _____

Membership Class Desired:

a. Active (\$35.00): _____

b. Student (\$5.00): _____

c. Sustaining (\$200.00): _____

Amount of Remittance Herewith \$ _____

Signature of Applicant _____

Date _____

* Please indicate by asterisk which address you wish the Secretary-Treasurer's Office to use

(Detach and Return)

THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.

The Aquatic Plant Management Society, Inc. is an international organization of scientists, educators, students, commercial pesticide applicators, administrators, and concerned individuals interested in the management and study of aquatic plants. The membership reflects a diversity of federal, state, and local agencies; universities and colleges around the world; corporations; and small businesses.

Originally called the Hyacinth Control Society, Inc., when founded in 1961, The Aquatic Plant Management Society, Inc., is a respected source of expertise in the field of biological, mechanical, chemical, and other methods of aquatic plant management and aquatic plant sciences. The Society has grown to include several regional and state chapters; and through these affiliates, annual meetings, newsletters, and the *Journal of Aquatic Plant Management*, members keep abreast of the latest developments in the field.

The objectives of the society shall be to:

1. Encourage scientific research and assist in promoting the control and management of aquatic plants through scientifically sound procedures.
2. Recognize and promote scientific advancement of the members and facilitate the education of aquatic plant scientists through scholarships and other assistance programs.
3. Publish the results of meritorious research and other information of value that pertains to aquatic plants and their management.
4. Extend and develop public interest in, and understanding of, aquatic plant management problems and solutions.
5. Cooperate with local chapters and other societies and organizations with similar and related interests.

SUSTAINING MEMBERS

AMERICAN LAKE AND CANAL
Concord, California

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