

Program

TWENTY-SECOND
ANNUAL MEETING

THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.



CAESAR'S PALACE

Las Vegas, Nevada, U.S.A.

July 11-14, 1982

Sunday through Wednesday

BOARD OF DIRECTORS 1981-82

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EPA - Pesticides & Toxic Substances
345 Courtland Street
Atlanta, Georgia 30308
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Route 3, Box 414
Jackson, Mississippi 33913
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University of Florida
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304 Newell Hall
Gainesville, Florida 32611
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Lee County Hyacinth Control District
Post Office Box 06005
Fort Myers, Florida 33906

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Department of Chemistry
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Tampa, Florida 33620
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United States Fish and Wildlife Service
A.E./E.C.E.
Russell Building
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NEWSLETTER EDITOR

- L. V. GUERRA**
Texas Parks & Wildlife Department
134 Braniff
San Antonio, Texas 78216

THE PROGRAM



TWENTY-SECOND ANNUAL MEETING
of
THE AQUATIC PLANT MANAGEMENT
SOCIETY, INC.
July 11-14, 1982
Caesar's Palace
Las Vegas, Nevada, U.S.A.

SUNDAY, JULY 11, 1982

- 1:00 P.M. Meeting of the Board of Directors -
Claudius Room
- 3:00 P.M. - 6:00 P.M. Registration -
Emperor's Desk
- 6:30 P.M. - 7:30 P.M. President's Reception -
Nero Room

MONDAY, JULY 12, 1982

- 8:00 A.M. - 5:00 P.M.
Registration - Emperor's Desk
9:00 A.M. - 5:00 P.M.
Exhibits on Display - Augustus Room

GENERAL SESSION

- 9:00 A.M. - 12:00 Noon
Julius Room
Presiding: Roy P. Clark, President
- 9:00 A.M. Call to Order
- 9:05 A.M. Invocation: Robert Gates,
Past President, APMS
- 9:10 A.M. Presidential Address: Roy P. Clark,
President, APMS
- 9:30 A.M. Announcements:
Emory McKeithen, Program Chairman,
and President-Elect, APMS
- 9:40 A.M. APMS Chapter Reports
Florida APMS - Bill Maier, President
Midsouth APMS - David R. Bayne,
President
Midwest APMS - Robert Johnson,
President
South Carolina APMS - James W.
Preacher, President
Western APMS - Terry McNabb,
President
- 10:15 A.M. CAST Report: William T. Haller,
CAST Representative
- 10:45 A.M. Aquatic Weeds and Mosquitoes
John A. Mulrennan, Jr., Director,
Office of Entomology, Department of
Health and Rehabilitative Services,
Jacksonville, Florida

- 11:00 A.M. **The Corps Aquatic Plant Control Operations Support Center**
Joseph C. Joyce and James T. McGehee, Corps of Engineers, Jacksonville District, Jacksonville, Florida
- 11:15 A.M. ***Salvinia molesta*, *Mimosa pigra* and other Potential Alien Problems to the United States**
William T. Haller and Dale Habeck, Center for Aquatic Weeds, University of Florida, Gainesville, Florida
- 11:30 A.M. **Criteria for a Management Agent for *Ptychodiscus brevis***
Dean F. Martin, Chemical and Environmental Management Services (CHEMS) Center, Department of Chemistry, University of South Florida, Tampa, Florida.
- 11:45 A.M. **Recess for Lunch**

GENERAL SESSION

1:30 P.M. - 4:30 P.M.

Julius Room

Presiding: Terry Goldsby
TVA, Muscle Shoals, Alabama

- 1:30 P.M. **Status of Controlling Submersed Aquatic Weeds with Mirror Carp**
Richard R. Yeo, Jon R. Thurston and Robert L. Coykendall, U.S.D.A., S.E.A., A.R.S. and Sutter-Yuba Mosquito Abatement District, Botany Department, University of California, Davis, California, and Yuba City, California.
- 1:45 P.M. **Success of Grass Carp in Management of Aquatic Weeds in Florida**
Lowell L. Trent, Debbie Valin and Clayton L. Phillippy, Florida Game and Fresh Water Fish Commission, Leesburg, Florida
- 2:00 P.M. **Abundance of Vegetative Propagules of Hydrilla in Areas Stocked with Grass Carp for Regrowth Control**
David L. Sutton, Vernon V. Vandiver, Jr., and Ted R. Batterson, University of Florida, Agricultural Research and Education Center, Fort Lauderdale, Florida
- 2:15 P.M. **Plant Preference and Feed Conversion Efficiency of Hybrid Carp**
David L. Sutton, University of Florida, Agricultural Research and Education Center, Fort Lauderdale, Florida
- 2:30 P.M. **Changes in Plankton and Benthos in Three Central Florida Lakes Following Grass Carp Introduction**
David I. Richard and James W. Small, Jr., Rollins College, Biology Department, Winter Park, Florida

- 2:45 P.M. **BREAK**
- 3:00 P.M. **Grass Carp in Texas**
L. V. Guerra, Texas Parks and Wildlife Department, San Antonio, Texas
- 3:15 P.M. **Hybrid Grass Carp: Problems and Prospects for Aquatic Weed Control**
J. R. Cassani, W. E. Caton and T. W. Miller, Jr., Lee County Hyacinth Control District, Fort Myers, Florida
- 3:30 p.m. **Utilization of Grass Carp for Hydrilla Control**
Dr. John A. Osborne, Department of Biological Sciences, University of Central Florida, Orlando, Florida
- 3:45 P.M. **Weed Control Using the Hybrid Grass Carp in Florida**
R. S. Hestand, III, Florida Game and Fish Commission, Eustis, Florida
- 4:00 P.M. **Discussion**
- 4:30 P.M. **Adjourn**

TUESDAY, JULY 13, 1982

8:30 A.M. - 5:00 P.M.

Registration - Emperor's Desk

8:30 A.M. - 5:00 P.M.

Exhibits on Display - Augustus Room

GENERAL SESSION

8:30 A.M. - 12:00 Noon

Julius Room

Presiding: Lou V. Guerra
Texas Parks & Wildlife Department,
San Antonio, Texas

- 8:30 A.M. **Relationships of Nutrients to Hydrilla Growth in Six Florida Lakes**
Kenneth A. Langeland, D. E. Canfield, Jr., and William T. Haller, Center for Aquatic Weeds, University of Florida, Gainesville, Florida
- 8:45 A.M. **Effects of Mechanical Control on Hydrilla in an Irrigation System**
Michel Remington and Randall K. Stocker, Hydrilla Control Research Program - Imperial Irrigation District, U.S.D.A. Conservation Research Center, Brawley, California
- 9:00 A.M. **Bank Erosion and Stabilization as Related to Aquatic Plant Management**
Thomas L. Wiley, Aquatic Biologist, Gulfstream Land and Development Corporation, Plantation, Florida
- 9:15 A.M. **Natural Desalination of Water by Aquatic Macrophytes**
Robert W. Bosserman, Systems Science Institute, Biology Department, University of Louisville, Louisville, Kentucky

- 9:30 A.M. **The Use of Cutrine Plus in Western Irrigation Systems for Aquatic Weed Control**
Terry McNabb, Applied Biochemists, Inc., La Habra, California
- 9:45 A.M. **Field Trials of Hydrilla Control with Komeen, Aquathol K, and Magnacide H**
Randall K. Stocker and Michel Remington, Hydrilla Control Research Program, Imperial Irrigation District, U.S.D.A. Conservation Research Center, Brawley, California
- 10:00 A.M. **Performance of Aquatic Plant Biogas Systems**
Larry O. Bagnall, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida
- 10:15 A.M. **Influence of Copper-Diquat on Apple Snails in Southern Florida**
Donald P. Schultz, Parley V. Winger and W. Waynon Johnson, U.S. Fish and Wildlife Service, Athens, Georgia, and Atlanta, Georgia
- 10:30 A.M. **BREAK**

ANNUAL BUSINESS MEETING

11:00 A.M. - 12:00 Noon
Presiding: Roy P. Clark, President

12:00 Noon **Recess for Lunch**

GENERAL SESSION

1:15 P.M. - 4:45 P.M.

Julius Room

Presiding: Johnnie Frizzell

Pennwalt Corporation, Montgomery, Alabama

- 1:15 P.M. **Current Research on the Identity of a Naturally Occurring Hydrilla-Growth Inhibitor**
John Barltrop and Dean F. Martin, Chemical and Environmental Management Services (CHEMS) Center, University of South Florida, Tampa, Florida
- 1:30 P.M. **Summary of Section 18 Exemption for Glyphosate in Florida**
Carlton Layne, United States Environmental Protection Agency, Lakeland, Florida
- 1:45 P.M. **Effects of GA on 2,4-D Control of Water Hyacinth**
J. C. Joyce and William T. Haller, U.S. Army Corps of Engineers, Jacksonville, Florida, and Center for Aquatic Weeds, University of Florida, Gainesville, Florida

- 2:00 P.M. **Copper-Diquat Residues in Crystal River After Hydrilla Treatment**
William T. Haller, D. E. Canfield, Jr., and J. V. Shireman, Center for Aquatic Weeds, University of Florida, Gainesville, Florida
- 2:15 P.M. **Target and Non-Target Effects of the Algicide PH 4062 in Small Ponds**
Lars W. J. Anderson and Nathan Dechoretz, U.S.D.A./A.R.S. Aquatic Weed Control Research Laboratory, University of California, Davis, California
- 2:30 P.M. **Aquatic Habitat Enhancement Program**
Kirby Gholson and L. V. Guerra, Texas Parks and Wildlife Department, San Antonio, Texas
- 2:45 P.M. **Feasible Strategies for Controlling Eurasian Watermilfoil in an Oregon Oxbow Lake**
N. Stan Geiger, Beak Consultants, Inc., Portland, Oregon
- 3:00 P.M. **BREAK**
- 3:15 P.M. **Cattail and Water Hyacinth Control in Irrigation Reservoirs in Mexico**
Tom Camp, Ecolotecnica Division of Aquatic Management Company, Glendale, Arizona
- 3:30 P.M. **Evaluation of SAN 356 for the Control of Aquatic Plants**
Nathan Dechoretz and L. W. J. Anderson, U.S.D.A./A.R.S. Aquatic Weed Control Research Laboratory, University of California, Davis, California
- 3:45 P.M. **Fate and Effect of 2,4-D Formulations as Herbicides in Aquatic Ecosystems**
D. G. Painter, B. F. Scott, E. Nagy, B. J. Dutka and W. D. Taylor, National Water Research Institute, C.C.I.W., Environment Canada, Burlington, Ontario, Canada
- 4:00 P.M. **Effects of Surface - Active Agents on the Translocation of 2,4-D - ¹⁴C in Water Hyacinth (Student Presentation)**
Dan Thayer and William T. Haller, Center for Aquatic Weeds, University of Florida, Gainesville, Florida
- 4:15 P.M. **Aquatic Weed Control Methods in Moving Water**
Winn Winkyaw, Salt River Project, Phoenix, Arizona
- 4:30 P.M. **Hydrilla Control With Sonar in the St. Johns River Water Management District**
John L. Layer, St. Johns River Water Management District, Palatka, Florida
- 4:45 P.M. **Adjourn**
- 6:30 P.M. **Cocktail Hour - Nero Room**
- 7:30 P.M. **Annual Banquet - Nero Room**

WEDNESDAY, JULY 14, 1982

8:30 A.M. - 11:30 A.M.

Exhibits on Display - Augustus Room

GENERAL SESSION

8:30 A.M. - 11:30 A.M.

Julius Room

Presiding: Tom Camp

Aquatic Management Company, Phoenix, Arizona

- 8:30 A.M. **Limited Operational Experiences with Sonar in Florida**
Paul C. Myers and John L. Layer, Polk County Environmental Services, Bartow, Florida, and St. Johns River Water Management District, Palatka, Florida
- 8:45 A.M. **Environmental Impacts of Aquatic Herbicides Used to Control *Hydrilla verticillata* on the Imperial Valley Fisheries**
J. L. Nelson and B. J. Finlayson, California Department of Fish and Game, Rancho Cordova, California
- 9:00 A.M. **Impact of Selected Habitat Control on Fisheries and Macrophyte-Periphyton Communities**
Russell F. Theriot and Chris C. Carter, Center for Aquatic Weeds, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida
- 9:15 A.M. **Nutrient Release from Decomposing *Myriophyllum spicatum* Treated with Diquat, 2,4-D or Fluridone**
D. S. Painter, National Water Research Institute, C.C.I.W., Environment Canada, Burlington, Ontario, Canada
- 9:30 A.M. **Electrophoretic Identification of Genetically Differentiated Aquatic Plant Populations (Student Presentation)**
Richard P. Wain and William T. Haller, Center for Aquatic Weeds, University of Florida, Gainesville, Florida, and Dean F. Martin, Chemical and Environmental Management Services (CHEMS) Center, University of South Florida, Tampa, Florida
- 9:45 A.M. **Environmental Impacts of Aquatic Disposal of Chopped Hydrilla**
Bruce M. Sabol, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi
- 10:00 A.M. **Evaluation of Terratrack and Aquascreen for Control of Aquatic Macrophytes**
D. S. Painter, D. H. Lewis, and I. Wile, National Water Research Institute, C.C.I.W., Environment Canada, Burlington, Ontario, Canada, Ecocern Limited, Toronto, Ontario, Canada, and Ontario Ministry of Environment, Toronto, Ontario, Canada



TUESDAY EVENING

July 13, 1982

6:30 P.M.

Cocktail Hour

Nero Room

7:30 P.M.

Annual Banquet

Nero Room

Speaker

To Be Announced



- 10:15 A.M. **Mapping the Spread of Aquatic Weeds
by Aerial Color Infrared Photography**
R. D. Martyn and W. W. Snell,
Department of Plant Sciences and
Remote Sensing Center, Texas A & M
University, College Station, Texas
- 10:30 A.M. **Submersed Macrophyte Biomass
Estimations by Use of a Fathometer**
Kenneth A. Langeland, Center for
Aquatic Weeds, University of Florida,
Gainesville, Florida
- 10:45 A.M. **BREAK**

FINAL BUSINESS MEETING

11:00 A.M. - 11:30 A.M.

Presiding: Roy P. Clark, President

- 11:30 A.M. **Adjourn Twenty-Second Annual
Meeting**

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BOARD OF DIRECTORS

- 1:00 P.M. **Meeting of the Board of Directors**
Claudius Room

NOTES

THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.

Dedicated to the Control of Noxious Aquatic Weeds
Post Office Box 06005, Fort Myers, Florida 33906

APPLICATION FOR MEMBERSHIP

There are four regular classes of membership available upon application made in accordance with the Charter adopted in 1961. These classes are: (A) ACTIVE MEMBERSHIP (\$20.00); (B) STUDENT MEMBERSHIP (\$5.00); (C) CORPORATE MEMBERSHIP (\$100.00); and (D) COMMERCIAL SUSTAINING MEMBERSHIP (\$200.00).

Applicant's Name _____

Spouse's Name _____

Home Address _____

City, State, Zip _____

Home Telephone _____

Present Title _____

Present Employer _____

Business Address _____

City, State, Zip _____

Business Telephone _____

Membership Class Desired _____

Amount of Remittance Herewith \$ _____

Signature of Applicant _____

Date _____

(Detach and Return)

EXHIBITORS

Aquamarine Corporation

Aquashade, Inc.

Chevron Chemical Company

Elanco Products Company

**J. L. B. International
Chemicals, Inc.**

**Mudcat Division/
National Car Rental**

Nalco Chemical Company

Pennwalt Corporation

**Union Carbide Agricultural
Products Company**

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Lafayette, California

APPLIED BIOCHEMISTS, INC.
Mequon, Wisconsin

AQUAMARINE CORPORATION
Waukesha, Wisconsin

AQUASHADE, INC.
Eldred, New York

CHEVRON CHEMICAL COMPANY
Richmond, California

ELANCO PRODUCTS COMPANY
Indianapolis, Indiana

J. L. B. INTERNATIONAL CHEMICALS, INC.
Vero Beach, Florida

JOYCE ENVIRONMENTAL CONSULTANTS, INC.
Casselberry, Florida

LANTANA BOATYARD, INC.
Lantana, Florida

MAGNA CORPORATION
Bakersfield, California

MONSANTO AGRICULTURAL
PRODUCTS COMPANY
Atlanta, Georgia

MUDCAT DIVISION/
NATIONAL CAR RENTAL
East Longmeadow, Massachusetts

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Oak Brook, Illinois

PENNWALT CORPORATION
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SANDOZ, INC.
San Diego, California

SOUTHERN MILL CREEK
PRODUCTS COMPANY, INC.
Tampa, Florida

UNION CARBIDE AGRICULTURAL
PRODUCTS COMPANY
Research Triangle Park, North Carolina

J.H.W. WILDER
England

Affiliated Chapters

Florida Aquatic Plant Management Society

Bill Maier, President
3315 Whirlaway Trail
Tallahassee, Florida 32308
(904) 893-3571

1982 Annual Meeting - October 27 - 29,
Howard Johnson's at I-4 and Lee Road,
Orlando, Florida

Midsouth Aquatic Plant Management Society

David R. Bayne, President
Department of Fisheries and Allied
Aquacultures
Swingle Hall
Auburn University, Alabama 36849
(205) 826-4786

1982 Annual Meeting - October 25 - 27,
Lake Guntersville State Park, Alabama

Midwest Aquatic Plant Management Society

Robert Johnson, President
Aquatic Control, Inc.
Post Office Box 100
Seymour, Indiana 47274
(812) 497-2410

1982 Fall Meeting (Equipment Demonstration)
Dates and location pending (Probably October)

1983 Annual Meeting - March 20 - 22

Location pending
Contact Dick Hinterman, (517) 546-9500,
for meeting details

South Carolina Aquatic Plant Management Society

James W. Preacher, President
U. S. Corps of Engineers
Post Office Box 919
Charleston, South Carolina 29402
(803) 724-4258

1982 Annual Meeting - August 19 & 20,
Pine Island in Lake Murray, South Carolina

Western Aquatic Plant Management Society

Terry McNabb, President
Applied Biochemists, Inc.
Post Office Box 3145
La Habra, California 90631
(213) 697-3130

1983 Annual Meeting - March 17 & 18,
MGM Grand, Las Vegas, Nevada



LADIES' PROGRAM

SUNDAY, JULY 11, 1982

6:30 P.M. - 7:30 P.M.
President's Reception
Nero Room

MONDAY, JULY 12, 1982

Handouts will be available for
the ladies at the desk set up
for them in the Emperor's Foyer.
Included will be information
on a tour of the hotel to be
given to the ladies.

12:00 Noon
Ladies' Luncheon
Titus Room

TUESDAY, JULY 13, 1982

6:30 P.M.
Cocktail Hour
Nero Room

7:30 P.M.
Annual Banquet
Nero Room



**FUTURE MEETING SITES
OF THE
AQUATIC PLANT
MANAGEMENT SOCIETY,
INC.**

1983 - Dutch Inn

Lake Buena Vista, Florida,

U.S.A.

July 10-13

1984 - Richmond Hyatt House

Richmond, Virginia, U.S.A.

July 15-18

1985 - Hotel Vancouver

Vancouver, British Columbia,

CANADA

July 21-24

1986 - Sundial Beach and Tennis Resort

Sanibel, Florida, U.S.A.

July 13-16