

*Program*

SIXTEENTH ANNUAL MEETING

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

Formerly  
The Hyacinth Control Society



THEME:  
"AQUATIC PLANT MANAGEMENT,  
A CONTINUING FRONTIER"

**BAHIA MAR HOTEL & YACHTING CENTER  
FORT LAUDERDALE, FLORIDA  
JULY 11-14, 1976  
Sunday through Wednesday**

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## THE PROGRAM



### SIXTEENTH ANNUAL MEETING

of

### THE AQUATIC PLANT MANAGEMENT SOCIETY, INC.

July 11-14, 1976

BAHIA MAR HOTEL & YACHTING CENTER  
FORT LAUDERDALE, FLORIDA

### SUNDAY, JULY 11, 1976

1:30 P.M. - Board of Directors Meeting

Clipper Room

3:00 P.M.-6:00 P.M. - Registration — Upper Lobby

6:30 P.M.-8:00 P.M. - Reception — Ballroom

Registration required  
for admission

### MONDAY, JULY 12, 1976

8:00 A.M.-5:00 P.M. - Registration — Upper Lobby

Commercial Exhibits

Ballroom

### GENERAL SESSION

#### BALLROOM

Presiding: Ray Spirnock, President

The Aquatic Plant Management Society, Inc.

9:00 A.M. - **Call to Order:**

Presentation of Colors

674th Transportation Co.

Bicentennial Color Guard

9:05 A.M. - **Invocation:** Les Bitting,

Old Plantation Water Control District

9:10 A.M. - **Welcome to Fort Lauderdale:**

Gerald F. Thompson, Chairman

Board of County Commissioners

Broward County, Florida

9:20 A.M. - **Presidential Address:**

Ray Spirnock, President

"Aquatic Plant Management,  
A Continuing Frontier"

9:45 A.M. - **Coffee Break**



**GOVERNMENTAL REGULATION  
SESSION**

**BALLROOM**

- 10:00 A.M. - The Honorable William Fulford,  
Representative, State of Florida  
**"The 1976 Legislation on  
Aquatic Weed Control"**
- 10:20 A.M. - Vincent Giglio, Director  
Inspection Division  
Department of Agriculture  
& Consumer Services  
Tallahassee, Florida  
**"Florida Registration and Pesticides"**
- 10:40 A.M. - Jay W. Landers, Jr., Secretary  
Department of  
Environmental Regulations  
Tallahassee, Florida  
**"DER's Roll in  
Aquatic Plant Management"**
- 11:00 A.M. - John B. Ritch, Jr., Director  
Registration Division  
U.S. Environmental Protection Agency  
Washington, D.C.  
**"Registration and Re-Registration  
of Pesticides"**
- 11:20 A.M. - Robert L. Lazor, Section Administrator  
Dept. of Natural Resources  
Tallahassee, Florida  
**"Implementation of the Federal Noxious  
Weed Act of 1974 and Environmental  
Protection of Florida from Noxious Water  
Weeds"**
- 11:40 A.M. - **Discussion**
- 12:00 NOON- Movie: N. R. Spencer,  
University of Florida/USDA  
**"Biological Control — Waterhyacinth"**
- 12:30 P.M. - **Recess for Lunch**  
Buffet Dutch Treat — Seaview Room
- 2:00 P.M. - Buses leave for Equipment Demon-  
stration  
Old Plantation Water Control District  
St. Road 84, Fort Lauderdale, Florida
- 5:00 P.M. - Buses return to Bahia Mar Hotel
- 7:00 P.M. - Luau and Cash Bar on Pool deck  
(In case of rain, Ballroom)

**TUESDAY, JULY 13, 1976**

- 7:30 A.M. - Commercial Breakfast  
(Dutch Treat) — Mariner Room  
Presiding: Ray Spirnock, Presi-  
dent, The Aquatic Plant  
Management Society, Inc.
- 8:00 A.M.-5:00 P.M. - Registration — Upper Lobby
- 8:30 A.M. - **"Symposium on Hydrilla"**  
Ballroom
- | Speaker           | General Topic                                     |
|-------------------|---|
| George Bowes      | Effect of light on growth of<br>hydrilla          |
| Dr. Bill Haller   | Tuber production and draw-<br>down                |
| Rue Hestand       | Changes in aquatic vegeta-<br>tion using drawdown |
| Bob Gates         | Use of inverts for hydrilla<br>control            |
| Dr. Kerry Steward | Mode of action of inverts                         |
| Bill McClintock   | Bottom acre treatment for<br>hydrilla control     |
| Harold Brown      | Use of diuron for hydrilla<br>control             |
| Les Bitting       | Control of hydrilla in South<br>Florida           |
| Gordon Baker      | Mechanical removal of<br>hydrilla by the FCD      |
| Dr. David Sutton  | Use of the white amur for hy-<br>drilla control   |
- 10:45 A.M. - **Coffee Break**

**ANNUAL BUSINESS MEETING**

- 11:00 A.M.-12:00 Noon  
Ballroom
- Presiding: Ray Spirnock, President  
The Aquatic Plant Management Society, Inc.
- 12:05 P.M. - **Recess for Lunch**  
Buffet Dutch Treat  
Seaview Room



## PRESENTATION OF PAPERS

### RESEARCH SESSION

#### BALLROOM

Presiding: John Taylor, Chairman  
CIBA-GEIGY Corporation  
Deland, Florida

- 1:00 P.M. - **"A Survey of the Nile River in Sudan for Fauna Associated with Waterhyacinth"** — Dr. B. David Perkins, Magzoub O. Bashir, Werner Koch, Sherif Mustafa Khairi, and Kamil Beshir El Tigani, USDA-ARS, Ft. Lauderdale, Florida.
- 1:15 P.M. - **"Effects of Consecutive Water Fluctuations on Submersed Vegetation of Black Lake, Louisiana"** — Terry L. Goldsby, Environmental Specialist, Dept. of Natural Resources, Bureau of Aquatic Plant Research and Control, Tallahassee, Florida.
- 1:30 P.M. - **"Trace Metal Studies of Florida Aquatic Weeds and Their Implications"** — Thomas N. Cooley and Dean F. Martin, Dept. of Chemistry, University of South Florida, Tampa, Florida. Presented by: Thomas N. Cooley (Student).
- 1:45 P.M. - **"Dissipation of Glyphosate Residues in Water"** — R. W. Schumacher, Monsanto Co., Lakewood, Colorado.
- 2:00 P.M. - **"Biological Performance from Aquazine During its Introductory Year"** — Dr. Jack Norton, CIBA-GEIGY Corp., Agricultural Div., Greensboro, North Carolina.
- 2:15 P.M. - **"Preliminary Studies on the Nutrient and Energetic Effects of Manatee Herbivory"** — Mark V. Lomolino, Center for Wetlands and School of Forest Resources and Conservation, University of Florida, Gainesville, Florida (Student).
- 2:30 P.M. - **"Gibberelin Induced Germination of Sterile Waterhyacinth Seeds"** — Dr. J. X. Hartmann and N. F. Fowler, Dept. of Biological Sciences, Florida Atlantic University, Boca Raton, Florida.
- 2:45 P.M. - **"Effects of Phytopathogenic Phycomycetes on Hydrilla"** — Dr. T. E. Freeman, Dr. K. E. Conway and Dr. R. Charudattan, Dept. of Plant Pathology, Univ. of Florida, Gainesville, Florida.
- 3:00 P.M. - **Coffee Break**

- 3:15 P.M. - **"Effect of Temperature on Photosynthesis and Respiration of Three Submersed Aquatic Plants"** — L. A. Garrard, T. K. Van, and Dr. T. W. Haller, Agronomy Dept., IFAS, Univ. of Florida, Gainesville, Florida.
- 3:30 P.M. - **"Survival and Growth of Sprouting Hydrilla Tubers Under Different Light Regimes"** — T. K. Van, L. A. Garrard and Dr. W. T. Haller, Agronomy Dept, Univ. of Florida, Gainesville, Florida.
- 3:45 P.M. - **"Nutrient Uptake of Waterhyacinth When Stressed by *Neochetina eichhorniae* Warner and *Orthogalumna terebrantis* Wallwork"** — Dr. Ernest S. Del Fosse, Lee County Hyacinth Control District, Ft. Myers, Florida.
- 4:00 P.M. - **"A Preliminary Model of the Lake County, Florida Ecosystem and Possible Effects of the Introduction of White Amur"** — Katherine C. Ewel, Thomas D. Fontaine, and Mark V. Lomolino, Center for Wetlands and School of Forest Resources and Conservation, Univ. of Florida, Gainesville, Florida.
- 4:15 P.M. - **"Residual 2, 4-D Levels in the St. Johns River"** — Joseph C. Joyce and Dr. Harish C. Sikka, U.S. Army Corps of Engineers, Jacksonville Dist., Jacksonville, Florida and Syracuse Univ. Research Corp., Syracuse, New York.
- 4:30 P.M. - **"Glyphosate Residue in Still Water Ponds"** — W. C. Durden, Dr. K. K. Steward, USDA-ARS, Ft. Lauderdale, Florida.
- 4:45 P.M. - **"The Effectiveness of the Fungus *Cercospora rodmanii* as a Biological Control of Waterhyacinth"** — R. E. Cullen, Dr. K. E. Conway and Dr. T. E. Freeman, Plant Pathology Dept., Univ. of Florida, Gainesville, Florida.
- 5:00 P.M. - **"Grass Carp in Combination with Chemical Weed Control"** — Dr. W. T. Haller, Agronomy Dept., Univ. of Florida, Gainesville, Florida.
- 5:15 P.M. - **"Remote Sensing of Aquatic Plants"** — Katherine S. Long and Lewis E. Link, Jr., Dept. of Army Corps of Engineers, Environmental Research Branch, Vicksburg, Mississippi.
- 5:30 P.M. - **Adjournment**



## APPLICATOR'S SESSION

### BALLROOM

Presiding: Clarke Hudson  
Department of Natural Resources  
Tallahassee, Florida

- 1:00 P.M. - **"Aerial Application Using the Invert System"** — Robert J. Gates, Dir. of Special Projects, Southwest Florida Water Management District, Brooksville, Florida.
- 1:15 P.M. - **"Control of Spatterdock"** — Leslie E. Bitting, Sr., Old Plantation Water Control District, Plantation, Florida.
- 1:30 P.M. - **"Control of Asiatic Duckweed with Inverts"** — Robert D. Blackburn, Vice-Pres., Joyce Environmental Consultants, Inc., Casselberry, Florida.
- 1:45 P.M. - **"Waterhyacinth Control Plan for the St. Johns River"** — Charles F. Zeiger and James T. McGehee, U.S. Army Corps of Engineers, Jacksonville, Florida.
- 2:00 P.M. - **"Controlling Aquatic and Ditchbank Weeds with Glyphosate"** — R. A. Elliston, Dr. K. K. Steward, T. M. Taylor, USDA-ARS, Ft. Lauderdale, Florida.
- 2:15 P.M. - **"Alligatorweed and Waterhyacinth Control in Texas"** — Edward Moyer, Bill Nailon and E. O. Gangstad, U.S. Army Engineer District, Fort Worth, Texas.
- 2:30 P.M. - **"Nuisance Aquatic Macrophyte Growth"** — Ernie Hesser and E. O. Gangstad, Fisheries Biologist, U.S. Army Corps of Engineers, Walla Walla Dist., Walla Walla, Washington, and Botanist, Office of the Chief of Engineers, Washington, D.C.
- 2:45 P.M. - **"Breakthrough in Mechanical Removal of Waterhyacinth"** — Dr. Brate Bryant, Pres., Aquamarine Corp., Waukesha, Wisconsin.
- 3:00 P.M. - **Coffee Break**
- 3:15 P.M. - **"Superfish"** — Dan Jones, Aventura Country Club, Miami, Florida.
- 3:30 P.M. - **"Aquazine™ for Algae and Aquatic Weeds"** — R. D. Blackburn and J. B. Taylor, Vice Pres., Joyce Environmental Consultants, Inc., Casselberry, Florida, and CIBA-GEIGY Corp., Deland, Florida.

- 3:45 P.M. - **"Control of Waterhyacinth"** — J. J. Raynes and E. O. Gangstad, U.S. Army Corps of Engineers, Atlanta, Georgia, and Office of Chief Engineers, U.S. Army Corps of Engineers, Washington, D.C.
- 4:00 P.M. - **"Chemical Control of Hydrilla"** — E. O. Gangstad and R. D. Blackburn, Office of Chief Engineers, U.S. Army Corps of Engineers, Washington, D.C., and Vice-Pres., Joyce Environmental Consultants, Inc., Casselberry, Florida.
- 4:15 P.M. - **"The DEMA Injector — For In-Line Chemical Metering"** — William E. Thompson, Chief, Aquatic Growth Control Section, U.S. Army Engineer Dist., New Orleans, Louisiana.
- 4:30 P.M. - **"Management of Aquatic Plants with Acrolein"** — G. R. Sainty and Kathleen Bowmer, Senior Field Officer (Weeds) Water Conservation and Irrigation Comm., Griffith, Australia, and Research Scientist, C.S.I.R.O. Div. of Irrigation Research, Griffith, Australia.
- 4:45 P.M. - **"Water Quality Evaluation of the Lower Mystic Lake, Massachusetts"** — Richard A. Cassidy, J. M. Mikoloitus and E. O. Gangstad, U.S. Army Corps of Engineers.
- 5:00 P.M. - **"A Summary of Water Level Fluctuation Research and Control for Noxious Water Weed Management in the State of Florida: Cumulative Bibliography Included"** — Robert L. Lazor, Section Administrator, Department of Natural Resources, Tallahassee, Florida.
- 5:15 P.M. - **Adjournment**





## Tuesday Evening

JULY 13, 1976

6:30 P.M.

## Hospitality Hour

Registration Required for Admission

Ballroom

7:30 P.M.

## Annual Banquet

Ballroom

Presiding:

**Ray Spirnock**

President, The Aquatic  
Plant Management Society, Inc.

Principal Speaker:

**The Honorable Walter Sims**

Senator, 15th District  
State of Florida



WEDNESDAY, JULY 14, 1976

## RESEARCH SESSION

BALLROOM

Presiding: Don Lee — Chairman  
Coordinator, Vegetation Control Program  
Wildlife & Fisheries Commission  
Baton Rouge, Louisiana

- 8:00 A.M. - "The Relationship of Phytoplankton Development and Inhibition to Percent Aquatic Macrophyte Community Coverage" — Chris C. Carter and Rue S. Hestand, III, Aquatic Biologists, Florida Game & Fresh Water Fish Comm., Eustis, Florida.
- 8:15 A.M. - "Selected Life Cycle Features of *Cabomba caroliniana* Gray" — David P. Tarver, Dept. of Natural Resources, Aquatic Plants, Tallahassee, Florida.
- 8:30 A.M. - "Factors Affecting the Response of *Phragmites communis* to Glyphosate" — Donald N. Riemer, Dept. of Soils and Crops, Cook College, Rutgers Univ., New Brunswick, New Jersey.
- 8:45 A.M. - "Chemical and Physical Characteristics of Various Diquat Plus Copper Invert Formulations" — A. O. Jones, C. J. Hay and Dr. K. K. Steward, USDA-ARS, Ft. Lauderdale, Florida.
- 9:00 A.M. - "Results of Granulated Herbicides on Hydrilla" — L. V. Guerra, Texas Parks & Wildlife Dept., San Antonio, Texas.
- 9:15 A.M. - "Sprouting Hydrilla Tubers by Growth Regulators" — Fouad M. Basiouny, Dr. W. T. Haller and L. A. Garrard, Agronomy Dept., IFAS, Univ. of Florida, Gainesville, Florida.
- 9:30 A.M. - "Effect of White Amur (*Ctenopharyngodon idella*) on Native Ichthyofauna in Four Small Lakes in Florida" — Woodard W. Miley, II, Dept. of Natural Resources, Tallahassee, Florida.
- 9:45 A.M. - "Effect of the White Amur on the Limnology of Four Small Florida Lakes" — Mondell L. Beach, Florida Dept. of Natural Resources, Tallahassee, Florida.
- 10:00 A.M. - Coffee Break
- 10:15 A.M. - "Go Operational — New Directions for the Corps' Aquatic Plant Control Research Program." J. L. Decell, USAR Waterways Experiment Sta., Vicksburg, Mississippi.



- 10:30 A.M. - **"Effect of Red Spider Mites on Waterhyacinth"** — Dr. B. David Perkins, USDA-ARS, Ft. Lauderdale, Florida.
- 10:45 A.M. - **"Potential for the Control of *Melaleuca quinquenervia*"** — William L. Maier, Aquatic Botanist, Florida Fresh Water Fish and Game Commission, Ft. Lauderdale, Florida.

## APPLICATOR'S SESSION

### BALLROOM

Presiding: Pete Peterson  
Chevron Chemical Co.  
Orlando, Florida

- 8:30 A.M. - **"Timed Herbicide Applications for More Effective Hydrilla Control"** — Dr. William T. Haller, L. A. Garrard, and T. K. Van, Agronomy Dept., Univ. of Florida, Gainesville, Florida.
- 8:45 A.M. - **"Waterhyacinth — Old Curse or New Resource"** — Dr. Brate Bryant, Pres., Aquamarine Corp., Waukesha, Wisconsin.
- 9:00 A.M. - **"The Distribution Program for the Waterhyacinth Weevil"** — William L. Maier, Aquatic Botanist, Florida Fresh Water Fish and Game Comm., Ft. Lauderdale, Florida.
- 9:15 A.M. - **"Evaluating Drawdown Treatments of Fenac for Control of Aquatic Vegetation in Lake Ocklawaha"** — T. M. Taylor, Dr. K. K. Steward, USDA-ARS, Ft. Lauderdale, Florida.
- 9:45 A.M. - **"Specifications for Perfect Herbicide"** — Lloyd Trent, Aquatic Botanist, Florida Fresh Water Fish and Game Comm.
- 10:00 A.M. - **Coffee Break**
- 10:15 A.M. - **"Detection and Monitoring of Hydrilla by Remote Sensing"** — Arthur R. Benton, Jr. and Ronald J. Newton, Remote Sensing Center, Texas A & M Univ., College Station, Texas.
- 10:30 A.M. - **"Cyanatryn a New Aquatic Herbicide with Minimal Effect on Non-target Organisms"** — G. R. Sainty and R. Higginbotham, Senior Field Officer (Weeds) Water Conservation and Irrigation Comm., Griffith, Australia, and Technical Supervisor, Shell Chemical (Australia) Pty. Ltd.

## FINAL BUSINESS MEETING

11:30 A.M.-12:00 Noon

### BALLROOM

Presiding: Ray Spirnock, President  
The Aquatic Plant Management Society, Inc.

12:05 P.M. - **Final Adjournment**

12:15 P.M. - **Board of Directors Meeting**  
Clipper Room

## LADIES PROGRAM

### SUNDAY, JULY 11, 1976

6:30 P.M. - 8:00 P.M. — Reception  
Ballroom

### MONDAY, JULY 12, 1976

7:00 P.M. - Luau and Cash Bar — Pool deck  
(In case of rain, Ballroom)

### TUESDAY, JULY 13, 1976

12:00 NOON - Luncheon — Patricia Murphy's  
Meet in the Lobby at 11:45 A.M.

6:30 P.M. - Hospitality Hour — Ballroom

7:30 P.M. - Annual Banquet — Ballroom



## HONORARY MEMBERS

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## MEETING SITES

1977 - Holiday Inn  
Downtown Minneapolis, Minnesota  
July 17-20  
1978 - Jacksonville Hilton  
Jacksonville, Florida  
July 9-12