

PROGRAM

**THIRTY-SEVENTH
ANNUAL MEETING**

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



**SANIBEL HARBOUR RESORT & SPA
FT. MYERS, FLORIDA
JULY 13-16, 1997**

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THE PROGRAM

SUNDAY, JULY 13, 1997

- 8:30 am-12:00 pm APMS Board of Directors Meeting/Lunch.
Cypress Room
- 1:00-5:00 pm Exhibitor Display Preparation.
Caloosa Ballroom
- 5:00-6:00 pm Registration
Desk #2
- 6:30-8:30 pm **PRESIDENT RECEPTION**
Sponsored by **NO Corporation**
Island Room

MONDAY, JULY 14, 1997

- 8:00 am-5:00 pm Registration
Desk #2
- 8:00 am-5:00 pm Exhibits
Caloosa Ballroom
- 9:00 am-2:00 pm Spouses'/Partners' Tour of Edison-Ford
Winter Estates and Luncheon.

SESSION I

Everglades Ballroom A+B

Modifying: Kurt D. Getsinger, President APMS
U.S. Army Engineer Waterways Experiment
Station, Vicksburg, MS

- 9:30 am Call to order.
- 10:35 am Welcome address by **T. Wayne Miller Jr.**,
Ft. Myers, FL.
Introduction of chapter members and Past Presidents.

8:55 am **Announcements: Alison M. Fox**, 1997 APMS
Program Chair, University of Florida-IFAS,
Gainesville, FL.

9:10 am APMS Regional Chapter Reports:
~~Western~~ ~~Texas~~ ~~South Carolina~~
~~MidWest~~ ~~MidSouth~~ Florida

9:45 am Presidential Address: **Kurt D. Getsinger**

10:00 am **BREAK**

10:15 am Control of Aquatic Weeds in New Zealand. **John S. Clayton**, National Institute of Water and
Atmospheric Research, Hamilton, New Zealand.

10:35 am Federal Legislative Influences on Aquatic Weed
Control. **John Thorne**, Capitolink, Washington, DC.

10:50 am Aquatic Ecosystem Restoration Foundation. **Lewis Decell**, Executive Director, The Aquatic Ecosystem
Restoration Foundation, Vicksburg, MS.

11:05 am **ANNUAL APMS BUSINESS MEETING**

11:45 am **LUNCH**

SESSION II

Everglades Ballroom A+B

AQUATIC PLANT MANAGEMENT IN FLORIDA

Moderator: Joe Joyce, University of Florida-IFAS, Gainesville, FL.

1:15 pm Invasive Plants: What's Florida Doing? **Ken Langeland**, Center for Aquatic Plants and
Department of Agronomy, University of Florida-
IFAS, Gainesville, FL.

- 1:30 pm Managing Melaleuca in the Everglades. **Francois Laroche**, South Florida Water Management District, West Palm Beach, FL.
- 2:05 pm Brazilian Pepper or *Echinus "terribilisbeenforus"*. **Dan Clark**, City of Sanibel, Sanibel, FL.
- 2:30 pm Why We Don't Want Wetland Nightshade in Our Wetlands. **Alison M. Fox**, Center for Aquatic Plants and Department of Agronomy, University of Florida-IFAS, Gainesville, FL.
- 3:05 pm Wetland Plants Are Aquatic Plants; 25,000 References Can't be Wrong. **Vic Ramey**, Center for Aquatic Plants, University of Florida-IFAS, Gainesville, FL.
- 3:30 pm Relative Concentrations of Allelopathic Materials in Cattail Plants (*Typha domingensis*). **Maria T. Gallardo** and **Deane Martin**, Institute for Environmental Studies, Department of Chemistry, University of South Florida, Tampa, FL. **Student Paper.**
- 4:05 pm Eradication Program for *Oryza rufipogon* Griff in Florida. **Vernon Vanover**, Ft. Lauderdale Research and Education Center, University of Florida-IFAS, Ft. Lauderdale, FL.
- 4:30 pm **BREAK**
- Moderator: **Ernie Feller**, South Florida Water Management District, Kissimmee, FL.
- 5:15 pm Courting Consensus: Talk Ain't Cheap When Managing Aquatic Plants in Florida's Kissimmee Chain of Lakes. **Mike Badle**, South Florida Water Management District, West Palm Beach, FL.

- 3:30 pm Putting FastEST to the Test in Southwest Florida. **Brian Nelson**, Southwest Florida Water Management District, Brooksville, FL.
- 3:45 pm Evaluation of *Hydrellia pakistanae* for Biological Control of Hydrilla: an Experimental Approach. **James P. Coker**, Entomology and Nematology Department, University of Florida-IFAS, Gainesville, FL.
- 4:00 pm Replacement of Hydrilla Problems in South Florida by Hygrophyll and Several Native Aquatic Plants. **David L. Sutton**, Ft. Lauderdale Research and Education Center, University of Florida-IFAS, Ft. Lauderdale, FL.
- 4:15 pm Biology and Management of *Lyngbya wollei*. **Chance DuBose**, Center for Aquatic Plants and Department of Agronomy, University of Florida-IFAS, Gainesville, FL. **Student Paper.**
- 4:30 pm Floating and Emergent Vegetation Communities in Orange Lake: Historical Perspectives and Current Management Issues. **Karen R. Warr**, **John R. Shuman**, and **Smith C. Bryan**, St. Johns River Water Management District, Palatka, FL.
- 4:45 pm Physiology and Chemical Control of Torpedograss (*Panicum repens*). **Brian E. Smith**, **Ken A. Langeland**, and **Donn G. Shilling**, Center for Aquatic Plants and Department of Agronomy, University of Florida-IFAS, Gainesville, FL.
- 5:00 pm **ADJOURNMENT**
- 5:00 pm **Federal Aquatic Plant Management Working Group Meeting**
Cypress Ridge

8:30-8:30 pm RECEPTION

Sponsored by American Cyanamid,
Applied Biochemists, Monsanto, and
Rhône-Poulenc.
Morning Beach Area

TUESDAY, JULY 15, 1997

8:45-8:15am APMS Regional Chapter Presidents' Breakfast
Sponsored by Zeneca Professional Products
Orchid Room

9:00-8:00am Aquatic Ecosystem Restoration Foundation
Breakfast and Board of Directors Meeting.
Jasmine Room

9:00am-5:00pm Registration
Desk #2

9:00am-5:00pm Exhibits
Caloosa Ballroom

9:00-11:00 am Spouses'/Partners' Tour of J.N. Ding
Darling Natural Wildlife Refuge, Sanibel
Island.

SESSION III

Everglades Ballroom A+B

AQUATIC PLANT MANAGEMENT AND FISHERIES

Moderator: Mikel Hulon, Florida Game and Fresh Water Fish
Commission, Kissimmee, FL.

8:30 am Aquatic Plant Diversity and its Influence on Fish
Growth. Eric D. Dibble and Sherry L. Harrel,
Department of Wildlife and Fisheries, Mississippi
State University, Mississippi State, MS.

8:30 am

A*Data Review to Obtain a Historical Perspective
on Aerial Aquatic Plant Coverage and Fish
Populations in Aliceville Lake Using Geographic
Information Systems. Sherry L. Harrel and Eric
D. Dibble, Department of Wildlife and Fisheries,
Mississippi State University, Mississippi State, MS.
Student Paper.

8:45 am Grass Carp Stocking in the Santee Cooper Lakes:
Big Lakes, Big Solutions. Steven de Kozlowski,
South Carolina Department of Natural Resources,
Columbia, SC.

9:00 am Stress Response of Juvenile Largemouth Bass
Exposed to Sub-lethal Levels of Five Commonly
Used Aquatic Herbicides. Elizabeth T. D'Silva, J.
Winter, Department of Range, Wildlife, and
Fisheries Management, and R. Patiño, Texas
Cooperative Fish and Wildlife Research Unit, Texas
Tech. University, Lubbock, TX. Student Paper.

9:15 am Stepping Forward - B.A.S.S. and Aquatic Plant
Management: Panel Discussion including Bruce
Shupp, B.A.S.S. National Conservation Director,
Montgomery, AL, Charlie Youngers, B.A.S.S.
Conservation Coordinator for Florida, and various
members of APMS.

10:15 am BREAK

GENERAL SESSION IV

Everglades Ballroom A+B

Moderator: Catherine Johnson, U.S. Army Corps of Engineers,
Orlando, FL.

10:30 am Problems Caused by Aquatic Weeds in Irrigation
Canals in Egypt. Yassin M. Al-Sudany, Biology

Department, Tanta University, Kafr El-Sheikh, Egypt, Kamal H. Shohout, Botany Department, Tanta University, Tanta, Egypt, and David L. Sutton, Ft. Lauderdale Research and Education Center, University of Florida-IFAS, Ft. Lauderdale, FL. **Student Paper.**

10:45 am CAL/FED: Coordinating Aquatic Plant Management Programs in California. **Nate Dechoretz**, California Department of Food and Agriculture, Sacramento, CA.

11:00 am Use of a Weevil to Control Eurasian Watermilfoil in Washington State. **Marina Tamayo**, Christian Grue, Gilbert Pauley, Washington Cooperative Fish and Wildlife Research Unit, School of Fisheries, University of Washington, Seattle, WA, and Kathy Hamel, Water Quality Assistance Program, Washington Department of Ecology, Olympia, WA. **Student Paper.**

11:15 am Effects of Inorganic Turbidity on the Growth and Reproductive Potential of Native Macrophytes. **Robert Doyle**, U.S. Army Engineer Waterways Experiment Station, Lewisville Aquatic Ecosystem Research Facility, Lewisville, TX.

11:30 am Nutrient Effects on Fragmentation of *Myriophyllum spicatum* L. (Eurasian Watermilfoil). **Dian H. Smith**, Biological Sciences Department, University of North Texas, Carrollton, TX. **Student Paper.**

11:45 am **LUNCH**

SESSION V

Sponsored by the U.S. Army Corps of Engineers
Everglades Ballroom A+B

AQUATIC PLANT CONTROL RESEARCH PROGRAM (APCRP)

Moderator: **Robert C. Gunkel, Jr.**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

1:00 pm An Overview of the Aquatic Plant Control Research Program. **John W. Barko** and **Robert C. Gunkel, Jr.**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Ecological Assessment

1:10 pm An Overview of the Ecological Assessment Technology Area. **John D. Madsen**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

1:20 pm Predicting Invasion Success of Eurasian Watermilfoil (WU # 32805). **John D. Madsen**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

1:30 pm An Assessment of the Aquatic Macrophyte Seed Bank in Lake Onalaska, Wisconsin (WU # 33029). **Dwilette G. McFarland**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, and **Sara J. Rogers**, Environmental Management Technical Center, Onalaska, WI.

1:40 pm Phenological Studies to Improve the Management of Hydrilla (WU # 32441). **Chetta S. Owens**, U.S. Army Engineer Waterways Experiment Station, Lewisville Aquatic Ecosystem Research Facility,

Lewisville, TX, and John D. Madsen, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

- 1:50 pm Techniques for Establishing Native Aquatic Plants in Unvegetated Reservoirs (WU # 33084). **R. Michael Smart**, U.S. Army Engineer Waterways Experiment Station, Lewisville Aquatic Ecosystem Research Facility, Lewisville, TX.

Biological Control

- 2:00 pm An Overview of Biological Control Activities for Noxious Aquatic Plants. **Alfred F. Cofrancesco**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- 2:10 pm Plant Pathogen Biocontrol Research on Hydrilla and Eurasian Watermilfoil (WU # 32863). **Judy F. Shearer**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- 2:25 pm Insect Biocontrol Research for Noxious Aquatic Plants (WU # 33024). **Michael J. Grodowitz**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

2:40 pm **BREAK**

Chemical Control

- 2:55 pm An Overview of Chemical Control Technology. **Kurt D. Getsinger**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- 3:05 pm Selective Use of Herbicides (WU # 32841). **John G. Skogerboe**, **R. Michael Smart**, U.S. Army Engineer Waterways Experiment Station,

Lewisville Aquatic Ecosystem Research Facility, Lewisville, TX, **Kurt D. Getsinger**, **Mike D. Netherland**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, and **Gary O. Dick**, University of North Texas, Denton, TX.

- 3:20 pm Herbicide Delivery Systems (WU # 32437). **David Sisneros**, Bureau of Reclamation, Denver, CO, and **Mike D. Netherland**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Management Strategies and Applications

- 3:35 pm Integrated Use of Herbicides and Pathogens for Submersed Plant Control (WU # 32953). **Linda S. Nelson**, **Judy F. Shearer**, and **Michael D. Netherland**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- 3:50 pm Computer Tools Developed and Released Under the Aquatic Plant Control Research Program (WU # 32954). **John D. Madsen**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
- 4:00 pm Adaptations of Eurytopic Fishes (WU # 32944). **K. Jack Killgore**, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

4:15 pm **ADJOURNMENT**

4:20 - 6:00 pm **Civil Works R&D Program Review for the AFCEP**
Corps of Engineers Representatives Only
Jasmine Room

7:00 - 10:00 pm **APMS Banquet and Awards Ceremony**
Caribbean Music - Poolside
Bar sponsored by **Elf-Atochem**

WEDNESDAY, JULY 16, 1997

GENERAL SESSION VI

Everglades Ballroom A+B

Moderator: **John Cassani**, Lee County Hyacinth Control District, Ft. Myers, FL.

8:00 am Using Endothall as a Marker with Glyphosate Treatments of Water Hyacinths. **William T. Haller**, Center for Aquatic Plants and Department of Agronomy, University of Florida-IFAS, Gainesville, FL.

8:15 am Aquatic Weed Problems in Brazil. **Robinson A. Pitelli** and E.D. Veloso, Paulista State University, Jaboticabal and Botucatu, Sao Paulo State, Brazil.

8:30 am Getting Invasive Aquatic Weeds Off the Market: A Case History from Washington. **Jenifer Parsons**, Washington Department of Ecology, Olympia, WA.

8:45 am Culture and Growth of *Sagittaria stagnorum*. **D. Lamar Robinette**, Department of Forest Resources, Clemson University, Clemson, SC, and David L. Sutton, Ft. Lauderdale Research and Education Center, University of Florida-IFAS, Ft. Lauderdale, FL.

9:00 am Characteristics of the Root Zone During Growth of Maidencane and Torpedograss. **William G. H. Latham**, and David L. Sutton, Ft. Lauderdale Research and Education Center, University of Florida-IFAS, Ft. Lauderdale, FL.

9:15 am Effects of Sonar, Alone and in Combination with Reward, on Water Hyacinth. **Steve T. Hoyle** and **Stratford H. Kay**, Crop Science Department, North Carolina State University, Raleigh, NC.

9:30 am Use of Frog's Bit for Removal of Pollutants from Agricultural Wastes. **Luz Teresa Valderrama**, Pontificia Universidad Javeriana, Department de Biologia, Santafe de Bogota, D.C., Colombia, and David L. Sutton, Ft. Lauderdale Research and Education Center, University of Florida-IFAS, Ft. Lauderdale, FL.

9:45 am Environmental Impact of Pollution on the Biological Diversity of Aquatic Plants. **Kaiser Jamil**, Indian Institute of Chemical Technology, Hyderabad, India.

10:00 am The Latest News from EPA. **Randy Dominy**, Pesticides Section, Environmental Protection Agency, Atlanta, GA.

10:15 am BREAK

COPING WITH HYDRILLA EVERYWHERE

10:30 am *Hydrilla verticillata* in New Zealand. **John S. Clayton**, National Institute of Water and Atmospheric Research, Hamilton, New Zealand.

10:45 am Effects of Split Applications of Sonar on Monoecious Hydrilla at Lake Gaston in 1996. **Stratford H. Kay**, Chad R. Coley, and Steve T. Hoyle, Crop Science Department, North Carolina State University, Raleigh, NC.

11:00 am Aquatic Plant Management: "Texas Style". **Michael Smart**, U.S. Army Engineer Waterways Experiment Station, Lewisville Aquatic Ecosystem Research Facility, Lewisville, TX, Mark Webb, and Phil Durocher, Texas Parks and Wildlife Department, Austin, TX.

11:15 am Hydrilla Update from Washington State. **Kathy Hamel**, Washington State Department of Ecology, Olympia, WA; **Sharon Walton**, King County Water and Land Division, Department of Natural Resources, Seattle, WA; **Terry McNabb** and **Ernie Marquez**, Resource Management, Inc., Tumwater, WA; and **Mark Sytsma**, Biology Department, Portland State University, Portland, OR.

11:30 am Hydrilla Eradication "California Style". **Nate Dechoretz**, California Department of Food and Agriculture, Sacramento, CA.

11:45 am **FINAL BUSINESS MEETING AND INSTALLATION OF 1997-98 OFFICERS**
President **Alison M. Cox**, Presiding

12:15 pm **ADJOURNMENT**

1:00 pm **APMS Board of Directors Lunch and Meeting**
Cypress Room

Alternate Papers:

Invasion of Lake Tahoe by Eurasian Watermilfoil: a Tale of Two States. **Lars W.J. Anderson**, USDA-ARS, University of California, Davis, CA.

Hydrophytes: Their Definition and Classification Based on Their Ecology in Tropics. **P. F. Joseph**, Department of Botany, University of Calicut, Kerala State, India.

SPOUSES'/PARTNERS' PROGRAM

Sunday, July 13, 1997

6:30 - 8:30 pm
President's Reception
Sponsored by SePRO Corporation.
Island Room

Monday, July 14, 1997

9:00 am - 2:00 pm
Tour of Edison-Ford Winter Estates and Luncheon
Meet in Main Lobby at 8:30 am

6:30 - 8:30 pm
Reception
Sponsored by American Cyanamid, Applied Biochemists, Monsanto, and Rhône-Poulenc.
Morning Beach Area

Tuesday, July 15, 1997

9:00 - 11:00 am
Tour of J.N. Ding Darling National Wildlife Refuge, Sanibel Island.
Meet in Main Lobby at 8:30 am

7:00 - 10:00 pm
APMS Banquet and Awards Ceremony - with Caribbean music.
Bar sponsored by Elf-Atochem.
Poolside

Past Meeting Sites and Presidents of The Aquatic Plant Management Society

1961 Boca Grande, Florida
 1962 Fort Lauderdale, Florida
 1963 Tampa, Florida
 1964 Tallahassee, Florida
 1965 Palm Beach, Florida
 1966 Lakeland, Florida
 1967 Fort Myers, Florida
 1968 Winter Park, Florida
 1969 West Palm Beach, Florida
 1970 Huntsville, Alabama
 1971 Tampa, Florida
 1972 Miami Springs, Florida
 1973 New Orleans, Louisiana
 1974 Winter Park, Florida
 1975 San Antonio, Texas
 1976 Fort Lauderdale, Florida
 1977 Minneapolis, Minnesota
 1978 Jacksonville, Florida
 1979 Chattanooga, Tennessee
 1980 Sarasota, Florida
 1981 Jackson, Mississippi
 1982 Las Vegas, Nevada
 1983 Lake Buena Vista, Florida
 1984 Richmond, Virginia
 1985 Vancouver, British Columbia
 1986 Sarasota, Florida
 1987 Savannah, Georgia
 1988 New Orleans, Louisiana
 1989 Scottsdale, Arizona
 1990 Mobile, Alabama
 1991 Dearborn, Michigan
 1992 Daytona Beach, Florida
 1993 Charleston, South Carolina
 1994 San Antonio, Texas
 1995 Bellevue, Washington
 1996 Burlington, Vermont

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 July 12 - 15

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