

**Aquatic Plant Management Society, Inc.**  
**58<sup>th</sup> Annual Meeting**  
**July 15-19, 2018**  
**Hyatt Regency Hotel**  
**Buffalo, New York**

**Draft Planning Program**

**Events-at-a-Glance**

**Sunday, July 15:**

APMS Board of Directors Meeting  
Exhibits and Poster Setup  
Registration  
Student Meet-and-Greet  
Presidents' Reception

**Monday, July 16:**

Meeting Opens – 8:00 a.m.  
Keynote, General Session I, and Student Presentations  
Student Affairs Luncheon  
Regional Chapters Presidents' Luncheon  
General Session II, Student Presentations, and Chapter Updates  
APMS Annual Business Meeting  
Poster Session & Reception

**Tuesday, July 17:**

General Session III and Student Presentations  
APMS Past Presidents' Luncheon  
Women of Aquatics Luncheon  
General Session IV and Student Presentations  
Awards Reception  
Awards Banquet - APMS Awards Presentations

**Wednesday, July 18:**

General Session V  
General Meeting Adjourns – 12:20 p.m.  
APMS Board of Directors Meeting

**Thursday, July 19:**

Student Tour

# Agenda

## Sunday, July 15

### Sunday's Agenda-at-a-Glance

- 7:30 am - 5:00 pm APMS Board of Directors Meeting (*Executive Board Room*)
- 12:00 pm - 5:00 pm Exhibits and Posters Setup (*Grand Ballroom ABCD*)
- 1:00 pm - 5:00 pm Registration (*Foyer - Grand Ballroom ABCD*)
- 6:00 pm - 7:00 pm Student Meet-and-Greet (*Regency Ballroom A*)
- 7:00 pm - 9:00 pm President's Reception (*Regency Ballroom ABC*)

## Monday, July 16

### Monday's Agenda-at-a-Glance

- 7:00 am - 8:00 am Continental Breakfast (*Grand Ballroom ABCD*)
- 7:00 am - 7:30 pm Exhibits and Posters Open (*Grand Ballroom ABCD*)
- 7:30 am - 5:00 pm Registration (*Foyer - Grand Ballroom ABCD*)
- 8:00 am - 11:30 am Session I – Keynote, General Session (*Grand Ballroom EFG*)
- 9:20 am - 9:50 am Refreshment Break (*Grand Ballroom ABCD*)
- 11:30 am - 1:00 pm Lunch on your own
- 11:30 am - 1:00 pm APMS Student Affairs Luncheon (*Ellicott Room*)
- 11:30 am - 1:00 pm Regional Chapters Presidents' Luncheon (*Franklin Room*)
- 1:00 pm - 4:25 pm Session II - General Session, Student Presentations, Chapter Updates (*Grand Ballroom EFG*)
- 2:40 pm - 3:10 pm Refreshment Break (*Grand Ballroom ABCD*)
- 4:25 pm - 5:00 pm APMS Annual Business Meeting (*Grand Ballroom EFG*)
- 6:00 pm - 7:30 pm Poster Session and Reception (*Grand Ballroom ABCD*)

### Session I – Keynote, General Session

8:00 am - 11:30 am  
*Grand Ballroom EFG*

- 8:00 am **Call to Order - Announcements**  
**Craig Aguillard – Program Committee Chair**  
*Winfield United, Ville Platte, LA*
- 8:05 am **Presidential Address**  
**John H. Rodgers, Jr.**  
*Clemson University, Department of Forestry and Environmental Conservation, Clemson, SC*
- 8:15 am **Knowledge to Action on Global to Local Invasions**  
**David Lodge**  
*Cornell University, Atkinson Center for a Sustainable Future, Ithaca, NY*
- 8:40 am **Aquatic Plant Control Program Past and Present**  
**Jeremy Crossland**  
*U.S. Army Corps of Engineers, Land Use and Natural Resources, Washington, DC*
- 9:00 am **Circling the Wagons: Implementing New York State's Aquatic Invasive Species Management Plan**  
**Catherine A. McGlynn**  
*New York State Department of Conservation, Albany, NY*

- 9:20 am **Refreshment Break** (*Grand Ballroom ABCD*)
- 9:50 am **Status of Aquatic Plant Management in the Northeast U.S.**  
**Meg Modley**  
*Lake Champlain Basin Program, and NEAPMS Chapter President, Grand Isle, VT*
- 10:10 am **Hydrilla Management in the Croton River (Westchester County, NY): Results from Year 1 of a 5-Year Control Program**  
**Chris J. Doyle**  
*SOLitude Lake Management, Washington, NJ*
- 10:30 am **Evaluating ProcellaCOR for Control of Five Target Aquatic Weeds in New Zealand**  
 Andrew Howell<sup>1</sup>, **Deborah E. Hofstra**<sup>2</sup>, Robert J. Richardson<sup>1</sup>, Mark A. Heilman<sup>3</sup>, and Paul Champion<sup>2</sup>  
<sup>1</sup>*North Carolina State University, Crop and Soil Sciences, Raleigh, NC*  
<sup>2</sup>*National Institute of Water and Atmospheric Research, Freshwater and Estuaries Centre, Hamilton, NZ*  
<sup>3</sup>*SePRO Corporation, Carmel, IN*
- 10:50 am **Absorption and Translocation of Florpyrauxifen-benzyl (Procellacor™) in Selected Aquatic Plant Species**  
**Erika J. Haug**<sup>1</sup>, Mark A. Heilman<sup>2</sup>, Travis Gannon<sup>1</sup>, and Robert J. Richardson<sup>1</sup>  
<sup>1</sup>*North Carolina State University, Crop and Soil Sciences, Raleigh, NC*  
<sup>2</sup>*SePRO Corporation, Carmel, IN*
- 11:10 am **Invasive Aquatic Plants in Connecticut, USA: The State of the State**  
**Greg Bugbee**  
*Connecticut Agricultural Experiment Station, Department of Environmental Sciences, New Haven, CT*
- 11:30 am **Morning Wrap-up and Announcements - Lunch on your own**

## Session II – General Session, Student Presentations, Chapter Updates

1:00 pm – 4:25 pm

*Grand Ballroom EFG*

- 1:00 pm **Nozzle and Speed Selection for Site-Specific Herbicide Applications Using an Unmanned Aerial Sprayer (Student Presentation)**  
**Joseph Hunter**<sup>1</sup>, Travis Gannon<sup>1</sup>, Robert J. Richardson<sup>1</sup>, Joe Neal<sup>2</sup>, and Ramon Leon<sup>1</sup>  
<sup>1</sup>*North Carolina State University, Crop and Soil Sciences, Raleigh, NC*  
<sup>2</sup>*North Carolina State University, Horticulture, Raleigh, NC*
- 1:20 pm **Incorporating Advanced Robotics into Aquatic Plant Management: Development of an Autonomous Aquatic Application System**  
**Robert J. Richardson**<sup>1</sup>, Greg Buckner<sup>2</sup>, Scott Ferguson<sup>2</sup>, Staphan Jernigan<sup>2</sup>, Steve T. Hoyle<sup>1</sup>, and Justin J. Nawrocki<sup>3</sup>  
<sup>1</sup>*North Carolina State University, Crop and Soil Sciences, Raleigh, NC*  
<sup>2</sup>*North Carolina State University, Mechanical and Aerospace Engineering, Raleigh, NC*  
<sup>3</sup>*UPI Incorporated, Holly Springs, NC*
- 1:40 pm **Efficacy of Twelve Non-aquatic Herbicides for Managing Giant Salvinia (Student Presentation)**  
**Bradley T. Sartain**<sup>1</sup> and Christopher R. Mudge<sup>2</sup>  
<sup>1</sup>*Louisiana State University, School of Plant, Environmental and Soil Sciences, Baton Rouge, LA*  
<sup>2</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Baton Rouge, LA*

- 2:00 pm **Field Demonstration of Improvements to Salvinia Weevil Establishment and Giant Salvinia Management as a Result of Nitrogen Amendments**  
**Julie G. Nachtrieb<sup>1</sup>**, William Finkbeiner<sup>2</sup>, and Wesley Maddox<sup>3</sup>  
<sup>1</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Lewisville, TX*  
<sup>2</sup>*Louisiana Department of Wildlife and Fisheries, Inland Fisheries Aquatic Plant Division, Monroe, LA*  
<sup>3</sup>*Louisiana Department of Wildlife and Fisheries, Inland Fisheries Aquatic Plant Division, Forest Hill, LA*
- 2:20 pm **Mechanical Control of Flowering Rush (*Butomus umbellatus* L.) (Student Presentation)**  
**Lee G. Turnage<sup>1</sup>**, John D. Byrd<sup>2</sup>, Ryan M. Wersal<sup>3</sup>, and John D. Madsen<sup>4</sup>  
<sup>1</sup>*Mississippi State University, Geosystems Research Institute, Starkville, MS*  
<sup>2</sup>*Mississippi State University, Plant and Soil Sciences, Starkville, MS*  
<sup>3</sup>*Lonza, Alpharetta, GA*  
<sup>4</sup>*U.S. Department of Agriculture, Agricultural Research Service, Exotic and Invasive Weed Research Unit, Davis, CA*
- 2:40 pm **Refreshment Break** (*Grand Ballroom ABCD*)
- 3:10 pm **Chemical Control of Two Grass Species Under Different Salinity Regimes (Student Presentation)**  
**Candice Prince** and Gregory MacDonald  
*University of Florida, Agronomy Department, Gainesville, FL*
- 3:30 pm **Field Evaluation of Graminicides on *Hymenachne amplexicaulis*, West Indian Marsh Grass: Control and Non-target Effects (Student Presentation)**  
Stephen Enloe and **Kaitlyn Quincy**  
*University of Florida, Agronomy Department, Center for Aquatic and Invasive Plants, Gainesville, FL*
- 3:50 pm **APMS Regional Chapters: An Update on Key Initiatives within Each Region**
- |         |                |          |         |
|---------|----------------|----------|---------|
| Western | South Carolina | Midwest  | Florida |
| Texas   | Northeast      | MidSouth |         |
- 4:25 pm **Adjourn Session II**
- 4:25 pm **APMS Annual Business Meeting** (*Grand Ballroom EFG*)
- 5:00 pm **Adjourn Annual Business Meeting**
- 6:00 pm **Poster Session and Reception** (*Grand Ballroom ABCD*)

## Poster Session

6:00 pm - 7:30 pm

Grand Ballroom ABCD

### **Control of Algal Growth on Irrigated Greenhouse Surfaces Using Commercial Algaecides (Student Presentation)**

**David E. Berthold**<sup>1</sup>, Ariel Elazar<sup>2</sup>, Forrest Lefler<sup>2</sup>, Chris Marble<sup>3</sup>, and Haywood D. Laughinghouse<sup>2</sup>

<sup>1</sup>University of Florida, Fort Lauderdale Research and Education Center, Miami, FL

<sup>2</sup>University of Florida, Fort Lauderdale Research and Education Center, Davie, FL

<sup>3</sup>University of Florida, Mid-Florida Research and Education Center, Apopka, FL

### **Management of Problematic Native Aquatic Vegetation to Enhance Multi-user Benefits in Southeastern Waterbodies (Student Presentation)**

**Kennedy Calhoun**<sup>1</sup>, Gary N. Ervin<sup>2</sup>, and Lee G. Turnage<sup>1</sup>

<sup>1</sup>Mississippi State University, Geosystems Research Institute Starkville, MS

<sup>2</sup>Mississippi State University, Department of Biological Sciences, Starkville, MS

### **A Cryptic Introduction of *Trapa* in the Northeastern United States**

**Greg M. Chorak** and Ryan A. Thum

Montana State University, Plant Science Plant Pathology, Bozeman, MT

### **Investigations into Possible Mechanisms of Selectivity of Endothall Herbicide in Submersed Aquatic Macrophytes (Student Presentation)**

**Michael W. Durham** and Gregory MacDonald

University of Florida, Agronomy Department, Gainesville, FL

### **Aeration of a Shallow Eutrophic Lake: What to Expect**

**Patrick M. Goodwin**

State University of New York Oneonta, Jacksonville, Beach, FL

### **Monoecious *Hydrilla verticillata* Tuber Respiration**

**Erika J. Haug**, Tyler J. Harris, and Robert J. Richardson

North Carolina State University, Crop and Soil Sciences, Raleigh, NC

### **Potential Spread of *Hydrilla (Hydrilla verticillata)* in the Great Lakes Basin (Student Presentation)**

**Kristen M. Hebebrand** and Jonathan M. Bossenbroek

The University of Toledo, Environmental Sciences, Toledo Ohio

### **Utilization of Dual Transducers Improves Hydroacoustic Survey Efficiency (Student Presentation)**

**Andrew Howell**, Steve T. Hoyle, Tyler J. Harris, and Robert J. Richardson

North Carolina State University, Crop and Soil Sciences, Raleigh, NC

### **Mapping Waterhyacinth (*Eichhornia crassipes*) Drift and Dispersal in the San Joaquin Delta Using GPS Drogues**

John Miskella and **John D. Madsen**

U.S. Department of Agriculture, Agricultural Research Service, Invasive Species and Pollinator Health Research Unit, Davis, CA

### **Implementing Monitoring Techniques of *Hydrilla verticillata* in the New Jersey Delaware and Raritan Canal (Student Presentation)**

**Emily R. Mayer**<sup>1</sup> and Amanda Mahaney<sup>2</sup>

<sup>1</sup>SOLitude Lake Management, Washington, NJ and University of Florida, Gainesville, FL

<sup>2</sup>SOLitude Lake Management, Shrewsbury, MA

**New Hampshire Variable Leaf Milfoil (*Myriophyllum heterophyllum*) Response to Florpyrauxifen-benzyl (Procellacor™) Concentration Exposure Times (Student Presentation)**

**Eryn Molloy**, Kara J. Foley, Erika J. Haug, and Robert J. Richardson  
North Carolina State University, Crop and Soil Sciences, Raleigh, NC

**Field Evaluations of Herbicide Efficacy on Invasive *Scleria* Species (*S. lacustris* and *S. microcarpa*) in Florida (Student Presentation)**

**Alexandra L. Onisko**<sup>1</sup>, Gregory MacDonald<sup>2</sup>, Candice Prince<sup>2</sup>, Ellen Allen<sup>3</sup>, and LeRoy Rodgers<sup>3</sup>

<sup>1</sup>University of Florida, Agronomy Department, Jensen Beach, FL

<sup>2</sup>University of Florida, Agronomy Department, Gainesville, FL

<sup>3</sup>South Florida Water Management District, West Palm Beach, FL

**A Workshop Summary: Prioritizing Research for Management of *Nitellopsis obtusa* (starry stonewort)**

**Kaytee L. Pokrzywinski**<sup>1</sup>, Kurt D. Getsinger<sup>1</sup>, and Bradley Steckart<sup>2</sup>

<sup>1</sup>U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS

<sup>2</sup>Washington and Waukesha Counties, Land and Water Conservation Division, West Bend, WI

**Evaluation of a Foliar Endothall Use Pattern for Controlling Crested Floating Heart (*Nymphoides cristata*) and Giant Salvinia (*Salvinia molesta*) (Student Presentation)**

**William J. Prevost**<sup>1</sup>, Christopher R. Mudge<sup>2</sup>, and Michael D. Netherland<sup>3</sup>

<sup>1</sup>Louisiana State University, School of Plant, Environmental, and Soil Sciences, Baton Rouge, LA

<sup>2</sup>U.S. Army Engineer Research and Development Center, Environmental Laboratory, Baton Rouge, LA

<sup>3</sup>U.S. Army Engineer Research and Development Center, Environmental Laboratory, Gainesville, FL

**Efficacy of Waterhyacinth Weevils (*Neochetina* sp.) and the Herbicides Glyphosate, Diquat, and Carfentrazone for Integrated Management of Waterhyacinth (Student Presentation)**

**Sam Sardes**<sup>1</sup>, Lyn Gettys<sup>1</sup>, Stephen Enloe<sup>2</sup>, William H. Kern<sup>1</sup>, and Carey Minter-Killian<sup>3</sup>

<sup>1</sup>University of Florida, Fort Lauderdale Research and Education Center, Davie, FL

<sup>2</sup>University of Florida, Agronomy Department, Gainesville, FL

<sup>3</sup>University of Florida, Entomology Department, Fort Pierce, FL

**A Comparison of Filamentous Algae Herbicide Treatments in Arkansas Ponds**

**George L. Selden**

University of Arkansas at Pine Bluff, Aquaculture/Fisheries Center, Jonesboro, AR

**New Stocking Rates for Triploid Grass Carp (*Ctenopharyngodon idella*)**

Anita Kelly, Scott Jones, and **George L. Selden**

University of Arkansas at Pine Bluff, Aquaculture/Fisheries Center, Jonesboro, AR

**Sequential Applications of Diquat to Control Flowering Rush (*Butomus umbellatus* L.) (Student Presentation)**

**Lee G. Turnage**<sup>1</sup>, John D. Byrd<sup>2</sup>, Ryan M. Wersal<sup>3</sup>, and John D. Madsen<sup>4</sup>

<sup>1</sup>Mississippi State University, Geosystems Research Institute, Starkville, MS

<sup>2</sup>Mississippi State University, Plant and Soil Sciences, Starkville, MS

<sup>3</sup>Lonza, Alpharetta, GA

<sup>4</sup>U.S. Department of Agriculture, Agricultural Research Service, Exotic and Invasive Weed Research Unit, Davis, CA

**Short-term Control of Cuban Bulrush (*Oxycaryum cubense*) Through Submersed Herbicide Applications**

**Lee G. Turnage (Student Presentation)**

Mississippi State University, Geosystems Research Institute, Starkville, MS

## Tuesday, July 17

### Tuesday's Agenda-at-a-Glance

- 7:00 am - 8:00 am Continental Breakfast (*Grand Ballroom ABCD*)  
7:00 am - 5:00 pm Exhibits and Posters Open (*Grand Ballroom ABCD*)  
7:30 am - 5:00 pm Registration (*Foyer - Grand Ballroom ABCD*)  
8:00 am - 11:30 am Session III – General Session and Student Presentations (*Grand Ballroom EFG*)  
9:40 am - 10:10 am Refreshment Break (*Grand Ballroom ABCD*)  
11:30 am - 1:00 pm Lunch on your own  
11:30 am - 1:00 pm APMS Past Presidents' Luncheon (*Franklin Room*)  
11:30 am - 1:00 pm Women in Aquatics Luncheon (*Ellicott Room*)  
1:00 pm - 5:00 pm Session IV – General Session and Student Presentations (*Grand Ballroom EFG*)  
2:40 pm - 3:10 pm Refreshment Break (*Grand Ballroom ABCD*)  
6:00 pm - 7:00 pm Awards Reception (*Foyer – Grand Ballroom EFG*)  
7:00 pm - 10:00 pm Awards Banquet (*Grand Ballroom EFG*)  
8:30 pm - 10:00 pm APMS Awards Presentations – Raffle (*Grand Ballroom EFG*)

### Session III – General Session and Student Presentations

8:00 am - 11:30 am

*Grand Ballroom EFG*

- 8:00 am **Harmful Algal Blooms in New York Lakes: Monitoring and Research**  
**Rebecca Gorney**  
*New York Department of Environmental Conservation, Division of Water, New York, NY*
- 8:20 am **Microcystin-LR Degradation Following Copper-based Algaecide Exposures (*Student Presentation*)**  
**Maas Hendrikse<sup>1</sup>, Ciera Kinley<sup>1</sup>, Kyla Iwinski-Wood<sup>2</sup>, Tyler Geer<sup>1</sup>, Andrew McQueen<sup>3</sup>, Alyssa Calomeni<sup>1</sup>, Jenny Liang<sup>4</sup>, Vanessa Friesen<sup>4</sup>, Monique Simair<sup>4</sup>, and John H. Rodgers, Jr.<sup>1</sup>**  
<sup>1</sup>*Clemson University, Department of Forestry and Environmental Conservation, Clemson, SC*  
<sup>2</sup>*Applied Polymer Systems, Woodstock, GA*  
<sup>3</sup>*U.S. Army Corps of Engineers, Vicksburg, MS*  
<sup>4</sup>*Contango Strategies Ltd., Saskatoon, Saskatchewan, Canada*
- 8:40 pm **Desiccation Tolerance of the Invasive Alga Starry Stonewort (*Nitellopsis obtusa*)**  
**Carli K. Wagner<sup>1</sup>, Wesley Glisson<sup>1</sup>, Michael Verhoeven<sup>1</sup>, Rafael Contreras-Rangel<sup>1</sup>, Ranjan Muthukrishnan<sup>1</sup>, and Daniel J. Larkin<sup>2</sup>**  
<sup>1</sup>*Minnesota Aquatic Invasive Species Research Center, University of Minnesota Twin Cities, Minneapolis, MN*  
<sup>2</sup>*Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota Twin Cities, Minneapolis MN*
- 9:00 am **Rapid Response to an Early Detection of *Nitellopsis obtusa* (Starry Stonewort) in Lake Sylvia, Minnesota, Using a Copper-Based Algaecide (*Student Presentation*)**  
**Tyler Geer<sup>1</sup>, Steve McComas<sup>2</sup>, and John H. Rodgers, Jr.<sup>1</sup>**  
<sup>1</sup>*Clemson University, Department of Forestry and Environmental Conservation, Clemson, SC*  
<sup>2</sup>*Blue Water Science, Saint Paul, MN*
- 9:20 am **Response of Native and Invasive Submersed Aquatic Macrophytes in Three Minnesota Lakes to Carp Removal and Management**  
**Raymond M. Newman and Melaney A. Dunne**  
*University of Minnesota, Fisheries, Wildlife, and Conservation Biology, Saint Paul, MN*
- 9:40 am **Refreshment Break (*Grand Ballroom ABCD*)**

- 10:10 am **Comparing Efficacy of Endothall + Diquat and Endothall + Copper Formulations for *Egeria densa* Control (Student Presentation)**  
**Kristen R. Tanz<sup>1</sup>**, Mirella F. Ortiz<sup>1</sup>, Scott J. Nissen<sup>1</sup>, and Cody J. Gray<sup>2</sup>  
<sup>1</sup>Colorado State University, Bioagricultural Sciences & Pest Management, Fort Collins, CO  
<sup>2</sup>UPI Incorporated, Field Development, Peyton, CO
- 10:30 am **Evaluation of Diquat (Reward) for Submersed Flowering Rush Control in Lake Pend Oreille, ID**  
Kurt D. Getsinger<sup>1</sup>, John D. Madsen<sup>2</sup>, John Skogerboe<sup>3</sup>, **Steve T. Hoyle<sup>4</sup>**, and Robert J. Richardson<sup>4</sup>  
<sup>1</sup>U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS  
<sup>2</sup>U.S. Department of Agriculture, Agricultural Research Service, Invasive Species and Pollinator Health Research Unit, Davis, CA  
<sup>3</sup>Coldwater Environmental, Minneapolis, MN  
<sup>4</sup>North Carolina State University, Crop and Soil Sciences, Raleigh, NC
- 10:50 am **Accuracy of Visual Identification of Hybrid Watermilfoil (Student Presentation)**  
**Jasmine A. Eltawely<sup>1</sup>** Ryan A. Thum<sup>2</sup>, Raymond M. Newman<sup>3</sup>, and Jeff Pashnick<sup>2</sup>  
<sup>1</sup>University of Minnesota, Water Resources Science, Saint Paul, MN  
<sup>2</sup>Montana State University, Plant Sciences and Plant Pathology, Bozeman, MT  
<sup>3</sup>University of Minnesota, Fisheries Wildlife Conservation Biology, Saint Paul, MN
- 11:10 am **Platinum Level Sponsor Presentation – UPI**
- 11:20 am **Gold Level Sponsor Presentation – SePRO Corporation**
- 11:25 am **Gold Level Sponsor Presentation – Syngenta**
- 11:30 am **Morning Wrap-up and Announcements - Lunch on your own**

#### **Session IV – General Session and Student Presentations**

1:00 pm - 5:00 pm

Grand Ballroom EFG

- 1:00 pm **Aquatic Plant Management in the U.S. Army Corps of Engineers - Wilmington District Lakes (Student Presentation)**  
**Kara J. Foley**, Steve T. Hoyle, Tyler J. Harris, and Robert J. Richardson  
North Carolina State University, Crop and Soil Sciences, Raleigh, NC
- 1:20 pm **Marsh Madness: Lessons from a Swamp (Student Presentation)**  
**Sonja L. Wixom<sup>1</sup>** and Jeffrey Heilveil<sup>2</sup>  
<sup>1</sup>State University of New York, Biology Department, Cooperstown, NY  
<sup>2</sup>State University of New York, Biology Department, Oneonta, NY
- 1:40 pm **Laboratory and Mesocosm Evaluation of Growth and Herbicide Response in Eurasian Watermilfoil and Four Accessions of Hybrid Watermilfoil (Student Presentation)**  
**Jens Beets<sup>1</sup>** and Michael D. Netherland<sup>2</sup>  
<sup>1</sup>University of Florida, Agronomy Department, Gainesville, FL  
<sup>2</sup>U.S. Army Engineer Research and Development Center, Environmental Laboratory, Gainesville, FL
- 2:00 pm **Temperature as a Driver of Waterhyacinth (*Eichhornia crassipes*) Growth in the Sacramento / San Joaquin River Delta**  
**John D. Madsen**  
U.S. Department of Agriculture, Agricultural Research Service, Invasive Species and Pollinator Health Research Unit, Davis, CA



- 2:20 pm **Effects of Repeated Herbicidal Control and Environmental Conditions on Curlyleaf Pondweed**  
(*Student Presentation*)  
Michael R. Verhoeven<sup>1</sup>, Daniel J. Larkin<sup>2</sup>, and Raymond M. Newman<sup>2</sup>  
<sup>1</sup>University of Minnesota, Aquatic Invasive Species Research Center, Saint Paul, MN  
<sup>2</sup>University of Minnesota, Fisheries, Wildlife and Conservation Biology, Saint Paul, MN
- 2:40 pm **Refreshment Break** (*Grand Ballroom ABCD*)
- 3:10 pm **Consumer Available sUAS (Small Unmanned Aircraft Systems) for Macrophyte Mapping and Management** (*Student Presentation*)  
Andrew Howell and Robert J. Richardson  
North Carolina State University, Crop and Soil Sciences, Raleigh, NC
- 3:30 pm **Deep in the Weeds of Aquatic Plant Management in New Jersey's Delaware and Raritan Canal**  
Jon Gosselin<sup>1</sup>, Heather Desko<sup>2</sup>, Emily R. Mayer<sup>3</sup>, Chris J. Doyle<sup>4</sup>, and Mark A. Heilman<sup>5</sup>  
<sup>1</sup>SePRO Corporation, Manchester, NH  
<sup>2</sup>New Jersey Water Supply Authority, Clinton, NJ  
<sup>3</sup>SOLitude Lake Management, Washington, NJ and University of Florida, Gainesville, FL  
<sup>4</sup>SOLitude Lake Management, Washington, NJ  
<sup>5</sup>SePRO Corporation, Carmel, IN
- 3:50 pm **Effectiveness of Canopeo in Quantification of Photosynthetic Colors for Macrophyte Monitoring**  
(*Student Presentation*)  
Eric White, Andrew Howell, Steve T. Hoyle, and Robert J. Richardson  
North Carolina State University, Crop and Soil Sciences, Raleigh, NC
- 4:10 pm **Colorimetric Detection of Invasive Plant Species in Environmental DNA Samples**  
Paul Czechowski<sup>1</sup>, Jose Andres<sup>1</sup>, and David Lodge<sup>2</sup>  
<sup>1</sup>Cornell University, Department of Ecology and Evolutionary Biology, Ithaca, NY  
<sup>2</sup>Cornell University, Atkinson Center for a Sustainable Future, Ithaca, NY
- 4:30 pm **Integrated Weed Management Solution for the Invasive Aquatic Weed Hydrilla**  
James P. Cuda<sup>1</sup>, Emma Weeks<sup>1</sup>, Jennifer Gillett-Kaufman<sup>1</sup>, Mark Hoyer<sup>2</sup>, and Mark Jackson<sup>3</sup>  
<sup>1</sup>University of Florida, Entomology and Nematology Department, Gainesville, FL  
<sup>2</sup>University of Florida, School of Forest Resources and Conservation, Fisheries and Aquatic Sciences, Gainesville, FL  
<sup>3</sup>U.S. Department of Agriculture, Agriculture Research Service (Retired), Peoria, IL
- 4:50 pm **Afternoon Wrap-up and Announcements**
- 6:00 pm **Awards Reception** (*Foyer – Grand Ballroom EFG*)
- 7:00 pm **Awards Banquet** (*Grand Ballroom EFG*)

## Wednesday, July 18

### Wednesday's Agenda-at-a-Glance

7:00 am	-	8:00 am	Continental Breakfast ( <i>Grand Ballroom ABCD</i> )
7:00 am	-	10:00 pm	Exhibits and Posters Open ( <i>Grand Ballroom ABCD</i> )
7:30 am	-	12:00 pm	Registration ( <i>Foyer - Grand Ballroom ABCD</i> )
8:00 am	-	12:20 pm	Session V - General Session ( <i>Grand Ballroom EFG</i> )
9:40 am	-	10:00 am	Refreshment Break ( <i>Grand Ballroom ABCD</i> )
12:20 pm	-	12:30 pm	Wrap-up and Adjourn 58 <sup>th</sup> Annual Meeting
12:45 pm	-	1:30 pm	APMS Board of Directors Lunch ( <i>Ellicott Room</i> )
1:30 pm	-	5:00 pm	APMS Board of Directors Meeting ( <i>Ellicott Room</i> )

### Session V – General Session

8:00 am - 12:20 pm

*Grand Ballroom EFG*

8:00 am     **Comparing Efficacy Between Generic vs. Proprietary Aquatic Herbicides for Control of Floating Plants**

**Christopher R. Mudge<sup>1</sup>** and Kurt D. Getsinger<sup>2</sup>

<sup>1</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Baton Rouge, LA*

<sup>2</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS*

8:20 am     **Lake Cayuga Monoecious Hydrilla Demonstration Project, Aurora, New York**

**Dean Jones<sup>1</sup>**, Richard J. Ruby<sup>2</sup>, Michael J. Greer<sup>2</sup>, and Michael D. Netherland<sup>3</sup>

<sup>1</sup>*University of Florida, Center for Aquatic and Invasive Plants, Lake Alfred, FL*

<sup>2</sup>*U.S. Army Corps of Engineers, Buffalo District, Buffalo, NY*

<sup>3</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Gainesville, FL*

8:40 am     **Erie Canal Monoecious Hydrilla Demonstration Control Project, Buffalo, New York**

**Richard J. Ruby<sup>1</sup>**, Michael J. Greer<sup>1</sup>, Dean Jones<sup>2</sup>, and Michael D. Netherland<sup>3</sup>

<sup>1</sup>*U.S. Army Corps of Engineers, Buffalo District, Buffalo, NY*

<sup>2</sup>*University of Florida, Center for Aquatic and Invasive Plants, Lake Alfred, FL*

<sup>3</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Gainesville, FL*

9:00 am     **Evaluation of Herbicides and Combinations for Management of the Submersed Weeds *Hygrophila* and *Fanwort***

**Lyn A. Gettys**, Kyle L. Thayer, Ian J. Markovich, and Mohsen Tootoonchi

*University of Florida, Fort Lauderdale Research and Education Center, Davie, FL*

9:20 am     **Great Lakes Hydrilla Risk Assessment**

**Carl E. Mach**

*Ecology and Environment, Inc., Lancaster, NY*

9:40 am     **Refreshment Break (*Grand Ballroom ABCD*)**

10:00 am    **Evaluating Long-term Effectiveness of Phoslock<sup>®</sup> in Water Resource Restoration**

**West M. Bishop<sup>1</sup>**, Tim S. Epe<sup>2</sup>, Karin Finsterle<sup>2</sup>, Said Yasseri<sup>2</sup>

<sup>1</sup>*SePRO Corporation, Whitakers, NC*

<sup>2</sup>*Institut Dr. Nowak GmbH & Co. KG – Limnology, Ottersberg, Germany*

- 10:20 am **Fate of Microcystins in Nearshore and Upland Environments: A Dredged Material Management Perspective**  
**Andrew D. McQueen<sup>1</sup>**, Mike W. Habberfield<sup>2</sup>, Karen G. Keil<sup>2</sup>, and Burton C. Suedel<sup>1</sup>  
<sup>1</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS*  
<sup>2</sup>*U.S. Army Corps of Engineers, Buffalo District, Buffalo, NY*
- 10:40 am **Assessing Physiological Stress and Changes in Toxin Quota in Harmful Cyanobacteria Using Hyperspectral Imaging**  
**Kaytee L. Pokrzywinski<sup>1</sup>**, Steven Everman<sup>1</sup>, Kenneth Matheson<sup>1</sup>, Gary Blakeney<sup>1</sup>, Shea Hammond<sup>1</sup>, Scott Bourne<sup>1</sup>, Cliff Morgan<sup>1</sup>, and Molly Reif<sup>2</sup>  
<sup>1</sup>*U.S. Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS*  
<sup>2</sup>*Joint Airborne Lidar Bathymetry Technical Center of Expertise, Kiln, MS*
- 11:00 am **Cyanotoxins in Drinking Water Resources: Best Management Practices and Regulations**  
**Brad A. Bartelme**  
*EnviroScience, Incorporated, Cleveland, OH*
- 11:20 am **Biosecurity Partnership in Action**  
**Marcus Girvan**  
*Boffa Miskell Ltd., Christchurch, NZ*
- 11:40 am **Mapping of Emergent and Floating-leaf Aquatic Vegetation Using a Machine Learning Process with Satellite Imagery (EcoSat): Experiences in Florida**  
**Ray D. Valley<sup>1</sup>**, Marcus Bindel<sup>2</sup>, Hendrik Bernert<sup>2</sup>, and Kevin Johnson<sup>3</sup>  
<sup>1</sup>*C-MAP USA, BioBase, Minneapolis, MN*  
<sup>2</sup>*EOMAP GmbH & Co. KG, Seefeld, Germany*  
<sup>3</sup>*Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute, Gainesville, FL*
- 12:00 pm **Koronis Lake Association Fights Starry Stonewort “To Infinity and Beyond”**  
**Kevin Farnum**  
*Koronis Lake Association, Delano, MN*
- 12:20 pm **Wrap-up and Adjourn 58<sup>th</sup> Annual Meeting**  
**John H. Rodgers, Jr.**  
*Clemson University, Department of Forestry and Environmental Conservation, Clemson, SC*