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40th **Annual Meeting** of the

Florida Aquatic Plant Management Society



Hilton Daytona Beach Resort/Ocean Walk Village
Daytona Beach, Florida
October 17-20, 2016

Approved for Continuing Education Units by the Florida Department of Agriculture and Consumer Services

APPROVED CEUs (max per person: 17)

CORE (482 or 487)	2
Aquatic	16
Demo & Research	14.5
Natural Areas	11
Private	14.5
Right-of-Way	9

Program
Kris Campbell
Lyn A. Gettys
Karen Brown

OFFICERS 2015-2016

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Keith Mangus	Linda Defee	Joyce Hertel
Mike Hulon	Kelli Gladding	Scott Jackson

Monday, October 17, 2016

- 1:00 Exhibit/Vendor Setup - Coquina D & E until 6:00p
- 3:00 FAPMS Board of Directors – Coquina A

Tuesday, October 18, 2016

- 8:00 Registration and exhibits open until 6:00p
- 8:00 Past Presidents Meeting/FAPMS Research and Scholarship Foundation Meeting – Ponce De Leon

SESSION 1: Keynote and Hot Topics (FDACS 22042)

Coquina F, G & H; Moderator - Angie Huebner

10:00 Call to Order and Presidential Address

Angie Huebner, FAPMS President

Announcements – Program, Local Arrangements, **CEUs**

10:25 Keynote: FAPMS and 40 years of aquatic weed control in Florida

Joe Joyce, UF/IFAS (retired)

10:50 Florida's invasive plants: A capital concern

Sarah Busk, The Advocacy Group at Cardenas

Partners

11:15 Intervening in major algal "blooms" in Florida

John Rodgers, Clemson University

11:40 Lunch (on your own)

FAPMS PAST PRESIDENTS

1977 Leslie Bitting Sr. 1978 Leslie Bitting Sr.

1979 Harold Brown

1980 Bill Haller

1981 Joe Joyce

1982 William Maier

1983 Carlton Layne

1984 Paul Myers

1985 Clarke Hudson

1986 **David Tarver**

1987 Michael Mahler

1988 **Eddie Knight**

1989 Bill Moore

1990 **Brian Nelson**

1991 Dan Thayer

1992 Ken Langeland

1993 Wayne Corbin

1994 Wendy Andrew

1995 Mike Hulon

1996 Don Doggett

1997 Ernie Feller

1998 Francois Laroche

1999 Jim Brewer

2000 Jeff Schardt

2001 Nancy Allen

2002 John Rodgers

2003 P.J. Myers

2004 **Steve Weinsier**

2005 **Keshav Setaram**

2006 Bill Moore

Vicki Pontius 2007

2008 Chance DuBose

2009 Mike Netherland

2010 Mike Bodle

2011 Vernon Vandiver

2012 Jerry Renney

2013 Tim Harris

2014 James Boggs Jr.

2015 **Ed Harris**

HONORARY LIFETIME MEMBERS

Leslie E. Bitting, Sr. (1996)

Edward D. Knight (1997)

William T. Haller (2006)

Andy L. Price, Sr. (2006)

Vernon V. Vandiver, Jr. (2006)

William H. Moore (2011)

Carlton Layne (2012)

Ken Langeland (2013)

Don Doggett (2013)

Stephanie McCarty (2014)

Jeff Schardt (2014)

FAPMS CHARTER MEMBERS continued

Seaver, Harry R. Sheppardson, Terry Shinholser, James F Smith, Robert W. Sparkman, Perry L. Spirnock, Ray A. Stafford, Jr., Frank S. Stanley, J. G. Steward, Charles W. Steward, Frank E. Steward, Kerry K. Stokes, Glenn M. Stoll, Richard H. Sutton, David L Sweat, Harry Szymborski, Richard A. Tarver, David P. Taylor, Thomas M. Temples, Glenn C. Thomas, Paul A.

Tomasello, Rudolph P.

Trent, Lowell L. Tucker, Sr., Marvin R.

Tye, Carl Vance, Grady

Vandiver, Jr., Vernon V.

Vowell, James E. Walker, Billy Joe Waters, Donald B. Weber, Richard Lee Weedon, J. Stanley Widmann, Donald C. Williams, James L. Wilson, Frank

Woodman, William J. Worsham, W. A. Wright, Lewis

Wunderlich, William E.

Yager, J. L. Yoder, Philip J. Young, Phillip

Don't forget



Presidential Reception: Tuesday at 5:30 Mai Tai at Bubba Gump's

Duck Races: Wednesday at 5:30 Poolside Terrace – 5th floor, north tower

FAPMS Awards Banquet: Wednesday at 7:00 Coquina A, B & C

Grand Prize Drawing: Thursday at 11:45 Coquina F, G & H

SESSION 2: Product and label updates (FDACS 22043)

Coquina F, G & H; Moderator – Scott Jackson

T.UU FNIZE DIVAVVIIV	1:00	PRIZE	DRA	WII	٧G
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- 1:05 UPI - Tools for a successful aquatic plant management program Jeremy Slade, UPI
- 1:25 Innovating algae and weed management: new and not so new approaches Michael Shaner, SePRO
- 1:40 Syngenta industry updates Scott Jackson, Syngenta
- **Product update from CPS** 1:55 **Moe Finke**, Crop Production Services
- 2:10 Advancements in peroxygen algacide Tom Warmuth, BioSafe Systems
- 2:20 Restoring the earth one foot at a time Brian Fischer, Lake & Wetland Management, Inc.
- 2:30 Texas Aquatic Harvesters and much more Mike Hulon, Texas Aquatic Harvesting
- 2:40 **Product updates from WinField** Dharmen Setaram, WinField
- 2:45 **BREAK**

SESSION 3: Invasive species resources (FDACS 22044)

Coquina F, G & H; Moderator - Lyn Gettys

- 3:00 **PRIZE DRAWING**
- 3:05 Invasive Plant Management Association (IPMA) state FY 2015-16 summary and FY 2016-17 legislative session update Jim Burney, IPMA
- 3:30 **FAPMS** partnering with CISMAs Kelli Gladding, SePRO
- 3:55 Invasive plant education – Invading a classroom near you! Dehlia Albrecht, UF/IFAS
- 4:20 FDACS compliance, an applicator's perspective - or why it's important to read labels thoroughly and often Jerry Renney, Applied Aquatic

4:45	A little rebellion now and then is a good thing Carlton Layne, AERF		
		Abramson, Stanley	Hogan, William D.
5:10	Adjourn	Adams, John	Holmes, Pennie
3.10	, a journ	Almand, C. William	Hope, Donald E.
F.20	Presidential Passantian Mai Tri at Bubba Cuma/s	Anderson, Paul	Hopkins, Jr., Sam B.
5:30	Presidential Reception – Mai Tai at Bubba Gump's	Arnold, Wendell	Huckabee, Alvin B.
		Baird, Douglas D.	Hudson, Clarke
	Wednesday, October 19, 2016	Baker, Gordon	Jenkins, James P.
		Barnette, William	Jenus, Joseph, Jr.
	SESSION 4: Aquatic vegetation (FDACS 22045)	Bay, P. A. M.	Johnston, Donald C.
	Coquina F, G & H; Moderator – Stephen Enloe	Beasley, Larry Betz, George	Jones, Dan Joyce, Joe
	coquina 1, 0 & 11, Moderator Stephen Embe	Bitting, Les	Karby, Steven
0.00		Blackburn, Candy	Kawaguchi, Paul
8:00	PRIZE DRAWING	Blackburn, Robert	Kelso, John T.
		Blakely, Robert	King, Paul C.
8:05	Welcome to the jungle: Hydrilla with an appetite	Boykin, R. Ken	Lambert, Porter
	for destruction!	Brewer, Paul	Land, Rex E.
	Amy Giannotti, City of Winter Park	Brightwell, R. E.	Land, W. E.
	Amy Glaimotti, City of Willter Fark	Brooks, Thomas	Lawson, Walter R.
		Brown, Deanna	Layer, John L.
8:30	New IPM approach for hydrilla management:	Brown, Donald W.	Layne, Carlton
	Research update	Brown, Harold F.	Leasure, A. D.
	Jim Cuda, UF/IFAS	Brown, Martin	Lee, Donald V.
	Jim Guda, 61711718	Burkhalter, Alva P.	Lee, Russell C.
0.55	The effect of hamid demotion desirentian and	Campbell, Edward	Lowder, Edward C.
8:55	The effect of burial duration, desiccation and	Carson, Webster B.	Lowe, Glen L
	daylength on sprouting of crested floatingheart	Carter, Chris C.	Maddox, Larry L.
	Ian Markovich, UF/IFAS	Chandler, Lawrence	Madison, Edward, Jr.
		Christian, Donald G.	Mahler, Michael J.
9:20	Inventory and potential harvesting of non-native	Clark, James E.	Maier, Bill
3.20	• • •	Clark, Roy P.	McCarty, William A.
	aquatic plants in coastal urban waters	Cook, Jon	McDonald, Eugene E.
	Phillip Bellamy, Bethune-Cookman University	Cool, Carl	McKinney, Larry M.
		Cribbs, Benjamin	McMillian, William H.
9:45	BREAK	Cummings, Herb	Merritt, Ralph
		Day, Ronald L.	Mickler, Hampton J.
	SESSION 5: Weed management (FDACS 22046)	Deets, Paul	Miller, Edward J.
_	<u> </u>	Deets, Peter J.	Minter, Tom
C	oquina F, G & H; Moderator – Greg MacDonald	Dequine, John F.	Moherek, Emil A.
		Dilmore, R. W.	Monahan, William T.
10:00	PRIZE DRAWING	Dinagan, F. J. Downing, Kevin	Moore, William H. Mosier, Greg
		Drda, Thomas F.	Mullens, Thomas C.
10:05	Aquatic and upland grasses	Edwards, William G.	Murninghan, Jack
	Candice Prince, UF/IFAS	Flavin, James P.	Myers, Vernon W.
	Candice Finite, 01/11/A3	Fllori, Carl Dr.	Nichols, Gary D.
		Flowers, Charles J.	Orsenigo, J. R.
10:30	Invasive grass control with sethoxydim in Florida	Fredell Sr., Oran	Parham, Carl A.
	Stephen Enloe, UF/IFAS	Friedman, Herbert J.	Pederson, Pete
		Frizzell, Johnie	Perryman, Jerry M.
10:55	Treatments and trials around south Florida	Gardner, John W.	Phillippy, Clayton L.
10.55		Garrard, Leon A.	Phillips, P. W.
	Mike Bodle, SFWMD	Gates, Robert J.	Pieroni, Alfi M.
		German, Louis	Price, Andy L.
11:20	Taxonomic results and identification of the	Glenn Jr., John E.	Pruitt, Gary W.
	Ludwigia uruguayensis complex in Florida	Grote, J. C.	Raimondo, Paul
	Colette Jacono, UF/IFAS	Hale, Lee	Ranson, James H.
		Hall, B. Lamar	Rapp, James B.
11.45	LUNCH (on your own)	Haller, Bill	Raulerson, Edgar W.
11:45	LUNCH (on your own)	Hardy, Paul E.	Rivelli, Thomas A.
		Hargrove, Chuck	Rushing, William N.
		Harp, Jean B.	Sassic, Nicholas
		Harper, George L.	Scherer, Lester E.
		Hestand, Rue S. Hinkle, Joe C	Schweigart, Joe Sconvers Max C
		DIDKIE IVE L	SCHOOLS IVIAAL

VOTING SLATE FOR PRESIDENT-ELECT AND BOARD OF DIRECTORS

President-Elect: Keith Mangus

Keith has been an active member of FAPMS since he entered our industry in 1996 as a Licensed Applicator for Applied Aquatic Management, Inc. During his tenure at AAM, Keith has been instrumental in many of AAM's projects as both an applicator and/or supervisor. Keith currently manages a team of licensed applicators on Governmental projects for AAM. These clients include various County and City Governments as well as the SFWMD, FFWCC, and the ACOE. Keith oversees the day to day operations on these projects. Keith is also involved with the planning, scheduling and execution of large and small scale treatments for nuisance and exotic floating, submersed and emergent vegetation. Keith was awarded the Applicator of the Year award in 2008.

Board of Directors: Randy Snyder

Randy has been trained in Tactical Air Traffic Control through the US Marine Corps. He has worked for the St. Johns River Water Management District for 23 years in the aquatic plant management field. His current job title is Invasive Plant Control Program Supervisor. Randy's primary responsibilities are to asses, oversee, and monitor vegetation management activities within the St. Johns River Water Management's South Central and Southern areas. Responsible for oversight of all aerial and ground services contractors, and the execution and management of the Florida Fish and Wildlife Commissions Cooperative Aquatic Plant Control reimbursement Program.

Board of Directors: Jeff Holland

Jeff Holland is a professional Limnologist and Deputy Manager with the Reedy Creek Improvement District, specializing in watershed management and practical solutions to lake management challenges. He started his career in Oceanography with a degree from the Florida Institute of Technology in 1984, and his first job was a Seismic Oceanographer with Teledyne Marine Exploration Division, Houston, TX. Jeff was first introduced to the Florida Aquatic Plant Management Society in 1986 by his professor Dr. John Osborne. He held the volunteer position of Editor for FAPMS Aquatics Magazine from 2004 through 2010, and earned the FAPMS Presidential Award in 2010. After obtaining a Bachelor's degree in Limnology from UCF, Jeff became employed at the RCID Environmental Sciences Laboratory where he joined the team monitoring water quality, conducting bioassessments of lakes and streams, supervising aquatic plant management, managing fisheries, and performing GIS evaluations for the local District. Jeff has conducted numerous aquatic plant management and herbicides studies in Central Florida, many of which have indirectly contributed to various scientific findings and publications. When not at work, Jeff and his wife Trish (married 29 years) raise a family of four kids and volunteer with the local charities such as "Kids In Support of Soldiers". Jeff has maintained a second career of becoming a professional bass angler through competition on the Bassmaster Opens, Bass Nation, and American Bass Anglers Pro/AM tournament trails since 1999.

Board of Directors: Robbie Lovestrand

Robbie earned his MS Wildlife and Fisheries Science degree from Texas A&M University in 1986. From 1986-89, Robbie worked with Dr. Dan Canfield and Dr. Chuck Cichra in the UF Fisheries Department. He assessed the role of aquatic plants in lakes and also worked in aquatic education and pond management. From 1989 to present, Robbie has worked as the FWC Invasive Plant Management Regional Biologist for Marion, Levy, Citrus, Hernando, and Sumter Counties. Currently Office Manager for the SW Regional Office, he supervises staff and assists the public with aquatic plant questions and aquatic plant control permitting. Robbie also surveys, plans and monitors aquatic plant control work in the public waterbodies. Robbie has been an FAPMS member since 1989 and has chaired several committees.

SESSION 6: Tools in the toolbox (FDACS 22047)

Coquina F, G & H; Moderator – Lyn Gettys

- 1:05 Efficacy of herbicides on <u>Ludwigia hexapetala</u> and <u>Ludwigia grandiflora</u> types in Florida
 Afsari Banu, UF/IFAS
 - 1:25 **Maximum penetration or not? Matthew Cole, SJRWMD**

PRIZE DRAWING

- 1:45 The use of anionic polymer blends to manage nutrients, keep water clean, and improve productivity

 Eddie Snell, Applied Polymer Services
- 2:05 There's an app for that
 Tony Pernas, Big Cypress National Preserve
- 2:25 EcoAnalytics and Canopeo: New tools to assist with surveying aquatic plant communities and monitoring aquatic plant management impacts

 Dean Jones, UF/IFAS
- 2:45 **BREAK**

1:00

SESSION 7: More tools in the toolbox (FDACS 22048)

Coquina F, G & H; Moderator - Angie Huebner

- 3:00 PRIZE DRAWING
- 3:05 Practicing what we preach: Herbicide safety and awareness
 Stephen Montgomery, Allstate Resource Mgmt.
- 3:30 USACE UAS applications for aquatic plant management
 Victor Wilhelm, USACE
- 3:55 FAPMS Annual Business Meeting
- 4:20 **Equipment Demonstration The Park Dharmen Setaram,** WinField Solutions
- 5:00 Adjourn
- 5:30 Duck Races Poolside Terrace 5th floor, north tower
- 7:00 FAPMS Awards Banquet Coquina A, B & C

Thursday, October 20, 2016

Notes

SES:	SION 8: Weed biology and control (FDACS 22049) Coquina F, G & H; Moderator – Lyn Gettys	
8:00	PRIZE DRAWING	
8:05	Introduction to the biology and ecology of cyanobacteria Bruce Richards, WeeDoo	
8:25	Establishing aquatic plants in the Lower Withlacoochee River: Some observations and recommendations Bruce Jaggers, FWC	
8:45	Development of a novel herbicide technology for aquatic plant management in Florida Mark Heilman, SePRO	
9:05	The basics of pesticide resistance (Part I) Fred Fishel, UF/IFAS	
9:25	The details of resistance: hydrilla (Part 2) Lyn Gettys, UF/IFAS	
9:45	BREAK	
	ESSION 9: invasive management (FDACS 22050) Coquina F, G & H; Moderator – Andy Fuhrman	
10:00	PRIZE DRAWING	
10:05	Evaluation of new herbicides for creeping water primrose (<u>Ludwigia hexapetala</u>) control Stephen Enloe, UF/IFAS	
10:25	Evaluation of factors influencing growth and response to herbicides by the native grass Paspalidium geminatum Jens Beets, UF/IFAS	
10:45	Lygodium and Chinese tallow control Greg MacDonald, UF/IFAS	
11:05	Brazilian pepper tree (Schinus terebinthifolius) control in Florida's mangrove communities Cody Lastinger, UF/IFAS	
11:25	Integrating lake vegetation data into FWC'S freshwater fisheries long-term monitoring program Kevin Johnson, FWC	
11:45	Grand prize drawing	
Noon	CONFERENCE ENDS	