





Dedicated to Sharing Information About Water Management and the Florida LAKEWATCH Program Volume 76 (2017)

New Statewide Data Management System

By Mark Hoyer, LAKEWATCH Director

Florida Department of Environmental Protection (FDEP) has developed a new data base management system called WIN (Watershed Information Network) and LAKEWATCH is adjusting our data management practices to include all the information required by WIN. That way FDEP can access all the LAKEWATCH data to use for the best management of Florida's aquatic resource. You may have already noticed that the LAKEWATCH field sheets have changed adding spaces where the time samples are collected can be recorded. Please remember to fill out the times, so all LAKEWATCH data can be entered in the new system. And, as always, we thank you for your dedication to the LAKEWATCH program and help in collecting the best data for management of Florida's valuable aquatic resource.

Elorido I	AKEWATCH	Erochwater	Data Shoot
Fiorida L	.AKEWAICH	Freshwater	Data Sneet

Lake Name	:County:
Sampler: _	
Phone:()Date:
Yes No	Surface Water Collected for Total Phosphorus and Total Nitrogen. Surface Water Collected for Chlorophyll and Filtered Within 48 Hours. Secchi Depth Reading Taken

Secchi Disc Measurements:

 For Secchi depth and water depth measurements, please indicate the number of feet and then estimate and circle the appropriate fraction, if needed.
 If your disc is visible on the bottom write B, If your disc disappears in the weeds write in the properties of the properties

If your disc is visible on the bottom write B, If your disc disappears in the weeds write with in a vanishing point column and the depth at which your disc disappears.

Van	ishing Point	Sun Code Number	Sun Code Key Use the codes from below to fill in the Sun Code Number column.	Water Depth	Time
Sta 1	ft. 1/4 1/2 3/4		1 = full sun	ft. 1/4 1/2 3/4	
Sta 2	ft. 1/4 1/2 3/4		2 = haze over sun	ft. 1/4 1/2 3/4	
Sta 3	ft. 1/4 1/2 3/4		3 = thin cloud	ft. 1/4 1/2 3/4	
			4 = medium cloud cover		
			5 = heavy cloud cover		

DESCRIBE the amount and duration of any unique occurrences that have occurred within two weeks or so before your sampling date either in the take or on the local

Lake Level Measurements: Please circle or describe the type of gauge located in the lake and then
record the lake level. Type of Staff Gauge: WMD / City / LCWA / USGS / Other (Please
describe):

Lake level: _____ Rain (in.) since last report: ____

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^{*} If you wish to record lake levels of your lake, please fill in these last two blank. Call LAKEWATCH (1-800 LAKEWAT) if you have any questions on how to get started.

Mattie Kelly Environmental Institute (MKEI) in Action— Creating Impact in Northwest Florida and Beyond

By Dana Stephens

Who is MKEI?

Mattie M. Kelly Environmental Institute (MKEI) is a motivated, growing team striving to impact science, education, and the community. MKEI believes in cultivating partnerships to create sustainable environmental change bettering our globe. Through research and teaching, we promote innovation and passion to empower a diversity of communities. We build capacity to inspire global, environments of change.

MKEI exists due to the late

Mattie M. Kelly's generous endowment to Northwest Florida State College to create the Mattie M. Kelly Cultural and Environmental Institute. Mattie M. Kelly Cultural and Environmental Institute house the Mattie M. Kelly Environmental Institute and Mattie Kelly Arts Center. Together these entities are dedicated to Mattie M. Kelly's vision to enhance the culture, environment, history, and instruction of the northwest Florida area and beyond.

How does MKEI have impact?

MKEI holds many annual events ranging from technical symposiums to advance research, family festivals to provide hands-on experiences for children and families to explore the environment, and community education seminars and workshops to include citizen scientists and others in the journey towards a more sustainable environment. MKEI has strong partnerships with other entities, such as the Choctawhatchee Basin Alliance (CBA), Florida Department of Environmental Protection, South Alabama, and University of Flor-(Florida LAKEWATCH, SeaGrant). Due to these part-

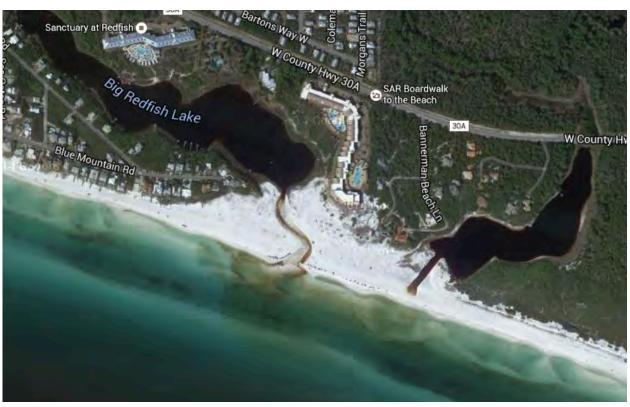


Figure 1. Outfalls associated with Northwest Florida's coastal dune lakes. Outfall at Big Redfish Lake (left) is open to the Gulf of Mexico, while outfall at Little Redfish Lake (right) is closed to the Gulf of Mexico.

nerships, MKEI has begun to move forward with exciting research activities in Northwest Florida region.

What are MKEI's research foci for 2017?

In 2017, MKEI focused research efforts to build a foundational understanding of Northwest Florida's coastal dune lakes. Walton County recognizes 15 lakes located along the emerald coast of Florida (Mirimar Beach, FL to Panama City, FL) as coastal dune lakes. These lakes are unique from other Florida lakes as they function differently. Coastal dune lakes are permanent water bodies located in the sand dunes of the marine coast. Water in the lakes interchanges with marine waters via connections (outfalls) that periodically open and close to the Gulf of Mexico (Figure 1). Outfall status (opened or closed) causes fluctuation in saline content of the water. Consequently, lakes may have saline wedges below freshwater. This means a largemouth bass and red fish may be

caught in the same lake on the same day!

Since 2001, Choctawhatchee (CBA)/Florida Basin Alliance LAKEWATCH citizen scientists have monitored the water chemistry and quality of the Northwest Florida's coastal dune lakes. Due to these great efforts, an extensive water chemistry and quality dataset exists. Trend analysis of trophic state variables (e.g., total phosphorus, total nitrogen, chlorophyll concentrations, and water transparency as measured by the Secchi disk), show increasing, decreasing, and no change trends among the coastal dune lakes (Table 1). Currently, MKEI is working on a publication to share the long-term trend results along with broad examination outfall status effects on water chemistry and quality among the coastal dune lakes.

Despite the exceptional water chemistry and quality database, there has not been much research completed to understand the history, morphology, flora, or fauna of Northwest Florida's coastal dune lakes. Hoyer et al. (2008) completed a management plan for the coastal dune lakes, which included a summary of the available, yet limited data. MKEI is working to bolster data and knowledge of these unique, aquatic systems. To do so, MKEI is surveying vegetation, fish, and phytoplankton among coastal dune lakes. In collaboration with geologists, MKEI is also completing hydrologic studies and examining lake cores (i.e., accumulation of bottom mud in the lake) to better understand how the lakes functioned in the past and function today.

Why can MKEI do this research?

Everyday with MKEI is exciting. But, it is citizen scientists and their devotion to collect data to better understand aquatic ecosystems that drive us to be excited and have impact. It is because of you we want to make a difference for our environment. Thank you, LAKEWATCH volunteers, for all you do!

Variable	Increase (%)	Decrease (%)	No Change (%)
Total phosphorus	24	6	70
Total nitrogen	24	6	70
Chlorophyll	0	12	88
Transparency	0	18	82

Table 1. Percent increase, decrease, and no change derived from Kendall Tau analysis of monthly trophic state variables (i.e., total phosphorus, total nitrogen, chlorophyll, and water transparency) collected 14 to 25 years among Northwest Florida coastal dune lakes (N=15 lakes).

Searching for Lake Management Information?

Florida LAKEWATCH has three major aspects that follow along with the University of Florida's Land Grant History: Teaching, Research and Extension, Much of the research and information that LAKEWATCH and others in the university have conducted is provided in research and extension publications. Sometimes finding these is difficult but UF's Institute of Food and Agricultural Sciences (IFAS) has developed a searchable system to help you find the information you are looking for and it is called: **EDIS Publication System**

The EDIS website is your Every Day Information Source. It is a comprehensive, single-source repository of all current UF/IFAS numbered peer-reviewed publications.

UF/IFAS academic departments develop and maintain a collection of publications available for universal free distribution on the web and through UF/IFAS Extension County Offices and Research and Education Centers statewide. Each year, visitors to the EDIS website access one of over 7,000 publication titles more than 26 million times. A streamlined publication process, universal web access, and print as needed services not only reduce the cost but also expand the impact of UF/IFAS publications.

UF/IFAS has had a long history of providing electronic access to publications, beginning in the early 1990s when it began pro-

ducing handbooks of documents on CD ROMS. The Florida Agricultural Information Retrieval System (FAIRS) website first went online in May 1995 and continued until 1998 when the name was changed to Extension Data Information Source (EDIS) to reflect changes in scope and function. EDIS became the single source for all Extension publications and was also adapted to permit extension units to print documents on an as-needed basis. More recently, the UF/IFAS Solutions for Your Life Web initiative has brought EDIS publications together with other valuable Web resources within the framework in a single Web-user friendly theme and framework. EDIS: A useful way to access UF/IFAS information.

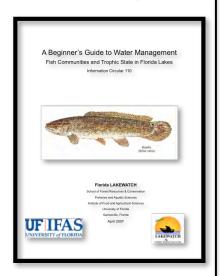
There are many articles available to answer questions and further knowledge of Florida's aquatic systems. Florida LAKEWATCH's publications and circulars are available along with much more information from across IFAS. This service is free and available at this web address:

http://edis.ifas.ufl.edu/

To search the site simply enter the subject you're interested in into the "Search" box

> A search for the term "aquatic plants" returned 492 results with basic information about aquatic plant identification and management to

- more specific information and study results.
- A search for the term "fish management" returned 1,240 results which contain detailed publications on topics such as pond fish management, fish kills, aquaculture, and fish health.
- A search of the term "water quality" returned 2,110 results with information about general water quality, management, and regulations.



There is a lot of information available on EDIS with more being added regularly. As with any search tool the more specific the search phrase the fewer and, hopefully, the more precise the results will be. With some quick searching though, much of the knowledge of IFAS is available to everyone.

<u>Seminole Education Restoration & Volunteer Program –</u> Promoting Watershed Awareness by Elizabeth Stephens

Our community's aquatic natural resources are precious, and it is important that we all have an awareness of how our daily activities affect the health of our watersheds. The Seminole Education, Restoration, and Volunteer (SERV) Program, part of Seminole County Public Works, in the Watershed Management Division, works to provide educational opportunities for our community to learn about watershed health and protection, and "hands on" opportunities for the public to make a difference in helping to restore our lakes, rivers, streams (http://www.seminolecountyfl.gov/ serv). SERV partners with Florida

(http://www.seminole.wateratlas.u sf.edu) to match lake residents with lake monitoring opportunities.

LAKEWATCH and the Watershed

EDUCATION

A major component of the SERV Program is the promotion of watershed awareness. Many individuals are unaware of relationship between our daily activities and water pollution. The SERV Program offers free presentations to classrooms, community groups, and businesses on topics relevant to the reduction of waterway pollution such as: the relationship between land use, run-



SERV Pond Restoration: October 2016, Buttonwood Pond, Longwood FL, with various community volunteers planting beneficial shoreline vegetation.



SERV Invasive Removal: February 2017, Cassel Creek, Casselberry FL, with Seminole State Volunteers removing invasive torpedo grass and alligatorweed.

off, and pollutants, the responsible use of fertilizer, pesticides, and herbicides, control of erosion and turbidity, and impacts of waterfowl/pets on run-off and surface water quality. SERV works with Seminole County Lake Management Program (LMP) staff to share experiences in monitoring County waterbodies, and to encourage students to pursue careers in biology and environmental science. SERV Program outreach efforts are greatly complemented by the efforts of LAKEWATCH in educating individual citizens on monitoring lakes, and collecting and sharing water quality

VOLUNTEERISM

SERV volunteers make a significant contribution to the preservation of Seminole County waterways, and all volunteer activities are quantified and included as part of Seminole County's compliance with the National Pollutant Discharge Elimination System/Total Maximum Daily Loads (NPDES/TMDL) regulatory requirements. Volunteers with the SERV Program have the opportunity to participate in a variety of restoration activities. The largest SERV events are waterway restoration projects, typically at lakes, in which volunteers can help plant native

vegetation along shorelines. SERV works closely with Seminole County LMP to guide volunteers in the planting, and to provide background information about the significance of aquatic plants in ecosystem balance and water quality. These events are open to the public, and are concentrated in the spring and fall.

The SERV Program also offers invasive species removal activities, litter clean-ups, and stormdrain marking throughout the year, which can be scheduled as group-tailored events. Invasive removal events focus on aquatic weeds or island apple snails, and volunteers are educated about the importance of biodiversity. Litter clean-up events involve the removal of litter/trash from roadways, shorelines of waterways, or directly from rivers and creeks; these events involve a discussion with volunteers about pointless personal pollution. Stormdrain marking offers volunteers a chance to both educate the public and do an active outdoor project; volunteers glue educational plaques ("no dumping, drains to lake" or "no dumping, drains to river") above the stormdrain inlets and distribute



SERV Lake Restoration: June 2016, Lake Jesup, Sanford FL, with various community volunteers repairing the exclosure to protect newly planted eelgrass.

informative doorhanger brochures.

The SERV Program also coordinates and helps to match volunteers with the Seminole County Adopt-A-Road and Adopt-A-River programs, and helps to promote the Adopt-A-Park Program. In addition, SERV connects lake resident volunteers to LAKE-WATCH opportunities. Interested citizens either contact us through the WaterAtlas (http://www.seminole.wateratlas.us f.edu/), or email SERV directly to inquire about ways to help protect

their neighborhood lake. Volunteers often participate in both SERV and LAKEWATCH, due to overlapping goals and visions of the programs.

WHO CAN PARTICIPATE?

This program is open to all individuals and groups interested in helping to preserve and protect their watershed and local environment. Many local groups have helped to achieve SERV restoration goals, including universities and colleges (University of Central Florida, Seminole State College, Valencia Col-

lege), Seminole County Public Schools and private schools, community groups such as Rotary Club, Key Club, Optimist Club, Boy Scouts, Girl Scouts, church groups, groups from environmentally focused organizations such as Keep Seminole Beautiful and the Central Florida Association of Environmental Professionals, as well as individuals and families.

HOW CAN SOMEONE JOIN THE SERV PROGRAM?

Anyone interested in participating



SERV Litter CleanUp: November 2016, Overlook Park, Sanford FL, with Summit Church volunteers next to the bags of litter/trash they removed from the park.



SERV Education: January 2017, Lawton Elementary School, Oviedo FL, with students displaying their beads from the "Incredible Journey" activity, in which each student travels as a water molecule through the water cycle

in the SERV Program can contact the SERV Coordinator by email (serv@seminolecountyfl.gov), phone (407-665-2457), or post (200 W. County Home Rd., Sanford, FL 32773). No membership is required, and SERV activities are always free to the public. To read about upcoming SERV events and see activity photos, individuals can visit the web http://bit.ly/servWEB

Facebook http://bit.ly/servTWT, Twitter http://bit.ly/servINSTA, Instagram http://bit.ly/servINSTA, and they can request to be added to the SERV elist for quarterly newsletters.

Helpful Hints for using the LAKEWATCH Web Site Search Engine:

Florida LAKEWATCH's new web site has a helpful search engine that can be used for finding lake management information including:

- LAKEWATCH Historical information: LAKEWATCH
 Books, Information Circulars, Information Pamphlets, Lake Management
 Plans, all Historical News
 letters
- Data: Standard Operating Procedures (SOP), Water Chemistry Reports, Aquatic Bird Reports, Aquatic Plant Reports, Water Chemistry Mean Values, Bathymetric Maps
- Historical Research Reports and Peer Reviewed Publications: Final Reports, Graduate Student Theses, Aquatic Bird Publications, Aquatic Plants Publication, Water Chemistry Publications, Nutrient Criteria Publications, Fish publications

Here is a brief guide on how to more effectively use the search engine to find required information. All LAKEWATCH waterbodies (Over 2000 listed by County and System) sampled by volunteers have multiple and diverse LAKEWATCH information associated with them depending on the system. Using specific search terms will help reduce the number of returns the search engine yields making it easier to find the desired information. The search engine is designed to find the information listed with exact key words in the titles or headings, therefore entering words that do not appear within the

titles or headings will give no results. Entering key words common to multiple systems will result in many, maybe even hundreds of results, making it difficult to find the desired information.

If you are searching for data from a specific county you do **not** need type in the word "county" after the actual county name, you simply type the actual county name (e.g., Alachua). If you are searching for data on a specific water body type, LAKE-WATCH uses the following types that should be used in the search box: Dune Lake, Estuary, Lake, Spring, Stream. If you are searching for information on an individual system then type in the individual waterbody's name, knowing however that there are many waterbodies throughout the state with the same name (e.g., Clear, Blue, Spring and others) and that you may get multiple results when searching.

If the desired waterbody has a unique name like Wauburg, which is in Alachua County the

search result will likely be precise.

 Type Wauburg in the search box and three reports are returned: Bird, Plant, and Water Chemistry Reports

If the desired waterbody has a more common or repeated name like Orange in Alachua county, the key words for the search must be more specific.

- Type Orange In the search box and 237 reports are returned, which includes all waterbodies in Orange County
- Type Orange Lake in the search box and the returns are reduced to 231, but all the lakes in Orange County are still included
- Type Orange Lake Alachua in the search box and four returns are now present and the desired data can be easily found

Give the search engine a try, always remembering that if you cannot find the information you need that you can always contact LAKEWATCH staff and we will find and get it to you.



Type **Orange Lake Alachua** in the search box and four returns are now present and the desired data can be easily found.

A sampling of Florida's native aquatic plants

By Lynn A Gettys





Frog's-bit (Limnobium spongia)

Frog's-bit is a floating plant that is sometimes mistaken for immature waterhyacinth

(Eichhornia crassipes). Both have bright-green rubbery leaves, but the petioles (leaf stalks) of frog's-bit are thin and rigid with a coarse texture (waterhyacinth petioles are usually swollen and spongy). The flowers are very different as well; everyone is familiar with the spike of showy purple flowers produced by waterhyacinth, but frog's-bit flowers are small, white and held just above the surface of the water.

American lotus (Nelumbo lutea)

American lotus has floating and emergent leaves that are round and measure up to a foot across. Leaves are attached to the petioles in a peltate manner, meaning the petioles attach to the center of the leaves (similar to an umbrella) rather than at one end of the leaf. American lotus bears large, pale yellow flowers that are held above the surface of the water and have a delicate scent. Green seeds



are borne in a structure that looks like a shower head and are edible, although they do contain a very bitter embryo that looks like a miniature leaf. If the seed is split open and the embryo is picked out, the remaining part of the seed tastes like a peanut. Mature seeds are dark brown and have an extremely hard seed coat — don't try to eat them or you'll break a tooth! Fun fact: 4,500-year-old lotus seeds have been recovered from tombs in Egypt... once the hard seed coats are nicked to allow water to enter, the seeds germinate and produce normal lotus plants.



Pickerelweed is a fleshy, emergent plant that grows along shorelines and in water that is up to a few feet deep.





Pickerelweed is a close relative of waterhyacinth and the leaves have the same rubbery feel, but pickerelweed leaves are produced on long, thin petioles that are attached to the base of the plant near the soil line. Leaf shape is highly variable and can range from very broad and sagittate to very thin and lanceolate (sword-shaped). Individual flowers of pickerelweed are small (less than 1/2 inch across) and up to 250 flowers are borne in a single spike inflorescence. Each flower is only open for a single day but the flowers on a spike open on different days so an inflorescence may be colorful for up to two weeks. Each flower produces a single fruit that is green when fresh, light tan when ripe and may contain a single small, hard seed.

Spatterdock, yellow pond lily, cow lily (Nuphar advena; also called Nuphar lutea)

Spatterdock produces submersed, floating and emergent

leaves that are cordate (heartshaped) to sagittate (arrowheadshaped). Like American lotus, spatterdock produces yellow flowers. However, the flowers of spatterdock are much smaller (usually 3 inches or less across) and appear partially open. The rhizome of spatterdock creamy in color and can become quite large and thick. These rhizomes sometimes "pop" from the bottom of the waterbody and float to the surface, where they can be mistaken for all sorts of odd things, including a bloated corpse – yikes!

Buttonbush (Cephalanthus occidentalis)

Buttonbush is a woody, shrublike plant that is common along shorelines and in shallow water.



The leaves of buttonbush are coarse and have a sandpapery feel.

Buttonbush is deciduous, meaning it drops its leaves during the winter and produces new ones the following spring. The flowers of buttonbush are arranged in a dense inflorescence that looks like a golf ball with many yellowheaded sewing pins stuck in it. Immature seeds are green, then turn brown and fall off the plant once they're ripe.



Dr. Lyn Gettys (lgettys@ufl.edu) is an Assistant Professor of Agronomy at the University of Florida IFAS Fort Lauderdale Research and Education Center.

All pix are courtesy Lyn Gettys, UF/IFAS

Aquatics magazine is the official publication of the Florida Aquatic Plant Management Society.

www.fapms.org

Lake Mango Taking Charge

Lake Mango is a man-made lake near Brandon. Like most excavated waterbodies, it is very green. Residents use the lake for skiing and swimming, so they are interested in improving its conditions.

Hillsborough County's Lake and Stream Management Program worked with the residents to create a simple source tracking study to compare water coming into the lake with water in the lake.

The results should tell us if the nutrients are already in the



lake or coming from outside. A team of residents volunteered to take samples twice a month at pipes around the lake. The program provided equipment and free analysis through Florida Lakewatch. The last sample

was taken in December. Now we are waiting on the results. Based on the results, residents will undertake actions to help improve the conditions in the lake.

Lake Man Lake Mango Student Wins First Place in Science Fair With Lake Ecology

Tyler Oblow is a fifth grade student that lives on Lake Mango. His mom volunteered to help with the source tracking study mentioned in the article above. When it came time for Tyler's science fair project, he wanted to do something to help his lake. He got in touch with the Lake Stream Management Program to go over some ideas. He really liked the idea of biofiltration and wanted to learn more.

Tyler researched biofilters (living filters) and wanted to

test three different types: mussels, plants, and algae. He decided to measure the water clarity, since that was what they really cared about in the lake. He made miniature biofiltration devices and included one without the biofilter to act as the control for comparison. Each bin was then filled with lake water.

Over the course of his study, Tyler completed five trials. He even learned how to post-process his data to make sure it was accurate. His hypothesis was that the mussels would do the best job. He based his assumption on the initial research he did on the amount of water mussels can filter. To his surprise, he found



that algae was by far the better cleaner.

Tyler's insightful study is a perfect example of how any of us can follow the scientific method to come up with very real and useful results. Tyler told me that he might want to be an environmental scientist someday. Well Tyler, my friend, you don't have to wait. You already are one!

New SFRC Director

From article by Beverly Melinda James, UF/IFAS

We are excited to announce that Dr. Terrell "Red" Baker will become our new director on April 1st, 2017. Baker, an esteemed educator and researcher, is currently chair of the forestry department at the University of Kentucky (since 2010) and the James Graham Brown Endowed Professor of Forestry. He replaces Tim White, who retired.

"We are pleased to welcome Dr. Baker, who has a rich background in Extension, research and teaching," said Jack Payne, UF senior vice president for agriculture and natural resources. "Dr. Baker brings a wealth of knowledge that can only help UF's program in forestry, fisheries and geomatics become even stronger."

Baker earned a PhD in forest biology from Auburn Universi-



ty, a master of science in forest resources from Clemson University and a bachelor's in economics from the University of the South. He has considerable experience working with stakeholders and partners of the land-grant university system and said he is "ready to roll up his sleeves and get to work for the people back in my home state of Florida."

Baker spent a dozen years as an Extension specialist in riparian, or stream-side, environments and has conducted



research in streamside management zones, watersheds, and on fire ecology and management.

While doing so, he always kept one foot in the water, working with farmers, ranchers, and foresters to maintain the integrity of aquatic **envi**ronments in agricultural pursuits.

Those of us with the SFRC's Fisheries and Aquatic Sciences Program (FAS) were glad to learn that, while growing up in Florida, he developed an early passion for the state's rivers, lakes, and marine habitats, logging countless hours in a 17-foot Boston Whaler.

He looks forward to getting



reacquainted with his home state, learning more about the vital work being done by faculty, staff, and students in the SFRC, and working with the diverse group of people and industries who depend on, as well as advocate for, our important aquatic resources.

Baker said he plans to work with the UF/IFAS School of Forest Resources and Conservation to focus on core issues for the future. "The school is home to an impressively productive and diverse group of faculty with a wide array of expertise," he said. "I want to capitalize on those existing strengths as well as explore new horizons that are important to the people of the state of Florida and beyond."

A hearty "Welcome Aboard Red!" from the faculty, staff and students of the Fisheries and Aquatics Sciences Program.

Love Your Lake Program

Florida Lake Management Society (FLMS) has created a cost-share program funds lake, pond and shoreline projects demonstrating management techniques that help protect, preserve and restore Florida's aquatic resources. Each year FLMS solicits grant proposals describing successful management projects. FLMS will provide matching funds for expenses incurred by the selected applicant. Expenditures may be in the form of labor or monetary contributions utilized in the program. Proposals are reviewed by a

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Florida LAKEWATCH

Fisheries and Aquatic Sciences School of Forest Resources and Conservation PO Box 110600

Gainesville FL32611-0600

orcall

1-800-LAKEWATCH (800-525-3928), (352) 392-4817,

E-mail: fl-lakewatch@ufl.edu, Website: http://lakewatch.ifas.ufl.edu/

All unsolicited articles, photographs, artwork or other written material must include contributor's name, address and phone number. Opinions expressed are solely those of the individual contributor and do not necessarily reflect the opinion or policy of the Florida LAKEWATCH program.

selection committee based on the following criteria:

- Monetary or labor match — programs encouraging community involvement are strongly recommended
- Location project must be accessible to the public (may include large communities or neighborhoods - dependent on accessibility).
- Signage educational component explaining project.
- Water quality enhancements examples include Floridafriendly landscaping, environmental berm

and swale, and other innovative erosion control techniques.

Please contact <u>Sergio Duarte</u> at 352-324-6141 if you have any further questions or to submit your application.

"Love Your Lake" project proposals must be submitted by April 1st. The Awards Committee will review all applications and make their recommendation to the FLMS Board by the end of April. Final reports and invoices must be submitted by September 30th. The deadline may be extended on a case by case basis as approved by the grants committee.



Photo compliments of FLMS.