

Florida LAKEWATCH



Dedicated to Sharing Information About Water Management and the Florida LAKEWATCH Program Volume 52 (2011)



Over 50% of the lakes that Florida LAKEWATCH has sufficient data to evaluate the nutrient criteria, would be in violation of EPA's "Water Quality Standards for the State of Florida's Lakes."

Florida LAKEWATCH and EPA's New Nutrient Criteria

The U.S. Environmental Protection Agency (EPA) has published its numeric nutrient criteria for Florida's lakes and streams on its website at (Table 1):

http://water.epa.gov/lawsregs/rulesregs/florida_index.cfm

The criteria will be published in a forthcoming issue of the Federal Register soon. The following summary is taken from EPA's website:

On November 14, 2010, EPA Administrator Lisa P. Jackson signed Final "Water Quality

Standards for the State of Florida's Lakes and Flowing Waters." The final standards set numeric limits, or criteria, on the



Criteria for Lakes*			
Lake Color and Alkalinity	Chl-a (mg/L)	TN (mg/L)	TP (mg/L)
Colored Lakes > 40 PCU	0.020	1.27 [1.27-2.23]	0.05 [0.05-0.16]
Clear Lakes, High Alkalinity ≤ 40 PCU and Alkalinity > 20 mg/L CaCO ₃	0.020	1.05 [1.05-1.91]	0.03 [0.03-0.09]
Clear Lakes, Low Alkalinity ≤ 40 PCU and Alkalinity ≤ 20 mg/L CaCO ₃	0.006	0.51 [0.51-0.93]	0.01 [0.01-0.03]

* All concentrations are annual geometric means not to be surpassed more than once in a three-year period. Bracketed numbers reflect the range in which Florida can adjust the TN and TP criteria when data shows the lake is meeting the relevant Chl a criterion.

Table 1. EPA's proposed nutrient criteria for lakes.

nutrient criteria, would be in violation (Table 2).

It is Florida LAKEWATCH'S position that the nutrient criteria does not adequately account for the nutrient variability caused by the diverse geology of the state. This will cause many lakes that are actually at a natural state determined by the lake's location and geology to be considered impaired. To that end Florida LAKEWATCH staff have analyzed all available data showing that Florida has a large diversity of lakes driven by primarily geology and not anthropogenic impacts. These analyses have been put into a manuscript that was recently submitted for scientific review and publication in the North American Lake Management Society's Journal called "Lake and reservoir Management." Below is the title and abstract for the Bachman et. al, (2011) submitted manuscript:

amount of nutrient pollution allowed in Florida's lakes, rivers, streams and springs. This final action seeks to improve water quality, protect public health, aquatic life and the long term recreational uses of Florida's waters which are a critical part of the State's economy. The rule will take effect 15 months after it is published in the Federal Register except for the site-specific alternative criteria (SSAC)

provision, which is effective 60 days from publication. EPA is extending the effective date for 15 months to allow cities, towns, businesses and other stakeholders as well as the State of Florida a full opportunity to review the standards and develop flexible strategies for implementation.

Over 50% of the lakes that Florida LAKEWATCH has sufficient data to evaluate the

Bachmann RW, Bigham DL, Hoyer MV, Canfield DE Jr. 2011. Factors determining the distributions of total phosphorus, total nitrogen and chlorophyll in Florida lakes. Lake Reserv Manage 00:00-00

Abstract

Using data from 1387 lakes collected over three decades, we found a wide range in the concentrations of total phosphorus (TP), total nitrogen (TN) and chlorophyll in Florida lakes, and that edaphic factors as outlined by the USEPA's Florida Lake Regions were the dominant factor in determining the concentrations of plant nutrients in the state's lakes. The hypothesis that all eutrophic lakes in Florida are the result of nutrient pollution since European settlement of Florida that has led to significant increases in TP and TN in Florida lakes without point source pollution was tested and rejected. (1) There was no correlation between the Landscape Development Intensity index (LDI) and the concentrations of TP, TN and chlorophyll in Florida lakes. (2) Several of the 30-benchmark lakes (lakes with minimal human impact and meeting designated uses) were eutrophic and there was no significant difference between the concentrations of TP and TN in these and all the remaining Florida lakes as a group. (3) Paleolimnological studies showed that several lakes were eutrophic to hypereutrophic prior to 1900, a time before significant population growth in the state. Only 6 out of 39 lakes studied with short sediment cores showed increases in diatom-inferred total phosphorus and they were mostly the result of past point source pollution. We concluded that eutrophic lakes are a part of the natural Florida ecosystem and that numerical nutrient criteria need to take this into account.

Additionally, LAKEWATCH staff have created two Web Casts that are posted on the Florida LAKEWATCH web site that discuss nutrient criteria in the state of Florida. Please take the time to look at these informative

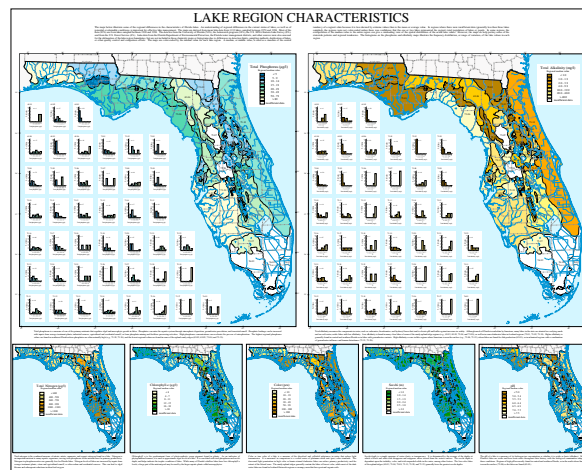
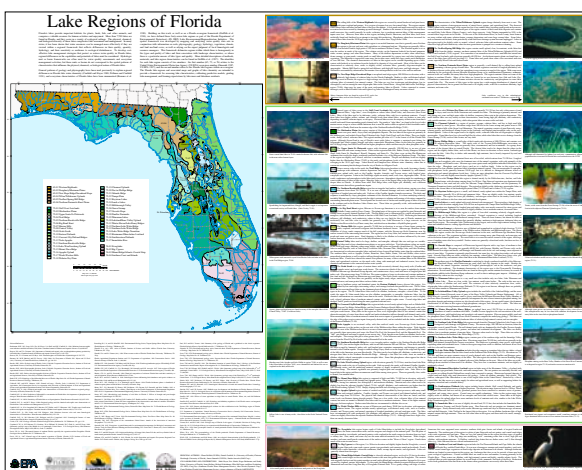
web casts:

1) Establishing Numeric Nutrient Criteria in Florida lakes
(http://lakewatch.ifas.ufl.edu/Videos/Dan_video.html).

2) Problems With the Proposed Numeric Nutrient Criteria in Florida lakes
(http://lakewatch.ifas.ufl.edu/Videos/Roger_video.html).

County	Impaired Lakes	County	Impaired Lakes
Alachua	22	Leon	38
Bradford	4	Marion	14
Brevard	6	Miami-Dade	3
Broward	7	Monroe	1
Charlotte	1	Okaloosa	5
Citrus	7	Orange	73
Clay	10	Osceola	9
Collier	1	Palm Beach	5
Columbia	1	Pasco	10
DeSoto	1	Pinellas	25
Duval	2	Polk	63
Flagler	3	Putnam	30
Gadsden	3	Santa Rosa	1
Glades	1	Sarasota	5
Hamilton	3	Seminole	42
Hernando	4	St Lucie	5
Highlands	38	Suwannee	3
Hillsborough	59	Taylor	1
Indian River	4	Volusia	12
Lake	30	Wakulla	1
Lee	12	Walton	3

Table 2. Number of lakes that will violate the new EPA Nutrient criteria using only the Florida LAKEWATCH data that was available.



The Lake Regions of Florida poster published by EPA in 1997 depicting a breakdown of the regions with regional descriptions on the front of the poster and maps illustrating regional water chemistry differences on the back. For greater detail download this poster at the website http://www.epa.gov/wed/pages/ecoregions/fl_eco.htm.

RMA Baywatch Program

Water Quality Monitoring in the St. Andrew Bay Watershed, Bay County, FL

Established in 1990, the St. Andrew Bay Resource Management Association (RMA) Baywatch Program is a volunteer sampling program that monitors long-term trends in water quality and aquatic resources in the St. Andrew Bay watershed. Teams of volunteers collect water samples monthly at 86 sample stations throughout the St. Andrew Bay estuarine system, Lake Powell, and other lakes in the watershed. Seagrass coverage and composition in West Bay and near Shell Island is also monitored.

BAYWATCH ACTIVITIES

Monthly Water Sampling and Data Collection

Water samples are collected monthly at 86 sample stations throughout the St. Andrew Bay watershed. There are nine study areas including Lake Powell, Powell Creek East, West Bay, North Bay, East Bay, Grand Lagoon, St. Andrew Bay, Lake Marin, and Johnson Bayou. Sample sites are divided into two categories: 1) Baywatch and LAKEWATCH Water Quality Stations (N=67) and 2) Seagrass Water Quality Stations (N=19).

Baywatch/Lakewatch Water Quality Stations (in coordination with University of Florida LAKEWATCH)

Baywatch monitors 40 stations each month in partnership with the University of Florida's LAKEWATCH program. Data collected at each station includes temperature, pH, dissolved oxygen, salinity, secchi depth, weather conditions, and sea state. Samples are collected at each station and evaluated for turbidity, nutrients, and chlorophyll.

Seagrass Water Quality Stations (in coordination with Florida Department of Environmental Protection (DEP), Northwest District Office, Pensacola)

Monitoring of water quality at seagrass habitat is performed monthly in cooperation with the DEP, Northwest District Office. DEP staff collect water samples from 19 seagrass stations in West Bay and St. Andrew Bay. Data collected includes temperature, pH, DO, salinity, conductivity, secchi depth, weather conditions, and sea state. Nutrients and bacteria are monitored quarterly. Samples are returned to DEP's central lab in Tallahassee for evaluation of turbidity, color, BOD 5-day total, residue non-filtered, and chlorophyll a. Results are available in STORET under organization code 21FLPNS.



Sampling Crooked Creek.

PROJECT PARTNERS

Activities of the RMA Baywatch Program are accomplished in cooperation with the following Partners:

- Northwest Florida Water Management District (NFWMD)
- University of Florida, LAKEWATCH
- Friends of St. Andrew Bay/Bay Environmental Study Team (BEST)
- Florida Department of Environmental Protection (DEP)
- Florida State University (FSU)
- Gulf Coast Community College (GCCC)
- National Marine Fisheries Service (NMFS)
- Panama City Marine Institute (PCMI)
- US Fish and Wildlife Service (USFWS)



Baywatch

BAYWATCH STAFF

Sampling Powell Creek East

- Patrice Couch, Baywatch Director
- Laura Paris, Baywatch Assistant Director
- Jim Barkuloo, Baywatch Coordinator
- Linda Fitzhugh, Seagrass Coordinator
- Murt Lyon, Data Manager

RMA LAB STAFF

- Alan Collins
- Linda Campbell
- Bob Farsky
- Courtney Campbell
- Larry Couch

SAMPLING CAPTAINS

- Jim Barkuloo, West Bay and Seagrass
- Chris Campbell, West Bay
- Bob Vickery, North Bay
- Jill Blue-Reich, East Bay
- Bob Farsky, St. Andrew Bay
- Howard Lovett, Johnson Bayou
- Randy Couch, Grand Lagoon
- Malcolm Fowler, Lake Marin
- Chris & Emily Forman, Lake Powell
- Chris & Emily Forman, Powell Creek East
- Patrice Couch, Creeks & Backup Captain (all areas)



St. Andrew Bay Resource Management Association Baywatch water quality monitoring stations designated for University of Florida (UF – Red Squares), general Baywatch (BW – Blue Circles), and SeaGrass (SG- Yellow Triangles) site monitoring.

The Baywatch data analysis of the years 1990-2006 is available on the Baywatch website. For more information about this analysis or the Baywatch Program, contact: Patrice Couch
PO Box 15028
Panama City, FL 32406
Office: 850.763.4303 • E-mail: Patrice.Couch@sabrma.org
Web: www.sabrma.org

LAB NOTES

From Florida LAKEWATCH Chemist

Claude Brown



We have noted a slight increase in discrepancies between chlorophyll sample dates and water sample dates collected during the same month. To help us better serve you and honor your efforts in regular sampling we ask you to please be consistent with your date recording.

Please label water sample bottles and chlorophyll filters with the same date you record on your data sheet. This indicates to the lab and our database manager that all measurements and samples were collected during the same expedition out on your lake. In

the rare event you collect water samples and chlorophyll samples on different dates please record this on your data sheet with a short note as to why.

When lake managers and scientist's evaluate data for trends and changes they look to see if the data is paired-up or collected at the same time and place. It makes a real difference in what they can infer from the data without actually going out at the time of collection.

Keep those samples flowing!

Please be sure to deliver any 2010 frozen water and chlorophyll samples to your collection center as soon as possible. This will enable us to prepare the annual data reports on schedule.

A Reminder to water samplers:

Dessicant bottles can be used for storing several month's worth of filtered chlorophyll samples. Please be sure to consolidate your samples into one dessicant bottle when

possible.

Fresh or salt?

When you pick up your supplies from your local collection center please be sure to grab the correct bottles and data sheets. Fresh water samplers should be using the smaller bottles and white data sheets and salt water samplers should be using the larger bottles and blue data sheets. If you are unsure which is right for you, call us at 1-800-525-3928 and we will be happy to clarify things.

Saltwater



Freshwater

The lab staff thanks all our volunteers for their dedication to the very important work of monitoring Florida's lakes and waterbodies. This information is important to you, to your fellow citizens, and to the long-term goals of protecting these jewels in the sand for future generations.

Volunteer Bulletin Board

Regional Meetings Schedule for 2011

The 2011 Regional Meeting schedule is now set. Mark the date on your calendars now and keep an eye out for your invite in the mail about a month in advance.

Date	Meeting	Date	Meeting
January 26	Leon County Area	August 17	Putnam County Area
March 17	Charlotte County	August 27	Walton County Area
March 24	Polk County	September 8	Volusia County
April 16	Lake County	October 3	Hillsborough County Area
April 20	Osceola County	October 18	Alachua County Area
May 21	Bay County Area	November 6	Highlands County
June 23	Orange County	December 6	Citrus County Area
July 12	Seminole County	December 10	Miami-Dade County Area

At the meetings, LAKEWATCH will provide a delicious meal, data packets for the primary volunteers, a hands-on exhibit of aquatic plants and invertebrates, plenty of handouts on a variety of lakes topic and issues and the ability for you to discuss your water body concerns, ask questions about management issues and talk with other LAKEWATCH “family.” We hope to see all of our volunteers and friends of LAKEWATCH there!

Hillsborough County Collection Center Changes!

The collection centers at Keystone and Nye Park have changed. This change is necessary to ensure that everyone has convenient access to a drop off location now that the parks are operating at reduced hours and staff.

If you currently use the **Keystone Park** location, you’ll now **go to the Austin-Davis Library at 17808 Wayne Road Odessa, FL 33556-4720**.

It’s right beside Keystone Park. You can walk from one building to the other in a few steps. This drop-off is located on the west side of the building by the service door. It’s inside a marked plastic storage shed. The shed is locked with a special combination lock (combination 7922).

If you currently use the **Nye Park** location, you’ll now **use the Lutz Library at 101 Lutz-Lake Fern Road, West Lutz, FL 33548-7220**.

This collection center is located outside the library. This drop-off is located on the east side of the building north of the main entrance. It’s inside a marked plastic storage shed. The shed is locked with a special combination lock (combination 7922).

Both libraries have the following hours, however, the freezers and supplies will be accessible 24 hours a day using the special combination lock.

Hours of Operation:

Sunday	Closed	Thursday	10am-6pm
Monday	12pm-8pm	Friday	10am-6pm
Tuesday	10am-8pm	Saturday	10am-6pm
Wednesday	10am-6pm		

*** All other collection centers will remain unchanged.**

Thank you for your dedicated participation in the program. The data you collect not only helps you better understand and manage your pond, lake, or stream, but also helps us protect our water resources. Keep up the good work, and let me know if you have any questions.

Lake Dora: A Continuation of the Largemouth Bass Stock Enhancement on the Harris Chain of Lakes

By: Jesse Stephens, LAKEWATCH Biologist

Lake Dora is a 4,475 acre recreational lake that currently is the subject of major environmental restoration programs. Nearly all of the lake is available to fishing with black crappie currently being the dominant fishery. The Florida Fish and Wildlife Conservation Commission has shown that the largemouth bass fishery is one of the poorest in the Harris Chain of Lakes, thus the Harris Chain of Lakes Restoration Council recommended that Lake Dora be stocked in the winter of 2009-10, as had been done in the two prior years. The Florida LAKEWATCH program transferred in the winter of 2009-2010, 5,031 (8,708 pounds) Florida largemouth bass (*Micropterus salmoides floridanus*) greater than eight inches in total length from private, non-fished waters into Lake Dora, a public fishing lake. This was the fifth year of a research/demonstration project to determine if large numbers (4000+ fish) of larger-sized Florida largemouth bass could be located in private waters on a sustained basis, transported successfully to the Harris Chain of Lakes, and assist through stocking in restoring the economic vitality of the lakes' largemouth bass fisheries. The total number of largemouth bass greater than eight inches stocked into the Harris Chain of Lakes (Lake Griffin and Lake Dora) since December of 2004 is 24,781 or 32,302 pounds of fish.

Unlike years past where the primary source of fish collection was the private waters located on the property of Orlando International Airport (MCO) this year's fish collection was done primarily in the Hillsborough county water body Medard Reservoir. The fish were removed from this normally public system to prevent resource loss, from a necessary draining of the reservoir to repair its containment levy. All transported fish were visually inspected to minimize the possibility of transporting diseased fish. To limit



LAKEWATCH and Orlando International Airport personnel dip fish at one of the ponds at the airport.

stress to the fish they were moved only when water temperatures were below 75 F. Bass greater than 8 inches total length (TL) were given a pelvic fin-clip. In addition to being fin clipped, orange colored Hallprint type PDA plastic tipped dart tags (fish identification tags) with the telephone number of Florida LAKEWATCH were inserted into fish greater than 12 inches TL.

During the stocking period 2,704 of the largemouth bass selected for transport were between 8 and 14 inches TL. Given the young age and restrictions on harvest of largemouth bass in this size range, surviving fish should continue to contribute to the fishery for multiple years. The total number of largemouth bass between 8 and 14 inches TL stocked into the Harris Chain of Lakes over the past five stocking periods was 16,987 fish.

A major objective of this research/demonstration project in 2010 was to continue to stimulate angler interest in largemouth bass fishing at Lake Dora. To facilitate this, 2,327 fish greater than 14 inches TL (the legal length limit) were transported and stocked into Lake Dora with 839 fish being greater than 17 inches TL. The total number of fish stocked greater than 14 inches TL and greater than 17 inches TL over into the Harris Chain of lakes was 7,794 fish and 2,711 fish respectively. These fish generated considerable excitement among viewers of the release events and generated positive news stories in the printed press and television. Also, many anglers commented on the improved fishing experience on both Griffin and Dora.

How the transferring of the thousands of largemouth bass into



LAKEWATCH

Two largemouth bass destined for the Harris Chain of Lakes in Lake County.

Lake Dora affects the size of the resident bass population is an important question because the number of bass in the water body must be increased substantially to impact angler perceptions. During LAKEWATCH's July lake-wide sampling, 126 largemouth bass greater than 8 inches TL, weighing 196 lbs were captured. A total of 26 fish marked in the 2009-10 stocking were taken. Marked largemouth bass were captured at nearly all 20 lake-wide sampling transects. This limited electrofishing sampling demonstrated largemouth bass released into Lake Dora in winter 2009-10 had survived, were distributed throughout the lake and most importantly comprised a significant percentage (24%) of Lake Dora's largemouth bass population.

In a 1996 study of 60 Florida lakes, largemouth bass (fish greater than 10 inches TL) abundance in eutrophic and hypereutrophic lakes averaged approximately eight fish per acre. In this year's research/demonstration project, 4,833 largemouth bass greater than 10 inches TL were stocked into Lake Dora. The July electrofishing sampling captured 126 bass greater than 10 inches TL and recaptured 26 marked fish greater than 10 inches TL. Based on these numbers, a simple mark-recapture estimate suggests Lake Dora now has

a bass population (fish greater than 10 inches TL) of about 5.3 fish per acre (13 fish/ha), which is up from the 2008 survey estimate of 4.5 fish per acre (11 fish/ha). Given that this year's stocking effort contributed 24% of the stock, and the multiple year stockings program in Lake Dora could very well be the driving force behind the increased largemouth bass abundance estimates. These successes of the effort of stocking have been at least temporarily viewed to be worthwhile. How long the effect of stocking will last needs to be determined, but the immediate effects are very apparent in both the fish population and angler stimulus on the Harris Chain of Lakes.

When undertaking a large-scale stocking program of large fish, the ultimate question that arises is the cost/benefit of such an effort to the community. The public wants to know if the project is just benefiting a "few" bass fisherman or enhancing the economic activity in the community. This research/demonstration project was not designed to directly measure economic impacts at Lake Dora, but information was collected that can provide limited insights for the Lake County Water Authority (LWCA), the funding agency. There is also more information now available from

efforts at both Lake Griffin and Lake Dora that indicate a positive return to the community for every dollar invested!

To determine potential economic value of the largemouth bass transfer program to the local community, a simple approach is to assess the monetary value of the transferred fish. The State of Florida assigns a replacement value for different size largemouth bass (Florida Administrative Code 62-11.001). For the bass released into Lake Dora in winter 2009-10, the replacement value in 2009 dollars would be \$113,544. Adding in the 2009-2010 values to the previous values established for both Lake Dora and Lake Griffin, a total replacement value for the Harris Chain of Lakes since 2004 is \$441,634.

At Lake Dora, orange colored fish identification tags with the toll free telephone number of Florida LAKEWATCH were inserted into backs of 4,220 largemouth bass released into Lake Dora. Between December 15 and July 29 of 2010, anglers placed 87 phone calls to report catches of tagged fish on Lake Dora with 167 total calls placed reporting catches throughout the Harris Chain of Lakes. According to the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Department of Interior et al. 2001), Florida anglers spend \$43/day/fishing event (\$55 in 2009 dollars). If we assume each call represents *only* one angler and one fishing event, total angler expenditure at Lake Dora from January to June was only \$4,785 in 2010 (\$9,185 for the entire Chain of Lakes). This estimate, however, is undoubtedly low because nearly all the callers, as was the case at Lake Griffin, indicated there were at least two individuals on the fishing boat so the expenditure estimates for Dora would be then be \$9,570 (\$18,370 for the entire Chain of Lakes).

No monetary rewards were given to angler reporting their catches and

there was no effort to advertise the stocking program at Lake Dora. In a 2003 study, a scientist named Henry found that when no monetary rewards were used to encourage angler reporting of catch, only 10% of the caught fish (worst case scenario) were. Interviews with anglers reporting a caught fish all indicated that they caught many more tagged fish and did not report them giving support to the 10% reporting value that is derived from Henry's work at Florida's Rodman Reservoir. Using the worst case reporting value of 10% maximizes economic estimates, but if this figure is used an estimate of 870 anglers fishing Lake Dora for the reporting time period could be assumed if each call represented one angler (1,670 for the entire Chain of Lakes). If the call represented two anglers then 1,740 anglers could have fished Lake Dora from December to July 2010 (3,340 for the entire Chain of Lakes). If these anglers only fished for one day, estimated angler expenditures in the Lake Dora area would then range from \$47,850 to \$95,700 in early 2010 (\$91,850 to \$183,700 for the entire Chain of Lakes). Anglers reporting caught fish indicated that they fished at least 16 days in early 2010 so expenditures since the beginning of the study at Lake Dora could range from \$765,600 (one angler per boat) to \$1,531,200 (1,469,600 to 2,939,200 for the entire Chain of Lakes).

Estimating economic dollars associated with fishing over a short period of time like at Lake Dora is difficult given the assumptions that need to be made. It is, however, clear that freshwater fishing is a major, albeit diffuse, industry in Florida (U.S. Department of Interior report in 2001). Fishing at two of the Harris Chain of Lakes (Lake Griffin and Lake Harris) was valued in the millions of dollars during the 1980s. This research/demonstration-stocking program began in 2004 at Lake Griffin. Between January 1, 2006 and November 5, 2007, 377 anglers have reported catching stocked bass. A phone survey of 51 of these

individuals indicated that average yearly expenditures by the anglers were an estimated \$1,671. If the calls represented only one angler fishing and a reporting rate of 10% is used, nearly \$3.0 million per year (\$6.1 million/yr for 2 anglers) was generated by fishing at Lake Griffin.

If stocking fish were not done at Lake Griffin, many anglers would still fish. From the phone survey, 41% of the anglers stated that they are fishing more since the stocking program was initiated. If only 41% of the monies generated by fishing at Lake Griffin can be attributed to the stocking program, the annual-dollar figures range from \$1.3 million (one angler) to \$2.5 million (two anglers). Total expenditures for the stocking and evaluation programs at Lake Griffin since 2004 were \$492,775. The return on investment (RTI) for the community up to 2010, therefore, ranges from \$3.30 returned for every one dollar expended to \$6.34 for every dollar. However these figures are probably conservative based on the economic losses (90%) that occurred in the late 1990s and RTI could range from \$6.8/1 to \$16/1 if the stocking program got the anglers to return to Lake Griffin. It is also important to note none of these calculations include the dollars generated through the many bass tournaments being held at the Harris Chain of Lakes.

The Lake Dora research/demonstration project showed that, as at Lake Griffin, large numbers of larger-sized Florida largemouth bass could be located in private waters, successfully captured in a reasonable time window determined by water temperature, and transported successfully to the desired stocking location. Nearly 25,000 largemouth bass greater than 8 inches TL were transferred into either Lake Griffin (13,932 fish) or Lake Dora (10,849 fish) since December 2004. Even after stocking these large amounts of fish into the Harris Chain of Lakes, many quality-sized bass were still captured in 2009-10 from the water located at the Orlando International Airport and there is no reason to believe the airport cannot continue to provide 4000+ fish per year for continued stocking into the Harris Chain of Lakes or different sites in need of population enhancement. Fish from these types of sources could either replace or compliment fish grown at Florida Fish and Wildlife Conservation Commission's hatcheries. The advantages of using these fish over hatchery-grown fish are that they are of larger size (greater survivability against predation), acclimated to living in Florida waters, and quality-sized fish can contribute immediately to the fishery as they have continued to do in the Harris Chain of Lakes.



Electrofishing at the Orlando International airport with planes in the background.

Outstanding LAKEWATCH Supporter

It is with the deepest regret that we inform you of Kevin McCann's passing in January.

Kevin's early years started out with the City of Orlando's Water Conservation Program in 1982-83. This program was started because the wastewater treatment plant was at capacity and expansion was several years away. If the city couldn't reduce the volume of wastewater, then growth would have to cease. Kevin's role in the program was to install low flow showerheads, aerators for faucets and toilet tank dams to any citizen's home that wanted them. After the 2-year program was concluded, Kevin and his colleagues could boast that they installed these devices at nearly 80% of all residences within the city and helped the city get through a critical growth period. The city received local and national news on this program!

Kevin graduated from University of Central Florida (UCF) with B.S. in Limnology in 1985. Kevin began his full-time career with the City of Orlando's Wastewater Department that same year. His role was inspecting and sampling industrial facilities and performing field sampling of monitoring wells. In 1989, Kevin transferred to the newly created Stormwater Utility Bureau. He was the City of Orlando's first and only Lake Enhancement Coordinator.

During this time, Kevin was actively involved in monitoring the effectiveness of several stormwater best management practices already installed within the city, including the Greenwood Urban Wetland, Rowena Bar Screen and Alum System, Lake Highland CDS Unit - the first one installed in the city, Stormceptors, in conjunction with University of Central Florida, Vertical Volume Recovery System, and the Packed Bed Filter.

In 1997, Kevin and his colleagues published the "Lake Adair Diagnostic Study." This study was performed in response to fish kills and waterfowl deaths, caused by severe algae blooms and degrading water quality in Lake Adair. Hydrologic and nutrient budgets were developed. The study determined that 73% of phosphorus

also pivotal in establishing the Central Chapter of FLMS. Kevin was awarded the Richard Coleman Aquatic Resources Award in 2009 for his career work to restore, protect and advance our understanding of Florida's aquatic resources.

Kevin and City Stormwater Utility Bureau have and continue to give



Kevin doing one of his favorite things — showing the result of a day spent fishing.

entering the lake came from roosting cormorants.

In 2005, Kevin was promoted to assistant division manager for the Public Works/Streets and Stormwater Division responsible for all stormwater functions (construction, maintenance and NPDES programs) within the division.

He was a longtime member and leader of the Florida Lake Management Society (FLMS), serving on the Board of Directors from 1996-1999 and as President of FLMS in 2000. He was

support to the Florida LAKEWATCH program. Kevin was instrumental in donating funds, creating space in their facilities for a water collection center, and allowing employees to train volunteers for the program. Without Kevin's help the program would not be as successful in the Orlando area.

Kevin's hobbies included: all outdoor activities, particularly hunting and fishing (both, fresh and saltwater). Kevin also enjoyed kayaking and using his ATV, with his sidekick, Tank (his fearless and crazy Jack Russell terrier).

Florida



LAKEWATCH

This newsletter is generated by the Florida LAKEWATCH program, within UF/IFAS. Support for the LAKEWATCH program is provided by the Florida Legislature, grants and donations. For more information about LAKEWATCH, to inquire about volunteer training sessions, or to submit materials for inclusion in this publication, write to:

Florida LAKEWATCH
Fisheries and Aquatic Sciences
School of Forest Resources and Conservation
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Gainesville, FL 32653
or call

1-800-LAKEWATCH (800-525-3928)

(352) 392-4817

E-mail: fl-lakewatch@ufl.edu

<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.

Kevin retired last summer after 25 years with the City of Orlando Streets and Stormwater Division. Many people were fortunate enough to be able to work with him on various projects and issues throughout Central Florida. Kevin was a well-respected professional that many turned to for advice. He will be truly missed as a colleague and friend.



Out on an Orlando lake.



Kevin, with a "big one"

This article was compiled from the Florida Lake Management Society's newsletter Volume 23, Issue 1 and information provided by Lisa Lotti of the City of Orlando.