A Heartfelt Thanks!
In response to recent funding shortfalls within the state university system, several groups have stepped forward to provide increased financial support for LAKEWATCH in its time of need. Thanks to the following city and/or county municipalities, we will be able to continue to provide a consistent level of service and expertise for our volunteers and Florida’s citizenry in the coming year.

♦ City of Orlando Stormwater Utility Bureau
♦ Hillsborough County Public Works / Engineering Division / Stormwater Management Section
♦ Lake County Water Authority
♦ Seminole County Public Works Department/Stormwater Division

If you should have an opportunity to talk with any of the people within these organizations, be sure to let them know how much we appreciate their support!

Dan Canfield, Jr. / Director
Mark Hoyer / Program Leader

Message from LAKEWATCH Crew

We hope this newsletter finds you in good health and enjoying your favorite spot along the water’s edge. As we approach the long days of summer, we thought it might be a good idea to do a quick review of some of the projects that we have “in the works,” just in case you’re wanting any more excuses to get out on your lake or waterbody. But before we do, we also want you to know that these projects are offered only because a number of volunteers were looking for additional ways to be involved; for most folks, monthly water monitoring sampling is time-consuming enough. We’ve also found that some folks may want to help with our fish or bird monitoring efforts, but not with the water monitoring component. That’s fine too. Please feel free to contact us about any of these projects:

♦ Our Angler Diary project is moving right along. If you should find yourself doing a lot of fishing this summer, we’d love to send you an Angler Diary to fill out between casts.

♦ The Bird Monitoring project is gaining momentum as the weather warms up and people spend more time on the waterfront. This project allows for several levels of participation and bird-watching expertise.

♦ Now that water levels are up in many lakes around the state, we’d like to encourage you to take a few photographs of your lake or shoreline during your next monitoring expedition. The photos will compliment the shots that some of you took during the drought, when lake levels were extremely low. Feel free to send prints or digital images (the higher resolution, the better).

E-mail: lakewat@ufl.edu
Phone: 1-800-LAKEWATCH (1-800-525-3928) or 352/392-4817
Mail: 7922 NW 71st Street / Gainesville, FL 32653-3071
Alligators and humans have shared the marshes, swamps, and lakes of the southeastern United States for many centuries. Native Indians and early European pioneers occasionally utilized them for food, but not until fashion markets began producing alligator skin products did this prehistoric reptile become heavily hunted.

A century of unrestricted and unregulated hunting depleted most accessible populations. Even after the passage of state regulations governing the harvest of alligators during the 1940s, alligator populations continued to decline due to extensive poaching. In 1970, new federal laws prohibited the interstate shipment of alligators and finally afforded effective protection. The federal Endangered Species Act of 1973 provided further support. Shortly afterward, alligators began to rapidly repopulate areas that were once heavily hunted. Surveys established by the Florida Fish and Wildlife Conservation Commission indicated progressive increases from 1974 to 1985.

During that same period, Florida experienced tremendous human population growth. That trend continues today, with over 1,000 people moving to Florida daily. Many new residents are seeking waterfront homes, resulting in increased interactions between humans and wildlife, including gators. Although most people have learned to coexist with alligators, the potential for conflict always exists. Because of their predatory nature and large size, alligators can, and occasionally do, attack pets. Regrettably, humans are occasionally attacked and, in rare instances, killed by large alligators. Between 1948 and January 1997, there were 225 alligator attacks on humans, with seven of the attacks resulting in fatalities.

Although this number may seem high, they constitute a very small percentage of water-related incidents compared to those involving water skiing, scuba diving, and boating mishaps. Amazingly, the number of alligator encounters that occur annually has remained constant in spite of the increases in alligator and human populations in Florida.

The Florida Fish and Wildlife Conservation Commission (FWC) receives over 10,000 alligator-related complaints annually. The vast majority deal with gators showing up in places where they are unwanted such as garages, back yards, pools, golf-course water hazards, and ditches. In many cases, if left unmolested, the animals will eventually retreat to preferred habitats away from people. However, if you should encounter an alligator displaying aggressive behavior, you can call one of the FWCs five regional offices (listed below) and they will dispatch your call to an enforcement officer. Depending on the risks associated with the animal, the FWC can arrange to have a licensed trapper remove the animal and re-locate it or destroy it. About 4,000 animals are handled per year.

Alligators are an important part of Florida’s heritage, and they also play a significant role in the ecology of Florida’s wetlands. An understanding of these facts and broader knowledge of alligator habits will ensure that humans and alligators can continue their long-term coexistence.

Excerpted from FWC article:
http://www.wildflorida.org/critters/livingwithgators.asp
Gator Safety Tips

DON’T - swim outside of posted swimming areas or in waters that might contain large alligators.

DO - swim with a partner within all marked swimming areas, as they are situated and designed to reduce potential alligator/human conflicts.

DON’T - swim at night or dusk when alligators most actively feed.

DO - use common sense. Swim during daylight hours. Avoid areas with thick vegetation along shorelines; these areas are natural habitat for larger alligators.

DON’T - feed or entice alligators; they over-come their natural shyness and become accustomed or attracted to humans when fed.

DO - inform others that feeding alligators is a violation of state law and that by feeding alligators, people create problems for others who want to use the waterbody.

DON’T - throw fish scraps into the water or leave trash on shore. Although you are not intentionally feeding alligators, the end result can be the same.

DO - dispose of fish scraps in garbage cans situated at most boat ramps or fish camps.

DON’T - allow pets to swim in water known to contain large alligators or in designated swimming areas with humans. Dogs suffer many more attacks than humans, probably because dogs closely resemble natural alligator prey.

DO - Keep your pet away from areas of heavy vegetation and maintain your dog within command distance. Check to be sure that the area is free of large alligators.

FWCs Policy for Nuisance Alligators
It is the policy of the Division of Law Enforcement to remove nuisance alligators that are over four feet in length and that are found to be real or potential threats to humans, pets, or livestock. . . . There will be occasions when a FWC representative will respond to a situation and the alligator will not be harvested. It is not an automatic decision to harvest any alligator over four feet in length. The Commission philosophy is to look at a complaint alligator as a resource that should be properly protected and conserved, if possible.

Many Hands Make Light Work

When faced with the challenge of monitoring their lake every month, some volunteers have decided to share the work with their neighbors. One such group can be found on Lake Wekiva in Seminole County. By organizing themselves into four teams (two people per team), the Home-owner’s Association of Wekiva Cove accomplishes several goals:
• They’re saving money that was previously paid to a private lake maintenance company;
• They’re raising awareness about lake ecology and gaining a greater consensus about lake management issues;
• They’re earning visibility and credibility with county water managers;
• They’re also gaining an excuse to get out on their lake, but on a less strenuous schedule (i.e., instead of collecting samples every month, individual teams are only responsible for three months out of the year).

Linda Hagman is a volunteer and helps keep track of the sampling schedule. She says their group has been monitoring Lake Wekiva for about four years now and is quite enthusiastic about the arrangement: “The more teams you have, the easier it is for everyone. That’s the beauty of the whole thing; I can go out and be done with my sampling in three hours max. Then I immediately take the samples to the collection center. It’s such a nice way to contribute to my community and neighbors, without having to spend a lot of time sitting in some committee meeting for hours. I really enjoy getting out on my lake and LAKEWATCH gives me the perfect excuse!”

Editor’s Note: Remember that our monitoring guidelines require that all volunteers be trained by LAKEWATCH staff. If you do want to involve others in your water monitoring activities, please be sure to call your regional coordinator to schedule a training session for them.

New Staff

Though Vic Wilkinson (left) and Mary Lettelier (right) have been with us for a while, we haven’t officially introduced them. Vic is our collection center courier and equipment technician. Mary is our new office assistant. Many of you will recognize her friendly voice on the phone when you call. We’re delighted to have both individuals on our team!
Attention All Active Volunteers

The next time you’re out sampling your lake, we need you to take a few extra minutes and jot down the latitude/longitude (LAT/LONG) coordinates for each sampling station. The easiest way to do this is to use Global Positioning System (GPS) equipment. If you don’t have a GPS, we ask that you draw a quick map of your lake and indicate where the station locations are, as accurately as possible. We need the information to fulfill the requirements for posting your data on STORET, the official U.S. EPA water quality database. Once you’ve collected the coordinates for each monitoring station, you can pass along the information in any of the following ways:

♦ Call: 1-800-LAKEWATCH (1-800-525-3928)
♦ E-mail: lakewat@ufl.edu
♦ Fax: 352/392-4902
♦ Package it with your monthly water samples (in the freezer bag).
♦ Mail: LAKEWATCH

7922 NW 71st Street
Gainesville, FL 32653-3071

Watch For Your Invitation

This year’s LAKEWATCH Volunteer Appreciation Meetings are off to a good start. Held once a year, they provide a great opportunity for us to get to know you better and to answer any questions or concerns you may have about your lake. (Feel free to jot your questions down and bring them with you, along with any plant or algae samples you want identified.) Come on out and let us thank you in person for a job well done; check out our aquatic plant and aquatic insect displays; browse our educational literature and receive your annual data packet. See the listing below for dates. If you can’t make the meeting scheduled for your area, you may attend any of the meetings in a neighboring county. Just be sure to RSVP so that we can bring your data packet. If you do happen to miss your annual meeting, your data packet will be mailed to you. Meeting dates are also listed on our website: http://lakewatch.ifas.ufl.edu/

Mark your calendar: June 2 - 5, 2003

Annual Florida Lake Management Conference

Join lake management professionals and fellow citizens at the 12th Annual Southeastern Lakes Management Conference in Orlando, Florida at the Hyatt Orlando-Kissimmee. The event will combine the annual meeting and conference of the Florida Lake Management Society FLMS with the annual Southeastern Lakes Management Conference. The meetings are a great way to become acquainted with many of the people involved in lake management and to hear presentations on toxic algae blooms, lake water levels, exotic/invasive species of plants and animals, etc. For information, check out the FLMS web-site:

http://www.nalms.org/flms/florida.html
‘Living at the Lake’ Workshops
Available in Hillsborough and Polk County

UF/IFAS extension agent John Brenneman is at it again — offering yet another new and interesting series of classes for lake enthusiasts in the Polk and Hillsborough county area. The class is entitled *Living at the Lake* and is designed for lakefront property owners or anyone interested in learning more about Central Florida’s wonderful lake resources.

It’s offered as a 9-hour course, split into six weekly 1.5 hour sessions, and provides an overview of lakes in Florida including how they were formed, the influence that surrounding soils can have on a waterbody, and an introduction to lake inhabitants (e.g., plants, birds and animals). The information is then used as a foundation for discussion of lake restoration and ultimately, strategies for developing a lake management plan.

John recently taught the course series in Lakeland and is now providing the class in the Babson Park area. Another series is slated for Winter Haven this fall Tuesday and Thursday nights (Sept. 30, Oct. 2, 7, 9, 14, & 16) and again in the Lakeland area in January 2004. There is also talk of two being organized in Hillsborough County, with one in Seffner and one in Northwest Hillsborough County, though dates have not been set.

Participants are asked to pre-register, to facilitate planning for printed material and supplies. A minimum enrollment of 10 is required before dates can be reserved on the calendar.

The course is free and open to the public and is offered through the Polk and Hillsborough County Cooperative Extension Service offices, a program of the University of Florida/Institute of Food and Agricultural Sciences UF/IFAS.

You can register by calling or sending an e-mail with notice of intent to attend.

Contact: John Brenneman
E-mail: jbrenneman@mail.ifas.ufl.edu
Phone: 813/519-8677 ext. 103

**2002 Data Report Complete**

The annual LAKEWATCH data report has been assembled and is currently being prepared for posting on the website and also for a limited printing (i.e., for distribution to Florida’s state university libraries, state agencies, water management district offices, etc.).

The two-volume set includes one-page water chemistry summaries for all the lakes, river stations, creek stations, and coastal monitoring sites that were sampled in 2002 — a total of 892 sites! Long-term averages are provided for each waterbody as well as monthly averages for every station that was sampled last year. Latitude and longitude coordinates are available for most of these waterbodies as well as basic geologic information and, in some instances, supplemental water chemistry (pH, conductance, total alkalinity, color, chloride and sulfate concentrations).

Of course, none of this would have been possible without our volunteers.

For on-line access to the data report, visit our web-site at:

http://lakewatch.ifas.ufl.edu/

**LAKEWATCH Hosts International Research**

LAKEWATCH recently had the pleasure of hosting a group of visiting scientists from Spain’s Mediterranean Institute of Advanced Studies.* For several weeks, Susana Agustí, Carlos Duarte, and their illustrious technicians Yves Prairie, Regino Martínez, and Eva Alou, were honored guests at our very own UF/IFAS Department of Fisheries and Aquatic Sciences in Gainesville.

Using the Department as “home base,” Carlos, Susana, and company, embarked on a rather rigorous schedule of field work, collecting water samples and other pertinent data for their research. Of course, LAKEWATCH staff was happy to provide the boats, equipment, field assistance, and laboratory support. Samples collected by Susana and her team will be used to study the effects that ultraviolet (UV) radiation and low pH levels have on algal communities in different types of lakes (i.e., low nutrient lakes versus high nutrient lakes). Carlos’ research examines the release of carbon dioxide from Florida’s freshwater springs. He and his team are working to gain a better understanding of how much CO₂ is released to the atmosphere, once the water is released from its underground aquifer. He is also trying to learn more about the rate that CO₂ is absorbed by plants and other processes as water moves down-river, away from the headspring.

Both projects are sure to provide further insight into questions that are being asked by limnologists around the world and we were glad to have been involved.

* The Institute is located in the Balearic Islands, off the coast of Spain.
The Florida snail kite (Rosthrhamus sociabilis plumbeus) doesn’t ask for much: a steady diet of apple-snails, a safe place to nest, and a warm sunny climate is all it really needs to survive. Sounds easy enough, but apparently these simple requirements are becoming harder to fulfill with Florida’s population growth and the ever-increasing alterations being made to the state’s wetland habitats.

Also known as the Everglades snail kite, the species has been on the Endangered List since 1967, although today’s population is considered to be somewhat more stable. Biologists do warn however, that they are extremely vulnerable to the stresses of habitat loss, prolonged droughts and anything that affects the availability of apple snails, its primary food.

As its name suggests, these birds are found predominately in Florida, though they have been known to wander to latitudes as far south as Brazil to breed. Within the state, they were historically found as far north as Tallahassee, but wetland drainage and development has limited them to central and south Florida in recent years.

In south Florida, they breed from December to June and in central Florida, from March to August. They lay an average of three eggs in bulky nests built in a variety of wetland trees, shrubs and even in emergent aquatic vegetation such as cattails and bulrushes. During the nesting season, the Florida snail kite is usually found singly or in pairs; in winter, they can sometimes be seen roosting together in communal groups.

The species is somewhat nomadic, moving from wetland to wetland in search of snails, but they are regularly seen in the marshes associated with lakes Kissimmee, Okeechobee and Tohopekaliga, at the Loxahatchee National Wildlife Refuge, water conservation areas (Everglades), and even along stretches of the Tamiami Trail.

When birdwatching, look for a medium-sized bird of prey, about the size of a red-shouldered hawk. Males are uniformly dark gray or black and females and juveniles are brownish with a streaked breast and light eyebrow and cheek patch. All snail kites have a distinctive white patch at the base of the tail, ending in a dark band with a narrow white edge.

If you’re lucky, you may witness the snail kite as it searches for prey by flying low over shallow freshwater marshes or shallow lakes. When it spots a snail, it swoops down, extends its legs into the water and briefly hovers while it grasps the snail with its talons. While still in flight or after landing on a nearby perch, the kite then uses its thin, sharply hooked bill to pull the snail from its shell.

Escargot at its best!

Excerpted from the following resources:
http://www.floridaconservation.org/viewing/species/snailkite.html
http://www.wildflorida.org/bba/SNKI.htm
http://endangered.fws.gov/i/b/sab0v.html

1 The Florida snail kite (Rosthrhamus sociabilis plumbeus) is considered to be a sub-species of the common Snail Kite (Rosthrhamus sociabilis) that is found in other regions of North America, particularly in Texas and Mexico.
Have you ever noticed clusters of pearl-sized eggs attached to aquatic vegetation or dock pilings and wondered what they were? Chances are, they belong to one of the numerous species of applesnails that inhabit Florida’s many lakes, ponds, marshes and drainage ditches. If they are light pink or white in color, and arranged in groupings of 50 or less, they probably belong to the Florida applesnail (Pomacea paludosa), the largest of all freshwater snails native to North America.

With a length of two inches and a maximum diameter of two and one-half inches, the Florida applesnail is distinguished from other applesnails by its pattern of dark brown bands on a lighter brown background. Its striped pattern also provides camouflage from predators.

Applesnails are important constituents of aquatic ecosystems; they are the preferred food of limpkins and white ibis, and contribute to the diets of fish, alligators, turtles, wading birds, and river otters. They also serve as the primary food source for the endangered Florida snail kite which suggests that conditions adversely impacting snail populations may also indirectly impact Snail Kite populations. For the most part, applesnails feed upon soft plant material, preferring algae, grasses, and duckweed. However, in the absence of a preferred food source, they have been observed preying upon other snail eggs or even, smaller snails, including members of their own species.

Their unique respiratory system, which includes both gills and a primitive lung, allows them to breathe in water during the wet season and also from the air, during the dry season. This is an important survival tactic for an animal that lives in subtropical and/or tropical marshes, ponds, and lakes — environments that typically experience prolonged periods of wet and/or dry conditions.

**Potential Problems**

At least two species of non-indigenous or “exotic” applesnails have established reproducing populations in the wild in Florida. The channeled applesnail and the spike-topped applesnail are native to South America and it’s suspected that both species were introduced to Florida by aquarium hobbyists who were cleaning or discarding animals from their aquariums. Note: State biologists recommend that when cleaning or emptying an aquarium, one should flood the tank’s contents with a bleach solution prior to emptying. The contents should then be emptied, in a dry, safe location — away from any waterbodies.

The channeled applesnail (Pomacea canaliculata) is marketed as the golden applesnail in pet and aquarium shops. The spike-topped applesnail (Pomacea bridgesi) is marketed as the golden mystery snail or the ivory snail. The channeled applesnail has become particularly prolific in south Florida canals and in lakes and ponds in the Tallahassee area.

The proliferation of these species in the wild has caused concern among biologists who speculate that the larger non-native species may displace the native Florida applesnails from their habitats, disrupting the natural function of aquatic ecosystems. Because these snails are very similar in appearance to the native species, identifying them in the wild has been a challenge for biologists. For more information on applesnails, or if you would like to send in samples for identification, contact:

Gary Warren / Invertebrate Biologist
Florida Fish & Wildlife Conservation Comm.
7922 NW 71st Street
Gainesville, FL 32653
352/392-9617 ext. 279
gary.warren@fwc.state.fl.us

**A Belated Acknowledgment**

LAKEWATCH would like to recognize volunteer Dave Scharr on Lake Wanautta for his detective work four years ago when applesnails were devouring the eelgrass (Vallisneria americana) in his lake. Dave called us with concerns about the voracious snails, triggering an investigation that eventually alerted FWC and USGS biologists about the presence of the invasive species. Dave says he knew something was up when piles of dead eelgrass were washing up on his lake shoreline every morning. To solve the mystery, he installed a small wire enclosure around a patch of eelgrass to keep out turtles and/or grass carp — the initial suspects. The next morning, the grass was chewed off at the base and dozens of applesnails were found in the enclosure. At first, biologists were skeptical of his observations; according to them, the native applesnail is an algae grazer, not a grass grazer. However after further study, it was determined that the ravenous snails were an exotic species (i.e., the channeled applesnail) that closely resembles Florida’s native applesnail. Fortunately, this story has a happy ending: the exotic snail population “crashed” soon after and the eelgrass has returned.
Gearing Up for A Busy Summer

The Fishing For Success (FFS) program is well on its way to exceeding last year’s participation (i.e., more than 13,000 youth and parents). The calendar is already filling up with reservations for Boys and Girls clubs, 4-H, school groups, summer camps, youth groups, etc., all of which will be treated to a unique hands-on aquatic education lesson.

Participants are given an opportunity to net an assortment of aquatic critters from fisheries ponds including damselfly and dragonfly larvae, freshwater shrimp, minnows, crawfish, tadpoles, and water mites — to name a few. After the science lesson, students are provided with fishing poles and encouraged to see what they can catch with a hook and line.

FFS is also working with students from the Gainesville Wilderness Institute, a day program for at-risk youth. As part of the collaboration, FFS is providing career awareness workshops as well as several evening Family Fishing events for youth, their siblings, and parents. The events have been enjoyed by everyone and provide a relaxed atmosphere for families to “re-connect” and enjoy quality time together.

On a larger scale, FFS is continuing to hold Family Fishing events one Saturday every month (see dates below). This month’s event, scheduled for May 31, is being organized and sponsored by members of the local business community. Donations from participants will benefit the FFS program. For more information on scheduling an event, call Sharon Fitzcoy at 352/392-9617 ext 241. To learn more about how you can become a Friend of Fishing For Success, contact Dr. Dan Canfield at 352/392-9617 ext. 246.

**Family Fishing Days**

UF/IFAS Community Fishing Ponds
7922 NW 71st Street
Gainesville, FL 32609

| June 21 | September 27 |
| July 19 | October 25 |
| August 16 | November 22 |

This newsletter is generated by the Florida LAKEWATCH program, within UF/IFAS’ Department of Fisheries and Aquatic Sciences. 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:

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