Fertilize Your Lawn, Not Your Lake

The following article is an excerpt from Living at the Lake—A Handbook for Florida Lakefront Property Owners by Marilyn Bachmann, Mark V. Hoyer and Daniel E. Canfield. SP 247.76

Those who have lawns from the house down to the lake like to see a nice sweep of green. However, the application of fertilizer used to achieve this may also reach the lake, adding nutrients to the water. The nutrients, particularly nitrogen and phosphorus, are absorbed by algae and aquatic plants, making the lake more productive, creating greener water and denser aquatic plant growth.

What can we do to have our lawns and protect the lake at the same time? For starters, you can save money and time and help your lake by reducing the amount and frequency of fertilization. Use fertilizers only when necessary and minimize the use of fertilizers that contain phosphorus. Using a complete fertilizer in March and September has been suggested as a minimum program. This can also result in less mowing, less thatch buildup, less need for irrigation and fewer insect and disease problems. (See Florida Yards and Neighborhood Handbook on page 2.)

In addition, consider using liquid foliage fertilizers that can be taken up immediately by the grass after application. Solid fertilizers can be applied during dry spells and immediately irrigated to move the particles into the soil. (Slow release types may be easily dissolved by rainfall, and either the released nutrients or the particles themselves may reach the lake.) Use of swales and berms as well as buffer strips of vegetation between the lawn and the lake can help control runoff of fertilizers. (See Creating Berms and Swales on page 2.)

For some of our lakes, phosphorus is a key nutrient in the productivity of the lake. Be sure to use detergents containing low amounts of phosphorus (less than 0.5%). Whether used for washing cars or within your home’s septic system, the phosphorus from detergents could potentially reach the lake. (Continued on page 2.)
Other Lawn Tips

Mow your lawn often enough so that no more than one third of the grass leaf is cut with a sharp blade. Leave clippings on the lawn to provide nutrients as they decompose, reducing the need for fertilizers. Consider landscaping your property in terms of protecting your lake and at the same time reducing work for yourself — leaving you more time to enjoy lake living!

Low-maintenance landscaping involves reduced fertilization, simple design, mulching, alternate ground covers to grass, and use of native and low-maintenance plants. Rather than over-fertilize, learn to identify plants with nutrient deficiencies, fertilizing only when needed. You can thus reduce the use of pesticides, herbicides and fertilizer, institute practices that keep what is used out of the lake, and save money and time.

Creating Berms and Swales

A swale is a low area followed by a higher one called a berm. Rainwater runoff will slow as it moves from the low swales to the higher berm, causing less erosion and allowing nutrients to be absorbed and particles to settle out in the vegetation. Allowing natural vegetation to fill in the swale will increase this absorption/settling out process and help to prevent erosion and the nutrient enrichment of the lake.

Buffer Strips

Buffer strips of natural vegetation between the lawn or landscaped area and the lake can also help reduce water runoff to the lake. For the sandy areas with gentle slopes that are common in Florida, a 25-foot wide buffer strip of natural vegetation can be effective in preventing nutrients and contaminants from reaching the lake.

On steeper slopes, buffer stripes must be wider. If you have a lawn down to the water, leave an unmowed strip along the shore. If you also leave a strip extending inland along a natural contour, native flowers and other plants will grow, creating interest and trapping nutrients and other materials during runoff. You may also want to plant native tress and shrubs, which can now be obtained from many nurseries.


This UF/IFAS publication provides simple and common sense solutions to designing and maintaining your lakeside yard with tips on cost-saving, environmentally-friendly landscape practices that help reduce the use of water, fertilizer and pesticides. A helpful section also addresses shoreline management and how you can work with your neighbors to share costs and labor.

To obtain a copy, contact your local UF/IFAS Cooperative Extension Office or the statewide office for:

UF/IFAS Florida Yards and Neighborhood Program
352/392-7938

For LAKEWATCH volunteers only:

To order “Living at the Lake” contact Florida LAKEWATCH at 1-800-LAKEWATCH (1-800-525-3928).

To order a copy for a friend:

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Summer is here once again in all its hot, humid, buggy glory and chances are dedicated lake-goers are smack dab in the middle of it all as they enjoy any number of aquatic activities.

However, there is one summer occurrence that folks should be aware of as it can certainly take the fun out of playing in your favorite lake.

It’s known as swimmer’s itch and similar to poison ivy, anyone who has ever had an outbreak usually doesn’t forget it.

Swimmer’s itch is the result of a parasitic flatworm that makes its presence known to lake-goers on rare occasions. It is most often experienced in the warmer summer months when greater numbers of people are out swimming in and enjoying their lake.

Initial symptoms are usually experienced soon after swimming or submerging oneself in a lake and they include a tingling sensation soon after drying off the exposed parts of the body. Later, the development of small red spots occurs, then the tingling ceases and the red spots become itchier. The degree of discomfort varies among individuals, depending on the severity of infestation and prior exposure. The more often one is exposed to swimmer’s itch, the more sensitive they could be to future outbreaks.

So where does this aquatic pest come from?

This tiny parasitic flatworm that is capable of causing so much discomfort among humans originates in the bloodstream of some aquatic bird species. Adult worms live in the bird’s digestive tract and their eggs are transferred to the lake via the excrement of the bird.

Once in the water, the eggs hatch and the larvae search for a certain species of snail, which they will invade and use as the secondary host. Larvae live in the snail and eventually emerge as a secondary microscopic larval stage that is known as cercaria. At this point, the cercaria normally will seek out aquatic birds such as ducks to complete the life cycle but sometimes mistakenly invade human skin instead. Since humans are not the correct host species, the cercaria soon dies and leaves the swimmer with an itchy but harmless welt.

If symptoms develop, over-the-counter anti itch medications can help such as lotions and antihistamines. Your pharmacist can recommend something suitable for you.

One way to reduce your chances of contracting swimmer’s itch and still enjoy your lake is to avoid swimming for long periods in shallow water. It is believed that cercarias are more concentrated there.

Also, if an area has a history of producing swimmer’s itch, avoid swimming there, especially if there is an onshore wind.

Drying off immediately after getting out of the lake may help as some species of cercaria only enter the skin as the water dries on the body.

A few more words of wisdom:

Don’t feed aquatic bird species, as this can encourage them to defecate in areas where people swim and it also makes the birds dependent on humans for food.

For more information, feel free to contact your LAKEWATCH regional coordinator at 1-800-LAKEWATCH (1-800-525-3928).

Many thanks to Debi Mosely for her writing and assistance with this newsletter.
Great American Secchi Dip-in

The eighth annual Great American Secchi Dip-In took place from June 30th to July 15th as part of a continuing effort to produce a snapshot of water clarity (i.e., Secchi depth) across North America. Volunteers have contributed more than 17,000 data points on more than 5,000 waterbodies around the world.

Active LAKEWATCH samplers should have received an invitation to participate. However, everyone will receive a summary of results.

To view the results online or to learn more about it, go to:
http://dipin.kent.edu

LAKEWATCH Web Address:
http://lakewatch.ifas.ufl.edu

Same great web site, but now at a new location.

Collection Center Changes

For a complete update of collection centers in your area, call the LAKEWATCH office at: 1-800-LAKEWATCH (1-800-525-3928)

Grayton Beach Collection Center
has been moved to the Sheriff substation on Hwy 331. They are open 24 hours a day, 7 days a week. Please note that they are only providing freezer space. They are not equipped to answer questions about water monitoring and are not familiar with the supplies needed. (Please call the LAKEWATCH office with any questions.) Address: 25221 US Hwy 331 S Phone: (850) 267-2700

New Santa Rosa County Collection Center
Located in Navarre on Hwy 98 at the County Extension Office is open Monday through Friday from 8 am to 4:30 pm. It is staffed only on Tuesdays. However you can drop off samples and pick up supplies at any time during the hours listed.
6051 Old Baghdad Hwy Rm 116 Milton FL 32583 Phone: (850) 932-9047

Big Catch Certificate

Have you caught a big bass lately? To commemorate your outstanding catch, the Florida Fish and Wildlife Conservation Commission (FWC) will send you a full color certificate illustrating the fish species and the particulars (length, weight, etc.) To encourage catch and release, the FWC only requires that you measure the fish’s total length, witnessed by one other person, before releasing the fish to receive a special catch-and-release seal on your certificate. With 33 fish species that qualify and three award levels, what are you waiting for?

Applications can be found at many bait and tackle dealers and online at:
http://floridaconservation.org/fishing/bigcatch/bigcatch.html

Snake in the Grass?

Regardless of how you feel about snakes, it’s important to know that not all snakes found in Florida are venomous – even those found near water. In fact, poisonous snakes are usually in the minority.

So, where can one go if he or she needs to know for sure?

One of the more popular field guides to snakes is the National Audubon Society Field Guide to North American Reptiles and Amphibians (ISBN: 0394508246). This comprehensive book contains detailed descriptions and photographs of the creatures, making identification easier and more accurate. It’s also handy for identifying lizards, salamanders, frogs, etc.

On the web, the best site for identification of snakes in our state is the University of Florida’s Online Guide to the Snakes of Florida. The site offers several ways to identify snakes by their habitats, color patterns, and a guide to getting along with snakes in the wild. It’s user friendly with plenty of illustrations and additional web links. Check it out.
http://www.flmnh.ufl.edu/natsci/herpetology/herpetology.htm

Nature’s Ultimate Mosquito Control

Bat myths have been flitting around for years now and it’s time to set the record straight. For starters, bats aren’t blind, they don’t fly into your hair and they aren’t rodents. Instead, they are a natural part of the food chain and an effective pest control for insects. For example, a single brown bat can consume 1200 mosquito-size insects in one hour! Since waterfront property has its fair share of flying insects, many property owners are encouraging bat residency by building bat-houses. Interested in purchasing or building a bat-house? Check out this website:
www.batcon.org

Salute!

Lindsay Sisco, the industrious young lady featured in our last newsletter placed second at the Florida State Science and Engineering Fair. Her project was based on data collected in cooperation with Florida LAKEWATCH. Congratulations, Lindsay and keep up the excellent work!
Two new colorful large posters illustrate, respectively, native freshwater plants of Florida and non-native, invasive plants. Laminated in full color, they are 62 inches x 23 inches in size.

Created at the request of teachers and trainers, they are meant to be attention grabbing teaching tools for science classes, management agency training, homeowner’s forums, ecology clubs and others interested in marshes and other wetlands and concerned about the encroachment of non-native plants in the United States and Florida.

The posters are:

♦ FREE to teachers (US K-12) and agency trainers (US). Requests should be made in writing on letterhead and sent to the APIRS address below.

♦ For sale to anyone for $20 each plus S&H. When you purchase a copy, you are also buying one for a teacher! Contact Vic Ramey <varamey@nersp.nerdc.ufl.edu> to order.

♦ Very large edition for loan. This one is 3 feet x 8 feet, available to teachers and agency trainers, eco-groups and eco-events who request them. Contact Vic Ramey <varamey@nersp.nerdc.ufl.edu> for details.

LAKEWATCH is proud to announce that long-time volunteer Mary Carter was recently awarded the Scott Driver Award for her dedicated pursuit of the preservation and wise management of Florida lakes. The award was sponsored by the Florida Lake Management Society (FLMS) and was presented at their annual meeting in Tallahassee this April.

Mary’s tireless efforts began in 1992, when she joined the Friends of Istokpoga, a group of fishermen with concerns about the lake. As a result of her involvement and tenacity, the group was able to obtain funding for an aquatic plant management program. Soon after, she became the executive director of the organization and began to expand its scope to include every lake in Highlands County. Her experience with Lake Istokpoga led her to the realization that every lake in the county was in need of better lake management. So she lobbied to have a lake manager position created for the County, which was eventually filled by Mr. Clell Ford.

In March of 1994, Mary became a LAKEWATCH volunteer on Lake Placid. From that moment on, she made sure the lake was being sampled even when she couldn’t do it herself. She also established a LAKEWATCH collection center at the Tomoka Heights Realty office, which continues to be used by area volunteers on a monthly basis.

In 1996, she and Clell Ford worked to develop the Highlands County Lakes Assoc. Guide to Area Lakes. The booklets were so popular they’ve been printed numerous times and have served as a template for others to follow. Mary also published DIP NET, a quarterly newsletter for the Highlands County Lakes Association.

For five years, she was instrumental in organizing annual volunteer appreciation banquets for LAKEWATCH volunteers in her area — always making sure that local media and city, county, and state government officials were invited. She knew virtually every volunteer and also many of the folks involved in local water management issues due to her service on the Highlands County Water Advisory Board and the Central Sewer Study Board, both county commission appointments.

But perhaps her greatest achievement was her involvement in the creation of Lake Awareness Week for Highlands County. In the summer of 2000 she helped organize the first county-wide Lake Management Symposium, a forum where scientists, biologists, and agency personnel could address specific concerns voiced by the public.

For years, Mary Carter worked to give her community a greater sense of appreciation for the aquatic “jewels” of Highlands County. We’re just glad that others have come to recognize how special she is — something we’ve known all along!
In these days of rapidly expanding subdivisions and the resulting loss of wildlife habitat, it may be surprising to some that golf courses are becoming havens for Florida wildlife, including creatures of the aquatic kind.

Of course, if there’s water involved it seems LAKEWATCH volunteers are never far away. A prime example is the Killearn Country Club (KCC) in Tallahassee where LAKEWATCH volunteers are monitoring the water quality of the lakes and/or ponds found along their fairways by keeping an eye on nutrient levels and aquatic plant growth.

Geoff Brown, UF/IFAS cooperative extension agent, has worked cooperatively with LAKEWATCH and also with KCC’s head groundskeeper Ms. Geri Buchheit to implement new management practices for the course. Brown says that “the goal of the project was to inspire golfers and homeowners living around the perimeter of the course to transform their backyards into a refuge for wildlife.

"By letting some of these rough areas return to a more natural state, it should reduce the need for fertilizers. They also started leaving 25- to 30-foot “buffers” around the ponds, where they are letting things grow, including some aquatic vegetation. Grass carp that have been stocked in the ponds are fenced out of the areas where desired plants are growing, reducing the need for maintenance.”

Buchheit began sampling for LAKEWATCH in March of 1999 after receiving a grant from Florida Fish and Wildlife Conservation Commission to get the project rolling. She has continued to sample every month with the help of Pat Porter.

Julie Terrell, LAKEWATCH regional coordinator for Leon County, continues to be impressed by the dedication demonstrated by the Killearn group. “Their efforts are providing us with solid baseline of information about these waterbodies — something we haven’t been able to collect to this extent in a golf course setting.” Terrell and Geoff Brown aren’t the only ones that are appreciative of Buchheit’s hard work. She was recently named Outstanding Conservationist of the year by the Florida Assoc. of County Agricultural Agents.

Summer Crew Salute!

Every summer since 1991 a small group of UF students brave the hot sun, insects and inclement weather to develop bathymetric maps and aquatic plant surveys for a select number of LAKEWATCH lakes. This elite crew is mostly comprised of undergraduate students or recent graduates that have been given a rare opportunity to “get their feet wet” as they gain invaluable experience in the field and explore possibilities for graduate school.

Under the direction of Christy Horsburgh, the crew is given two main objectives each day. One is to conduct aquatic plant surveys and the other is given the task of recording the lake’s bathymetry (i.e., a contour of the lake bottom) that will later be used to create bathymetric maps.

Plant surveys are done by collecting all the plants from within the confines of a quarter-meter square (see photo), spinning the cuttings to remove excess water, and then weighing them.

This is done at uniformly spaced intervals around the lake for both the littoral zone (the shoreline area) and the offshore zone where floating-leaved and submerged plants are found. An inventory of every plant species found at the station is recorded, including everything the plant crew identifies.

Once this task is complete, they run several

Christy Horsburgh (left) records data as Eric Porak (center) weighs a plant sample. Amber Paxton holds the quarter-meter square that is used to measure the area of vegetation coverage.
Native to Florida, the anhinga frequents swampy areas and marshes. Sometimes referred to as a snakebird, the reptilian reference was inspired by the anhinga’s odd habit of swimming with just his long, flexible neck and head showing above the water’s surface. Ranging in size from between 34 to 36 inches long, male anhingas are dark black with a green gloss on the head, lower back, and tail feathers. The wings and upper back are marked with silver white spots and streaks. Females have a tan or buff colored neck and breast with some white feathers on the wings.

These birds prefer freshwater habitats as fish, frogs, aquatic insects and newly hatched alligators make up their diet. Anhingas are often seen perching on branches or stumps along a lakeshore, with their wings spread out to dry. They can be found along the entire Gulf coast to South Carolina and up the Mississippi River.

Their greatest challenge this summer was finding lakes with enough water in them to survey. Some lakes contours were all too easily seen and low water prevented them from being mapped this time around.

**How is a lake chosen for such in-depth scrutiny?**

Some of the lakes were chosen because they are also being studied by the Florida Fish and Wildlife Conservation Commission as part of a long-term fish data project. Others have been in the LAKEWATCH program for a number of years. If you were lucky enough to have your lake surveyed, you’ll see the results in your annual data packet. Also, much of it is being used for research purposes. For instance, it continues to be used by scientists here at the Dept. of Fisheries and Aquatic Sciences who are looking at the relationship between aquatic plant abundance, fish and bird populations, as well as water clarity and water chemistry. Of course, this information is available to anyone who asks for it.

Volunteers were invited to accompany the crew as they worked, in order to gain a better understanding of their lake system. It was also an excellent opportunity to see LAKEWATCH in action!

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**Anhinga (Anhinga anhinga)**

Double-crested Cormorant (*Phalacrocorax auritus*)

Double-crested cormorants are sometimes confused with anhingas as they are similar in appearance and size and both birds dive while feeding. While there is a local year-round population in Florida, the cormorant also has a large migratory population. Perhaps the easiest way to distinguish them from anhingas is to observe the bird’s beak. Double-crested cormorants have small hooks at the tip of their beaks and the anhinga’s beak is straight and sharp as a javelin. The cormorant’s beak area is also recognizable by the rounded throat pouch that is orange in color year ‘round. Its kinked neck during flight is another distinctive feature.

Cormorants are common to inland lakes and rivers habitats and are found across a much broader range of the continental United States, extending north from the entire Gulf coast up into the Midwest states and also along both the Pacific and Atlantic coasts. They are often seen flying overhead in silent V formations.

Cormorants are also rather notorious for their ability to consume large quantities of fish — their main diet. Catfish farmers have observed the double-crested cormorant consuming as many as 23 catfish fingerlings per hour, with their usual consumption of fish being about 0.5 to 1 pound per day.

If you’d like to participate in our new lakeside bird monitoring project but aren’t a birdwatcher feel free to hook up with a birdwatcher in your neighborhood. Or call us at 1-800-LAKEWATCH (1-800-525-3928) and we will help you coordinate with a birdwatcher in your area.
Are you concerned about your local waters?

If you have access to any type of boat, can spare about two hours each month, and are willing to monitor for at least a year, you might be eligible for the Florida LAKEWATCH volunteer program. Florida LAKEWATCH is currently the only research program gathering monthly data for such a large number and wide variety of Florida waterbodies. This would not be possible without the help of volunteers. Participants in the program receive:

• training in monitoring procedures
• use of water sampling materials
• periodic reports and an annual report
• access to lake experts (limnologists)
• invitations to LAKEWATCH activities
• a free newsletter subscription

For more information contact:

Florida LAKEWATCH
7922 NW 71st Street
PO Box 110600
Gainesville, FL 32611
1-800-LAKEWATCH (1-800-525-3928)
E-mail: lakewat@ifas.ufl.edu
http://lakewatch.ifas.ufl.edu

Encouraging words for volunteers experiencing low lake levels:

Do the best you can!

If you can still get your boat onto the lake and collect samples safely, please continue to do so. However, if your lake is too low to sample, we ask that you continue to send in data sheets. Simply write “low lake level” on the sheet and mail it to us at the address provided in the box below.

You may also consider taking photographs of your lake during this time. It’s a good way to document the event for future reference. And if you can, send your regional coordinator a few copies so that he or she can keep them on file as well. (We are scanning the photos and storing them digitally.)

Many thanks for your patience and dedication!

A Morning Walk

Polk County
by LaVerne Stevens

I had a very interesting walk around Lake Hunter this morning. When I started out, it was quite cool and cloudy. We had a lovely rain, which we have all been praying for, and the air smelled fresh and clean. By the time my walk was over the sun was blazing hot and the sky was clear.

I saw many birds, mostly grackles. The gallinule and moorhen count seemed to be down but their little black fuzz-ball babies are starting to appear along the shoreline so maybe many of them are still nesting. The cormorants must be sleeping in, as most times I see a number of them on the lake and roosting on the light poles. This morning I saw only four as my walk was ending. The anhingas are the early birds.

There is a grocery cart in the lake from the nearby Winn Dixie store. We’ve called the store before when carts are left by the lake, but they don’t seem interested in coming to get them. I called and reported this to Johnna Martinez, the biologist with the lake division of the City of Lakeland. She told me if I report the locations she will send the Parks and Recreation guys out to remove them.

When I got to the boat ramp I came upon a little old lady with her Ford ranger pick-up truck pulled close to the area where the boats go in. She had 13 large 5-gallon plastic buckets lining the whole truck bed, and she was filling them with water from the lake. She said her well has gone dry and Lake Hunter is her source of water for all her utility uses, watering plants and flushing the toilet. She said she is not drinking it. I reported this to Johnna Martinez, as I wasn’t quite sure if this is a good thing. There are many wells going dry due to the severe drought. She gave me the impression she comes to Lake Hunter often to get water. What can be done for those poor people who are without water?

Since Ted and I are already doing LAKEWATCH, we have been assigned the task of coordinating the Adopt-a-Lake volunteers from our Lake Hunter Terrace Neighborhood Association. I met a man I see often walking around the lake and asked him if he would be willing to help me do a litter and trash clean up on a regular basis, since he is down at the lake so often. He said he would be glad to—just let him know when.

“Ask and you shall receive...” The City of Lakeland gave me a long-handled net for collecting floating debris from along the shoreline, so my clean-up project will soon begin.

We are blessed to live in this beautiful state of Florida. With lakes interspersed among the urban sprawl, we feel like we can enjoy the nature and beauty the lake provides and have all the amenities the city provides as well. When the busy rush of life starts closing in, I just walk out my front door and go for a walk around the lake. It’s amazing how much peace and comfort is down there.

A Morning Walk

Jeanne Hearn