

On Our Pond

A NEWSLETTER FOR CLEANER WATER & BETTER
AQUATIC ENVIRONMENTS IN HILLSBOROUGH COUNTY



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2011 Best Maintained Pond - Lake Heather

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**Lake, Pond &
Stream Night
Coming Soon!**

Watch for your
invitation in the mail
this spring for more
details.

On Our Pond

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Adopt-A-Pond is sponsored by Hillsborough County, the Southwest Florida Water Management District, and YOU!

Muscovy Ducks - Love 'Em or Leave 'Em?

Muscovy ducks are commonly seen waddling through neighborhoods or waiting for the next hand-out at the park. They can be found in most urban areas throughout Florida and are easily recognizable by their large size and red, fleshy growth on their face. Did you know they aren't native to Florida and can actually be harmful to the environment?

Originally from Central and South America, Mexico, and the very southern tip of Texas, muscovy ducks were released in other parts of the United States with the belief they would improve the look of urban parks and lakes. However, they tend to gather in large numbers and can become a nuisance since they are often fed by people.

Female muscovy ducks can lay between eight and 16 eggs at a time and their populations can increase quickly if left uncontrolled. Whenever there are a lot of birds in an area, you'll generally find a lot of droppings. Not only are these droppings smelly, slippery, and just plain nasty, they are also harmful to the water. Muscovy ducks can also be harmful to native ducks by spreading serious diseases to them.

So how can you help? Discourage feeding them to help reduce the amount gathering in one spot. There is plenty of food naturally available including aquatic vegetation, seeds, acorns, and invertebrates. It's not recommended to move the muscovy ducks to the wild because of their potential to spread diseases to native ducks. The University of Florida IFAS Extension instead says their populations can be controlled by vigorously shaking their eggs to make them unviable and placing them back in their nest to prevent re-laying.

Muscovy ducks are recognizable by their red, fleshy growth on their faces.



A Little Known Fact About Our Programs

Many volunteers don't realize that Hillsborough County helps fund Lakewatch and Stream Waterwatch. Elsewhere in the state, these services are reduced or nonexistent.

We receive money for the programs through a grant from the Southwest Florida Water Management District (SWFWMD). Last year we were put on notice that our funding was going to be cut because the program was not a good investment. We looked back over the records and discovered that the average number of samples provided by volunteers in a given year is two. Two out of 12 samples is not good!



Some volunteers consistently submit their samples and that is greatly appreciated. But many of our program volunteers don't know what it costs to bring the programs to you. We pay for training, equipment, transport, and data processing of samples, which totals more than \$1000 per volunteer every year. In return, volunteers agree to provide the samples once a month. Volunteers benefit by having data and expertise to help manage their lakes for the price of an hour or two per month. This data also enables us to better manage water resources overall; which is a public service in itself.

So, I hope to encourage all volunteers to step up and provide all their samples!

2011 Best Maintained Pond - 06-28 Lake Heather

This year's Best Maintained Pond competition brought great weather and some beautiful ponds! Each fall, Adopt-A-Pond groups can submit an application to have their pond evaluated by several local environmental professionals. The judges look at how well pollution is controlled, how much habitat there is for wildlife, the amount of native vegetation in the pond, and the overall appearance. Each pond is scored on how their pond looks at that time and ranked to determine which group wins the competition.

Congratulations, Lake Heather Pond Keepers (06-28), for winning this year's competition! Their pond includes a variety of native plants along the shoreline and floating on the water. They're continuing to add plants and trees higher on the banks of the pond as well.



This pond didn't start out this way, though. In 2004, the pond was densely covered with cattails, torpedo grass, Brazilian pepper and other invasive plants. At the time, the owner of the townhome community was planning to sell the townhome rentals to individual owners and wanted to improve the look of the pond, according to Patrick Hunter, Lake Heather Pond Keepers' group representative. As the leasing manager, Patrick was tasked with finding out what they could do, so he applied for the Adopt-A-Pond program.

Fast forward to present time. After a clean-up of invasive plants and several native plantings later, the pond is now a beautiful environment that everyone in the community can enjoy. Patrick and his neighbors understand the importance the native plants provide for their pond. They often have visits from great egrets, red-shouldered hawks, wood storks, and spoonbills. Patrick says there are also excellent fishing opportunities in the pond now; he often catches largemouth bass. The pond has also provided great photographic opportunities for Patrick.

Each year he submits photos to be included in our annual Stormwater Environmental Programs calendar.

Judging Results

Lake Heather (06-28)	192pts
Lower Foothill (10-07)	190pts
Eaglebrook Phase 2 (08-09)	181pts
Greco-Sherman (98-07)	155pts
Reynoldswood (03-17)	140pts
Tarawood Subdiv. (08-13)	140pts

We'd like to thank all the Adopt-A-Pond groups who participated in this year's competition and the judges who took time out of their busy schedules to help with this event.

Great job Lake Heather Pond Keepers! You've done a lot of work to make your pond function as a natural system and it shows.



Beware of Mosquito Bites!

by Carol Fernandes, Ph.D., Hillsborough County Mosquito & Aquatic Weed Control

Dengue (pronounced den'gee) Fever is the most common arbovirus (ARthropod-BORne VIRUS) transmitted by mosquitoes worldwide. It affects as many as 100 million people each year. The disease is spread when the infected arthropod (mosquito or tick) bites and takes blood from someone.

Dengue Fever has emerged as a worldwide problem since the 1950s. It's a disease that rarely occurs in the continental United States, with the exception of some areas in the Gulf states of Texas, Louisiana, Alabama and Florida.

The mosquito, *Aedes aegypti*, transmits Dengue Fever.



By the end of October 2011, there were 43 reported cases of imported Dengue Fever in Florida, with 3 of these cases located in Hillsborough County. There were also 6 cases of domestic Dengue Fever recorded in Florida this year, with 1 case in the Seminole Heights area. The last dengue outbreak in Florida was 75 years ago, according to the Center for Disease Control (CDC).

There are several outbreaks of dengue in different parts of the world right now, including Puerto Rico, Mexico, Guatemala, Colombia, and Brazil. Before traveling to one of these countries, you should be aware of how to protect yourself.

There isn't a vaccine for this disease, so the most effective protection is to avoid mosquito bites. How can you do that? The best prevention is to eliminate the places where mosquitoes lay eggs. Keeping windows closed and/or having window and door screens reduces the risk of mosquitoes coming indoors. When possible, avoid being outdoors at dawn and dusk when mosquitoes are more active. And when outdoors, use mosquito repellents containing 20-30 percent DEET, Picaridin, oil of lemon, eucalyptus, or IR3535.

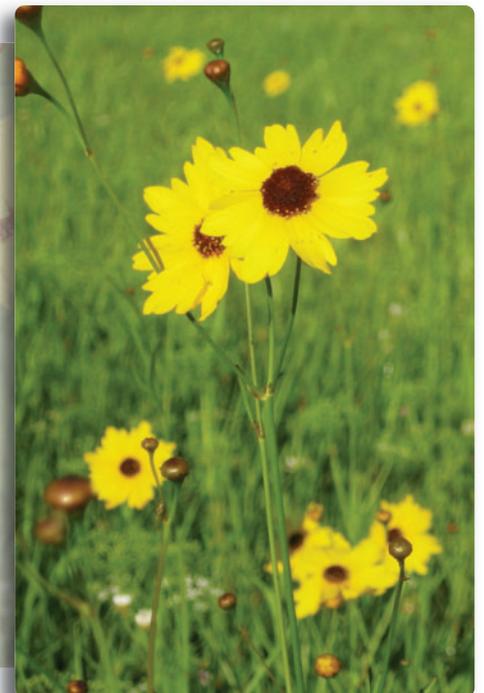
If infected, early recognition and prompt supportive treatment can substantially reduce the risk of developing a severe case of this disease. For more detailed information on Dengue Fever, visit the CDC website at www.cdc.gov/dengue.

Pond Plant Spotlight: Tickseed

by Jordan Pastorius

Tickseed (*Coreopsis leavenworthii*) is found throughout Florida and is listed as the official state wildflower. This plant prefers sandy soils and moist to well-drained areas. It brings beautiful yellow flowers with dark brown centers. The daisy-like flowers have toothed tips and wiry stems that can vary from 9 inches to 3 feet tall and spread from 1 to 2 feet wide. It has a longer than average bloom season that stretches from summer into the fall.

Once established, tickseed is a low-maintenance plant requiring a sunny area and little fertilizer and water. This plant is easy to grow and multiplies on its own. Removing the old blooms will help stimulate new blooms. It's a gorgeous addition to any garden, but doesn't compete well against turfgrasses. Moist pond slopes are a great area for this wildflower. It's a lovely cut flower to enjoy indoors too. It even attracts common buckeye, monarch, and eastern tailed-blue butterflies.



Active Adopt-A-Ponds in Northdale

In the last edition of this newsletter, we featured the active Adopt-A-Pond groups in Boyette Springs, Riverview. This time we are focusing on the Northdale area in Tampa.

There are three active Adopt-A-Pond groups in Northdale. Both Dewey Rose and Lower Foothill ponds (located at the top of the map below) border the same wetland. Living along the edge of the wetland provides great opportunities for wildlife viewing including otters, hawks, and racoons. The soils in this area are also going to be naturally nutrient rich, so more vegetative coverage is needed to find a balance in the amount of nutrients in the pond by what's taken up by plants. Both pond groups have seen what can happen when there's not enough native pond plants.

When the **Dewey Rose (07-14)** group first applied for the program, their pond was covered in salvinia minima (sometimes referred to as duckweed) and alligator weed. They've worked on raking out these nuisance plants and planting native, non-invasive vegetation. Now they're finding less of the salvinia and alligator weed in the pond. When these plants start to show up in the pond again, they now have a management plan for controlling their spread.

There are three active pond groups in the Northdale area.



Lower Foothill Pond (10-07) has had similar issues. They joined the program in 2010 and their pond also had salvinia minima covering about half of the pond. There was a large floating mat of salvinia and torpedo grass growing near the shoreline. They removed the floating mat of invasive plants and cleaned out the salvinia. Over the last couple of years, they've worked on planting native flowering plants in the pond, adding native groundcovers along the banks, and allowing native submerged vegetation to grow in the pond naturally which helps clean the water. This year they even applied for our Best Maintained Pond Competition and received second place!

Country Place West (08-17), near the bottom of the map to the left, has a slightly different story. They've also been battling invasive plants, but they've been competing against water hyacinth. This plant was completely covering their pond and they've slowly worked on raking the majority of it out. They herbicided the rest. Now that they have control on the spread of the water hyacinth, they're going to work on planting native plants to help absorb nutrients so there'll be less available for the water hyacinth to use to grow.

To find out which Adopt-A-Ponds are in your area, visit <http://maps.wateratlas.usf.edu/hillsborough>.

Hillgrove Project Designed to Improve Water Quality

Hillsborough County recently completed the Hillgrove and Stearns stormwater project in Lithia. Initially intended to control flooding near Stearns Road and Lithia Pinecrest Road, this project also includes water quality treatment before the water makes its way to the Alafia River.

The project received funding through the Florida Department of Environmental Protection's (FDEP) Florida Section 319(h) Grant. This grant money comes from the Environmental Protection Agency and is for projects that help reduce pollution in areas that have a waterbody that doesn't meet water quality standards. The project also received cooperative funding from the Southwest Florida Water Management District.



The vegetated littoral shelf in this pond helps remove pollutants from the water.

Before the project, water flowed down a ditch along Stearns Road and drained through a small pipe away from the area. When there was a lot of rain, the system couldn't handle all the water and the area would flood. Now, when there's too much water, the extra is diverted to a "treatment train" to help prevent flooding and clean the water.

In the treatment train, the water first goes through a segmented box where dirt and trash are captured. The water flows out of this box through a series of ponds. The ponds have shallow areas called "littoral shelves" which are planted with native wetland plants to help remove additional pollutants from the water. The final stage is a wetland mitigation area. It's a shallow man-made wetland that is completely covered with plants for even more water treatment.

FDEP staff stated that this project includes more treatment components than what they typically see in their grant program. It's just one example of the steps the County is taking to improve water quality in the area.

Lake Management Program is Here to Help!

The Lake Management Program is designed to help lake residents understand and manage their lakes. To establish how the program works, we have developed a program policy.



There are three steps in the program:

Step 1 Lakewatch. Every lake needs a volunteer to collect data through Lakewatch that will inform every other decision.

Step 2 Lake Management Strategy. Lake residents who want to do more to prevent or address problems can receive help in making a Lake Management Strategy. This is a scientifically and technically sound approach for management actions in the lake. It's not as formal as a management plan, but provides the same framework.

Step 3 Apply for Assistance. Residents who would like assistance from the County in accomplishing management tasks can apply to receive it.

The application process helps order requests so we can handle them in a fair and equitable way. Recently, we've revised the policy and application to make it easier for many lake communities to take advantage of it. To see a copy of the Lake Management Program Policy and find out how you can participate in the program, visit www.hillsborough.wateratlas.usf.edu/lamp.

Refresher Course: Creating Better Fish Habitat

Fishing is a common pastime in Florida. Did you know the way you manage your pond can be a major factor in how well it supports fish populations?

Food Sources

There are several things needed in a pond for fish to survive. The first is food. Top predator fish, like largemouth bass, depend on a whole chain of food for survival. They eat smaller fish, who eat very small animals called zooplankton, who eat microscopic plants called phytoplankton. So you can imagine, if there are very few phytoplankton, the amount of fish in the pond will also be limited. With no fish, not only do your fishing opportunities suffer, but your wildlife viewing also diminishes. Few fish means few birds.

Phytoplankton (i.e. algae) are dependent on the amount of nutrients in the pond. For most stormwater ponds, nutrients are not lacking and are actually in over abundance. Nutrients are naturally found in the soil and water of these waterbodies. Additional nutrients can come from fertilizers, pet waste, and lawn clippings. With these additional nutrients flowing into ponds every

time it rains, it can actually have the opposite effect on the fish population, causing them to die.

When there are excessive amounts of nutrients in a waterbody, the algae grow very rapidly (called an “algae bloom”). Algae blooms can cause reduced oxygen levels in the pond and may result in a fish kill.

For almost all stormwater ponds, it’s more important to prevent additional nutrients from getting in the pond. There are many easy ways to do this. Limit your use of fertilizers. Pick up after your pets and put their waste in the trash. Sweep lawn clippings out of the street to prevent them from getting in the water.

Habitat

You can’t change the shape, slope, or depth of a stormwater pond, but you can improve the environment in which fish like to live.

Native aquatic vegetation is very beneficial in ponds. It not only helps clean pollutants from the water, it also helps prevent erosion and provide great habitat for wildlife. Fish need clean, non-muddy water to stay healthy. In ponds with no vegetation, soil can easily wash into the pond when it rains. Muddy (turbid) water can prevent fish from being able to find food and can prevent sunlight from getting to plants and phytoplankton under the water.

Fish use plants as an area of refuge. Imagine an osprey flying over a pond with no plants. They’re going to be able to spot a fish from quite a distance away. Restoring the pond habitat by adding more native plants (both underwater and along the shoreline) will help provide areas for fish to hide from predators and also to find food, including zooplankton and other small organisms.

For more information on creating fish habitats, visit the Florida Fish and Wildlife Conservation Commission’s website at myfwc.com.



Patrick Hunter catching a largemouth bass from his backyard stormwater pond.

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Bird Houses for Cavity Nesters

It's important to help preserve and create habitat for animals. There are 25 types of birds in Florida that require cavities or holes in trees to create their nests. Keeping dead trees whenever possible helps provide habitat for these birds, but you can also use nest boxes.

Some birds won't readily use a nest box or bird house, but when properly designed, boxes can often mimic their natural habitat. Birds can be very particular about where they'll build a nest, so you need to build your box to suit the bird.



For example, wood duck boxes should be built 10 inches wide by 24 inches high with a four by three inch oval hole placed 20 inches above the floor. They prefer living around wetlands with their nest box positioned four to six feet over the water or 15 to 25 feet above land. They also like a comfy bed of wood chips inside the box.

For more details on building wood duck nest boxes and other bird houses, check out the UF IFAS Extension article titled "Helping Cavity-nesters in Florida" at <http://edis.ifas.ufl.edu/uw058>.

