

Florida



LAKEWATCH

Dedicated to Sharing Information About Water Management and the Florida LAKEWATCH Program Volume XXI 2002



Joe Richard

Attention LAKEWATCH Volunteers "Do You See What I See?"

As you know, LAKEWATCH relies on your monthly data sheets to keep us informed, in a general way, of activities in and around your lake (e.g., activities that may be impacting the water samples). These perceptions and observations are important indicators of the overall recreational and aesthetic qualities of your lake. With this in mind, we are inviting all LAKEWATCH volunteers to participate in a survey that we are conducting this summer. The goal of the survey is to evaluate the quality of your lake, as you perceive it now.

To participate:

1 Volunteers should clip out the three survey response forms provided on page 8 of this newsletter. Keep them handy so that you can use them when you are sampling. Fill out one form per sampling event, for a maximum of three different months, any time between May and November of this year. Ideally, we'd like for you to complete all three forms over the summer period, if possible. If you are unable to complete them all, we encourage you to fill out at least one of the forms, as we do require a minimum of one response to include your lake in the evaluation.

2 Fill out one of the survey forms before you begin your normal sampling routine. It should only take a few minutes to answer the two multiple-choice questions provided on the form. The first question pertains to the current physical condition of your lake and the second question concerns the aesthetic enjoyment of your lake.

3 When you're done filtering and are ready to store your monthly samples in the freezer, simply place the completed survey response form in the plastic bag, along with the data sheet. We recommend that you use a pencil or waterproof marker to complete the forms.

What will this information be used for and who gets it?

As with all Florida LAKEWATCH data, the overall responses and evaluation of the data will be available to everyone. This information will be useful for statewide lake assessments, establishing lake management goals, and watershed drainage impact evaluations. For example, a similar survey conducted by volunteers on 500 lakes in Minnesota and Vermont in the late 1980s was used to develop water quality standards and wastewater discharge impact evaluations.

Note: the survey forms are also on the LAKEWATCH web site at:
<http://lakewatch.ifas.ufl.edu/>

April 21 - 27, 2002

National Volunteer Week

Dear LAKEWATCH Volunteers,

In honor of National Volunteer Week, we'd like to thank you again for your time and effort spent monitoring Florida waters. Because of you, LAKEWATCH now has one of the largest water chemistry databases in the country. Information gained from this database is used every day by lake management professionals and citizens in a myriad of ways: Community planners are using the data for making land use decisions; biologists are using it to develop lake and fisheries management plans; and citizens are using it for lake restoration efforts, etc. Of course, these data can also be used as a way of documenting your lake's current conditions for comparison in the future, should the need arise.

You are one of Florida's shining stars and we are truly grateful. Keep up the good work and please don't hesitate to call if you should have questions or concerns.

Sincerely,
Dr. Daniel E. Canfield, Jr.
Director/Florida LAKEWATCH



UNIVERSITY OF
FLORIDA

Institute of Food and Agricultural Sciences

Mark your calendar: June 10 - 13

Florida Lake Management Society Conference 2002



Join lake management professionals and fellow citizens at this year's lake management conference in Naples, Florida. The four-day event is being held at the Naples Beach Hotel and Golf Club. It's a great way to become acquainted with many of the people involved with lake management and to hear presentations on a variety of topics including toxic algae blooms, lake water levels, exotic and invasive species of plants and animals, etc. For more information or to download a conference registration form, visit the FLMS web site: <http://www.nalms.org/flms/florida.html>

Conference Chair: Chuck Hanlon
E-mail: chanlon@sfwmd.gov
Phone: 561/ 682-6748

Registration for the three-day conference is \$ 150.
Registration for a single day of the conference is \$ 45.

Hotel reservations can be made at the Naples Beach Hotel and Golf Club.
Call Kelly at 1-800-866-1946 or visit their web site at: <http://www.naplesbeachhotel.com>

Lake management workshops are also being offered on June 10, the day before the FLMS conference officially begins. These workshops are designed for both citizens and professionals and the cost is only \$20. See descriptions and schedule below.

Lake and Pond Restoration

This workshop will cover important issues in Lake and Pond Management with an emphasis on restoration methods. Field exercises will include restoration using plants, plant management and other methods such as aeration, phosphorus de-activation etc. Mr. Andy Dodd and Ms. Shannon Ruby of Florida Environmental, Inc. will teach the course, which includes both class and field activities. Field activities will be held at a stormwater pond located on the hotel grounds and participants should dress accordingly.

Water Quality Monitoring

Learn a variety of techniques for surface water monitoring. Classroom discussions and exercises will cover the steps needed to develop an ambient monitoring program, methods used in ambient water quality monitoring, quality assurance, data compilation and analysis. Dr. Betty Rushton and Ms. Roberta Starks, Southwest Florida Water Management District Stormwater and Ambient Water Quality Monitoring Program, will provide classroom instruction and Matt Previte, AMJ Inc. will provide field training on the latest field sensors and stormwater sampler systems. Field activities will be held at a stormwater pond located on the hotel grounds and participants should be dressed accordingly.

Note to LAKEWATCH volunteers: Techniques taught at this workshop may not be the same techniques that LAKEWATCH uses. Please remember that LAKEWATCH sampling should only be done using the protocol that you learned from a LAKEWATCH regional coordinator.

Aquatic Plant Identification (1/2 day in the AM)

This workshop will cover techniques used for aquatic plant identification and includes an opportunity to review various plant types, learn identification features, and test or improve identification skills. The workshop will include field or classroom practical demonstrations. Ms. Kathy Burks, Florida Department of Environmental Protection will be the instructor.

Biological Monitoring Methods (1/2 day in the PM)

This workshop will discuss other biological methods employed to evaluate water quality. Techniques such as assessing toxic algae blooms, bacteriological assessments, and vegetation assessments will be discussed. Instructors to be announced. See schedule below.

FLMS Workshop Schedule — June 10 (Monday)

8:00 - 4:30 Registration

8:30 - 10:00 Session 1 Workshops – Immokalee Rooms

Room L - **Lake and Pond Restoration**
Room M - **Water Quality Monitoring**
Room N - **Aquatic Plant ID**

10:00 - 10:20 Break (refreshments provided)

10:20 - 11:50 Session 2 Workshops – Immokalee Rooms/Pond

Pond Site - **Lake and Pond Restoration - Field Exercise Pt I**
Room M - **Water Quality Monitoring - Field Exercise Pt I**
Room N - **Aquatic Plant ID**

11:50 - 1:00 Lunch (On Your Own)

1:00 - 2:30 Session 3 Workshops – Immokalee Rooms

Pond Site - **Lake and Pond Restoration - Field Exercise Pt II**
Pond Site - **Water Quality Monitoring - Field Exercise Pt II**
Room N - **Biological Monitoring Methods**

2:30 - 2:50 Break (refreshments provided)

2:50 - 4:20 Session 4 Workshops – Immokalee Rooms

Room L - **Lake and Pond Restoration**
Room M - **Water Quality Monitoring**
Room N - **Biological Monitoring Methods (PM)**

Countless Ways to Use LAKEWATCH Data

Aside from water quality concerns, it has come to our attention over the years that many LAKEWATCH volunteers are also concerned about the health of fish populations in Florida lakes. In 1998, LAKEWATCH responded to this concern by launching a long-term fish study to gain more information about fish and long-term trends in fish populations. The study targets 32 public waterbodies (listed below in Table 1), and is a cooperative effort between the Florida Fish and Wildlife Conservation Commission (FWC) and UF/IFAS' Department of Fisheries and Aquatic Sciences (FAS).

Lakes were chosen for the study based on several factors: Most of the lakes have a solid accumulation of baseline water chemistry (i.e., at least two years' worth). Many were selected based on their geographic location, in an effort to encompass a wide range of lake trophic states and aquatic macrophyte¹ abundance — major factors impacting fish populations in lakes. *Note: due to budgetary restraints, LAKEWATCH limited the study to 32 lakes*

and cannot accept any more. However, every effort was made to choose a cross-section of "lake-types" found throughout the state so that we can gain a better picture of how fish populations respond in Florida's various lake environments.

Results

During this third year of the project, LAKEWATCH was able to collect data on most of the 32 lakes. (Some were missed due to low water.) A summary has been compiled in a 194-page report entitled *Long-Term Fish Population Trends in Florida Lakes: 2001 Data*.

Comparisons of LAKEWATCH water chemistry data and fish data are revealing some interesting things. For example, when comparing chlorophyll concentrations in lake water with fish abundance (i.e., catch per unit effort), there seems to be a positive relationship. In other words, as chlorophyll concentrations increase, fish production increases. This is not surprising. Chlorophyll



Joe Richard

Black crappie (*Pomoxis nigromaculatus*)

concentrations are an indication of how many algae are in a lake and algae constitute a primary food base for most lake environments. Ask any fish farmer and he'll tell you that it's common practice to fertilize ponds in an effort to boost algal populations and, in turn, fish production.

effects of severe drought conditions on fish populations in Florida lakes and compare it with future "wet" conditions. While many Floridians have been frustrated by drought-induced low lake levels in the past few years, there are some who consider it a blessing in disguise. Fisheries managers, for example, see this unusually long dry spell as one big naturally occurring drawdown² on hundreds of lakes throughout the state. For years, artificial drawdowns (i.e., human induced) have been used by lake managers as a technique for stimulating fish production.

Thanks to the drought, Mother Nature has achieved this task more efficiently than humans could ever hope to, no water pumps or bulldozers necessary. Once Florida's rainfall patterns do return to normal and lake levels rise, the data will be invaluable as we will be able to assess the effects of fluctuating water levels on a variety of lakes across the state. Of course, there will be many more opportunities for comparisons. (Feel free to explore the possibilities with us!)

LAKEWATCH would like to thank everyone who participated in last year's fish study. To obtain a copy of the data or the report itself, contact us at:

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

E-mail: lakewat@ufl.edu

The report can also be downloaded from our website at:

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

Lake	County	Largemouth bass: number caught per hour of effort	Bluegill: Number caught per hour of effort	Black crappie: number caught per hour of effort
Alligator	Osceola	*	*	*
Butler	Orange	47	47	<none caught>
Cherry	Lake	*	*	*
Conway	Orange	39	58	<none caught>
Dexter	Polk	44	75	<none caught>
Dexter	Volusia	5	8	2
Dorr	Lake	99	446	<none caught>
Grasshopper	Lake	4	27	<none caught>
Istokpoga	Highlands	*	*	*
Ivanhoe	Orange	35	228	2
Jahn's	Orange	*	*	*
Josephine	Highlands	19	83	2
June	Highlands	87	10	<none caught>
Juniper	Walton	12	67	<none caught>
Kissimmee	Osceola	9	81	5
Lochloosa	Alachua	10	16	6
Mill Dam	Marion	33	32	<none caught>
Newnan	Alachua	*	*	*
Orange	Alachua	*	*	*
Panasofkee	Sumter	21	62	<none caught>
Santa Fe	Alachua	81	240	<none caught>
Sellers	Lake	<none caught>	55	<none caught>
Spring	Walton	177	109	<none caught>
Starke	Orange	103	277	1
Stick Marsh/Farm 13	Indian River	95	223	2
Tohopekaliga East	Osceola	40	36	<none caught>
Wauberg	Alachua	105	175	4
Weir	Marion	83	26	<none caught>
Weohyakapka	Polk	184	48	<none caught>
Wildcat	Lake	71	574	3
Wilson	Hillsborough	45	101	<none caught>
Woodruff	Volusia	22	3	2

Table 1 Electrofishing Summary

Lakes listed here with no data were not sampled due to low water.

concentrations are an indication of how many algae are in a lake and algae constitute a primary food base for most lake environments. Ask any fish farmer and he'll tell you that it's common practice to fertilize ponds in an effort to boost algal populations and, in turn, fish production.

The study also shows that the number of different fish species found in a lake is directly related to lake surface area. An example: only 11 different species of fish were found in Lake Wilson, a smaller 46-acre lake in Hillsborough County while 17 species of fish were found in Lake Kissimmee, a larger lake with a surface area of more than 48,000 acres.

FAS Researchers are hoping these data may also point to factors affecting recruitment of sportfish especially black crappie, a species notorious for boom and bust cycles.

Perhaps the most promising result of this project is that it will allow us to study the

1 Aquatic macrophytes are aquatic plants large enough to be apparent to the naked eye.

2 The term drawdown refers to the lowering of lake levels.

Volunteer Bulletin Board

Dear LAKEWATCHers,

Thank you for taking the time to contact us with your address changes and information updates. Because we are a state-funded research program, we are required to update our mail list every two years. This turned out to be a good exercise for us all, as area codes and zip codes seem to be changing daily. Your efforts helped immensely by allowing us to streamline our mail list and volunteer database. It's also given us a chance to touch base with many of you.

Thanks again,

The LAKEWATCH crew

Many thanks to the Friends of Lake Ola Home Owners' Association...

for their generous \$500 contribution. This money will be used to support ongoing programs within Florida LAKEWATCH and is particularly beneficial during this time of budgetary constraints. **Note:** Just a reminder that donations can only be accepted in the form of a check, made out to the:

**University of Florida
Foundation, Inc. – SHARE**
c/o Florida LAKEWATCH
7922 NW 71st Street
Gainesville, FL 32653-3071

Dear Anglers,

If you're participating in our Angler Diary Project, we want you to know that you are more than welcome to drop off completed angler diaries at your local LAKEWATCH collection center. Just place them in same bag along with your frozen water samples.



Joe Richard



Milt Putnam, UF/IFAS Communications

New UF/IFAS Program Recycles Fishing Line

Today's monofilament fishing line is strong, thin and almost invisible. These very qualities can also make it deadly to wildlife that encounter lost or

discarded strands, says UF/IFAS researcher Maia McGuire. Developed in the 1930s, monofilament fishing line is made from a single, continuous strand of nylon. Discarded monofilament is believed to last 600 years in the environment.

The good news is that anglers on Florida's Northeast coast will now find it easier to dispose of used line properly, thanks to a Monofilament Recycling Project. In November of last year, McGuire began installing recycling stations at marine fishing spots in Nassau, Duval, St. Johns and Flagler counties. There are similar programs in at least eight counties around the state. Several more including Putnam, Broward and Miami-Dade are about to start programs, as well. McGuire says that 100 stations should be in place by the end of 2002 at both saltwater and freshwater locations.

Constructed from 3-foot sections of 6-inch diameter PVC pipe, the stations are mounted on 4-by-4-inch posts or existing structures. Decals and signs explain which items should be placed in the stations. Anglers also can use the recycling stations to deposit nylon fishing line spools, nylon rope and nylon cast nets. Tackle shops, marinas and other businesses in the four-county area have joined the effort by placing collection bins on their premises. "Convenience really encourages people to recycle, so we're trying to get as many stations and bins out as possible," says McGuire.

Volunteers are helping to empty the stations periodically and take clean monofilament and line spools to collection bins at businesses. From there the material is being shipped to Pure Fishing, a tackle company that recycles monofilament to make fish habitats. Known as Berkley Fish Habs, the

habitats are 4-foot slatted cubes that provide cover for game fish in lakes and ponds lacking natural underwater structures.

Interested in starting a monofilament recycling program in your area? Contact:

Maia McGuire / UF/IFAS Sea Grant Program
3125 Agriculture Center Drive
St. Augustine, FL 32092
Phone: 386/824-4564
E-mail: mpmcguire@mail.ifas.ufl.edu

Collection Center Changes

Leon County

The UF/IFAS Leon County Cooperative Extension Office is still experiencing limited freezer space. When possible, volunteers should take their samples to MaClay State Gardens collection center or to the UF/IFAS Wakulla County Cooperative Extension Office in Crawfordville, just south of Tallahassee.

MaClay State Gardens
3540 Thomasville Rd
Tallahassee, FL 32308
Phone: 850/487-4115

UF/IFAS Wakulla County, Cooperative Extension, Office
84 Cedar Avenue Crawfordville, FL 34450
Phone: 850/926-3931

Highlands County

The Tomoka Heights Realty office is no longer serving as a collection center. The new collection center location is located at:

Lake Placid Marine
310 US 27 South
Lake Placid, FL 33852
Phone: 863/465-2335
Hours: 8 AM - 5:30 PM (M-F)
8 AM - 4:00 PM Saturday

Orange County

Due to a recent merger of offices, Orlando's City Hall collection freezer has been relocated to a facility on Gore street:

City of Orlando Stormwater Utility
1046 West Gore Street
Orlando, FL 32805
Contact: Maurice Gioseffi
Phone: 407/246-2370

Hot off the press!

Circular 105 A Beginner's Guide to Water Management – Symbols, Abbreviations & Conversion Factors

This 44-page booklet provides the tools for reading, converting, interpreting and/or translating units of measure commonly used by people involved in

water management in the United States and internationally. Much of the information is typically only available by searching numerous publications, but we have assembled it here under one cover for quick reference. Call **1-800-LAKEWATCH** for a printed copy or download it for free from the LAKEWATCH web site:

<http://lakewatch.ifas.ufl.edu/LWcirc.htm>

Learn About the Ecology and Management of Streams and Lakes

LAKEWATCH volunteers in the Big Bend area are invited to participate in two special one-day field classes. Instructors: Dr. Chuck Cichra, UF/IFAS Lake Management Extension Specialist and his team of lab technicians and graduate students. LAKEWATCHers can attend for free but must pre-register. Class size is limited to 30.

April 26 Stream Ecology

Thomasville Community Resource Center.
Thomasville, GA
8:30-4:30

May 31 Lake Ecology

Thomasville Community Resource Center
Thomasville, GA
8:30-4:40

For more information, contact:
Will Sheftall

UF/IFAS Leon County Cooperative
Extension Office
Phone: 850/487-3004
E-mail: williams@mail.co.leon.fl.us

Attention Anglers! Two Initiatives You Should Know About From the Florida Fish and Wildlife Conservation Commission



Florida Bass Conservation Center Needs Your Help

The State of Florida's Fish and Wildlife Conservation Commission/Division of Fisheries is proposing the creation of a Florida Bass Conservation Center that will benefit bass fishing in Florida and also address major issues of national importance including genetics, diseases, and stocking procedures. Organizers of this effort are currently trying to gain legislative support, private funding, and matching funds for the initiative. FWC is seeking feedback from the public as well as monetary support. For more information, see their web site at:

<http://www.floridafisheries.com/survey/FBCC-survey.html>

Value Added Fishing License

Upgrade your license to a five-year or lifetime fishing license during April or May 2002 and you will automatically receive over \$60 worth of fishing tackle samples, premiums, fishing magazines, plus other coupons and special offers. Buy a 5-year license at your local **tax collector's** office for \$61.50; online at **eAngler.com** for \$63.45; or call toll-free at **1-888-FISH-FLORIDA** (347-4356) and buy your license for \$65.45. Check it out: <http://FloridaFisheries.com>

Do you have a water monitoring success story ?

Have you been able to use your LAKEWATCH data to achieve an important goal for your lake? Has it helped you red-flag changes in phosphorus, nitrogen or water clarity? Has it been used to establish new water quality standards? or influence local land-use decisions? If so, we'd like to hear about it so that we can continue to inspire others. We'd also like to include the information in presentations to various lake management and water monitoring groups. Send your story to:

Florida LAKEWATCH
7922 NW 71st Street
Gainesville, FL 32653-3071
E-mail: lakewat@ufl.edu

No time to write it down?

Leave a message on the toll-free message line: 1-800-LAKEWATCH (525-3928) and one of our staff will call you back to help you put something together.



Amy Richard

Featured Fish

Chain pickerel ~

Esox niger

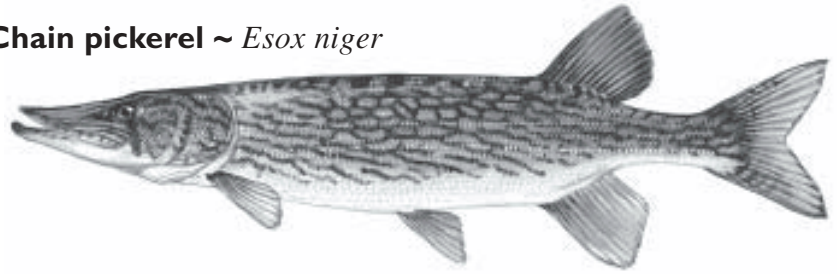
Common names: pike, grass pike, jackfish

Nicknamed the “jack fish,” **chain pickerel** provide an interesting change of pace for freshwater anglers, starting with their appearance. If its mottled green and gold coloration and distinct chain-like markings don’t get your attention, its large toothed snout probably will. Dorsal and anal fins, located at the tail end of the fish, may even give it a somewhat gar-like appearance. But don’t let this fool you, they are in fact, a member of the pike family.

While the pickerel is fun to catch, its insatiable appetite for artificial lures has been known to torment many a freshwater angler-particularly bass fishermen. These fish probably account for half the lost lures in Florida lakes, hence the nick-name jackfish which alludes to their jack-knife teeth.

Chain pickerels are voracious predators, known for eating a variety of live prey including insects, frogs, mice, and crayfish. However, its main diet consists of fish. Its own white flaky meat is tasty but considered by many people to be too bony to eat. In Florida lakes, the chain pickerel ranges in size from 80 mm to 640 mm (about 25 inches). An eight-pound state record chain pickerel,

Chain pickerel ~ *Esox niger*



Redfin pickerel ~ *Esox americanus americanus*



caught on Lake Talquin, has been on the books since 1971.

These fish can be found throughout the United States, east of the Appalachians from the St. Lawrence River south along the Gulf coast to Texas. Some data suggest that chain pickerel tend to occur in soft-water, low nutrient lakes with abundant aquatic vegetation.

Chain pickerels spawn primarily from late winter to Spring, scattering a large number of adhesive eggs over aquatic vegetation or detritus along the bottom of the waterbody. They do not defend their nesting territory or protect their young.

Redfin pickerel ~

Esox americanus americanus

Common names: little pickerel, banded pickerel, red-finned pike.

A close relative of the chain pickerel, the redfin pickerel is also found in Florida lakes and rivers. It tends to be considerably smaller than the chain pickerel, with the 1986 state record still holding at 1.5 pounds, caught in Jr. Walton Pond, Okaloosa County.

Like the chain pickerel, the redfin is also recognized by its distinct markings and coloration including 15 to 36 dark green, wavy vertical bars along its flank and reddish-orange lower fins. Its snout is shorter and broader than that of a chain pickerel.

Depending on where you are fishing, there may even be some confusion as to its true identity. For instance, in Florida’s Panhandle, what may appear to be a redfin may in fact be a hybrid — a cross between the chain pickerel, a redfin and/or the grass pickerel *Esox americanus vermiculatus*.

Redfins are often found in dense growths of aquatic plants in sluggish streams, in shallow coves of lakes, or ponds, preferring water temperatures of 75-80 degrees. They mostly eat small fish but they are also known to eat aquatic insects and other invertebrates.

Like their pike relatives, these fish put up a good fight, especially on light tackle, but their small size limits their popularity as a sportfish.



Joe Richard

With an insatiable appetite for artificial lures and a healthy set of teeth, chain pickerel are suspected of stealing half the lost lures in Florida lakes.

Florida mottled duck ~

Anas fulvigula fulvigula

Common names: Florida duck, Florida mallard

The Florida mottled duck, *Anas fulvigula fulvigula*, is a unique subspecies found only in Florida, with a breeding population estimated to be around 30 to 40 thousand birds. They are in fact, genetically distinct from their mottled duck cousins in Texas and Louisiana (*Anas fulvigula*). Aside from its intrinsic aesthetic value to bird watchers, the Florida mottled duck is highly prized as a gamebird. It's also unusual in that it is one of only a few non-migratory ducks in North America.

Both the Florida mottled duck (*Anas fulvigula fulvigula*) and its western relative belong to a worldwide group of approximately 20 species of closely related ducks known as the "mallard complex." All the species in this group have a similar body shape, but varying feather characteristics and coloration that allow them to be distinguished from one another.

Identification

Like its Texas/Louisiana cousin, the Florida mottled duck is a large duck with brown and black mottled body feathers. Its head and neck are a light buff color. Male and female mottled ducks are difficult to distinguish from one another as their plumage is almost identical in appearance. However, they can be distinguished by their bill coloration. Males have a bright yellow to olive bill with a black spot at the base, while females have a dull orange bill with black blotches or dots.

To add to the identification challenge, both the Florida mottled duck and the Texas/Louisiana version is often confused with female mallard ducks *Anas platyrhynchos*, as they are similar in size and color. (Male mallards or "greenheads" are much easier to distinguish from the mottled duck, thanks to the mallard's dark green iridescent head color.)

In general, the mottled duck's brown coloration tends to be darker than that of the hen mallard. Also, the female mallard has a broad, white wing bar above and below the colored patch found on the secondary feathers of her wing (called the speculum). Female mottled ducks lack the upper wing bar, but they do have a faint lower bar visible on the speculum.



Reproduction

Florida mottled ducks appear to nest from February through July. Females tend to locate their nests in dense vegetation (tall grasses, rushes, or palmetto thickets) on the ground near water. Females typically lay 8-10 eggs and incubate them for approximately 26 days. Unlike the mocking bird or blue jay, which raise their young in the nest for weeks, mottled duck females will move their ducklings to water, where they feed themselves, within 24-48 hours of hatching.

Habitat

The Florida mottled duck seems to be fairly adaptable and is commonly seen using flood plain marshes of the St. Johns and Kissimmee rivers, canals, ditches, brackish and coastal lakes, even mosquito impoundments. They are also important members of a unique group of animals that are characteristic of South Florida's prairie ecosystems. Unfortunately, rapid changes in the landscape, attributed mostly to agricultural and urban development, have raised concerns about the status of these wetland habitats and the wildlife that depend on them, including the Florida mottled duck.

Management

Possibly the greatest threat to the Florida mottled duck is its ability to mate with feral mallard ducks, resulting in hybrid ducks that are continually watering down their genetic integrity. According to biologists with the Florida Fish and Wildlife Conservation Commission (FWC), captive reared mallards are being released in large numbers throughout the state by well-intentioned individuals that enjoy watching mallard ducks on their lake, but are unaware of the problems they may be causing. Similar mallard releases in other parts of the world

have devastated the genetic integrity of other duck populations. For example, in New Zealand, grey duck populations have been watered down to 95% hybrids.

In Florida, the release of mallards into the wild is illegal, with few exceptions (i.e., some commercial hunting preserves have special permits that are valid until 2008). For more information about the Florida mottled duck and other waterfowl, check out the following web site:

<http://wld.fwc.state.fl.us/duck/>

Note: *Please don't try to remove feral mallards yourself as all mallards, wild and feral, are protected by federal law and cannot be touched without proper permits.*

To have feral mallards removed from your lake or pond, call:

**Dept. of Agriculture/Wildlife Services
Phone: 352/377-5556**

Many thanks to Diane Roth Eggeman, Waterfowl Biologist with the FWC, for providing much of the information for this article.

Florida LAKEWATCH

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:

Editor / Florida LAKEWATCH

PO Box 110600

Gainesville, FL 32611

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

(352) 392-9617 ext. 228

E-mail: lakewat@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. Inclusion does not constitute endorsement, nor does exclusion represent censure of any item, organization, individual, or institution by the University of Florida or the Florida LAKEWATCH program.

LAKEWATCH Survey Response Forms

!! Attention: Please read instructions on page 1 before completing these surveys !!

Lake Name / County Name _____ **Month/Day/Year** _____

A) Circle the one number that best describes the *physical* condition of the lake water today.

- 1) Crystal clear
- 2) Not quite crystal clear, a little algae visible
- 3) Definite algal-related green, yellow, or brown coloration apparent
- 4) High algal levels with limited water clarity and/or mild odor apparent
- 5) Severely high algae levels with one or more of the following: massive amounts of floating scum on lake or washed up on shoreline; strong foul odor; or a fish kill

B) Circle the one number that best describes your opinion on how suitable the lake water is for recreation and aesthetic enjoyment of your lake today.

- 1) Beautiful, couldn't be nicer
- 2) Very minor aesthetic problems; excellent for swimming
- 3) Swimming and aesthetic enjoyment slightly impaired due to the presence of algae
- 4) Desire to swim and level of enjoyment is substantially reduced due to the presence of algae
- 5) Swimming and aesthetic enjoyment of the lake nearly impossible due to the presence of algae

----- ✂ ----- ✂ -----

Lake Name / County Name _____ **Month/Day/Year** _____

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- 4) High algal levels with limited water clarity and/or mild odor apparent
- 5) Severely high algae levels with one or more of the following: massive amounts of floating scum on lake or washed up on shoreline; strong foul odor; or a fish kill

B) Circle the one number that best describes your opinion on how suitable the lake water is for recreation and aesthetic enjoyment of your lake today.

- 1) Beautiful, couldn't be nicer
- 2) Very minor aesthetic problems; excellent for swimming
- 3) Swimming and aesthetic enjoyment slightly impaired due to the presence of algae
- 4) Desire to swim and level of enjoyment is substantially reduced due to the presence of algae
- 5) Swimming and aesthetic enjoyment of the lake nearly impossible due to the presence of algae

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Lake Name / County Name _____ **Month/Day/Year** _____

A) Circle the one number that best describes the *physical* condition of the lake water today.

- 1) Crystal clear
- 2) Not quite crystal clear, a little algae visible
- 3) Definite algal-related green, yellow, or brown coloration apparent
- 4) High algal levels with limited water clarity and/or mild odor apparent
- 5) Severely high algae levels with one or more of the following: massive amounts of floating scum on lake or washed up on shoreline; strong foul odor; or a fish kill

B) Circle the one number that best describes your opinion on how suitable the lake water is for recreation and aesthetic enjoyment of your lake today.

- 1) Beautiful, couldn't be nicer
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Please return survey forms along with your monthly frozen water samples or mail to:
Florida LAKEWATCH / University of Florida ✪ 7922 NW 71st Street ✪ Gainesville, FL 32653
or call 1-800-LAKWATCH (525-3928) for more information.

