



LAKEWATCH / Project COAST

Dedicated to Sharing Information About Water Management and the Florida LAKEWATCH /Project COAST program Vol XVIII 2001

We thought lake levels were low a year ago and yet here we are still looking expectantly toward the sky and wondering when it will rain again. Even with the rainfall in recent weeks, Florida remains in the throes of a severe drought. As a result, lakes throughout the state are experiencing significantly low water levels. A few have almost entirely dried up or are dwindling down to nothing more than a cluster of small ponds.

Such low water levels are certainly making things difficult for LAKEWATCH volunteers as they attempt to collect monthly water samples. Many are unable to launch their boats or keep a boat anywhere near the waterfront.

For instance, Don Missett sent us a photo of his lake in Citrus County (see photo of Lake Hampton on page 3) to illustrate just how low the lake is. An extreme case of low water levels has been documented by Archie Howell on Lake Croft in Citrus County (see photo at right). Residents there can't even see water from their lakeshore.

While this may seem like rather bleak news, there is a positive side to the drought. Prolonged dry periods are, in fact, a natural process that occur from time to time and Florida's shallow lakes happen to be particularly susceptible to its effects.

The good news: These natural drawdowns also bring opportunities. We've highlighted a few of them in this issue.

However our main message is... don't give up! It will rain again and water levels will eventually return to "normal." When that does happen, LAKEWATCH/Project COAST volunteers will have the chance of a lifetime to participate in the collection of some extremely rare water chemistry data. Never before have we had the ability to collect data on so many lakes after such a lengthy period of drought.

So keep up the good work and stay tuned!

When Opportunity Knocks... The Bright Side of Florida's Drought



Archie Howell

Lake Croft in Citrus County during a naturally imposed drawdown (a.k.a. drought).

A drawdown is a lake restoration technique that involves a periodic "de-watering" of a lake whereby approximately 45% or more of the lakebed is exposed to the sun and air for a prolonged length of time.

Drawdowns are used by lake managers as an especially effective way to consolidate and compact organic sediments in a lakebed. The newly hardened lake bottom makes a good substrate for macroinvertebrates and for fish to lay their eggs. These dry periods can also help to stimulate the growth of aquatic plants once lake waters return, creating ideal fish habitat. Fisheries biologists are especially fond of drawdowns as it is a proven technique for increasing the numbers and biomass of sport fish once the lake returns to its "normal" level.

So how do scientists and lake managers know about drawdowns? They've learned from the best example of all — mother nature.

Geologic studies of lakes tell us that drought events, in conjunction with periodic flooding, serve as nature's way of ridding lakes

of the detritus and excess muck that builds up over the years. Restrictions placed on many lakes for flood control have in some instances accelerated this build-up of material. Without a man-made drawdown every so often, the muck build-up can become problematic — even to the point of causing berms to form along a lakeshore.

The lesson here?

While this latest naturally imposed drawdown (a.k.a. drought) can be frustrating for lake residents and water enthusiasts, it's all part of nature's own management plan.

See page 3 for more on the bright side of Florida's drought.



**UNIVERSITY OF
FLORIDA**

Institute of Food and Agricultural Sciences

(continued from page 1)

The Bright Side of Florida's Drought

Low Water Exposes Treasures of the Archeological Kind

Keep an eye out when collecting your water samples these days. You could discover a piece of Florida's past.

Steve Asmann, a LAKEWATCH volunteer on Lake Louisa in Lake County did just that when he found an old dugout canoe recently. According to Steve, a sandbar had been exposed by the low water levels and he noticed the water rippling strangely near it. He got out of his boat and dug around the unidentified object a little, only to find a rare treasure indeed. He recorded the site's GPS coordinates and took pictures to document the find. Steve then contacted the LAKEWATCH/Project COAST office for assistance in tracking down an archeologist.

Regional coordinators David Watson and Julie Terrell put him in touch with Dr. James (Jim) Miller, an archaeologist with the Florida Department of State. Jim is with the Division of Historical Resources and investigates claims of archaeological interest. He confirmed that the canoe is indeed a dugout which makes it of significant archaeological value. He also explained that the low water has led to a large number of finds for his department. As a result, the conservation facility is full and has a waiting list.

This means that the canoe Steve Asmann found won't be moved anytime soon, but it will be protected. The Lake Louisa State Park intends to protect it by extending their jurisdiction to include the canoe's resting place.

Dr. Miller emphasized that if you should find something of historical or archaeological interest in your area or waterbody, please call the Bureau at the number below.

He also asks that you **NOT** try to excavate it yourself. Objects that have been submerged for a long time will disintegrate when exposed to air again. Additionally, information gleaned from the arrangement of items at an archeological site may be as useful as the items themselves. He asks that you record the location of the site and then call the Bureau, leaving the site undisturbed. For more information call:

Dr. Miller
Archaeological Research
(850) 487-2299



Photo by Jeff Guseff/LAUNCH

Ray McBee (front left) and Melissa Memory (back left) with the Bureau of Archaeological Research of Tallahassee, and Donna Ruhl (right) of the Environmental Archaeology Lab at the Florida Museum of Natural History, work to uncover one of dozens of canoes that were discovered last summer on Newnan's Lake in Gainesville. Low water levels have exposed numerous archeological treasures in lakes across the state.

Timely Muck Removal

Don Missett, a LAKEWATCH volunteer from Lake Hampton in Citrus County is a man who knows how to make lemonade when life hands him a lake full of lemons.

Taking advantage of the low water levels brought on by the recent drought, Don seized the opportunity to have some muck removed at his waterfront property last summer.

Don reports that the process is not as difficult as one might expect. The cost was approximately \$350 and permitting was obtained from the EPA and the Army Corp of Engineers.

First he drew a simple diagram of what he wanted done and the permitters then modified it a bit, leaving a little more muck behind than he had originally intended. Excess muck was moved to low areas along the shoreline of his property. The cleanup effort exposed sand again on over 70% of the area cleared, and extended out beyond his dock.

And according to Don, the muck removal brought about another unexpected benefit. It's also helped to dissuade feral hogs from rooting up his lakeshore; the low water brought them out to feed in the muck at the water's edge and now that the muck is gone, they've moved on.

Good Time for a Lake Clean-up

Muck isn't the only thing that lake residents are removing now that water levels are low. Some folks are organizing lake cleanup projects. Students with the Eagle Eye program at Walker Memorial Academy in Highlands County are setting a good example.

Items found in their most recent trash collection included water skis, car parts, a pay phone box, a street sign, safe, kitchen knife, bowling ball, fire extinguisher, record player, barbecue grill, and a toy watergun.



Lake Hampton in Citrus County

Don Missett

LAKEWATCH/Project COAST Update



Inland lakes monitored by Florida LAKEWATCH/Project COAST volunteers in 2000



Saline (marine) sites monitored by Florida LAKEWATCH/Project COAST staff in 2000



Saline (marine) sites monitored by Florida LAKEWATCH/Project COAST volunteers in 2000

This year's LAKEWATCH/Project COAST program is off to a strong start. The combined monitoring of both inland and marine waters around the state has not only made things busy for our crew, but also productive!

A brief summary of our most recent accomplishments for the year 2000:

- Water chemistry data were collected and compiled for 673 inland waterbodies;
- 68 aquatic plant surveys were completed;
- Bathymetric maps were drawn for 54 waterbodies bringing the total to nearly 200;
- 25 electrofishing surveys and 12 trawling surveys were completed as part of our long-term fish data project;
- 76 bacteria summaries (i.e., total and fecal coliforms) were provided to volunteers;

In addition, Project COAST staff are now in the final phase of their coastal monitoring

survey. After this third round, the 393 newly established sites will hopefully be monitored by volunteers (111 other sites are currently sampled by volunteers).

The bulk of the coastal survey is being done by three individuals that have recently joined the LAKEWATCH/Project COAST team, David Geightbrock, Sky Notestein, and Rebecca Varner. Once the survey is complete, we will be looking for volunteers to take over the sampling duties.

More on our Project COAST crew:

◆ David Geightbrock earned his Bachelor of Arts degree from Hamline University and then worked on the Waquoit Bay National Estuarine Research Reserve in Cape Cod, MA.

◆ Sky Notestein has worked on coastal monitoring projects for several years now. He will be completing his Master's degree in May with a thesis that involves the limnology of Florida's Chassahowitzka River.

◆ Rebecca Varner has a Bachelor of Science degree from Auburn University in Fisheries

Management. She's also worked for Alabama Water Watch and Auburn's Fisheries Extension program. She joined us last summer, assisting with aquatic plant surveys and bathymetric mapping.



Rebecca Varner and David Geightbrock



Sky Notestein

Florida
LAKEWATCH/Project COAST

newsletter is generated by the Florida LAKEWATCH program, within the Department of Fisheries and Aquatic Sciences of the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida (UF). 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 / Project COAST
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://www.ifas.ufl.edu/~lakewatch/index.htm>

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.

Volunteer Bulletin Board

Words of encouragement for volunteers experiencing low water 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 water levels are too low there's really nothing you can do short of organizing a neighborhood rain dance.

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 on page 8.

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).

And remember, patience is a virtue!

We need your inactive sampling materials!



If you are no longer sampling but still have sampling materials, we need your help! We need these items back so that we can add

new volunteers to the program. Please bring your sampling materials to a collection center as soon as possible. Not sure where the nearest collection center is? Call:

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

P.S. This notice does NOT apply to volunteers who are inactive due to low lake levels.

New!

LAKEWATCH/Project COAST

Web Address:

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

Same great web site, new address.

"Love Your Lake" Grants

The Florida Lake Management Society (FLMS) would like to work with you to help create areas along Florida's lakes that illustrate good shoreline management enhancing techniques for lakefront owners.

Working cooperatively with the Free Family Foundation, FLMS will match up to \$12,000 for the successful applicant with a project that will benefit their lake and serve as an example for other lakefront owners throughout the state. Chosen applicants will be able to match funds in the form of labor or monetary contributions. A selection committee will review applications and choose the winning project.

While the deadline is probably too soon for this year's application process (May 1) it may be just in time to begin planning for next year. This is a great opportunity to introduce youth organizations or other groups in your community to lake management concepts. For more details or if you have any questions, call:

Lucee Price (407) 324-8695

E-mail: flmshome@yahoo.com

New Collection Centers

Two new collection centers have been established recently. If either of these new locations is easier for you to get to, feel free to drop your samples there. For a complete update of collection centers in your area call **1-800-LAKEWATCH (525-3928)**.

The Florida Keys Marine Sanctuary

Mile Marker 95.230 Overseas Hwy

Key Largo, FL 33037

Contact: Dave Score (305) 852-7717 ext.35

Brevard County Extension Office (Palm Bay)

1455 Treeland Blvd. SE

Palm Bay, FL 32909

Contact: Karen Strunk (321) 952-4536

Doug Kutz (321) 633-1702

Attention Anglers!

Buy a Five Year License Get Free Stuff

The Florida Fish and Wildlife Conservation Commission (FWC) is promoting their five-year fishing license program again. During June and July you can purchase a five year fishing license and also get a bag full of goodies from program sponsors including lures, hooks and other fishing products valued at more than \$30. Coupons worth hundreds of dollars are also included. Buying a five-year license saves about \$6 in yearly handling fees. For details contact:

Bob Wattendorf 850/488-0520

Licenses are accessible from FWC's web site:

<http://www.state.fl.us/fwc/fishing/>

Watch for Your Invitation!



This year's LAKEWATCH/Project COAST regional meetings are off to a good start.

The meetings are held once a year per county or multi-county area. We encourage you to attend your area meeting, as it provides a great opportunity to receive your data packet, meet your regional coordinator in person, enjoy a well-deserved appreciation dinner (or lunch), browse our educational materials and displays, and ask questions pertaining to your data, lake, or water management in general. Watch for your invitation in the mail or check our web site for upcoming dates and times.

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

Note: Please be sure to RSVP for your meeting. If you can't attend, we will automatically mail your data packet to you.

Mark your calendar! **May 21 - 24, 2001**
12th Annual Meeting of the Florida Lake Management Society
Turnbull Center / Tallahassee, Florida



This year's FLMS meeting is sure to be of special interest to LAKEWATCH/Project COAST volunteers. For the first time ever, FLMS is offering a day of pre-conference workshops that are geared toward the public. LAKEWATCH/Project COAST volunteers can attend the all-day workshops for only \$5.

The workshops, to be held on Monday, May 21, will give citizens a rare chance to discuss issues of concern, as well as share their own successes in lake management. LAKEWATCH/Project COAST volunteers are encouraged to attend as participants and/or speakers. At least one of the workshops will be dedicated specifically to volunteer monitoring, showcasing representatives of volunteer organizations from around the state. LAKEWATCH/Project COAST staff are helping to organize one of the sessions. Please take a moment to read the schedule below. Better yet, consider attending.

The main conference begins on Tuesday May 22 and runs thru Thursday, May 24. This year's meeting is similar in format to a trade show as a number of exhibitors will be on hand to share their lake-related projects and expertise. Aquatic engineers and chemists will be available to talk with, as well as erosion control experts and others.

There are a limited number of conference fee scholarships available to LAKEWATCH/Project COAST volunteers to offset the main conference fee of \$125 (not including hotel accommodations). Contact LAKEWATCH for more information. Workshops will be at the Turnbull Center. However, because changes may occur prior to the conference, please review the final conference program to identify the time, session, titles and location of each workshop. Tentatively planned workshops include:

Workshop Block #1

8:30 am to 10:00 am

Session 1 Orientation to Leon

County Lakes and Groundwater Interactions. Coordinator: Sean McGlynn, McGlynn Laboratories

Session 2 Stormwater Best

Management Practices.

Coordinator: Harvey Harper, ERD (Environmental Research & Design)

Session 3 Status of Quality Assurance.

Coordinator: TBA

Session 4 STORET

Coordinator: Patrick Detscher, DEP

Session 5 Aquatic Plant Identification.

Coordinator: Kathy Burks, FDEP

Workshop Block #2

10:20 a.m. to 11:50 a.m.

Session 1 Volunteer Monitoring

Programs — Current Status in Florida. Coordinator: Julie Terrell, Florida LAKEWATCH/Project COAST

Session 2 Sediment & Erosion

Control; Coordinator: Dan Dewiest, DEP and Kevin Pope, Leon County

Session 3 Environmental Statistics.

Coordinator: Harvey Harper, ERD

Session 4 GIS Applications.

Coordinator: To be announced.

Session 5 Bioassessment Training for the

Lake Condition Index. Coordinator: Russ Frydenbourg, DEP with Lori Wolfe & Ashley O'Neal

Workshop Block #3

12:50 p.m. to 2:20 p.m.

Session 1 Volunteer Monitoring

Programs — Current Status in Florida.

Coordinator: Julie Terrell, Florida

LAKEWATCH / Project COAST

Session 2 Strategies for Implementing

NPDES Phase II Stormwater Management Techniques. Coordinator: Timothy Kelly and Walter Reigner, BCI Engineers

Session 3 Environmental Statistics.

Coordinator: Harvey Harper, ERD

Session 4 GIS Applications. Coordinator:

To be announced

Session 5 Chlorophyll & Other Means of Algal

Identification. Coordinator: Sean McGlynn, McGlynn Laboratories & AKSK Prasad

Workshop Block #4

2:50 p.m. to 4:30 p.m.

Session 1 Aquascaping.

Coordinator: Kevin Songer, Biological Research and Geoff Brown, UF Extension

Evening Workshop

7:15 p.m. to 8:30 p.m.

Topic: Conserving Our Area Lakes through This Decade and Beyond.

Coordinator: Curtis Watkins, City of Tallahassee.

For more about the main conference, workshops, or scholarships call:

Julie Terrell

Florida LAKEWATCH/Project COAST

Phone: 352/392-4817

E-mail: jterrell@ufl.edu

Sean McGlynn

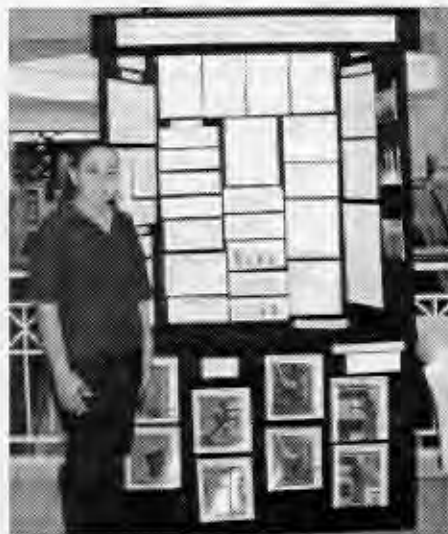
McGlynn Laboratories

Phone: 850/570-1476

E-mail: mcglynnlabs@cs.com

For more information and registration forms check out the website — <http://www.nalms.org/flms/florida.html>

Countless Ways to Use LAKEWATCH Data



Winning with LAKEWATCH/ Project COAST Data!

Lindsay Sisco, a middle school student from Cooper City in Broward County, has been sampling local lakes and conducting plant surveys in her area for about two years now, and turning the information she gathers into winning scientific papers.

This year's paper was a continuation of her research from last year and won her a first place at the Broward County Science Fair Middle School division. The paper will be presented in a State Competition in April. She was also selected to present her paper in March at Florida Junior Academy of Science at St. Leo University.

For Lindsay the whole thing must have seemed like "old hat" as last year's research also resulted in her winning the best of show at the Broward County Science Fair. From that, she was selected as one of forty students nationwide as a finalist in the Discovery Science Channel/Young Scientist Challenge, held for five days at the Smithsonian in Washington DC. She presented her paper and, though she didn't win, she had the extraordinary opportunity to work with Smithsonian scientists on a variety of challenges.

We wish Lindsay the very best of luck on her upcoming presentations at St. Leo's, and at the State competition. She probably won't need it though, as she seems to be earning her kudos the old fashioned way — through lots of hard work!

Eagle Eye, Inc. Sets the Trend

Education has come a long way since the days of rote memorization and tightly structured learning. These days, a number of schools are incorporating all subjects and disciplines into one continuous curriculum.

One such school is Walker Memorial Junior Academy in Avon Park, Florida where Gordon Davis teaches grades 7-10. A few years back, Davis devised a unique way to give his students real life experience with environmental and social issues. In the fall of 1995, he and his classes created Eagle Eye, Inc. (EEI) — a multifaceted corporation with a water chemistry laboratory, an environmental history department, and a public relations team. They write their own grants, collect data on their lake, analyze their findings, and share the information with press releases and a newsletter.

This unusual curricula includes a partnership with Florida LAKEWATCH/Project COAST, whereby students learn water monitoring techniques, as well as gain assistance in interpreting their data. The group also uses LAKEWATCH data to keep tabs on more than 95 lakes in Highlands county. Information gathered from their own lake (Eagle Eye Pond) is being used to develop a lake management plan. The plan includes efforts to preserve a Florida scrub ecosystem adjacent to the lake.

Data Used to Bridge the Gap, One Circular at a Time

Circular (#104) is complete and LAKEWATCH data played a role in much of the information discussed.

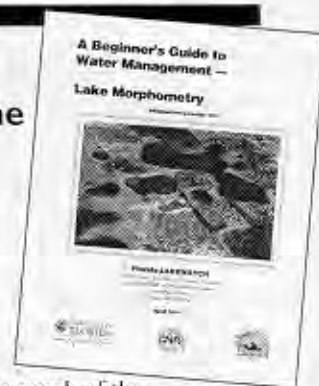
A Beginner's Guide to Water Management – Lake Morphometry is now available to anyone who is interested in learning about how the size and shape of a lake (i.e., lake morphometry) can affect a lake's water chemistry and water quality.

The 40-page booklet is the fourth in a series of educational publications that LAKEWATCH/Project COAST is producing for volunteers — or anyone wanting to learn more about lake management in Florida.

Many of the concepts discussed in these publications are the result of studies that have been based on Florida LAKEWATCH data.

For a copy of the circular or a listing of the four that precede it, call us at 1-800-LAKEWATCH (525-3928). You can also download the circulars for free from the web:

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



Gordon Davis, a teacher at Walker Memorial Junior Academy, hangs out with his students at a LAKEWATCH/Project COAST volunteer appreciation picnic.

Featured Bird: **Least Bittern** (*Ixobrychus exilis*)

One of the smallest herons, the least bittern is a striking little bird. Only 11 inches high, with a wingspan of 17 inches, both males and females sport a buff coloration on their faces as well as on the sides of the neck and wing coverts.* These markings are visible in flight and at rest.

Males are distinguishable by the black coloration on their cap and back and the somewhat faint brown streaks on the upper neck. The female's cap and back are brown, with the brown streaks on the neck appearing more prominently than that of the male.

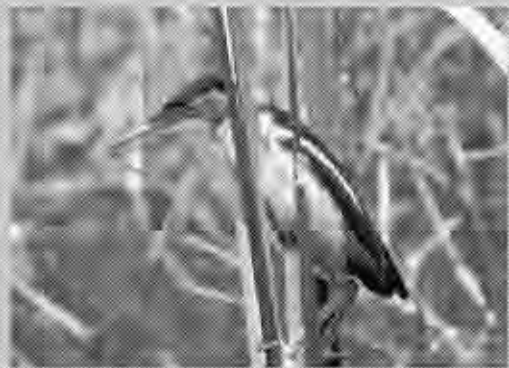
Least bitterns are most often found on lakes where there are significant stands of emergent vegetation such as cattails or bulrush, as they depend on this type of vegetation for cover. When a threat is perceived, least bitterns are known to "freeze" in place and point their long slender bill upward, pretending to be part of the surrounding plants.

* Coverts - Feathers on the middle of the wing, that covers the quills of the flight feathers.

The least bittern's dependency on this type of habitat is an important consideration for anyone considering clearing large stands of bulrushes or other tall shoreline vegetation from their lake. A study using LAKEWATCH data has shown that complete removal of certain species of aquatic plants could potentially result in the lake becoming less attractive to specific bird species such as the bittern. (Hoyer, 1994).**

** Hoyer, M.V. and D.E. Canfield, Jr.,

1994. Bird abundance and species richness on Florida lakes: influence of trophic status, lake morphology, and aquatic macrophytes. *Hydrobiologia*, 297/280: pages 107-119.



A male least bittern (*Ixobrychus exilis*)

Randy Roth

Bird Monitoring Project Takes Flight

Ever wonder about some of the aquatic birds you see around your lake?

The opportunity to learn more about them and help us collect data is here! Ashley Traut, a UF graduate student in wildlife ecology is working with the LAKEWATCH team to establish monthly bird surveys on lakes already sampled by LAKEWATCH volunteers. If you'd like to participate in our new bird 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 monitoring efforts with a birdwatcher in your area.

Featured Fish: **Florida Sunshine Bass** (*Morone chrysops* X *Morone saxatilis*)

Q: What do you get when you cross a female white bass with a male striped bass?

A: A popular freshwater sportfish known as the Florida sunshine bass.

This freshwater hybrid is a stout bass-shaped fish with a slightly forked tail and a relatively small mouth. Its silvery gold color seems to have been inherited from its maternal side of the family (i.e., the white bass or *M. chrysops*). However, the dark stripes along its side tell us that there is definitely a striped bass (*M. saxatilis*) in the mix. At times, the stripes are usually broken or jagged above or below the fish's lateral line.

The sunshine bass does well in a variety of aquatic environments, including moving streams, lakes, ponds, and reser-



Florida Sunshine Bass *Morone chrysops* X *Morone saxatilis*

Joe Richard

voirs — almost anywhere except extremely shallow water or ponds filled with plants. Small sunshine bass eat aquatic invertebrates such as insects and grass shrimp and they switch to a diet of fish while still quite young, if suitable fish are present. They grow to about 15 pounds and their normal life span is five to six years. The highest reported weight is an amazing 22 pounds!

Its reputation as a highly valued sportfish has increased over the years, largely because the sunshine bass seems to grow quickly (to about 2 pounds in a little less than 18 months), and they are good fighters that will attack an artificial lure with gusto. Their mild flavor and firm texture might also have something to do with their popularity.

As a result, they are commonly stocked in lakes and ponds throughout the southern United States. A word of wisdom however, for those interested in stocking these fish into their lake or pond: indiscriminate stocking of sunshine bass does have the potential for decreasing the abundance of some native sportfish that have overlapping food habits.

Behind the Scenes

Though you've probably never met them, our water chemistry staff are the ones who make it all happen behind the scenes. Day in and day out, they carefully analyze your water samples for total phosphorus, total nitrogen, and chlorophyll.



Olaf Werder

The folks who keep the lab equipment in good order and keep us supplied with clean bottles are **Olaf Werder, Jeff Reynolds, and Lora Gay**. They also assemble sampling materials that go to the volunteers.



Gloria Beauchamp

Mary Stonecipher graduated from the University of Tennessee with a degree in English. After teaching for a few years, she began working for UF, and eventually

LAKEWATCH. Mary calculates the data, checks and approves the results and keeps the laboratory running smoothly.



Mary Stonecipher

Tad DeGroat used to build cabinetry and worked as a landscapist before joining the LAKEWATCH crew in January of 2000. His laboratory duties include total nitrogen and total phosphorus analyses, as well as supplemental water chemistry.

Kelly Schulz has been with LAKEWATCH since 1996, analyzing water samples for total phosphorus, helping train students and doing data entry when she's not at home gardening or scouting for artifacts.

Gloria Beauchamp has worked for the lab since May 2000 processing water samples for bacteria analyses (total & fecal coliforms). She also assists with reading water samples for color and running total phosphorus and total nitrogen analyses when needed.

Wanda Garfield has been in the lab since 1999 analyzing chlorophyll samples and helping out with water conductivity, total alkalinity, color and chloride analyses.

John Douglas has worked in the lab since 1993. He's in charge of analyzing nitrogen, and he keeps everyone in the lab laughing with his jokes and comical antics.



Left to right: Kelly Schulz, Tad DeGroat, Wanda Garfield, Lora Gay, and John Douglas.

Debi Moseley is our new LAKEWATCH/Project COAST assistant.

Aside from helping us with answering phones, running errands, assembling data packets and tracking down information for volunteers, she's also been instrumental in gathering the information and helping to write articles for this issue of the newsletter. Be sure to say hello next time you call our main office.



Do you have a concern 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/Project COAST volunteer program.

Florida LAKEWATCH/Project COAST 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:

- use of water sampling materials
- training in monitoring procedures
- 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/Project COAST
7922 NW 71st Street
PO Box 110600
Gainesville, FL 32611
1-800-LAKEWATCH (525-3928)
E-mail: lakewat@ufl.edu



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