



# Florida LAKEWATCH

Winter Newsletter

# Florida LAKEWATCH Regional Meetings

By Mark Hoyer, Director Florida LAKEWATCH



Mark Hoyer and Daniel Willis speaking to Lakewatch Volunteers at the Orange County Regional Meeting

Every year LAKEWATCH hosts approximately 20 Regional meetings around the state. At the meeting staff provides all sorts of written/electronic material on lake management concerns and issues (e.g., water quality, aquatic plants, herbicides, grass carp, sportfish, aquatic birds, lake sediments and many more) for volunteers to examine as they arrive and wait for the meeting to start and after the meeting is finished before everyone heads for home. Also as volunteers arrive a data packet with all of the historical data collected on the volunteer's lakes is provided. The format of the meetings is simple with a dinner provided while a presentation is given in some area of lake management that is currently of interest

around Florida. The last few presentations were about 1) Nutrients and Fish populations, 2) Aquatic Plant Management and herbicides and 3) How LAKEWATCH Data are Used. After the presentation comes a round robin where each volunteer can ask questions about specific lake management issues or just provides an update on their lake situation. These sessions often lead to excellent discussions among all volunteers and LAKEWATCH staff.

These discussions are also a starting place for ideas on next year's Regional Meeting Presentation while providing information on emerging issues that may lead to new research projects for LAKEWATCH staff and graduate students. The Regional Meetings are informational and a lot of fun reconnecting volunteers with LAKEWATCH staff and other local volunteers making us all one big LAKEWATCH family.

Getting closer to my retirement, I am making every effort to attend each regional meeting enjoying the camaraderie that comes with everyone's volunteer efforts, and our combined love and respect for all of Florida's aquatic resources. An exciting thing I have noticed at these recent meetings is that there are new faces in the crowd and many of them are young ranging from high school students to mid-life families. For example, a meeting held September 21, 2022 in Orange County seven high school students attended and were front and center for the presentation on How LAKEWATCH Data are Used. The students were engaged and excited to learn about lakes and the LAKEWATCH program. So much so that one student named Sophie wrote an excellent article to be included in this newsletter, Great job Sophie! Hopefully this trend of new faces will continue as LAKEWATCH moves

closer to its fourth decade of monitoring Florida's valuable aquatic resources.

I thank all of you for the continued efforts making Florida LAKEWATCH one of the longest running and largest Citizen Science programs in the country if not the world. You are making a difference!



## What do YOU want to hear about for our Regional Meeting Presentation in 2023?

We always want to bring you content that is valuable to you. Send your topic suggestions to Marina Schwartz at [mevanskeene@ufl.edu](mailto:mevanskeene@ufl.edu).

And now please enjoy our VERY scientific study on what cookies people love the most. We always try to provide the cookies you love, and we have our own opinions of which kind is best. There was a clear winner among volunteers and Lakewatch staff at our meetings this year... Publix Heath Bar Cookies are the best!



Cookies before the meeting and cookies after.



# **“My Lake” is the Name of the Most Important Lake in the State and Florida LAKEWATCH is Helping to keep it Healthy: A Student’s Perspective.**

UF’s LAKEWATCH team held their annual Regional meeting with volunteers and new recruits, in Orange County, where they spoke about the history of the program and discussed how volunteer collected data is used.

**Written by Sophie N. Jackson**



Mark Hoyer (left) presenting the introduction to LAKEWATCH's meeting. S. Jackson (right) attending.

On Wednesday, September 21st, the Florida LAKEWATCH team at UF held their annual regional meeting with volunteers ranging from newly joined teenagers to those with over twenty years of experience helping monitor Florida's waters.

LAKEWATCH's mission statement reads, "[Its mission is to] work with citizen scientists for the purpose of monitoring Florida's aquatic ecosystems to provide research-quality, student training, and public education, all with respect to water quality and aquatic systems management."

Mark Hoyer lead the LAKEWATCH presentation, providing statistical facts about the program's development, successes

and battles throughout its 36-year history. Hoyer has been with LAKEWATCH since the beginning, currently serving as Director. He is retiring soon.

Starting the presentation strong, Hoyer outlined the core parameters collected by volunteers and explained the importance of them. For newer volunteers, this insight into the importance of Phosphorus, Nitrogen, and Chlorophyll to lake systems, with additional information about water clarity (measured with a Secchi disk) and Specific Conductance, provided a scientific introduction to a new and exciting path they were about to embark upon.

LAKEWATCH started in 1986 following the passion of Lake Santa Fe residents who wanted to be good stewards of their nearby lake. This passion opened the door for LAKEWATCH, allowing volunteers to expand their statewide sampling and increasing research efforts to understand how Florida lakes function. Though in its first year, only a couple of lakes were sampled, in 2019, the yearly rate rose to 800 lakes: both a huge feat and achievement. This large increase in the number of lakes sampled was facilitated by a 1993 Florida Statute making LAKEWATCH Florida's volunteer water quality monitoring program. Currently, the number of lakes monitored is being impacted negatively by increased costs as a direct result of high inflation.

Among many users, LAKEWATCH provides monitoring data for the FDEP (Florida's Department of Environmental Protection) helping them to evaluate the quality of water all around Florida. Working closely with FDEP, LAKEWATCH added to its 'Field Data Sheets.' The additions of Sampling

Time, Filtering Date, and Filtering Time introduces more specific information gathered by the team's volunteers allowing the data to be uploaded to FDEP's data storage and retrieval system.



Mark Hoyer presenting the LAKEWATCH website to the attendees.

The volunteer teams are the heart and soul of the LAKEWATCH program allowing it to become one of the largest in the country. When talking about past achievements of LAKEWATCH, including winning US EPA's Vision and other State of Florida awards, Hoyer said, "they aren't really our awards, they're yours." While LAKEWATCH is an extremely successful program there were many hurdles to jump along the way.

Hoyer explained a primary difficulty early on, was that many state resource agencies did not believe volunteers could collect quality research data. To alleviate these concerns, LAKEWATCH conducted three separate studies (Canfield et al 2002, Hoyer et al. 2012, Hoyer et al. 2021) comparing data collected and analyzed by professionals with data collected by volunteers and analyzed by LAKEWATCH staff. In each study, the data collected by volunteers was identical to the data collected by professionals. Hoyer jokingly likes to suggest that now we can trust data collected by state agencies

because their data is as good as what we have been producing for more than 30 years

LAKEWATCH has conducted and published many studies on Florida lakes. Additionally, LAKEWATCH has collaborated with many countries from around the world. Recently, a study between Floridian and Danish lakes (over 1600) was completed. The study examined differences between algae, zooplankton, fish, and aquatic plants in lakes with similar baseline nutrient concentrations. Significant differences were attributed to temperature and the findings can be used to predict climate change effects on lakes in Denmark.

On a larger international scale, LAKEWATCH collaborated with authors from 20 countries sharing data to estimate global determinants of aquatic macrophyte biodiversity. This study was also done in 2020



Members of @wps\_project2020 attending the Regional Meeting [(left to right)  
S. Leekha, A. Hollern, M. Guzman, S. Jackson, B. Dogget, R. Hollern, M.  
Casingal, Mr. Hoyer]

Attending the LAKEWATCH annual meeting was an honor and an exciting experience that I was proud to be a part of. When walking into the space, you could sense the concern and dedication this group of people had to the lakes of Florida.

At the end of the meeting, Hoyer and Daniel Willis, the Regional Coordinator for Orange County, answered questions from those attending the meeting. This segment, let alone the actual presentation, provided immense information for newcomers, such as myself. Myself, and my team, are very excited to get started with LAKEWATCH.

If you would like to learn more about LAKEWATCH or join their volunteers, please visit [www.lakewatch.ifas.ufl.edu](http://www.lakewatch.ifas.ufl.edu).

#### Literature cited:

- Canfield, D. E. Jr., C. D. Brown, R. W. Bachmann, and M. V. Hoyer. 2002. Volunteer lake monitoring: testing the reliability of data collected by the Florida LAKEWATCH program. *Lake and Reservoir Management* 18: 1-9.
- Hoyer, M. V., N. Wellendorf, R. Frydenborg, D. Bartlett, and D. E. Canfield, Jr. 2012. A comparison between professionally (Florida Department of Environmental Protection) and volunteer (Florida LAKEWATCH) collected trophic state chemistry data in Florida. *Lake Reservoir Management*. 28: 277-281.
- Hoyer, M. V., and D. E. Canfield Jr. 2021. Volunteer collected water quality data can be used for science and

management. Lake and Reservoir Management. 37:235-244.



# FWC Fall Public Meeting



The Florida Fish and Wildlife Conservation Commission held their Fall public meeting in October to "discuss FWC activities and conditions on Orange, Lochloosa, and Newnans lakes." The meeting was held at the Grand Lake RV & Golf Resort Recreation Hall in Citra and was an "open house" style meeting. This means that attendees could come anytime during the 4-7pm event time and individually discuss topics of interest with FWC staff. This type of meeting is better suited for one on one engagement with stakeholders and helps ensure that the public has an opportunity to have their questions answered. The Biologists had posters, specimens, and printed materials to hand out and were extremely

knowledgeable and friendly. Here are a few of the projects highlighted below.

Throughout the past 2-3 years some of the projects related to fisheries management have included deploying 60 brush style fish attractors At Newnans Lake and 166 in Lochloosa Lake.



Fish attractor (left) and poster by FWC staff and biologists of ongoing projects related to freshwater fisheries management in the Orange Creek Basin Lakes

Also, in Newnans Lake, the FWC has, stocked ~1 million fingerling Largemouth Bass, and transplanted Spatterdock (*Nuphar*) to help increase the acreage of quality fish habitat.

The Fisheries in the Orange Lake basin are being monitored by sampling, surveys, and studies to keep track of current stock levels and correlate any impact had by the restoration projects. To learn more about the Freshwater Fisheries Management at FWC check out their website [here](#).



Posters by FWC biologists of the ongoing projects for habitat restoration at Orange Lake

In addition to native vegetation, FWC monitors the coverage of plants in the waterbodies and controls some of the invasive plants, like Hydrilla. To learn more about the Aquatic Plant Management at FWC check out their website [here](#).



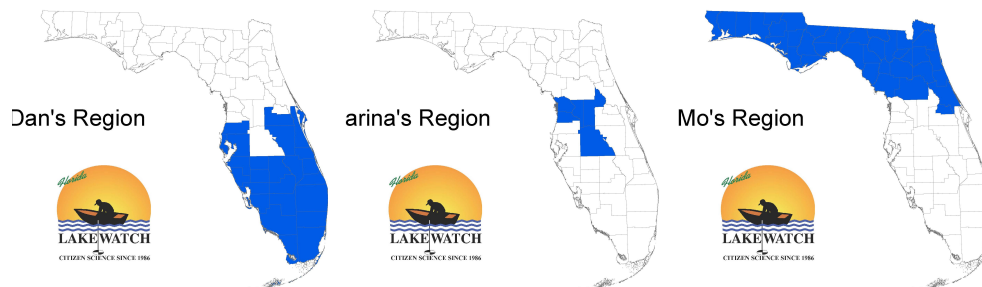
Thanks FWC for all that you do to keep managing fish and wildlife resources and keeping us informed. Keep up the great work!



# LAKEWATCH ANNOUNCEMENTS

## Who you gonna call?

Make sure you are getting in touch with the right person for you. Regional Coordinators are the support for new and existing volunteers and are usually the first point of contact for the public to ask questions about Florida's waterbodies. They train and coordinate with volunteers to collect water, help compile the data and disseminate the information back to the volunteers and the general public. There are currently three coordinators Dan, Jason "MO", and Marina and they each serve a specific region of the state. The area and contact information for each Regional Coordinator can be found below and on our website [here](#). We look forward to assisting you!



## Bottles

The LAKEWATCH Lab has been receiving nutrient bottles that are in rough shape. We reuse these bottles for as long as possible to save money for the program and keep as many lakes in the program as possible. Please follow the tips below to help us keep using these nutrient bottles.

- Please don't write on the bottles! Make sure to write on the labels only.
- Don't overfill them. The water expands as it freezes and will crack the bottles.
- Be careful when handling frozen bottles as they can crack easily.

*The LAKEWATCH newsletter is edited by Marina Schwartz.*

*You can reach out with comments or feedback at  
mevanskeene@ufl.edu*

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