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The Istokpoga Newswire

Friends of Istokpoga Lake Association, Inc.



Wading Bird Nesting on Lake Istokpoga

By Paul Gray, Ph.D., Okeechobee Science Coordinator, Audubon of Florida

The term “wading birds” describes the group of herons and egrets that are so numerous, diverse, and famous in Florida. Unnoticed by some, Lake Istokpoga hosts large wading bird nesting colonies, with many beautiful species. Big Island and Bumblebee Island have hosted more than 1000 nesting birds recently, and one count of Big Island in 1997 estimated 5000 nesting birds. But last year, no nesting was detected on Big Island, and this year neither Big Island, nor Bumblebee Island, hosted the usual number of birds. Wading birds are often used as a measure of ecosystem health, so the decline has generated some concern.

First, some history. The Florida Fish and Wildlife Conservation Commission (FWC) has conducted wading bird nesting counts from airplanes in Florida for more than 30 years. Istokpoga results have ranged from no birds in some counts, to a few hundred in most years, to 5000 in 1997. These counts provide us with our only historical records, but were done sporadically due to funding constraints. Additionally, since the surveys were conducted from the air, species identification proved difficult and thus sparked debate whether the 5000 birds sighted were White Ibis (desirable), or Cattle Egrets (nonnative and not as desirable).

Therefore, in 2003, I started working with various volunteers to count the rookeries each year to build a more detailed data set. As usual, getting precise numbers would be harder than I thought.

Initially (2003), we attempted a “flight line” technique on Big Island, counting the birds coming and going from the rookery to estimate the total inside. That worked poorly because there were so many small rookeries around, we couldn’t tell if the birds

flying by were from our little spot or a nearby one. We also didn’t have enough boats to count the entire area and our counts were certainly low (see Table 1). In 2004, we tried counting nests through the dense leaves concealing the rookeries. We counted about 200 birds of 8 species on Big Island, and about 100 birds of two species on Bumblebee, but counts still seemed low.

In 2005, FWC staff pitched in, which gave us more boats and more people. We encircled the colony on Big Island and counted about 650 waders of six species, plus about 1500 Cattle Egrets. Bumblebee Island had 200 birds of five species, an apparent increase from earlier counts. Suddenly, in 2006, no birds nested on Big Island, but Bumblebee had an influx of White Ibis (a count of 638), along with about 600 birds of eight other species (plus a few Cattle Egrets). We also counted a small rookery southwest of Bumblebee Island that had about 500 birds of seven species. Even though Big Island did not have birds, detecting about 1700 waders on the southern islands was impressive.

The 2007 counts declined. Not only was Big Island still vacant of nesting waders, but Bumblebee did not host the White Ibis, nor apparently the Great Egrets that usually nest there. Only about 150 Anhingas were counted (Anhingas actually are not waders but rather swim under water to catch prey). A few other species were counted but may have simply been roosting rather than nesting. The southwest rookery had many birds but we did not find time for a count.

So, why has nesting decreased on the two large islands over the last two years? My guess is the regional drought. Rainfall was very low this year and last, and Lake Istokpoga’s levels have been low too. When Istokpoga is low, the little wetlands (ponds) on the lands surrounding the lake tend to be dry and offer no feeding opportunities. Optimal feeding habitat is less than six inches deep for most waders, and without

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Special points of interest:

The Friends of Istokpoga Fall Meeting will be held on Thursday Nov. 15, at 7:00 PM. This will be a great meeting. Come and join us and bring your neighbors. See page 3 for more information.

help from surrounding wetlands, the narrow strip of optimal feeding habitat along Istokpoga's edge may be inadequate to meet the increased foraging needs of parent birds attempting to feed growing chicks.

But what if the drought did not generate the lower numbers? The good news is, when wetter conditions return, we will monitor the islands to see if the birds return too. If not, our data will show something has changed, which in turn can guide further inquiries to determine what other factors may be affecting the health of the nesting colonies, and Lake Istokpoga itself. Biological monitoring is sometimes frustrating because you can't diagnose problems until after they happen, but it records changes when they occur, and gives us a starting place to look for solutions.

Special thanks to FWC's Beachum Furse and Mike McMillan, their staff members, and to several volunteers, who helped count the birds over the years.

June 2007 Hydrilla Management on Lake Istokpoga

By Erica Van Horn, Regional Biologist, Bureau of Invasive Plant Management, Bartow, FL 863-534-7074, erica.vanhorn@dep.state.fl.us

And By Jeff Schardt, Environmental Administrator, Department of Environmental Protection, Bureau of Invasive Plant Management, Tallahassee, FL 32399

Lake Istokpoga, a shallow 27,772-acre water body with an average depth of 5.5 feet, continues to be monitored cooperatively by the Florida Department of Environmental protection (FDEP) and Highlands County Parks and Recreation Department (Highlands County) in an effort to manage hydrilla, one of the most invasive and adaptable submersed aquatic plants known. At growth rates of 1-4 inches per day, this plant can expand from sparse, seemingly innocuous populations in winter and early spring to fill the water column and cover the surface in as little as one growing season. Please refer to the April 2007 newsletter for a more thorough review

of hydrilla in Lake Istokpoga.

During an interagency meeting in March, FDEP and Highlands County in cooperation with representatives from Fish and Wildlife Conservation Commission (FWC), South Florida Water Management District (SFWMD), and the Soil and Water Conservation District developed a treatment plan to contain hydrilla in well defined areas of the lake to minimize navigation hazards to boaters and flood control issues with the S68 structure, as well as minimize negative impacts from hydrilla to fish and wildlife and native aquatic plant communities. After initial site inspections and GPS mapping of the hydrilla within the lake participating agencies reached consensus on an herbicide treatment plan that would meet these objectives.

The treatment was applied by helicopter on June 25th of 2007. The herbicide administered was Aquathol K liquid formulation at a rate of 2.0 parts per million (ppm). This herbicide has been used throughout Florida for more than 40 years for small and intermediate size hydrilla control. Aquathol K is a contact-type herbicide meaning that it acts fairly quickly to control hydrilla with which it comes in contact. It was recently reregistered through US Environmental Protection Agency's more stringent evaluation process. It does not bio-accumulate and has no fishing restrictions.

The areas treated were a 500-acre block on the north end near Trails End Fish Camp, a 200-acre block near Windy Point boat ramp at the southwestern end of the lake, and a 50-acre navigation trail on the eastern side of Bumble Bee Island. The systemic herbicide fluridone had been applied to control large-scale hydrilla populations in Lake Istokpoga from the late 1980s through the early 2000s, providing as much as 2 years of control. Fluridone's cost-effectiveness for hydrilla control has diminished in Lake Istokpoga due to increasing resistance and enhanced microbial degradation of the herbicide before it can control hydrilla. The concern for Lake Istokpoga is that if hydrilla approaches 15,000-25,000 acres as it has in the past, that there currently is no cost-effective nor environmentally compatible strategy to regain control. The intent of the Aquathol K treatment is to keep hydrilla contained to specific areas in the south portion of the lake until further planning for fall treatments. While

Aquathol K acts more quickly to control hydrilla, control lasts for a much shorter period of time than with fluridone.

Lake Istokpoga was monitored after the treatment and the treatment was successful in meeting the objectives, controlling hydrilla off of the surface in many of the high use areas. Further monitoring of the lake will be conducted throughout the season to respond to any navigational or ecological issues that may need addressed.

For more information on the management of invasive aquatic plants in Florida please refer to the University of Florida web site at <http://plants.ifas.ufl.edu>. Here you will find a library of more than 70,000 articles and information on aquatic plants as well as information on all facets of aquatic plant management in Florida public waters. In addition, University staff and Florida science teachers are collaborating to develop classroom curricula that addresses invasive plants and their management in waters of the state; information that is available at the same web site.

What's Happening on Istokpoga

By Bert Galloway, President

There are many projects and events happening on Istokpoga at this time. I will try to bring you up-to-date on things that your board of directors is working on as well as other projects that are being performed by some of our state and local agencies. Also we will try to give you some insights into events that have happened in the last few months.

A: Hydrilla Spraying on South Side of Istokpoga

The Department of Environmental Protection (DEP) is working on a plan to do a fall treatment of the hydrilla on the lake. This will not be a whole lake treatment but more of a spot treatment that will contain the hydrilla to the south end of the lake. For more info read the article by Erica VanHorn (DEP) in this newsletter.

B: Arbuckle Creek monitoring of water quality

This is an ongoing project by South Florida Water Management District (SFWMD) to assess the water quality of the Arbuckle Creek watershed. SFWMD

is trying to track down the areas in the watershed that contribute the most phosphorus loading of Arbuckle Creek and subsequently Lake Istokpoga. We will give you more info on this project when we get a copy of the SFWMD report on this project.

C: Aquatic Plant Management

The Friends of Istokpoga Lake Association, Inc. weed management committee, led by Ray Gaiefsky, has set out to take pictures of weed control by the different agencies on the lake. This will be a regular project by our weed committee and we should have pictures on our web site, and at our membership meeting, to share with you, in the near future. This project is still under way, but we did encounter problems this summer because of the low water levels. We hope to have a good showing of our progress at the next general membership meeting.

D: Aquatic Plant Resistance to Herbicides.

Fluridone, also known as Sonar, has been very effective in controlling hydrilla on Lake Istokpoga in the past, can no longer be used. This is because the hydrilla on Istokpoga has become resistant to the Sonar. The state (DEP) is still searching for a solution to this problem. It will probably be a long drawn out process before they come up with a good solution. In the interim the state will control the hydrilla with Aquathol K, a contact herbicide.

E: Canal Maintenance Dredging Evaluation

Not much has changed on this project since our last newsletter, but be assured that this is still a viable and ongoing project. Phase one of this project by SFWMD has been completed (this was a survey of the existing canals). Phase two has been started by Clell Ford and he is in the process of getting estimates for the dredging of all the residential canals. These cost figures will be submitted to SFWMD so bids can go out for the actual work of cleaning the canals. We are told that this should take about two years to finish. Phase three of this project will be work on the lake itself. This work will make the residential canals accessible during low water levels by removing the sand bars at the mouths of the canals. We need this work done

before the new Lake Regulation Schedule begins.

F: Istokpoga Canal Project US Army Corps of Engineers

This 18 month project to enhance the Istokpoga canal ran into some funding problems early this summer. The US Army Corps of Engineers had to shut this project down when their funds ran out. The good news is that the funding will be restored in October and we should see equipment back on the work site by December. Following is the scope of work for this project: There are three main features to this project. The one that is most important to Lake Istokpoga is the building of a new control structure (S-67) and demolition of the old one (G-85). This control structure is about a ½ mile east of county road 621. It is old and it is leaking badly. Also this project will build a new marina and boat ramp at US 98. And, Istokpoga canal will be dredged from U.S. 98 to the Kissimmee River. This work, when it gets underway, should be completed by September 2008.

G: Spring Lake Pumping Problem

So far this summer Spring Lake has not experienced any of last summers flooding problems. This is because of the drought situation that we are presently in, but give us one tropical storm and this flooding problem could reoccur. The good news at this time is that the Spring Lake Improvement District has rented two large pumps this summer so if they do encounter a flooding situation they can react to the problem before it gets out of hand. Spring Lake Improvement District is also working on getting the pumping injunction lifted that was imposed against them by the courts. We would like to see this injunction resolved so they can get back to a normal pumping situation; this would be good for the residents of Spring Lake and also the health of Lake Istokpoga.

H: S-68 Modification Project US Army Corps of Engineers

This project is well under way. This summer the dust was flying in and around the S-68 structure on county road 621 at the south side of Lake Istokpoga. This is an 18 month project and it will add another gate and a diversion canal just east of the present structure. The first part of this project will involve building a temporary road (which is done) for CR-621 to allow the building of the new structure and digging of the diversion canal. This project is being done to better handle discharges of water

from Istokpoga and increase the overall capacity of S-68. Look for this project to be completed early next summer.

I: Wildlife Island Revegetation

Eight of the wildlife islands on Lake Istokpoga have been planted with 2000 native shrubs and trees by the Florida Fish & Wildlife Conservation Commission (FWC). It is their hope the islands will serve as a good habitat for wildlife and also make them environmentally friendly to the lake. The new plantings have been watered on a regular basis and at this time we are told that they are doing ok. If this test project works out the FWC hopes to do the rest of the wildlife islands on the Lake. Also this fall the FWC is going back to the eight islands to weed them and take a good look at the revegetation progress.

J: Osprey Count

Mike McMillian the, lead FWC Biologist for Lake Wales Ridge Wildlife and Environmental Area, Royce Unit, on Lake Istokpoga has done his 19th year of field research on Lake Istokpoga Ospreys. This is Mike's own pet project that he works at on his own time and mostly with his own money. His finding this year is that there are 280 active nest on Istokpoga this year. Last year there were 260 active nests. This increase is good news for Lake Istokpoga because Ospreys are at the top of the food chain and therefore are an excellent indicator of lake health. Also a side note, Lake Istokpoga Ospreys represent the largest known concentration of nesting Ospreys in the world.

Friends of Istokpoga Fall Meeting

The Friends of Istokpoga Lake Association, Inc. will hold its fall general membership at the Lorida Community Center on Thursday Nov. 15, at 7:00 PM. It is the start of a new season on Lake Istokpoga. We would like to see you and all your neighbors and friends at this kick off meeting for the 2007 & 2008 season.

We will have speakers from some of the local agencies who will bring you up to date on projects happening on Lake Istokpoga. Also refreshments will be served beginning at 6:45 PM. So mark your calendar for this informative evening.

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