

Friends Of Istokpoga

Newsire

Friends Of Istokpoga Lake Association, Inc.

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Friends Of Istokpoga Annual Meeting

Annual Meeting of Friends Of Istokpoga Lake Association, Inc. to be held on March 30, 2000 at the Lorida Community Center, 1909 Oak Avenue, Lorida, Florida 33857, at 7:00 PM.

Dr., Bill Haller will be our guest speaker. Dr. Haller is an aquatic plant expert at University of Florida, and will be talking about hydrilla control and research being done on hydrilla.

We will also have our annual election of Directors at this meeting.

Election of Officers

The following 1999 Directors have volunteered to run for reelection this year.

Bill Dwinell, President, and Editor of the newsletter.

Jim Berry, Vice-president, and chairman of the Weed Control Committee.

Debbie Galloway, Secretary / Treasurer, and Chairman of the Financial Committee.

William "Dub" Cummins, Director, and chairman of the Membership Committee.

Don Linton, Director, and Chairman of the Legislative Committee.

Chris Monroe, Director, and Chairman of the Fund Raising Committee.

Jim Wilkins, Director, and Chairman of the Publicity Committee.

Nominations for Director will also be taken from the floor during the Friends Of Istokpoga Lake Association, Inc. annual meeting.

The association by-laws require an annual election of Directors. Following the election of Directors, there will be a Board Of Directors meeting where the election of officers will take place, The three offices will be filled from the Board of Directors by election.

Lake Istokpoga Ospreys

- By Mike McMillian

I began researching the Ospreys of Lake Istokpoga in 1989 after hearing the following story. In 1910 a

young man by the name of D.J. Nicholson rowed his boat down the Istokpoga Creek (now Istokpoga Canal) into Lake Istokpoga.

Nicholson's mission, to record which bird species inhabited the shorelines of the lake and its two islands and to collect eggs and specimens of desired species.

In the early days of ornithology it was common practice to shoot birds for identification as there were no field guides. It was also common practice to collect bird eggs both for personal and research collections and these egg collectors were referred to as oologist.

Oology (phrase coined in the mid-19th century) is the scientific study of the eggs of birds-of the shapes, sizes, color, numbers in a clutch and so on. Nicholson was apparently impressed by the number of Ospreys on the lake and recorded 75 active nests in his notes.

The Osprey, also called the fish hawk or fish eagle is a large bird (6' wingspan), is dark brown above, white below, with white head and a prominent

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dark eye stripe. Males are usually all white below; females have a prominent necklace of dark streaking. In flight, the Osprey's long, narrow wings are bent back at the wrist, like a gull's and dark wrist patches are conspicuous. Ospreys nest near fresh or salt water and eat fish almost exclusively. These large majestic birds can be seen hovering over water and then diving towards prey feet first. Unlike the Bald Eagle who only gets its feet wet the Osprey may be completely submerged. The call of the Osprey is a loud whistled *kyew kyew kyew kyew kyew*.

Continuing the story, in 1973, Dr. Jim Layne then director of Archbold Biological Station in Lake Placid, returned to Lake Istokpoga to conduct a second Osprey census. In the late 1960's and early 1970's many raptor populations were in serious jeopardy because of the pesticide DDT. It was discovered that DDT and its main metabolite DDE caused severe eggshell thinning in many bird species resulting in very poor hatching success. In 1973, Dr. Layne recorded only nine Osprey nests and most of these were on Bumblebee Island.

In 1989, I drove a boat around the shorelines of

Lake Istokpoga and its two islands counting Osprey nests 16 years after the survey of Dr. Layne and 79 years after the survey of Nicholson. I recorded 56 Osprey nests. In 1990 I returned to Lake Istokpoga and recorded 55 nests. In 1991 I decided that the study must move forward, that it wasn't enough to merely count nests. What if for example there were 55 or 56 Osprey nests but few young were being produced (similar to the DDT period). The number of Osprey nests could be misleading. In 1991 I began the census of all Osprey nests around the shoreline of the lake and it's two islands and recorded reproductive success (number of young fledged per nest). In 1995 I included the hatching success (number of eggs laid versus number of eggs hatched) of a sub sample of nests. Ospreys are good "indicator" species and with my long term baseline data can be useful in determining future environmental problems (canary in the mine shaft). Additionally in 1995, I began surveying the nests located around the lake to a distance of two miles from the shoreline. These are the nests you see located on telephone poles, transmission towers, and television antennas. I began

color banding (plastic colored leg bands) nestling Ospreys for future identification with the aid of numerous volunteer tree climbers, Florida Power and Glades Electric. While we have the nestling' in-hand we take several body measurements and blood samples. The blood samples are analyzed for pesticide and mercury levels by Brian Mealey of the Miami Museum of Science. Color banding nestlings allows me to visually identify the bird without recapture. It is through the banding efforts that I will be able to answer the following questions: do young Ospreys return to breed near the same site in which they were born, at what age do they first breed, do they reuse the same nest year after year, do they retain the same mate year after year, how long do the Ospreys of Lake Istokpoga live, and do the Lake Istokpoga Ospreys migrate (leave the state) or disperse (move around Florida) during the non-breeding season?

What have I learned so far? In 1999 there were 214 occupied Osprey nests in and around Lake Istokpoga. As far as I can determine, **this is the LARGEST CONCENTRATION OF NESTING OSPREYS IN**

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THE WORLD. The number of nests continues to rise at an astounding 20-25 nests per year. During the non-breeding season (late July to December) the number of Ospreys decreases to around 50 birds total. The number of Ospreys begins to increase in November and December in anticipation of the breeding season. Reproductive success data is relatively constant from year to year despite the continued increase in new nests (density is not negatively affecting success).

We have color banded 380 nestling Ospreys since 1995 and discovered the following. It appears that the average age of first breeding is three but there have been one and two year old birds nesting as well. It is extremely rare for a one-year-old Osprey to breed and this may be the first record of its occurrence. An early age of first breeding usually indicates that there are no limiting factors; nest sites and food is not limiting. The average distance Ospreys travel from the nest they were born in to the nest they use as a breeder is six miles. Three of the 12 birds located to date moved less than two miles. Preliminary data suggest the birds use the same nest site year after year (limited data). I have no data on mate retention

because this requires that both members of the pair be identifiable however in other populations Ospreys typically mate for life.

Analyses of blood samples obtained from Lake Istokpoga Ospreys are negative for high levels of pesticides and mercury.

Some of the more exciting news concerns our work on migration versus dispersal. I have received eight band returns in the past five years (birds found dead or injured). The band returns were from the following locations: 2 from St. Petersburg, 1 from Clearwater, 1 from Ft. Lauderdale, 1 from Sebring, 2 from Tavernier (upper keys) and 1 from Venezuela. In 1999 I teamed up with Mark Martell from the University of Minnesota's Raptor Center. Mark is conducting a study of Osprey migration around the United States and was looking for a Florida study site. Mark chose Lake Istokpoga because he prefers to work at sites with ongoing research. In 1999 we captured four adult female Ospreys and attached satellite transmitters on them (backpack harness design). To the surprise of Osprey researchers around the United States, all four females traveled to four different countries in South

America. One bird traveled to Venezuela, one to Columbia, one to Brazil and one to Equador. It has long been thought that Ospreys located south of Gainesville, Florida do not migrate but rather disperse around Florida during the non-breeding season.

Additionally, now that we have shown that at least some of the Lake Istokpoga birds migrate, future problems with our Ospreys become more complex. For example, what pesticides or other chemicals do people in the above four countries use which the U.S. has already banned because of environmental problems?

How could the present day number of Ospreys be so much higher than in pre settlement times or how is the lake different today than in 1910 when Nicholson conducted his survey and recorded 75 Osprey nests? The obvious differences are 1) nutrient loading has potentially increased productivity, 2) less fishable area because of the large expanses of cattail and other aquatic vegetation (old photos of the lake show no cattail and white sandy beaches, 3) hydrilla was introduced in 1979, and 4) approximately 20-30 percent of the shoreline is developed. I developed a theory which

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simply states that hydrilla (to a point; too much is obviously harmful) provides cover and nursery habitat for fish. The fish population is artificially high (at least for some species) and therefore the Osprey population is artificially high. I believe that if you completely removed the hydrilla from Lake Istokpoga the reproductive success of the Ospreys would decrease to a level insufficient to replace their numbers. The number of Ospreys on the lake would slowly decrease until it stabilized at a more natural level. I have been testing this theory for the past two years on Lake Arbuckle in Polk County.

Lake Arbuckle has many similarities to Lake Istokpoga (other than size). It is a shallow lake ringed by cypress and with very little development. Hydrilla was a major concern on Lake Arbuckle and eventually removed approximately seven years ago. My theory would suggest that the number of Ospreys on Lake Arbuckle increased to an artificial level during the years of hydrilla infestation. When hydrilla was removed the fish population quickly stabilized to a more natural and much lower level. The lake could no longer support the high number of Ospreys.

That is the theory and here is what I actually have found over the past two years. Lake Arbuckle supports 75 occupied Osprey nests. This number is quite high for a 4000-acre lake. The reproductive success of the birds however is extremely poor. The reproductive success numbers are very similar to the days when Ospreys were having trouble with DDT. The Lake Arbuckle birds are not replacing their numbers. I suggest that the number of Osprey nests on Lake Arbuckle will slowly decrease until a more natural number is obtained. Unfortunately it may take another 10-15 years to prove or disprove my theory because Ospreys are so long lived.

My future research goals on Lake Istokpoga are to gather my 10th year of reproductive success data, to band more nestlings and take more blood samples, and to search for and identify previously banded birds. Additionally, we (University of Minnesota and I) will attempt to capture four adult male Ospreys and two of the original female Ospreys to continue our research on South Florida Osprey migration. For Lake Arbuckle, I will gather my third year of reproductive

success data, collect blood samples to rule out high pesticide or mercury levels, and band nestlings.

So when you see a small Boston Whaler out on the lake and the occupants are raising a 50' long yellow pole or hanging from ropes near an Osprey nest, don't be alarmed. It's only your friendly Osprey patrol conducting research, which will hopefully add to our knowledge of Lake Istokpoga as an ecosystem. Lastly, I would like to point out that this research is not funded by the government or any other organization (no grants and no taxpayer monies). Archbold Biological Station supplies the boat and gas however all other expenses are covered by the author.

Kissimmee Basin Water Supply Plan

- By Bill Dwinell

On January 20, 2000, Friends Of Istokpoga held a meeting at the Lorida Community center. Chris Sweazy, project leader for the Kissimmee Basin Water Supply plan, presented an outline of the plan to over 120 attendees, with three of them being Highlands County Commissioners, Bob Bullard, Edgar Stokes, and C. Guy Maxcy. Friends Of Istokpoga wants to thank them for

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coming out to hear about this important subject.

The Kissimmee Basin Water Supply Plan is the South Florida Water Management District guideline that will spell out where the water will come from that will be needed from now until 2020. The Kissimmee Basin plan is due to go to the South Florida Water Management District Governing Board in April. Chris said that there is not currently enough water from Lake Istokpoga to meet the increasing demands for water in the Istokpoga and Indian Prairie Basins. The plan outlines several possible solutions that would ease the pressure on Lake Istokpoga to meet all the demands.

Chris answered a number of questions throughout his presentation. Several attendees expressed concerns, Basically telling him to leave our lake alone and not mess up the levels any more than they already were.

One option being considered is to use two existing pumps that will allow pumping water from Lake Okeechobee back into the canals that supply the Brighten Reservation with water.

Combined with the two existing pumps, additional

pumps could be added at two different locations on the Kissimmee River that could also supply water to this area.

South Florida Water Management District doesn't seem to excited about installing a pump at the structure on Istokpoga Canal, which is being replaced soon. It is my opinion that this would be the best option and the cost of installing it could be minimized if it were done simultaneously with the reconstruction of the existing structure. It seems that either the United States Corps of Engineers, or the South Florida Water Management District thinks there isn't going to be enough water in the Kissimmee River for us to get any. Either way, they have been reluctant to raise the priority of this option.

Besides the presentation, we had other good news: We had 15 new members, and 47 renewals. We also sold some of our Friends Of Istokpoga Cookbooks.

Dues Notice

The dues notices were sent out in February to all members who had not already paid their dues for 2000. Don't miss a single issue of the Newswire. More

importantly, don't miss any news about the lake or the association. The Newswire will keep you current on all the issues facing Lake Istokpoga.

So if you haven't already sent in your dues renewal, please do so right away.

Friends Of Istokpoga Web site now available

Be sure to check out the Friends Of Istokpoga web site at:

<http://FriendsOfIstokpoga.homestead.com>