## RIVERWATCH

### Caloosahatchee River Citizen's Association

CRCA Info-Line (941) 433-4636

April/May, 1998

### **New Oxbow Projects**

John Capece

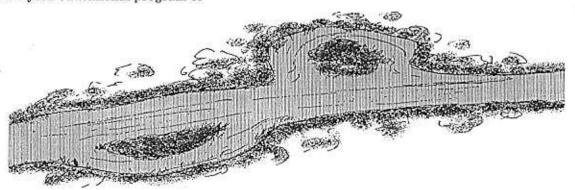
CRCA President Rae Ann Scholle and Dr. John Capece recently met with Mr. Pat Gostel and Dr. Ken Cummins of the Florida Center for Environmental Studies (CES) to discuss Caloosahatchee oxbow projects. CES is the Florida Atlantic University center that coordinates research and education programs between the South Florida Water Management District (SFWMD) and Florida's state universities. The meeting resulted in several exciting concepts for expanded cooperation between CES, CRCA, SFWMD, Florida Gulf Coast University, the University of Florida - Institute of Food and Agricultural Sciences center in Immokalee, and the Lee County Environmental Lab.

For the past two years, Rae Ann and John have led joint CRCA-University of Florida research to assess the health of the oxbows. There are 35 oxbows upstream of the Franklin Lock and 6 downstream. These offshoots from the main canal are the only remnants of the original (pre-dredging) Caloosahatchee River bed. CRCA, with technical support from UF-IFAS, began this research effort at the encouragement of Mr. Bill Hammond, SFWMD governing board member, and Mr. Dan Haunert, the SFWMD planner responsible for estuary (Caloosahatchee) programs. CRCA's oxbow work was pivotal in motivating the SFWMD and the CES to assign new resources to our region. The meeting with Mr. Gostel and Dr. Cummins yielded exciting ideas and plans:

(1) RIVER CRUISE: The group developed a proposal in which CES/SFWMD would provide financial support for a 5-year educational program of Caloosahatchee River cruises under the support and sponsorship of CRCA, CES, SFWMD, UF, and FGCU. CRCA will lead this effort with UF and FGCU providing educational assistance as they have for past CRCA river cruises.

- (2) OXBOW RESEARCH: CES and SFWMD requested continued CRCA participation in the expanded oxbow research program. CRCA will coordinate volunteers to assist scientists investigating the oxbow cosystem. The program will include mapping, wildlife surveys, vegetation studies, water monitoring and sediment analysis.
- (3) OXBOW IMPROVEMENTS: The group discussed development of a program to enhance the ecological, aesthetic and historical values of the oxbows. The idea calls for the identification of an oxbow whose adjacent landowners desire improvements and are willing to contribute to the effort. Several landowners have already expressed interest in this program.
- (4) RIVER BOOK. CRCA and others have created pictorial and written works about the history, ecology, economy and people of the Caloosahatchee which could be compiled into a series of brochures and/or a book. The group discussed how to produce such a work.

We will follow up with CES and SFWMD to refine and formalize these ideas into actual projects. If realized, these projects could open a new chapter in CRCA efforts on behalf of our river.



### El Nino's Fury

John Cassani

The unseasonable rains brought on by the El Nino phenomenon are having a significant impact on the Caloosahatchee River and other coastal ecosystems. March, April and May are normally the months of least watershed runoff and regulatory release from Lake Okeechobee. However, the normal pattern of wet and dry seasons has been turned upside down by the almost weekly deluge we have experienced for the past four or five months.

As a result, Lake Okeechobee has been rising to near record levels. Resource managers are struggling to eliminate the excess water in an effort to return the Lake to what is considered a safe level in anticipation of hurricane season. Discharge of Lake water west into the Caloosahatchee River and east into the St. Lucie River has been and continues to be the method of choice for drawing the Lake down.

The real impact of all this water to the Caloosahatchee River is primarily on the estuarine system from the Franklin Lock west to Sanibel. This productive estuary, where an abrupt and sustained salinity change can mean the difference for a successful spawning season for many species of fish. has been transformed into a freshwater river all the way to the Gulf. It is comparable to changing a jungle to a desert in a brief flash of time and expecting the jungle fauna to survive in a desert environment. Some of the more tolerant (euryhaline) plants and animals can withstand the salinity drop-off for longer periods but the massive discharge from Lake Okeechobee and runoff from the watershed has been going "full tilt" since before Christmas. The full effect won't be known for some time yet, but indicators of stress are beginning to show. The "Palm Beach Post" recently reported that Brown Pelicans were starving because the freshwater has displaced the menhaden, anchovies and other schooling species that pelicans are accustomed to feeding on in coastal estuaries. A "New York Times" article recently documented the freshwater release and effects on the St. Lucie Estuary and how fish were showing up with external tumors and other abnormalities.

Salinity levels in Pine Island Sound and the back bays around Sanibel have dropped below critical levels for spring spawning of some fish and shellfish species. A salinity level below 20 parts per thousand (ppt) is considered a threshold level by Dan Haunert of the South Florida Water Management District (SFWMD). Salinity depressed below 20 ppt for extended periods will have profound, lasting effects on the productivity of the lower estuary. Also, below this level, changes in water color resulting in reduced transparency have

significant impacts on seagrasses and other primary producers which are the foundation of the food chain.

As of March 24, Lake Okeechobee continued to rise and was at a near record level of 18.42 feet despite the massive and unrelenting discharges and runoff as high as 13,652 cubic feet per second (cfs) out the Caloosahatchee River. The target level for the Lake is 15.5 feet as of March 24. Flooding the Everglades to the south during what is normally the dry season could also have ecologically devastating effects. One reason why more water isn't being dumped into the Everglades is to reduce the possibility of a failed nesting season for the Cape Sable Sparrow (a Florida and Federally listed endangered species). The sparrow's perilous existence depends on the right nesting conditions (on or near the ground) brought on by the normally dry period during this time of the year.

Some would argue that the impacts to the estuaries are more significant than the possible extinction of the Cape Sable Sparrow, as the effect on the estuaries may last for a decade with lasting ripple effects on the economy. However, most would agree that either scenario would be a great loss.

A compromise approach involving pulsed or "yo yo" releases from the Lake to ameliorate the purging effect of the fresh water was considered, but increasing lake levels that threaten the integrity of the Herbert Hoover Dike may prevent this idea. It may also be the case that so much damage has already been done to the estuaries that pulsed releases would be too little and too late at this time.

The optimal release rate from the Franklin Lock into the Caloosahatchee Estuary is the subject of ongoing research by the SFWMD. A recent publication by two District scientists stated that releases of 2,500 to 3,000 cfs may be harmful to biota other than the freshwater plant Vallisneria at any time of the year and that a range of 300-800 cfs is considered optimal for the health of the estuary. Sustained releases greater than 10,000 cfs at the Franklin Lock have been common over the past several months with a high of 13,652 cfs just recently. This discharge rate rivals the almost 17,000 cfs rate experienced during the 1995 flooding. Regulatory release of water from the Lake has been averaging about 60% of the total discharge. Repeated damage to the estuary just two to three years after the 1995 event may serve to further impact a recovering estuarine biota and may result in the loss of recruitment to future year classes of important fish species.

Let's hope El Nino subsides soon !!

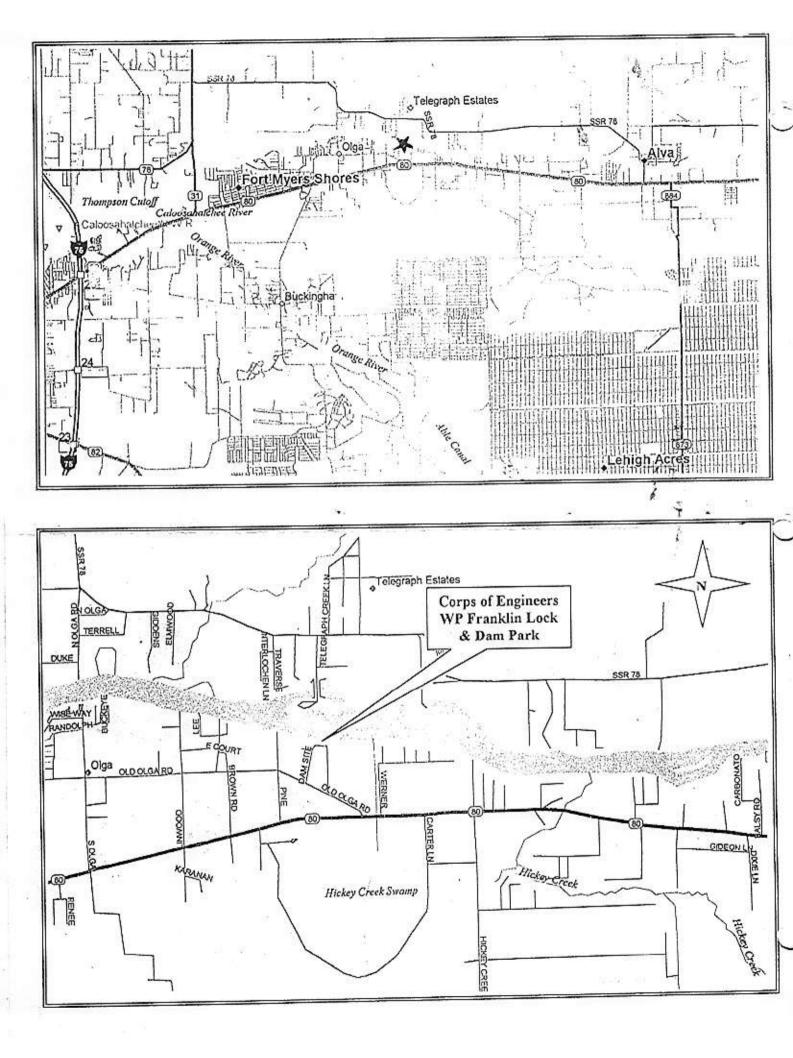
# Caloosahatchee Mothers Day Cruise Saturday May 9, 10:00 to 2:00 Oxbows & Riverlore

CRUISE LEAVES FROM THE FRANKLIN LOCKS OFF SR 80, INCLUDES LUNCH, AND WALKING TOUR THRU AN ORANGE GROVE-

ADVANCE TICKET PURCHASE REQUIRED \$28,00 PER PERSON
TO PURCHASE TICKETS CALL THE DELFINA MAR AT 332-3343
OR

SEND CHECKS TO: CRCA CRUISE, PO Box 1165 Ft. Myers, FL 33902

Sponsored by: the Caloosahatchee River Citizens Association, Florida Center for Environmental Studies at Florida Atlantic University, University of Florida, IFAS & South Florida Water Management District



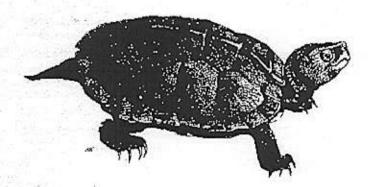
### More Science!

John Capece

CRCA welcomes to our region a new team of researchers assigned to work on issues of the Caloosahatchee River. The new group is from the Florida Center for Environmental Studies (CES). CES is the Florida Atlantic University center responsible for coordinating research and education programs between the South Florida Water Management District and the Florida state universities. CES, authorized and funded by the State of Florida Board of Regents, has formal agreements with the state university system, private universities, and other non-governmental organizations.

The CES-Caloosahatchee team consists of Dr. Ken Cummins, Dr. Peggy Wilzbach, Dr. Steve Bortone, Ms. Tomma Barnes, Mr. Robert Turpin, and Mr. Patrick Gostel. Mr. Gostel is the CES/SFWMD administrative coordinator responsible for building creative linkages to address regional research and education needs. Dr. Ken Cummins is an Eminent Scientist with SFWMD. The CES team is developing a research program on the Caloosahatchee River and its estuary system. Drs. Cummins, Wilzbach, and Bortone are lead scientists for the CES Caloosahatchee River oxbows research.

The new CES efforts will be closely coordinated and integrated with research being conducted by our other regional governmental agencies and universities. The addition of CES to our region represents a significant escalation of state attention to the Caloosahatchee. CRCA can take pride that its advocacy on behalf of the river contributed to the CES presence in our region.



### **Boat Traffic Surveys**

The Volunteer Scientific Research Team is assisting Mote Marine Lab in surveys of boat traffic on the Caloosahatchee River.

Volunteers are needed to help with this project, both with transportation and with the actual survey work. If you would like more information about the project, or would like to get involved, please call Susie Hassett at (941) 542-4987.



### Wonders of Wildlife Week

April 26th to May 3rd

Each year, the Lee Soil and Water Conservation
District encourages the public to share in a special
week of recognizing responsible personal stewardship
in caring for our soil, water and other natural
resources. We hope that the "Wonders of Wildlife"
theme will attract interest and that individuals and
families will take time to apply basic conservation
practices that will benefit the animals that are our
neighbors.

Backyard wildlife improvements can be as simple as placing a peanut butter filled pine cone in a tree for birds to a project as complicated as installing a wetland or small pond to attract wildlife. Our individual backyards may be small, but collectively, all the backyards in the United States cover 92 million acres — an area the size of California! Please join in on this week of celebration by accepting the opportunity and challenge to exercise your responsibility as a good steward by doing something to help make this world a better place for wildlife! For more information, please call the Lee Soil and Water Conservation District at (941) 995-5678.

### Welcome! New and Returning Members

New

Toni Ferrell Bob Sanford Returning

Addison Austin Anita & Mike Buff Dianna DeBoest Lillian Gerdes

Gulf Citrus Growers Association Ed Hanlon

Connie Holsinger Susan & Butch Jones Kitty Kern David Long Harold Maupin

Bill McGrath
Larry Price
Charlotte Schwartzel
Michael Simonik
Ellen & Bob Steele

Tommy Toms Hans Ulander Laura Wewerka Yoder Bros. Lois James \_ Fred Whitehouse

Richard Bashaw Herk Carroll Charles Foster Scott Grant Bill Hammond Peggy Hellenbach Tom Jacques Bill Joyce Robin Krizanek Linda & Dan Mattos Ann McCullough Pam and T.C. Porter Stuart Reynolds Joanne Schweinfurth Edie & Bob Slayton Donna Storter Chet Townsend Norm Uransky Hans Wilson Rita Zimmer

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Susan Beckman John Cassani Peggy Hellenbach Erick Linblad T.C. Porter

John Cassani and John Capece Susan Beckman Peggy Hellenbach Rob Andrys

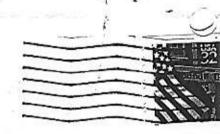


# RIVER

Citizens Association

P.O. Box 1165 Fort Myers, FL 33902





Rob Andrys 23031 Tuckahoe Road Alva, FL

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