Reintroduction of Whooping Cranes to Louisiana: Habitat Evaluation of White Lake.

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The Whooping Crane is North America’s largest bird and is arguably one of its most charismatic species. At one time, resident and/or migrant populations of the Whooping Crane occupied much of the southern United States. Due to overhunting and agricultural development, however, Whooping Crane numbers declined dramatically to only 21 birds in 1954. In spite of long odds, the wild population of Whooping Cranes has increased to about 235 birds as of March 2007. Thus, Whooping Cranes are truly becoming one of the great conservation success stories.
For the recovery to be deemed successful, the Whooping Crane Recovery Plan calls for the establishment of at least 3 breeding populations (including the wild flock) of at least 25 breeding pairs. Currently, efforts are underway to establish an Experimental, Non-Essential migratory population that breeds in Wisconsin and winters in Florida. An experiment with a resident population in Florida has been deemed unsuccessful. In January 2007, the Whooping Crane Recovery Team formally endorsed intensive studies of habitat suitability, disease risk to the wild population, and socioeconomics to determine whether or not Louisiana would be a suitable site for reintroduction of an Experimental Non-Essential population(s) of Whooping Cranes. Louisiana has a rich history in the story of the Whooping Crane, as it historically supported both resident and wintering populations (Allen 1952). In fact, southwestern Louisiana supported more Whooping Cranes than any other location. Allen (1952) roughly estimated that as many as 2,500 Whooping Cranes could have wintered in this region. E. A. McIlhenny reported that in the first half of 1880’s they were still abundant on prairies of Jeff Davis, Allen, Evangeline and Acadia Parishes (Allen 1952). As hunting pressure and rice agriculture increased throughout the late 1800s and early 1900s, however, the breeding birds (and wintering) were exterminated from the prairies. The last record of Whooping Cranes on Louisiana prairies occurred in 1918, when a farmer shot 12 of the birds that were feeding on rice near his thresher (Allen 1952).

Clearly, the most infamous location of Whooping Cranes in Louisiana is near White Lake in southwestern Louisiana (Gomez et al. 2005). This large paille-finne marsh was nearly inaccessible until the development of the intracoastal canal in 1929-1930. On May 15, 1939, John Lynch located 13 Whooping Cranes including 2 current year chicks. According to locals, this flock was at one time much larger and stretched nearly 19 km to Grand Lake, but over hunting and other human and natural causes led to a decline in the population (Allen 1952). A major hurricane decimated the population in 1940 and in March 1950 the last remaining Whooping Crane in the White Lake marshes was captured (Gomez 1992). This marked a temporary end of the Whooping Crane in Louisiana. Ironically, approximately 2 weeks before the WCRT meeting in January 2007, a Whooping Crane from the reintroduced migrant flock in Florida was located in southeast Louisiana, where it remained for nearly 2 months. This bird marked the first verified sighting of a Whooping Crane in Louisiana since 1950.

Whooping Cranes are an important part of the cultural and natural heritage of our state. This charismatic species could serve as an ambassador to other areas in the United States of Louisiana’s coastal wetland issues. The reintroduction of this species would also bring signs of hope and recovery following the devastating hurricanes of 2005. Furthermore, the potential for tourism revenues from Whooping Cranes would provide important income to the state of Louisiana. It is estimated that Whooping Crane-related activities contribute about $6 million annually to the local economy near Aransas National Wildlife Refuge (Tom
Stehn, Chair, Whooping Crane Recovery Team, personal communication) and Whooping Cranes would only add to a growing ecotourism economy in the region.

Reintroduction of Whooping Cranes in Louisiana, if it is indeed deemed suitable, will be a long-term and expensive commitment. As such, detailed information is needed to assess the risks and maximize the possibility of success. An analysis of migration patterns of Sandhill Cranes wintering in Louisiana is nearly completed and is providing important information related to the potential for interflock mixing and the identification of potential migration routes for Whooping Cranes to Louisiana (http://www.rnr.lsu.edu/King/Sandhill%20Crane%20Research.htm). An analysis of disease risk will be conducted by veterinarians to determine whether a reintroduction would put the wild flock at risk. Lastly, as habitats in coastal Louisiana have undergone significant changes in the last few decades (Barras et al. 2003), detailed habitat suitability studies must still be conducted prior to reintroduction; by identifying suitable habitat, the recovery team will be able to minimize risk and assure success to the extent it is possible for Whooping Crane re-introduction in Louisiana. The WCRT would like detailed evaluations of White Lake and Marsh Island as potential reintroduction sites for a resident and migrant flock of Whooping Cranes, respectively.

Specifically we will: 1) Assess food availability at White Lake; 2) Determine water depths and vegetation structure of ponds at White Lake and Marsh Island; and 3) Assess vegetation structure and density in non-pond areas at White Lake and Marsh Island. We will also conduct habitat surveys, albeit at a coarser scale at other areas in the region, including Rockefeller Refuge and Rainey Sanctuary. The timing of any
reintroduction would depend on the sites being deemed suitable by the Recovery Team. Furthermore, the success of other reintroduction efforts is also important. There are a limited number of financial and logistical resources available for reintroduction efforts, thus the success or failure of the Florida/Wisconsin migratory flock over the next few years and the availability of financial resources will affect the timing of activities in Louisiana if the sites are deemed suitable. In short, if the sites are suitable, it will likely be at least 5 years or longer before any reintroduction efforts are initiated.

Currently, we have secured a little less than half the funding needed for the study through a State Wildlife Grant and a private donation. A Ph.D. student at LSU began working on the White Lake evaluation in August 2007. Jeb Linscombe of LDWF is now stationed part time at White Lake and will spend some time assisting with this project. Field work will begin in late winter/early spring 2008.

Literature Cited

2007 Symposium: A Big Success
Mike Perot and Larry Reynolds, LAPB Board

The 2007 LAPB Fall Symposium was held on August 9 – 10 at the Estuarine Habitats and Coastal Fisheries Center in Lafayette. Nearly 100 scientists, managers, educators, and students met to discuss some of the leading topics in the world of natural resource management, renew old friendships and professional acquaintances, and make new ones. We heard 12 student presentations on recent research topics ranging from coastal wetland restoration to late season doe harvest to radio-telemetry of alligator snapping turtles. Five professional presentations related our natural resource management activities to large-scale ecological processes, and 15 posters competed for our inaugural Best Poster award. And let’s not forget about the wonderful rib-eye steaks prepared to order by Christian Winslow and Mike Perot at the Thursday night social at Abdalla Hall, where over 50 participants gathered for great food, fellowship, and award presentations.
Awards

The award for best student presentation was won by B. Thorpe Halloran, a doctoral candidate of Dr. Allen Rutherford in the School of Renewable Natural Resources at Louisiana State University, who did a simply outstanding job of conveying his research, "Examining the Effects of the Springtime Floodpulse on the Dynamics of Larval Fish Communities in the Atchafalaya River Basin" to an audience with diverse interests and expertise. He seems a natural for a University classroom. Great job, Thorpe!

An Outstanding Publication Award went to John F. Benson and Michael J. Chamberlain for their February, 2007 Journal of Wildlife Management paper titled “Space Use and Habitat Selection by Female Louisiana Black Bears in the Tensas River Basin of Louisiana”. Dr. Chamberlain has shown a knack for winning these awards recently.

The poster session at this year’s symposium included a cash-prize open competition for a “Best Poster” award. The judging was extremely close, with 4 posters getting first-place votes from the 5 judges. Hugo Gee, a doctoral student with Dr. Sammy King in the USGS Cooperative Wildlife Research Unit at the School of Renewable Natural Resources at LSU, won the award for his poster titled “The Influence of Altered Hydroperiods on Floodplain Forest Stand Dynamics”. Excellent work, Hugo, and to everyone who participated in the poster session! We are looking forward to an expanded and equally close competition next year.
**LAPB Business**

As usual, the Symposium provides one of 2 annual opportunities for members to get together and conduct the business of our Association. Some steps into the 21st century were taken as the Louisiana Association of Professional Biologists now has a website under construction. The Gulf Coast Joint Venture office in Lafayette has agreed to host our website, and Mark Parr, a GIS Analyst with that office has generously volunteered his time and expertise to help build it. The URL is [http://www.labiologist.org](http://www.labiologist.org) where web-surfers will be able to find our membership list, newsletters, and important information from our members. We envision the website as a place to communicate news, events, and opportunities for interaction among members. But we NEED your ideas and participation to keep it active, fresh, and useful. The Executive Committee is working on a mission statement (your input is welcome at any time), Mark is taking a stab at a Logo, and we would like to launch a monthly page spotlighting the work of individual members. Photos with a couple paragraphs of text would be published monthly along with a schedule of events of potential interest to members. These are our initial ideas …… Let’s hear yours.

An ad hoc committee presented a proposal for the LAPB Natural Resource Studies Scholarship. This $250 scholarship is available to graduating high school seniors who intend to work towards a degree in one of the Natural Resource disciplines at an accredited Louisiana university. Applicants must have an ACT score of 21 or better with minimum GPA of 2.5. They must be enrolled in a natural resource curriculum with letters of recommendation from 2 previous employers or teachers. The total scholarship will be $250 with payments in fall and spring semesters. Membership will make final approval. Look for more information about application after the spring business meeting at the Louisiana Wildlife Federation Convention.

We also decided to continue our supporting membership with the Louisiana Outdoor Writers Association (LOWA). We have sponsored “Excellence in Craft” awards and had representatives participate in LOWA’s annual convention in an attempt to build a relationship that will benefit both organizations including providing a good media outlet for LAPB.

Lastly, a few changes to the Fall Symposium were discussed, primarily focused at increasing professional participation including an open professional session rather than a focus topic and a professional presentation award along with the poster session. More discussion will be had at the spring business meeting and more information, ideas, and requests for your input will be coming in future newsletters and the website.
Louisiana Wildlife Federation News.

Paul Whitehead, LDWF

LWF had solicited questions related to environmental issues to be presented to the gubernatorial candidates. Several LAPB members responded with good questions. However, due to personal commitments, LWF Executive Director Randy Lanctot was unable to get the questionnaire out in a timely manner. He still plans to possibly use the questionnaire in order to get the Governor-Elect Jindal on record on these issues.

The LWF Board of Directors has formed a committee to investigate making recommendations to the Governor for appointments to the Louisiana Wildlife and Fisheries Commission and the position of Secretary of LDWF. Created by R.S. 56:1, the LWFC consists of six members appointed to 6 year terms, with one new member appointed each year. An additional member serves concurrently with the Governor. Three commissioners shall be electors from coastal parishes representing commercial fishing and fur industries. The other four serve at large and from other than commercial industries. All are subject to senate confirmation. No member of the legislature or state employee may serve. It is somewhat difficult to find qualified individuals willing to make a 6 year commitment. Also, in the past, there have been LWFC members who took an adversarial position to the LWF. If any LAPB member knows someone who they think would make a good Commissioner, the LWF would like to know about them.

Finally, in the last legislative session, HCR 265 created the Louisiana Recreational Freshwater Fishing Task Force. The full text can be seen at http://legis.state.la.us/billdata/streamdocument.asp?did=446880. It was passed out of the House by a vote of 97 to 0 (8 members absent) and adopted by the Senate by a vote of 34 to 0 (5 absent). The purpose of the LRFFTF is to advise the Department of Wildlife and Fisheries, the Wildlife and Fisheries Commission, and the Louisiana Legislature on matters pertaining to the management, development, and promotion of the freshwater recreational fishing industry in Louisiana. The LRFFTF is to be composed of twelve members appointed by the Secretary of LDWF. Seven of these are voting members, with one member each nominated by the Association of Louisiana Bass Clubs, the Louisiana Chapter of the Bass Angler Sportsman’s Society, The Bass Federation, the Crappie Tournament Trail, the Louisiana Wildlife Federation, the Louisiana Marine and Motorcycle Trade Association, and the tackle retail industry. Nonvoting members shall be a freshwater fisheries biologist, a freshwater fisheries scientist nominated by the University of Louisiana System, an enforcement agent from the LDWF, an economist from the LDWF, and an economist nominated by the University of Louisiana System. The nominee from LWF to serve on this task force is Jerald Horst. Jerald is a member of the LAPB and recently retired from the LSU AgCenter.
Longleaf Pine Ecosystem Initiative.

John Pitre, LAPB Treasurer

Historically in Louisiana, there may have been up to 7 million acres of longleaf pine ranging from western Ouachita and Caldwell Parishes west to Bienville Parish south to Winn, Grant, and northern Rapides Parishes. Once across the Red River alluvial valley in southern Natchitoches and Sabine Parishes, longleaf pine stands spread across Vernon, Beauregard, Calcasieu Parishes, and into portions of Jefferson Davis, Allen, Evangeline, and Rapides Parishes. Longleaf pine also occurred on the east side of the Mississippi River in eastern East Feliciana, East Baton Rouge, Livingston, St Helena, Tangipahoa, Washington, and St Tammany Parishes. Today, however, there are less than 250,000 acres of this forest type, the majority of which is located on Kisatchie National Forest. Loss of this habitat type can be attributed to agricultural conversion (mainly pature/hayland), urban development, lack of fire (which allows other tree and shrub species to invade), and conversion to other pine species. Though it was once thought loblolly and slash pines were easier to grow and would yield better wood products, research now shows with proper care and seedling handling, that longleaf pine survival, growth, resistance to disease, resistance to storm damage, and production of premium wood products is at least comparable to other pines on longleaf pine sites.

Historically, lightning fires and those set by Native Americans burned longleaf pine forests at least every two to four years. These unique stands thrived under this burning frequency which resulted in a park-like system with an overstory of pine, a scattered midstory of suppressed hardwoods, and a diverse grass-forb understory. This diverse, open grassland type understory within a forest benefited both grassland and forest wildlife species alike. White-tailed deer, Eastern wild turkey, and Northern bobwhite quail, are some of the game species that once thrived within this productive forest type. Many unique species such as the red-cockaded woodpecker, gopher tortoise, numerous grassland birds, and Louisiana pine snake also greatly benefit from the longleaf pine ecosystem. Because of the open, park-like atmosphere, and grassland type understory, this forest type can also be beneficial to livestock. When stocked and managed properly, livestock can enhance the habitat and co-exist with the endemic wildlife.

Because of the great benefits recognized by many, of the longleaf pine forest, there have been many opportunities for landowners to receive financial assistance (paying up to 75% cost-sharing) toward establishing or enhancing longleaf pine habitat. Because of a partnership between the National Wild Turkey Federation (NWTF), Louisiana Department of Wildlife and Fisheries (LDWF), and the USDA Natural Resources Conservation Service (NRCS), landowners in Louisiana who would like to establish longleaf pine trees and associated understory plants on historic longleaf pine soils now have a great opportunity. This opportunity is known as the Longleaf Pine Ecosystem Initiative. This Initiative provides up to 100% of the costs (up to a State-wide
average maximum) for site preparation, purchase of containerized seedlings, and planting of the seedlings. This Initiative also provides 75% of the cost of site preparation and establishment of adapted herbaceous understory plants associated with longleaf pine forests in Louisiana and prescribed burns to manage these stands. The cost share for tree establishment (in 2007) was provided by the NRCS Environmental Quality Incentives Program (EQIP), which pays 75% of the costs and the NWTF (through a grant from the Wildlife Conservation Society) addressed up to 25% of the remaining tree establishment costs. For the understory establishment and prescribed burning (in 2007), the NRCS Wildlife Habitat Incentives Program (WHIP) pays the 75% cost share. All three conservation organizations (NRCS, LDWF, and NWTF) will provide technical assistance and NRCS will also provide a conservation plan to all who enter into this Initiative.

Land is eligible as long as it is mapped as having soils which once supported and can support longleaf pine, and includes current cropland, hayland, pasture, or cutover forestland.

In 2007 the NWTF secured a grant to fund up to 500 acres for the Longleaf Pine Ecosystem Initiative in Louisiana, and within a week of sign-up, the entire allotment was obligated to Louisiana landowners. For 2008 the NWTF has applied for additional grant funding to address up to 1,000 acres. Interested landowners with eligible lands should contact the local NRCS Field Office or Wildlife Biologist for more information.

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The 2007 Louisiana Outdoor Writers Association (LOWA) Annual Conference was held in Shreveport, La. The Louisiana Association of Professional Biologists (LAPB) is a supporting member of LOWA, and the LAPB also cosponsored the 1st, 2nd, and 3rd place awards for the “Excellence in Craft” Competition for this year. LAPB members John Pitre and Marty Floyd participated on behalf of the organization.

A booth highlighting LAPB was also set up during the LOWA trade show, and a field demonstration of planting native grasses and forbs utilizing no-till drill technology, hosted by LAPB, was held for the outdoors writers. The professional relationship between LAPB and LOWA continues to grow and as this happens, the outdoor public becomes better informed to natural resource concerns, and the associated science-based solutions and alternatives.

Above: John Pitre (LAPB Treasurer) and Buck Vandersteen (LA Forestry Association) present Don Dubuc with the LOWA "Excellence in Craft" 1st Prize.

Left: John Pitre gives a presentation on grassland habitat to LOWA members.