

WHOOPING CRANES IN SOUTHWEST LOUISIANA

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Author's note: In October 1991 I attended the Sixth North American Crane Workshop in Regina, Saskatchewan, Canada, where I presented a paper on the history of Whooping Cranes in southwest Louisiana, along with a history of people's attitudes toward them. The topic was of interest to participants, for this corner of Louisiana was once part of the species' winter range and was until the mid-twentieth century the home of the United States' only resident Whooping Crane colony. Not surprisingly, the southwestern part of the state has been repeatedly suggested as a candidate site for Whooping Crane reintroduction. Much more than suitable habitat is necessary for a successful reintroduction, however, and my paper described some of the obstacles that surfaced when such a plan was proposed in 1977. Southwest Louisiana was considered again in the mid-1990s, but a different set of circumstances led to selection of a Florida wintering site for a new migratory flock of Whooping Cranes. This article revises and updates my original work presented in 1991. Historical sections of the article appear in *Proceedings, North American Crane Workshop* (Gomez 1992) and are included here with the permission of the North American Crane Working Group.

Introduction

Stretching westward from Vermilion Bay, the Chenier Plain region of southwest Louisiana once harbored wintering Whooping Cranes (*Grus americana*) as well as a nonmigratory population. Adjacent prairie terrace uplands also hosted wintering cranes. Whooping Cranes in these areas declined since the late 1880s as a result of hunting, increased human disturbance in formerly isolated marshes, and conversion of prairie habitat to rice cultivation (Allen 1952). Louisiana's last wild, nonmigratory Whooping Crane was captured in 1950 and transported to Aransas National Wildlife Refuge (NWR) in Texas, where it soon died (McNulty 1966).

Literary references to these birds include Olmsted's (1861) mention of an "immense white crane" on the Louisiana prairies during his journey through the South in 1854. Nelson (1929) reported on the status of wintering Whooping Cranes near Pecan Island, and McIlhenny (1938, 1943) described a sighting of

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4 resident birds flying west over Avery Island and speculated on reasons for the species' decline. Simmons' (1937) description of several nonmigratory cranes included a striking photograph, and both Allen (1950) and Van Pelt (1950) recounted the capture of the flock's last member. The main source of published information on the Whooping Crane's habitat, food, and nesting preferences in southwest Louisiana appears in Allen's (1952) monograph, a detailed research report on the species. Biologist John Lynch supplied much of the report's Louisiana data, which he gathered through personal observation as well as interviews with residents who remembered the cranes and their behavior. Lynch's family is currently organizing his records and has released some items for publication (Drewien et al., in press).

In the past 4 decades, Whooping Crane numbers have rebounded in response to a multifaceted effort to save the species from extinction. Reduced to a low of 16 birds in 1941/1942 (Doughty 1989), the wild Whooping Crane population that migrates annually between Wood Buffalo National Park in Canada's Northwest Territories and Aransas NWR on the Texas coast is now approaching 200, with a count of 187 recorded in winter/spring 2000 (Stehn 2000).

Increased crane numbers, along with concern about potential disasters that could decimate the Aransas/Wood Buffalo flock, have encouraged efforts to establish additional populations (Doughty 1989). In 1977, southwest Louisiana was suggested as a reintroduction site for a nonmigratory flock of Whooping Cranes (Allender and Archibald 1977), but the proposal generated strong opposition from a variety of individuals and agencies, including the Louisiana Department of Wildlife and Fisheries (LDWF). By the mid-1990s local and institutional attitudes had changed, and interest again surfaced in Louisiana's coastal wetlands, this time as a possible wintering site for migratory cranes (Whooping Crane Wintering Sites Study 1998). The Canada-United States Whooping Crane Recovery Team narrowed the choice to two sites, one in Louisiana and another in Florida, but its final decision favored the latter. Nevertheless, future reintroduction of the species in Louisiana remains a possibility.

This article illuminates the history of Whooping Cranes in southwest Louisiana, along with prospects for their return to the state's avifauna, by (1) describing the species' historic presence in southwest Louisiana and the responses of local people toward them, (2) examining reasons why the reintroduction proposals of 1977 and 1996 failed, and (3) assessing prospects for future reintroduction.

History

Former Range: Whooping Cranes historically used the marshes and ridges

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that comprise southwest Louisiana's Chenier Plain, as well as the uplands of the Pleistocene prairie terrace to its north. This portion of the crane's former range is located between latitudes 29.5° N and 30.5° N and longitudes 92° W and 94° W. Within this area, Whooping Cranes used 3 major habitats: tallgrass prairie, freshwater marsh, and brackish and salt marsh. These zones parallel the coast and extend from the prairie terrace uplands south to the Gulf of Mexico.

Tallgrass prairies, now converted to rice fields, characterized the upland areas. Prairie vegetation included big bluestem (*Andropogon gerardii*) and other bluestems, as well as a variety of bunch-grasses, wildflowers, and introduced species (Tharp 1952, Post 1990, U.S. Fish and Wildlife Service/U.S. Geological Survey 2000).

The Chenier Plain encompasses freshwater, intermediate, brackish, and salt marsh habitat. Emergent vegetation in freshwater and intermediate marshes includes maidencane or *paille fine* (*Panicum hemitomom*), bulltongue (*Sagittaria lancifolia*), giant bulrush or bullwhip (*Scirpus californicus*), and cattail (*Typha* sp.). Prominent grasses in brackish areas are marshhay cordgrass or wiregrass (*Spartina patens*), saltmarsh bulrush or leafy three-square (*Scirpus maritimus* [*S. robustus*]), and Olney bulrush or three-cornered grass (*Scirpus olneyi*). Grassy vegetation in salt marshes is predominantly smooth cordgrass or oyster grass (*Spartina alterniflora*) (Chabreck and Condrey 1979).

Bisecting the marsh are oak (*Quercus* sp.)-covered ridges, ancient beaches that rise to maximum elevations of approximately 3 meters above sea level. People have lived on these sand and shell ridges or "cheniers" since the early nineteenth century and have used the area for agriculture, cattle raising, hunting, trapping, fishing, and, more recently, oil and natural gas extraction (Gosselink et al. 1979, Gomez 1998).

Migratory and resident Whooping Cranes in southwest Louisiana favored different habitats. Migratory cranes wintered on the tallgrass prairies and in the brackish and salt marshes near the coast, while a resident flock nested in the isolated freshwater marsh north of White Lake in Vermilion Parish. Sawgrass (*Cladium jamaicense*) and deep marsh habitats were of lesser importance (Allen 1952).

Migratory Whooping Cranes: According to Allen (1952), large concentrations of Whooping Cranes wintered on the tallgrass prairies of southwest Louisiana. These prairies formerly comprised an estimated 720,000 hectares, with carrying capacity for about 2,500 cranes (Allen 1952)—a number larger than Allen's estimate of the entire population. The rapid growth of the rice industry during the late 1880s brought increasing pressure upon these birds, both from human encroachment and habitat loss. Further north, hunting along the migration route, coupled with expansion of human settlement into the crane's breeding areas in Canada and the northern United States, further reduced

the number of migratory cranes that reached Louisiana in winter (Allen 1952). The last record of Whooping Cranes on the Louisiana prairies occurred in 1918, when farmer Alcie Daigle shot 12 of the birds that were feeding on rice near his thresher north of Sweet Lake (Lynch 1947, Allen 1952).

Human encroachment also contributed to the Whooping Crane's decline south of the prairies, where smaller numbers of wintering cranes utilized the salt and brackish marshes until the early 1940s. Muskrats (*Ondatra zibethicus*) flourish in brackish marshes where three-cornered grass, their preferred food, is abundant (O'Neil 1949). Prices for muskrat pelts rose to more than \$1 each in the 1920s, luring thousands of trappers into the coastal wetlands. A network of trapping canals or "traînasses" improved access to muskrat marshes (Davis 1976), and as trapping and hunting activity increased, crane numbers steadily declined (Allen 1952).

Resident Whooping Cranes: The presence of Louisiana's resident flock was first revealed to the scientific community in May 1939 by U.S. Fish and Wildlife Service (USFWS) biologist John Lynch. Responding to a report of nesting activity among cranes in the remote marshes north of White Lake, Lynch's aerial survey discovered 13 Whooping Cranes, 2 of which were "young-of-the-year, about one-third grown" (Lynch 1984). Local people interviewed by Lynch indicated a previously "extensive" colony of the "grue blanche" centered in the freshwater marshes north of White Lake and stretching west about 19 kilometers to Grand Lake (Allen 1952).

These vast marshes of maidencane covered just over 16,000 hectares. Lynch described them as extensive low meadows with little or no tall vegetation but with nearly permanent surface water often averaging 12 to 20 centimeters deep. Maidencane and giant bulrush were apparently the preferred nesting materials for Whooping Cranes in the panicum marshes and in the adjacent and slightly higher prairie marsh and swale (Allen 1952).

Today, British Petroleum-AMOCO Production Company (BP-AMOCO) owns and manages approximately 26,000 hectares of this former crane marsh south of the Intracoastal Waterway, as well as 6,000 hectares of rice land to its north. The Florence Canal bisects the marsh, and to the canal's east the marsh is a virtually solid stand of maidencane. To the west, bulltongue has replaced sawgrass as the dominant vegetation, following a die-off of the latter species in the late 1950s. Limited waterfowl hunting occurs in these marshes, but BP-AMOCO restricts access and patrols the area for poachers (E. Abshire and W. Sweeney, AMOCO, pers. comm.). BP-AMOCO has announced its commitment to protecting the White Lake marshes through a conservation easement, and future wetland and wildlife management plans may be developed in partnership with the Nature Conservancy and other conservation organizations (BP-AMOCO press release 27 April 2000; D. McDowell, Louisiana Nature

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Conservancy, pers. comm.).

Both natural and human factors contributed to the decline of Whooping Cranes in the wetlands north of White Lake. In 1929-30, the Intracoastal Waterway sliced through the region, opening a path through previously inaccessible marshes. Hunting pressure likely increased. In 1936, for example, the *Louisiana Conservation Review* reported the accidental shooting of a White Lake crane "by a gentleman who mistook it for a goose" (Daigre 1936).

The 13 cranes present when Lynch surveyed the area in 1939 were scattered by a hurricane on 7 August 1940. The 1940 storm was 1 of 4 major hurricane-related flood events in Louisiana this century; others occurred in 1915, 1918, and 1957 (Louisiana Department of Transportation and Development 1986). Although maximum winds during the 1940 storm reached only 131 kilometers/hour, torrential rains of nearly 60 centimeters drenched the Gueydan area just north of White Lake (U.S. Department of Commerce, Weather Bureau 1940). According to Lynch, "flood water stood three and four feet deep over most of their [the cranes'] range from August until late October and never did drop down to normal until this summer [1941]" (Stevenson 1942). Lynch speculated that the dispersed cranes moved down the Texas coast or were driven onto nearby uplands where they fell victim to hunters.

Only 6 cranes returned to the White Lake marshes after the storm. Of the 7 lost birds, 6 were presumed shot, and 1 with a crippled wing was captured in a ricefield in Evangeline Parish in 1940. L. O. LaHaye of Eunice, Louisiana, presented this crane to New Orleans' Audubon Park Zoo in November 1941. Until her death in 1965, the famous "Josephine" distinguished herself as the only breeding female Whooping Crane in captivity (McNulty 1966).

The White Lake flock continued to decline by 1 bird each year until 1945, when 2 birds remained. By 1947, only a single crane survived. On 11 March 1950, a party that included Lynch and Allen chased the lone crane by helicopter and captured it. Named "Mac" in honor of the helicopter pilot, Louisiana's last wild Whooping Crane was taken to Aransas NWR, where it died 6 months later (McNulty 1966, Doughty 1989).

Local Attitudes: Several chenier residents now in their 80s and 90s remember Whooping Cranes on the ridges in fall (J. Daigle, C. Eagleson, C. Theriot, pers. comm.). These were likely migratory cranes that foraged in fields of corn and sweet potatoes and fed on live oak (*Quercus virginiana*) acorns to supplement marsh foods.

Residents from 6 Chenier Plain communities indicated that local people viewed Whooping Cranes primarily as a food source and a crop pest, yet they also felt an underlying admiration for the tall, white birds. Former Cameron Parish sheriff and rice farmer Claude Eagleson's recollections exemplify these perceptions and help explain why cranes were often shot by the local people: "It

was beautiful to see them up there in the sky, always 7 or 8 in a bunch, circling and crossing each other like people square dancing. You could hear them for a long way. They'd go down in the sweet potato patch and make a pest of themselves eating the sweet potatoes, so people would kill them. They were good to eat—better than a goose—and most people would eat them, like any other bird. There was a lot of meat to 'em: the neck gave you a pot full, and the gizzard was good too. We ate them mostly in gumbo. Remember, in those days, that's all people had to eat in this country was wildlife and what they raised. If you didn't eat from the land, you didn't eat." (Gomez 1992, 1998)

Proposed Reintroductions

In 1977, John Allender and George Archibald submitted a draft proposal for reestablishing resident Whooping Cranes in southwest Louisiana (Allender and Archibald 1977). After review the following year by the USFWS, Whooping Crane Recovery Team, Canadian Wildlife Service, and the Louisiana Wildlife and Fisheries Commission (LWLFC), the proposal was rated as very low priority and deferred indefinitely. USFWS Director Lynn Greenwalt (letter to G. Archibald, 10 April 1978) cited potential dangers from hurricanes, predators, and human activity in the coastal marshes, and USFWS Special Agent David Hall (letter to Audubon Park Zoological Garden, 13 April 1978) warned of a possible enforcement problem due to the Cajun people's traditional reliance on the marsh for consumptive activities, including the use of non-game birds for food.

Perhaps most influential was the strong opposition LWLFC expressed to the proposal. The commission's opposition was based on concerns that waterfowl hunting, muskrat and nutria trapping, cattle grazing, and marsh management programs would be impaired by designation of areas as critical habitat under the Endangered Species Act (J. B. Angelle, LWLFC, letter to G. Archibald, 14 March 1978; T. Joanen and A. Ensminger, LDWF [now retired], pers. comm.). Assurances to the contrary could not allay fears that Louisiana's snow goose hunting seasons would be affected as had those on Bosque del Apache NWR, New Mexico (Middle Rio Grande Valley Management Review Team 1984).

For more than a decade following the 1977 reintroduction proposal's failure, the perceived threats to traditional land use posed by the Endangered Species Act continued to stand between Whooping Cranes and the southwest Louisiana marshes. Ted Joanen, then Research Leader at LDWF's Rockefeller State Wildlife Refuge, expressed these concerns in 1991: "We *could* have cranes back in this [area], which would be beautiful. The habitat could support them, and the people would welcome them with open arms, provided they didn't have to *give up* anything. And you ask yourself, why *should* we give up? We have

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land use practices going on today which are good, and healthy, and I don't think we should give them up to bring in another species." (Gomez 1992)

Wetland landowners echoed Joanen's concerns. Many had experienced federal intervention in the form of permitting requirements imposed under Section 404 of the Clean Water Act, which regulates earth-moving activities in wetland areas (including activities designed to reduce saltwater intrusion and improve the health of the wetland). Resentful and frustrated by the time involved in the permitting process, they were understandably suspicious of crane reintroduction unless the effort came with a guarantee that current land use practices would not be affected (Gomez 1992, 1998).

And what of hunters, who in Louisiana accounted for 11% of reported Whooping Crane kills between 1885 and 1948 (Allen 1952)? Although residents no longer depend on a wide range of wildlife for subsistence, recreational hunting remains a popular and economically important activity (Gomez 1998). A combination of factors, however, has effected a noticeable change in hunter attitudes since the 1970s.

Declines in wildlife numbers, particularly ducks, brought about increasing awareness of the need to eliminate excessive kills in order to conserve the remaining resource. This heightened sense of responsibility, combined with hunter education programs, more effective enforcement, and stiff penalties for violators, has led to stricter adherence to wildlife laws in south Louisiana, to the benefit of both game and non-game species. Education has played an important role as well. As Ted Joanen remarked in 1991, "you're dealing with a different person now. He's educated, he's taught in school to conserve, he's taught about the environment. The old slob hunter, the old market hunter—he's gone, he's in the graveyard." (Gomez 1992)

Violations still occur, of course, though game law enforcement officers report that the offenses tend to be fewer and of lesser magnitude than those of previous decades. Several chenier residents, however, add a note of caution. Although hunter attitudes have changed significantly, there are "still a few" who are "liable to shoot anything." (Gomez 1992)

While the threat of illegal hunting will remain wherever Whooping Cranes and hunters coexist, agency and landowner concerns about land use restrictions have softened somewhat since the early 1990s. This has occurred in response to the USFWS's occasional practice of designating introduced populations of endangered species as "experimental/non-essential" if they are wholly separate from existing non-experimental populations of the same species. The experimental designation has proved a useful tool for enabling releases in areas where human land use issues are prominent and conflict likely. This designation relaxes some of the restrictions on land use, making them equivalent to the requirements for a threatened rather than an endangered species.