Whooping Cranes Are Back in Louisiana

Sara Zimorski has a Bachelor's degree in Biology from the University of Virginia. She began her career working with Whooping Cranes as an intern at the International Crane Foundation in 1999. While there, she ran the breeding program for the captive flock of cranes in addition to working on the eastern migratory Whooping Crane reintroduction project. In 2011, she moved to Louisiana to lead the Whooping Crane reintroduction project beginning there. Eva Szyszkoski has a Bachelor's degree in Biological Sciences from Michigan Technological University. She began working with Whooping Cranes starting as an intern with the U.S. Fish and Wildlife Service and the International Crane Foundation in Wisconsin in 2007, and has been working on the Louisiana project since June 2015.

Historically, a non-migratory population of the federally endangered Whooping Crane was present in Louisiana. They were located in the freshwater marshes of what is now known as the White Lake Wetlands Conservation Area (WLWCA), a 70,000 acre property owned and managed by the Louisiana Department of Wildlife and Fisheries (LDWF). The species was last known to nest in Louisiana in 1939, but in the following years the already small population declined until only a single crane remained in 1947. In 1950, that last bird was caught and released in Texas with other Whooping Cranes and

the species remained absent from Louisiana until 2011

when LDWF along with the U.S. Fish and Wildlife

Service and other partners began a reintroduction program.

The goal of the Louisiana Whooping Crane reintroduction project is to establish a self-sustaining population in southwest Louisiana. This project is part of the overall recovery plan to create additional populations, separate from the remnant population that survived nearly going extinct in the 1940s.

Beginning in early 2011 and through December 2015, 75 juvenile cranes

(32 males, 43 females) have been transferred to Louisiana from the Patuxent Wildlife Research Center, a captive breeding center located in Laurel, Maryland. The chicks ranged in age from 5–8.5 months old and arrived in six separate cohorts. Each cohort was initially placed in a netted section of the 1.5 acre release pen that had been constructed in the WLWCA marsh. While they are still penned, the cranes are banded with their permanent colored leg bands and transmitters. Using a combination of colors, we are able to create a unique ID for each crane while the transmitters provide us with data on their location and movement once they are released several weeks later.

We have deployed 55 22g Solar Argos/GPS PTTs that are programmed to collect three GPS points each day morning, late afternoon, and an overnight roost point with the data being transmitted through Argos every second day. In 2014 and 2015, we deployed 11 25g GPS/ GSM transmitters to test their functionality in our study area. In order to ensure we could still locate the birds if the GSM transmitters didn't work well, each juvenile that received one also received a VHF transmitter. Although the GSM transmitters work well while the juveniles remain in and around the release pen, we have discovered that other areas of the White Lake marsh are too distant from cellular towers and the transmitters are unable to relay collected data until after the cranes leave the marsh and move to other areas with GSM coverage. We will continue to use some GSM transmitters on new juveniles but are also deploying them more strategically on older birds which have established territories in agricultural settings where the transmitters are almost always within range of a cellular tower.

Although loss of wetlands and conversion to agriculture was one of the main reasons Whooping Cranes disappeared across North America, we are finding that many of the

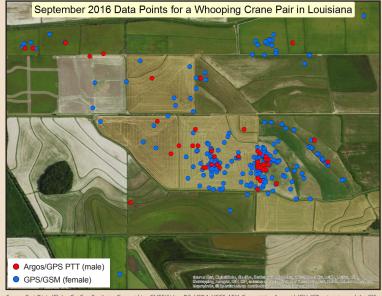
Louisiana cranes leave the marsh and use rice and crawfish fields, which are essentially managed as a shallow wetland — their preferred habitat. The PTT and GSM transmitters have allowed us to document the cranes travelling around the state, spending time in 25 of the 64 parishes in Louisiana. Additionally, we have documented them travelling into the neighboring states of Arkansas, Mississippi, and Texas with a small number spending the spring and summer in Texas before returning to Louisiana in the fall.

Whooping Cranes are slow to mature and typically do not begin breeding until they are 3–5 years old. In 2013, a pair consisting of a 3-year-old male and a 2-year-old female built two nest platforms but did not produce eggs. The following year, a pair of 3-year-olds produced eggs in Louisiana, in the wild, for the first time since 1939! Unfortunately, the eggs did not hatch and were later determined to be infertile. The number of nesting attempts increased in the following two years, and in 2016 a 4-year-old female and 3-year-old male, nesting for the

first time, hatched two chicks! One chick disappeared after one month (which is not unusual) but the remaining chick survived, fledged, and remains with its parents. The male of this pair carries his original PTT while the female was given a GSM transmitter in November 2015 after her original PTT stopped transmitting. In September of this year, we received 267 GPS points from the female's GSM transmitter compared to 56 (of a maximum 88) points from the male's PTT. Since Whooping Crane pairs very rarely spend time apart, this provided us with a nice comparison of the two transmitters (see map). To get more information about the Louisiana Whooping Crane project, follow us on Facebook at https://www.facebook.com/lawhoopingcranes or visit the Department's website at www.wlf.louisiana.gov/wildlife/whooping-cranes



Newly banded juvenile Whooping Cranes remain in the netted portion of the release pen prior to being released at the White Lake Wetlands Conservation Area in December 2012.



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Comparison of data points received from different transmitters attached to a breeding pair of Whooping Cranes in Jefferson Davis Parish, Louisiana.