EASTERN CRANE BULLETIN

March 2023

The Eastern Crane E-bulletin covers news about the Eastern Populations of Sandhill and Whooping Cranes, as well as general information about cranes and the continuing work for the protection of these birds and their habitats.

Marking Cranes

Editor:
*What purpose do the brightly colored bands, or "rings," USFWS silver bands, and telemetry on the legs of Sandhills and Whooping cranes serve? Who attaches this hardware and what information is learned from these bits of color and wire? The material included in this issue of the bulletin is not a comprehensive review of banding and is intended only to give some insight into the breadth of research and the methods used to learn more about the two species of North American cranes – Sandhill Crane (*Antigone canadensis*) and the federally endangered Whooping Crane (*Grus americana*).*

For over half a century, scientists and laypeople have spent hours in the field; formed cross-border partnerships between Canada and the United States; and reintroduced four experimental populations of Whooping Cranes (Rocky Mountain population/Grays Lake NWR, Idaho, Florida Non-migratory Population, Eastern Migratory Population and Louisiana Non-migratory Population) – with all the logistics that that entailed, from early use of planes to various tracking technologies perfected over time.

Banding and telemetry give information about movement between breeding and wintering grounds, the habitat used by the cranes along migratory routes and stopovers, reproductive success (of a species with a low recruitment rate), and mortality in the different age groups – from powerline strikes, hunting and predation on both breeding and wintering grounds.

***Note**: The scientific name for Sandhill Crane is now* Antigone canadensis*. Excerpts from older sources may still include references to the previous name,* Grus canadensis*.*

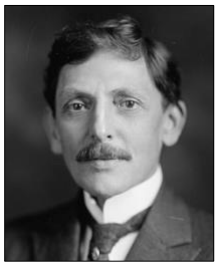
Communicating across the ages and miles

Since ancient times, humans have used birds to carry messages. The earliest records go back to at least 254 BCE, and include pigeons carrying messages tied to their legs, color-marked swallows carrying news of battle victories, and falcons with silver "tablets" fastened to legs and inscribed with the owner's name (so if caught the bird could be returned), a color-marked bluebird that returned ten successive years to the same nest box, and ducks and swans fitted with inscribed metal collars.

The use of metal bird bands dates to at least the sixteenth century. One account of a Common Heron, caught in 1728, sported a silver band on its leg with the engraved name of Duke Ferdinand – an indication that the bird had been banded in 1669 or before and had carried the band for over 60 years.

In the United States, painter and naturalist John James Audubon may have been the first bird bander. About 1803, while living along Perkiomen Creek, near Philadelphia, Pennsylvania, he wrote of a nest of young Phoebes: "When they were about to leave the nest, I fixed a light silver thread to the leg of each, loose enough not to hurt the part, but so fastened that no exertions of theirs could remove it. At the next year's season when the Pewee returns to Pennsylvania, I had the satisfaction to observe those in the cave and about it. Having caught several of these birds on the nest, I had the pleasure of finding two of them had the little ring on the leg." [Wood, 1945]

Leon J. Cole introduced the idea of scientific, systematic bird banding to America. In an address before the meeting of the Michigan Academy of Science in March 1901, he raised the possibility of such an undertaking, using the example of the United States Fish Commission following the movements of fish by using numbered tags fastened to individuals that had been caught and let go again. “It is possible such a plan might be used in following the movements of individual birds, if someway could be devised of numbering them which would not interfere with the bird in any way and would still be conspicuous enough to attract the attention of any person who might chance to shoot or capture it.” Then, at the Cambridge meeting of the American Ornithologists' Union, 18 November 18, 1908, Cole presented a paper entitled "The Tagging of Wild Birds as a Means of Studying their Movements.”



In June 1902, Dr. Paul Bartsch of the Smithsonian Institution visited colonies of Black-crowned Night Herons near Washington and banded 23 with bands inscribed "Return to Smithsonian Institution" with the year and a number. He obtained a report of one of these herons shot 24 September 1902, at Abington, Maryland, 55 miles from the place of banding. Then from 75 other herons banded in 1903 came a report of one found dead in Cuba in 1905 – the first long-distance record of a bird banded in America. This work by Bartsch made him the first person in North America to systematically band birds for scientific research.

Canadian P. A. Taverner was the person who initiated the distribution of bird bands, by furnishing some 200 hand-made aluminum bands to his correspondents. At a meeting of the Michigan Ornithological Club at Ann Arbor on 2 April 1904, Taverner proposed his plan to attach aluminum bands to the legs of birds "with the hopes that they might be found by ornithologists.” Taverner had a vision of the scientific advantages of banding in that, as he said, "exact data on the ages of different plumages, length of life of birds, individual routes of migration and the distances travelled by individuals, are but some of the problems that must be attacked," and he offered to supply the bands. His bands were marked: "Notify the Auk, N. Y." with a serial number. From these bands came the second long-distance record – a young Flicker banded 29 May 1905, at Keota, Iowa, recovered on 25 December 1905, in Sabine County, Louisiana. (Wood, 1945)

Wood, Harold B. 1945, THE HISTORY OF BIRD BANDING. Auk, Volume 62. Issue 2 (April-June)
For a full text PDF, go here: https://sora.unm.edu/node/18869
https://sora.unm.edu/sites/default/files/journals/auk/v062n02/p0256-p0265.pdf

Federal permits required – gives the power to band or not to band

The following information is from the U.S. Geological Survey (USGS) Bird Banding Laboratory (BBL) at the Patuxent Wildlife Research Center. Since 1920, the BBL has been a scientific program responsible

for the "…collection, archiving, management and dissemination of information from banded and marked birds in North America." Learn more here: https://www.usgs.gov/centers/pwrc/science/why-do-we-band-birds/

A Federal Bird Banding and Marking Permit is required by the Bird Banding Laboratory (BBL) whenever someone wants to place a bird band or any type of marker on a wild bird protected by the Migratory Bird Treaty Act or on a Federally-protected bird that will be released into the wild.

To minimize the effects of banding birds and the costs of processing banding data, the use of bands and/or markers should be limited to well-designed projects that will improve our understanding of birds. Banders should ensure that the use of bands and/or markers will allow them to address the objectives of their studies. They should carefully select the most appropriate methods to capture, band, and/or mark birds, recognizing that the welfare of the birds should be the most important priority. Another consideration is whether banding birds is necessary for a project or whether temporary markers such as a drop of dye or trimmed feather tips may serve their purposes equally as well. A federal bird banding and marking permit and auxiliary marking authorization is still required for the use of temporary markers.

Bird banding data helps biologists understand dispersal, migration, longevity, behavior, productivity, and more. In addition, a telemetry unit permit is most often associated with a large-scale research project that has substantial funding and partner agencies. Tracking a bird with telemetry varies depending on the type of unit – a UHF unit that can be monitored using a handheld antenna – a telemetry unit that utilizes satellite technology, or a GPS-GSM telemetry system where data points are downloaded when the unit has cellular signal.

Banded Whooping Cranes observed in Kansas. Photo courtesy of United States Geological Survey (USGS)

.

BANDING: Aransas-Wood Buffalo Population WHOOPERS

What is learned on the breeding grounds

Flightless young Whooping Cranes were captured and marked with colored plastic leg bands in WBNP from 1977 through 1988. Banding Whooping Cranes in Wood Buffalo National Park (WBNP) was halted after 1988, since much information had already been obtained and the objectives of the original banding

program had been met. Also, capturing the chicks can cause some mortality. Over the 12 years of the banding program, 134 birds were captured, and 2 chicks died. As of winter, 2004-2005, 25 of the 217 birds in the AWBP were still individually identifiable by their bands.

This marking program provided a wealth of information on Whooping Crane biology, including the summering locations of subadults, the dynamics and habitat use of wintering subadult flocks, age specific survivorship, the age of initial pairing and breeding, juvenile and adult philopatry and the identification of stopover sites, and wintering and breeding territories used by specific pairs. Other information gained from the banding studies included the ability to develop a studbook on a large segment of the wild population, tracing the reproductive histories of many of the birds including mate switches and probable deaths. These data provide valuable insight into the relatedness and genetic diversity of the wild flock and may be of assistance in evaluating potential inbreeding effects in the future.

> *During the summer of 1978 seven of nine Whooping Crane banded as juveniles in 1977 were sighted. The birds were observed in a 14 km by 5 km area between the Sass and Klewi rivers near the principal Whooping Crane nesting range. The habitat utilized by the yearlings is an area where I have frequently seen Whoopers but where I have found only two or three nests from 1969-1970. Now we know what we have long suspected that this area is chiefly used by non-breeding birds, and the summer location of yearling Whoopers is a secret no longer.* (Kuyt, 1979)

Radiotelemetry techniques were first tested on cross-fostered Whooping Cranes in the Rocky Mountain Population (RMP). Beginning in 1979, flightless young were captured and marked with plastic leg bands to which miniature radio transmitters were attached. Local movements of the radio-tagged birds were monitored on summering and wintering areas, and several individuals were followed during their fall migration between Grays Lake NWR in southeastern Idaho and Monte Vista NWR in south-central Colorado. No adverse effects were noted from capturing, banding, and radio-tagging young Whooping Cranes. (USFWS, 2007)

Family unit of Whooping Cranes migrating; juvenile with cinnamon coloration on head and neck. Photo by Kevin Sims, 2015.

Migration Monitoring

Based on these preliminary studies, a cooperative U.S. Fish and Wildlife Service (USFWS) – Canadian Wildlife Service (CWS) – National Audubon Society (NAS) radio tracking program was initiated for birds in the Aransas Wood Buffalo Population (AWBP) to determine various aspects of migration ecology, including habitat characteristics, behavior, and sources of mortality. During each summer 1981-1983, small solar-powered transmitters were placed on several pre-fledged Whooping Cranes captured during the color-banding operation in WBNP. Data were obtained on 3 southbound and 2 northbound migrations. Most information involved the individuals or family groups being followed, but data also were accumulated on other migrating Whooping Cranes encountered during the project.

This successful tracking project resulted in important information concerning migration routes, migration timing, flight methods and speed, stopover locations and staging areas, habitat use, social behavior,

activity budgets, predator/disturbance reactions, and sources of mortality. Perhaps the most important result obtained from this tracking project has been documenting mortalities on the breeding grounds (wolf predation) during migration (power line collisions), and on the wintering grounds (predation and disease). Similar valuable information has been acquired on migration and behavior of Whooping Cranes in the RMP and the Eastern Migratory Population (EMP). (USFWS, 2007)

A peek behind the curtain at Whooper behavior

Color-banding of Whooping Cranes (*Grus americana*) has allowed individual recognition of >45% of the population between 1985 and 1990 and has provided the opportunity to monitor individual movements and behaviors. Unusual occurrences have included: 5 Whooping Crane juveniles that separated from their parents prior to reaching the wintering grounds, a Sandhill Crane (*G. canadensis*) juvenile wintering with a Whooping Crane pair, Whooping Cranes that over-summered at Aransas, a widowed crane that paired with a new mate within 48 hours, 2 cranes that did not reach the wintering grounds until 3 years of age, a known nesting pair that spent much of the winter apart but nested together again the following summer, 2 juveniles that were abandoned at the beginning of or during spring migration, and a Whooping Crane that left the wintering area in January but returned in March. (Stehn, 1992)

Bands of differing color combinations were placed on Whooping Crane juveniles prior to fledging in Wood Buffalo National Park as part of a cooperative Canadian Wildlife Service and U.S. Fish and Wildlife Service program. Color-band notation is derived from E. Kuyt and J.P. Goossen (1987). Bands are read left leg to right leg, and from top to bottom on each leg; letters indicate common colors and letter size indicates band size. The hatch year of the banded crane follows in parenthesis. Bands were identified on the wintering grounds from airplanes by making 1 or more passes at approximately 15-20 m altitude. (Stehn, 1992)

For a 1977-1985 list of color banded Aransas-Wood Buffalo population of Whooping Cranes and corresponding years, go here:
https://ecos.fws.gov/ServCat/DownloadFile/1914?Reference=1914

Banded in Canada as chicks and wintering at Aransas NWR as juveniles to 8-year-olds.
Table 1. Banding record for Whooping Cranes of the Aransas-Wood Buffalo flock (1977-85), TS000395 – sTS000396

Table 2. Territory Names with Color Banded Cranes, TS000397-TS000398 (Stehn, 1985)

The Whooping Crane Tracking Partnership

"The Whooping Crane Tracking Partnership (WCTP) is composed of members from the U.S. Geological Survey, U.S. Fish and Wildlife Service, Canadian Wildlife Service, Platte River Recovery Implementation Program, and Crane Trust, with support from Parks Canada, Gulf Coast Bird Observatory, and International Crane Foundation. The team began banding and attaching Platform Transmitting Terminals with Global Positioning System capabilities (GPS-PTTs) to a total of 68 Whooping Cranes beginning in 2009 and completed the banding and GPS-PTT portion of the study in winter 2013 (Whooping Crane Tracking Partnership 2014). Thirty-three chicks were fitted with bands and GPS transmitters during late summer, and 35 adults and sub-adults were captured via noose traps and fitted with the equipment at Aransas NWR during winter. The primary objective of the multi-year project involves increasing our knowledge of the breeding, migratory, and wintering ecology, as well as completing a population health assessment and identifying threats to survival and demographics. The data collected will enable researchers to examine individual, group, and family movements across the entire range of the AWBP. This project was to continue until 2019." (Smith, 2019)

Ten juvenile Whooping Cranes were trapped and fitted with solar-powered Cellular Tracking Platforms (CTPs) in Wood Buffalo National Park in summer 2017. In January 2018, U.S. Fish and Wildlife Service and U.S. Geological Survey biologists trapped and banded 7 more birds on their wintering grounds at Aransas National Wildlife Refuge. Key partners on the project include the U.S. Geological Service (Northern Prairie Wildlife Research Center), Canadian Wildlife Service, and Parks Canada, with veterinary assistance from the Dallas Zoo and the International Crane Foundation.

When the crane is captured, biologists place a CTP on one leg and a unique combination of 3 colored bands on its other leg. A wildlife veterinarian then checks the heart rate, measures the wing chord (length of the wing), and weighs the bird. DNA (saliva) and blood samples are also taken to measure stress hormones, potential contaminants, and to sex the bird. All that information is recorded, along with the bird's CTP number and color band combination, so that it can be identified from a distance. CTPs collect precise location data every half-hour, so 48 data points are collected each day. When the bird is within range of a cellular tower, location data points are transmitted to biologists. https://usfws.medium.com/can-you-track-me-now-6397ae7f9f22

(Far right) Whooper sporting CTP on right leg and color bands on left.(Middle) Cell tower. (Immediate right) CTP on WHCR leg.



Telemetry indicates most mortality does not occur during migration

The migration corridor encompasses a long, narrow portion of the central region of North America. Earlier assessments identified most mortality as occurring during the seven weeks spent migrating to and from breeding and wintering grounds. However, results from birds marked with satellite telemetry transmitters, providing evidence less biased by season, indicate more mortality occurs in winter (~45%) and summer (~40%) than during migration (~15%) Habitat availability along the migration corridor does not appear to be limiting recovery. However, the potential for power line collisions if the lines are sited where Whooping Cranes are on the ground during migration is a serious concern. The potential avoidance of areas caused by energy development infrastructure needs to be closely monitored. (Smith, 2019)

.....

What band data shows for one Whooping Crane – "RwR-B"

The Aransas Wood Buffalo Population (AWBP) Whooping Crane color-banding program was conducted between 1977 and 1988 so most of those cranes now have bands that are difficult to identify because they're faded, broken, or missing. Through data provided by observations, biologists were able to track color banded Whooping Crane, "RwR-B," from 1978-2000. The crane was banded as a chick at Wood Buffalo National Park prior to fledging. All bands were made of plastic and placed above the bird's knee (tibio-tarsus joint). RwR means red-white-red: the bird had a 3-inch-wide red band with white horizontal stripe in the middle on its left leg. The letter B meant the bird also had a 3-inch-wide blue band on its right leg. However, now the only band remaining on this bird is a silver USFWS band on the right ankle. The list runs through the migration route between Wood Buffalo National Park, Alberta, Saskatchewan, Montana, Kansas, North Dakota, South Dakota, Nebraska, Oklahoma, Texas, to the wintering at Aransas National Wildlife Refuge, Texas. – Wally Jobman, *Retired, USFWS in Nebraska*

https://journeynorth.org/tm/crane/BandedCraneAnalysis.html
For the 1978-2000 list of dates and locations of Whooping Crane "RwR-B," go here:
https://journeynorth.org/tm/crane/BandDataRwRB.html

Referenced material:

Kuyt, Ernie, 1979. "BANDING OF JUVENILE WHOOPING CRANES ON THE BREEDING RANGE IN THE NORTHWEST TERRITORIES, CANADA"
North American Bird Bander January - March 1979, Vol.4, No. 1, pp 24-25
https://sora.unm.edu/sites/default/files/journals/nabb/v004n01/p0024-p0025.pdf

Smith, Elizabeth H., 2019. IUCN SSC Crane Specialist Group – Crane Conservation Strategy Species REVIEW: WHOOPING CRANE (*Grus americana*) 223- 243. Mirande CM, Harris JT editors, 2019
https://savingcranes.org/wp-content/uploads/2022/05/crane_conservation_strategy_whooping_crane.pdf
Stehn, Tom, 1985. "WHOOPING CRANES DURING THE 1985-1986 WINTER"
https://ecos.fws.gov/ServCat/DownloadFile/1914?Reference=1914

Stehn, Thomas V., 1992. "UNUSUAL MOVEMENTS AND BEHAVIORS OF COLOR-BANDED WHOOPING CRANES DURING WINTER" (1992). Proceedings of the North American Crane Workshop
http://digitalcommons.unl.edu/nacwgproc/285
https://core.ac.uk/reader/33140760

USFWS INTERNATIONAL RECOVERY PLAN, WHOOPING CRANE RECOVERY PLAN (*Grus americana*) Third Revision/ March 2007; Color Banding, Appendix C-5
https://www.nrc.gov/docs/ML1118/ML111880004.pdf

.....

BANDING: Eastern Migratory Population (EMP) of WHOOPING CRANES

So many cranes – color coding as IDs

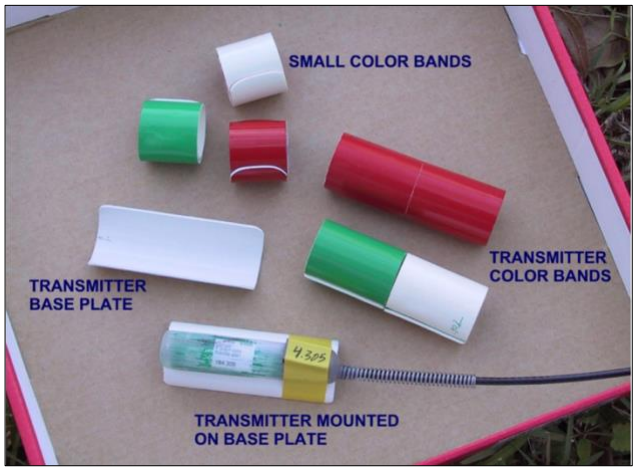
A reintroduction of Whooping Cranes (*Grus americana*) migrating between Wisconsin and the southeastern U.S. was initiated in 2001. A color-band system to uniquely identify individuals was necessary for monitoring and evaluation of that population. The system provided 336 individual unduplicated color combinations consisting of 3 base and 1 additional color on plastic bands. The band combination on 1 leg carried a VHF transmitter and provided additional information on hatch year. Bands on the other leg were either small bands that were part of a permanent code or they were temporary and supported a remotely monitored (satellite or cellular) transmitter. Through 2017 the system has fully accommodated the identification and tracking requirements needed for the reintroduction and could continue to be used for a consistent method of identification in the future. (Urbanek, 2018; see Science News below for link to full text)

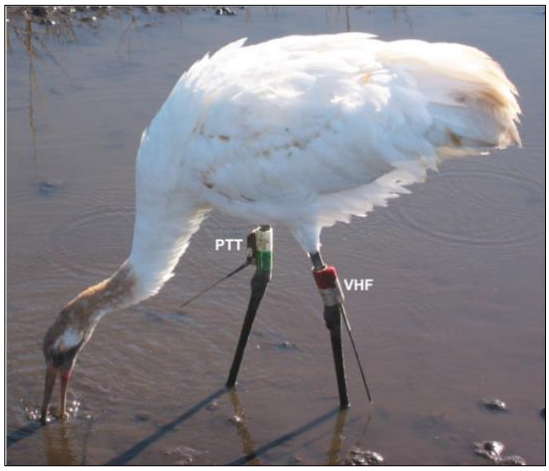
W1 or W2-20 being fit with telemetry on 15 June 2020, Juneau County, WI. Photo by Janin Lee.

Examples of the 4 series types in the color-code identification system of the reintroduced Eastern Migratory Population of Whooping Cranes are L = long (transmitter) bands, G = green, W = white, R = red, B = black, REM = remotely tracked transmitter (satellite or cellular); other transmitters on long (L) bands are VHF. There are 372 or 336 color codes including or excluding duplicate codes, respectively, in this 4-color system. (Urbanek, 2018, Appendix A.)

All chicks are identified by leg bands. All have radio telemetry attached to a green/white band on the left leg above the hock and a metal USFW band on the right leg below the hock. Each crane's individual color bands are also on the right leg, above the hock. The banding color codes by each crane below can help trackers (or any observer) identify the cranes. Read the colored bands on the right legs from top to bottom.

For banding codes and background stories of the Whooping Cranes in the reintroduced population – from 2001-2016, go here: https://journeynorth.org/tm/crane/01BandingCodes.html





[Figure information and images are from Urbanek, 2018]
Figure 1. (Above left) Components of color band identification system used on reintroduced Whooping Cranes in the Eastern Migratory Population. The transmitter manufacturer mounted the transmitter unit on the base plate. The bands were cemented closed and the transmitter (mounted on the base plate) was cemented onto long bands during banding in the field. Color bands and base plates were fabricated by the author.

Figure 2. (Above right) Whooping Crane [#3-04] identified by color-coded long bands used for transmitter attachment in the reintroduced Eastern Migratory Population. The left leg has red over white (R/W) long bands with attached VHF transmitter. The right leg has white over green (W/G) long bands with attached remote transmitter, in this case a PTT (platform transmitting terminal). Photo by Sara Zimorski.

.....

BANDING: Non-migratory population of Louisiana WHOOPERS

"Non-migratory" cranes – they too move around!

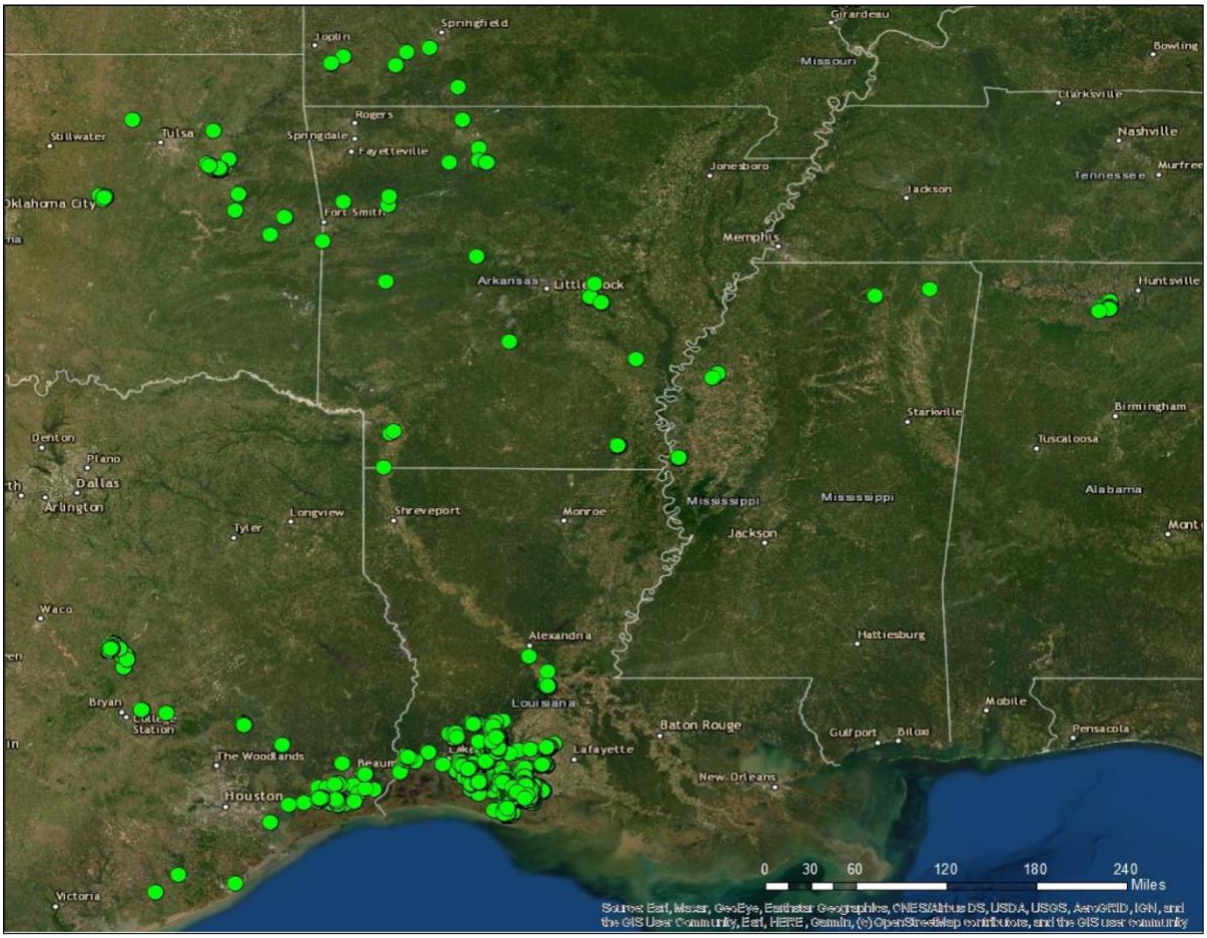
Juvenile Whooping Crane with yellow over blue (BR) and VHF transmitter on the left leg and red over blue over yellow (BYR) on the right leg.

2010 beginnings

The southwest corner of Louisiana was once part of this species winter range and was until the mid-twentieth century the home of the United States' only resident Whooping Crane population. Therefore, it was not a surprise when this portion of Louisiana was proposed as a site for Whooping Crane reintroduction. In 2010, the Louisiana Department of Wildlife and Fisheries determined that the reintroduction of Whooping Cranes was a critical priority for the state. Subsequently, a State Wildlife Grant was funded to begin reintroduction efforts at the White Lake Wetlands Conservation Area (WCA).

Starting in February 2011 with the transfer and release of ten captive-reared juvenile Whooping Cranes to begin a resident flock, Louisiana once again became home, at least during part of the year (i.e., the Sandhill Crane population is migratory), to both species of North American cranes. Whooping Cranes had been absent from the state since 1950 but in just two short years there are already more Whooping Cranes living in the state than the total that were alive in 1942. Progress is being made but the road to recovery is long and slow and the effort to restore the Whooping Crane to Louisiana has just begun.

Each new cohort of birds is initially held in the top-netted pen for several weeks to allow them to acclimate to their new environment This gives project staff a chance to place the permanent bands and transmitters on the birds and ensure the birds adjust to these as well. [Whooping Cranes in the Louisiana reintroduction use the same system as is used for the Eastern Migratory Population but with base codes of yellow, blue, and red and with black as an additional color.]



Location data collected from remote transmitters of reintroduced Whooping Cranes, 1 July 2020 – 30 June 2021. (Figure 1) 2020-2021 Louisiana Whooping Crane Report, Louisiana Department of Wildlife and Fisheries

GPS satellite transmitters are attached to the leg of each Whooping Crane and are used to monitor their movements and locations as well as help document mortality. A slightly smaller transmitter was used starting with the second cohort of cranes and the programming was adjusted for download of data every second day instead of every third day. This change has facilitated quicker investigation and recovery of dead birds when mortality events have occurred. Additionally, starting with the 2011 cohort of cranes, approximately half of the birds received a second VHF transmitter that allows real time tracking and observation of the birds, allowing biologists to correlate the behavior of the birds with the habitat at their location. Visual observations of Louisiana Whooping Cranes are not able to occur as frequently as originally planned due to possibly remote marsh locations of the birds or the need to obtain permission to access private lands. However, data from the GPS transmitters is monitored continuously and visual observations are obtained several times a month or more frequently if a problem develops or is suspected. (Zimorski and King, 2010 LDWF)

Fast forward ten years

Fast forwarding to the end of the 2021-22 report period, the size of the Louisiana non-migratory population has grown to 76 individuals (38 males, 29 females, 9 unknown) with 74 birds located in Louisiana and two in Texas. Based on location data generated via remote transmitters, LDWF documented cranes in 19 parishes throughout Louisiana. With the death of one remaining, paired, breeding male in southeastern Texas, LDWF expects that use of Texas locations will continue to decrease. Additionally, female L4-17, who seasonally migrated from Oklahoma to northern Alabama for

several years, died in November 2021, so use of areas outside of Texas and Louisiana will likely decrease as well. (Read more about L4-17 below, under General News/Louisiana)

Whooping Cranes are monitored via remote tracking devices and in real time via very high frequency (VHF) transmitters to record movements, assess behaviors indicative of nesting and molting, and document the general health and survival of the population. Remote monitoring was accomplished using three types of GPS transmitters: GPS platform transmitter terminals (PTT) and solar Global System for Mobile Communications (GSM)/GPS transmitters, and a new GPS/GSM design by Ornitela. The PTTs are programmed to collect data three times per day (06:00, 14:00, and 22:00 GMT) and transmit data every 48 hours. The Microwave GSM transmitters collect numerous location points throughout the day and transmit data approximately once per day, whenever cranes are within range of cell towers. The Ornitela transmitters can be programmed to collect and transmit data at different times, even after deployment.

Eight individuals from the Louisiana population were documented (via remote transmitter data or visual observations) or presumed (based on known associations) to have used areas over 325 kilometers from release areas in Vermilion and Cameron parishes. Migrating cranes can typically fly an average of 400 kilometers during a single migration day, so 325 kilometers represents approximately a one-day flight. Four of these individuals hatched in 2018, one in 2017, and three in 2021. (LDWF, 2021-22 Louisiana WHCR report)

Storm tracking

Hurricane Laura hit southwest Louisiana as a Category 4 storm, coming onshore overnight on 26/27 August and subjecting an estimated 70 cranes in the Louisiana flock to, at minimum, extremely high winds. Six weeks later, Hurricane Delta, a Category 2 storm, hit Louisiana on the afternoon of 9 October, coming onshore at nearly the same location as Hurricane Laura, before traveling northeast across the state. Again, most of the cranes likely experienced impacts from the storm and felt similar, if not stronger winds during Delta than they had during Laura.

At the time these two hurricanes impacted Louisiana, nesting season was over, the one surviving wild-hatched chick had fledged, and any birds that had molted were fully flighted again, allowing them to move to new areas if needed. However, transmitter data and subsequent tracking indicated the cranes remained at their locations during and after each of these storms, apparently having hunkered down through the duration of the storms. No losses or injuries were documented as a result of either hurricane. (LDWF, 2020-21, Louisiana WHCR report)

Referenced material:

LDWF, 2021-2022 LOUISIANA WHOOPING CRANE REPORT, 1 July 2021 through 30 June 2022
https://www.wlf.louisiana.gov/assets/Resources/Publications/Whooping_Crane/2021_22-Louisiana-Whooping-Crane-Report.pdf

LDWF Coastal and Nongame Resources, 2020-2021 LOUISIANA WHOOPING CRANE REPORT, 1 July 2020 through 30 June 2021
https://www.wlf.louisiana.gov/assets/Resources/Publications/Whooping_Crane/2020-21_louisiana_whooping_crane_report.pdf

Zimorski, S. and King, Dr. S. REINTRODUCTION OF WHOOPING CRANES TO SOUTHWEST LOUISIANA, Phase 2 [2010] A proposal for State Wildlife Grant (SWG) Funding
https://www.wlf.louisiana.gov/assets/Resources/Publications/Louisiana_SWG_Project_Abstracts/F14AF00102-Abstract.pdf

.....

BANDING: Sandhill Cranes

Editor: *The following information about and photos of the Eastern Population banding programs is courtesy of the International Crane Foundation*
https://savingcranes.org/programs/north-america/report-a-banded-crane/banding-programs/

Eastern Sandhill Crane Banding Programs

Have you seen a banded Sandhill Crane and would like to find out where and who banded the crane? Cranes are banded with color markers (also known as auxiliary bands) and aluminum bands throughout North America. This page focuses on banding protocols for the Eastern Population of Greater Sandhill Cranes (*Grus canadensis tabida*), which are found east of the Mississippi River in the United States.

Did you observe a banded Sandhill Crane in the western United States or Canada? Don't worry, you can report it to the International Crane Foundation as well, and we will forward your sighting to the appropriate organization. If you have a bird in hand and can read the eight-digit number on the aluminum band, you also can report it to the USGS Bird Banding Laboratory. Report a banded Sandhill Crane

International Crane Foundation, southcentral Wisconsin

Coordinator: Andy Gossens

There is a 3″ band above the tarsal joint on either the left or right leg (either green with white engraved numbers, blue with white engraved numbers or yellow with black engraved numbers). The opposite leg above the tarsal joint has a combination of 1″ color bands (red, green, white, blue or yellow). The aluminum band is either in the color combination opposite the leg with the 3″ band or below the tarsal joint on either leg.

International Crane Foundation, southcentral Wisconsin

Coordinator: Andy Gossens

There is a 2″ yellow band above the tarsal joint on either the left or right leg with black engraved letters. Above the 2″ band is an aluminum band. The opposite leg above the tarsal joint has a combination of 1″ color bands (red, green, white, blue or yellow).

In addition, the International Crane Foundation is banding cranes in the upper Midwest and the northeastern United States to study gene dispersal and has deployed the following six banding schemes:

Eastern Wisconsin

There is a 3″ white band with an attached radio transmitter above the tarsal joint on either the right or the left leg; the other leg has a color combination of three 1″ bands in sky blue, white and/or orange. There is also an aluminum band that is located below the tarsal joint on the leg that holds the radio transmitter.

Southcentral Ontario

There is a 3″ orange band with black numbers on one leg and three 1″ color bands (red, green, white, blue or yellow) on the other leg. The aluminum band is below the tarsal joint.

Seney National Wildlife Refuge, Upper Peninsula, Michigan

There is a 3″ light blue band with white numbers on one leg and three 1″ color bands (red, green, white, blue, or yellow) on the other leg. The aluminum band is below the tarsal joint.

Minnesota and north-western Wisconsin

There is a 3″ red band with white numbers on one leg and one or two 1″ color bands (red, green, white, blue or yellow) on the other leg. The aluminum band is located above the tarsal joint with the 1″ color bands.

Southern Michigan

There is a 3" white band with black numbers on one leg and three 1″ color bands (red, green, white, blue or yellow) on the other leg. The aluminum band is below the tarsal joint.

Photo by David Allerton

Pennsylvania and New York

There is a 3″ white band with red letters on top and numbers on the bottom with a thin line in between on one leg and three 1″ color bands (red, green, white, blue, or yellow) on the other leg. The aluminum band is below the tarsal joint.

East central Wisconsin

Coordinator: Pat Fisher
There is a 3″ purple band with off-white numbers on one leg above the tarsal joint. The aluminum band is located on the opposite leg above the tarsal joint.

Long Point, Ontario

Coordinator: Scott Petrie
There is a 3″ plain white band (no alpha or numeric code) with flanges for riveting the two halves together and a radio transmitter attached. The aluminum band is located below the tarsal joint.

Northern Ohio

Coordinator: Dave Sherman
There is a 3” white band with a black alpha-numeric code (from Z01 to Z25) with flanges for riveting the two halves together and a radio transmitter attached. The aluminum band is located above the tarsal joint on the leg opposite the 3″ band.
Photo by Jason Huckeba

Northern Illinois

Coordinator: Brad Semel
There are three 1” green bands with white letters on the right leg above the tarsal joint, and two 1” color bands (white, yellow, orange, red, blue, light blue or green) on the left leg with an aluminum band, also above the tarsal joint.

Seney National Wildlife Refuge, Upper Peninsula, Michigan

Coordinator: Richard Urbanek
The bands are various combinations of red, green and white 1″ color bands on the left leg above the tarsal joint and the right leg above the tarsal joint. The aluminum band is always below the tarsal joint.

Necedah National Wildlife Refuge, Central Wisconsin

Coordinator: Richard Urbanek
These were used only during 2000 for an experimental project leading birds with an ultralight airplane. There is a 1.5″ red band over a 1.5″ green band with a radio transmitter attached above the tarsal joint on one leg. There is a combination of red, green, and white 1″ color bands on the opposite leg. The aluminum band is below the tarsal joint on the leg with the 1.5″ red and green color bands.

Tennessee

Coordinator: Dave Fronczak
A 3″ black band with white lettering is above the tarsal joint, and the alpha-numeric code, read top to bottom, has a number (from 0 to 9) over a letter (A, C, E, J or K). The band has flanges for riveting the two halves together and a radio transmitter is attached. An aluminum band is below the tarsal joint on the opposite leg.

Central Louisiana

Coordinator: Sammy King
2002 – There is a 3″ white band engraved with a black alpha-numeric code (from E01 to E05) above the tarsal joint. The band is riveted together and has flanges on either side of an otherwise round band. On the opposite leg above the tarsal joint is a 3″ yellow band with a black satellite transmitter attached. The aluminum band is below the tarsal joint on the same leg as the 3″ white band.

2006/2007 – Above the tarsal joint on one leg, there is a 3” white band, an alpha-numeric code (from E12 to E31) and a black satellite transmitter attached to the band. The band is riveted together and has flanges on either side of an otherwise round band. On the other leg, there is a 3” red band above the tarsal joint, with an alpha-numeric code (from A09 to A20).
The aluminum band is below the tarsal joint on the same leg as the 3″ white band.

Auxiliary Banding Protocols for Operation Migration, eastern Canada and the eastern U.S.

There is a yellow 3″ band with black numbers above the tarsal joint on either leg. A radio is attached to the side opposite of the numbers. The band is riveted together and has flanges on either side of an otherwise round band. The aluminum band is above the tarsal joint on the opposite leg.

Central Florida, Auxiliary Banding Protocols for the Florida Sandhill Crane

(Grus canadensis pratensis)

Coordinator: Steve Nesbitt

Cranes were banded on either or both legs, above and/or below the tarsal joint. Bands used were in five colors (blue, green, red, white and yellow) and could be used in multiple combinations in conjunction with the aluminum band (pictured here between the two white bands on the upper portion of the left leg).

Mississippi Sandhill Crane National Wildlife Refuge, Auxiliary Banding Protocols for the Mississippi Sandhill Crane

(*Grus canadensis pulla*)

Coordinator: Scott Hereford

There have been three basic schemes used for free-flying Mississippi Sandhill Cranes hatched in captivity:

1999–present: There are two 1″ or 1.5″ color bands [blue (light, royal), green (pea, dark), orange, red, white or yellow; a few are gray] above the tarsal joint on one leg, and a 2″ or 3″ color band with attached radio on the other leg above the tarsal joint. The transmitter band consists of two halves that are riveted together. Transmitter band colors may be royal blue, dark green, orange, red, white, or yellow. A few are black. Cranes in the same release cohort have the same color transmitter band and the same above-hock 1″ color band on the other leg. The aluminum lock-on band is below the tarsal joint on the same leg as the transmitter band.

1996–1998: 3″ transmitter band with 3-digit number read top to bottom on one leg above tarsal, two 1.5″ color bands on the other leg above tarsal.

1981–1995: 3″ band with 3-digit number read top to bottom on one leg above tarsal joint and a 3″ transmitter band on the other leg above the tarsal joint, with the aluminum band below the tarsal joint.

For cranes hatched in the wild, the aluminum band and a 1″ color band are on one leg above the tarsal joint, and two 1″ color bands or a 2″ transmitter band are on the other leg above the tarsal. No bands were placed below the tarsal on wild-hatched birds.

Northwestern and West Central Minnesota

Coordinator: Jeff DiMatteo

There is a colored 3/4″ band above the aluminum band with a 2″ x 4″ green tag (engraved with white letters) attached above the tarsal joint on the left leg, and a 3/4″ colored band above a 2″ tall green band (engraved with white letters) on the right leg above the tarsal joint. The color combination of the two short bands is coded to correspond with the number on the tag and tall band. The code used on this series of bands and tags is “M##.” (Note: These birds may winter in the southeastern US or in Texas.)

.....

An evaluation of banding Sandhill Cranes with colored leg bands

From 1969-80, 82 flightless young Sandhill Cranes (*Grus canadaensis tabidia*) were banded: 5 with alpha-numeral bands, 7 with a single-layered plastic, 45 with two-layered plastic, and 25 with no plastic bands. A U.S. Fish and Wildlife band was attached to each of the cranes. Evaluation of the plastic bands is based on 57 cranes seen 454 times from 1969-84. Included in the study were methods of banding, capture techniques and leg bands, color marking; band durability; readability of bands in the field; and disruptive influence on crane behavior.

Plastic leg bands did not appear to have a disruptive influence on crane behavior in this study. Wheeler and Lewis (1972) found that cranes with plastic bands and vinyl flagging laced to the Fish and Wildlife bands avoided and were avoided by other cranes. Adverse effects were associated with patagial tags and radio transmitters However, no aberrant behavior was noted in using patagial tags, plastic leg bands,

radio transmitters, or dyes by Williams (1981) or with neck collars It is not clear how much of the disrupted behavior reported in the literature was due to capture techniques, banding when cranes were gregarious, or the markers.

Little about visibility or durability of patagial tags, streamers, neck collars, dyes, or radio transmitters has been reported in other studies. Boise was able to read neck collars at 500 m with a 30X scope. Williams reported that cranes behaved normally for up to 10years with multiple leg bands and double patagial tags on the same birds. (Hoffman, 1985)

Neckbands /collars

In a study conducted from September 1972 through November 1973, in cooperation with the Wisconsin Department of Natural Resources, cranes were captured at the Necedah National Wildlife Refuge, Juneau County and at the Dike 17 Wildlife Area, Jackson County, Wisconsin. The main objectives of the study were (1) to determine the number and distribution of breeding pairs and (2) to delineate the habitat used by Sandhill Cranes in Wisconsin.
Captured cranes were color-marked with numbered aluminum collars and banded with size 9 standard U. S. Fish and Wildlife Service bands above the distal joint of the left tibiotarsus. Three-inch-high bare aluminum collars, supplied by Rod Drewien, Idaho Cooperative Wildlife Research Unit, University of Idaho, Moscow, were painted white and individually marked with a black letter- number combination (Figure 2, above). The ends of the collar were not fastened together so that cranes could pull free if their bill or some other object became wedged inside the collar. (Gluesing, 1974)

Figure 2. Juvenile Sandhill Crane with individually marked white aluminum collar, 26 September 1973.

In another study, forty-three greater Sandhill Cranes (*Grus canadensis tabida*) and 18 Florida Sandhill Cranes (*G. c. pratensis*) were captured and fitted with plastic neckbands in 1985 and 1986. Nine (15%) died after inserting their bills inside their bands and were unable to free themselves. Death from neckbands occurred in 3 (20%) of 15 radio-tagged cranes, suggesting that the actual mortality was higher than that observed. (Bennett, 1992)

Referenced material:

Bennett, Alan, "SANDHILL CRANE MORTALITY RESULTING FROM NECKBANDS" (1992). North American Crane Workshop Proceedings. 294.

Gluesing, Ernest A., 1974, DISTRIBUTION AND STATUS OF THE GREATER SANDHILL CRANE IN WISCONSIN, Master of Science thesis submitted to the University of Wisconsin-Stevens Point, College of Natural Resources
https://minds.wisconsin.edu/bitstream/handle/1793/79440/Gluesing.pdf?sequence=1&isAllowed=y

Hoffman, Ronald H., 6142 Territorial Rd., Pleasant Lake, MI 49272
North American Bird Bander, April-June 1985, Volume 10, No. 2, pp. 46-49
To read the full text and for a full text PDF, go here:
https://sora.unm.edu/sites/default/files/journals/nabb/v010n02/p0046-p0049.pdf

.....

California Sandhills:

Before the early 1980's, Sandhill Cranes had been colored banded all along the Pacific Flyway from Alaska to California – with most of the work being done at Malheur National Wildlife Refuge in southeast Oregon. At the Merced National Wildlife Refuge in California color banding of breeding Greater Sandhill Cranes was conducted in the 1970s and 43 wintering Lesser Sandhill Cranes were color-marked there in

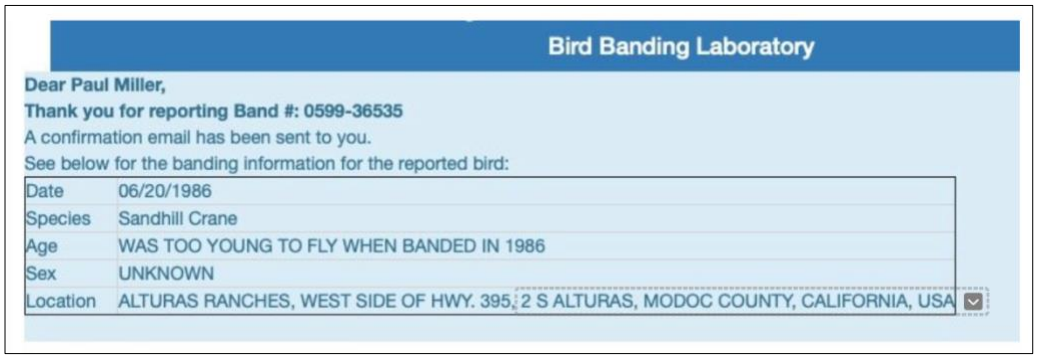
1979. A 1982 study by D. W. Schlorff was the first by the Department of Fish and Game in California to involve color-banding – using colored plastic numbered collars and leg bands – of Sandhill Cranes. Banding and color-marking of both Lesser Sandhill Cranes and Central Valley Greater Sandhill Cranes was necessary to determine locations of breeding and wintering grounds, migration routes, and stopover/staging areas for cranes throughout the Pacific Flyway. (Schlorff, 1982-83)

Schlorff, Ronald W. 1982-83. SANDHILL CRANE BANDING AND COLOR-MARKING STUDY. California Department of Fish and Game.

36-year-old Sandhill Crane photographed at Cosumnes River Preserve

Above photos by Paul Miller

Sacramento Audubon Society reported that on 3 November 2022, Paul Miller photographed the Sandhill Crane (pictured above) at Cosumnes River Preserve. Incredibly he was able to identify the number on the band and it was submitted to the United States Geological Survey Bird Banding Laboratory online. The band information showed that the crane had been banded at Alturas Ranches in Modoc, CA in 1986 making this bird 36-years-old! According to Gary Ivey, Ph.D., Research Associate, Pacific Flyway Program, International Crane Foundation, "The oldest crane I am aware of was banded by Rod Drewien and was last seen in the San Luis Valley at 40 years old."



Bird Banding Laboratory

Dear Paul Miller,
Thank you for reporting Band #: 0599-36535
A confirmation email has been sent to you.
See below for the banding information for the reported bird:

Date	06/20/1986
Species	Sandhill Crane
Age	WAS TOO YOUNG TO FLY WHEN BANDED IN 1986
Sex	UNKNOWN
Location	ALTURAS RANCHES, WEST SIDE OF HWY. 395, 2 S ALTURAS, MODOC COUNTY, CALIFORNIA, USA

Who is Sandhill "P245?"

After reporting the ringed (banded) crane, Gary Ivey, Ph.D., Research Associate at the Pacific Flyway Program of the International Crane Foundation, wrote back: "P245 was marked as an unfledged colt on 2 June 2005 at Modoc NWR (near Alturas, California) by refuge staff."

If you notice a banded crane and are able to get the band numbers and band colors you can submit the information to the USGS Bird Banding Laboratory *at* https://www.pwrc.usgs.gov/BBL/bblretrv/.

(Left) Banded Sandhill Crane (Grus canadensis) "P245" at the Llano Seco Unit of the Sacramento National Wildlife Refuge Complex, Butte County, California. Photo dated 9 October 2022 – Frank Schulenburg.

.....

Florida Sandhills:

2017-21 research partnership offers insights into Sandhill Cranes

The River Lakes Conservation Area is 36,000 acres of wild Florida owned and managed by the St. Johns River Water Management District. A Florida Wildlife Research Institute (FWRI) tracking study began there in 2017 with enough funding available to track 34 birds with radio transmitters and up to 100 birds with leg bands. Focused only on a small portion of the Sandhill Crane population the goal was to observe how the species adapted to ongoing loss of habitat and whether they could adapt to suburban habitat. The initial study area covered Pasco County and eastward to Melbourne and Sebastian, north to Marion County and south to Lake Placid.

An adult Sandhill Crane struts through a field at the district's River Lakes Conservation Area, showing off its new leg band and GPS tracker.

This study was important because the range of the Florida Sandhill Crane diminished in the southeastern United States during the 20th century, with breeding populations disappearing from coastal Texas, Alabama, and southern Louisiana.
The Florida Sandhill Crane is protected by the U.S. Migratory Bird Treaty Act and as a State-designated Threatened species by Florida's Endangered and Threatened Species Rule.

In 2018 the study area was expanded to include seven district properties with large and diverse avian populations: Lake Apopka North Shore and Emeralda Marsh, Blue Cypress, Lake Norris, River Lakes, Sunnyhill and Three Forks Marsh conservation areas. Cranes fitted with radio transmitters provided a wealth of information to the researchers about their movement throughout Florida. The transmitters, mounted on either the back or leg of a bird, relayed GPS locations every half hour. The study ended in June 2021, but researchers were provided with vital information that aided FWC in management of the population. As the transmitters were solar, they continued to provide data beyond their 24-month battery life.

.....

Tennessee Sandhills:

Photos by Austin Davis

33-year-old Sandhill Crane – its final migration

During the 2022-2023 Sandhill season, a Tennessee hunter killed a Sandhill Crane wearing a USFWS silver band that appeared "old." What came back on the band when submitted by Tennessee Fish and Wildlife to the Bird Banding Lab was that the crane had been banded in in 1989 – making it thirty-three years old at time of death.

According to U.S. Geological Survey, one of the oldest Sandhill Cranes on record was a 37-year-old banded in Wyoming in 1973 and found dead in New Mexico in 2010. Ducks Unlimited waterfowl scientist Dr. Mike Brasher says it's no

surprise that cranes are the longevity record holders because they are large birds. “Typically, a bird’s average lifespan correlates strongly with its body size,” says Brasher. “For example, geese and swans live longer on average than do smaller ducks.

.....

Report a Banded Sandhill Crane

Observations of banded cranes are especially critical to the understanding of cranes habits and movements throughout their lives. If you see a crane but did not see its bands or even if it didn't have any bands, you may still help by submitting your sighting via eBird. *Go to the following to submit your Sandhill Crane Finder report:* https://sandhillfinder.savingcranes.org/resighting

.....

Aransas-Wood Buffalo Whooping Cranes

Whooping Cranes head north to Wood Buffalo breeding grounds

Friends of the Wild Whoopers is asking the public, beginning in April, to report any Whooping Cranes they see along rivers, wetlands, and fields. If you should observe a Whooping Crane as they migrate along the Central Flyway, please report your observations to the proper wildlife agency/agencies in your state. Please include where and when the bird(s) were observed and whether they were banded and are carrying telemetry. Indicate color band combinations and which leg(s) the bands/telemetry are on. Please do not approach the cranes but use spotting scopes to ascertain the information. ***If a crane changes its behavior, you are too close!***

If you need help with crane identification, please click on the Friends of the Wild Whoopers Whooper Identification page.

The shooting deaths of 4 Whooping Cranes in Oklahoma in November/December 2021 underscores the need not only for the work being done to raise public awareness of the species, but as to the importance of monitoring Whoopers during their bi-annual migration. And, while this may not stop intentional killings by poachers, the added vigilance will help aid in the cranes’ safe passage to and from their breeding grounds in Woods Buffalo National Park, NWT Canada.

Following is a list of agencies and contact information compiled by Friends of the Wild Whoopers:

Canada
For any sightings of Whooping Cranes in Canada: Whooping Crane Hotline is 306-975-5595 will get you to Wildlife Biologist John Conkin. Leave a detailed message for a callback.

Montana Reports
Allison Begley
abegley@mt.gov
(406) 444-3370
MT Fish, Wildlife, & Parks
1420 East Sixth Avenue
Helena, MT 59620

Jim Hansen
jihansen@mt.gov
(406) 247-2957
MT Fish, Wildlife, & Parks
2300 Lake Elmo Drive
Billings, MT 59105

North Dakota
U.S. Fish and Wildlife Service offices at
Lostwood, (701-848-2466)
Audubon, (701-442-5474)
National wildlife refuges
North Dakota Game and Fish Department in Bismarck, (701-328-6300)
or to local game wardens

South Dakota
Eileen Dowd Stukel
Eileen.dowdstukel@state.sd.us
Casey Heimerl
Casey.heimerl@state.sd.us
Natalie Gates
Natalie_Gates@fws.gov

Jessica Dowler
Jessica_Dowler@fws.gov

Nebraska
Nebraska Game and Parks (402-471-0641)
U.S. Fish and Wildlife Service (308-379-5562)
The Crane Trust's Whooper Watch hotline (888-399-2824)
Emails may be submitted to joel.jorgensen@nebraska.gov

Kansas
Jason Wagner
jason.wagner@ks.gov
(620-793-3066)

Ed Miller
ed.miller@ks.gov
(620-331-6820)

***Whooping Crane sightings at or near Quivira NWR should be reported to*:**
Quivira National Wildlife Refuge
620-486-2393
They can also be reported to this email: quivira@fws.gov

Oklahoma
Sightings can be logged online here https://wildlifedepartment.com/wildlife-diversity/citizen-science-programs/report-whooping-crane-sighting?utm_medium=email&utm_source=govdelivery
Matt Fullerton
Endangered Species Biologist
(580-571-5820)
Mark Howery
Wildlife Diversity Biologist
(405-990-7259)

Texas
Texas Whooper Watch also has a project in iNaturalist. You can find it here:
https://www.inaturalist.org/projects/texas-whooper-watch

You can report sightings in iNaturalist via your Smart Phone. This allows you to easily provide photo verification and your location.If you are not a smart phone app user, you can still report via email: whoopingcranes@tpwd.state.tx.us or phone: (512-389-999). Please note that our primary interest is in reports from outside the core wintering range.

.....

2022 Wood Buffalo Survey Results 96 Nests, 61 Colts

Each year, Canadian Wildlife Service (CWS) and Parks Canada staff conduct aerial surveys over the extensive wetlands of Wood Buffalo National Park, (WBNP) that the cranes nest in and call home for the summer. These surveys occur at the end of May for the purpose of locating nests and then again in late July to count the number of chicks fledged.

Nesting Range Expanding
Parks Canada and CWS were in the air again this past Spring and late summer of 2022 searching for Whooping Crane nests and crane chicks amongst the extensive wetlands of the park. Water levels on the nesting territory were higher than normal for the 2022 Whooping Crane nesting season. However, park and wildlife officials were still able to observe 96 nests during their spring nesting survey. 13 of those nests were found outside of the boundary of WBNP and 26 nests were outside of existing identified critical habitat (range expansion).

2014 photo of a family group of Whooping Cranes in a stream at Wood Buffalo National. Photo courtesy of Parks Canada and John McKinnon.

61 Colts Will Make Their First Migration

During the summer, 61 colts were counted during the fledgling survey. 11 families had twin colts! CWS and Parks Canada cooperate to survey the Aransas Wood Buffalo breeding population. Annual monitoring of nests and fledgling numbers, estimates of the breeding population size and annual reproductive success, respectively, have been conducted in WBNP since 1966 via aerial surveys. Record numbers of nests (nearing 100) have been recorded in recent years. The long term 20-year average of fledgling survival is 0.49 fledglings per nest (so 2022 was a very good year compared to the average in terms of nest and fledgling success).

For more information on the Aransas-Wood Buffalo population of Whooping Cranes, visit Friends of the Wild Whoopers, go here: https://www.friendsofthewildwhoopers.org/2022-wood-buffalo-survey-results-96-nests-61-colts/

.....

Eastern Migratory Population of Whooping Cranes

Eastern Migratory Population WHCR Update – March 1, 2023

Below is the most recent update for the Eastern Migratory Population of Whooping Cranes. In the last month, most Whooping Cranes stayed on the wintering grounds, but a few started heading north! A huge thank-you to the staff of the Fish and Wildlife Service, the Departments of Natural Resources of flyway states, the International Crane Foundation, and all the volunteers who help us keep track of the cranes throughout the year. We appreciate your contribution to the recovery of the Whooping Crane Eastern Migratory Population. This report was produced by the International Crane Foundation. Near real-time locations of Whooping Cranes in this population is at https://whoopermap.savingcranes.org/

Population Estimate

The current estimated population size is 73 (37 F, 34 M, 2 U). 16 of these 73 individuals are wild-hatched and the rest are captive-reared. To the best of our knowledge, as of 1 March, there are 12 in Illinois, 26 in Indiana, 8 in Kentucky, 2 in Tennessee, 12 in Alabama, 2 in Georgia. The remaining birds' locations have not been confirmed in the last month.

2022 Cohort

- W1-22 (U) was last seen with parents 12-11 and 5-11 in Lawrence County, IL during December. This family likely moved further south but their wintering location is unknown.

2021 Cohort

- W2-21 (U) is still at Wheeler National Wildlife Refuge in Morgan County, AL with other Whooping Cranes.
- W11-21 (M) was found dead in Greene County, IN during February (see below).
- W14-21 (M) is still in Hopkins Co, KY with dad 2-04 (M) and dad's new mate W14-19 (F).
- 84-21 (F) is still in Gibson County, IN with 25-10 (M).
- 85-21 (M) is still at Wheeler National Wildlife Refuge in Morgan County, AL with other Whooping Cranes.

2020 Cohort

- W3-20 (F) is still in Greene County, IN, and has been with other Whooping Cranes.
- W13-20 (M) is still in Randolph Co, IL, with his parents.
- W18-20 (F) left Wheeler National Wildlife Refuge and was reported in Wayne County, IL near other Whooping Cranes.

Mortality and Long-term Missing

- W11-21 (M) was found dead during February 2023 in Greene County, IN. We have not yet gotten the results of the necropsy; therefore, the cause of death is unknown.

- W4-22 (U) was found dead during January 2023 in Greene County, IN. The cause of death is unknown. [February 2023 report]
- 88-22 (F) was found dead during December 2022 in Greene County, IN. The cause of death is unknown but is suspected to be due to bobcat predation. There were not enough remains for a necropsy. [January 2023 report]

To follow the reintroduced eastern population, go here: https://whoopermap.savingcranes.org/
Within map locations is a list of WHCR, click on links to individual cranes for its biographical information.
For biographies of the reintroduced eastern migratory population of Whooping Crane, go here:
https://www.savingcranes.org/whooping-crane-biographies/

***W = Wild hatched** to a wild Whooping Crane pair that then teach the migration route to the juvenile.*
To report a banded Whooping Crane sighting, go here:
https://www.savingcranes.org/report-whooping-crane/

General News

Alabama:

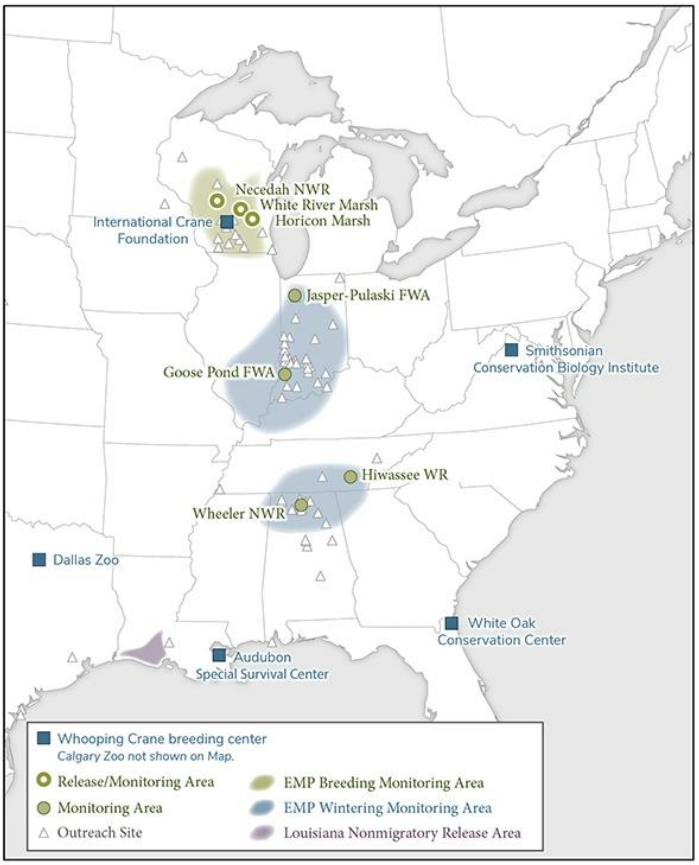
Where do Wisconsin's Whooping Cranes winter?

Once on the brink of extinction with only 21 individuals left in the wild, Whooping Cranes are on the road to recovery. Approximately 836 Whooping Cranes live today, and 74 are in the introduced Eastern Migratory Population. The cranes in this population breed in Wisconsin before traveling to their primary wintering areas in western Indiana and northern Alabama. This migration typically begins in October, and the cranes remain in their wintering areas until March. While in their wintering areas, Whooping Cranes use publicly owned property to roost and agricultural fields to forage.

There are three primary areas along the migration route that the cranes find idea stopovers – these are indicated in blue on the map to the right.

1. **Jasper-Pulaski Fish and Wildlife Area** in the northwestern corner of Indiana, provides cranes with various wetlands and farmlands. In addition to Whooping Cranes, this property regularly hosts 20,000 to 30,000 Sandhill Cranes during peak fall migration. Whooping Cranes forage on food plots and nearby agricultural fields throughout the day, fueling up on waste grains, insects, rodents, or snakes.

2. **Goose Pond Fish and Wildlife Area**, located in southwestern Indiana, is an expansive 10,000 acres of wetland and prairie that provides perfect wintering habitat for Whooping Cranes. Up to a third of the total EMP have been known to overwinter here.



Key sites in the Whooping Crane Eastern Migratory Population reintroduction program.

3. **Wheeler National Wildlife Refuge** in Decatur, Alabama, is another hotspot for wintering cranes and has been known to host around 18 Whooping Cranes and 20,000 Sandhill Cranes each year. On this 35,000-acre refuge, current land and water level management practices have Whooping Cranes returning each winter.

Story submitted by Katelyn Garrett, Whooping Crane Outreach Program Assistant / Indiana, and Jessie Taylor, Whooping Crane Outreach Program Assistant / Alabama.
https://savingcranes.org/2023/01/where-do-wisconsin-whooping-cranes-winter/
Learn more about Whooping Cranes here.

.....

Arctic blast may push more cranes to Wheeler NWR

Wheeler National Wildlife Refuge officials said that as of 25 December 2022, 13 endangered Whooping Cranes from the Eastern Migratory Population (EMP), and about 10,000 Sandhill Cranes were being seen on the refuge near Decatur. A late winter weather blast forecast for the area was expected to push more cranes south to Alabama. The sanctuary, a 35,000-acre sanctuary managed by the US Fish and Wildlife Service, is one of the best places in the world to see wintering endangered Whooping Cranes in the company of Sandhills. Currently the EMP of Whooping Cranes is 74 individuals so it is impressive that so many of the cranes choose to winter at Wheeler. Native to North America, there are approximately 836 Whooping Cranes in the world.

During a bi-weekly count on 21 December, the number of Whooping Cranes remained steady, but the Sandhill Crane population had decreased to 9,653 – less than two weeks before the refuge's 10th annual Festival of the Cranes. There were about 14,500 Sandhill Cranes counted at the refuge on 7 December 2022, compared to approximately 17,000 Sandhill Cranes in 2021 during the same time.

Jessie Taylor, Whooping Crane Outreach Program assistant for the International Crane Foundation, said the Sandhill Cranes may have relocated because of flooding on the refuge during December. "Cranes really only use water that's about 6 to 8 inches deep for roosting and finding food. So, if the water gets any deeper than that they'll usually move around a lot between their little wintering zones," she said.

Adult Whooping Crane, #14-15, with Sandhill Cranes at Wheeler NWR, January 2023. Photo by Eric Fleischauer / Decatur Daily.

.....

Indiana:

Jasper-Pulaski – continuing magnet for Sandhill Cranes

For decades, Sandhill Cranes have used marshes in Indiana Jasper-Pulaski FWA as their primary stop-over – staging area – during their fall migration to their southern wintering grounds. (*see also the story above "Where do Wisconsin's Whooping Cranes Winter?")*

Their numbers peaked at nearly 32,000 on a single day in November 2022 – the largest stopover east of the Mississippi River of the eastern population of Greater Sandhill Cranes, according to Nick Echterling, the Jasper-Pulaski property manager with the Indiana Department of Natural Resources (DNR). The cranes usually start arriving in smaller numbers in late September. By the end of November, they can be seen in just about every field within a mile of the wildlife area, where they spend the day eating waste grain. Most have left the FWA by late December.

When Jasper-Pulaski was established in 1939, it was rare to see even one Sandhill Crane there because by then the Grand Kankakee Marsh, the nation's largest wetland that once made-up northwest Indiana and attracted hundreds of thousands of birds, had been drained for agricultural use. As marshes around the nation disappeared, so did the Sandhill Cranes eventually leading the U.S. Fish and Wildlife Service to classify the birds as a threatened species. In the 1950s, fewer than a thousand birds were counted at Jasper-Pulaski. The DNR continued to restore and build up the area marshes, and by the 1980s, large flocks again stopped there on their migration south with numbers continuing to grow each year. Even though Sandhills were officially removed from the USFWS list of threatened species in 1973, Indiana DNR later reclassified them as a threatened species to continue to aid in the population's growth.

Bill Peak found a Whooping Crane, #66-15, in the company of Sandhill Cranes on 10 December 2022 in the vicinity of Jasper-Pulaski Fish and Wildlife Area southeast of Valparaiso, Indiana. Whooping Cranes have now been observed in the area during the winter for six years straight. Photo courtesy of Bill Peak.

Currently the crane population has grown enough that the birds have started exploring other wildlife areas around the state, including DNR-managed sites in Greene, Jackson, Gibson, and Pike counties in southern Indiana. But for now, the more than 8,100 acres in Jasper-Pulaski remain the preeminent viewing site in Indiana for what has become one of the most impressive birding comeback stories in the United States.

.....

Louisiana:

The Louisiana Whooping Crane Reintroduction – Conservation Meets Culture

In this webinar by the International Crane Foundation (ICF), Irvin Loque and Madi Radford discuss the Louisiana Non-migratory Population's history and present status, issues with illegal shootings, and what ICF is doing to learn more about and address these issues through social science surveys and outreach strategies. The webinar was sponsored by Sandy and Steve Becker. *To view the webinar, go here:*
https://savingcranes.org/webinars/
Or go here: https://youtu.be/EsDAoptzftU?t=3

.....

77 Whooping Crane now grace the Louisiana landscape

In 1939, when John J. Lynch flew over the southwest Louisiana marshes, very near to where White Lake Wetlands Conservation Area is today, the United States Bureau of Biological Survey biologist counted 13 Whooping Cranes. By 1949, only one crane remained on the landscape. Captured in 1950, the lone bird was transported to Aransas National Wildlife Refuge just north of Corpus Christi, Texas, where it was released with hopes it would join the last migratory Whooping Crane population in North America.

Fast forwarding to 2011, once again Whooping Cranes would grace Louisiana's coastline when 10 juvenile cranes were released on the State's White Lake Conservation Area. The joint Louisiana Department of Wildlife and Fisheries and United States Fish and Wildlife Service project to reintroduce the endangered birds would be considered a non-essential experimental population. The non-essential designation by the LDWF/USF&WS definition meant that the survival of Whooping Crane, as a species,

would not be reduced if the entire reintroduced population was lost. The non-essential identifier also allowed some flexibility when working with landowners as the Whooping Crane population expanded its range beyond the conservation area where released.

For more information and photos of the reintroduced population, by John Flores (the Morgan City Review's outdoor writer), go here: https://www.stmarynow.com/news-local-sports/john-k-flores-whooping-crane-numbers-headed-right-direction

.....

Recent Facebook posts by Louisiana Department of Wildlife and Fisheries - Whooping Cranes

Above left: Pairs L3-13 and L8-14 (the two in the back right) and L10-19 & L1-12 unison call as juveniles L4-22 and L5-22 look on. Above center: Male L3-13 gains the upper hand and bites male L10-19 around his upper beak while making contact with his foot. Above right: Male L3-13 is successful in chasing male L10-19 away. Photos by John K. Flores.

27 January 2023
Thanks again to John Flores for sharing his photos of the cranes he saw earlier this month in Vermilion Parish! In this series of shots, males L10-19 and L3-13 get into an altercation, with older male L3-13 apparently coming out on top.

18 January 2023

Above left: L8-13 in defensive display in front of family; Above center: L8-13 swollen left hock; Above right: L8-13 swollen right foot and silver USFWS band on left leg. Photos by LDWF.

Last week while we were out trying to capture cranes for transmitter replacement, we found nearly 10-year-old male L8-13 with an injured left wing. Despite his injury, he was extremely aggressive and defensive of his family; female L11-11 and juvenile LW10-22, which made capturing him easy. In addition to an open fracture at his left wrist, his left hock and right foot also were infected. We transported him to the Freeport-McMoRan Audubon Species Survival Center in New Orleans, where he is being treated.

Due to the nature of the break in his wing, it unfortunately had to be amputated, but he is reportedly doing well! Over the course of his life in the wild, L8-13 hatched out 7 chicks with two different mates and successfully reared 5 of them to independence. We hope his treatment continues to go well and that he can become a productive member of the captive population. We are also greatly appreciative of the staff at the Audubon Species Survival Center for his continued care!

Louisiana Department of Wildlife and Fisheries - Whooping Cranes
17 December 2022

Funky legs L13-14 during exam. Photo by LDWF

We were excited to get another capture in on Thursday before the holidays and the end of the year! The capture of male, L13-14, was particularly gratifying because he has evaded our numerous attempts to catch him for at least the past two years!! We've come close many times in the past but always came away empty handed and very frustrated! He was a particularly high priority for us because he was carrying around two old transmitters, neither of which was working anymore, so those needed to be removed and replaced with new ones. Additionally, his mate's transmitter failed earlier this year and since they nest and spend a lot of time in the White Lake marsh, they are difficult to keep track of without a functioning transmitter. Despite not being the prettiest bird with some funky legs and ratty feathers he appeared to be in good condition and weighed over 17 pounds!

(Above left) Juvenile female L4-17 in Bullock Co., Alabama, 19 December 2017. Photo by Carrie Threadgill of the Alabama Department of Conservation and Natural Resources/Wildlife and Freshwater Fisheries Division. (Above right) Now in adult plumage, L4-17 lands near Sandhill Cranes at Wheeler NWR, Decatur Alabama, December 2019. Photo courtesy of refuge visitor Debra Provenzano.

Traveling days are over for L4-17

Sadly, female L4-17 died in Lonoke County, Arkansas, in November 2022 of an unknown cause. Until her death L4-17 continued her pattern of spending most of her time in states outside of Louisiana as she had since her release at the White Lake Wetlands Conservation Area (WCA) in 2017. Over the years she was documented in five states, but as usual, spent most of the spring, summer, and fall in Oklahoma before migrating to Alabama for the winter. Mostly solitary since her release, L4-17 wintered at the Wheeler National Wildlife Refuge in Alabama where thousands of Sandhill Cranes and a number of the Eastern Migratory Population Whooping Cranes also spend the winter.

To read more posts, and for more photos and numerous maps of L4-17's wanderings, go here:
https://www.facebook.com/profile/100064324284932/search/?q=L4-17

Help LDWF by reporting all Whooping Crane sightings and violations

If you are lucky enough to see a Whooping Crane, please do not approach it, even in a vehicle, to avoid habituating the birds to human activity. If you share the sighting on social media, bird listservs, or other public sites, please do not share location information more specific than county or parish level.
https://www.wlf.louisiana.gov/page/report-a-whooping-crane-sighting-or-violation

If you see a Whooping Crane elsewhere in the eastern United States (besides Louisiana), please report it here*: https://www.savingcranes.org/report-whooping-crane/*

If you see a Whooping Crane in the western United States, please report it here*:*
https://whoopingcrane.com/report-a-sighting/
Note: Whooping Cranes in the Louisiana population have been known to travel into surrounding states.

Anyone witnessing suspicious activity involving Whooping Cranes is advised to call the LDWF's Enforcement Division at 1-800-442-2511 or use the tip411 program, which may offer a cash reward for information leading to arrests or convictions. To use the tip411 program, citizens can text LADWF and their tip to 847411 or download the "LADWF Tips" iPhone app from the Apple iTunes store free of charge. Citizen Observer, the tip411 provider, uses technology that removes all identifying information before LDWF receives the text so that LDWF cannot identify the sender.

For LDWF updates on the Louisiana non-migratory population of Whooping Cranes, go here:
https://www.facebook.com/lawhoopingcranes/

For more general information about the cranes, go here:
https://www.wlf.louisiana.gov/subhome/whooping-crane

.....

MICHIGAN:

Poacher reportedly shot at Sandhills from building window

The following is an incident detailed in the Michigan DNR's biweekly report for 8 January through 21 January 2023. The Michigan Department of Natural Resources received a complaint of a subject attempting to illegally harvest Sandhill Cranes in Schoolcraft. Upon further investigation, C.O. Nason found that the individual videotaped the criminal act. The video depicted the suspect in a second story bedroom window with a .22 caliber rifle. The subject proceeded to shoot out of the bedroom window and across a public roadway into a farm field with hundreds of Sandhill Cranes. The federally protected birds immediately began to take flight, the suspect continued firing his rifle into the air. Across the cut cornfield were almost a dozen homes well within range of his firearm. After multiple interviews and evidence was obtained, numerous violations were found. A report is being submitted to the Kalamazoo County Prosecuting Attorney's Office.

In Michigan, Sandhill Cranes are still protected under the Migratory Bird Treaty Act of 1918, which prohibits the capture, killing or possession of Sandhill Cranes without proper permits. The U.S. Fish and Wildlife Service can issue special permits to harvest cranes that "cause agricultural damage or threaten human health and safety."

.....

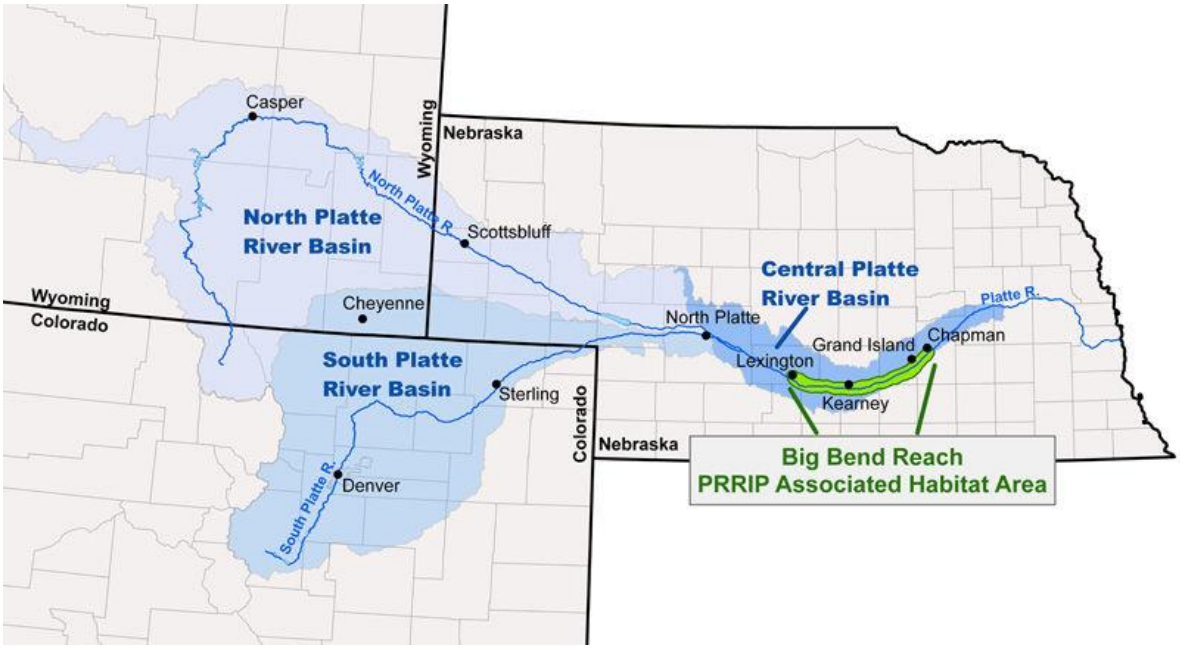
Nebraska:

Crane Trust gets grant to pay for new viewing site

The new viewing site is just off the Alda exit near the Crane Trust – which will allow people to observe the cranes foraging in the fields from their cars. "We wanted to provide a safe location for people to pull off the road and actually view the Sandhill Cranes and Whooping Cranes without disturbing them," said Dave Baasch, Threatened and Endangered Species Specialist. The grant is through the Grand Island/Hall County Convention and Visitors Bureau for the two-year project costing around $75,000. Last year half of

the money went to building the parking lot for the site. According to Baasch, this year funding will assist in constructing a perimeter fence as well as a cable fence to prevent trespassing.

.....



Above map: The Platte River Recovery Implementation Program (PRRIP)covers the entire basin in Nebraska, Colorado, and Wyoming. The Central Platte region is the focus area habitat used by Whooping Cranes, Least Terns, and Piping Plovers. Map courtesy of the PRRIP.

Platte River Whooping Crane aerial surveys begin in March 2023

The Platte River Recovery Implementation Program (PRRIP) is scheduled to begin its 2023 spring Whooping Crane aerial survey flights. The flights take place from 6 March - 29 April 2023 and from 9 October - 15 November 2023, along the Platte River, between Chapman and Lexington.

According to a recent *Kearney Hub* article, the surveys have been conducted annually by the Kearney-based Headwaters Corporation since 2007. Headwater primarily works with endangered species on the Platte River serving as a "middle ground" between U.S. Fish & Wildlife Service, conservation organizations and water users. Mallory Jaymes, a biologist with Headwaters, monitors the Whooping Crane population along the Platte River. Pilots are trained to distinguish the cranes from air, most often from a half mile away to avoid disturbing them. "We help them identify pelicans and swans versus Whooping Cranes, which can be difficult," she said. Someone is also designated for each airplane on the ground, so when there is an observation of a possible Whooping Cranes but there's a little uncertainty, there is a person nearby to do a check.

Habitat metrics are also measured, including where the cranes are using the river. "We're working on our second habitat analysis," said Jaymes. "We figure out what the areas they're using have in common, and what seems to be the most important to them." Specifically, biologists are trying to determine what brings the cranes to the Platte, if it's location, or the landscape in general, or something else.

"We keep track of not just the number of birds," said Jaymes. The Whooping Crane population at Platte is growing – the count taken last winter was 543 cranes. "We try to use the proportion of the population, because if we just say we're getting more birds that are stopping on the Platte, it wouldn't portray our efforts because the population is increasing."
For more information, visit platteriverprogram.org/target-species/whooping-crane.

The Whooping Crane population at Platte River is growing. The count taken last winter was 543 cranes.
Photo by David Baasch / Crane Trust

.....

Crane Trust counter – Bethany Ostrom.
Photo by Matt Fong

Welcome new Crane Trust counter Bethany Ostrom!

After spending 1½ years as the data recorder for Andy Caven, the Crane Trust's Lead Biologist and Director of Conservation Research, Bethany Ostrom has moved into the counter's spot in the second row of the four-seater Cessna 180 airplane. Paul Dunning is the pilot and Matthew Schaaf sits next to him up front now recording the data from Ostrom. Until 2022 Caven had been the lead counter for 10 years (now at the International Crane Foundation as Vice President – North American Programs – United States). The plane follows the river 80 miles from Chapman to Overton and Ostrom will estimate crane numbers from the sky for the Crane Trust – counting the number of cranes migrating through the state on their way north to their breeding grounds.

Audubon's Rowe Sanctuary, as well as other entities in the area, will rely on her estimates not only as a good resource for visiting guests from other states and countries, but for providing historical data so scientists can spot migratory trends with the birds. It takes Ostrom about a day to analyze the data collected by the science team each week, going as far as to even count each bird individually to make sure numbers are correct when released each Friday from 15 February – 15 April 2023.

.....

North Carolina:

Grand Opening and Dedication: Whooping Crane Aviary

May 5, 2023, will mark the grand opening of the new Whooping Crane aviary dedicated in memory of conservationist and pilot Deke Clark. Deke was among the first to fly with Whooping Cranes as a volunteer for Operation Migration, a conservation initiative with the goal of reintroducing Whooping Cranes to areas of their historic range in the eastern U.S. by teaching them a migration route using ultralight aircraft. Thanks to a generous donor, the pair of Whooping Cranes at Sylvan Heights Bird Park – located in Scotland Neck, North Carolina – will have a spacious new aviary below Toad Hall pavilion.

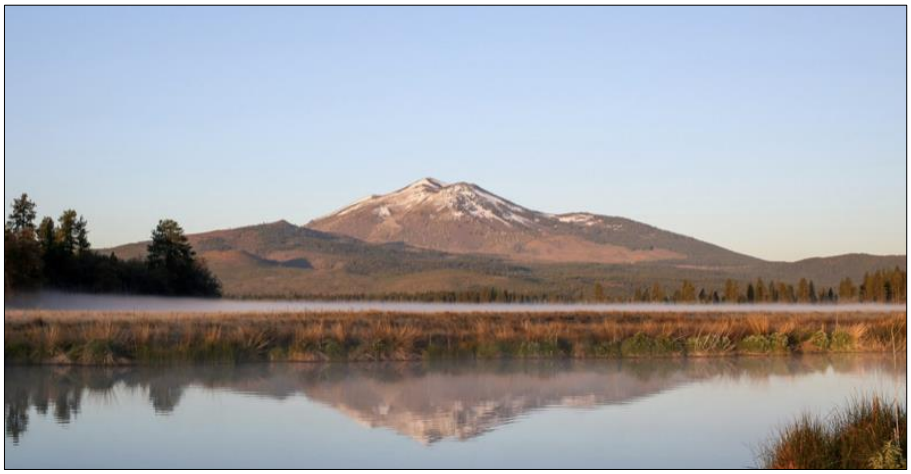
Read more about Deke's legacy in flight and conservation here: https://dekeclark.com/ *or go here:*
In Memoriam/Whooping Cranes lose a friend in Operation Migration volunteer pilot "Deke" Clark
https://kyc4sandhillcranes.files.wordpress.com/2020/06/eastern-crane-bulletin_june-2020.pdf

Deke Clark pilots an Operation Migration ultralight leading juvenile Whooping Cranes from Wisconsin to Florida. This experimental reintroduction effort, beginning in 2001 and running until it was ended in 2016 is responsible for many of the Whooping Cranes still in the Eastern Migratory Population.

Habitat Matters!

California:

Rising River's unique ecosystems are strongholds for several rare and endemic species



Rising River Preserve at the edge of Lassen National Forest in Shasta County, California. Cold water percolates up from one of the largest spring systems in the nation, forming Rising River Lake. ©TNC

At the edge of Lassen National Forest in Shasta County lies the 903-acre Rising River Preserve that includes part of the headwaters of the Rising River. This small but mighty landscape is a refuge for numerous species that reside here year-round, while many others use it as a stopover during their annual migrations. The lake and river, which are part of a large volcanic spring system, hold tremendous ecological value and teem with biodiversity.

From endangered endemic species like the Shasta crayfish to rare spring snails and endangered plants, including slender Orcutt grass, habitats found on the preserve support a staggering array of life. Sandhill Cranes nest here, Redwinged Blackbirds are often spotted and the diversity of duck and songbird species is remarkable. Rising River is also home to one of the last remaining native-strain trout species in California. Meanwhile, the property's size makes it an important refuge for far-ranging mammals including mountain lions and black bears.

For more information about the preserve or to request a visit, contact us at 916-449-2850 or email: california@tnc.org.

Maryland:

Sandhills visit Jug Bay Wetlands Sanctuary

In late December 2022, a waterbird survey team observed four Sandhill Cranes feeding in the Jug Bay Wetlands Sanctuary located in Lothian, Maryland. The cranes returned and were observed again by same team on 12 January 2023 along the shoreline of the western branch of the Patuxent River. Greg Kearns, a naturalist, and bird expert with the Maryland National Capital Park & Planning Commission at Patuxent River Park said that the last known sighting of Sandhill Cranes around Jug Bay was about 35 years ago. The wetlands sanctuary of more than 1,700 acres of tidal freshwater wetlands, forests, meadows and fields provides an abundant source of food – wild rice blanket the marsh in winter, tubers, small vertebrates and invertebrates can also be found there.

While somewhat unusual for Sandhills to be seen so far east as there are no major crane flyways that follow the Eastern Seaboard, as the eastern population of Greater Sandhills continues to grow such sightings are likely to become more commonplace. There are area observations from the last several summers of small groups of Sandhills visiting farmland in Maryland – including one bird that was present in Galesville for a week. In 2022 there is a record of a pair that successfully nested in Garrett County – a state record first for Maryland.

North Dakota:

A close encounter along the Upper Souris NWR

Whooping Cranes during a stopover at the Souris National Wildlife Refuge, April 2022. Photo by Kim Fundingsland / The Dakotan

In 1934, a political cartoonist from Iowa, J.N. “Ding” Darling, became Director of the newly formed Bureau of Biological Survey. In 1935, J. Clark Salyer, “Ding” Darling’s top aide, used duck stamp money to help purchase three refuges on the Souris River, including Upper Souris Migratory Waterfowl Refuge. The Refuge was established by Executive Order on August 27, 1935, by President Franklin D. Roosevelt as a refuge and breeding ground for migratory birds and other wildlife.

The Upper Souris National Wildlife Refuge lies in the beautiful Souris River Valley of northwestern North Dakota and extends for nearly 35 miles along the Souris River corridor. This Refuge, managed by the U.S. Fish and Wildlife Service, is an important unit in a series of national wildlife refuges in the great waterfowl migration corridor known as the Central Flyway. Lake Darling, a 9,600-acre lake named in honor of Ding Darling, is the largest of several water impoundments on the Refuge. Its primary purpose is to furnish a regulated supply of water to smaller marshes downstream and especially to the larger marshes on the J. Clark Salyer Refuge, 110 miles downstream.

According to *The Dakotan* reporter Kim Fundingsland in a December 2022 article:

> “I saw my first Whooping Crane sometime in the 1970s. There were nine of the endangered birds on the ground near Crosby [North Dakota]. I also remember there were about 50 uniformed

agents, mostly from the Fish and Wildlife Service, keeping watch over the tall birds. The total population at the time was about 39 whoopers, so having nine in one place, especially during the fall waterfowl season, was an extraordinary event. …

…I've been fortunate enough to see Whooping Cranes several times over the years. All sightings are memorable, but the most recent one was downright scary. I came within a few rotations of the tires from running over a protected, endangered species. It happened in the aftermath of the big snowstorm that dumped a couple of feet of snow in the Minot area this past April (2022).

A day or so after digging out I drove up to the Upper Souris National Wildlife Refuge, mostly curious to see the impact of the storm. Looking through binoculars from the driver's seat of my vehicle, I was surprised to see a pair of large, white birds along the shoreline of Lake Darling. As I began to close the distance, I kept a close eye on the birds. I didn't want to spook them in any way. Suddenly, something caught the corner of my eye and I instinctively hit the brakes. Good thing I was going very slow too. There, only about half visible over the hood of my vehicle, was a third Whooping Crane. He, or she, seemed as surprised as I was and just walked away to join the other two. I, on the other hand, was shaking. I had come within an instant of killing or injuring one of the most magnificent birds on the planet."

.....

Washington:

Ridgefield National Wildlife Refuge celebrates new administrative building

Ridgefield National Wildlife Refuge, part of the wildlife refuge system operated by the United States Fish and Wildlife Service is in the westernmost part of Clark County, Washington. The refuge protects more than 5,200 acres of marshes, grasslands, and woodlands. Ridgefield's refuge encompasses 5,200 acres of tall grass, dense forests, and wetlands along the lower Columbia River at the western tip of Clark County. Columbian White-tailed Deer, Sandhill Cranes and Horned Lark are only a few examples of wildlife that wander the expanse.

It was thought that the Ridgefield National Wildlife Refuge had secured all its funding for the new administrative building in 2018, but devastation following the eruption of Hawaii's Kilauea volcano that year took precedence. Finally, in December 2022 the completed building was opened to refuge visitors – providing a place to buy national passes, meet and learn more about the surrounding refuge. "We want to get people out to experience a connection with nature," said Jim Maul, Friends of Ridgefield National Wildlife Refuge president. "Refuges aren't parks, they are very important in protecting places for wildlife to live and thrive."

Cowlitz Tribal Council Chair Patty Kinswa-Gaiser said the refuge will serve as optimal grounds for gathering with new and old friends. Sam Robinson, vice chairman of the Chinook Indian Nation, described the significance in connecting with the land's heritage. "Sometimes when you visit the refuge and you see that light fog out there, that's our ancestors traveling in that fog," he said. "Know that they're proud of what's going on here."

To learn more and for dedication photos, go here: https://www.columbian.com/news/2022/dec/16/ridgefield-national-wildlife-refuge-herrera-beutler-celebrate-new-administrative-building/

Chinook Indian Nation
Cathlamet • Clatsop • Lower Chinook • Wahkiakum • Willapa

Left: Chinook Indian Nation logo; Above right: Cowlitz Indian Tribe – The Forever People, logo.

Science News:

Report on Whooping Crane recovery activities

2017 breeding season – 2018 spring migration

Wade **Harrell**, Whooping Crane Recovery Coordinator, US Fish & Wildlife Service
Mark **Bidwell**, Whooping Crane Recovery Coordinator, Canadian Wildlife Service
February 2019

Editor: *Excerpts from Report pages 3-4; italics are the editor's.*
In 2009, a multi-agency, collaborative research and monitoring project to capture and mark whooping cranes was initiated in order to quantify behavior, movement and habitat use of cranes during all aspects of their annual cycle. That project, which continued through 2016, was carried out by the Whooping Crane Tracking Partnership (WCTP, Phase 1), a cooperative effort between five core partners: CWS, US Geological Survey (USGS), US Fish and Wildlife Service (USFWS), the Crane Trust and Platte River Recovery Implementation Program, with additional support from Parks Canada Agency (PCA), the International Crane Foundation (ICF), and the Gulf Coast Bird Observatory. *Specific objectives were to: 1) advance knowledge of breeding, wintering, and migration ecology including threats to survival and population persistence; 2) disseminate research findings in reports, presentations, and peer-reviewed literature to provide reliable scientific knowledge for conservation, management, and recovery of whooping cranes; and 3) minimize negative effects of research activities to whooping cranes.*

During Phase 1 of the WCTP, captured birds were fitted with a GPS/PTT (Global Positioning System/Platform Transmitting Terminal) satellite transmitter mounted on a two-piece leg band. Transmitters were programmed to record each bird's spatial location four times daily, recording both daytime and nighttime locations throughout the annual cycle. From December 2009 to February 2014, 68 whooping cranes were captured and marked with satellite transmitters; 37 adults and two juveniles were marked on the Texas Gulf Coast wintering grounds and 31 juveniles were marked during the breeding season in WBNP. Transmitters are expected to function for three to five years, but the number and frequency of GPS transmissions declines over time. By 2017, most transmitters were offline, but during the migrations of spring and fall, 2017, eight and six cranes marked with PTT transmitters provided telemetry data, respectively.

In August 2017, a renewed effort was made to capture whooping cranes to mark them with satellite transmitting devices. This work is being undertaken by Phase 2 of the WCTP which consists of four core partners: CWS, PCA, USFWS, and USGS, with additional support from ICF, and the Calgary Zoo. Capture and marking of cranes in Canada is supported by Joint Canada-Alberta Oil Sands Monitoring funding to Environment and Climate Change Canada. *The main goal of Phase 2 of the WCTP is to investigate potential risk to whooping cranes from industrial development (e.g., extraction of oil and gas, mining, and wind power).*

During the first year Phase 2 of the WCTP, captured birds were fitted with a GPS/GSM (GPS/Global System for Mobile Communication) cellular transmitter (Cellular Tracking Technology LLC, Rio Grande, NJ) with Global Positioning System capabilities mounted on a two-piece leg band. *GPS/GSM transmitters were programmed to collect up to 48 GPS locations daily at equal time intervals and to upload location data to the GSM system every 24 hours; this schedule allows for highly detailed information on diurnal and nocturnal (roosting) habitat use during all stages of the annual cycle, and on migratory behavior in spring and fall.* In August 2017, CWS and WCTP partners marked 10 juvenile whooping cranes during the breeding season in WBNP and in January 2018 USFWS and WCTP partners marked seven adults on the Texas Gulf Coast. Information collected through this phase will build on existing baseline monitoring conducted via satellite telemetry of whooping cranes since 2010.

To read the full report, go here: https://www.nacwg.org/wcra%202019feb.pdf

Aerial radio-tracking of Whooping Cranes migrating between Wood Buffalo National Park and Aransas National Wildlife Refuge, 1981-84

Kuyt, E. (Ernie)
Occasional Paper, ISSN 0576-6370; No. 74
Canadian Wildlife Service

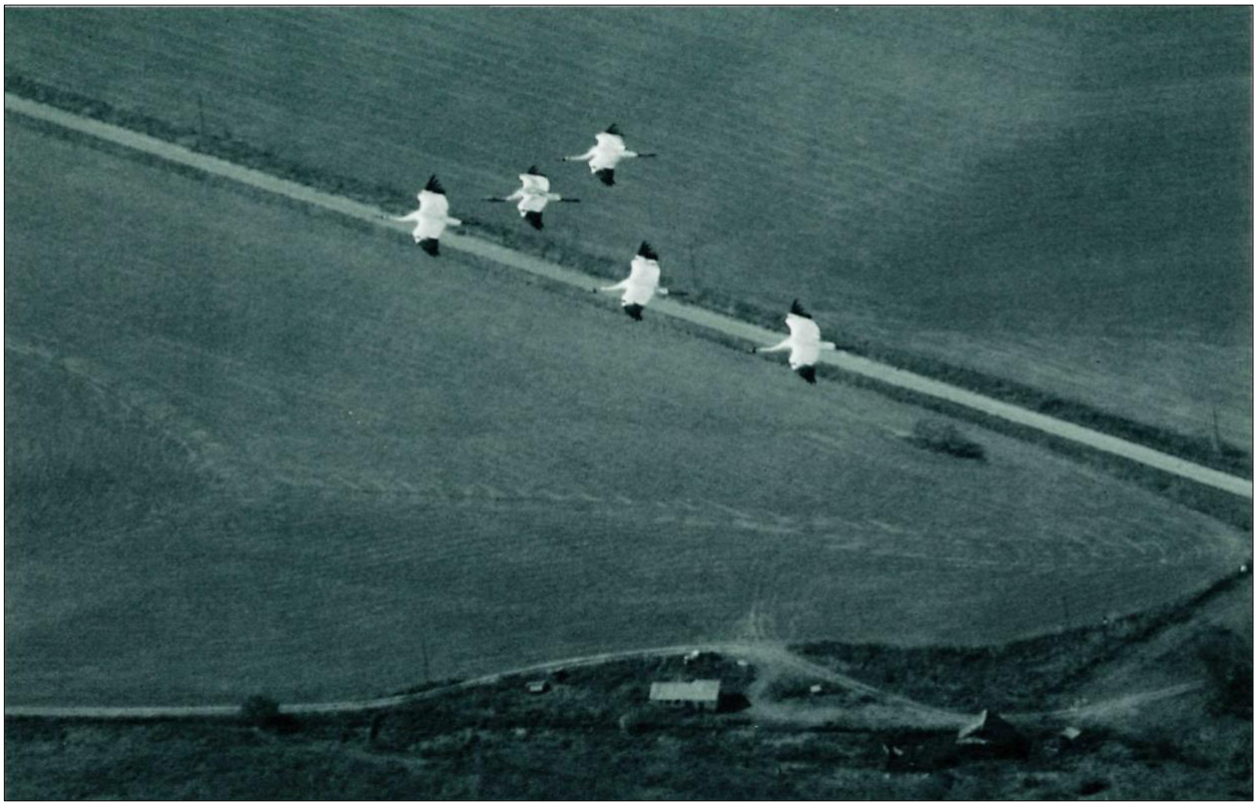
ISBN 0-662-19828-X
ISSN 0576-6370

Abstract: From 1981 to 1984, Whooping Cranes *Grus americana* migrating between their summer range in and near Wood Buffalo National Park in Canada and their winter range on and near the Aransas National Wildlife Refuge in the United States were studied by means of radiotelemetry. Objectives of the aerial study included a precise determination of migration routes, duration of occupancy and location of stopover sites, and documentation of migrating crane behaviour and mortality.

In 1981, 1982, and 1983, 15 juvenile Whooping Cranes were captured on the breeding range and equipped with single radio transmitters weighing between 62 and 77 g each. Nine families, pairs, singles, or subadult groups in fall and five such aggregations in spring were monitored through all or part of their migration by teams of airborne and ground observers. The present report summarizes observations by the airborne radio-monitoring crews.

Radio contact with migrating cranes was maintained by means of leg-band radio transmitters, antennas attached to aircraft struts, and radio receivers carried in the aircraft. Radio signals could be picked up from distances up to 155 km, with shorter receiving ranges (up to 56 km) when cranes were on the ground. The radio system allowed operators to "home in" on cranes, and visual contact was maintained for up to 50% of the migration, enabling air crews to obtain data on flight behaviour. …

To read the full text and download a full text PDF go here: http://parkscanadahistory.com/wildlife/paper-74.pdf



Migrating Whooping Cranes near Byers Lake, Texas. Family 10/82 (top three birds, juvenile in center), and an unbanded pair. Photo by E. Kuyt, Canadian Wildlife Service

.....

COLOR-BAND IDENTIFICATION SYSTEM OF THE REINTRODUCED EASTERN MIGRATORY WHOOPING CRANE POPULATION

RICHARD P. URBANEK,[1,2] U.S. Fish and Wildlife Service,[3] Necedah National Wildlife Refuge, N11385 Headquarters Road, Necedah, WI 54646, USA

Abstract: A reintroduction of whooping cranes (*Grus americana*) migrating between Wisconsin and the southeastern U.S. was initiated in 2001. A color-band system to uniquely identify individuals was necessary for monitoring and evaluation of that population. The system provided 336 individual unduplicated color combinations consisting of 3 base and 1 additional colors on plastic bands. The band combination on 1 leg carried a VHF transmitter and provided additional information on hatch year. Bands on the other leg were either small bands that were part of a permanent code or they were temporary and supported a remotely monitored (satellite or cellular) transmitter. Through 2017 the system has fully accommodated the identification and tracking requirements needed for the reintroduction and could continue to be used for a consistent method of identification in the future.

PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 14:101-109

To read the full article or download a pdf of the Proceedings of the North American Crane Workshop 14:2018 EASTERN MIGRATORY WHOOPING CRANE BANDING SYSTEM • Urbanek, go here: https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1367&context=nacwgproc

.....

Effects and Effectiveness of Telemetry and Marking of Cranes for Research, Monitoring, and Public Relations

Anne E. **Lacy,** International Crane Foundation, Baraboo, WI, USA

In December 2018 a preliminary information gathering session was held at the European Crane Working Group meeting; the issue at hand was the physical harm that can result from some marking of cranes. The ethics of crane marking was passionately discussed; at the one end of the continuum was that the value of the information obtained from far outweighed the few cranes that were injured or died as a result. At the opposite end was the feeling that even one dead crane was too many. Overarching was a caution about becoming too paralyzed by these issues to ask questions required for conservation action. Decades of research on birds have yielded several recent meta-studies that looked at the long-term effects of marking with various devices. Though the number of studies using various technology increased at a rate of 4.4%/year since 1962, up to 55% of those published studies involving marked birds contain no information on effects of those marks. The trust we have in rapidly advancing technology may belie the risks of morbidity or mortality that we fail to observe, especially in a migratory species. While crane studies are involved in these reviews, none have looked in depth at this family of birds. We have the unique opportunity to study these birds in great depth; thus we propose a system where there is a shared responsibility regarding outcomes. This is a call to be better at documenting and reporting to the crane community the foibles of our research.

PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 15
8-11 January 2020 Lubbock, Texas

.....

The impact of marking on cranes: An issue paper

Anne E. **Lacy,**[1] International Crane Foundation, E11376 Shady Lane Road, Baraboo, WI 53913, USA
Barry K. **Hartup,** International Crane Foundation, E11376 Shady Lane Road, Baraboo, WI 53913, USA
David A. **Brandt**, U.S. Geological Survey, Northern Prairie Wildlife Research Center, 8711 37th Street SE, Jamestown, ND 58401, USA

Abstract: As crane researchers and conservationists, our overarching objective is to learn and gather information about our study subjects while doing as little harm as possible. New technologies may be emerging too rapidly for researchers to assess the effectiveness or potential adverse effects of the devices, despite the ease and increasing accuracy of the information they provide. Researchers need to be able to gather information to answer various questions in a way that balances ethics and expense. With marking of cranes as a focal point, we discuss issues surrounding crane research based on various techniques, some health issues that are a direct result of marking cranes, and consultation with telemetry companies to improve design of devices to be deployed on cranes. We submit a Call to Action: create a global crane research working group under the oversight of the International Union for Conservation of Nature (IUCN) Crane Specialist Group (CSG), a group dedicated to promoting the study and conservation of the world's 15 crane species.
PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 15:1-5
https://www.researchgate.net/publication/366365405_THE_IMPACT_OF_MARKING_ON_CRANES_AN_ISSUE_PAPER
or
https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1393&context=nacwgproc

.....

Impacts to Integument from Leg Band-mounted Telemetry Devices in Whooping Cranes

Barry K. **Hartup**[1,2], Julia S. **Lankton**[3], Grayson A. **Doss**[2]
[1]International Crane Foundation, Baraboo, WI, USA.
[2]University of Wisconsin, Madison, WI, USA.
[3]USGS National Wildlife Health Center, Madison, WI, USA

Abstract: We used standardized postmortems of suitable carcasses to assess pathological effects of leg band-mounted telemetry tags on whooping cranes (*Grus americana*). Our dataset included gross and histopathological assessment of leg skin from 20 Eastern Migratory Population cranes from 2014 to 2017. All cranes carried a leg band-mounted radio tag; 7 carried an additional PTT or GSM tag on the opposite limb. Gross lesions, typically flattened or depigmented areas with or without cutaneous ulceration or scabs, varied in surface dimension from 2 mm to >1 cm in diameter, and were described in 14 of 20 (70%) cranes. Of cases with histopathological assessments, 13 of 14 (93%) cranes were described with hyperkeratosis, epidermal hyperplasia, epidermal ulceration with intralesional bacteria, and dermatitis. We scored the severity of both gross and histopathological lesions in each leg in order to yield a maximum severity score from each crane. The distribution of severity scores ranged from none/normal (n = 3, 15%), mild (n = 4, 20%), moderate (n = 9, 45%), to severe (n = 4, 20%). The maximum severity score for the cranes was associated with a radio tag in 15 of 20 cases (75%), a PTT or GSM tag in 2 of 7 cases (28%), and a color band set in 3 of 13 cases (23%). The risk ratio of a maximum severity score associated with a radio tag versus bands alone was 3.25 (Fisher exact 1-tail $P < 0.01$) and versus a PTT/GSM tag was 2.62 ($P < 0.05$). The health and welfare risk from leg-band mounted telemetry devices may be greater than previously believed.

PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 15:163
8-11 January 2020 Lubbock, Texas

.....

Designing more crane-friendly transmitters: The importance of working with manufacturers and lessons learned

David A. **Brandt**
U.S. Geological Survey, Northern Prairie Wildlife Research Center, Jamestown, ND, USA

Previous telemetry work on cranes has centered around technologies utilizing transmitters with external whip antennas measuring approximately 20 cm (VHF and PTT) due to the frequency range they operate within. External antennas have been documented icing up in wet and freezing conditions, cause behavioral issues, and are known to break prematurely for cranes and many other species.

Improvements and miniaturization in GSM (Global System for Mobile communications) technologies have made transmitters utilizing this system applicable for use on crane-sized birds. Most GSM transmitters on the market today utilize patch antennas incorporated internally rather than an external whip style. Intuitively, eliminating this potential for issues from a transmitter's design should be an improvement, but depending on the mounting method used, it can be an avenue for new and unforeseen issues. Working with manufacturers of these new technologies to develop suitable designs is critical for successful implementation of new or existing studies. I examine this changing of technologies and transmitter design in detail for telemetry studies on Wood Buffalo/Aransas whooping cranes (*Grus americana*) in 2009-2019 and detail the process involved with developing and testing new designs for deployment in the field on wild birds.

PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 15
8-11 January 2020 Lubbock, Texas

.....

Sandhill Crane mortality resulting from neckbands

Alan Bennett, Georgia Cooperative Fish and Wildlife Research Unit, University of Georgia Athens, GA 30602

Bennett, Alan, "SANDHILL CRANE MORTALITY RESULTING FROM NECKBANDS" (1992). North American Crane Workshop Proceedings. 294.
http://digitalcommons.unl.edu/nacwgproc/294

Abstract: Forty-three greater sandhill cranes (*Grus canadensis tabida*) and 18 Florida sandhill cranes (*G. c. pratensis*) were captured and fitted with plastic neckbands in 1985 and 1986. Nine (15%) died after inserting their bills inside their bands and were unable to free themselves. Death from neckbands occurred in 3 (20%) of 15 radio-tagged cranes, suggesting that the actual mortality was higher than that observed. No neckband-related deaths were observed in cranes < 12 months of age, and females exhibited mortality 2.5 times higher than males. Mortality was equally divided between cranes that received secured and un- secured neckbands. Increasing the height of neckbands from 6.5 to 8.2 cm did not reduce the incidence of death.

To read the full text, or to download a full-text PDF of the paper, go here:
https://core.ac.uk/download/pdf/188095365.pdf

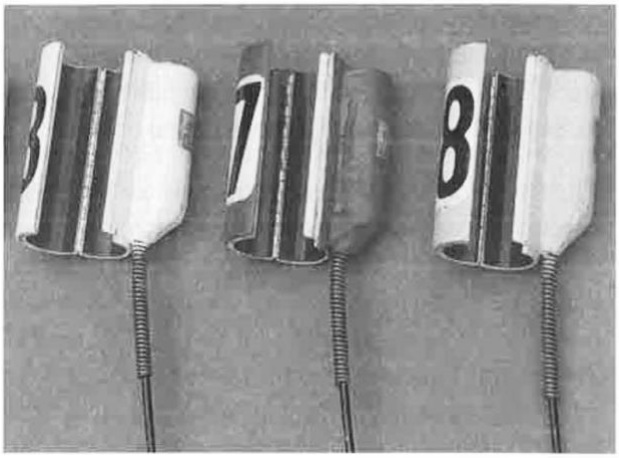
.....

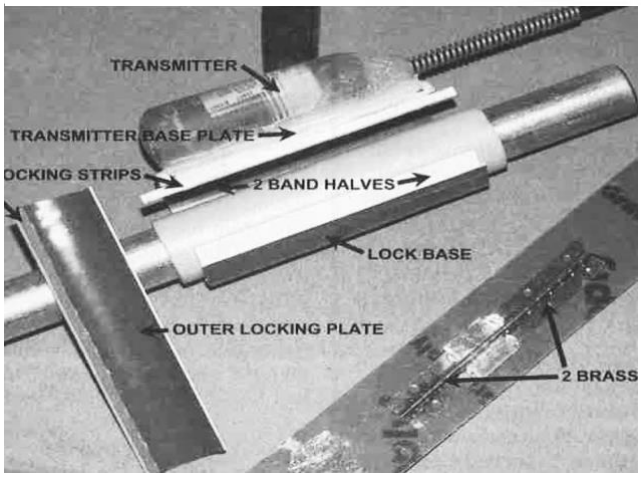
A Snap-on transmitter attachment for Whooping Cranes and other long-legged birds

Richard P. **Urbanek**
U.S. Fish and Wildlife Service Necedah National Wildlife Refuge W7996 20th Street West
Necedah, WI 54646 richard_urbanek@fws.gov
North American Bander, Vol. 35, No.2 pp. 55-60, April-June 2010

Abstract: I developed a snap-on transmitter leg band that can be attached to Whooping Cranes (*Grus americana*) within a few seconds. The application described here was temporary and related to a specific reintroduction technique. However, future improvements could result in more permanent transmitter attachments useful in study of cranes and other long-legged birds.
This work is a product of the Whooping Crane Eastern Partnership (WCEP), which was established in 1999 to reintroduce a migratory population of Whooping Cranes to eastern North America.

To read the full text or download a full text PDF, go here:
https://sora.unm.edu/sites/default/files/nabb_35-2_55-60.pdf





Above left: Snap-on leg band transmitters ready for deployment on Whooping Cranes

Above right: Snap-on transmitter on tibiotarsus of juvenile Whooping Crane

Left: Component parts of snap-on leg band transmitter for Whooping Cranes

All photos by Richard Urbanek to illustrate his research (see above) – North American Bander, Vol. 35, No.2 pp. 55-60, April-June 2010.

.....

The use of satellite telemetry to evaluate migration chronology and breeding, migratory, and wintering distribution of the eastern population of Sandhill Cranes

Everett **Hanna**, Department of Biology, University of Western Ontario, London, Ontario N6A 5B7, Canada
David **Fronczak**, Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota, St. Paul, MN 55455, USA

Abstract: The Eastern Population (EP) of sandhill cranes (*Grus canadensis*) is rapidly expanding in size and geographic range. The core of the EP's breeding range spans much of Wisconsin and Michigan in the United States, and most of Ontario in Canada; however, the EP has expanded in all directions as the population has continued to grow. As a result, little is known about the geographic extent of the breeding, migratory, and wintering range of EP cranes as well as migratory chronology and use of primary staging areas. In December 2009, we began trapping EP cranes and deploying solar-powered Global Positioning System satellite transmitters to assess spatial and temporal variation in annual movements. To date, we have trapped and attached transmitters (n= 30) at Manitoulin Island, Ontario; Jasper-Pulaski Fish and Wildlife Area, Jasper and Pulaski Counties, Indiana; and Hiwassee Wildlife Refuge, Meigs County, Tennessee. GPS data are currently being received from CLS America Inc., Maryland, translated by software developed by North Star Science and Technology, Virginia, and analyzed using Environment System Research Institute (ESRI) ArcGIS software. In 2011, preliminary data show that 1 crane remains in Indiana, 1 in Kentucky, 12 in Tennessee, 2 in Georgia, and the remainder in Florida. These data provide the first comprehensive representation of the annual habitats that EP cranes frequent. While subsequent seasons of data collection will provide more robust estimates of range boundaries, these initial data remain particularly pertinent due to the unknown nature of the EP in general.

PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 12:89

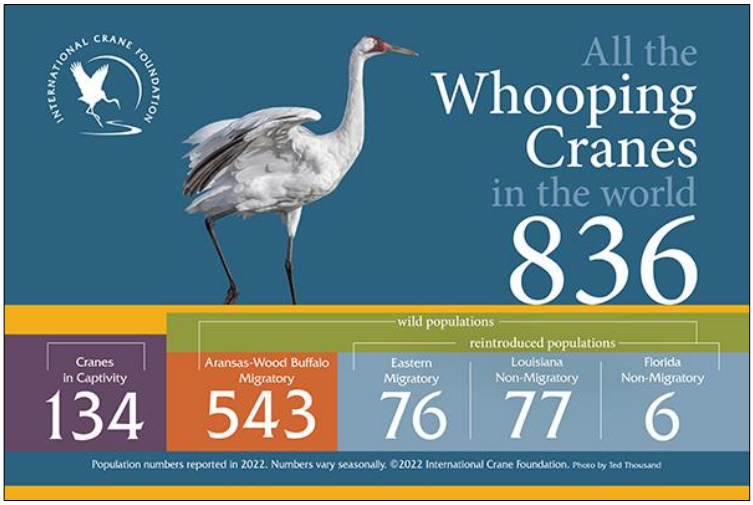
Avian flu outbreak and its impact on the endangered Whooping Crane?

Editor: *The following are excerpts from a 15 December 2022 article by Paul A. Smith of the* Milwaukee Journal Sentinel*. "Avian flu outbreak especially worrisome for endangered whooping cranes"*

As a strain of highly pathogenic avian influenza spreads across North America and other continents, conservationists have increased concerns about its potential effects on endangered species such as Whooping Cranes.

The H5N1 strain of highly pathogenic avian influenza (HPAI) has killed or caused the destruction of 53.4 million poultry in the US, according to figures from the US Department of Agriculture released on 13 December 2022. That surpassed the previous peak in 2014 and 2015, when a different strain affected 49 million poultry and cost $1 billion. The USDA has declared this outbreak the "costliest animal health emergency in US history."

According to USDA statistics, 5,001 wild birds have been confirmed with the disease across the continent. As of December 2022, West Virginia is the only state without a documented case. Only 98 HPAI-positive wild birds were found in the 2014-15 outbreak, according to the USDA. Staff at the International Crane Foundation (ICF) in Baraboo, Wisconsin are closely monitoring the disease and taking precautions to protect captive birds at headquarters.



2022 chart showing distribution of the total Whooping Crane population in the world. Courtesy of the International Crane Foundation.

"We've had our eye on this problem since the early 2000s," said Dr. Barry Hartup, Veterinarian and ICF Director of Conservation Medicine. "We got particularly involved in this in 2005 when there was a massive outbreak of wild birds in China." Cranes are among the most endangered bird families in the world, with 10 out of 15 species threatened. So, an outbreak of disease can be devastating to already fragile populations.

According to the ICF, there are 836 Whooping Cranes left in the world, This includes 543 cranes in the Aransas-Wood Buffalo population that migrate from the breeding grounds in Alberta/Northwest Territories, Canada to Aransas NWR in Texas each year, approximately 74 individuals in the reintroduced Eastern Migratory Population that breed in Wisconsin, and 77 individuals in the reintroduced Non-Migratory population in Louisiana.

The ICF is concerned about the global re-emergence of avian influenza this winter, its impact on the endangered East Asian cranes and the threat to Whooping Cranes.

"Outbreaks are like wildfires," Hartup said. "These are small, hyper- propagation events. They are virtually impossible to predict or prevent in the wild." The disease is spread when infected birds shed the virus in their saliva, nasal secretions, and feces, according to the Centers for Disease Control and Prevention. Susceptible birds become infected when they encounter the virus as it is shed from infected birds or surfaces contaminated with the virus. Some birds carry the virus without getting sick. In other cases, it causes mass mortality.

As HPAI circulates, Hartup said Whooping Cranes will face additional risk during Spring and Fall migration – at stopovers along the migration route where the cranes will undoubtedly be in close proximity to waterfowl.

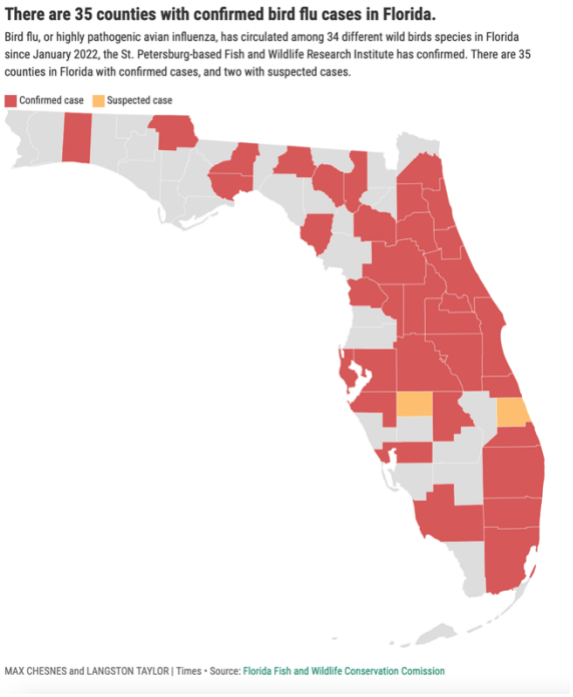
So far, the good news is that no Whooping Cranes have died or been found to have the virus. A number of wild Whooping Crane chicks in the AWBP were tested in Canada this year; all were negative, according to Hartup.

"This outbreak is unprecedented," Hartup said. "It is also extremely stubborn. When I look at the impact of this disease on wild birds, not just cranes, it is extremely significant in terms of the speed and spread and the number of birds affected. For the sake of all bird species, we hope the coming months bring better news."

.....

Florida bird flu cases increase, now include Sandhill Cranes, White Pelicans

Since January 2022, the virus has now been confirmed in 35 counties, and has circulated among 34 wild bird species in Florida, the St. Petersburg-based Fish and Wildlife Research Institute said.



Biologists first detected the virus in January 2022, when hunters in Palm Beach County turned over two ducks, just shot and killed, for routine disease testing at a checkpoint hosted by the U.S. Department of Agriculture. The pair of Blue-winged Teal ducks were the first two animals in the state to test positive.

Researchers at the University of Florida first reported the Sandhill Crane infection to the Florida Department of Agriculture and Consumer Services earlier in January 2023. The bird was found on a private property in Gainesville during the week of January 9. Infected birds can spread the virus through saliva, nasal secretions, and feces, according to the commission.

The epicenter of the outbreak first emerged along Florida's Atlantic Coast in early February 2022, as hundreds of Lesser Scaup ducks, a common North American diving duck with a black head, started showing signs of neurological distress. But recently, cases in Black Vultures have spiked in Florida, Mark Cunningham, a Fish and Wildlife Health Subsection leader for the Florida Fish and Wildlife Conservation Commission, told the *Times* in November. An infected Black Vulture will often return to its roost before it dies. Then other vultures will feed on the infected carcass, spreading the disease further, Cunningham said.
To read more about the impact of the avian flu on Florida species, go here:
https://www.tampabay.com/news/environment/2023/01/24/bird-flu-florida-sandhill-cranes-white-pelicans/

.....

CRANES IN ART

The Whooping Crane – Fourth Wildlife Conservation Stamp

Stamp collectors will especially find this interesting. In a presentation by collector and American First Day Cover Society (AFDCS) member Susan Jones on November 14, 2021, she provides historical background and information on Whooping Cranes and how the species came to be chosen to grace the fourth U.S. Wildlife Conservation postage stamp that was issued on 22 November 1957. The Whooping Crane image was designed by Bob Hines, a self-taught wildlife artist with the U.S. Fish and Wildlife Service. Jones showcases a wide variety of different cachets produced as first day covers for this stamp issue. And, at the end of the presentation gives a shout-out to the

International Crane Foundation with headquarters in Baraboo, Wisconsin – recommending that people go there to see all 15 species of cranes found worldwide.
To watch the presentation, go here: https://youtu.be/9WqFKfCQ2Wg

Sandhill Cranes depicted in paintings

Always on the lookout for cranes depicted in art, I recently came across a contemporary artist – Andrea Kowch – and her phenomenal work. She has included Sandhill Cranes in two of her paintings.
For an interview with her about her painting "The Courtiers," go here: https://rjdgallery.com/andrea-kowch-the-courtiers-video/

Above are two paintings by artist Andrea Kowch. Left:"The Merry Wanderers," 2013, and Right:"The Courtiers," 2016 (image contains an overlay of the RJD Gallery watermark)

Upcoming Events:

Editor: *While more of the nation's population fully vaccinated and boosted against COVID-19, there may still be cancellations or postponement of scheduled events due to continued uncertainties from variants of the COVID virus. When making your plans remember to check with coordinators as festival information may change.*

Iain Nicholson Audubon Center at Rowe Sanctuary – Nebraska Crane Season
Dates: March 4 - April 8, 2023
Location: Audubon Rowe Sanctuary
44450 Elm Island Road
Gibbon, NE 68840

Every March, over a million Sandhill Cranes converge on the Platte River Valley in central Nebraska to fuel up before continuing north to their nesting grounds. Audubon's Rowe Sanctuary is at the heart of this magnificent crane staging area.

Rowe Sanctuary offers daily guided tours at sunrise and sunset to view the spectacular concentrations of Sandhill Cranes on their river roosts from new discovery stations strategically placed along the Platte River close to Sandhill Crane roosts. Nature enthusiasts, bird lovers, and photographers will have multiple ways to experience this historic migration.

Rowe Sanctuary will begin accepting reservations for its 2023 crane viewing opportunities on Wednesday, January 4 at 9:00 am CST. For pricing, and to make reservations go online: https://rowe.audubon.org/crane-season, *or by calling 308-468-5282.*

- Guided Crane Viewing Experience: March 4 - April 8
- Guided Crane Photography Experience: March 17 - April 8

- Overnight Photography Experience: March 17 - April 7
- Crane Behavior Basics, daily at 2:30 pm: March 4 - April 8
- Virtual Crane Viewing Tours: March 13, 20, 27 at 6:30 pm

Please be aware all tours are subject to cancellation and refunds will be available if Covid-19 safety precautions change our scheduling.

40th Monte Vista Crane Festival – Where the Cranes meet the mountains
Dates: March 10-12, 2023
Location: San Luis Valley, Monte Vista, Colorado

Every year, like clockwork, nearly 20,000 Sandhill Cranes descend on Colorado's scenic San Luis Valley for a six-week stopover to rest and refuel before continuing their northward spring migration. In 2023, join us in person again for photography workshops, interpreter-led bus tours to view the cranes, raptors, and places of interest. The festival is a collaborative effort between The Friends of the San Luis Valley National Wildlife Refuges (slvrefuges.org), The Monte Vista Chamber of Commerce, and the City of Monte Vista. A visit to the Monte Vista Crane Festival is an opportunity to see an amazing natural spectacle as well as experience a unique local community.
For more information, go here: mvcranefest.org

Othello Sandhill Crane Festival
Dates: Friday March 24 - Sunday March 26, 2023
Location: Columbia National Wildlife Refuge, Othello, Washington

For more than two decades we have celebrated the annual return of nearly 35,000 Sandhill Cranes to Othello, Washington, every March as they migrate north to their breeding grounds in Alaska. The festival offers an incredible opportunity to view the cranes up-close, with tours led by local experts. The festival also boasts other specialty tours of the flora, fauna, and geology of the area, and many lectures, as well as children's activities. The festival has grown over the years with returning participants attending from across the country.

https://www.allaboutbirds.org/news/event/othello-sandhill-crane-festival/
https://www.othellosandhillcranefestival.org/

Annual Midwest Crane Count
Date: April 15, 2023
Time: 5:30 a.m. - 7:30 a.m.
To learn more and get involved, go here: https://savingcranes.org/learn/annual-midwest-crane-count/

For 47 years now, in mid-April, over 1,800 volunteers travel to their local wetlands and favorite birding locations across the upper Midwest to participate in the crane count. This annual survey of Sandhill and Whooping Cranes spans over 150 counties in seven states of the upper Midwest, including Wisconsin and portions of Illinois, Indiana, Iowa, Michigan, Ohio, and Minnesota and monitors the return of Sandhill and Whooping Cranes to their northern breeding grounds.

Cranes of the World Opening Day
Date: May 1, 2023
Location: International Crane Foundation / E11376 Shady Lane Road / Baraboo, WI 53913
https://savingcranes.org/plan-a-visit/
The International Crane Foundation's crane gates are open for the 2023 visitor season from May 1 to Oct. 31! Visit our global headquarters in Baraboo, Wisconsin, to learn about the world's cranes, take a hike on our nature trails, and browse nature-themed items from around the world in our gift shop.

An Evening With the Cranes
Date: Saturday June 24, 2023
Time: 5:00 p.m. – 8:00 p.m.
Location: International Crane Foundation / E11376 Shady Lane Road / Baraboo, WI 53913

Save the date for a magical evening at the International Crane Foundation headquarters! Explore the our exhibits and appreciate the beauty of the world's 15 crane species. Stroll our woodland, prairie and wetland trails and sample local food, craft beer and wine.

Member Appreciation Day
Date: Saturday September 16, 2023
Time: 9:00 a.m. - 5:00 p.m.
Location: International Crane Foundation / E11376 Shady Lane Road / Baraboo, WI 53913

Members Matter! Mark your calendar for our annual Member Appreciation. Learn about our work to save cranes and their habitats through talks and presentations by our talented staff, enjoy tours of the Cranes of the World exhibits, and experience special behind the scenes events.

50th Anniversary Celebration
Date: Saturday September 16, 2023
Location: International Crane Foundation / E11376 Shady Lane Road / Baraboo, WI 53913

Great Midwest Crane Fest
Dates: Friday November 10 - Saturday November 11, 2023
https://savingcranes.org/event/great-midwest-crane-fest-celebrating-community-and-conservation/?utm_source=newsletter&utm_medium=email&utm_campaign=feb_2023_contactcall
To learn more about the 2022 first annual Great Midwest Crane Fest – a taste of what is to come this year, go here: https://greatmidwestcranefest.org

.....

The Eastern Crane Bulletin is issued quarterly (March, June, September, and December).
To receive this E-bulletin contact:

Mary W. Yandell, *Editor*
Kentucky Coalition for Sandhill Cranes
kyc4sandhillcranes.com
kycoalition4sandhillcranes@gmail.com
mtwyandell@gmail.com

Or

Cynthia Routledge
Southeastern Avian Research
Specializing in Winter Hummingbird banding
www.southeasternavianresearch.org
The Tennessee Ornithological Society
www.tnbirds.org
routledges@bellsouth.net

For archived issues of the *Eastern Crane Bulletin* click here:
http://kyc4sandhillcranes.com/eastern-crane-bulletin/

We never lend or sell our E-bulletin recipient list.

Sláinte mhaith!
(Good health!)