



# EASTERN **CRANE** BULLETIN

**December 2020**

*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.*

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## **North America's Ancient Cranes**



*Anasazi wall painting (pictograph) of flying cranes. Nogales Cliff house in north central New Mexico. This site is attributed to the Gallina culture that dated between 1000 and 1300 CE in the area. Photo by Peter Faris, 1993*

**Editor:** Gruidae (*GROO-ih-dee*); from the Latin *grus*, crane. Of the 15 species of cranes found worldwide, two are native to North America – the highly endangered Whooping Crane (*Grus americana*) and the Sandhill Crane (*Antigone* – formerly *Grus* – *canadensis*). Cranes were depicted by North American First Nations in petroglyphs and pictograms, as well as in artifacts documented from numerous archaeological sites –including fossil deposits of bones, ceremonial pipes, earthenware, fans, headdresses, whistles and

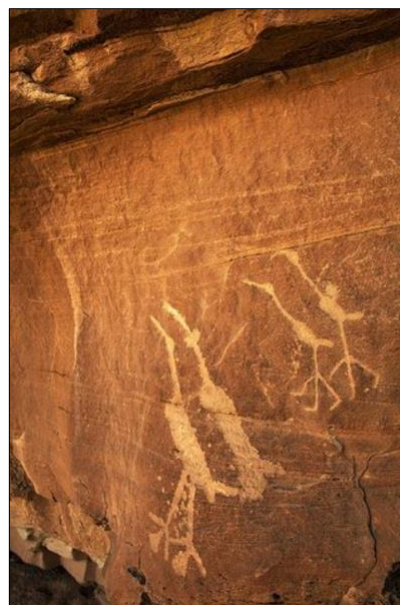
*flutes is evidence of their importance in not only everyday life, but religious and cultural ceremonies as well.*

Few bird species have existed in their current form as long as the Sandhill Crane (*Antigone canadensis*). This mostly gray bird evolved before the Pleistocene, more than two million years ago, and has changed little since. It saw mammoths and giant ground sloths in North America and survived the last time most of the continent was covered in sheets of ice. The earliest Sandhill Crane fossil, estimated to be 2.5 million years old, was unearthed in the [Macasphalt Shell Pit](#) in Florida. “They are truly a relic from the distant past,” said Gary Krapu, a biologist for U.S. Geological Survey who’s been studying the birds along the central Platte since the 1970s. Today, Sandhill Cranes are the most common species of cranes in the world.

Every year more than 500,000 in the so-called mid-continent population migrate back and forth between wintering grounds in western Texas and northern Mexico and their breeding grounds in Alaska, the Canadian Arctic, and some even as far as Siberia. This heavily traveled path through the Great Plains, one of the biggest migration corridors in the world, is called the Central Flyway. Each spring, 80 percent of the mid-continent population spends a few weeks along the central stretch of the Platte River in Nebraska, resting, feeding and socializing – even dancing. Cranes prefer shallow, bare sandbars for roosting, and a wide field of view to spot predators, two main characteristics of the historic Platte’s braided channel structure.

Hunting of Sandhill Cranes was unregulated and widespread until passage of the federal Migratory Bird Treaty Act in 1918.

Sandhill Cranes are divided into six subspecies in North America: the migratory greater (*A. c. tabida*), lesser (*A. c. canadensis*) and Canadian (*A. c. rowani*) Sandhill Cranes and the non-migratory Florida (*A. c. pratensis*), Mississippi (*A. c. pulla*) and Cuban (*A. c. nesiotis*) Sandhill Cranes. The latter two subspecies are both listed as endangered. This division into two groups is thought to have resulted from Pleistocene glaciation causing a separation of the original Sandhill Crane species into two distinct subpopulations or subspecies. The current subspecies designations were based on geographic/breeding isolation, especially for the Mississippi, Florida and Cuban subspecies, and migratory pathways and breeding grounds for the other three subspecies.



*Four Cranes, Anasazi*



The Whooping Crane, *Grus americana*, is the tallest bird in North America and one of the rarest. Perhaps Whooping Cranes have been rare for many years. The total 1860-70 population was only about 1,300-1,400 birds. Fossils suggest it first appeared during the Pleistocene, when it was much more wide-ranging. Its bone fragments have been found in California,

*Wolfman Panel petroglyphs includes two cranes, Butler Wash, near Comb Ridge, Utah. The Cedar Mesa region also has many petroglyphs and pictographs, all between 2,000 and 800 years old, from the Anasazi or Ancestral Pueblo culture. Bears Ears National Monument*



Arizona, Idaho, North Dakota, Kansas, Michigan, Illinois, Kentucky, Virginia and Florida. Whooping Cranes ranged north as far as the Arctic coast and south into Mexico, west to Utah, east to the Atlantic seaboard in New Jersey, South Carolina, to Georgia and Florida.

The original, main nesting range in the U.S. – in prairie marshes from central Illinois and 1,000 miles northwestward to northeast North Dakota and north into Canada – was completely deserted by Whooping Cranes by 1894, as this region was settled, and its nesting sloughs drained, and the prairies plowed and planted in crops. With the disappearance in 1922 of the last known nesting pair in Saskatchewan, the species was gone from all known nesting areas in the U.S. and Canada. It wasn't until June 30, 1954, after 10 years of intensive aerial search by biologists of the Canadian Wildlife Service, the U.S. Fish and Wildlife Service and National Audubon Society that the remaining Whooping Crane breeding grounds were discovered in the northern part of the 17,300-square-mile Wood Buffalo National Park, Northwest Territories, Canada, near the Arctic Circle.

Extremely wary by nature, Whooping Cranes did not tolerate the intrusion of settlers or the changes they brought to the prairie/marshland habitat. After decades of unregulated hunting for the hat and fashion trades, continued widespread habitat loss soon decimated the species. By the 1930s the only known remaining Whooping Cranes in North America were 1) a small flock that wintered (and once nested) in Louisiana, but were gone by 1949, and 2) the flock wintering along the coast of Texas, which by 1937 had been reduced to about 15 cranes. The first major effort to protect Whooping Cranes began in 1937 when the U.S. government established the 47,200-acre Aransas National Wildlife Refuge near Austwell, Texas, giving protection to the remaining wild population on its wintering grounds.



*Sandhill crane effigy pipe excavated from Tremper Mound, a Hopewell culture site near Portsmouth in Scioto County, Ohio. Hopewell Indians (100 B.C.- A.D. 500) in Ohio built burial mounds and large earthen enclosures in geometric shapes to mark social and ceremonial places.*

In North America, cranes continue to play an important role in the cultures of First Nations, who have used crane bones and feathers for domestic and ceremonial purposes for hundreds of years and have depicted cranes in both ancient and modern art. Cranes are also symbols of tribal clans, or extended family or kinship groups, and are important characters in many Native American myths.

Among a Hopewell shaman's most important tools for traveling into the spirit realms were pipes carved in the shape of animals. Smoking through pipes has been practiced since at least 1000 BCE in the Midwest. Hawks, falcons, owls, ducks, herons, cranes, and other birds all appear as Hopewell pipes.

In the American Southwest, pictures of cranes are also found in rock art, ceremonial murals, and on ceramic vessels. In rock art, both petroglyphs and pictographs representing flying cranes, crane tracks (which are possibly clan symbols), and standing cranes were painted and carved by Native Americans.



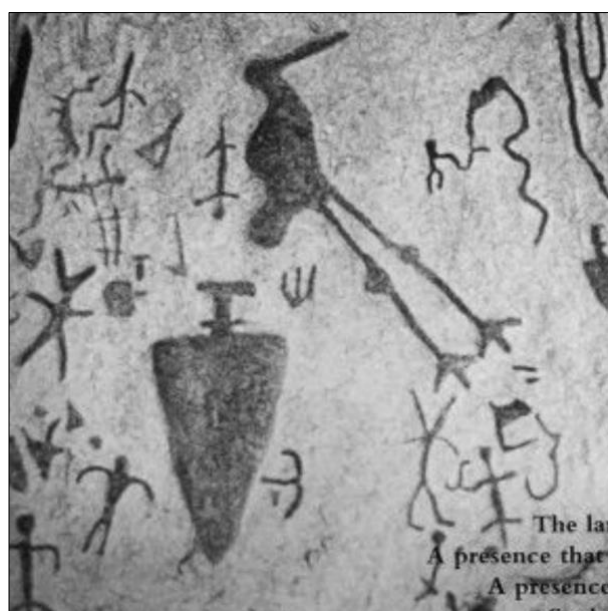
*Big Bird petroglyph, Rio Grande National Forest,  
San Luis Valley, Colorado*

The [Big Bird petroglyph site](#) was initially recorded in 1984 on the Rio Grande National Forest on the west side of the San Luis Valley, Colorado. It consists of two petroglyph panels in a rock shelter bounded by the remains of a dry laid rock wall. The main petroglyph of the site is a zoomorph figure resembling a “bird in flight”, 6 ft. x 2 ft. in size. The “big bird” petroglyph is thought to be a rendition of a Sandhill or Whooping Crane based on its large size and the length of its neck. Surface artifacts identified within or near the shelter included grinding stones, projectile points and other stone tools. A limited test excavation determined that the site contained the presence of datable artifacts, identifiable plant and animal and fire hearth features. The rock art and the

projectile points suggest the Big Bird site dates to the Late Archaic period (5,000 to 3,000 years ago).

In Chaco Canyon, an ancient Anasazi settlement in northwestern New Mexico, archaeologists found crane bones that were cut and polished to form tools over one thousand years ago by the ancestors of the modern Pueblo people. The Crow and northern Cheyenne of Montana also modified wing bones of Sandhill Cranes, making small whistles, which they blew in preparation for battle. Today, the Pueblo cultures of Arizona and New Mexico continue to use crane feathers in traditional ceremonies.

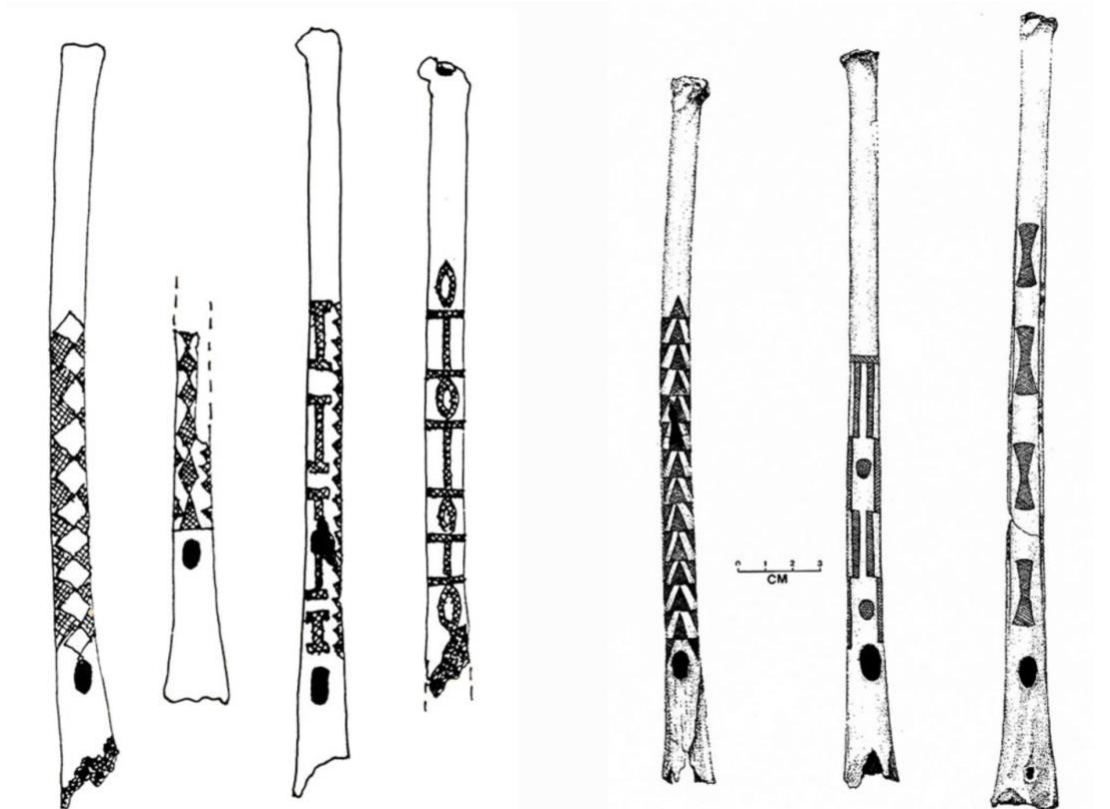
Wings of large birds were also used as fans, as depicted on a Mississippian shell engraving from Spiro, Oklahoma. Piles of long wing bones, from which the primary feathers had deteriorated over the last thousand years, were often found in Mississippian graves when the rest of the bird’s skeleton was missing. Wings of Swans, Golden and Bald Eagles were most often used as fans, and one site contained the long wing bones of dozens of Sandhill Cranes. Individual long feathers were also attached to warriors’ hair, ears, and weapons. All across the region, fans were made from wings or feathers of turkeys, eagles, cranes, and other large birds to clear campfire smoke from inside lodges and tipis or to ritually cleanse participants in ceremonies.



*(Left) Big Crane petroglyph - Cedar Mesa, southeast Utah. Besides hundreds of ruins, mostly cliff dwellings, the Cedar Mesa region also has many petroglyphs and pictographs, all between 2,000 and 800 years old, from the Anasazi or Ancestral Pueblo culture. (Right) Crane and Nanabush (spirit) figures, Petroglyph Provincial Park, Ontario, Canada*

Leg and wing bones of eagles, hawks, turkeys, and cranes provided flutes or whistles for ritual use. Although the Adena and Hopewell appear not to have used bone flutes, at least fifty specimens have been found in Mississippian sites from the Ohio Valley. These are mostly cut to a length of three to five inches and perforated with a single (whistle) or three holes (flute).

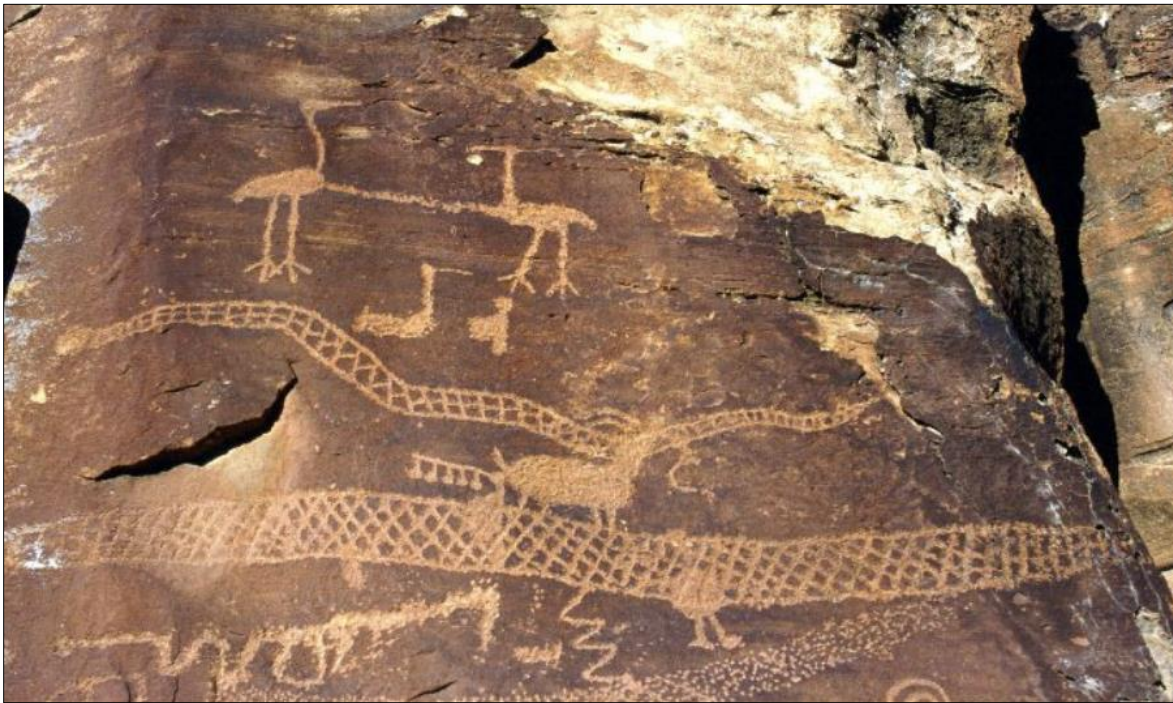
Eleven bird bone whistles represent a category of funerary items at the [Mitchell Ridge site on Galveston Island, Texas](#). All are made from the ulna, the larger of the two lower wing bones, of Whooping Cranes. Ulnas are hollow bones with very thin walls, an adaptive feature shared by all large flying birds. The whistles from Mitchell Ridge are 8-12 inches and have a single air hole, distinguishing them from flutes which have multiple air holes. Four of the Whooping Crane whistles are decorated with geometric patterns created by finely engraved lines while four whistles are decorated with engraved lines. Seven undecorated whistles were thought to date to the Early Historic period (ca. 1700-1800), while the decorated whistles come from Late Prehistoric (700-1250) and Protohistoric (1528-1700) graves.



*Four engraved Whooping Crane ulna whistles from a burial in Cameron Parish, southwestern Louisiana (on left) compared to three engraved Whooping Crane ulna whistles (on right) from Mitchell Ridge, Texas. Adapted from Ricklis, 1994.*

The [Oneota](#) also used birds in ceremonial settings. In September 1958, an Indian burial site was discovered during road construction along Bear Creek in northern Allamakee County, Iowa. This site, referred to as the Flynn Cemetery, contained approximately 17 burials. Two bird skulls, placed with separate burials as offerings, were of special interest. The bill and anterior part of the skull of a Raven (*Corvus corax*) was found just above the right shoulder of Burial No. 1. In addition to two Swan(?) wing bone whistles recovered with Burial No. 4, Bray (1961) reported that "Lying on top of the left femur at its proximal end was the beak and part of the skull of a bird tentatively identified as a heron." This specimen was, in fact, a Whooping Crane; a complete quadrate, upper bill, a portion of the cranium, and sections of the lower bill had been salvaged. The bird was probably taken locally as *G. americana* was known to have nested in Iowa (A.O.U., 1957) and since the skull (head) had been included as a grave offering, this crane was apparently of special significance. (P. Parmelee, 1967)





*Cranes with snake petroglyph, Nine Mile Canyon, Utah. Some of the most spectacular rock art in Utah is to be found in Nine Mile Canyon northeast of Price. The canyon is actually 40 miles long. Called "the world's longest art gallery" it is home to numerous rock art panels, including the famous "Hunter Panel." Most of the rock art was created by the Fremont Indians who once inhabited the western Colorado Plateau and the eastern Great Basin some 1,000 years ago (beginning in 300 CE)*

Mimbres bowls, produced by members of the Mogollon culture that lived in southwest New Mexico from the late 10th to early 12th century A.D., are known for the unique black and white imagery found on their interiors, such as this man with a crane. Many bowls were found placed over the face of the dead. The bowls found with skulls have a "kill hole" in the middle tapped out by a sharp object, perhaps as a way for a spirit to rise out.



*For additional information see the following:*

ALLEN, ROBERT PORTER. June 1952. The Whooping Crane. Research Report No. 3 of the National Audubon Society.

EDMONDS, MICHAEL. 2018. Taking Flight: A History of Birds and People in the Heart of America Wisconsin Historical Society Press, Madison WI.

INTERNATIONAL CRANE FOUNDATION. 2012. North America.  
[https://www.savingcranes.org/wp-content/uploads/2012/02/whooping\\_cranes.pdf](https://www.savingcranes.org/wp-content/uploads/2012/02/whooping_cranes.pdf)

PARMALEE, PAUL W. 1967. Additional Noteworthy Records of Birds from Archaeological Sites. The Wilson Bulletin 79:155-162.  
<https://sora.unm.edu/sites/default/files/journals/wilson/v079n02/p0155-p0162.pdf>

RICKLIS, ROBERT A. 1994. Aboriginal life and culture on the upper Texas coast: Archaeology at the Mitchell Ridge site, 41GV66, Galveston Island. Coastal Archaeological Research Inc, Corpus Christi pp.445-449.

*There is archeological evidence that over a span of at least eight centuries – Mitchell Ridge served as a traditional cool-season shoreline temporary camp. From this base those who camped there would have ventured forth on the island, in the bay, and sometimes across the bay to fish, gather roots and other plants and hunt.*

<https://www.texasbeyondhistory.net/mitchell/goods.html>

For a PDF of Chapter 11. "The Grave Goods: Chronological, stylistic and functional considerations," go here: <https://www.texasbeyondhistory.net/mitchell/images/Ricklis-1994-chap11.pdf>



*Crane petroglyph, Puerco Pueblo, Utah-Arizona. Puerco Ruin and Petroglyphs are the ruins of a large Indian pueblo, which reached its peak around 1300 CE.*



*Crane petroglyph – De-Na-Zin Wilderness, New Mexico. De-Na-Zin, from Navajo Déél Náázíní, translates as "Standing Crane." Petroglyphs of cranes have been found south of the Wilderness.*

## Aransas-Wood Buffalo WHOOPERS

### **COVID impacts Wood Buffalo National Park annual surveys**

According to Rhona Kindopp, Resource Conservation Manager at Wood Buffalo National Park, the 2020 summer Whooping Crane surveys were cancelled due to the COVID-19 pandemic. Hopefully both the nest and fledgling surveys will be resumed in 2021. The Canadian Wildlife Service (CWS) plans to conduct some crane migration monitoring this season in Saskatchewan.



*Juvenile and adult Whooping Cranes in Saskatchewan during 2019 migration. Photo by Val Mann*



## Fall 2020 Whooping Crane Migration in full swing

Migration of the only natural wild population of Whooping Cranes is underway from their breeding grounds in the Wood Buffalo National Park in Canada's Northwest Territories to the Aransas National Wildlife Refuge on the Texas coast – a trip of about 2,500 miles that can take as many as 50 days to complete. The flock is expected to migrate through Nebraska, North Dakota and other states along the Central Flyway over the next several weeks. The Wildlife Fish and Game and Parks agencies along the flyway encourage the public to report any Whooping Crane sightings.

If you should observe a Whooping Crane along the Central Flyway during this time, please report them to the proper agencies. Friends of the Wild Whoopers (FOTWW) has compiled a list of agencies and contact information below. If you need help with identification, please click on the FOTWW [Whooper Identification](#) page.

### Canada

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

### Montana

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

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

### 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](mailto:eileen.dowdstukel@state.sd.us);  
(605-773-4229)  
Casey Heimerl; (605-773-4345)  
Natalie Gates; [Natalie\\_Gates@fws.gov](mailto:Natalie_Gates@fws.gov);  
(605-224-8793), ext. 227

Jay Peterson; [Jay\\_Peterson@fws.gov](mailto:Jay_Peterson@fws.gov);  
(605-885-6320), ext. 213

### 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](mailto: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](mailto:quivira@fws.gov)

### Oklahoma

[Sightings can be logged online here](#)  
Matt Fullerton  
Endangered Species Biologist  
(580-571-5820)

Mark Howery  
Wildlife Diversity Biologist  
(405-990-7259)

## Report your sighting!

Should you observe a Whooping Crane during migration, please do not approach or disturb it. If it's behavior changes in any way, you are too close! Keep your distance and make a note of date, time, location, and what the Whooping Crane is doing (ie. foraging, resting, in flight, etc.). If a crane is wearing bands or a transmitter, please note the color(s) and which leg(s) the bands are on. Information from sightings help biologists learn more of what habitat is needed for the endangered species.



## FOTWW visit Lewis and Clark Lake

The Lewis and Clark Lake is a major reservoir located on the Missouri River along the border of South Dakota and Nebraska. It is a 31,400 surface-acre reservoir during maximum pool and is approximately 28 miles in length with over 90 miles of shoreline.

Friends of the Wild Whoopers (FOTWW) Wildlife Biologist Chester McConnell and FOTWW Field Assistant Dorothy McConnell visited Lewis and Clark Lake on September 10, 2019, to assess potential “stopover habitats” for Whooping Cranes. David Hoover, Conservation Biologist, Kansas City, MO, U.S. Army Corps of Engineers (USACE) coordinated details for their trip.

Lewis and Clark Lake is just one of the 35 USACE lakes that FOTWW has evaluated. It is one of the six Corps of Engineers lakes developed on the Missouri River that fall within the Whooping Crane migration corridor. Many other migratory bird species and millions of individuals use the same migration corridor.

Whooping Cranes normally migrate northward over or near Lewis and Clark Lake during spring migration from April – May and southward during fall migration from October – November. Stopovers to rest and forage are usually late in the afternoon with the cranes departing early to mid-morning the following day. The United States Geological Survey (USGS) personnel use location data acquired from 58 individual cranes fitted with platform transmitting terminals that collected global position system locations. Data for 5 years (10 migrations), from 2010-2014, show that the radio-tagged Whooping Cranes provided data for 2,158 stopover sites. From the data, biologists know that the Lewis and Clark Lake area was used by Whooping Cranes in the past and that use is only expected to increase as the population grows. Not only observed in the lake vicinity, sightings of Whooping Crane were also recorded on several Indian Reservations along the lake.

*To learn more of this lake located in South Dakota and Nebraska, go here:*

[https://friendsofthewildwhoopers.org/friends-of-the-wild-whoopers-and-corps-of-engineers-visit-lewis-and-clark-lake/?fbclid=IwAR0I-gcU1XZD9YJceFwQ\\_D4QZPLlyWWIN6h9bXnEZzG5N3jGhCDqfrQh78Q](https://friendsofthewildwhoopers.org/friends-of-the-wild-whoopers-and-corps-of-engineers-visit-lewis-and-clark-lake/?fbclid=IwAR0I-gcU1XZD9YJceFwQ_D4QZPLlyWWIN6h9bXnEZzG5N3jGhCDqfrQh78Q)

*To support the crucial habitat work done by Friends of the Wild Whoopers (FOTWW) on behalf of the Aransas-Wood Buffalo population of Whooping Cranes please consider becoming a supporter by going here: <http://friendsofthewildwhoopers.org/support-fotww/>*

*Your support will go a long way in helping the wild Aransas-Wood Buffalo Whooper population become a self-sustaining population.*

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## Eastern Migratory Population of WHOOPERS

### **Eastern Migratory Population WHCR Update – December 1, 2020**

*Below is the most recent update for the Eastern Migratory Population of Whooping Cranes. A huge thank-you to the staff of the U.S. 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 is produced by the International Crane Foundation for the [Whooping Crane Eastern Partnership](#). Near real-time locations of Whooping Cranes in this population can be seen at [map.bringbackthecranes.org](http://map.bringbackthecranes.org)*

#### **Population Estimate**

The current estimated population size is 80 (39 F, 38 M, 3 U). 17 of these 80 individuals are wild-hatched and the rest are captive-reared. To the best of our knowledge, as of 1 December, there are 7 Whooping Cranes that are still in Wisconsin, 18 in Illinois, 35 in Indiana, 6 in Kentucky, 2 in Tennessee, 4 in Alabama, 1 in Florida. The remaining birds' locations have not been confirmed in the last month.

## 2020 Wild-hatched Cohort

- W3-20 (F) and parents 11-15 and 42-09 passed through Illinois on their way south and were seen with 80-19 (F). They went to Morgan Co., Alabama and then decided to come back north to Hopkins Co., Kentucky, and have been seen with 80-19 (F) as well as 2-04 (M) and 25-09 (F).
- W13-20 (M) and parents 38-17 and 63-15 left Horicon NWR in Wisconsin, and have made their way to Randolph Co., Illinois.
- W14-20 (M) and parents 12-03 and 12-05 are in Knox Co., Indiana.
- W18-20 (F) and parents 13-02 and 24-08 left Necedah NWR and are now in Wabash Co., Illinois.

## 2019 Cohort

- W1-19 (F) is at Goose Pond FWA in Greene Co., Indiana, and has been gathering in a group of 10-15 Whooping Cranes, including other young birds as well as breeding pairs.
- W14-19 (F) left Portage Co., Wisconsin, with 1-17 (M) and went to Wheeler NWR, in Morgan Co., Alabama, only to turn around and go to Greene Co., Indiana shortly after.
- W19-19 (U) left Juneau Co., Wisconsin, and is now in Greene Co., Indiana and still with W1-19 (F) and W10-18 (U) in the large group of Whooping Cranes.
- 79-19 (F) and 74-18 (M) left 16-11 (M) in Wisconsin and are now in Greene Co., Indiana, associating in the large group.
- 80-19 (F) was seen with family group W3-20, 11-15, and 42-09 in LaSalle Co., Illinois, and followed them to Hopkins Co., Kentucky where she is now also with 2-04 (M) and 25-09 (F).

## 2018 Cohort

- W3-18 (F) is still in Greene Co., Indiana, with W1-18 (F) and 19-10 (M) and have been associating in the large group at Goose Pond FWA.
- W5-18 (M) and W1-06 (F) left Juneau Co., Wisconsin and have been seen in the large group of cranes at Goose Pond FWA in Greene Co., Indiana.
- W1-18 (F) is still in Greene Co., Indiana, with W3-18 (F) and 19-10 (M) in the large group of cranes at Goose Pond FWA.
- W10-18 (U) left Necedah NWR and have been seen with W1-19 (F) and W19-19 (U) in the large group of cranes at Goose Pond FWA in Greene Co., Indiana.
- W6-18 (M) left Necedah NWR and was last seen at Goose Pond FWA in Greene Co., Indiana, with 16-04 (M), 2-17 (F), who he had been last seen associating with, and 69-16 (F) and W10-15 (U).
- 73-18 (F) and 3-04 (M) left Necedah NWR and made their way to Wayne Co., Illinois.
- 74-18 (M) left with 79-19 (F) and arrived in Greene Co., Indiana and have been seen in the large group of cranes at Goose Pond FWA.
- 77-18 (M) left Michigan and is now in Polk Co., Florida.

## Mortality, Long-term missing

(From the October 2020 EMP report) 75-18 (M) was found dead at Horicon National Wildlife Refuge in Dodge Co., Wisconsin in late September. Cause of death is not yet known.

(From the November 2020 EMP report) 28-08(M) has not been seen for more than a year and is now considered long-term missing and has been removed from population size estimates. He was last seen October 2019 in Wisconsin with his mate 5-10(F) who showed up on the wintering grounds alone and has spent all of 2020 alone on their typical breeding territory.

For the monthly Whooping Crane Eastern Migratory Population updates that include population estimates, reproduction, wild-chick updates, cohort updates and mortalities, go here:

<http://www.bringbackthecranes.org/project-updates/>

To follow where the reintroduced eastern population is, go here: <http://map.bringbackthecranes.org/>

To learn more about the individual cranes in the eastern population, go here:

<http://www.bringbackthecranes.org/emp-whooping-crane-biographies/>



Data courtesy of [Whooping Crane Eastern Partnership \(WCEP\)](#)

**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/>

## Wisconsin:



*Female 38-17 offers a tidbit to colt W13-20 at Horicon National Wildlife Refuge. The colt was the first to fledge at the wetland marking a milestone for the reintroduced eastern migratory population of Whooping Cranes. Photo by Doug Pellerin*

## **History in the making! First Whooping crane fledges at Horicon NWR**

Horicon Marsh is a shallow, peat-filled lakebed scoured out of limestone by the Green Bay lobe of the massive Wisconsin glacier. The glacier entered this area about 70,000 years ago and receded about 12,000 years ago. The marsh itself is approximately 14 miles long and ranges from 3-5 miles in width. "Horicon" is a Mohican word meaning "pure, clean water."

More recently in the long history of the marsh and one that had immediate impact on the marsh as it is today, the Horicon Marsh Game Protective Association was formed to fight the draining of the marsh and in 1923, this group became the Horicon Marsh Chapter of the [Izaak Walton League of America](#). Curly Radke of the local chapter of the Izaak Walton League rallied legislators for the Horicon Marsh Wildlife Refuge Bill of 1927 which provided money to buy the land and build a dam that was finished in 1934 and is still used today to regulate water levels in the marsh.

That same year, Congress passed the [Migratory Bird Hunting and Conservation Stamp Act](#) requiring all waterfowl hunters age 16 and older to purchase a stamp (commonly known as the "Duck Stamp") to fund the purchase and protection of wetlands and other wildlife habitat. Over the past 86 years the program has raised more than \$1 billion to help acquire and protect more than 6 million acres of habitat in the National Wildlife Refuge System.

In 1941, the federal government purchased (with the help of federal Duck Stamp dollars) the rest of Horicon Marsh, and Horicon National Wildlife Refuge was established on May 9, 1941 for the protection and conservation of migratory birds. The northern two-thirds of Horicon Marsh is managed by the U.S. Fish & Wildlife Service as the 22,000-acre [Horicon National Wildlife Refuge](#) while the southern third of the marsh, 11,000 acres, is managed by the Wisconsin Department of Natural Resources as [Horicon Marsh](#)

[State Wildlife Area](#). At more than 33,000 acres, Horicon Marsh is one of the largest freshwater marshes in the United States and is a critical rest stop for thousands of migrating ducks and geese. It is recognized as a [Wetland of International Importance](#), as both [Globally and State Important Bird Areas](#), and is also a unit of the [Ice Age Scientific Reserve](#).

That brings us to mid-May 2020 when a Whooping Crane chick, known to biologists as male W13-20, hatched and survived to become the first Whooping Crane to fledge at Horicon National Wildlife Refuge. The juvenile was banded by International Crane Foundation (ICF) staff. During the 2020 breeding season, 83 Whoopers were documented in Wisconsin, according to Davin Lopez, biologist with the Wisconsin Department of Natural Resources. Out of 21 nesting pairs, 18 chicks hatched but just four of those fledged; W13-20 at Horicon, two at Necedah National Wildlife Refuge and one on private property in Adams County.

Juvenile W13-20's father is male 63-15, a bird raised at ICF and released in 2015. His mother, 38-17, has an interesting story. She was hatched in 2017 at the Patuxent Wildlife Research Center in Maryland and raised there by captive adult cranes as part of the "Parent-Reared" program. Then on October 3, 2017 she was transported to Wisconsin and released at Horicon National Wildlife Refuge in the hope she would be "adopted" by, and then follow, adult Whooping Cranes south for her first migration. But 38-17 had other ideas and formed an association with two Sandhill Cranes – one of which had a broken wing, and never migrated. Nor did the juvenile Whooper – after eluding several attempts at capture she spent an extremely harsh winter there at Horicon National Wildlife Refuge. Thanks to persistent monitoring and supplemental feeding by dedicated Operation Migration staff the juvenile Whooper survived the winter. The following year, 38-17 paired up with male 63-15 and wintered in Illinois. Since then the mated pair has returned to Horicon for several breeding seasons culminating this year with the hatching of W13-20, the first Whooper fledgling for the wetland.

If all goes as expected, W13-20 will spend the fall-winter 2020 with his parents, then return to Wisconsin in 2021, joining other Whooping and Sandhill Cranes there. Whooping Cranes usually don't breed until 3 years old.

*To read an in-depth history of Horicon Marsh NWR including historic photos – "American settlement, development, and life of the Horicon Marsh area (1829-present) What was Horicon Marsh like in the 1800s?" – go here: <https://www.fws.gov/uploadedFiles/Horicon%20History.pdf>*



*Juvenile Whooping Crane (center) and its parents forage at Horicon National Wildlife Refuge near Mayville Wisconsin. Aerial photo Bev Paulan*



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## General News

### Arizona:

#### Whitewater Draw visitor caught on crane cam



*The Whitewater Draw Crane cam caught this photo of a coyote encountering a wall of roosting Sandhill Cranes. The coyote continued on its way, perhaps realizing it was outnumbered.*

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### Canada:

#### 'Fraser' Crane released after golf ball injury

Within the Lower Fraser, British Columbia, one of the last strongholds for the Greater Sandhill Crane is found within the [Pitt-Addington Wildlife Management area](#), part of the [Katzie First Nations](#) historic territory. In the oral history of the [Katzie](#), the Sandhill Crane was one of the most important animals in their culture and highly revered – their name for the crane being “haha’w ” which means “superior in everything.”

Currently there are an estimated 30 to 35 sandhills in the lower mainland and based on those numbers Wildlife Biologist Myles Lamont would like to see their federal status changed from “Non-threatened,” to “Threatened.” With approximately 12 breeding pairs left of the South Coastal Sandhill Cranes in the Fraser Valley, the population faces severe threats from urban expansion, loss of wetland habitats to agricultural development, and golf courses as they are forced more and more onto sub-optimal habitat types which have proven to be highly dangerous.



*X-ray of "Fraser's" broken leg.*

A golf ball strike during the summer of 2019 broke “Fraser’s” leg and killed his mate. Unfortunately, the area has lost 10 Sandhills in the past 5 years due to golf ball strikes as the cranes sit on nests and forage

in the area of golf courses. The vet and rehab team volunteered their time, money and expertise towards the crane's recovery. Plans included fitting Fraser with a GPS transmitter before release so that biologists could track his movements and recovery in order to better understand this sub-population of Sandhill Cranes.

The Fraser Valley has lost nearly all of its original bog habitats, except for a handful scattered throughout the Lower Fraser; those being Burns Bog, Langley Bog and the Pitt Polder. The rehabbed crane was released in the [Pitt Polder Ecological Reserve](#) – a remnant of those Fraser Valley boglands – one of the last viable habitats for the birds.

To read more about the South Coastal Sandhill Crane Project go here:  
<https://www.terrafauna.ca/south-coast-sandhill-crane-project>

## Louisiana:

**Editor:** *The following is a 20 November 2020 press release from the [International Crane Foundation](#).*

### **Sentence modified for Whooping Crane crime in Louisiana**

*“The sentence of a Rayne, Louisiana resident, for a Whooping Crane crime he committed four years ago, was modified on October 27. Constantin shot two Whooping Cranes – L3-15 and L5-15 – in the Louisiana Non-migratory Population in May of 2016 with the help of a juvenile family member. Learn more about the crime and original sentencing here.*

*At a supplemental hearing for Kaenon Constantin in the Western District of Louisiana in Lafayette, Magistrate Judge Patrick J. Hanna reduced Constantin's restitution from \$75,000 to \$25,000. The restitution will be paid to the Louisiana Wildlife and Fisheries Foundation, to be set aside for Whooping Crane conservation efforts at the Louisiana Department of Wildlife and Fisheries. His unsupervised probation period was also reduced from five years to two years.*

*The rest of the sentence stands from the original sentencing hearing in July. The full sentence for Constantin is now a \$10,000 fine, \$25,000 in restitution, two years unsupervised probation and 360 hours of community service. Until his community service is completed, Constantin cannot hunt or fish. This change in restitution was the result of a deal reached between the opposing attorneys.*

*The International Crane Foundation is disappointed by the reduction in restitution, which does not reflect the financial contributions of many non-profit and government organizations that support the continued reintroduction of this species in Louisiana. However, this sentence remains one of the highest administered to someone who has shot a Whooping Crane, and we hope it will serve as a deterrent.*

*We commend Assistant US Attorney Danny Siefker, Jr. for his hard work and dedication to this case. We also thank Magistrate Judge Patrick Hanna for his support of Whooping Crane protection. The International Crane Foundation and our partners in Whooping Crane conservation in Louisiana are working on new ways to reach community members in areas that have Whooping Cranes through a targeted outreach campaign. We look forward to doing more work in the state to protect Whooping Cranes from shootings.*

*The reintroduction of Whooping Cranes to Louisiana is a critical component to the recovery of the species. The International Crane Foundation and the Louisiana Department of Wildlife and Fisheries, along with our other partners in Whooping Crane reintroduction, will continue to advocate for high sentences for the crime of shooting a Whooping Crane. We are also working on new and innovative ways to foster awareness and appreciation for the species in Louisiana and east Texas.”*



## **NEW Louisiana Whooping Crane Outreach Coordinator position!**

We are hiring for our NEW Whooping Crane Outreach Coordinator position based in Louisiana!

The International Crane Foundation is looking for a community-oriented team member to provide outreach on conservation efforts for the endangered Whooping Crane in Louisiana.

Over the past 47 years, the International Crane Foundation has grown from the dream of two college students to a world-renowned conservation effort to save the world's cranes and the flyways, habitats and ecosystems on which they depend. This outreach coordinator will administer an important education and outreach program in Louisiana, where Whooping Cranes live and have historically faced not only habitat-based challenges but increasing threats from illegal shootings.

What is it like to work at the International Crane Foundation? We are passionate about our mission, dedicated to the organization and engaged with our fellow staff and associates. Our team is committed to fulfilling the dream that started 47 years ago. This position is open to all, but preferably, those who want to further their knowledge of the conservation of endangered cranes. Does that sound like you?

*Does this sound like a perfect fit for you? Apply today: [bit.ly/2VoJsov](https://bit.ly/2VoJsov)*

### **From recent posts by Louisiana Department of Wildlife and Fisheries - Whooping Cranes**

#### **October 6**

In 2019, a group of 6 HY18 [Hatch-Year 2018] cranes spent most of the spring and summer in Texas including some time at a location in Limestone County. This year in early May, 3 of them returned to that same area. Last week those 3 birds returned to the White Lake WCA property after having spent the last, almost 5 months in Texas!

The PTT and GSM [Global System for Mobile Communications] transmitters, that many of our birds carry, collect data on speed and altitude, but for the most part LA Whooping Cranes aren't traveling great distances so they're not usually flying very high or very fast. However, on this longer trip home we did get some more interesting data indicating at one point they were close to a mile high and probably had

a good tailwind, as the speed indicated by the transmitter was close to 60 miles per hour! We expect next year as 3-year-olds that they will remain in LA and hopefully attempt to nest but time will tell! We appreciate the assistance of local Texas Parks and Wildlife Department staff who helped keep an eye on them while they were over there!



#### **October 8**

Well unfortunately here we go again! Hurricane Delta is projected to make landfall and impact many of the same areas that were impacted by Hurricane Laura just 6 weeks ago! The cranes made it through that hurricane so we expect they'll do okay through this one, though more of them may experience higher wind speeds this time around. Once the storm has passed and it's safe, we'll hope to get out and check on birds from the ground but that may take a while, so we'll monitor their transmitter data and keep you posted. Our thoughts are with everyone in the path of this storm, please take care and stay safe!

### October 13

Although Louisiana took another hard hit from Hurricane Delta, including areas previously impacted by Hurricane Laura and pretty much all areas where our whooping cranes live, so far, from what we can tell from transmitter data, it appears that the cranes once again hunkered down, rode out the storm and did ok! We're actually flying today for the first time since the spring, so we'll be able to share a more complete update later in the week so stay tuned! Also please continue to keep the people impacted by these two hurricanes in your thoughts!



*Louisiana Whooping Cranes foraging after Hurricane Delta, 3 October 2020*

### October 16 at 3:10 PM

During our flight on Tuesday, we were able to visually confirm 52 cranes! With additional reports, tracking observations and remote transmitter data, a total of 62 cranes are known to have made it through their second hurricane of the year! We still have about a dozen left to try to visually confirm, but it's likely that they also did OK during Delta. We certainly hope that hurricane season is over.

The [Louisiana Department of Wildlife and Fisheries \(LDWF\)](#) is working with a number of partners to restore the Whooping Crane in Louisiana. This remarkable bird, while historically found in Louisiana, disappeared from the state's landscape in 1950 due to mechanized agriculture and unregulated hunting. The reintroduction program began in 2011. Currently, there are 76 Whooping Cranes in the population. The goal of the Louisiana project is to establish a self-sustaining, non-migratory Whooping Crane population, estimated to require approximately 120 individuals and 30 productive pairs.

## **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/); <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/); <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/>

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## **Habitat Matters!**

### Arizona:

#### **Tombstone Ranch desert ecosystem and wildlife protected**

Through an Arizona Land and Water Trust project finalized in October 2020, 2,190-acres of Tombstone Ranch, previously part of the historic 4-Bar Cowan Ranch in Whitewater Draw Valley, Cochise County is now permanently protected. By preserving the ranch, the trust is able to further protect the groundwater from over-pumping on the property thereby protecting native grasslands, and water resources that provide critical wildlife habitat for not only Sandhill Cranes, Gambel's and Scaled Quail, but also species listed by the Arizona Game & Fish Department as those in Greatest Conservation Need – including the Lesser Long-nosed Bat, Chiricahua Leopard Frog and Bald eagle. This is also the first conservation easement to include a clause to allow public access for hunters in perpetuity.

*For more information, visit [alwt.org](http://alwt.org).*

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### California:

#### **Black Hole preserve – a Delta sanctuary**

In 1992, farmer Dino Cortopassi – a quintessential “Delta Rat” – began converting 350 acres of family-owned agricultural land into a “balanced” (multi-flora / multi-species) marsh reminiscent of the natural Delta (BH-I). Then in 2002, an additional 400 acres of family-owned land (BH-II) was converted. In 2014, the entire 750 acres were deeded to the Cortopassi Family Foundation (CFF); which subsequently, in 2016, formed/funded Wetlands Preservation Foundation (WPF) to provide 100% of the annual maintenance required to SUSTAINABLY maximize Black Hole wildlife productivity and ensure the preserve continues in perpetuity.

Located 12 miles west of Lodi, California, the Black Hole has become a major wintering ground for a wide range of migratory waterfowl including ducks, geese, swans, ibis, and Sandhill Cranes – one of the oldest species of living birds. In addition to migratory species, the Black Hole provides four-season habitat to resident species such as curlews, egrets, herons, and a wide variety of ground-nesting species. To minimize environmental damage, the preserve is not open to the public. Cortopassi makes it available to members of the Audubon Society, who've documented several dozen bird species on the property, from hummingbirds and orioles to owls and vultures.

“When you visit The Black Hole, you feel you are stepping back in time, getting a glimpse of the Delta as it may have been many years ago, before so many changes, even before the Gold Rush,” said Ken Nieland, president of the Lodi Sandhill Crane Festival, which Cortopassi has supported since its inception.

The Black Hole (and adjacent Cortopassi Family farmlands) have become a leading example of how agriculture and conservation can coexist. Through wildlife-friendly agricultural practices and a true re-creation of the original Delta's beauty, Wetlands Preservation Foundation and the Cortopassi Family have created a working model of long-term Delta sustainability.

The creation of the Black Hole Habitat was entirely accomplished from private funds provided by Joan/Dino Cortopassi. The present and future maintenance of the BH Habitat is provided from private funds entirely provided by Joan/Dino Cortopassi.

*To learn more about lifelong farmer, astute businessman, and conservationist, Dino Cortopassi, and all that was involved in creating his Black Hole preserve, go here:*

[https://www.lodinews.com/news/article\\_829cdfee-3383-11eb-aeeb-4b875ebc2f50.html](https://www.lodinews.com/news/article_829cdfee-3383-11eb-aeeb-4b875ebc2f50.html) or, here to learn more about the Black Hole foundation:

<https://www.wetlandspreservationfoundation.org/black-hole-habitat>

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## Dakotas:

### **Prairie potholes – our North American ‘Amazon’**

<https://www.forbes.com/sites/chrisdorse/2020/06/19/the-north-american-amazon-that-youve-never-heard-of-and-that-is-in-peril/#e533b0867e6a>

When the Cornell University’s Laboratory of Ornithology reported in September 2019 a decline of some three billion birds across North America since the 1970s, there was one group in Chicago already making plans to raise awareness about the shocking decline and the little-known habitat that holds the key to continental bird populations.

“The prairie wetlands that stretch mostly from western Canada to North and South Dakota are as ecologically important to North America as the Amazon is to South America or the Serengeti is to Africa,” says Charles Potter, [Max McGraw Wildlife Foundation](#) President and CEO. To bring this area to public awareness, McGraw set out to build a coalition of conservation organizations that include [Ducks Unlimited](#) and [Delta Waterfowl](#) as well as leading philanthropists to create an unprecedented media and educational campaign to showcase and celebrate the importance of this ecosystem.

The prairie wetlands consist of a 275,000-square mile region – the breeding grounds for 70 percent of the North America’s waterfowl. In addition, 225 other migratory bird and dozens of mammal species call the region home, including many that are either threatened or endangered. The prairie pothole region was created by glaciers of the last Ice Age that scooped and carved a nearly even mix of land and water. When the glaciers retreated, they left meltwater that filled thousands of ponds and wetlands known as “potholes,” the perfect nursery for all manner of waterfowl and songbirds.

The anchor of the awareness effort is an IMAX/Giant Screen film called [Wings Over Water](#) that will be released in 2021. The film follows Sandhill Cranes, Yellow Warblers and other species as they embark on harrowing migratory journeys to reach their prairie breeding grounds.

*For a preview of the IMAX “Wings Over Water,” go here:*

[https://www.youtube.com/watch?v=mFsUcMgeuic&feature=emb\\_err\\_woyt](https://www.youtube.com/watch?v=mFsUcMgeuic&feature=emb_err_woyt)

*To learn more about the Max McGraw Wildlife Foundation go here:*

<https://mcgrawconservation.org/max-mcgraw-wildlife-foundation/>

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## Ohio:

### **Killbuck Marsh Wildlife Area’s “Big Spring”**

The [Killbuck Marsh Wildlife area \(KMWA\)](#) is in a shallow, U-shaped glacial outwash valley. The elevation varies from 840 feet at the floor of Killbuck Creek near Holmesville to nearly 1,000 feet on hillsides

parallel to the valley floor. About 56 percent of the acquisition unit consists of marsh and swamp that is flooded during some portion of the year. This complex is Ohio's largest remaining marshland outside of the Lake Erie region. Killbuck Marsh Wildlife Area is also one of the few locations in Ohio where Sandhill Cranes – listed by the state as “endangered” due to habit loss – nest and rear their young.

While the stream and marsh it carved out of the Killbuck Valley, provided habitat for numerous birds, fish, reptiles and mammals, its banks never held the spring and summer rains. The creek was channelized through the valley in the early 1900s to try and help with flooding. However, in a domino effect, trees growing along its banks fell into the creek creating logjams and more flooding. These logjams then led to cuts in the creek bank that changed the course of the river, dropping sediment into parts of the marsh, and when the water receded drained water from the marsh.

That's exactly what happened to an extremely important part of the 6,000-acre Killbuck Marsh Wildlife Area, a place called the Big Spring. Located in the 850 acres of the off-limits-to-the-public refuge section, the Big Spring is a constant water source for the marsh that provides a refuge for waterfowl to rest and a source of water for the marshland south of it. Then a flood changed all that years ago, silting in the marsh around the spring, and changing the direction of the 4,500 gallons an hour that came out of the spring. Instead of flowing south, it followed the channel created by the logjam and flood to flow directly into Killbuck Creek.

"When you lose a wetland, you lose a unique place," said KMWA manager Dennis Solon, who has been with the Ohio Division of Wildlife since 1980. "Wetlands benefit 200 species of wildlife at a minimum. The diversity of a wetlands is only rivaled by that of a rain forest."

Using money in the Ohio Department of Natural Resources' budget earmarked for wetlands, Pittman-Robertson funds, money from Duck Stamps and a donation from Ducks Unlimited, the Division of Wildlife and Wetlands Coordinator Dave Sherman came up with the \$250,000 needed to complete the 6-year project.

The Big Spring doesn't bubble up out of the ground, but actually seeps out of a hillside at a constant 55-degree spring water. Because the water never freezes entirely, it provides habitat not only for thousands of ducks and geese, but Trumpeter Swans, Sandhill Cranes, songbirds, eagles and flocks of turkeys. While in 1980 there was just one record of a nesting pair of Sandhill Cranes in Ohio, hundreds can now be seen and heard at the wildlife area.

*For a map and more information about Killbuck Marsh WA, go here:*

<https://ohiodnr.gov/static/documents/wildlife/wildlife-area-maps/killbuckmarsh.pdf>

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## **ENVIRONMENTAL impact issues:**

### **Judge dismisses efforts to stop pesticides and GMO crops from being used in wildlife refuges**

On 29 September 2020 the U.S. District Court for the District of Columbia dismissed a lawsuit brought against the U.S. Fish and Wildlife Service in 2018 by the Center for Food Safety (CFS) and the Center for Biological Diversity (CBD), for reversing previous bans on specific insecticides and genetically modified organisms (GMO) in national wildlife refuges. The lawsuit was dismissed on the grounds that the plaintiffs failed to show that they would be harmed by the policy reversal, adding that the alleged injuries put forward by individual members are speculative and therefore do not establish standing. Intended for the case to look at the issue on a national level the court instead ruled that the issue would be case specific.

"Unfortunately, as a result of dismissal, we expect and we've already seen that different refuges across the country will start implementing this reversal policy, meaning they are going to start approving genetically engineered crops to be planted and neonicotinoid pesticides to be used," said Sylvia Wu, a senior attorney for the Center for Food Safety. Neonicotinoid pesticides, whose active ingredient is a



nicotine-like molecule, are largely accepted by scientists to have been responsible for a massive decline in bee populations – a decline that threatens the human food supply.

Affected by dismissal of the lawsuit are not only pollinators (ie. honeybees, Monarch butterflies, etc.), but a long list of threatened and endangered wildlife that rely on critical national wildlife refuge habitat. Case in point is the Whooping Crane. During migration these endangered cranes use refuges along their migration corridors to forage and rest. For the Aransas-Wood Buffalo population as well as a large percentage of the Eastern Migratory Population of Whooping Cranes their final destinations for overwintering are wildlife refuges. Anytime Whooping Cranes are exposed to, and/or ingest, pesticides it is problematic for an already imperiled species.

## **EPA reapproves ultra-toxic pesticides and new fungicide – endangering people and wildlife**

“The EPA’s [Environmental Protection Agency’s] reckless reapproval of all these extremely toxic, old pesticides will cause serious long-term harm to people and wildlife,” said Nathan Donley, a senior scientist at the Center for Biological Diversity. “We should be banning many of these dangerous pesticides. Instead the EPA has actually loosened its own prior restrictions for some of them, imperiling farmworkers and children and our crashing pollinator populations.”

The EPA has steadfastly refused to complete legally required analyses of the impacts of these herbicides, insecticides and fumigants on endangered plants and animals. The 22 October 2020 blitz of reapprovals allows the EPA to keep these pesticides on the market until 2035.

The interim decisions include:

- [Paraquat](#), which has been [shown](#) to more than double the risk of developing Parkinson’s disease in farmworkers and others suffering occupational exposure;
- Most [pyrethroid insecticides](#), linked to autism, Alzheimer’s and Parkinson’s diseases and known to be highly toxic to pollinators and fish;
- [1,3-Dichloropropene](#), a highly toxic fumigant linked to respiratory problems and cancer;
- [Methomyl](#), a neurotoxic insecticide in the carbamate class very similar to organophosphates such as chlorpyrifos, which the EPA recently [found](#) was likely to harm more than 1,100 endangered species – including highly endangered Whooping Cranes, San Joaquin Kit foxes and all species of protected salmon.

The [Center for Biological Diversity](#) and [Center for Food Safety](#) filed a [lawsuit](#) 23 October 2020 challenging the Environmental Protection Agency’s approval of a toxic new fungicide without fully addressing its lethal effects on endangered wildlife. The EPA approved the new fungicide, inpyrfluxam, in August despite compelling research showing it to be “[very highly toxic](#)” to fish, including endangered salmon and steelhead, and that it poses substantial risks to large birds, including Whooping Cranes. It is also extremely persistent, remaining in the environment for years after use.

*To read the Center for Biological Diversity’s 22 October 2020 press release concerning the deadly pesticides, go here:*

<https://biologicaldiversity.org/w/news/press-releases/epa-reapproves-dozens-ultra-toxic-pesticides-2020-10-22/>

*To read the 23 October 2020 press release concerning the fungicide inpyrfluxam, go here:*

<https://biologicaldiversity.org/w/news/press-releases/lawsuit-filed-protect-endangered-wildlife-dangerous-new-fungicide-2020-10-23/>

*To read the Center for Biological Diversity’s and Center for Food Safety’s petition for review, go here:*

[https://www.biologicaldiversity.org/campaigns/pesticides\\_reduction/pdfs/Inpyrfluxam-Petition-for-Review.pdf](https://www.biologicaldiversity.org/campaigns/pesticides_reduction/pdfs/Inpyrfluxam-Petition-for-Review.pdf)

## **Endangered wildlife at risk from new hunting practices on refuges**

The Center for Biological Diversity filed a formal [notice](#) 27 October 2020 of its intent to sue the U.S. Fish and Wildlife Service over the agency’s new [rule](#) expanding hunting and fishing on 2.3 million acres, in 147 wildlife refuges and national fish hatcheries across the United States. The rule authorizes damaging

practices like the use of lead ammunition and killing of ecologically important top predators such as mountain lions.

The rule opens hunting on numerous refuges previously reserved for protecting endangered species or other wildlife. Today's notice asserts that the agency has violated the Endangered Species Act by failing to analyze and mitigate harmful impacts from the hunting expansion on endangered wildlife, such as [Grizzly Bears](#), [Ocelots](#) and [Whooping Cranes](#).

"We're going to court to ensure that our nation's wildlife refuges can actually provide refuges for wildlife," said Collette Adkins, the Center's carnivore conservation director. "We've never before seen such a massive expansion of bad hunting practices on these public lands. There's no sound reason for this, and the Fish and Wildlife Service has either ignored or downplayed the many risks that hunting poses to endangered wildlife."

The expansion will allow hunters to use lead ammunition, which was prohibited at the end of the Obama administration but then reinstated by former Secretary of the Interior Ryan Zinke. For example, endangered Whooping Cranes rely on numerous refuges in the Midwest, like the Horicon National Wildlife Refuge in Wisconsin, where the Fish and Wildlife Service has authorized use of lead ammunition but failed to consider the risk of lead toxicity on the birds.

*To read the full Center for Biological Diversity 27 October 2020 press release, go here:*

<https://biologicaldiversity.org/w/news/press-releases/lawsuit-launched-stop-damaging-hunting-practices-killing-endangered-wildlife-refuges-2020-10-27/>

*To read the formal notice from the Center for Biological Diversity of its intent to sue USFWS based on the fact the Final Rule allowing hunting on National Wildlife Refuges violates the Endangered Species Act, go here:*

<https://www.biologicaldiversity.org/programs/biodiversity/pdfs/Hunting-NWR-Sec-7-NOI-10-22-2020.pdf>

*To read the USFWS Federal Register Final Rule to expand hunting on Wildlife Refuges, go here:*

<https://www.govinfo.gov/content/pkg/FR-2020-08-31/pdf/2020-16003.pdf>



*Pair of Whooping Cranes at Aransas National Wildlife Refuge in Texas. Photo by Hemant Kulkarni*

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## Science News:

**Editor:** *At this time of year when migrating cranes are often heard – long before the swirling groups or delicate skeins of Sandhills are observed passing high overhead – it seems appropriate to find the answer as to what makes this possible? How do their rolling calls, beloved harbingers of spring and fall, carry so far to announce their passing and by doing so cause us to cast our searching eyes skyward? The following publications, one published in 1880 and the second in 1983 provide insight.*

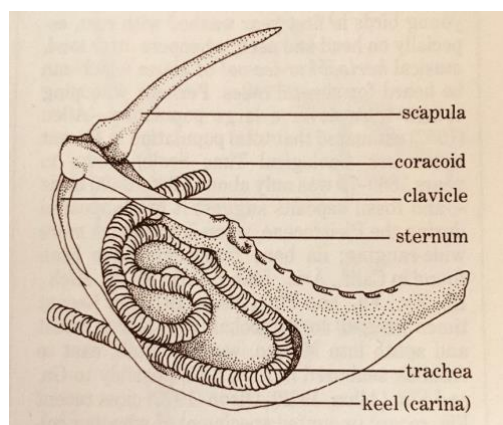
### The Convolution of the Trachea in the Sandhill and Whooping Cranes

By Thomas S. Roberts, February 1880, pp. 108-114

<https://www.journals.uchicago.edu/doi/pdf/10.1086/272491>

*"It is well known to ornithologists, that in many birds there are various peculiar modifications of the trachea, or windpipe, which, it is supposed, serve the purpose of adding some particular quality to the voice.*

*Passing by the numerous minor instances of this structure as seen frequently in ducks, in some geese and a few other birds, we find it most strikingly exhibited among the cranes and swans. In certain species of these two groups the trachea enters the enlarged and excavated keel of the sternum, and after a number of convolutions, varying in position and extent with the species, passes out at the place of entrance and thence into the lungs. In such cases, at least, it is plainly great strength and volume of tone which are imparted, as is clearly evidenced by the powerful utterances for which these birds are noted."*

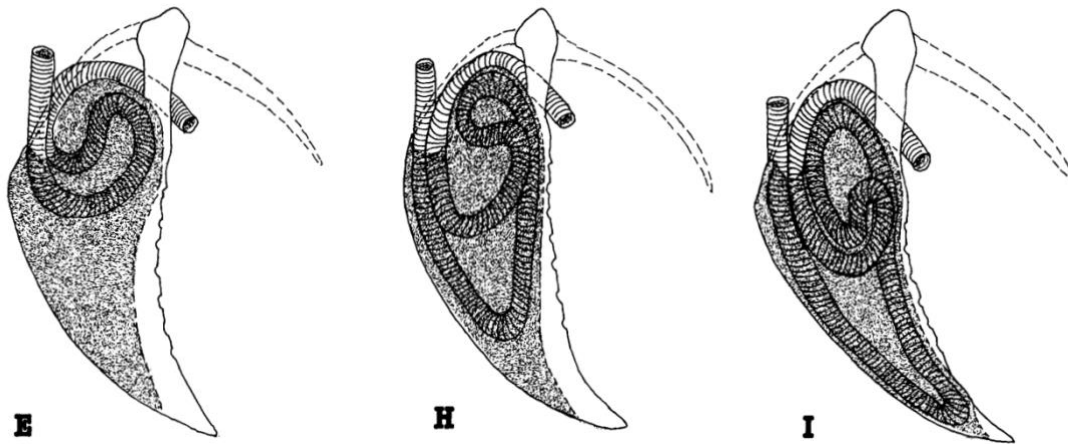


*...It is unnecessary to frame a new description of the convolutions of the trachea in americana as that furnished by Dr. Coues is excellent. The following extracts from it are given for the convenience of the reader. "The sternal keel is broad and tumid, and is entirely excavated. The greater part of the excavation is occupied by the singular duplications of the trachea; but there are two – an anterior and a posterior – large empty air cells in the bone, with smooth walls, and two other air cells—one superior and one along the edge of the keel – filled with light bony meshwork.*

*...The trachea, entering the apex of the keel, traverses the whole contour of the keel in a long vertical coil, emerges at the front upper corner of the keel, enters again at the lower corner of the keel, and makes a smaller vertical coil in the center, emerging again where it went in. On looking at the object from the front, we see three parallel vertical coils side by side; the middle one is the trachea coming down from the neck above; on the left hand is the bulge of the first great coil; on the right is the windpipe passing to the lungs after it has made its second coil inside." Following this is a statement of the effect that "there are about twenty-eight inches of windpipe coiled away in the breastbone," and that altogether, from the upper larynx to the bronchi, the trachea is fifty-eight inches in length, and this in a bird that is little over four feet long from the tip of the bill to the end of the tail.*

*The average of three specimens shows the entire length of the trachea in canadensis to be about twenty-seven inches...."*





*Illustrations of the adult trachea and sternal anatomy of Sandhill Crane (E) and Whooping Cranes (H and I). Illustrations from Chapter 3-Vocalizations, page 30, Cranes of the World by Paul A. Johnsgard, 1983*

### **Cranes of the World: 3. Vocalizations**

JOHNSGARD, PAUL A. 1983. Cranes of the World: 3. Vocalizations. In: Cranes of the World, pp. 28-34. Indiana University Press, Bloomington, IN.  
<https://digitalcommons.unl.edu/bioscicranes/28>

Paul A. Johnsgard, University of Nebraska-Lincoln, [pajohnsgard@gmail.com](mailto:pajohnsgard@gmail.com)

**Editor:** *Following are excerpts are taken from the chapter.*

*"Of all avian sounds, few have the power to catch the human imagination and thrill the senses as much as does the bugling of a flock of distant cranes. Leopold (1949) referred to the progressively louder sounds of an approaching flock of sandhill cranes as "a tinkling of little bells," the "baying of some sweet-throated hound," and finally as "a pandemonium of trumpets, rattles, croaks and cries." The Greeks called it "iangling," and most recent writers have compared the calls of typical Grus cranes to trumpets or bugles. In doing so, they have inadvertently drawn attention to the similarity of the calls to the sounds generated by musical instruments, and it is important to investigate the similarities and dissimilarities between the vocalizations of cranes and the sounds generated from man-made musical instruments."*

*...It has long been known that there is a relationship between the structure of the trachea in cranes and their remarkably loud and penetrating calls. Topsell (1972) reported that the French naturalist Pierre Bollonius (1517-1564) determined by dissection that the "throat bole" of cranes differed from those of all other birds, in that it "is fastened to the fleshe, as deepe as the ribbes without dependance on the intralls," and that this is the "true cause why their voices be hearde, before their bodies be seene." By 1575 the tracheal configuration of the Eurasian crane had been illustrated by V. Coiter, and subsequently most of the cranes of the world were described as to their tracheal condition. The monographic review by Berndt (1938), which deals with tracheal coiling in cranes, swans, and the relatively few other groups of birds in which it occurs, is still the most complete coverage of this subject.*

*On the basis of the work of Berndt and others, it is clear that the cranes exhibit a series of interspecific variations that provide a probable evolutionary progression of tracheal modifications affecting both the total tracheal length and the relationships of the trachea to the keel of the sternum.*

*In the generalized or "primitive" condition of the trachea in the crowned crane, the trachea passes back into the thoracic cavity directly. This is presumably the ancestral crane*

condition, and it might be noted that the recently found *Balearica*-like crane fossils from the late Miocene of Nebraska are sufficiently well preserved that many of the tracheal semirings are still intact, and these indicate a similar direct tracheal route ...

...Within the genus *Grus*, all species exhibit a relatively extensive excavation of the sternum by the trachea, which ranges from a relatively simple looping in the sandhill crane to a double looping that extends to the very posterior end of the keel in the whooping crane.

One of the obvious effects of such tracheal invasion of the sternum is a considerable increase in total tracheal length. ... The most obvious correlation of variations in tracheal lengths among crane species has to do with the vocalizations of adult cranes. It may be seen that, as the tracheal length is increased to increased tracheal invagination of the sternum, the adult vocalizations become progressively more penetrating and "whooping." ...

It would thus seem that the cranes have "accepted" the respiratory penalties associated with an unusually long trachea (and thus an increased volume of "dead" tracheal air to be exchanged with each breath) for certain acoustical benefits. These benefits are evidently not lowered vocal frequencies per se, but instead may be associated with increased acoustic potential for harmonic development (and thus increased overall carrying power). Or more highly specific and individualized "tuning" of the syrinx may be possible, associated with individual differences in tracheal lengths, and possibly unique vocal characteristics might facilitate individual recognition. Both would have considerable advantages to birds such as cranes, which clearly rely heavily on vocalizations for their social signals."

To read Chapter 3: Vocalizations, of Dr. Paul A. Johnsgard's book *Cranes of the World* (1983), go here: <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1028&context=bioscicranes>

## Fossil Birds of the Nebraska Region

**Ducey**, James E., "Fossil Birds of the Nebraska Region" (1992). *Transactions of the Nebraska Academy of Sciences and Affiliated Societies*. 130.  
<https://digitalcommons.unl.edu/tnas/130>

**Abstract:** This review compiles published and a few unpublished records of fossil and prehistoric birds for the Nebraska region (Nebraska and parts of adjacent states) from the Cretaceous Period to the late Pleistocene, about 12,000 years before present. Species recorded during the various epochs include: Oligocene and Early Miocene (13 families; 29 species), Middle Miocene (six families; 12 species), Late Miocene (14 families; 21 species), Pliocene (six families; 15 species), Early-Middle Pleistocene (eight families; 16 species) and Late Pleistocene (16 families; more than 24 species). The first primitive bird found in Nebraska was a *Hesperornis*. Many were waterfowl, raptors, or upland game birds. Songbirds were not noted until the Pleistocene. Species once present but now extinct in Nebraska include a flamingo, walking eagles, storks, and a crowned crane. Some species have modern relatives with ranges to the south of the Great Plains or in Africa. Habitat information for specific sites is provided where available.

**Editor:** Excerpt from the paper

**"Late Miocene Epoch** (11.6 million to 5.3 million years ago)

Fossil birds from the Middle to Late Miocene epochs include 21 species in 14 families, with raptors such as a vulture, several hawks, eagles (including a "walking eagle"), and falcons. Remains of water birds include a stork, a heron, a sandhill crane, a crowned crane, a rail, a limpkin, waterfowl (swans, geese and ducks), and a gull. Other birds represented were a chachalaca, quail, turkey, a parakeet, and two songbirds. The modern form of the Sandhill Crane appears in fossil material, the first identification of a species that is part of the modern avifauna.

### **Gruidae**

*Grus canadensis*. Sandhill Crane. Niobrara River (Marsh, 1870: *Grus haydeni*).

*Megalornis pratensis*. Very similar to the modern Sandhill Crane and so similar it might not be distinguished, but Wetmore obviously did. Upper Snake Creek (Wetmore, 1928).

?*Balearicasp.*\*. A "crowned crane." Ashfa"

For a full text copy of "Fossil Birds of the Nebraska Region," go here:  
<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1129&context=tnas>

## Whooping Crane use of riverine stopover sites

David M. Baasch, Patrick D. Farrell, Shay Howlin, Aaron T. Pearse, Jason M. Farnsworth, Chadwin B. Smith

Published: January 9, 2019

PLOS ONE 14(1): e0209612. <https://doi.org/10.1371/journal.pone.0209612>

### Abstract

Migratory birds like endangered Whooping Cranes (*Grus americana*) require suitable nocturnal roost sites during twice annual migrations. Whooping Cranes primarily roost in shallow surface water wetlands, ponds, and rivers. All these features have been greatly impacted by human activities, which present threats to the continued recovery of the species. A portion of one such river, the central Platte River, has been identified as critical habitat for the survival of the endangered Whooping Crane. Management intervention is now underway to rehabilitate habitat form and function on the central Platte River to increase use and thereby contribute to the survival of Whooping Cranes. The goal of our analyses was to develop habitat selection models that could be used to direct riverine habitat management activities (i.e., channel widening, tree removal, flow augmentation, etc.) along the central Platte River and throughout the species' range. As such, we focused our analyses on two robust sets of Whooping Crane observations and habitat metrics the Platte River Recovery Implementation Program (Program or PRRIP) and other such organizations could influence. This included channel characteristics such as total channel width, the width of channel unobstructed by dense vegetation, and distance of forest from the edge of the channel and flow-related metrics like wetted width and unit discharge (flow volume per linear meter of wetted channel width) that could be influenced by flow augmentation or reductions during migration. We used 17 years of systematic monitoring data in a discrete-choice framework to evaluate the influence these various metrics have on the relative probability of Whooping Crane use and found the width of channel unobstructed by dense vegetation and distance to the nearest forest were the best predictors of Whooping Crane use. Secondly, we used telemetry data obtained from a sample of 38 birds of all ages over the course of seven years, 2010–2016, to evaluate Whooping Crane use of riverine habitat within the North-central Great Plains, USA. For this second analysis, we focused on the two metrics found to be important predictors of Whooping Crane use along the central Platte River, unobstructed channel width and distance to nearest forest or wooded area. Our findings indicate resource managers, such as the Program, have the potential to influence Whooping Crane use of the central Platte River through removal of in-channel vegetation to increase the unobstructed width of narrow channels and through removal of trees along the bank line to increase unforested corridor widths. Results of both analyses also indicated that increases in relative probability of use by Whooping Cranes did not appreciably increase with unobstructed views  $\geq 200$  m wide and unforested corridor widths that were  $\geq 330$  m. Therefore, managing riverine sites for channel widths  $>200$  m and removing trees beyond 165 m from the channel's edge would increase costs associated with implementing management actions such as channel and bank-line diking, removing trees, augmenting flow, etc. without necessarily realizing an additional appreciable increase in use by migrating Whooping Cranes.

To read the full text, go here:

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0209612>

## Whooping Crane and Sandhill Crane Monitoring at Five Wind Energy Facilities

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Terri D. Thorn, Western Ecosystems Technology, Inc., 4007 State Street, Suite 109, Bismarck, Nd 58503, USA

**Abstract:** Biologists have expressed concern that individuals of the Aransas-Wood Buffalo Population of the federally endangered Whooping Crane (*Grus americana*), numbering about 300, may be injured or killed by wind turbines during migration. To help address this concern and curtail (stop) turbine operations when Whooping Cranes approached turbines, we monitored the area around 5 wind energy facilities in North and South Dakota during spring and fall migration for Whooping Cranes and Sandhill Cranes (G.



canadensis). Observers monitored cranes for 3 years at each facility from 2009 to 2013 (1,305 total days of monitoring), recording 14 unique observations for a total of 45 Whooping Cranes for which curtailment occurred during portions of 9 days. Observers also searched for dead cranes at the base of every turbine each day of monitoring. This resulted in approximately 92,022 cumulative individual inspections, during which no dead or injured cranes were detected. Based on our results and monitoring efforts at other wind energy facilities in the migration corridor, no Whooping Crane fatalities have been documented. Although migrating cranes use areas near turbines, they do not appear to be overly susceptible to collisions with wind turbines.

#### **PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 14:26-34**

[http://www.nacwg.org/cranes\\_sandhill\\_whooping\\_2018-3.html](http://www.nacwg.org/cranes_sandhill_whooping_2018-3.html)

For a full-text PDF of the article, go here:

[http://www.nacwg.org/publications/cranes\\_sandhill\\_whooping\\_2018-3.pdf](http://www.nacwg.org/publications/cranes_sandhill_whooping_2018-3.pdf)

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## **The Art of Cranes:**

### **“Open the Dark” – Northwest Alaska through Iñupiaq eyes**

In her new book of poetry, Iñupiaq poet and educator Marie Tozier, originally from Nome and now living in Anchorage, delivers “a portrait of place, family and generational wisdom that speaks to love, loss, and transformation in Northwest Alaska.”

“*Open the Dark*” includes poems that “immerse themselves in the geography, landscape, and other-than-human life of northwest Alaska with a particular intimacy. Raspberries, fireweed, fog over the river, king crabs, gulls, wild violets, salmon, and Sandhill Cranes all are on display here in their familiar/familial contexts. In “Aakuaksrak,” Sandhill Cranes arrive in spring ‘the color of dead willow leaves;’ the poem then turns to a creation story about how cranes got their red caps from cranberry stain.”

#### **“Aakuaksrak”**

*by Marie Tozier*

One spring, sandhill cranes flew into sight.  
Having landed, they became hard to spot,  
Their bodies and wings dirt brown,  
The color of dead willow leaves.  
That fall, the crane wife fed her husband  
Cranberries. He balked. He made fun  
Of the tiny morsel. That night, while he slept,  
She dressed his eyes in red berry pulp.  
Staining him for life.

### **For the Birds – 2021 John James Audubon exhibit**

February 2021 marks the official opening of the Portland Museum’s much-anticipated John J. Audubon exhibit. Featured will be a dozen original Audubon masterworks on display from a private collection, as well as contemporary works by some local Art Stars - Stan Squirewell, Sabra Crockett, Jon Cherry, Hawk Alfredson, and Raymond Graf. The story of former Portland resident, John J. Audubon, is one of dedication, perseverance and inspiration, but it is not without some controversy.

To learn more: Portland Museum/ 2308 Portland Avenue / Louisville, Kentucky 40212 / [www.portlandky.org](http://www.portlandky.org)



## Mnemonic Masks – to remember the past



*In Yup'ik lore, the crane—depicted in the mask by Charette above—connotes stealth, power, and insight. The human face on the bird's belly represents its yua, or spirit—the part of the animal that understands, and can relate to, humans. The porcelain "teeth" that border the face are a reminder to use one's innate gifts to good effect, or risk being consumed by them. The porcelain "bones" hanging from the wings ward off evil spirits; wooden rings represent this world and the spirit world.*

Phillip Charette's French-Canadian last name comes from his father, but his mother is full-blooded Yup'ik, an indigenous group that today has an estimated 21,000 members spread across Alaska and Siberia. While he grew up in Florida, summers were spent with his grandparents in Alaska. Yup'ik was his first language, and he was always interested in Yup'ik folklore. "When I was very young, I was kind of an odd duck," he says. "When all the other kids were outside running around, I would be inside listening to the elders tell stories."

In the late 1990's Charette began to explore what would become his trademark style – pieces reminiscent of historical Yup'ik masks but made from clay rather than the traditional wood. His work has won prestigious awards and been featured in a 2008 traveling exhibit of contemporary Native North American art.

Like older masks found in ethnology museums, Charette's masks have a broad range of meanings and purposes. Some express ritual power; others are more like entertainment, encapsulating stories. "Just imagine that you don't have any media – no television, nothing," says Charette. "This was the media format" for the Yupiit. "Into it go stories, values, all the cosmology. It becomes a mnemonic device, the visual cue that helps you retain the knowledge."

To read about and see more work by Phillip Charette, go here: <https://harvardmagazine.com/2009/05/mnemonic-masks>

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## IN MEMORIAM

### Steve Herman, Warrior for Sagebrush and Beauty 1936-2020

Steve Herman, a friend and ally in the long struggle to liberate the West from the scourge of livestock grazing, the great destroyer of naturalness, biodiversity and beauty died this spring. At this juncture in time when national wildlife refuges, and the wildlife they are charged with protecting are under siege from cash crops, exploding use of toxic pesticides and loosening of hunting regulations within the refuge system, we have lost an outspoken advocate for these crucial public lands. For 35 years, Herman taught classes in ornithology, mammalogy, evolutionary ecology, biostatistics and plant ecology at The Evergreen State College in Olympia, Washington – influencing and changing the life course of more than 2200 students.

*"Our job is to protect beauty, whether or not we admit it. One of the primary indices by which our jobs and our landscapes must be judged is the extent to which we are able to protect or restore ecological circumstances that compare favorably to those conditions that prevailed before Europeans invaded this continent, before the invention of agriculture doomed wildness on much of this planet."* – Steven G. Herman [Wildlife Biology and Natural History: Time for a Reunion](#)

Steve began visiting Malheur National Wildlife Refuge in 1966, returning every year thereafter, and did field work there. Over the course of time there he and conservation colleagues had an ongoing fight with Malheur National Wildlife Refuge concerning the ever-increasing grazing allowed on the Refuge. Grazing

stripped cover for early nesting birds like Greater Sandhill Cranes forcing them to nest in areas that had been grazed off during the winter – making their nests vulnerable to predation. The manager’s solution was “to control the predators not the cows.”

Until his death, Herman persistently sought information on Malheur’s species counts, management activities and grazing exploitation, and tried to raise a ruckus about what was taking place. Cattle numbers from Fish and Wildlife Service show that between 24,000 and 33,000 cattle were grazed annually on the Refuge from 2001-2010. Fish and Wildlife Service’s grazing, haying, and predator killing taking place on Malheur Refuge is an example of grazing abuses in western North America. Thirteen permittees are basically allowed free reign with the Refuge every year.

*“There was a time when Sandhill Cranes were the centerpiece of [Malheur] Refuge conservation efforts. I am told that numbers of breeding pairs of cranes have not been legitimately counted since 1999. The date for haying to begin was originally set so that crane colts (as the young are called) would be mature enough that they would not be in danger of ending up baled as the ranchers initiated their hay harvest. In recent years that date has been viewed with some “flexibility”, and the tie to crane safety has been weakened as the date (in at least one year) has been moved back. Cattle trespass has not been taken seriously anywhere that I know of recently, but I’m told that there is virtually no enforcement of rules holding cattle to permitted acreages ... in recent years...”*

To read a tribute to Steve Herman and learn more about this remarkable educator, environmentalist, conservationist and advocate for our natural world, go here:

<https://www.counterpunch.org/2020/11/11/steve-herman-warrior-for-sagebrush-and-beauty/>

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## Upcoming Events:

**Editor:** As the COVID-19 pandemic continues, there are cancellations or postponement of many scheduled events. Some festivals have chosen to modify formats and have a “virtual” platform in response to the odd times we are in. While not the same as taking part in person, on a positive note, more people will be able to participate in the festival(s) even from afar – so check them out and have fun!

### [VIRTUAL]

#### **Holiday with the Cranes on Galveston Island**

Dates: December 12, 2020

Location: Galveston Island, TX

Welcome the island’s wintering Sandhill Cranes back at Holiday with the Cranes in Galveston on Saturday, December 12. If you’re into birding, this is the event for you! This year the festival will take place online with a great virtual presentation you can enjoy from anywhere! Special guest Glenn Olsen will be on hand to talk all about the history and intricacies of this important species.

For more information about the event, go here:

<https://www.galvestonnaturetourism.org/holiday-with-the-cranes/>

#### **2021 Festival of Cranes/Wheeler National Wildlife Refuge**

**Date: Saturday, January 9, 2021 (one day only)**

Location: All events at the Princess Theatre, 112 2nd Avenue, Decatur, AL 35601

As announced in the Wheeler National Wildlife Refuge Association’s October 2020 newsletter: “Given all the uncertainty that Covid-19 has brought us, we have had to alter our planned two-day festival and pre-festival events to a single day, **Saturday, January 9, 2021**. The Princess Theatre will host all presentations that day including two performances by the Auburn Raptors; virtual or video sessions with photographer Paul Bannick whose specialty is owls; falconer and anthropologist Dr. Lauren McGough



who hunts in partnership with golden eagles; and live presentations by award-winning Native American flutist Gareth Laffely, and award-winning environmental journalist and filmmaker Ben Raines, creator of *The Underwater Forest*, *America's Amazon* and discoverer of the "Clotilda," the last slave ship to bring African Americans to the United States. All presentations are free, but seating is limited.

For more information visit: Facebook.com/FOCatWheeler  
or visit: [www.friendsofwheelerrefuge.com](http://www.friendsofwheelerrefuge.com)  
<https://www.friendsofwheelerrefuge.com/festival-of-the-cranes-2021>

For more information and additional listings, go here:  
<https://www.globenewswire.com/news-release/2020/12/14/2144409/0/en/One-Day-Event-for-the-2021-Festival-of-the-Cranes.html>

### **[Hybrid: Virtual presentations/Live tours]**

#### **Wings Over Willcox 2021**

Dates: January 15-16, 2021

Location: Willcox, Arizona

"The Willcox Nature Association is pleased to announce the 28th Annual Wings Over Willcox Birding and Nature Festival to be held Friday and Saturday, January 15-16. The 2021 festival will be a small-scale, Covid-cautious, two-day "hybrid" festival combining live tours and activities with online presentations.

Online seminars will include an educational presentation on Sandhill Cranes and other natural history topics. The highlight presentation by internationally known author and world birding guide [Rick Wright](#) will also take place online. Festival registrants will be given an access code to log in and watch live and recorded broadcasts.

Whether or not you plan to travel due to coronavirus precautions, the hybrid festival will provide an opportunity to participate in Wings Over Willcox. Tours will be small enough to allow social distancing and masks will be required. Virtual participation through online presentations will be available to those who opt to stay at home. *Registration details will be posted on our website on December 1st.*"

For more information and to register, go here: (520) 384-2272, and [www.wingsoverwillcox.com](http://www.wingsoverwillcox.com)

### **[CANCELLED]**

#### **30th Tennessee Sandhill Crane Festival / Hiwassee Wildlife Refuge**

Location: Hiwassee Wildlife Refuge and the Birchwood Community Center  
Birchwood, Tennessee

**The 2021 Tennessee Sandhill Crane Festival has been cancelled due to Covid-19.**

*The viewing area at the Hiwassee Refuge is still open to guests. Please follow all CDC recommendations. Please send all questions to [mime.barnes@tn.gov](mailto:mime.barnes@tn.gov)*

For more information, go here: <https://www.tn.gov/twra/wildlife/birds/sandhill-crane-festival.html>

### **[CANCELLED]**

#### **2021 Winter Wings Festival**

Dates: February 11-14, 2021

Location: Klamath Falls, Oregon

Organizers still plan to host the 2021 Festival photography contest as an online event, as well as leave the 2020 schedule and information online for those interested. The Winter Wings Festival is produced by [Klamath Basin Audubon Society](#) volunteers with support from sponsors, grants, and participant registration fees. Proceeds from this festival support local grants to teachers and other entities for outdoor education and community nature-related projects. Typically, the reported species at the festival number about 120-133. Here the [2019 festival bird species count](#). Hope to see you back in Klamath Falls, February 2022!

For more information, visit: [winterwingsfest.org](http://winterwingsfest.org)

**[CANCELLED]**

**25th Annual Whooping Crane Festival - 2021 / Port Aransas**

Date: February 2021

Location: Port Aransas and Mustang Island, TX

Port Aransas will not host its 25th annual Whooping Crane Festival in February because of the continuing Covid-19 pandemic. The Whooping Crane Festival celebrates the annual return of the cranes to their wintering habitat at the Aransas National Wildlife Refuge. The Texas Coastal Bend is the only place where you can see the world's last wild population of Whooping Cranes.

**[VIRTUAL]**

**2021 Marsh Madness Sandhill Crane Festival**

Dates: February 26-28, 2021

Location: Goose Pond Fish and Wildlife Area

Greene Co., Indiana, near Linton

Friends of Goose Pond organizers are currently in the process of putting together a 2021 virtual festival due to the ongoing Covid-19 pandemic. While there may be some things scheduled at the Goose Pond FWA Visitor Center, there will be no physical presence of vendors, displays and presentations at the park this year. *Please check back for updates:* [www.friendsofgoosepond.org](http://www.friendsofgoosepond.org) or [mail@friendsofgoosepond.org](mailto:mail@friendsofgoosepond.org) and on Facebook.

*For a map of Goose Pond FWA, go here:*

[https://www.in.gov/dnr/fishwild/files/fw-gpfwa\\_waterfowl\\_draw\\_map.pdf](https://www.in.gov/dnr/fishwild/files/fw-gpfwa_waterfowl_draw_map.pdf)

*Learn more about the conservation, restoration and education work by Friends of Goose Pond group here:* <http://www.friendsofgoosepond.org/>

**[CANCELLED]**

**2020 Annual Monte Vista Crane Festival**

Dates: March 2021

Location: San Luis Valley

Monte Vista, Colorado

The Monte Vista Crane Festival is the oldest birding festival in Colorado and one of the oldest in the nation and has occurred every spring since 1983. The festival is planned and coordinated by the Friends of the San Luis Valley National Wildlife Refuge, the Monte Vista Chamber of Commerce, and the City of Monte Vista. After thoughtful consideration, the Monte Vista Crane Festival planning committee has decided to cancel that the 2021 Crane Festival due to the COVID-19 Pandemic but looks forward to the return of the festival in 2022.

*For more information visit* [mvcranefest.org](http://mvcranefest.org)

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The Eastern Crane Bulletin is issued quarterly (March, June, September and December).  
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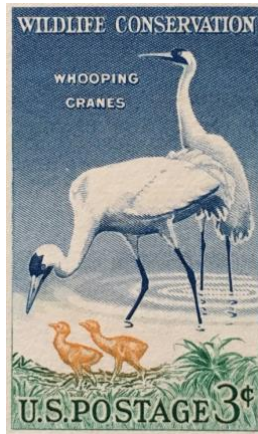
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[www.southeasternavianresearch.org](http://www.southeasternavianresearch.org)

The Tennessee Ornithological Society  
[www.tnbirds.org](http://www.tnbirds.org)  
[routledges@bellsouth.net](mailto: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.***



*Best wishes to all for the New Year!  
May it be better than 2020...  
Be safe, wear a mask, stay healthy.*

*Thanks for reading the Eastern Crane Bulletin!*