



EASTERN **CRANE** BULLETIN

December 2022

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.



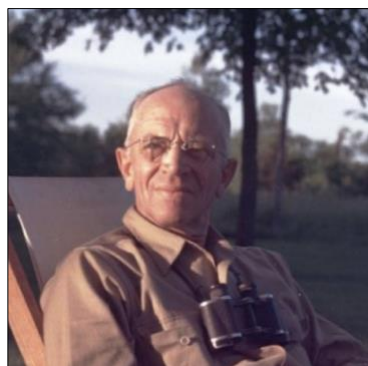
*Sandhill Cranes accompanied by an adult Whooping Crane take off near Princeton, Wisconsin.
Photo by Mark Hoffman/Milwaukee Journal Sentinel*

“Celebrating Community and Conservation” – the first annual Great Midwest Crane Fest takes wing

By the early 1900s, in the face of unregulated market hunting and widespread habitat loss, a number of species in Wisconsin had been either driven to extinction (Passenger Pigeon by 1899) or had been extirpated from the state (Whooping Crane by 1884). In data from a 1912 survey of states, a long list of formerly abundant species in Wisconsin – including the Sandhill Crane – were already listed as rare. (D.L. Gjestson, *The Gamekeepers*, 2013, pp.6-7)

Sandhill Cranes were especially threatened as the wetlands needed by the species for breeding and roosting were being drained at an alarming rate to make way for agriculture. By the 1930s Sandhill Cranes had declined to an estimated 25 breeding pairs in Wisconsin (F.S. Henika, 1936).

By the 1940s protections were being put in place for critical wetland and restored habitat in the [Sandhill State Wildlife Area](#) in Wood County, the [Necedah National Wildlife Refuge](#) in Juneau County, and other key areas in Wisconsin. With the reflooding of sandy county marshes, field research underway, and wardens alerted to the species' status there was a tentative optimism for the Sandhills' return as a breeding species.



Aldo Leopold (1887-1948)
Photo courtesy of the
Aldo Leopold Foundation

A dawn wind stirs on the great marsh. With almost imperceptible slowness it rolls a bank of fog across the wide morass. Like the white ghosts of a glacier the mists advance, riding over phalanxes of tamarack, sliding across bog-meadows heavy with dew. A single silence hangs from horizon to horizon.

...on motionless wing they emerge from the lifting mists, sweep a final arc of sky, and settle in clangorous descending spirals to their feeding grounds. A new day has begun on the crane marsh.

– Aldo Leopold, “Marshland Elegy”

[Aldo Leopold](#) was a conservationist, forester, philosopher, educator, writer, and outdoor enthusiast. Upon graduating from the Yale Forest School in 1909, Leopold worked for the U.S. Forest Service in Arizona and New Mexico before being promoted to post supervisor for the Carson National Forest in New Mexico. He helped in developing the management proposal for the Gila National Forest – which became the country's first official wilderness area in 1924. After a transfer to Wisconsin in 1924 he accepted a new chair position of game management at the University of Wisconsin. He is considered by many to be the father of wildlife ecology and the United States' wilderness system. In the 1930s and 1940s he feared Sandhills would soon disappear from the Wisconsin landscape, and eloquently expressed those concerns in his 1937 “Marshland Elegy.” However, due to widespread public education, wetland protection and restoration efforts the tide turned for the species and it slowly began to recover.

A little more than a year after his death on April 21, 1948, Leopold's collection of essays, [A Sand County Almanac](#), was published. With more than two million copies sold, it has become one of the most respected books about the environment ever published, and Leopold has come to be regarded by many as the most influential conservation thinker of the 20th century. Published in 1949 as the finale to [A Sand County Almanac](#), Aldo Leopold's “[Land Ethic](#)” essay is a call for moral responsibility to the natural world. At its core, the idea of a land ethic is simply caring about people, about land, and about strengthening the relationships between them.

According to a U.S. Fish and Wildlife Service [annual survey index](#), by 2020 the Eastern Population of Greater Sandhill Cranes – one of six populations in the U.S. – had grown to an estimated 94,879 cranes. Approximately half of those will spend time during the year in Wisconsin. Recent breeding surveys show that there are now more than 20,000 breeding pairs in the state.

When we hear his call, we hear no mere bird. We hear the trumpet in the orchestra of evolution. He is the symbol of our untamable past, of that incredible sweep of millennia which underlies and conditions the daily affairs of birds and men.

– Aldo Leopold, “Marshland Elegy”

To celebrate the remarkable Sandhill Crane conservation success story, two of Wisconsin's leading conservation organizations – the [Aldo Leopold Foundation](#) (ALF) and the [International Crane Foundation](#) (ICF) collaborated on the inaugural [Great Midwest Crane Fest](#) held in Baraboo on 10-12 November 2022. The event was billed as “Celebrating Community and Conservation.”

“Sandhill Cranes are one of the great conservation success stories of the past century,” said Dr. Richard Beilfuss, president, and CEO of the International Crane Foundation (ICF) in Baraboo, WI. “The cranes

have come soaring back from the brink of extinction in Wisconsin, thanks to farmers, wetland conservation efforts, and reduced hunting pressure. They are part of our everyday lives in ways I couldn't have imagined a few decades ago."

Buddy Huffaker, ALF executive director, said the Sandhill is thriving in part because the world listened to Leopold and took action. Humans can continue to assist this charismatic species as well as its endangered relative, the Whooping Crane, through our actions and policies.

Festival activities were held concurrently at both sites where participants had the opportunity to witness thousands of Sandhill Cranes throughout the area preparing for their annual migration. The fest began on the evening of November 10 with a crane-viewing tour led by world-renowned ornithologist, [Dr. Stan Temple](#). November 11-12 the festival continued with lectures, seminars, documentary films, crane art, and tours. Featured were a crane-viewing event along the Wisconsin River, lectures, seminars, documentary film screenings at a local theater, food, crane art and tours at the ALF and ICF facilities.



"The cranes have come soaring back from the brink of extinction in Wisconsin, thanks to farmers, wetland conservation efforts, and reduced hunting pressure."

– Dr. Richard Beilfuss, President and CEO of the International Crane Foundation

Sandhills by the thousands now use sandbars on the Wisconsin River as a staging ground during fall migration. These sandbars are near Leopold's ["Shack"](#) – a small structure built on a worn-out piece of farmland purchased by Leopold and his family in 1935 that over the following years became their own ecological restoration experiment. The Wisconsin River corridor near Baraboo is where, as Leopold wrote, "The cranes stand, as it were, upon the sodden pages of their own history" detailed by previous generations of birds "that bugled over the tamaracks since the retreat of the ice sheet."

"I'm happy to say, it's one time he [Leopold] was proven wrong – the Sandhill is thriving, in part because the world listened to Aldo, and took action to protect this 'trumpet in the orchestra of evolution.' Now we are in a unique position, as two foundations of like mind and kindred spirit – and close physical proximity – to throw a great party for cranes and the community that, like Leopold, can't live without them." said Buddy Huffaker, Executive Director of Aldo Leopold Foundation.

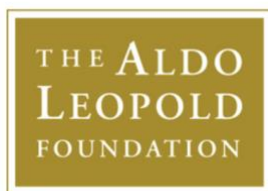
Today, Leopold's legacy continues to inform and inspire us to see the natural world "as a community to which we belong."

Hosts of the Great Midwest Crane Fest (GMCFF) – "Celebrating Community and Conservation"

Established in 1971, the [International Crane Foundation](#) (ICF) works worldwide to conserve cranes and the ecosystems, watersheds, and flyways on which they depend. ICF provides knowledge, leadership, and inspiration to engage people in resolving threats to cranes and their diverse landscapes. From its nearly 300-acre headquarters in Baraboo, Wisconsin, USA ICF's reach extends across the globe. It has offices and staff in China, Uganda, Kenya, Zambia and South Africa, as well as Texas, and works through strong partnerships with local organizations, governments, universities, businesses and others in these regions. The International Crane Foundation's more than 125 staff and associates work with a network of hundreds of specialists in over 50 countries on five continents.

The [Aldo Leopold Foundation \(ALF\)](#) was established in 1982 by the [five children of Aldo Leopold and his wife Estella](#) as a conservation organization that works to inspire an ethical relationship between people and nature through Leopold's legacy. This vision of a "land ethic" was not meant to be rigid or dogmatic;

instead, Leopold intended for it to evolve continually through personal reflection, open dialogue, and people's actions on the land and in their communities. We invite you to join us as we work to weave a land ethic into society and encourage its unfolding in myriad of ways.



To learn more about the International Crane Foundation, go here: <https://savingcranes.org/about/>

To learn more about the Aldo Leopold Foundation, go here: <https://www.aldoleopold.org>

For more information on the 2023 festival as it becomes available, visit greatmidwestcranefest.org



What do YOU think about a Wisconsin Sandhill Crane Stamp?

At the International Crane Foundation, we believe in healthy landscapes where farmers and cranes thrive together. A Sandhill Crane Stamp could be a valuable new tool for hunters and non-hunters to show their appreciation for wildlife on farmlands. What do you think? Would you buy a Sandhill Crane Stamp each year to show your support for farmers and wildlife? How much would you be willing to pay? Please share your thoughts with us.

A Wisconsin Sandhill Crane Stamp is an innovative way to support farmers who support cranes and other non-game wildlife on their lands. A Sandhill Crane Stamp would be similar to the Federal duck stamp that hunters purchase each year but would not be linked to hunting. It would be a voluntary program promoted to the public, especially wildlife advocates, who value cranes and also want to assist farmers. Proceeds from the crane stamp would be earmarked to mitigate or compensate for the impacts of crop damage on farmers' livelihoods. *To read more about the proposed Sandhill Crane Stamp, go here:* <https://savingcranes.org/2022/11/a-sandhill-crane-stamp-for-wisconsin/>

Aransas-Wood Buffalo Whooping Cranes

2022 Whooping Crane Fall Migration Underway

Beginning in late October, migration of the only natural wild population of Whooping Cranes to Aransas, Texas got underway. The Whooping Crane migration from Wood Buffalo to Aransas NWR is about 2,500 miles in length and can take as many as 50 days to complete. The flock is expected to migrate through Saskatchewan, 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. These reports are helpful to biologists and wildlife agencies for gathering data on when and where Whooping Cranes stopover, the type of habitat they are choosing as stopovers, and the number of cranes.

If you should observe a Whooping Crane as they migrate along the Central Flyway, please report them to the proper agencies. For a list of agencies and contact information go here: <https://www.friendsofthewildwhoopers.org/2022-whooping-crane-fall-migration-underway/>

Texas Whooper Watch also has a project in iNaturalist that is now fully functional. You can find it [here](#). You can report sightings directly in iNaturalist via your Smart Phone. This allows you to easily provide photo verification and your location. If you are not a smart phone app user, you can still report via email: whoopingcranes@tpwd.state.tx.us, or phone: (512)389-999. Please note that our primary interest is in reports from outside the core wintering range of Aransas NWR.

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



Whooping Cranes in Saskatchewan, Canada. Photo by Muhammad Zain Ul Abideen ©2021

.....

Kissinger Wildlife Management opened after Whoopers depart

In late October 2022, the Kissinger Wildlife Management Area was temporarily closed due to the presence of two endangered Whooping Cranes of the Aransas Wood Buffalo population. The closure was lifted in November after the cranes left the area to continue their migration to Aransas NWR, Texas.

The Nebraska Game and Parks Commission said the closure is a standard procedure once Whooping Cranes are confirmed on a property owned or managed by the agency. “This temporary closure is intended to not only protect Whooping Cranes, but to also protect the public from accidentally disturbing or harming the birds, which is illegal under federal and state law.”

Whooping Cranes are protected by both the federal Endangered Species Act and the Nebraska Nongame and Endangered Species Conservation Act. Penalties for killing, possessing, or harassing Whooping Cranes or other species protected under these laws may include fines of up to \$50,000, up to a year in jail, or both.

To watch an informative video by the National Audubon Society, “Whooping Cranes,” go here: <https://vimeo.com/323489831>

To read “Seeing Endangered Whooping Cranes Step Through the Fog of Extinction” from the National Audubon Society, go here: <http://ow.ly/4S0F30qJJyu>

.....

Eastern Migratory Population of Whooping Cranes

Eastern Migratory Population WHCR Update – December 5, 2022

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

Population Estimate

The current estimated population size is 76 (38 F, 35 M, 3 U). 18 of these 76 individuals are wild-hatched and the rest are captive-reared. To the best of our knowledge, as of 1 December, there are 1-3 Whooping Cranes in Wisconsin, up to 2 in Michigan, 6-8 in Illinois, 31 in Indiana, 15 in Alabama, 4 in Kentucky, and 1 who was last reported in Tennessee. The remaining birds' locations have not been confirmed in the last month. Their last known locations (in the past month) are on the map below. Due to migration season during November, it is possible cranes have moved further south and these numbers reflect where cranes were last seen.

2022 Wild-hatched Cohort

- W1-22 (U) was last seen with parents 12-11 and 5-11 during October in Juneau County, WI. This family group has not yet been seen on the wintering grounds; however this is typical for this pair/family.
- W4-22 (U) migrated with parents 1-17 and W1-19 to Greene County, IN and has been associating with newly released crane 88-22 (F).
- 88-22 (F) was released in Greene County, IN, and has been associating closely with 1-17 (M), W1-19 (F), and W4-22 (U).
- 90-22 (F) was found dead in Iroquois County, IL (*see below*).
- *W11-22 (U) was captured at Necedah National Wildlife Refuge in Juneau County to be banded. During examination, W11-22 had a wing injury about a month prior to capture that had healed in a way that would prevent them from flying and surviving in the wild. W11-22 was brought to ICF where it is now receiving care and treatment. [September 2022 report]*

2021 Cohort

- W2-21 (U) migrated to Wheeler National Wildlife Refuge in Morgan County, AL and is with other Whooping Cranes.
- W11-21 (M) is still in Greene County, IN with other Whooping Cranes.
- W14-21 (M) was last seen during September in Juneau County, WI.
- 84-21 (F) is still in Gibson County, IN and is now associating with 25-10 (M).
- 85-21 (M) migrated to Wheeler National Wildlife Refuge in Morgan County, AL and is with other Whooping Cranes.

2020 Cohort

- W3-20 (F) is still in Greene County, IN, and has been with other Whooping Cranes.
- W13-20 (M) was seen in Jasper County, IN, with other Whooping Cranes but the group has split up. It's not clear if W13-20 is alone or with other cranes.
- W18-20 (F) turned up at Wheeler National Wildlife Refuge in Alabama and is with other Whooping Cranes.

Mortality and Long-term Missing

- 90-22 (F) was found dead during November in Iroquois County, IL. The cause of death is unknown but is suspected to be due to vehicle or powerline collision.
- 82-21 (F) "Daya" was found dead during October in Juneau County, WI. [November 2022 report]
- 81-21 (F) "Kali" was found dead during September at Necedah National Wildlife Refuge, about two weeks after she was released there. Cause of death is likely predation. [October 2022 report]

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

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

Whooping crane trio from Canada joins Wisconsin cranes

In mid-September, three Whooping Cranes from the [Wilder Institute/Calgary Zoo \(WICZ\)](#) were flown from Alberta, Canada to the [International Crane Foundation](#) in Baraboo, Wisconsin. According to Hillary Thompson, North America Program Crane Analyst for the International Crane Foundation, the planning for the journey took more than a year of coordinating between the two organizations, but it was all worth it when the cranes arrived.



(Above left) Specially designed wooden crates for transporting the Whooping Cranes from Alberta, Canada to Baraboo Wisconsin. (Above right) Upon arrival Whooping Cranes siblings Kali and Daya were released in a temporary enclosure at the Necedah National Wildlife Refuge to acclimate to their new surroundings before release. Photo courtesy of the International Crane Foundation.

The cranes are named “Ruby” – hatched in 2010, and “Kali” and “Daya” – sisters hatched in 2021. The International Crane Foundation hopes to add Ruby to its breeding program while the Whooping Crane Reintroduction team members monitored the two young birds in the hope of releasing them to join other cranes in the eastern migratory population of Whooping Cranes.

“We’re extremely happy to see that these Alberta-born cranes have settled into their new home in Wisconsin,” said Colleen Baird, Senior Manager of Animal Care at the WICZ. “Breeding endangered Whooping Cranes and hatching chicks is always challenging, but our team is proud to see that the various methods of hatching and rearing that we utilize has successfully boosted the wild population.”

The two yearlings were temporarily housed at the Necedah National Wildlife Refuge in central Wisconsin for a week to allow them to adjust to the move before being released on 6 September 2022 near adult

Whooping Cranes at the Refuge. Reintroduction team members continued monitoring the two young birds as they explored and learned about their new surroundings.

UPDATE: Unfortunately, the ICF team recovered Kali's body at the refuge on 19 September 2022. The juvenile most likely was predated. Then, in October, Daya was found dead in Juneau Co., Wisconsin.

To learn more about the trio, and for additional photographs of the release, go here:
<https://savingcranes.org/2022/09/three-new-whooping-cranes-migrate-to-wisconsin-from-canada/>

Whooping Cranes of the Eastern Migratory Population

In the 1940s, fewer than 20 Whooping Cranes remained in a population of crane species found only in North America. Today, in 2022, over 650 Whooping Cranes live in the wild across two flyways and two non-migratory populations. This population growth is credited to the dedicated efforts of many conservation partners who have sought to rebuild the fragile populations and protect the habitats on which these birds rely.

One of the migratory populations seen today is the Eastern Migratory Population, which was reintroduced to the eastern United States in 2001. This population of around 80 wild Whooping Cranes breeds in Wisconsin and winters to the south, including Jasper-Pulaski and Goose Pond Wildlife Areas in Indiana, Hiwassee Wildlife Refuge in Tennessee, and Wheeler National Wildlife Refuge in Alabama. Sandhill Cranes, commonly found throughout North America, often migrate with Whooping Cranes. While Sandhill Cranes congregate in a flock for migration, Whooping Cranes migrate as a pair or a family unit.

Stephanie Schmidt is the Whooping Crane Outreach Coordinator for the International Crane Foundation. To read her piece Whooping Cranes in the Eastern Population – the Journey North, go here:
<https://savingcranes.org/whooping-cranes-in-the-eastern-population-the-journey-north/>

Report a Banded Sandhill Crane

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

General News

Alabama:

Wheeler NWR gets face lift in time for 2023 Festival of Cranes



Renovations to, as well as construction of, facilities at the Wheeler National Wildlife Refuge (NWR) began in March 2021 as part of a \$5.4 million project paid for by a federal grant approved almost four years ago, according to Wheeler NWR Manager Ricky Ingram.

In addition to improvements to the heated, observation building, a new 500-square foot outdoor photography blind overlooking several acres of fields is now located just south of the visitor center. It has 13 windows and can accommodate 30 people at a time, "They've been

doing finishing touches on the photo blind and that's really going to be something our wildlife photographers will be interested in because it will provide a covered blind that doesn't have glass in the windows," said David Young, a Wheeler NWR park ranger.

Ingram added that previously, wildlife photographers did not have a proper location to take photos of birds and other animals at the refuge. He said he hopes the new photography blind will attract more photographers and wildlife enthusiasts to the 35,000-acre refuge situated along both the north and south banks of the Tennessee River. The National Wildlife Refuge is visited annually by an average of 600,000 visitors.

The goal of refuge management is to have the observation building, photography blind and trail open in time for the January 13-15, 2023, annual Festival of the Cranes – a celebration of the thousands of Sandhill Cranes in the Eastern Migratory Population, and about a dozen of the reintroduced EMP Whooping Cranes that winter at Wheeler NWR each year. Wheeler NWR is considered the best place in the east to observe both species of cranes at close range. The remodeled refuge visitor center and new outdoor education pavilion near the welcome center's parking lot probably won't open to the public until spring 2023.

Alabama Sandhill Crane hunt on track for “operational” status

Registration for the Alabama Sandhill Crane season was held September 7 through September 28, 2022. Those drawn for permits had until October 5 to pass the ID (to eliminate the possibility of mis-IDs between Sandhill Cranes and EMP Whooping Cranes that overwinter at Wheeler NWR) and regulations test and accept their hunting status. Season dates are December 3, 2022 - January 8, 2023, and January 16-31, 2023 (timed to allow for the Wheeler Festival of Cranes, January 13-15 to take place). The daily bag, season and possession limit is three Sandhill Cranes per permit holder.

According to Seth Maddox, Migratory Bird Coordinator for the Alabama Department of Conservation and Natural Resources' (ADCNR) Wildlife and Freshwater Fisheries (WFF) Division, “This will be our fourth season under the experimental season rules from the U.S. Fish and Wildlife Service. At the last flyway meeting, we asked for an operational season.”

The Sandhill Crane hunting zone is limited to North Alabama and encompasses the Tennessee Valley and Weiss Lake to ensure hunters don't encounter any Sandhills from experimental populations in Mississippi and Florida.

Alaska:

Building a place for peace – Soldotna celebrates new Japanese garden and trails

Every spring Sandhill Cranes can be found nesting in the Kenai Peninsula. Now, a six-foot-tall, bronze-cast crane sculpture is the centerpiece of the new Kenai Peninsula Peace Crane Garden Trails – a Japanese community garden and set of walking paths in the Soldotna woods. Both have been years in the making.

The sculpture, located centrally, will keep watch with windchime-covered wings outstretched. Anchorage artist Christina Demetro said she first had the idea for the piece in 1992. She worked with Alaska students on the crane sculpture and the



Paul Gray and Jon Ross play chimes on the crane sculpture at the Kenai Peninsula Peace Crane Garden Trails in Soldotna. Photo by Sabine Poux / KDL

chimes attached to its wings. Through a slot on its chest, the piece welcomes donations and poems.

Demetro's vision coincided with that of Matt and Sarah Pyhala. The Kenai residents are the brains behind the garden trails project, and they say they were inspired in 2018 after they were gifted seeds from trees that had survived the 1945 bombing of Hiroshima. Those uncontaminated seeds were harvested from trees that had survived the atomic bombing of Hiroshima, Japan, at the end of World War II. While trying to get the seeds to grow, Pyhala decided she wanted to be able to plant the trees in a Japanese-style garden and trail that could provide "restorative effects for visitors' physical and psychological being."

To listen to the story on Public Radio for the Central Kenai Peninsula, go here:

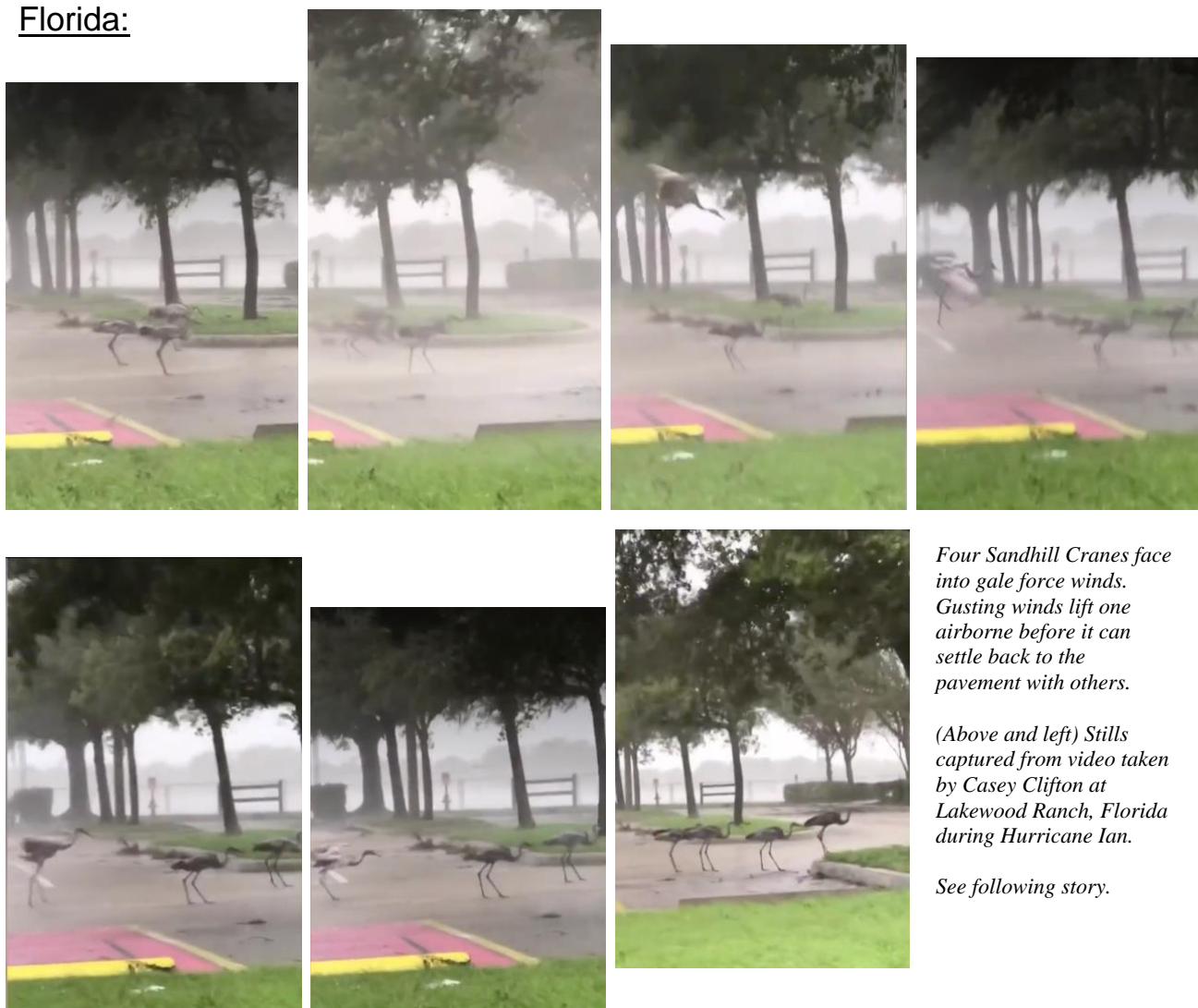
<https://www.kdll.org/local-news/2022-09-13/a-peaceful-place-to-land>

And to read more and see a trail layout, go here:

<https://www.peninsulaclarion.com/news/building-a-place-for-peace/>

To learn more about the Kenai Peninsula Peace Crane Garden Trails, visit akjapanese garden.org

Florida:



Four Sandhill Cranes face into gale force winds. Gusting winds lift one airborne before it can settle back to the pavement with others.

(Above and left) Stills captured from video taken by Casey Clifton at Lakewood Ranch, Florida during Hurricane Ian.

See following story.

Sandhills face-off, and into, the winds of Hurricane Ian

Hurricane Ian made landfall as a Category 4 storm on the southwestern coast of Florida on September 29, 2022, near Cayo Costa. According to the National Hurricane Center, maximum sustained winds were reported at 150 mph.

At Lakewood Ranch located in southeastern Manatee County and northeastern Sarasota County – north of where the hurricane made landfall – Casey Clifton captured video of a group of Sandhill Cranes facing into the wind as Ian tore through the state. At the time the video was taken, the National Weather Service reported wind gusts of approximately 80 mph and 6-8 inches of rain at Lakewood.

To watch the short video by Clifton, go here:

<https://www.fox35orlando.com/news/watch-florida-sandhill-cranes-stand-tough-against-hurricane-ians-fury-in-viral-video>

Whooping Cranes weather hurricanes and high winds

Editor: *Interested in additional observations of cranes weathering storms, I contacted Marty Folk, a now semi-retired Florida Fish and Wildlife Conservation Commission biologist but one who was part of the USFWS 1993-2004 reintroduction efforts of Whooping Cranes in Florida. The following is his paraphrased response to questions.*

We did not witness the behavior of cranes during a hurricane, so it is our “best guess” as to how they survived storms like Hurricane Charley that went right over the top of Whoopers in Polk Co., Florida in



Whooping Cranes on the semi-dry lake bottom at Lake Kissimmee. An experimental reintroduction program began in 1993 when USFWS biologists began releasing Whooping Cranes into wild areas in Polk and surrounding counties in Florida. But partly due to dwindling habitat, predation, severe droughts, and lack of a sustainable population, the program was ended in 2004. Photo courtesy of The Ledger.

2004 as well as two other storms, Francis, and Jean the same year. As I recall we did not document mortality due to those storms. At least with Charley, it came through in the middle of the night so observations would not have been possible. And with other storms, being out and about when hurricane-force winds arrive is not possible due to safety issues for biologists.

I have observed the behavior of cranes when gusty winds have come up during routine summer thunderstorms in Florida, when gusts can reach 40-50mph. As expected, the cranes face into the wind to prevent their feathers from being blown “the wrong way.” This probably also reduces the chances of being blown off balance – align yourself to catch the least wind! Cranes learn early in life that just like for “human-driven aircraft,” one must take off and land into the

wind. So, to face into a wind probably makes aerodynamic sense. At a certain wind level, perhaps 40mph or so, cranes will sit on the ground – this way catching less wind and reducing its center of gravity by getting down low.

Indiana:

EMP Whooping Cranes are now “countable” on birders’ lists

The following news was posted 17 October 2022 to the [Indiana Audubon Society, Inc.](https://www.indianaaudubon.org/) website.

The Indiana Bird Records Committee (IBRC) records and archives Indiana’s diverse avifauna. Through the IBRC, we are able to document population changes and vagrancy on the state level. The IBRC recently voted to add the Eastern Migratory Population (EMP) Whooping Cranes to the state checklist.

History Of Eastern Migratory Whooping Cranes

The experimental Wisconsin population of Whooping Cranes were first established in 2001. In 2006, direct releases began into adult groups. The current population is not without issues, as black flies have plagued certain nesting areas, and parenting isn’t easy. Previous standards for listing required a species to be considered established, and without human intervention. Today’s conservation practices recognize that certain species will require human influence to remain in today’s world (i.e., Kirtland’s Warblers and fire/jack pine management). In recognition of this, as well as to better align with the American Birding Association (ABA) Checklist curated by the ABA Recording Standards and Ethics Committee, the IBRC has added the EMP population as a listable species on the state checklist effective retroactively Jan 1, 2022.

By allowing the listing of the new population of EMP Whooping Cranes, the hopes are to encourage birders to contribute towards Whooping Crane conservation in Indiana. It is vital that more open wetland habitat (especially adjacent to current crane wintering areas) be preserved in our state. Habitat loss is a major threat to cranes worldwide, and EMP Whooping Cranes are threatened in Indiana by the loss of emergent marshy wetlands and the conversion of privately owned agricultural fields to various development interests. Birders like “countable” species, as documented by ABA’s recent decision to include Hawaii in the ABA listing area.

The decision aligns with the mission of Indiana Audubon, “to stimulate in Indiana public appreciation of... natural resources [including birds] and the need for their conservation”. We think some birders will appreciate Indiana Whooping Cranes more if they can count them on their lists.

The IBRC weighed possible negative outcomes of this decision. Current reporting practices on social media (including eBird) are in line with the International Crane Foundation’s (ICF) guidelines for sharing the location of Whooping Cranes. Indiana Audubon will continue to recommend that birders follow ICF’s guidelines. eBird currently hides the exact locations of Whooping Cranes reported in Indiana under its “Sensitive Species” policy, which will prevent sightings from popping up on birder’s “Needs” alerts.

For more information on the Indiana Bird Records Committee, go here:
www.indianaaudubon.org/records-committee

Jasper-Pulaski FWA crane-viewing extravaganza and weekly counts

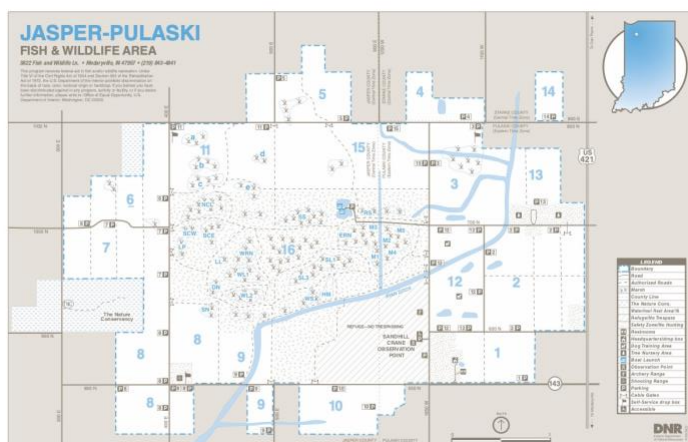
Every year from mid-October through mid-December the wetlands of the Jasper-Pulaski Fish and Wildlife Area in northwest Indiana hosts thousands of the Eastern Migratory Population of Greater Sandhill Cranes.

Considered by many to be one of the most amazing natural spectacles that can be observed in North America, over half a million Sandhill Cranes migrate annually from nesting areas in the north to wintering grounds in the south. And, while numbers in the east are not quite like those witnessed in Nebraska during migration, tens of thousands of cranes may be observed along the crane’s eastern migratory route. Jasper-Pulaski FWA is on this route and provides the viewing opportunity. “The birds are coming from Wisconsin, Minnesota and Canada,” said Jasper-Pulaski property manager, Nick Echterling. “We have the perfect habitat and often times migrating cranes may spend several weeks here, which is why we

build such huge numbers.” Indiana DNR has gone to great lengths providing suitable viewing areas for this annual staging event.

The Jasper-Pulaski FWA is in a region once famous for the vast Kankakee Marsh – historically made up of wetlands consisting of more than one million acres of reeds, ponds, and bogs. But in the 19th and early 20th century, the marsh was drained to make way for agriculture. Today, only several thousand acres remain.

DNR staff at Jasper-Pulaski Fish & Wildlife Area conduct weekly crane counts during peak fall migration (October - December). October 4 was the first count with the final count the last week in December.



Sandhills are best seen from the observation platform at the Sandhill Crane Observation Area ([view map](#)) of the refuge that features 300 acres of field surrounded by wetlands. The cranes leave their marsh roosting area at sunrise to feed in surrounding agricultural fields – often stopping along the way in the open grassland areas of the refuge. Beginning about an hour before sunset, huge flocks of Sandhills return to the refuge from surrounding areas in order to roost in its marshes. Located in the Waterfowl Resting Area, the roosting marshes are closed to the public so that migrating birds can rest without human disturbance. Therefore, scopes and binoculars are highly recommended in order to view the cranes as they may still be a distance from the platform.

For those interested, a [DNR webpage](#) dedicated to the migration and population counts is updated regularly. As of 22 November 2022, it showed a population of 31,975 cranes staging there – up from 2,069 cranes when the first count was made on 4 October 2022.

Information, including daily migration numbers, are updated weekly, and can be found online or by contacting Jasper-Pulaski FWA at 219-843-4841.

Louisiana:

New cohort of juvies adds to growing experimental population

The Louisiana Department of Wildlife and Fisheries (LDWF) recently added a cohort of 10 Whooping Cranes to its experimental population, the most since the COVID-19 pandemic in 2020. Six juvenile cranes, hatched and reared at the [Freeport-McMoRan Audubon Species Survival Center](#) in New Orleans, part of the Audubon Nature Institute, along with four chicks from the [International Crane Foundation \(ICF\)](#) were received at LDWF's White Lake Wetlands Conservation Area (WLWCA) near Gueydan on 3 November 2022.

LDWF, the Audubon Nature Institute and ICF have been longtime leaders in Whooping Crane conservation in Louisiana and continue to expand their partnership with the goal of developing a self-sustaining population of Whooping Cranes in Louisiana. LDWF and Audubon are committed to the long-term growth and stability of the Whooping Crane population. That commitment is supported by the U.S. Fish and Wildlife Service, Chevron, Conoco Phillips, Cameron LNG, the Coypu Foundation and the Louisiana Wildlife and Fisheries Foundation. Since 2011, Chevron has invested in LDWF's Whooping Crane reintroduction project. In addition to Chevron's financial contributions, their employees have also given volunteer hours.

“The arrival and eventual release of these 10 chicks into our population, on top of what has already been a banner year for our Whooping Crane program, is an additional positive step forward for Louisiana's

population and the species,” LDWF Secretary Jack Montoucet said. “We thank our partners who have helped make this reintroduction process a success and we look forward to working with them in the years to come.”

The Louisiana flock began in 2011 when 10 Whooping Cranes from the U.S. Geological Survey’s Patuxent Wildlife Research Center in Maryland were released at White Lake WCA to develop the non-migratory flock. This marked a significant conservation milestone with the first wild Whooping Cranes in Louisiana since they were extirpated from the state in 1950. With the latest release of the new arrivals into the wild, the Louisiana population stands at 87 cranes.

Zimorski leads Louisiana's efforts to save the endangered Whooping Crane

For more than a decade, [Louisiana Department of Wildlife and Fisheries](#) (LDWF) biologist Sara Zimorski has worked on the reintroduction of the non-migratory population of Whooping Cranes that are now slowly repopulating Louisiana’s prairies and marshes.

The department’s [Whooping Crane Reintroduction Project](#) has released more than 150 birds that were hatched in captivity or brought to Louisiana from other states. With the addition of the latest cohort the population is currently 87 cranes.

From 1950 until when the Louisiana reintroduction began in 2011, Whooping Cranes were absent from the state. LDWF has a long history of being instrumental in the recovery of endangered species in the state: the Brown Pelican, American alligator, Bald Eagle, and the hope is that eventually Whooping Cranes can be added to that list.



Sara Zimorski attaches a tracking band on the leg of a Whooping Crane. The biologist has spent more than a decade leading the LDWF Whooping Crane reintroduction program. Photo courtesy of LDWF

Zimorski spoke to [The Times-Picayune / The Advocate](#) about the Whooping Crane reintroduction program its challenges. One of those facing LDWF biologists is learning the cause of an increasing rate of embryo mortality observed in the Louisiana population. Even though a record number of chicks hatched this nesting season, biologists found that other embryos died at some point during incubation. LDWF will continue its research to learn the possible causes for these embryotic failures and arrive at a solution to it.

Perhaps the biggest challenge when working with a species such as the Whooping Crane, is that everything takes time. The species is slow to mature, and individuals don’t reach sexual maturity and breed until approximately 3-5 years old. During nesting season, the cranes will lay one to two eggs and of those that hatch, usually only one of the chicks may survive to fledge. Whooping Cranes can live 25 to 30 years. According to Zimorski, “You really have to be in it for the long term. In the grand scheme of things, we’re still on the early end and it could take decades. We just have to have a lot of patience with them.”

To read [The Times-Picayune | The Advocate](#) article for more about Sara Zimorski's work and for additional photos, go here:

https://www.nola.com/news/environment/article_873b3aea-5b82-11ed-af09-3712dbfea694.html

For additional Louisiana Whooping Crane information, including Reintroduction FAQs, annual reports, and a Louisiana Crane Identification list, go here to the LDWF website:

<https://www.wlf.louisiana.gov/subhome/whooping-crane>

Louisiana's Whooping Crane population adds a record eight wild-hatched chicks during 2022 nesting season

The following is from an [8 September 2022 post by the Louisiana Department of Wildlife and Fisheries](#). The 2022 breeding season was a big success for Louisiana's experimental Whooping Crane project as eight wild hatched chicks have fledged and been added to the Louisiana population. The eight chicks are the most in a single breeding season since the project was initiated by the [Louisiana Department of Wildlife and Fisheries \(LDWF\)](#) in 2011.

A total of 15 Whooping Crane chicks hatched this year with eight surviving to fledge. It brings the Louisiana population to 76, 16 of which were wild hatched in the state. The first wild hatched Louisiana chick came in April of 2016, the first to hatch in the state in more than 75 years. This year four chicks fledged from marshes at the [White Lake Wetlands Conservation Area](#) – a population first and important milestone. Two of the fledglings at White Lake became Louisiana's third set of generally rare Whooping Crane "twins," with both siblings surviving. This year's successes bring the population total up to 76 individuals as of September 2022.

Louisiana's Whooping Crane reintroduction project began in 2011 when 10 juvenile Whooping Cranes from the Patuxent Wildlife Research Center were released at the White Lake Wetlands Conservation Area in Vermilion Parish to initiate the non-migratory flock. This marked a significant conservation milestone with the first wild Whooping Cranes in Louisiana since 1950. Support of partners, including Chevron, the U.S. Fish and Wildlife Service, Audubon Nature Institute, Coypu Foundation, Entergy, Cameron LNG, SLEMCO, International Crane Foundation and the Louisiana Wildlife and Fisheries Foundation, have allowed LDWF to expand its effort in Louisiana.



Adults L7-11 and L11-17 guard 11-day-old LW4-22 in Avoyelles Parish. What do the numbers in the cranes' identifiers mean, such as L7-11? The "L" stands for the Louisiana population. If a "W" follows, this means the crane hatched in the wild. The number after the "L" represents the order in which the crane hatched. The last two numbers are the year they hatched, in this case, 2011.

"Eight chicks is the most we've ever had and it's also the most that have ever fledged in a single year from any of the reintroduction projects nationwide," said LDWF Biologist Sara Zimorski, who oversees the Whooping Crane project. "We can't point out exactly why this was our best year. It could be partly the age

and experience of the birds. We certainly have birds that have gained experience hatching and raising chicks over the previous few years, but we did also have some new pairs who were successful for the first time this year.”

Zimorski said dry conditions during the breeding season, which runs from February until June, may have also been a determining factor.

“I don’t think we’ve had a nesting season during a drought like we had this year,” Zimorski said.

“Intuitively it doesn’t seem like that would be good, but according to some colleagues from the U.S. Fish and Wildlife Service, other species of water birds often have really good breeding success in drought years that follow wet years, which we definitely had last year. It’ll be interesting to see how the weather patterns correlate with breeding success going forward.”

Whooping Cranes are slow to mature and only lay one to two eggs during a nesting attempt, typically raising only a single chick even if both eggs hatch. So, reproduction can be a slow process. The cranes normally don’t reach sexual maturity until they are 3-5 years old and the captive reared cranes, when introduced into Louisiana, have been less than 1 year-old. Louisiana cranes have had some success at young ages with several of this year’s successful parents being 5 years old. Additionally, this year, for the second year in a row, and for the third time since chicks first hatched in 2016, a pair was successful in fledging twins.

And in a story submitted by Irvin Louque, International Crane Foundation Whooping Crane Outreach Coordinator (Louisiana). “Overall, the future looks brighter for the growing Louisiana Non-migratory Population with increasing nesting success in natural marshes and 76 birds now in the population. However, the loss of any adult birds in a small population can imperil reintroduction, so the International Crane Foundation continues to focus on reducing the risk of poaching through outreach. This fall, we are increasing our reach in Louisiana by bringing Madi Radford on board as the Gulf Coast Outreach Program Assistant. She’ll help support the outreach program and increase our presence at public events and with various groups across Louisiana and coastal Texas.”



Adult L11-11 and 4.5-month-old LW10-22 in Jefferson Davis Parish. Photo by LDWF

To read Louque’s article “Meet the Louisiana Whooping Crane Class of 2022,” and for more photos of the cranes in this population, go here: <https://savingcranes.org/2022/09/meet-louisiana-whooping-crane-class-2022/>

Recent Facebook posts by [Louisiana Department of Wildlife and Fisheries - Whooping Cranes](#)

Help LDWF by reporting all Whooping Crane sightings and violations

If you are lucky enough to see a Whooping Crane, please do not approach it, even in a vehicle, to avoid habituating the birds to human activity. If you share the sighting on social media, bird listservs, or other public sites, please do not share location information more specific than county or parish level.

<https://www.wlf.louisiana.gov/page/report-a-whooping-crane-sighting-or-violation>

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

If you see a Whooping Crane in the western United States, please report it here:

<https://whoopingcrane.com/report-a-sighting/>

Note: Whooping Cranes in the Louisiana population have been known to travel into surrounding states.

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

For LDWF updates on the Louisiana non-migratory population of Whooping Cranes, go here:

<https://www.facebook.com/lawhoopingcranes/>

For more general information about the cranes, go here:

<https://www.wlf.louisiana.gov/subhome/whooping-crane>

Texas:

Whoopers arrive at Aransas!

The first Whooping Cranes of the winter season were spotted on 21 October 2022 on Matagorda Island, Texas. Texas Parks and Wildlife officials said most of the birds are expected to arrive in the Aransas National Wildlife Refuge area in December.

Whooping Cranes descend on Lake Waco enroute to the Texas coast

On November 14 and 15, 2022, local birders reported a flock of 40 or more Whooping Cranes on the mud flats near Reynolds Creek Park. This amazing flock represented a sizable number of the wild population of endangered Whooping Cranes, that migrate each fall from Wood Buffalo National Park in Alberta Canada to Aransas National Wildlife Refuge near Corpus Christi, Texas.



In this photo by Robert Cohee, a family unit is shown with a juvenile Whooping Crane, center flanked by two adults. The cranes were part of the group observed on Lake Waco near Reynolds Creek Park.

“This is really cool because we don’t often get a chance to get numbers on sightings of Whooping Cranes when they’re in migration,” State Ornithologist Tania Homayoun of Texas Parks and Wildlife said. She said flocks are sometimes reported making stopovers in Midwest states such as Nebraska, but Texas

migratory sightings on land are rarer. People often see them flying high in the sky, but to see them actually stopping over and foraging in mudflats is a rare treat.”

According to Mike Champagne, Lake Waco manager for the U.S. Army Corps of Engineers, Lake Waco is down more than 11 feet from its normal elevation, and the low water level has left part of the North Bosque arm of Lake Waco as mud flats. The flats provide food for both migrant cranes and migrating shorebirds.

Standing at an average of five feet tall, the Whooping Crane is one of the largest – and rarest – birds in North America. It flies 2,500 miles each year to winter on the Texas coast. To read more from the National Audubon Society, go here: <http://ow.ly/4S0F30qJJyu>

Or, to watch “The Whooping Cranes of Texas/National Audubon Society” on YouTube, go here: <https://youtu.be/vRuX-tC9YeU>



Photographer Brian Boyd documented this migrating flock of Whooping Cranes resting and feeding on the North Bosque River arm of Lake Waco. It is uncommon to see large groups such as this one as Whooping Cranes tend to migrate in family units or singly – unlike their cousins the Sandhill Cranes that can be observed migrating in flocks of hundreds to thousands of birds.

Utah:

Tracking Sandhill Cranes in Utah

There are six recognized populations (migratory groups) of Sandhill Cranes in North America, and Utah is one of nine western states that is home to two specific populations: the Rocky Mountain (RM) population and Lower Colorado River Valley (LCRV) population.

Most Sandhill Cranes breed in Montana, Wyoming, Idaho, and Utah. But every fall, cranes begin a migration that takes them to New Mexico and Arizona where they spend the winter.

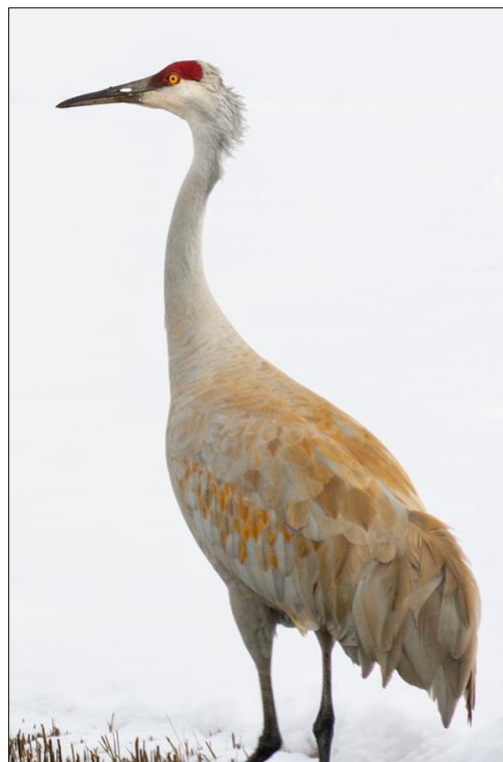
Beginning in the early 1980s, biologists sought to determine where cranes in Utah migrated. Both the RM and LCRV cranes look very similar, so the determination in population was based on where the cranes spent the winter. Biologists tagged cranes with specific color bands on their legs and with the help of these bands, were able to conclude that most cranes in the western half of Utah were the LCRV population, which spend the winter along the Colorado River in western Arizona and California. Cranes in the eastern half of Utah were part of the RM population, which winter in the Middle Rio Grande Valley in New Mexico and southeastern Arizona.

Biologists now utilize GPS technology, that provides exact locations of a crane’s movements, and therefore a better picture of overall crane migrations. Working with public and private partners all over the west, the [Utah Wildlife Migration Initiative](#) consolidates tracking data for a number of wildlife and fish species so the Initiative can understand more about animal movement and behaviors, and identify barriers to safe wildlife migration.

In 2019 and 2020, biologists captured nine cranes from central Utah and fitted the cranes with GPS trackers. Data gathered from these nine cranes shed new light on crane movements during migration. Some of the cranes move thousands of miles between their breeding and wintering locations, while others spend most of their time in the same county year-round.

Retrieved GPS data also revealed just how far and fast cranes can move. One crane left Henrieville, Utah around 5:30 p.m. on 31 December 2021. It arrived in Socorro, New Mexico about 24 hours later, which is a direct route of about 380 miles. On its way back north, it left Aranaipa Valley, Arizona on 19 February 2022 at 6:30 p.m., and arrived in Green River, Utah about 48 hours later, only stopping twice to rest. That was a total distance of 460 miles. During periods of its journey, this crane achieved sustained flight speeds around 35–38 miles per hour!

To read the article by Blair Stringham, DWR's Wildlife Migration Initiative program coordinator, go here:
<https://wildlife.utah.gov/news/wildlife-blog/1523-amazing-trace-tracking-sandhill-cranes-in-utah.html>

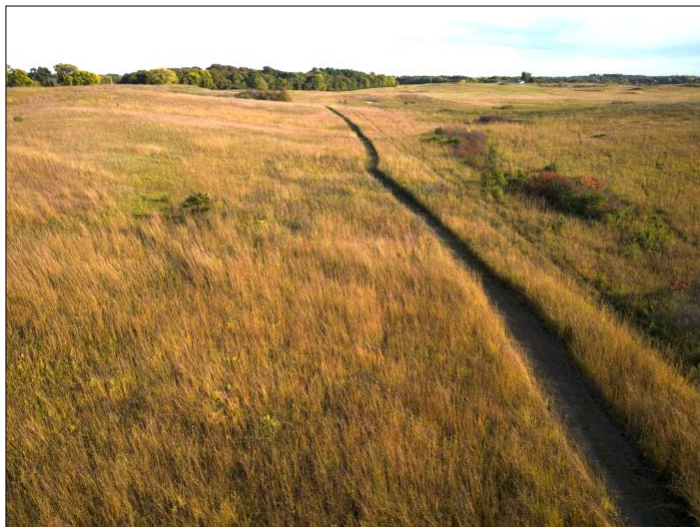


Habitat Matters!

Illinois:

Nachusa Grasslands depends on continuing stewardship

Elizabeth Bach, an ecosystem restoration scientist, is the only full-time scientist at the [Nachusa Grasslands](#), and responsible for facilitating the more than 40 scientists conducting research at the site and planning how to manage its 4,000 acres through controlled burns and plantings. Nachusa is home to animals across food chains, many of which have relatively stable populations.



(Above) The nearly 4,000-acre Nachusa Grasslands on 5 October 2022. Nachusa is home to animals across food chains, many of which have relatively stable populations. Photo by E. Jason Wambsgans/Chicago Tribune

But Nachusa has shown that people aren't just needed at planting season. Rather, [people can improve conservation outcomes through regular management](#) and stewardship of the land.

Nachusa Grasslands is a restored swath of prairie, woodland and wetland with plant and animal species native to Illinois. According to the U.S. National Park Service, prairie is [one of the rarest](#) and most endangered ecosystems in the world. The project began in 1986, when a group of community members bought about 400 acres to bring back the native prairie to its original state after years of the land being used for agriculture. Recognizing Nachusa offered the best opportunity in the state to

restore a large and diverse grassland, The Nature Conservancy (TNC), the non-profit managing Nachusa purchased the core of the preserve. So far, more than 3,500 acres have been protected at Nachusa Grasslands through acquisition or conservation easements and continues to be added to.

Because Bach began work at the site in 2018, she didn't witness some initial major changes that occurred at Nachusa. However, in 2020, the Nature Conservancy bought a former cornfield and built wetlands. Now Sandhill Cranes, a species increasingly observed over Chicago, and one expanding across Illinois, use it for foraging.

The success at Nachusa Grasslands has inspired other grassland and savanna restoration projects, such as the [Southeastern Grasslands Initiative](#) in Tennessee.

To read the 18 October 2022 article by [Maddie Ellis](#), Chicago Tribune mellis@chicagotribune.com, go here: <https://www.chicagotribune.com/news/environment/ct-nachusa-grasslands-behind-the-scenes-20221018-ok5ccslaefaavpagiupbornwaa-story.html>

Nebraska:

\$600,000 grant to benefit wetlands in Hall, Clay counties

In an October press release, the U.S. Fish and Wildlife Service announced that it had awarded the Nebraska Game and Parks Commission a \$600,000 grant. According to Game and Parks the funds will be used to benefit the endangered Whooping Crane, the threatened eastern Black Rail and other wetland species, as well as to conserve the wetlands they depend on.

The Nebraska Crane Trust plans to partner with a property owner on a 285-acre parcel along the Platte River in Hall County. Wetlands America Trust will partner with a landowner to manage a 95-acre parcel in the Rainwater Basin in Clay County. The land will remain privately owned and will remain in agricultural production, as the nonprofit organizations work with the landowners to conserve habitat.

Texas:

Muleshoe hosts Lesser Sandhill Cranes

A mere hour northwest of Lubbock, out Texas Highway 114, is the [Muleshoe National Wildlife Refuge](#), where every winter this remote park hosts one of the world's largest migratory gatherings of Lesser Sandhill Cranes.

The oldest national wildlife refuge in Texas, Muleshoe is home to mule deer, bobcats, coyotes, horny toads, and prairie dogs and Sandhill Cranes. Every winter, as many as 150,000 Lesser Sandhill Cranes, or about 15 percent of the subspecies' North American population, pass through the refuge's 6,440 acres of windblown prairie. By day, the birds fly to nearby fields to forage for bugs, seeds, and grasses. At night, impressive numbers roost on one of Muleshoe's three saline lakes, huddling together for warmth and protection from predators.

Texas enforces bag limits on Sandhill hunting, during limited seasons. The birds are listed as a "species of least concern" – but that wasn't the case in the early twentieth century, when overhunting and habitat loss dramatically reduced the population. That history is part of the reason Muleshoe exists. In 1935, President Franklin Roosevelt signed an executive order creating the sanctuary as Texas's first national wildlife refuge (the state now has 21). The U.S. Works Progress Administration (WPA) sent more than one hundred workers, young men who needed jobs during the Great Depression, to build roads and dig lakes on the newly acquired land. The goal was to create habitat for ducks, geese, and cranes, which Roosevelt and his fellow conservationists had only just realized were on the decline. Researchers estimate that in the thirties, there were only about 35,000 Lesser Sandhill Cranes while today, thanks to national wildlife sanctuaries like Muleshoe and to a federal hunting ban that lasted through the mid-1900s, the healthy population is nearly one million.

For more information about the Muleshoe NWR, go here: <https://www.fws.gov/refuge/muleshoe>

Wisconsin:

Door County Land Trust receives donation of 'ecologically rare' shoreline property

A piece of shoreline property in Door County is now protected land. Two parcels of shoreline property with high ecological significance, have been donated recently to the [Door County Land Trust](#) by the Nevins family. Once full-time residents of Door County, Susan, Nancy, and Lori Nevins donated 9.27 acres near the Village of Egg Harbor in memory of their conservationist parents.

The property is ranked “high concern for protection” by the County of Door Land Use Planning Department for a variety of reasons:

- Migratory bird habitat
- Important ecological corridor
- Coastal wetlands
- Natural communities and wildlife habitat
- Bedrock beaches
- Landscape connectivity and movement of wildlife
- Mature northern hardwoods
- Wet mesic and wet cedar forests

“These little pockets of land are real treasures ecologically,” said Terrie Cooper, Senior Land Protection Manager. “There are very few pieces of undeveloped shoreline along Green Bay with wetlands that provide this type of conservation impact that protects water quality, mature woodlands, and important wildlife habitat, including nesting sites for waterfowl like Blue-winged Teals, Green Herons, and Sandhill Cranes.”

With the acceptance of this land donation, the Door County Land Trust now protects nearly 9,000 acres.

ENVIRONMENTAL impact issues:

Kansas:

Up to 1 million birds depend on Kansas wetlands during migration – drought wreaks havoc on stopover habitat

[Cheyenne Bottoms](#) and the nearby salt marshes of [Quivira National Wildlife Refuge](#) are two of just a few places in the central U.S. designated as Wetlands of International Importance by the Ramsar Convention because of the critical role they play in aiding birds that migrate along the Central Flyway. The wetlands normally provide a rare concentration of hard-to-find habitats that offer shallow water, protection from predators and a variety of foraging opportunities of aquatic plants, insects, and fish. And due to such a widespread drought this year, finding another spot that gives the birds what they need to complete their journey won't be easy.

“We are 100% dry. There's no water on the property,” Cheyenne Bottoms' wildlife area manager Jason Wagner said. “This year is kind of the perfect storm.” One of the driest summers on record and months of relentless heat have transformed this oasis on the plains into an empty basin. An endless vista of dry, cracking dirt stretches out where open water once rippled toward the horizon. It's been that way since June.

This is especially bad news for the hundreds of thousands of waterfowl that depend on the wetlands as a vital stopover point during their annual migration. Wagner estimates that 750,000 migrating birds stop at Cheyenne Bottoms during an average fall. In the past couple of years, that total has been over 1 million migrating waterfowl and shorebirds.

With no stopover habitat available the waterfowl – some of which travel thousands of miles along the Central Flyway from as far north as the Arctic Circle down to South America – must keep flying farther in search of a place to rest.



(Above left) An aerial photo shows Quivira National Wildlife Refuge salt marshes filled with water. This fall less than 30 acres of the refuge's 5,500 wetland acres still have water. Photo by Bill Johnson/University of Kansas via Kansas News Service (Above right) A basin at Cheyenne Bottoms wetlands in central Kansas that's normally filled with water sits empty after a dry, hot summer. It would take several inches of rain just to saturate this dry, cracking dirt enough to begin filling the wetlands again. Photo by Colby Morberg/KSU via Kansas News Service

To the north, the [Platte River](#) – another vital stopover area for these migrants on the Central Flyway – has completely dried up in parts of central and western Nebraska. To the south, drought covers Oklahoma. Birds migrating along the Pacific Flyway will likewise find little if any stopover habitat in wetlands and wildlife refuges across California. Traveling thousands of miles during migration is already physically demanding for birds in a good year but eliminate even one prime refueling stopover under these conditions and it could be a matter of life and death.

Central Kansas has always experienced cycles of drought. Cheyenne Bottoms has been known to dry up periodically, most recently in 2013. But that year, late summer rains refilled it before the fall migration season. According to Wagner at Cheyenne Bottoms, to see the wetlands this dry this late into the year is very rare.

Over the past century or so, Alice Boyle, a migratory bird ecologist with Kansas State University said, humans have depleted the underground water supplies that historically boosted the region's rivers and springs – natural aquatic areas that birds could turn to when the wetlands ran dry. Roughly a third of the water under Kansas has disappeared since European settlement, largely thanks to pumping the Ogallala aquifer for irrigated farming.

Drought is always devastating, but when coupled with the ever-growing need for water by humans for consumption and agriculture as well as the out of control abuse through the [fracking](#) boom. According to the Natural Resources Defense Council (NRDC) as much as several million gallons of water may be used to frack a single well; <https://www.nrdc.org/stories/fracking-101>), the safety net for birds – once a given – is now eliminated.

To read the article by David Condos Kansas News Service, go here:

http://www.emporiamagazine.com/free/article_fd5ae844-5c52-11ed-8395-0b79828aec64.html

Texas:

Water purchase on Texas coast to aid endangered Whooping Cranes

[Story originally published by Texas Water Trade on 28 October 2022.](#)

Texas Water Trade and the International Crane Foundation have finalized a water acquisition for the immediate delivery of 200 acre-feet of water to a critical bird habitat for one of the rarest and most endangered bird species in North America, Whooping Cranes.

The water will be delivered as early as this week [last week of October] to the [Guadalupe Delta Wildlife Management Area](#), which is managed by the Texas Parks & Wildlife Department on San Antonio Bay, just as the Whooping Cranes are making the 2,500-mile migration south from Canada's Wood Buffalo National Park to their wintering areas along the Texas coast. Between 500 to 600 Whooping Cranes will use this migratory flyway this fall.



(Above left) Roseate Spoonbill foraging in in a marsh at Swan Lake Ranch in the Guadalupe Delta next to the San Antonio Bay. (Above right) Grasses grow between small lakes of fresh and salty water at Swan Lake Ranch in the Guadalupe Delta next to the San Antonio Bay.

The water will be delivered and held on hundreds of acres of wetlands suitable for Whooping Cranes and other threatened and endangered birds. Much of the habitat is parched today due to the state's prolonged drought.

"The cranes are in the air flying now and when they arrive on San Antonio Bay this water will be waiting for them so they can winter there for the next five months," said Dr. Quinn McColly, Conservation Finance Director at Texas Water Trade, noting that the birds usually arrive on the Texas coast in late October and early November.

"When conditions are dry and bay salinities go up, many of the food items that Whooping Cranes rely on decline, and the cranes spend more time in freshwater wetlands," said Carter Crouch, Ph.D., Director of Gulf Coast Programs for the International Crane Foundation. "Right now, the bay salinity around the Whooping Crane's primary wintering area is high, approaching ocean salinities. On top of that, many freshwater wetlands are currently dry due to this year's drought. So, providing 100 acres of reliable freshwater wetlands near salt marsh habitat is a big win for Whooping Cranes, and I expect the more common Sandhill Cranes and other wildlife will also benefit from this freshwater habitat."

The contract calls for the Guadalupe-Blanco River Authority to deliver 200 acre-feet of water in each of the next three years to the Guadalupe Delta WMA.

"We are excited to work with Texas Water Trade and the International Crane Foundation to manage wetlands for cranes, wading birds and waterfowl on the Guadalupe Delta WMA," said Daniel Walker, Project Lead at the Coastal Bend Wetlands Ecosystem Project at the Texas Parks & Wildlife Department.

After facing near extinction in the 1940s, Whooping Crane populations have slowly rebounded thanks to conservation efforts to rebuild and re-establish populations across North America. Today there are two ongoing reintroduction efforts, but the Aransas-Wood Buffalo population is the only remaining self-sustaining wild population, and in the winter of 1941-1942 only 16 birds remained in this population. Today there are over 500 birds that winter on the Texas coast, but they still face many challenges.

The contract is the first of its kind in Texas to benefit Whooping Crane populations on the Texas coastline. It comes just several months after the International Crane Foundation joined Texas Water Trade's centerpiece program, the Texas Water Market Makers, an initiative aimed at forging voluntary water transactions that will help the environment and wildlife in the state's rivers and bays.

Similar water acquisition contracts have been negotiated by Texas Water Trade with the Galveston Bay Foundation and The Nature Conservancy for the benefit of Galveston Bay and Matagorda Bay.

Endangered wildlife win protections from lead on National Wildlife Refuges

In a 30 November 2022 press release by the [Center for Biological Diversity](#), it was announced that a federal judge has [ordered](#) the U.S. Fish and Wildlife Service to take [measures](#) to protect endangered wildlife harmed by expanded hunting and fishing on national wildlife refuges. The protections include phasing out the use of poisonous lead ammunition and tackle at several refuges across the country.

The legal victory resolves a lawsuit filed last year by the Center for Biological Diversity challenging the Trump administration's decision to expand hunting and fishing on 2.3 million acres across 147 wildlife refuges and national fish hatcheries. The U.S. Fish and Wildlife Service manages 567 national wildlife refuges and 38 wetland management districts, encompassing millions of acres of land that at least 8,000 animal and marine species call home. Grizzly bears, Ocelots, Whooping Cranes and Jaguars are just a few of the species listed as endangered in the U.S. that are found on wildlife refuges.

Noting that nearly one-third of all endangered species live in these refuges, the Center for Biological Diversity filed suit last year to challenge what was the [largest-ever expansion](#) of hunting and fishing throughout the National Wildlife Refuge System, executed under former President Donald Trump in 2020.

Lead ammunition and tackle can have implications for wildlife not directly shot with it as it also poisons fields or waterways. Any animal that feeds on an animal shot with lead-containing ammo could also be affected. Use of lead ammunition and tackle can poison endangered animals like Whooping Cranes that ingest lead when feeding in fields and waterways.

Fish and Wildlife agreed as part of the deal to begin by phasing out the use of lead in numerous national wildlife refuges on the East Coast. These refuges are the Blackwater, Eastern Neck, and Patuxent refuges in Maryland; the Chincoteague and Wallops Island refuges in Virginia; the Erie refuge in Pennsylvania; the Great Thicket refuge in Massachusetts; and the Rachel Carson refuge in Maine.

"This win protects endangered wildlife on refuges that were specifically created to protect them," said Camila Cossío, staff attorney at the Center. "The Fish and Wildlife Service knows that using lead ammunition and tackle poisons wildlife and people. I'm hopeful that the protections stemming from this lawsuit are just the beginning."

To read the Center for Biological Diversity press release, go here:

<https://biologicaldiversity.org/w/news/press-releases/endangered-wildlife-win-protections-from-lead-on-national-wildlife-refuges-2022-11-30/>

Contact: Camila Cossío, (832) 933-5404, ccossio@biologicaldiversity.org

And in a recent call to action by the [American Bird Conservancy](#):

PUBLIC COMMENT PERIOD: Demand EPA end use of hazardous fungicide, *inpyrfluxam* – protect threatened and endangered species

I'm concerned that the Environmental Protection Agency (EPA) is putting endangered Whooping and "Mississippi" Sandhill Cranes, along with other birds, at risk with its hasty approval of a dangerous agricultural fungicide without adequate safeguards.

Research on quail and songbirds shows that seeds coated with this fungicide, inpyrfluxam, can affect the birds' reproduction rates and even kill birds when eaten. While cranes are much larger, they feed in freshly planted fields and could easily be poisoned if coated seeds have been used. That's not all: This hazardous toxin washes into waterways when applied as a spray, killing aquatic invertebrates, and depleting an important food source for cranes and other birds.

Despite these dangers, the EPA approved sales of inpyrfluxam in 2020 – but it's not too late to turn things around. **The agency has released a draft [biological evaluation of inpyrfluxam's effects on Endangered species](#), which is now open for public comment.**

[Speak up before December 27 to demand better oversight and mitigation of this toxic fungicide.](#)

Under its current evaluation, the EPA is not proposing any major changes to keep wildlife safe from inpyrfluxam. It wrongly claims that current uses pose no risk to Threatened and Endangered species, ignoring the potentially deadly danger that inpyrfluxam-coated seeds pose to Whooping Cranes or "Mississippi" Sandhill Cranes when ingested.

Current EPA regulations also lack sufficient safeguards for bodies of water and aquatic invertebrates. Inpyrfluxam labels dictate that the pesticide must be used at least 50 feet from water – not nearly enough to prevent contamination. In addition, there is no requirement to buffer sprayed areas by planting vegetative strips along the edges of fields – an important measure to reduce chemical runoff into waterways through filtering.

[Act now: Tell the EPA to restrict the use of inpyrfluxam and prioritize the safety of cranes and other vulnerable birds.](#)

To adequately regulate inpyrfluxam, the EPA must include better mitigation measures that will protect wildlife and their habitats. These include:

- Banning inpyrfluxam as a seed treatment. If seed treatment is unavoidable, it should not be used when Endangered species, including "Mississippi" Sandhill and Whooping Cranes, are present;
- When used as a spray, requiring vegetative buffers in areas designated as Critical Habitat;
- Increasing buffer distance from bodies of water to 100 feet; and
- Prohibiting all aerial spraying of inpyrfluxam.

The EPA must follow its mandate to ensure that Endangered species and their critical habitats are safeguarded. Your voice is vital to make it happen.

[Take action before the December 27 deadline and ask the EPA to protect iconic cranes and other vulnerable species.](#)

Thank you,

Hardy Kern

Director of Government Relations, Pesticides and Birds Campaign
American Bird Conservancy



.....

To read or download a copy of the "DRAFT Biological Evaluation of Current and Proposed Uses of Inpyrfluxam," posted by the Environmental Protection Agency 26 October 2022, go here:
<https://www.regulations.gov/document/EPA-HQ-OPP-2018-0038-0051>

To read more, "Whooping Cranes Face New Threat from Agricultural Fungicide," 14 December 2022, by Hardy Kern, go here: <https://abcbirds.org/blog/whooping-crane-fungicide/>

Science News:

Editor: *The following is a sampling of research – beginning in the 1930's and continuing through 2016 – on the status of the Eastern Population of Sandhill Cranes in Wisconsin.*

In 1934 as his interest in Sandhill Cranes grew, Aldo Leopold put several of his students to work on cranes in the field. One of the students was Franklin Henika who reported on the Great Lakes Sandhill Crane population at the first North American Wildlife Conference in 1936. The following are excerpts from Henika's published report that contained the first estimate that "The total sand-hill crane population of Wisconsin is therefore estimated to be about 25 breeding pairs."

Sand-hill cranes in Wisconsin and other Lake States

By Franklin S. **Henika**, Madison, Wisconsin

"Sand-hill Cranes in Wisconsin and Other Lake States," Proceedings of the North American Wildlife Conference (Washington, D.C.: Government Printing Office, 1936), 644-646.

The sand-hill crane (*Grus canadensis*) in the Lake States is now limited to a few large areas of deserted marshland where the intensive cultivation of modern agriculture has not penetrated. The accompanying map shows the distribution of these marshes. I am indebted to Mr. Owen J. Gromme and the Milwaukee Public Museum for information and for the lantern slides which will be shown.

The largest general nesting area remaining is in central Wisconsin, where several groups of nesting cranes occur, one in the Cranmoor region of Wood County and the Bear Bluff marshes of Jackson County, and another some 30 miles away in the Roche a Cris marshes of Adams County. Additional locations where nesting sand-hill cranes have been reported are farther east in Marquette and Green Lake Counties. These central Wisconsin counties probably have a population of 20 pairs of sand-hill cranes.

... One or more pairs of sand-hill cranes have been known to nest in recent years on the Peshtigo Brook marshes of Oconto County and on the St. Croix River marshes bordering Wisconsin and Minnesota. There have also been unconfirmed reports of nesting sand-hill cranes near New London, Wis. The total sand-hill crane population of Wisconsin is therefore estimated at about 25 breeding pairs.

... At present the sand-hill crane in the Lake States inhabits areas which combine the following general characteristics:

1. Large expanses of grasslands, usually wet marshy hay meadows, or burned-over aspen stands which have grown up to grass.
2. Small but frequent pools or ponds of shallow water or streams.
3. Sandy and peat soils.
4. Range extensive enough to provide refuge from poaching.

This latter requirement has forced the sand-hill crane into the most remote and unsettled portions of the Lake States, where the other requirements are met. Usually the surrounding territory is well forested with aspen, birch, and oak.

Henika concluded the report with the statement "Sand-hill cranes in the Lake States are so rare that no effort should be spared to insure their preservation and increase."

Migration of the Sandhill Crane east of the Mississippi River

LAWRENCE H. **WALKINSHAW**, 1960. Migration of the Sandhill Crane east of the Mississippi River. *Wilson Bulletin* 72: 358–384.

Over a period of years, I have assembled many records of the Sandhill Crane (*Grus canadensis*) from North America. The two subspecies (*G. c. canadensis* and *G. c. tabida*) generally seem to follow three different migration routes. Some cranes wander from these main routes but few migrate east of a line

from James Bay to eastern Georgia. Many migration records exist from Wisconsin, Michigan, northeastern Illinois, Indiana, western Ohio, eastern Tennessee, and in recent years from Georgia, and some apparently from northern Florida, indicating a definite migration route from northwest to southeast in fall and vice versa in spring. Apparently, there are few records from Alabama and Mississippi except for the resident Florida Sandhill Cranes (*G. c. pratensis*) in the far south. Some cranes are observed migrating across Minnesota, a few in western Iowa and Missouri, but none across Arkansas and Louisiana.

... Since it is impracticable to use complete data for all three main migration routes in one paper, I have tried to amass the chief data from east of the Mississippi (Fig. 1)) hoping to do similarly later with each of the other two routes. The large number of sight records of the Sandhill Crane from Indiana (where the species has not bred for 30 years) and several from eastern Tennessee, central Kentucky, and north and central Georgia show the direction of flight.

... Small fall concentrations now occur in Michigan (at times 150 cranes) in both the Upper and Lower Peninsula breeding areas. There has been a gradual increase in recent years in these numbers. Larger concentrations sometimes occur in central Wisconsin (as many as 600) and much larger concentrations at Jasper-Pulaski Game Preserve in northern Indiana. Here cranes have steadily increased during recent migrations so that nearly 2,000 gather in spring and in fall at one time. No one knows from where these birds have come nor where they are going. No one knows how long they remain, whether some come early, stay a few days and then move on, being replaced by other groups, or whether some birds remain for many weeks. Possibly some of these cranes may migrate much farther north than central Wisconsin and northern Michigan. Some may go into northwestern Ontario where cranes have been found in summer in recent years.

To read the full text article "Migration of the Sandhill Crane east of the Mississippi River," by Lawrence H. Walkinshaw; *Wilson Bulletin* 72: 358–384, 1960, go here:

<https://sora.unm.edu/sites/default/files/journals/wilson/v072n04/p0358-p0384.pdf>

Distribution and status of the Greater Sandhill Crane in Wisconsin

By Ernest A. **Gluesing**, 1974, Master of Science thesis submitted to the University of Wisconsin-Stevens Point, College of Natural Resources

This dissertation is a report of a study conducted from September 1972, through November 1973, in cooperation with the Wisconsin Department of Natural Resources. The main objectives of the study were (1) to determine the number and distribution of breeding pairs and (2) to delineate the habitat used by Sandhill Cranes in Wisconsin. The following are excerpts from the thesis.

...During the early 1800's migratory populations of Sandhill Cranes nested in wetland habitats across much of the northern half of the North American continent. Their range extended south as far as northern California and Arizona, central Nebraska, southern Illinois, and central Indiana and Ohio. Sedentary populations existed in Florida, Louisiana, Mississippi, Cuba, and the Isle of Pines. Sandhill Cranes have disappeared from much of their former nesting areas as a result of excessive hunting, drainage of wetlands, and human settlement. The decline in the Sandhill Crane population was very rapid between 1870 and 1915 (Walkinshaw 1949). Despite recent increases in numbers due to protection from hunting and preservation of wetlands, cranes no longer nest in Ohio, Indiana, Illinois, Iowa, Nebraska, the Dakotas, Washington, Louisiana, Arizona, and much of southern Canada (Lewis, et al. 1973).



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

...Early records of Sandhill Cranes nesting in Wisconsin are few in number. One of the earliest records for Wisconsin was attributed to Aldo Leopold who reported meeting a farmer who knew of Sandhill Cranes breeding since at least 1848 (Henika 1936).

...Between the turn of the century and the 1940's, there is a conspicuous lack of recorded data of known nesting pairs or even sightings of Sandhill Cranes in Wisconsin. How small the crane population in Wisconsin actually became is unknown, although Henika (1936) estimated the Wisconsin population at only about 25 breeding pairs during the 1930's. The population has increased dramatically since that time, yet, except for brief reports by Hamerstrom (1938), Grange (1955), and Gregg and Hunt (1970), no intensive efforts were made to determine and report the status and distribution of Sandhill Cranes in Wisconsin.

To read the full-text Master of Science thesis by Ernest A. Gluesing, go here:

<https://minds.wisconsin.edu/bitstream/handle/1793/79440/Gluesing.pdf?sequence=1&isAllowed=y>

Changes in the number and distribution of Greater Sandhill Cranes in the Eastern Population

Anne E. Lacy,¹ Jeb A. Barzen, Dorn M. Moore, and Kristin E. Norris

International Crane Foundation, P. O. Box 447, E-11376 Shady Lane Rd., Baraboo, Wisconsin 53913, USA

[Journal of Field Ornithology](#) 86(4):317-325, 2015

DOI:[10.1111/jfo.12124](https://doi.org/10.1111/jfo.12124)

Abstract. Once nearly extirpated, the Eastern Population (EP) of Greater Sandhill Cranes (*Grus canadensis tabida*) has increased in number and expanded its range in breeding and wintering areas. Data from Christmas Bird Counts (CBCs) and Breeding Bird Surveys (BBSs) were used to delineate changes in the wintering and breeding area distributions during the period from 1966 to 2013. Crane densities were plotted to the centroid of CBC circles or BBS routes, and the Geographic Mean Centers (GMCs) for wintering and breeding populations were calculated. The number of Greater Sandhill Cranes detected during the breeding season has steadily increased since 1966, with just six birds observed in 1966 and 1046 observed in 2013. The GMC of the Sandhill Crane breeding population has remained in Wisconsin during the 47-yr time frame. The total number of Sandhill Cranes counted in the eastern United States during CBCs grew from 423 in 1965–1966 to 46,194 in 2012–2013, with a peak number of 55,826 in 2011–2012. The GMC of wintering Greater Sandhill Cranes was located in Florida during the periods from 1966 to 1977 and 1978 to 1989 but shifted north-northwest by nearly 4° of latitude (into Georgia) by 1990–2001. By 2002–2013, the GMC had shifted an additional degree north as well as almost a degree west in longitude. Greater Sandhill Cranes in the EP may continue to winter further north and remain in more northerly areas later in the fall before migrating further south. Factors such as annual weather, long-term climate change, and changes in land use may influence future population trends and changes in both the breeding and wintering ranges of the EP of Sandhill Cranes.

To read the full-text or to download a full-text PDF, go here:

https://www.researchgate.net/publication/284663849_Changes_in_the_number_and_distribution_of_Greater_Sandhill_Cranes_in_the_Eastern_Population

High nest density of Sandhill Cranes in central Wisconsin

JEB A. BARZEN,¹ International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, USA

LIYING SU, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, USA

ANNE E. LACY, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, USA

ANDREW P. GOSSENS, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, USA

DORN M. MOORE, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, USA

Abstract: We conducted aerial surveys to determine nest locations of greater sandhill cranes (*Grus canadensis tabida*) in central Wisconsin, 2001–2003. Helicopter flights covered 8.90 km² of wetlands in each year, and we found 41 nests in 2001, 50 nests in 2002, and 48 nests in 2003 from 11 wetlands. Our

best estimate of nest density ($n = 14$) included wetlands containing 5 or more nests and averaged 5.25 ± 0.36 (1 SE) nests/km² of wetland. Maximum nest density of larger wetlands in any 1 year was 7.80 nests/km². As some nests had likely failed by the time we completed our surveys, our measure of nest density likely under-estimated the total number of territories in each wetland. Minimum distances between nests averaged 222 ± 70 m (range 33-666 m) among all wetlands and 151 ± 41 m (range 33-571 m) for wetlands with 5 or more nests. Nest locations differed from a random distribution ($P < 0.05$) and were clustered within wetlands and within years. Nest locations were found more than expected in the wetland habitat type (Jacob's Index $D = 0.72$ in 2001, 0.66 in 2002 and 0.76 in 2003) and less than expected in open water, open shrub, and closed shrub. No nests were found in wetland forests. Crane nests also tended to occur on the outside margins of the wetlands. Nest density in central Wisconsin was greater than any previous estimate for any other crane population yet recorded and likely represents a breeding population at carrying capacity as well as a species that utilizes both upland and wetland habitats together.

Throughout North America, many populations of sandhill cranes (*Grus canadensis*) have recovered from population nadirs of the early 20th century (Meine and Archibald 1996). The Eastern Population (EP) of greater sandhill cranes (*G. c. tabida*) in Wisconsin was thought to have declined to as low as 25 breeding pairs (Henika 1936) and was lamented by Leopold (1966) as being on the brink of extirpation. Low densities of isolated breeding pairs occurred in very large, isolated wetlands (Henika 1936, Meine 2004), and this early description of nesting habitat has persisted. It was not until the 1970s that biologists began to describe a recovering sandhill crane population in Wisconsin (Hunt and Gluesing 1976, Howard 1977, Bennett 1978). Since then, the EP in Wisconsin has increased dramatically (Harris and Knoop 1987, Windsor 1990, Dietzman and Swengel 1994, Su et al. 2004, Lacy et al. 2015)....

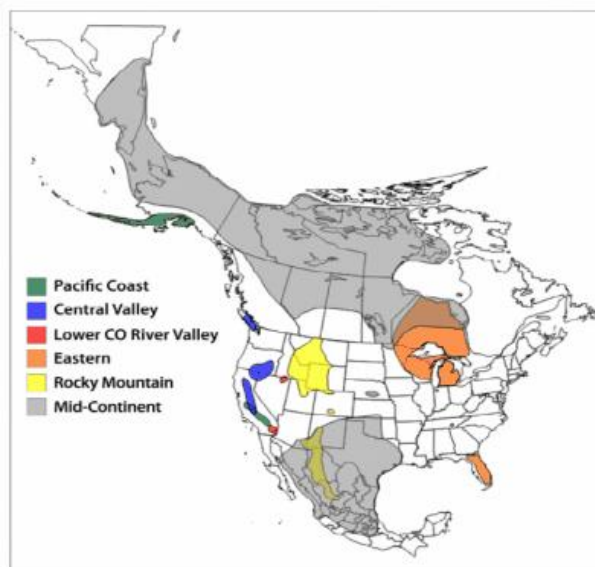
PROCEEDINGS OF THE NORTH AMERICAN CRANE WORKSHOP 13:13-24

To read the full-text article, go here:

https://www.nacwg.org/publications/cranes_sandhill_whooping_2016-2.pdf

Colorado:

Keynote speaker offers glimpse into the work of federal biologists tracking Sandhill movement



(Map above) The distribution of the six migratory Sandhill Crane populations in North America. (Case and Sanders 2009)

Dan Collins, a migratory game bird biologist for the U.S. Fish and Wildlife Service, said he wanted to “peel back the curtain” and give people a view into the work federal biologists do with Sandhill Cranes.

In the 1970s, there were only 25 mating pairs of Rocky Mountain Greater Sandhill Cranes in Colorado, and though that number has rebounded to between 250 and 300, according to the [Colorado Crane Conservation Coalition](#), the Rocky Mountain greater Sandhill Crane remains a Tier 1 protected species (*Tier 1 species are those that are globally or nationally most at-risk of extinction.*)

At the Yampa Valley Crane Festival in September 2022, Collins gave a keynote presentation about the methods biologists use to survey and monitor Sandhill Cranes – what their research entails and plans for future studies of this iconic species.

Since their research began in December 2012, Collins and his colleagues have banded 952 cranes across eight Western states, primarily in New Mexico, using “rocket nets,” angled to shoot netting several feet above grounded cranes to safely ensnare them before they take flight. Biologist then band the cranes and attach GPS tracking devices to track their location. Various measurements are also taken to determine whether they are Greater or Lesser Sandhill Cranes.

The team receives an update whenever a tracking device pings a cellphone network. So far, the trackers have identified more than 3 million GPS locations of the marked cranes. This data, compiled over years, will show migration patterns as well as pinpointing crucial stopover habitat used by the cranes.

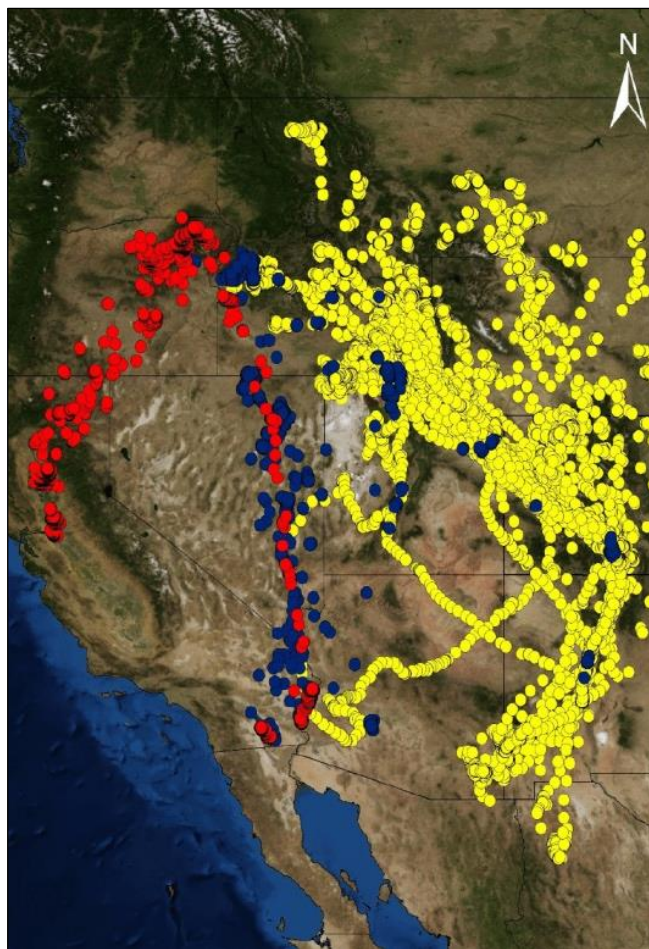
Diet and migratory trends of the cranes is the main focus of Collins’ research. One of the biggest challenges of preserving Sandhill Cranes is to ensure they have plenty to eat without relying on food grown on private property. Surprisingly the chili farms in New Mexico attracted the attention of many Sandhill Cranes, so corn is now used as a management tool to keep these birds off the local producers.

An important task for researchers, according to Collins, is to identify when and where it’s best to supply food. Using a process called “stable isotope analysis,” biologists analyze tissue from Sandhill Cranes to determine their diet, and combined with GPS tracking data, researchers can determine when and where the cranes are searching for the specific food they need.

Collins and his team have determined that Sandhills look for corn especially from mid-December to mid-February. Collins said their research is also helping prevent oversupplying the birds’ diets. “We figured out that we didn’t need 3.1 million pounds of corn,” Collins said. “We need about 2 million pounds of corn, so that reduces the footprint.” Collins provided models that demonstrate how effective the supplemental feed programs have been. Using GPS data of banded Sandhill Cranes in the Middle Rio Grande Valley, where an estimated 80% of Rocky Mountain Sandhill Cranes spend the winter, Collins showed a graph suggesting the birds have a strong preference for public lands with feed rather than private. “That tells us that the supplemental feed program is working,” Collins said. “It’s keeping those birds off of those local producers.”

Federal biologists want to partner with more private landowners to coordinate strategies for future conservation efforts. “We need to engage these folks,” Collins said. “They’re conservation minded. “We just we need to learn how to talk with them.”

To reach Spencer Powell, call 970-871-4229 or email him at spowell@SteamboatPilot.com



(Above) Map shows different GPS tracking points for various populations of Sandhill Cranes including Rocky Mountain Sandhill Cranes in yellow. – Image courtesy of U.S. Fish and Wildlife Service



Sandhill Cranes at Bosque del Apache National Wildlife Refuge, New Mexico. Photo by Paul Souders

Upcoming Events:

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

Festival of the Cranes 2022

Dates: December 1-3, 2022

Bosque del Apache National Wildlife Refuge, New Mexico

We are delighted to announce that, after a two-year hiatus, our greatly anticipated in-person Festival of the Cranes will return this year on December 1-3. Festival of the Cranes will look and feel a little different this year as we work to improve upon the visitor experience and ensure the safety of all our guests, given ongoing Covid concerns.

For more information go to the festival website: <https://friendsofbosquedelapache.org/festival/>

Holiday with the Cranes - Coastal Bend Audubon Society

Dates: December 10-11, 2022

Location: Galveston Island, TX

For a unique holiday nature experience, spend a wonderful, winter weekend on Galveston Island celebrating the return of the wintering Sandhill Cranes at Holiday with the Cranes. Learn all about these magnificent 3-4 ft tall birds from birding guide Glenn Olsen and then venture out on a self-guided tour of the Island's crane hotspots!

Closer to the festival date, check here for more festival information including the festival itinerary, and to register for fieldtrips please go here: <https://www.galvestonnaturetourism.org/>

Save Our Sandhill Cranes

Sacramento Audubon Society

<http://soscranes.org/visit-the-cranes/free-tours/>

We are delighted to let you know that after a 2-year Covid pandemic hiatus we are going back to doing free crane viewing tours. This year, however, things will be different.

We are partnering with the Cosumnes River Preserve and will do the tours as volunteers for them. We will be doing two tours per month: the 2nd and 4th Saturday of each month, October through February. Each tour will begin at the Visitor Center, 13501 Franklin Blvd. [Click here for directions.](#)

Each tour will begin with a brief talk at the Visitor Center about 90 minutes before sunset and end shortly after sunset. We will walk or drive from the Visitor Center to wherever we believe the cranes will be that evening. Although the tours are free you need to register since we must limit the number of guests. For more details on how to register for each tour you can periodically check their web site

at <https://www.cosumnes.org/homepage-2/events/>

For more information contact Mike at [yogoombah\[at\]yahoo\[dot\]com](mailto:yogoombah[at]yahoo[dot]com).

Contact Us: <http://soscranes.org/contact-us/>

Address:

SOS Cranes

5930 S. Land Park Dr.

P.O. Box 22192

Sacramento, CA 95822

Festival of the Cranes / Wheeler NWR

Dates: January 13 - January 15, 2023

Saturday 6:30 a.m. - 5:00 p.m.

Sunday 8:00 a.m. - 5:00 p.m.

Location: Wheeler National Wildlife Refuge

3121 Visitors Center Road

Decatur, AL 35601

For a brochure with information of the upcoming festival, go here:

<https://www.friendsofwheelernwr.org/festival-of-the-cranes-2023>

Over 14,000 Sandhill Cranes, along with a growing number of Whooping Cranes from the eastern migratory population, now spend the winter at Wheeler NWR. Festival attendees are able to view the cranes from an enclosed, heated observation tower.

Wings Over Willcox

Dates: January 12-15, 2023

Location: Willcox, Arizona

The "Wings Over Willcox" (WOW) festival is the perfect opportunity to see winter migrants and other wildlife of southeastern Arizona. The festival includes tours for photography, geology, history, botany, agriculture and, of course, thousands of Sandhill Cranes. Free admission. For tour fees and registration, call or register on-line.

Please note that the 2023 festival is following the U.S. Centers for Disease Control and Prevention (CDC) guidelines. The most current CDC guidelines (October 19, 2022) are:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

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

Annual Tennessee Sandhill Crane Festival / Hiwassee Wildlife Refuge

Dates: January 14-15, 2023

8:00 a.m.- 4:00 p.m. EST daily

Location: [Hiwassee Wildlife Refuge](#) and the Birchwood Community Center, Birchwood, Tennessee

As many as 12,000 cranes have overwintered at the confluence of the Tennessee and Hiwassee Rivers.

Whether you're an avid birder or you've never seen a Sandhill Crane before, the Tennessee Sandhill Crane Festival represents an extraordinary opportunity to witness a natural phenomenon that is truly unforgettable. Experience the migration of the Sandhill Cranes and many other waterfowl, eagles, White Pelicans, and Whooping Cranes.

Free buses run the short distance from the Birchwood Community Center to the Hiwassee Refuge and Cherokee Removal Memorial. Volunteers and scopes are set up at each location for birders and curious visitors. The 2023 festival will feature recording artists 2ND Nature, keynote speaker, folk singers, and arts and craft vendors. The Cherokee Memorial will host Native American folklorists and crafts throughout the weekend to celebrate its thriving and rich tradition and culture. The entire region buzzes with birds and birdwatchers alike.

For more information contact: Mime Barnes
mime.barnes@tn.gov
931-456-3068

A Celebration of Cranes

Date: Saturday, February 4, 2023

Location: Muscatatuck National Wildlife Refuge, 12985 E. U.S. 50, Seymour Indiana

For information email muscatatuck@fws.gov or go to <http://www.fws.gov/refuge/Muscatatuck>

The festival is now in the planning stages but will feature car caravan-type crane viewing tours, crane videos at the Visitor Center, children's crane crafts, as well as information on self-guided drives visitors can take to see cranes.

Winter Wings Festival

Dates: February 17-20, 2023

Location: The Festival is headquartered at the Oregon Institute of Technology, Klamath Falls, Oregon.

For more information see [Festival Locations](#).

Registration opens around mid-December 2022. Visit <https://winterwingsfest.org> or our [Facebook page](#) for more details. **Covid Policy?** We recommend that vaccinated participants attend but won't require proof of vaccination this year. Masks may be required in indoor settings, buses, and carpools depending on the Oregon State guidelines in February.

The Winter Wings brings together birders and photographers to learn and explore with top-notch professionals and enthusiastic local guides. The Klamath Basin is renowned for its massive wintering of waterfowl. The 2023 Festival will feature singer/songwriter and raptor specialist Jen Hajj and award-winning photographer Ray Hennessy. Join us for an extensive array of field trips, workshops, presentations, and receptions that highlight the wonders of the Klamath Basin in winter.
#winterwingsfestival

Winter Wings is the oldest birding festival in the West managed by [Klamath Basin Audubon Society](#) volunteers with support from sponsors, grants, and participant registration fees. Festival proceeds support local grants to teachers and other entities for outdoor education and community nature-related projects.

Whooping Crane Festival - 2023 / Port Aransas

Dates: Thursday February 23 – Sunday 26, 2023

Location: Port Aransas and Mustang Island, TX

Each year since 1996, the Whooping Crane Festival in Port Aransas, Texas has celebrated 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 naturally occurring population of Whooping Cranes. In 2023, the festival is back and ready to celebrate its 26th anniversary!

The four-day event will feature renowned speakers, birding trips, boating trips, nature tours, photography workshops, a trade show, and much more.

For more information and to register, go here: <http://www.whoopingcranefestival.org/>
Or call 800-45-COAST, or 361-749-5919

To learn more and buy tickets for festival events (already selling out!), go here:
<https://www.portaransas.org/whooping-crane-festival/the-2023-festival/>

Marsh Madness Sandhill Crane Festival

Dates: February 24-25, 2023
Location: Goose Pond Fish and Wildlife Area
13540 County Road 400S, Linton, IN 47441
Greene Co. Indiana, near Linton

Friends of Goose Pond is proud to present the 14th annual Marsh Madness Sandhill Crane Festival, celebrating the spring migration of Sandhill Cranes, Whooping Cranes, and numerous waterfowl to the Goose Pond Fish and Wildlife Area, a 9000-acre wetland complex south of Linton, Indiana.

Marsh Madness features a variety of cultural, educational, and wildlife conservation-oriented experiences. There's something for everyone: migrating cranes and waterfowl, wetland driving tours, educational exhibits at the Goose Pond Visitors Center, wildlife art display, and family and kid's nature activities.

For the festival agenda, go here:
<https://friendsofgoosepond.org/marsh-madness-schedule/>

For a map of Goose Pond FWA, go here:
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/>

Iain Nicholson Audubon Center at Rowe Sanctuary – Nebraska Crane Season

Dates: March 4 - April 8, 2023
Location: Audubon Rowe Sanctuary
44450 Elm Island Road
Gibbon, NE 68840

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

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

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

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

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

40th Monte Vista Crane Festival – Where the Cranes meet the mountains

Dates: March 10-12, 2023

Location: San Luis Valley

Monte Vista, Colorado

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

For more information, go here: mvcranefest.org

Othello Sandhill Crane Festival

Dates: Friday March 24 - Sunday March 26, 2023

Location: Columbia National Wildlife Refuge, Othello, Washington

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

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

<https://www.othellosandhillcranefestival.org/>

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

Mary W. Yandell, Editor

Kentucky Coalition for Sandhill Cranes

kyc4sandhillcranes.com

kycoalition4sandhillcranes@gmail.com

mtwyandell@gmail.com

Or

Cynthia Routledge

Southeastern Avian Research

Specializing in Winter Hummingbird banding

www.southeasternavianresearch.org

The Tennessee Ornithological Society

www.tnbirds.org

routledges@bellsouth.net

For archived issues of the *Eastern Crane Bulletin* click here:

<http://kyc4sandhillcranes.com/eastern-crane-bulletin/>

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



Whooping Crane and Sandhills wintering at Wheeler National Wildlife Refuge, Decatur, Alabama. Photo by George Lee

*Out of some far recess of the sky a tinkling of little bells falls
soft upon the listening land. Then again silence.
Now comes a baying of some sweet-throated hound, soon the
clamor of a responding pack. Then a far clear blast of hunting
horns, out of the sky into the fog.*

—Aldo Leopold, “Marshland Elegy”

*Best wishes to all
for a happy, healthy New Year!*

Thanks for reading the Eastern Crane Bulletin.