



EASTERN CRANE BULLETIN

March 2017

The Eastern Crane E-bulletin is distributed to those interested in cranes in general, and specifically, the Eastern Populations of Sandhill and Whooping Cranes, as well as the continuing work for the protection of these birds and their habitats.

Eastern Migratory Population of WHOOPERS

Who shot Whooping Crane #4-11?

The Indiana Department of Natural Resources officials reported that the remains of [No. 4-11](#), a 5-year old female Whooping Crane of the Eastern Migratory Population (EMP), was found by an [International Crane Foundation](#) volunteer on January 3, 2017 in a field along Indiana 67 near the [Goose Pond State Fish and Wildlife Area](#). State officials say preliminary evidence suggests the crane was shot during the New Year's Day weekend. It is thought she was killed with a high powered rifle but her remains were sent to the National Fish and Wildlife Forensics Laboratory in Ashland, Oregon for further testing. In February 2014 [Direct Autumn Release \(DAR\) Whooping Crane No.35-09](#) was shot and killed in the same area as No. 4-11. At this time it is not known whether the two poaching shootings are related.

This latest death brings to a total of five Whooping Cranes shot and killed by poachers in Indiana since 2009:

2017: [No. 4-11](#), Greene Co., IN
2014: [DAR No. 35-09](#), Greene Co., IN
2012: [No. 27-08](#), Knox Co., IN
2011: [No. 6-05](#), Jackson Co., IN
2009: [No. 17-02](#) Vermillion Co., IN

The following conservation organizations have come together to offer a \$15,600 reward for information leading to the arrest and conviction of the person(s) responsible for the shooting:

- **U.S. Fish & Wildlife Service** – \$2,500
- **Friends of Goose Pond's** board members – \$2,500
- [The International Crane Foundation](#) – \$1,000
- **Indiana Turn in a Poacher (T.I.P.)** – \$500
- [Operation Migration](#) – \$3,500
- [Center for Biological Diversity](#) – \$5,000

“Reintroducing an endangered species takes money, hard work, luck and expertise. I was privileged to fly alongside #4-11 and to help teach her to migrate. She survived on her own and made five trips south in the fall and back north in the spring. She found a mate and even produced a chick. Then to have someone waste all that time, effort and such a beautiful bird for nothing more than the pleasure of the kill is a selfish, wasteful tragedy,” said Operation Migration’s Joe Duff.

The U.S. Fish and Wildlife Service is the lead in the investigation of this crime.

If you have information about this case please contact the Indiana Conservation Officer Dispatch at [812-837-9536](tel:812-837-9536).

If you would like to contribute towards the reward offered go here:

www.operationmigration.org or, contact Heather Ray at heather@operationmigration.org

To read more about the five, Indiana Whooping Crane shootings, go here:

<https://kyc4sandhillcranes.com/2017/01/09/dnr-asks-public-for-help-to-stop-shootings-of-emp-whoopers-5-deaths-in-indiana-attributed-to-poaching/>

Researchers evaluate first year of new, "Parent-Reared" reintroduction technique

For the first time since the Whooping Crane eastern migratory population reintroduction program began in 2001, Whooper colts were not trained by costumed humans and Operation Migration to migrate south behind ultralight aircraft. Instead, with humans observing remotely, adult cranes raised 12 chicks at the Patuxent National Wildlife Center in Maryland and at the International Crane Foundation near Baraboo, Wisconsin. The chicks were then placed with other adult cranes in the wild in central and eastern Wisconsin with the hope that the juveniles would associate with the adults, and when the time came follow them for their first migration southward.

Predators killed three of the Parent-Reared juveniles. Another eight migrated south with either Whooping Cranes or Sandhill Cranes. But one juvenile male didn't seem to get the whole concept of migration, so researchers intervened in December and gave "Bryce" a ride south to the Wheeler NWR in Alabama.

To listen to National Public Radio (NPR) Chuck Quirnbach's interview with Anne Lacy of the International Crane Foundation, go here:

<http://www.wpr.org/whooping-crane-researchers-evaluate-first-year-new-reintroduction-techniques>

Heading south – "Parent-Reared" Whoopers photographed with Sandhills passing over Chicago

Frigid weather moved into Wisconsin on December 7 encouraging a huge movement of Sandhill Cranes and Whoopers to leave Wisconsin and head south. Subsequently, [Operation Migration](#) received a report from Samuel B. Burckhardt of Chicago that thousands of Sandhill Cranes had passed over Chicago the very same day. The most exciting news was that among the thousands of Sandhills flying over were four Whooping Cranes! Burckhardt got photos of the two adult birds accompanied by a juvenile, while later a lone juvenile flew over.

The [Whooping Crane Eastern Partnership \(WCEP\)](#) tasked Operation Migration with monitoring the "parent-reared" colts – keeping tabs on them with the assistance of GSM email (Global System for Mobile Communications In Email) and by Platform Transmitter Terminal (PTT) telemetry. It was through these tracking methods that the Chicago Whoopers were individually identified. An excellent example of "citizen science" and biologists working together towards a common goal!

To read the December 8, 2016 post, In the Field with Operation Migration: Heading South!, and see Samuel B. Burckhardt's photos, go here:

<http://operationmigration.org/InTheField/2016/12/08/heading-south/>

WCEP Whooping Crane Update/February 1, 2017

According to the report recently released by the [Whooping Crane Eastern Partnership \(WCEP\)](#), the current size of the eastern migratory population of Whooping Cranes is 103 birds (47 F, 54 M, 2 U). As of 1 February, at least 30 Whooping Cranes were confirmed in Indiana, 3 in Illinois, 7 in Kentucky, 2 in Arkansas, 10 in Tennessee, 27 in Alabama, 6 in Florida, 5 in Georgia, and 1 in Louisiana. The remaining birds' locations were not reported during January.

To read about the 2015 wild chicks, Parent-Reared 2015 cohort, Direct Autumn Release (DAR) 2015 cohort, Ultralight (UL) 2015 cohort, and Parent-Reared 2016 cohort, go here:

<http://www.bringbackthecranes.org/technicaldatabase/projectupdates/2017/01Feb2017.html>

Aransas-Wood Buffalo WHOOPERS

Whooping Crane stopover habitat needs

Chester McConnell, President of [Friends of the Wild Whoopers](#) (FOTWW) group, participated in the recent 14th annual meeting of the North American Crane Working Group (NACWG) in Chattanooga TN. Following are excerpts from a report he presented.

[The Recovery Plan \(Canada Wildlife Service and U.S. Fish and Wildlife Service, 2007\)](#) calls for the protection of existing wetlands as Whooping Crane stopover areas and the enhancement of those wetlands that have been degraded by woody plant encroachment, silting, and/or draining within the migratory corridor. The Plan includes numerous references that describe various wetlands used as stopover sites. Important migration stopover sites in the United States include: [Cheyenne Bottoms State Waterfowl Management Area](#) and [Quivira NWR, Kansas](#); the Platte River bottoms between Lexington and Denman, Nebraska; and [Salt Plains NWR, Oklahoma](#). These large sites have been designated as critical to the conservation of the species. FOTWW emphasizes, however, that numerous other smaller stopover sites are also essential. During migration, Whooping Cranes must land at any suitable pond/wetland available when they get tired, when severe weather occurs or before night time.

An outline of recovery actions to achieve objectives is explained in CWS and USFWS 2007 (pages 41 and 42). These include identifying, protecting, managing, and creating habitat. Identifying essential habitats and ensuring long-term protection of migration stopover sites are specific task. The objectives included a "Complete measurement of availability of migration stopover habitat and monitor changes over time."

More specifically the Recovery Plan (1.5.3.2.) spelled out the need to: "Ensure long-term protection of migration stopover sites. Work with landowners to ensure migration habitat remains suitable for cranes. Pursue stewardship agreements and conservation easements when needed, focusing on providing wetland mosaics" (page 49).

Friends of the Wild Whoopers (FOTWW) initiated a survey of entities with large land holding that could possibly provide additional stopover areas. As the first phase of the project, the group began with U.S. military bases within the six states of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Texas. The second phase involved stopover habitat opportunities on Indian Reservations within the corridor.

Through both these surveys, FOTWW believes it has achieved some of the major objectives described in the CWS and USFWS 2007 Recovery Plan, including identifying, protecting, managing, and creating stopover habitat.

Read more of the 2007 Recovery Plan referenced above, here:

[International Recovery Plan, Whooping Crane \(*Grus americana*\), Third Revision](#)

Canadian Wildlife Service and U.S. Fish and Wildlife Service. 2007. *International recovery plan for the whooping crane*. Ottawa: Recovery of Nationally Endangered Wildlife (RENEW), and U.S. Fish and Wildlife Service, Albuquerque, New Mexico. 162 pp.

Debate on how to count Whooping Cranes continues

For 29 years while at the Aransas Wildlife Refuge, biologist Tom Stehn conducted Whooping Crane census flights during which he tried to find every crane. However, when Stehn retired from U.S. Fish and Wildlife Service (USFWS) in 2011, the agency changed from doing a weekly Whooping Crane *census* to conducting a *survey* that takes place for roughly one week every December.

Unlike a census, a survey incorporates a technique called "distance sampling" where not every crane is counted but estimates of the cranes not seen are based on how far observed cranes were from the aircraft when sighted. Unfortunately, the margin of error for this survey is quite large, equaling plus or minus 39 cranes for the estimated wild flock of 338 during the winter of 2016.

In January 2017, Dr. Bruce Pugsek, Montana State University and Tom Stehn, published an article in the *Proceedings of the 13th North American Crane Workshop* entitled "THE UTILITY OF CENSUS OR SURVEY FOR MONITORING WHOOPING CRANES IN WINTER". The article compares the survey and census methods of counting Whooping Cranes. *For an abstract of the article and a link to read it in its entirety, see the **Science News** section of this bulletin.*

Read more about Tom Stehn's article and comments shared by him with FOTWW here:

<http://friendsofthewildwhoopers.org/debate-counting-whooping-cranes-continues/>

To download the full text PDF of the USFWS publication about the Aransas crane survey, "Whooping Crane Winter Abundance Survey Protocol Aransas National Wildlife Refuge," go here: <https://catalog.data.gov/dataset/whooping-crane-winter-abundance-survey-protocol-aransas-national-wildlife-refuge>

Tracking helps conservation of migrating wild Whoopers

Beginning in 2009 researchers began placing satellite transmitters on 68 individual Whooping Cranes in the wild Aransas Wood Buffalo population. The goal of the international, multi-partner project, nicknamed the "Stopover Project," was to track the wild Whoopers and in doing so learn what was needed to further their conservation along their migratory flyway. In 2012, the [Crane Trust](#) joined the [USGS Northern Prairie Wildlife Research Center](#) and the [Platte River Recovery and Implementation Program](#) and became "homebase" for the project data collection.

The "Stopover Project" used tracking data to locate the exact spot a Whooping Crane spent the night and where it foraged during the day while on migration. For seven years, for both spring and fall migrations, field technicians in Canada and the U.S. mapped and recorded roost location and habitat data along the flyway – from Alberta, Canada to Texas – for each of the 68 cranes. Their findings have now been published in a report, [Evaluation of Nocturnal Roost and Diurnal Sites Used by Whooping Cranes in the Great Plains, United States](#), prepared by the USGS in cooperation with the Platte River Recovery Implementation Program and Crane Trust.

Read more from the Crane Trust about the "Stopover Project" here:

<https://cranetrust.org/stopover-project/>

See **ECB Science News** below to read the abstract and to download a full PDF of the report, *Evaluation of Nocturnal Roost and Diurnal Sites Used by Whooping Cranes in the Great Plains, United States*.

Alabama:

Thousands attend Wheeler NWR "Festival of Cranes"

Once just an idea...an idea strictly for the birds...The Festival of Cranes at Wheeler National Wildlife Refuge has turned out to be a huge success! Head Park Ranger Teresa Adams said about 4,100 people representing 22 states and five foreign countries attended the refuge's Festival of the Cranes on January 14-15, 2017, about 1,100 more than attended in 2016. Another 575 people took advantage of mild weather and The Martin Luther King holiday to visit on Monday, the day after the festival.

The stars of the show were certainly the estimated 19,200 Sandhill Cranes and 25 endangered Whooping Cranes plus thousands of ducks and geese including an elusive Eurasian Wigeon.

Whooper #12-02 now greets visitors to Wheeler

Now gracing a prominent spot by the front desk in the Wheeler Refuge Visitor Center is an adult, male Whooping Crane, better known as [Whooping Crane #12-02](#). This beautiful crane will help educate visitors not only about the story of the eastern migratory population of Whooping Cranes of which he was a part, but about the habitat the cranes rely on. So what happened and how did he end up at Wheeler?

The following is a summary of fourteen years that began when Whooping Crane, #12-02, hatched on May 15, 2002 at the [Patuxent Wildlife Research Center](#) in Maryland. In the fall of 2002 he successfully migrated to Florida with other juveniles following the Operation Migration ultralight aircraft. Over the course of the following years he migrated between Wisconsin and Florida. In 2007 he and [female #19-04](#) became a mated pair. In 2010 the pair hatched and raised chick #W3-10 ("W" is for wild-born); in 2012, [chick #W1-12](#) and in 2014, [chick #W-3-14](#). Unfortunately Whooping Crane #12-02 lost his mate when she disappeared in 2014 and was later presumed to be dead. Then in 2015 he and [female #4-11](#) became a pair. In 2016 they successfully hatched [#W-3-16](#) but the colt died due to predation before fledging.

Sadly, [male #12-02](#) was found dead in early June 2016. There was no sign of predation or injury; death was later determined to be due to disease or bacterial infection. Losing a long-term survivor and proven breeder was a blow to the eastern migratory population. In another bizarre twist to this story, his mate, [#4-11](#), was shot and killed by a poacher in early January 2017 while on her wintering grounds near Goose Pond FWA in Greene Co., Indiana. What a waste!

For more information about #12-02 and a photo of him, along with Ranger Daphne Moland and Supv. Ranger Teresa Adams and Shane Smith at the Wheeler Refuge Visitor Center, go here:

<http://www.learner.org/north/tm/crane/02/BandingCodes212.html>

California:

Editors note: *Having a background in art, I could not pass up the opportunity to include the following information for readers interested in keeping a crane journal in some way other than through photographs. Any time there is a chance to slow down and really look at what we "see" in front of us, we should take it. And, any time we can learn something new about a species or the habitat it relies on, it is even better. I think John Muir Laws provides individuals with that possibility.*

How to draw Sandhill Cranes

"Naturalist, educator and artist John (Jack) Muir Laws is in love with the natural world and has lived his life sharing this passion with others. He is trained as a wildlife biologist and is a Research Associate of the California Academy of Sciences. Jack has taught nature education teacher since 1984 in California, Wyoming, and Alaska. He teaches the tools to help people develop as naturalists and stewards including, ways to improve your observation, memory and curiosity, conservation biology, natural history, scientific illustration, and field sketching all while having fun and falling more deeply in love with the world."

– excerpt from *John Muir Law bio*.

How to draw Sandhill Cranes: Anatomy for artists

Understanding the structure below the feathers is an important part of being able to see and draw Sandhill Cranes. *Learn more here:* <http://johnmuirlaws.com/art-and-drawing/drawing-birds-art-and-drawing/draw-sandhill-cranes-anatomy-artists>

How to draw a Sandhill Crane: basic lines

How does one capture the basic shape of a crane in a few critical simple lines? Learn a trick for sketching Sandhill Cranes that can be used to draw moving mammals and large birds.

Learn more here: <http://johnmuirlaws.com/art-and-drawing/draw-sandhill-crane-basic-lines>

How to paint a Sandhill Crane landscape, step-by-step

Learn how to move from one sketch to another as live birds move before you.

Learn more here: <http://johnmuirlaws.com/art-and-drawing/drawing-birds-art-and-drawing/paint-sandhill-crane-landscape-step-step>

Drawing Sandhills video workshop

<http://johnmuirlaws.com/art-and-drawing/draw-sandhill-cranes>

To find out more about John Muir Laws, go here: <http://johnmuirlaws.com/>

Louisiana:

Whooping Cranes catch a plane to Louisiana

In this video, biological wildlife technicians at the Patuxent Wildlife Research Center in Maryland ready a December 2016 cohort of juvenile Whooping Cranes for their journey by plane to their new home in Louisiana. These cranes are part of a collaborative reintroduction project, begun in 2011, with the goal of establishing a non-migratory population of Whooping Cranes in Louisiana.

To watch the video, go here:

<http://www.wsj.com/video/whooping-cranes-catch-a-plane-to-louisiana/4B999D5C-380B-460B-895D-43CB91346EB2.html>

Mississippi:

Audubon and White Oak aid Mississippi Sandhill subspecies

Mississippi Sandhills are a non-migratory subspecies that are considered critically endangered. According to USFWS, fewer than 35 of these cranes existed in 1975 when the [Mississippi Sandhill Crane National](#)

[Wildlife Refuge](#) opened near Gautier, MS. The population became endangered as its [wet pine savanna habitat](#), once stretching from Louisiana to the Florida panhandle was lost to development. Today however, through an ongoing collaborative conservation effort, the population has grown to an estimated 120-130.

In December 2016, two releases days apart involved seven captive-raised Mississippi Sandhill Cranes, four from the [Audubon Nature Institute](#)'s facility in the New Orleans area and three from the [White Oak Conservation Center](#) near Jacksonville, Florida. The four captive-born chicks, according to an Audubon spokesperson, were raised using two methods – two were costume-reared, and two were raised by adult Sandhills.

"One of the techniques to increase population is to release captive-reared cranes to the wild and supplement the free-flying population. We've been doing it for years. This is the longest and largest crane release in world," said Scott Hereford, a senior wildlife biologist with the U.S. Fish and Wildlife Service. *To learn more about the Mississippi Sandhill Crane National Wildlife Refuge and their crane tours, go here:* https://www.fws.gov/refuge/mississippi_sandhill_crane/

Nebraska:

Happy 150th Birthday Nebraska!

A photograph by [Michael Forsberg](#) of Sandhill Cranes flying near the Platte River at sunset graces a new U.S. postage stamp issued in celebration of Nebraska's 150th birthday of statehood. Known for agriculture, the Cornhusker State became the 37th state on March 1, 1867. Nebraska is also known worldwide for the incredible number of cranes it hosts during spring and fall migration.

According to the Lincoln Nebraska conservation and wildlife photographer, the photograph used on the stamp was taken about 15 years ago near Wood River. The image, framed by prairie grasses along the Platte River, shows Sandhill Cranes coming in at sunset to roost on the sandbars making up the river's braided channels.

To see the beautiful stamp and read more go here:

http://journalstar.com/news/local/govt-and-politics/stamp-will-celebrate-nebraska-s-th-birthday/article_5cfd55dd-7a48-5dbd-a6bb-8f467a9e7a6f.html

To learn more about Michael Forsberg and see his amazing photographs, go here:

<http://www.michaelforsberg.com>

"Cranes: Taking Flight" exhibit

The [Museum of Nebraska Art \(MONA\)](#) in Kearney opened a new exhibition this month, "Cranes: Taking Flight," February 7- May 28, 2017.

Every year the natural phenomenon of the Sandhill Crane migration takes place in Central Nebraska. It is also the time when the Museum of Nebraska Art showcases works featuring these impressive birds. Spanning more than 150 years from [John J. Audubon](#)'s engravings to [Michael Forsberg's photography](#), artists have used different media to depict the crane.

The Museum of Nebraska Art celebrates the history of Nebraska's visual art for diverse audiences. MONA collects, preserves, researches, exhibits and interprets the work of artists who were born, lived, trained or worked in Nebraska or who created artworks that reflect the culture of Nebraska.

Efforts made to toughen Nebraska's poaching laws

With incidents of "thrill kills" on the rise around the state, lawmakers are looking at ways to stiffen game laws. Under one bill, Nebraska would join a 44-state compact to allow the suspension of hunting privileges in all member states for certain violations committed in a single state. Another bill would increase the fines (doubling, or in some cases increasing by 5X the existing fine) for illegally killing game birds and animals as well as for shooting from the road (an increase of 5X the present fine).

The high-profile poaching case that helped spur the bills involved the November 2015 killing of 25 pronghorn antelope near Broadwater. The animals were shot from the road and left to rot. While in March 2016, over 160 dead Snow Geese and two Sandhill Cranes were found at a dump site butchered only for their breast meat. It is illegal to kill Sandhills in Nebraska but the two were shot with a rifle from a road. (see story in the [Eastern Crane Bulletin, June 2016 issue](#))

Read more from the Omaha World-Herald, here:

http://www.omaha.com/news/legislature/nebraska-lawmakers-mull-ways-to-deter-poaching-including-raising-fines/article_2b59bef5-25d0-56a7-90de-9cb6a5bc89ff.html

Ohio:

State listing of Sandhill Cranes may change from "endangered" to "threatened"

There is a proposal by the Ohio Department of Natural Resources (ODNR) Division of Wildlife to change the listing of Sandhill Cranes in the state from an endangered species to a threatened species. According to ODNR Wildlife Research Biologist Laura Kearns, the recommendation for this change in listing is due to an increased number of breeding Sandhill pairs throughout the state, numbers that have doubled over the past 5 years, and quadrupled over the last 10 years.

A statewide hearing on all of the proposed rules will be held at the ODNR Division of Wildlife's District One office at 9 a.m. on March 16. The office is located at 1500 Dublin Road, Columbus, 43215. Council meetings are open to the public. Individuals who want to provide comments on a topic that is currently being considered by the council are asked to register at least two days before the meeting by calling [614-265-6304](tel:614-265-6304). All comments are required to be three minutes or less. For more information go to wildohio.gov or by calling 800-WILDLIFE (945-3543).

Look under the header *Research & Surveys for distribution and productivity updates*, here:

<http://wildlife.ohiodnr.gov/species-and-habitats/species-guide-index/birds/sandhill-crane>

For the video "Sandhill Crane Management in Ohio" from WildOhio go here:

<https://vimeo.com/32931687>

Tennessee:

14th annual North American Crane Workshop

The 14th North American Crane Workshop (NACW) was held in Chattanooga, TN January 12-15, 2017. The NACW is held every three years and brings together researchers and crane enthusiasts (aka "craniacs") to learn the most recent information about Sandhill Cranes (*Antigone* [formerly *Grus*] *canadensis*) and Whooping Cranes (*Grus americana*). This research includes all six subspecies of Sandhill Cranes and both the wild and reintroduced populations of Whooping Cranes. The North

American Crane Working Group (NACWG) organizes the workshops, and the location of workshops is always in places where one or both crane species can be found, and the time of year is chosen to coincide with the peak of crane abundance at that location. Past workshops have been held in such places as Grand Island, NE, Wisconsin Dells, WI, Gainesville, FL, Sacramento, CA, and Lafayette, LA. The NACWG also publishes the papers of each workshop in a Proceedings volume. The table of contents of each Proceedings can be found on the NACWG webpage (<http://www.nacwg.org/publications.html>), and the full Proceedings for the workshops held after 1988 are available for purchase.

For a summary of the NACWG workshop by David Aborn, Dept. of Biological and Environmental Sciences of the University of Tennessee at Chattanooga, go here:
[SUMMARY OF THE 14TH NORTH AMERICAN CRANE WORKSHOP](#)

2017 Tennessee Sandhill Crane Festival

On the morning of January 14, the first day of the 2017 Tennessee Sandhill Crane Festival weekend, the Hiwassee Wildlife Refuge near Birchwood in Meigs County found itself socked in with heavy fog. So much so that the Sandhill Cranes leaving their roosts to forage in adjoining fields appeared ghostlike before fading back into the fog. Fortunately, the fog cleared and visitors to the Cherokee Removal Memorial Park and Hiwassee Refuge were able to enjoy views of not only Sandhill Cranes, but an endangered Whooping Crane, many Bald Eagles, American White Pelicans and various species of ducks. Tennessee Wildlife Resources Agency (TWRA) employees along with volunteers staffed the spotting scopes set up for visitors at the refuge, and members of the Chattanooga Chapter of the Tennessee Ornithological Society provided scopes and answered questions at the Cherokee Removal Memorial Park.

Among other activities, presentations by a representative of the International Crane Foundation and the American Eagle Foundation were open to the public both days of the festival. An estimated three thousand visitors from 18 states, two Canadian provinces and England attended the festival. And, according to TWRA, aerial surveys revealed a seasonal high of 33,505 Sandhill Cranes on the refuge.

Tennessee 2016-2017 Sandhill season summary

The Tennessee Wildlife Resources Agency (TWRA) reports that 206 hunters killed 551 Sandhill Cranes (471 adults and 80 juveniles) in the 2016-2017 season. It is unclear as to whether this is the final count because, to date, TWRA has received approximately 250 Hunter Surveys out of the 400 hunter-issued permits this season.

In the first four years of Tennessee's experimental Sandhill Crane season, a notable percentage of hunters failed to return end-of-year hunter surveys. In the future, failure to complete the survey will result in loss of seasonal hunting privileges, according to Jamie C. Feddersen, Migratory Gamebird Program Leader with TWRA. A new rule takes effect this summer that will allow TWRA to deny hunters the opportunity of applying for a permit the following season if they fail to submit their tag and survey information by an established, "hard" deadline. Beginning with the 2017-2018 season, hunters not meeting the deadline cannot apply for a permit in the 2018-19 season.

Texas:

Responsible management to benefit Whoopers and bays

In a 2010 lawsuit, [The Aransas Project \(TAP\)](#), a Rockport-based nonprofit group of environmentalists, business owners, anglers and conservationists who advocate responsible water management, accused

the Texas Commission on Environmental Quality along with the Guadalupe Blanco River Authority (GBRA) of improperly withholding freshwater from the San Antonio Bay estuary. The wild Aransas-Wood Buffalo population of Whooping Cranes depends upon this estuary during their winter stay in Texas. The lawsuit argued that, among other disruptions, the reduced freshwater flow resulted in high levels of salinity and a drop in the availability of blue crabs, a major food source for Whooping Cranes. An estimated 23 Whooping Cranes died in the winter of 2008-2009.

The court found that the high salinity was a result of poor water management by the Commission, and that the Commission had violated the Endangered Species Act. In 2014 that ruling was overturned by the Fifth Circuit Court of Appeals, suggesting that the state water managers could not have foreseen that restricting water into the crane's winter home would result in a die-off.

"The courts still said the state killed 23 whooping cranes," said Jim Blackburn, then attorney for TAP. "It just said they're not liable."

The U.S. Supreme Court declined to hear the subsequent appeal.

Now, GBRA and TAP have agreed to negotiate a compromise and to work together. The original agreement listed 10 study areas. The updated plan combines these into two major areas of focus: habitat improvement and long-term water supply investigations. The two sides agreed to examine new territories for wintering cranes, improving habitats within the watershed, alternative water supplies and protecting the nursery zone within San Antonio Bay. They will also review the river authority's water allocation policy and permits, while looking at a possible market approach of water pricing and water supply enhancements.

Read more in the article, "New hope for whoopers and bays" by David Sikes for the Corpus Christi Caller Times, here:

<http://www.caller.com/story/sports/outdoors/2016/12/07/new-hope-whoopers-and-bays/95006432/>

To learn more about the work by The Aransas Project (TAP), go here: <http://thearansasproject.org/>

The Eastern Crane Bulletin covered this story in its [September 2014 issue](#); [Texas: Aransas Ecosystem/Whooping Cranes threatened by mismanagement of Guadalupe River Basin](#)

Washington:

Sandhills remain on state's endangered list

During a two-day meeting in Vancouver (January 13-14, 2017), the Commission, a citizen panel appointed by the governor to set policy for the Washington Department of Fish and Wildlife (WDFW), voted to keep woodland caribou, western pond turtles and Sandhill Cranes on Washington's list of endangered species.

Habitat Matters!

Ontario, Canada:

Cooper Marsh Conservation Area

Located on the north shore of [Lake St. Francis](#), a section of the [Saint Lawrence Seaway](#), Cooper Marsh was constructed in the 1980s by Ducks Unlimited Canada under the vision and leadership of Bill Cooper, with support from the [Raisin Region Conservation Authority \(RRCA\)](#) and the South Lancaster Fish and Game Club (SLFGC). Part of one of the most significant marshes in Ontario, the Charlottenburgh Marsh, the wetland was created by flooding the area within a series of built-up ring dikes.

Long a favorite of birders, families and eco-tourists because of its rich and rare bird life, Cooper Marsh is also a major educational center. Each spring and summer, the [St. Lawrence River Institute of Environmental Sciences \(SLRIES\)](#) and the RRCA offer spring and summer camps at Cooper Marsh to area youth.

Over the past summer Sandhill Cranes nested at Cooper Marsh for the first time. The conservation area draws visitors year-round from across the region, and is home to over 130 species of birds, and many varieties of frogs, toads, fish and turtles. It provides important habitat for migration stopovers and a diverse ecosystem.

Read more about the ongoing work at the marsh and the people, groups responsible for it, here:
<http://www.ducks.ca/stories/partnerships/community-co-operation-cooper-marsh/>

To watch the video "Discovering Cooper Marsh" produced by the Raisin Region Conservation Authority, a group committed to actively maintain, protect, enhance and restore this natural area, go here:
<https://youtu.be/VVGir8yiM6Y>

Ohio:

Howard Marsh Metropark a wetlands "jewel" on Lake Erie shoreline

The Howard Farm on the Lake Erie shoreline is currently undergoing a \$14 million restoration project to convert it from agriculture to wetlands. The property, added to [Metroparks Toledo](#), lies within the Lake Erie Coastal Zone, one of the region's most significant ecological areas. The restored wetlands will provide important habitat for wildlife as only 5 percent of the original coastal wetlands remain intact along the Lake Erie shore.

Originally part of the fabled [Black Swamp](#), a glacially fed wetland in northwest Ohio and extreme northeast Indiana, the wetlands remained untouched until the late 19th century when settlers drained the fertile land for agriculture. The restoration project included \$6 million to acquire the farm and \$8.6 million to transform the 987-acre property. The wetlands and recreation area is scheduled for completion in December 2017.

"It is critical to turn back time and recover these wetlands," said Steve Madewell, the recently retired director of the Toledo Metroparks. "Natural wetlands, which disappeared at an alarming rate over the last century, are critical to the ecology of Ohio, especially Northwest Ohio."

Howard Marsh Metropark is adjacent to [Metzger Marsh State Wildlife Area](#), the [Ottawa National Wildlife Refuge](#), Maumee Bay State Park and the [Magee Marsh State Wildlife Area](#) ([Black Swamp](#)

[Bird Observatory](#) is located at the entrance to Magee Marsh). The area has been lauded as one of the top birding sites in America and labeled "Warbler Capital of the World." Sightings of Sandhill Cranes have already been reported from the wetlands area.

Read more about the project here:

http://www.cleveland.com/outdoors/index.ssf/2016/12/howard_marsh_metropark_becomin.html

Texas:

Whoopers expand territory along Mission River and delta

For years the [Coastal Bend Bays & Estuaries Program \(CBBEP\)](#) has had its eye on 981-acres along the Mission River and nearby delta wetlands within 15 miles of the [Aransas National Wildlife Refuge](#) where the only wild flock, the Aransas-Wood Buffalo population, of migrating Whooping Cranes spend the winter.

Pristine and isolated, the area includes freshwater marsh, forested wetlands, mudflats, riparian or riverfront and upland habitat, all within the Coastal Bend. The purchase also included nearly 13,000 feet along the river and a buffer around Mission Lake. Both wolf berries and blue crabs, staples in the diet of the Whooping Crane, are found within the Mission River Delta.

"This is an area that we have seen increasing winter use of by Whooping Cranes as the population continues to expand, and conservation of priority habitat areas is a key strategy in moving the species towards full recovery," said Wade Harrell, Whooping Crane coordinator for the U.S. Fish & Wildlife Service at the Aransas Refuge.

Funding for the acquisition, surveying of and the environmental assessment and appraisals of the two land properties was provided, in part, by the [Coastal Impact Assistance Program \(CIAP\)](#), [Whooping Crane Conservation Association \(WCCA\)](#), and the [Coastal Bend Bays & Estuaries Program \(CBBEP\)](#). The purchase brings the total expanse of conservation lands acquired by the bays and estuaries program to nearly 12,000 acres.

For a map of the purchased properties and to read more in an article by David Sikes for the Corpus Christi Caller Times, go here:

<http://www.caller.com/story/news/local/2016/12/08/whoopers-expand-territory-along-mission-river-and-delta/95135550/>

ENVIRONMENTAL impact issues:

Pro-pesticide Trade Group Urges EPA to Ignore Science on Dangerous Neurotoxin Chlorpyrifos

According to a December 2016 press release by the Center for Biological Diversity, "in response to the Environmental Protection Agency's proposal to cancel all food uses of the dangerous 1960s-era pesticide chlorpyrifos, [Crop Life America](#) has launched a desperate last-ditch effort to keep the known neurotoxin on store shelves.

"The EPA's proposed decision is based, in part, on data from a peer-reviewed epidemiological study that found a positive correlation between chlorpyrifos levels in fetal cord blood and adverse effects on memory and IQ in children. The EPA's own recent evaluation of chlorpyrifos also found that it is likely to adversely affect an astounding 97 percent of all 1,700 federally protected species, including Whooping Cranes and

San Joaquin Kit Foxes. Despite abundant evidence that chlorpyrifos is too dangerous to have any place in our agricultural system, and an order from the Ninth Circuit Court of Appeals mandating a decision on the proposed ban by March of 2017, Crop Life America continues to fight the ban."

Early childhood exposure to these pesticides has been linked to cognitive delay and attention deficit hyperactivity disorder, or ADHD. Organophosphates were used as nerve agents in chemical warfare and have been linked to Gulf War syndrome, which causes fatigue, headaches, skin problems and breathing disorders.

Read more here:

http://www.biologicaldiversity.org/news/press_releases/2016/pesticides-12-05-2016.html

Army Corps Issues Blanket Approval to Destroy Tens of Thousands of Acres of U.S. Wetlands

According to a Center for Biological Diversity press release in January 2017, "the U.S. Army Corps of Engineers released the latest version of its ["nationwide permit" program](#), which results in the destruction of tens of thousands of acres of wetlands every year. With little consideration for the impact of such widespread habitat devastation, the program's permits have green-lighted major projects like the Dakota Access Pipeline and the Gulf segment of the Keystone XL pipeline without concern for the consequences of losing wetlands and harming aquatic resources.

"Approved approximately every five years since 1982, the 52 new permits will allow hundreds of thousands of discharges of dredged or fill material to the nation's waters and wetlands from oil and gas development, pipeline and transmission-line construction and coal mining. The U.S. Fish and Wildlife Service and National Marine Fisheries Service have previously found that these activities — which are approved with little or no environmental review — threaten iconic imperiled species including Whooping Cranes, Florida Manatees and the hundreds of migratory birds that need wetlands to survive."

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

http://www.biologicaldiversity.org/news/press_releases/2017/wetlands-01-05-2017.php

To read and download the full-text PDF of the Department of the Army, Corps of Engineers "Issuance and Reissuance of Nationwide Permits," go here:

<https://s3.amazonaws.com/public-inspection.federalregister.gov/2016-31355.pdf>

Science News:

Evaluation of Nocturnal Roost and Diurnal Sites Used by Whooping Cranes in the Great Plains, United States

By Aaron T. **Pearse**, Mary J. **Harner**, David M. **Baasch**, Greg D. **Wright**, Andrew J. **Caven**, and Kristine L. **Metzger**

Abstract: Sites used for roosting represent a key habitat requirement for many species of birds because availability and quality of roost sites can influence individual fitness. Birds select roost sites based on numerous factors, requirements, and motivations, and selection of roosts can be dynamic in time and space because of various ecological and environmental influences. For sandhill cranes (*Antigone canadensis*) at their main spring-staging area along the Platte River in south-central Nebraska, USA, past investigations of roosting cranes focused on physical channel characteristics related to perceived security

as motivating roost distribution. We used 6,310 roost sites selected by 313 sandhill cranes over 5 spring migration seasons (2003–2007) to quantify resource selection functions of roost sites on the central Platte River using a discrete choice analysis. Sandhill cranes generally showed stronger selection for wider channels with shorter bank vegetation situated farther from potential human disturbance features such as roads, bridges, and dwellings. Furthermore, selection for roost sites with preferable physical characteristics (wide channels with short bank vegetation) was more resilient to nearby disturbance features than more narrow channels with taller bank vegetation. The amount of cornfields surrounding sandhill crane roost sites positively influenced relative probability of use but only for more narrow channels <100 m and those with shorter bank vegetation. We confirmed key resource features that sandhill cranes selected at river channels along the Platte River, and after incorporating spatial variation due to human disturbance, our understanding of roost site selection was more robust, providing insights on how disturbance may interact with physical habitat features. Managers can use information on roost-site selection when developing plans to increase probability of crane use at existing roost sites and to identify new areas for potential use if existing sites become limited.

Prepared by the USGS in cooperation with the Platte River Recovery Implementation Program and Crane Trust. For a full-text PDF, go here:

<https://pubs.usgs.gov/of/2016/1209/ofr20161209.pdf>

The Utility of Census or Survey For Monitoring Whooping Cranes In Winter

Bruce H. **Pugesek**,¹ Department of Ecology, Montana State University, Bozeman, MT 59717, USA

Thomas V. **Stehn**, 1613 South Saunders Street, Aransas Pass, TX 78336, USA

Proceedings of the North American Crane Workshop 13:75-84

Abstract: We discuss recent changes in the monitoring program for endangered whooping cranes (*Grus americana*) on their winter habitat in Texas. A 61-year annual census was replaced in the winter of 2011-2012 with a distance sampling procedure. Justification for the change was, in part, based on criticism of the previous methods of counting cranes and the assessment of crane mortality on the wintering grounds. We argue here that the arguments, methods, and analyses employed to discount the census procedure and mortality estimates were applied incorrectly or with flawed logic and assertions. We provide analysis and logical arguments to show that the census and mortality counts were scientifically valid estimates. The distance sampling protocol currently employed does not provide the accuracy needed to show small annual changes in population size, nor does it provide any estimate of winter mortality. Implications of the relative merit of census and mortality counts versus distance sampling surveys are discussed in the context of management of the whooping crane.

For a full-text PDF, go here:

<http://friendsofthewildwhoopers.org/wp-content/uploads/2017/01/WHOOPING-CRANE-CENSUS-OR-SURVEY.pdf>

Sandhill and Whooping Cranes

Jeb **Barzen**, Founder, Private Lands Conservation, LLC, Spring Green, Wisconsin

(Former) Director of Field Ecology, International Crane Foundation, Baraboo, Wisconsin;

Ken **Ballinger** Vice President of Development, Arkion Life Sciences, LLC, New Castle, Delaware

Abstract: As sandhill crane populations continue to grow in the United States, so too does crop damage, property damage to homeowners, and the risk of crane collisions with aircraft. Whooping crane populations also continue to grow, but with a global population of about 500 individuals (as of 2017), damage is rare and problems often require different solutions due to the species' endangered status. The behavioral characteristics and habitat needs of sandhill and whooping cranes set the stage for conflict between these birds and people. Recognizing behavioral differences between territorial and non-territorial cranes greatly improves the effectiveness of any management effort. Human-Wildlife Conflicts Damage

Citation:

Barzen, J. and K. Ballinger. 2017. *Sandhill and Whooping Cranes*. Wildlife Damage Management Technical Series. USDA, APHIS, WS National Wildlife Research Center. Ft. Collins, Colorado. 16p.

A full-text PDF is available from Jeb Barzen at:

https://www.researchgate.net/publication/298807806_Sandhill_and_Whooping_Cranes

Kudos:

Tom Stehn recipient of L. H. Walkinshaw Crane Conservation Award

The [L.H. Walkinshaw Conservation Award](#), is awarded to someone who has made significant lifetime contributions to the understanding of and to the protection and management of North American Cranes. This year, Tom Stehn, a retired U. S. Fish and Wildlife Service (FWS) biologist, received the L. H. Walkinshaw Crane Conservation Award in honor of his 32 distinguished years with FWS. 29 of those years were spent as the United States Whooping Crane Coordinator studying Whooping Cranes on their wintering grounds in Aransas, TX. His work helped give a complete picture of Whooping Crane population dynamics, as well as improving habitat management of their crucial wintering areas. The award was presented on January 13, 2017 at the 14th North American Crane Workshop in Chattanooga, Tennessee.

Learn more about the history of the award here: <http://www.nacwg.org/awards.html>

For past recipients of the award, go here: <http://www.nacwg.org/awardrecipients.html>

Upcoming Events:

2017 Marsh Madness Sandhill Crane Festival

Date: March 3-4, 2017

Location: Goose Pond Fish and Wildlife Area

Greene Co. Indiana, near Linton

Join Friends of Goose Pond for its 8th annual Sandhill Crane Festival. From the kickoff banquet Friday evening featuring keynote speaker Anne Lacy, Crane Research Coordinator, of the International Crane Foundation; an exhibit by local photographer Marty Jones; special presentations about Indiana raptors, snakes and bats; bus tours of the amazing wildlife management area and arts, crafts and kids activities, there is something for everyone interested in our natural world. *Festival admission tickets are required for some of the cabin presentations and activities.*

For the festival agenda, go here:

<http://www.friendsofgoosepond.org/wp-content/uploads/2017/01/2017-Progrtam-Schedule.pdf>

For a map of Goose Pond FWA, go here:

<http://www.friendsofgoosepond.org/map-of-goose-pond/>

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

For ticket information, go here: <http://www.friendsofgoosepond.org/product/marsh-madness-ticket/>

47th Annual Audubon's Nebraska Crane Festival

Date: March 16-19, 2017

Location: Kearney, Nebraska

For festival information, call Spring Creek Prairie Audubon Center, [\(402\) 797-2301](tel:4027972301)

In its 47th year, Audubon's Nebraska Crane Festival brings together hundreds of crane lovers from around the country to Kearney, Nebraska, to interact with a wide range of environmental speakers, take part in incredible birding trips, and experience the world's largest gathering of Sandhill Cranes.

For a PDF of the festival agenda and registration information go here:

http://ne.audubon.org/sites/g/files/amh531/f/static_pages/attachments/ancf_brochure_2017_final.pdf

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