THE UNISON CALL

- Newsletter of the North American Crane Working Group -

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President's Report

One of the primary functions of the North American Crane Working Group is to sponsor a Workshop to provide updates on current research on cranes and status of populations and their management. Lubbock, Texas, has been selected as the location of the next Workshop. Workshop 15 is anticipated in January 2020, with Texas Tech University hosting and field trips to Muleshoe National Wildlife Refuge and local ranches. Start planning. We welcome your attendance.

Meanwhile, the major current activity of NACWG is completion of Proceedings of our most recent Workshop (14) held last year in Chattanooga. All manuscripts have been received by Co-editors Jane Austin and Richard Urbanek and most have been reviewed and returned to authors for final revision. Jane has done an excellent job keeping the line moving. We anticipate 8 full research papers and 10 brief communications in the final volume, with publication by the end of 2018.

Since the last newsletter, NACWG has increased its outreach role by expanding to social media. Thanks to Board members Hillary Thompson, Megan Brown, and Paige Smith for putting us on Facebook and Twitter. Additional improvements are also being made on our website (www.nacwg.org), including the option to pay dues online. We also plan to eventually provide indexing of Workshop Proceedings in major search engines linked to download of individual articles from our website.

The NACWG also addresses specific crane conservation issues, and we are attempting to expand our role in this area by offering our expertise. Current issues involve the consequences of the discontinued whooping crane propagation program at Patuxent Wildlife Research Center and transfer of the birds to other facilities. This flock is critical to survival of the species as a source of stock for reintroductions, and the latter require rearing by rigorous protocols, already difficult in captivity, to ensure suitability for release into the wild. NACWG also has potential for productive review and solution of reintroduction and other crane management problems. As an organization outside the political bureaucracies, our initial efforts to become involved have so far not been successful, but we will keep trying.

Your Board of Directors welcomes your input. Feel free to let us know how we are doing and to offer your suggestions on how we can further contribute to conservation of cranes in North America.

Richard P. Urbanek, New Lisbon, Wisconsin
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Announcements

North American Crane Working Group as a Fledgling on Social Media

This winter NACWG began testing our flight feathers on social media. Please Like and Follow us on Facebook and Twitter @NACranes. We'll be posting links to news articles, new publications by members, stories about cranes, population updates, and of course photos! If you have something you'd like to share with our community via Facebook or Twitter, please email **Hillary Thompson** at **hthompson@savingcranes.org**

2018 Yampa Valley Crane Festival

Soar with cranes! Soar with planes! Visit Steamboat Springs and the beautiful Yampa Valley in Northwest Colorado for the 7th annual Yampa Valley Crane Festival and the Wild West Air Fest taking place on Labor Day weekend, **August 30 – September 2, 2018**. View hundreds of Greater Sandhill Cranes as they eat, dance and socialize on their fall staging area. The crane festival features guided crane viewings, nature and bird walks, expert speakers, films, crane and bird art, workshops, children's activities, live raptors presented by HawkQuest, ranch tours, a community barbecue at The Nature Conservancy's Carpenter Ranch, and more. Festival speakers include **Paul Tebbel**, crane expert and former director of Nebraska's Audubon Rowe Sanctuary; **Jennifer Ackerman**, author of the *New York Times* best-selling book, *The Genius of Birds*; **Pam Liu** on "Cranes in Chinese Culture;" and keynote speaker, **Anne Lacy**, research coordinator for the International Crane Foundation. The Wild West Air Fest features nationally renowned performers providing edge of the seat excitement as they undertake thrilling aerobatics and formation flying. Please visit **www.coloradocranes.org** for a complete festival schedule**.**

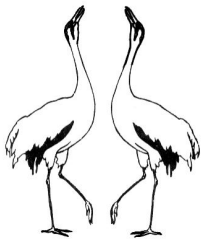
Every year, the Colorado Crane Conservation Coalition (CCCC), presenter of the Yampa Valley Crane Festival, holds a **First Crane Sighting of the Season** *contest. A wonderful prize is awarded to the individual who submits the first photo of a Sandhill Crane in northwest Colorado, as well as subsidiary prizes to other participants.*

This year, the CCCC received a record 57 reports.

The first sighting was made on March 3rd, then multiple sightings on March 5th. A bonanza of cranes was reported beginning on March 9th.

These reports from the public help the CCCC learn more about the Rocky Mountain Population of Greater Sandhill Cranes in northwest Colorado. This, in turn, helps in their efforts to protect the cranes and conserve their habitat. — Ed.

https://coloradocranes.org/programs-2/first-crane-sighting-contest/2018-contest/



25,000 Hours and Still Counting: a Faithful Volunteer at Bitter Lake National Wildlife Refuge

Volunteers are vital to managing public lands. They help greet visitors, staff events, maintain trails and conserve wildlife habitat. Many volunteer a few hours a week, but one passionate volunteer has logged more than 25,000 hours surveying wildlife at Bitter Lake National Wildlife Refuge in New Mexico — that's equivalent to working full time for more than 12 years.

Jim taking measurements of a Cinnamon Teal he just banded. All photos: USFWS

Dr. James "Jim" Montgomery, Jr.'s remarkable volunteer career began in 1985 while he was a biology professor at the New Mexico Military Institute. Jim first visited Bitter Lake Refuge to hunt and birdwatch, but eventually turned to grading papers and crafting lesson plans while enjoying the natural setting. After noticing refuge staff conducting bird surveys, he offered his assistance. Fast-forward 33 years, and Jim has been there longer than any other volunteer or staff member at Bitter Lake Refuge. Jim is one of the Service's top record-holders for volunteer hours.

Among his many volunteer accomplishments at the refuge: He has faithfully monitored the nesting success of the endangered least tern; trapped and inventoried small mammal populations; and helped remove invasive salt cedar and phragmites plants. A long-time sandhill crane enthusiast, Jim has assisted — and at times even led — the weekly crane counts during migration season on the refuge. One of his fondest memories of volunteering at Bitter Lake Refuge is getting to see 15,000 sandhill cranes burst into flight all at once in an incredible display of motion and sound.

Jim's talents do not stop at wildlife biology. He has led many tours for the public, birding clubs, school and civic groups, and universities. During his three decades volunteering at Bitter Lake Refuge, Jim has become an ambassador of goodwill between the refuge and the community.

Jim surveying wildlife at Bitter Lake NWR.

"I get pleasure out of doing it, and I feel like I'm doing something worthwhile," he said. In 2003 he was named national Volunteer of the Year by the National Wildlife Refuge Association.

Over the years, Jim has gained as much personal satisfaction in contributing to the refuge and helping with conservation projects as he has given. He recommends volunteering on public lands as a way to give back to these treasured places.

Jim leading a public tour at Bitter Lake NWR.

Jim Montgomery is a long-time NACWG member and workshop participant. In issue 25(2) of *The Unison Call*, he reported on a vagrant Common Crane (*Grus grus*) associating with Sandhill Cranes on and around Bitter Lake NWR for at least six weeks in winter 2014-15. Thanks to Jane Austin for sharing this article from the U.S. Department of the Interior blog. — Ed.

A Season of Cranes in Haiku

by M. Cathy Nowak

Color of spring storms
Loud, bugled greetings in fields
Legs touch down – they're home

Two by two by two
Long held meadows are reclaimed
Their homes for summer

Bills pointed to sky
In unison, bonds are sealed
Mates for life 'til death

Floating mound of veg
Two speckled tan oval eggs
Promise of new life

He hunts meadow grass
Flips dirt, turns clods, leaps, dances
Big show for small food

She sits and shares heat
Using her body to grow life,
Protect the future

They take turns to sit
A cycle of moon passes
Vigilance, patience

Pip, crack, a new colt
Of crazy orange fluffiness
Strange lack of camo

Long legged colts grow with
Offerings given bill to bill
Learning what to eat

Summer heat rises
Colts grown to height of tall grass
Young wings work! First flight!

Long wings pump blue sky
For blue heights and warm currents
Turning south, they're gone

Cathy is a biologist at Ladd Marsh Wildlife Area in northeastern Oregon, where she monitors Sandhill Cranes.

Kevin, the Unofficial Mascot of Rollinsford, Flies Off in the Night

Back in January, New Hampshire Public Radio ran a story about Kevin, a sandhill crane who was melting hearts in the town of Rollinsford. Despite a leg injury and freezing temperatures, the bird was living its best life in this small town.

With the warmer weather and longer days, Kevin now appears to have flown the coop, leaving behind many a broken-hearted resident.

Ken Perry reads aloud from the official 2017 Town of Rollinsford Report, as approved by the Select Board. On page one, there's a dedication to Kevin the crane.

"Mother Nature has a way of reminding us what is really important," reads Perry.

"The improbable presence of Kevin the Sandhill Crane in Rollinsford is an example of this."

The improbable Kevin.

Ken and his wife Salme are just two of the many people who have paid close attention to this bird since it arrived in town last year. No one knows where Kevin came from or where Kevin was going. It's like it was dropped off by a stork, which is, in fact, sort of what sandhill cranes look like.

"He reminds us that it is through our concern for others that we find our true fulfillment as a community of disparate individuals," reads Perry.

The community paid close attention to Kevin's every move, whether it was visiting the cemetery, local farms or just hanging out in its preferred front yard.

When the bird suddenly injured its leg, the town's Facebook page lit up with concerned posts and videos. When the weather turned arctic in January, well-wishers posted updates and one loving woman fed Kevin birdseed to see it through the winter.

And then right around Easter, there were several posts asking if anyone had seen the bird. Suddenly Kevin, who had become a fixture on Main Street, had vanished.

"I think he's gone off and found himself a mate, which I think is a good thing, because he was doing his mating dance with a squirrel. That doesn't work out too well, man," laughs Perry.

Salme pulls up a video on Facebook from late March, just before the bird's disappearance. Kevin is in a muddy front yard, jumping up and down and flapping its elegant wings.

"And see the squirrel. And then he turns around and goes after it," exclaims Salme.

I checked with some biologists, and there's skepticism that Kevin was really trying to woo a squirrel. The bird may have just been playing, not actually doing a formal mating dance. One biologist from Nebraska, where hundreds of thousands of sandhill cranes gather each spring, said it does look like male bird behavior, though he couldn't be sure. Kevin's sex has been a topic of some speculation.

What is certain is that sandhills are social birds. After spending the winter by himself, Kevin likely either found or is now looking for other cranes to spend his summer with.

At the Town Hall, administrative assistant and bookkeeper Carolyn Kendall isn't quite ready to let go.

"Who couldn't be a fan of Kevin? Kevin is like the little local hero that keeps the community one. He's like our mascot now. It will be really highly disappointing if in fact he's really, totally gone," she says.

If he's really gone. If. If is hope, if is the belief that Kevin may come back, perhaps with a mate next winter.

Across the street at the Post Office, Beth Rose expresses what many here are feeling right now.

"I still look every day when I drive by, to see if he's out there. But, it's sad not knowing exactly what happened," says Rose, trailing off.

Then Salme Perry finishes her thought: "It's a big hole, it's a loss. But it is alright. Life goes on."

By Todd Bookman, NHPR, http://nhpr.org/post/kevin-unofficial-mascot-rollinsford-flies-night#stream/0

Lori Potter took this photograph of a rare, white mutant Sandhill Crane on 7 April 2018 in a cornfield west of Fort Kearny State Historical Park in Nebraska (www.kearneyhub.com).

Also, see issue 24(1) of *The Unison Call* for R. Hoffman's report on two leucistic Sandhill Cranes observed in Michigan, one in 1986, the second in 2012. — Ed.

Did Hurricane Harvey Really Affect Whooping Cranes in the Coastal Texas Wintering Grounds?

Corinna Holfus, Elizabeth H. Smith, Nicole A. Davis
International Crane Foundation, Texas Whooping Crane Program

The International Crane Foundation is happy to report that despite the devastating effects from Hurricane Harvey to coastal communities within the central Texas coast, the coastal marsh that is essential habitat for the Aransas Wood Buffalo population (AWBP) of Whooping Cranes and other wildlife appeared productive and healthy eight months after making landfall directly through the wintering range of the AWBP. Hurricanes are a natural phenomenon that play an integral role in natural coastal ecosystems. While they cause varying impacts, including coastal marsh erosion, this loss may be outweighed by an increase in productivity subsequent to an influx of sediments, nutrients, and rainfall into the system. These processes appeared to be the case for coastal marsh within the Whooping Crane winter range, as the birds arrived to an abundance of their primary food resources, blue crabs (*Callinectes sapidus*) and Carolina wolfberries (*Lycium carolinianum*) as well as other estuarine organisms.

Figure 1. Solar panel damage at a freshwater pond following Hurricane Harvey, August 2017. Note storm surge wrack line in foreground.

Beyond the health of the coastal marsh and abundance of food resources, biologists from the International Crane Foundation were also concerned about the availability of freshwater resources to wintering Whooping Cranes after Hurricane Harvey. Whooping Cranes winter along the Texas coast where rainfall deficits and prolonged drought conditions are common. Warm temperatures, little rainfall, and upstream water diversions result in reduced freshwater inflows into coastal bays which increase salinities in the bays and coastal marsh. Higher salinities have been correlated with a decrease in available blue crabs and wolfberries, and impact freshwater availability to wildlife. Whooping Cranes can drink water with salinities up to about 23 parts per thousand (ppt), which is often exceeded within the bays and coastal marshes during the winter season. Thus, Whooping Cranes rely heavily on freshwater ponds located further inland from the coastal marsh for drinking water. Hurricane Harvey produced an incredible 3-4 m storm surge throughout the core wintering range that swept across the low-lying coastal marsh and further inland, inundating many freshwater ponds and wetlands, and destroying multiple water wells that usually provide drinkable water essential to Whooping Cranes and other wildlife (**Figure 1**).

How have freshwater resources been restored? Multiple organizations and agencies have recognized the importance of inland freshwater resources to wintering Whooping Cranes and other wildlife. U.S. Fish and Wildlife Service (FWS) resource managers and biologists at the Aransas National Wildlife Refuge initiated the *Water for Wildlife* program and have created and managed existing freshwater ponds for wildlife use within their boundaries, as well as supporting the creation of ponds strategically located on private lands throughout

the Whooping Crane winter range. In 2013, the San Antonio Bay Partnership began to lead the program effort to improve existing water wells that provide freshwater resources for Whooping Cranes and other wildlife, and install new water wells at freshwater ponds that would be most beneficial to Whooping Cranes. Partners of this initiative have included FWS coastal programs, Coastal Bend Bays & Estuaries Program, Texas State Aquarium, Friends of Aransas and Matagorda Island, San Antonio Bay Foundation, with the International Crane Foundation assisting in developing a decision-support tool for site selection and multi-year monitoring of selected sites. Through multiple funding sources, the *Water for Wildlife* initiative to date has resulted in 13 working solar-powered water wells, with funding in place to install two to three new solar-powered water wells and/or repair five to seven existing water wells by the end of June 2018.

What were conditions like immediately following the hurricane? As part of the *Water for Wildlife* initiative, the International Crane Foundation received funding from the National Fish and Wildlife Foundation's Hurricane Assessment, Recovery, and Restoration Fund to assess the recovery of freshwater wetlands and ponds at Aransas National Wildlife Refuge and Johnson Ranch and Welder Flats conservation easements. As part of this assessment, the International Crane Foundation's Texas team initially sampled salinity levels in 36 ponds two months following the hurricane and 18 ponds for three months within the last half of the winter season. Presented here are the preliminary data from Blackjack Peninsula, while the complete dataset from all three peninsulas and one barrier island within the wintering area is being analyzed. Although the closest salinity station adjacent to Blackjack Peninsula was not functional until 20 September, salinities were relatively homogeneous throughout the bay system two weeks after the storm (~11 ppt). In the October sampling of 18 ponds on Blackjack Peninsula within ANWR, salinities in 14 ponds ranged 8.8-13.7 ppt, all below the presumed threshold of 23 ppt satisfactory for dietary drinking water for Whooping Cranes and similar to the surrounding bays. In three ponds, salinities were <1.0 ppt and were located within the higher elevations at the southern portion of the peninsula, indicating they were not inundated by the storm surge.

What were inland pond conditions like during the winter season? Seven ponds selected along a generally north-south extent of the peninsula were monitored from January to early April 2018, including two solar wells which were repaired in natural depressions, one solar well restored in an excavated pond, and one new well drilled on an excavated pond. Overall, pond salinities appeared to follow a north-south increasing salinity trend (pond salinity averages for the total study, 3.0-10.2 ppt), with the exception of the two depression ponds with wells. Average pond salinities of ponds with wells (Mean=6.2, SD=2.6) were lower throughout the study than ponds without wells (Mean=9.1, SD=1.0) when pond type was not considered. A more in-depth analysis with all ponds will be essential to evaluate all the physical characteristics, well parameters, and spatial locations for use in longer-term post-hurricane assessments. However, for the winter 2017-2018 following Hurricane Harvey, pond salinities were sufficiently low enough to provide dietary water for wintering Whooping Cranes on Blackjack Peninsula (**Figure 2**).

Figure 2. Whooping Cranes drinking at an inland pond.

How was the Whooping Crane response assessed to evaluate restored conditions? The International Crane Foundation's Texas

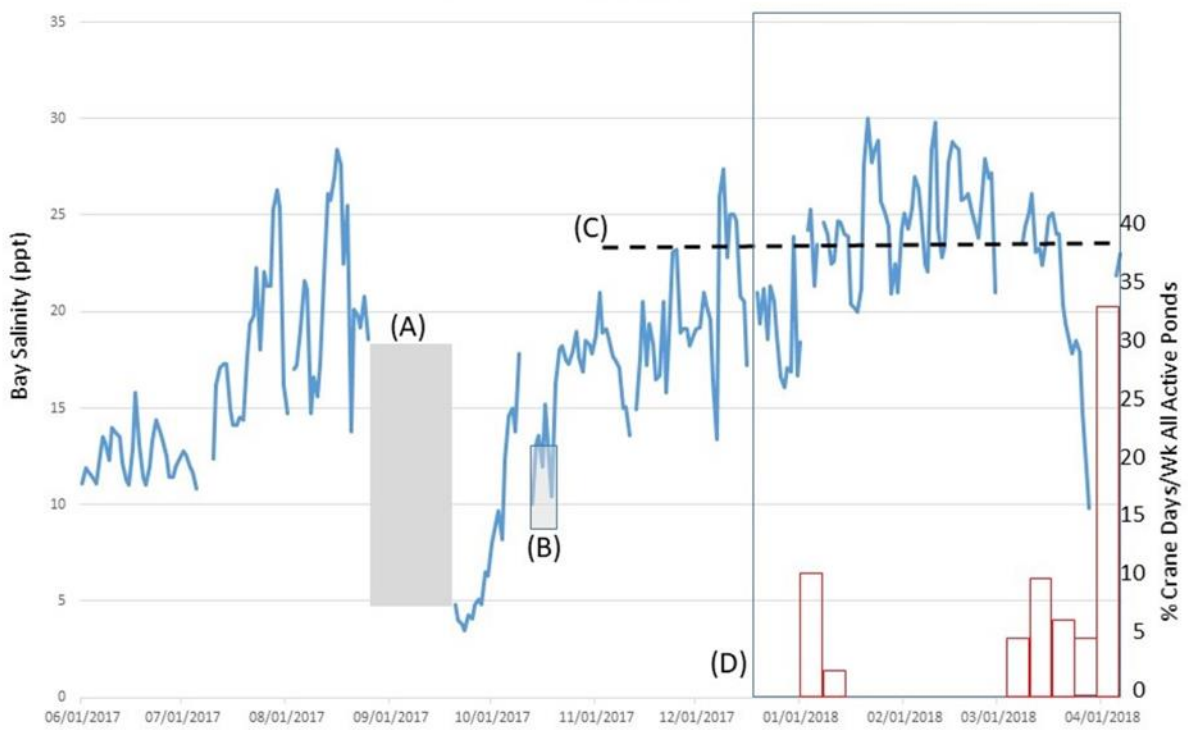


Figure 3. Salinities within the wintering range of Whooping Cranes in coastal Texas and relative use of all ponds on Blackjack Peninsula indicating (A) loss of data following Hurricane Harvey, (B) salinities during initial inland pond assessment, (C) salinity threshold for dietary drinking water, and (D) monitoring period for potential crane use of inland ponds on Blackjack Peninsula.

team also monitored Whooping Crane use of all freshwater ponds in the study by reviewing almost 250,000 images captured from 22 game cameras set up at 18 different ponds from late December 2017 to early April 2018. Preliminary results indicate that Whooping Cranes were present in 1.3% of the images, which is similar to results of other habitat use studies using survey data from 2004-2011. However, use was not uniform throughout the winter range, and preliminary results indicate that Blackjack Peninsula inland ponds were used the least of all four landforms. Four of the seven ponds monitored on this peninsula were never used and are located on the northernmost and southern extents of the peninsula, including three of the four ponds with restored or new wells restored post hurricane. The depressional pond with a well in the north-central location was used in mid-January, then none of the ponds on Blackjack Peninsula were used in February. The same pond was used in the first half of March and an excavated pond without a well just to the south was used the most throughout March to early April. Another pond without a well was used further south in late March and early April.

What were the overall environmental conditions this season within the Whooping Crane wintering range? These findings suggest salinity levels in the bay and/or coast were periodically low enough for Whooping Cranes to drink water without moving to inland ponds, although levels continued to increase through February (**Figure 3**). Bay salinities from the Guadalupe-Blanco River Authority monitoring station were characterized as being relatively low prior to and immediately following hurricane landfall in August 2017. Salinities within the wintering range were generally below the 23 ppt drinking threshold when AWBP cranes arrived in November-December. During this study, bay salinities began to increase in January and generally ranged above the threshold, then lower salinities later in the season potentially provided dietary water later in the season.

How did the Whooping Cranes respond to salinity conditions and availability of dietary freshwater? Using the percent of crane use days (at least one image-documented Whooping Crane(s) during one day by number of ponds) as a basic parameter to assess usage at all ponds, crane use was low throughout January-March 2018 on Blackjack Peninsula. Since salinities did not increase in the ponds over time, local rainfall may be ameliorating evaporation, and other freshwater resources may be available to the cranes. The increase in pond usage at the end of the study may indicate that other factors may be influencing these higher values (i.e., less food resources in the coastal marsh, increase in food availability at ponds and/or at a recent prairie burn, more movement of cranes prior to migration). Analyses of the bay salinities and crane pond usage are still ongoing for the entire study area and will be finalized by the end of June 2018. More detailed crane use metrics will incorporate marsh salinity data from other ongoing research as well as local rainfall patterns. These data will inform recommendations for longer-term monitoring for comparison of crane use of inland ponds during drought-wet cycles and recommendations for future well placement in the Whooping Crane wintering range.

Did Hurricane Harvey really affect Whooping Cranes in the coastal Texas wintering grounds? The destructive impacts of Hurricane Harvey were massive in several local communities and the recovery is slow but steady. For natural communities, conditions appeared to flourish with the influx of fresh water and nutrients from the coastal rivers. Despite introducing bay water to inland ponds from the storm surge, wintering Whooping Cranes were not dependent on inland freshwater ponds; however, the immediate restoration and creation of new wells will provide these essential resources when the next drought cycle occurs. As the winter and spring season comes to a close, the International Crane Foundation is eager to finish pond and bay salinity analyses at the landscape level in regards to its effects on wintering Whooping Crane needs. The International Crane Foundation feels fortunate to be involved in these multiple-partner projects that ultimately benefit the continued recovery of Whooping Cranes!

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The Unison Call is a forum to share updates, news and opinions. It is published twice yearly (spring/summer and fall/winter) by the **North American Crane Working Group**, a 501(c)(3) non-profit organization incorporated in Wisconsin. Both print and electronic (PDF) versions are produced; PDFs of past issues of the newsletter can be downloaded free of charge from our website (**www.nacwg.org**). **The views expressed in *The Unison Call* are those of the individual authors and do not necessarily represent the positions of NACWG.** Comments and contributions are always welcome.

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Regional Reports

Summary of Aransas—Wood Buffalo Whooping Crane Surveys for 2014-2017

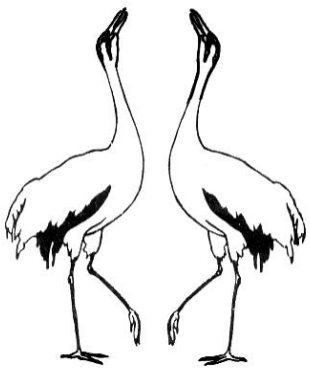
	2014	2015	2016	2017
No. of nests detected at WBNP (May)	82	68	78	98†
No. of fledged chicks detected (August)	32*	23	45**	63***
Average no. of chicks per nest#	0.39	0.34	0.57	0.64
Additional territorial pairs (non-nesters)	43	20-24	18	?
Estimated total no. of birds at Aransas NWR within the primary survey area‡	308 (95% CI 267-350)	329 (95% CI 293-371)	431 (95% CI 371-493)	?
Estimated no. of juveniles at Aransas NWR	39 (95% CI 33-46)	38 (95% CI 33-43)	50 (95% CI 36-61)	?

†Most nests ever recorded. *Two families with twins; **one family with twins; ***four families with twins.

#20-year average is 0.48 chicks per nest.

‡Estimated numbers of birds **outside** the primary survey area in 2014, 2015 and 2016 were 6, 9, and 6, respectively.

Wood Buffalo National Park (WBNP) 2014 data are from *Northern Journal* (norj.ca), Sept. 1, 2014, quoting Mark Bidwell; WBNP 2015 data are from Bidwell and Conkin (March 2016), *Recovery and Ecology of Whooping Cranes: Monitoring of the Aransas-Wood Buffalo Population during the Breeding Season 2015 Report*; WBNP 2016 data are preliminary results from the Canadian Wildlife Service, with thanks to Mark Bidwell; 2017 nest survey data are from Mike Keizer, Parks Canada; 2017 fledgling data are from CBC News, August 16, 2017 (www.cbc.ca/news). Aransas NWR winter data are from 'Whooping Crane Updates' at the ANWR website.



Update on the Eastern Migratory Population of Whooping Cranes

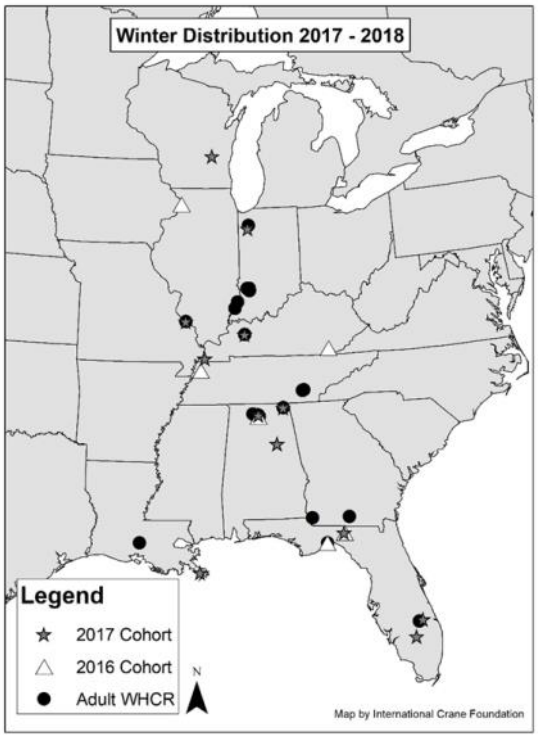
Hillary Thompson, North America Program Crane Analyst, International Crane Foundation

Just after the release of 38_17, she was hanging out in the same area as adults 63_15 and 71_16 around Horicon National Wildlife Refuge in mid-November. Photo: Doug Pellerin

Current population size and status

As of 15 April 2018, there are an estimated 103 (48 F, 52 M, 3 U) Whooping Cranes in the Eastern Migratory Population. This past winter, the distribution was approximately 7 cranes in Florida, 4 in Georgia, 33 in Alabama, 2 in Louisiana, 6 in Tennessee, 8 in Kentucky, 32 in Indiana, 3 in Illinois, and 1 in Wisconsin. Most Whooping Cranes have returned to Wisconsin; however, as of mid-April there are also cranes in Illinois, Indiana, Iowa, and Michigan. The weather in Wisconsin has been cold and variable, but a few pairs have initiated their first nests and are sitting through rain, snow, and hail!

2017 cohort



The two wild-hatched chicks made it through winter. W3_17 wintered in Kentucky with its parents (24_09 and 42_09) and was last seen in Adams Co, WI with 31_16, 29_16, and 39_16. W7_17 wintered in Morgan Co, AL with her parents (14_08 and 24_08), and was last reported in Edwards Co, IL by herself.

The parent-reared juveniles wintered in Jackson Co, AL (19_17 and 25_17), Okeechobee Co, FL (28_17), Randolph Co, IL (24_17), Hendry Co, FL (72_17), Plaquemines Parish, LA (30_17), LaPorte Co, IN (39_17), Madison Co, FL (36_17), and 38_17 (above photo) spent the entire winter in Dodge Co, WI. We believe 38_17 stayed in Wisconsin this winter because she was associating with a Sandhill Crane with a broken wing who could not migrate (see photos on next page). We captured the Sandhill Crane and brought it to a rehab center, then after capture attempts for relocation of 38_17 were unsuccessful, we supplementally fed her over the winter. She is currently associating with Sandhill

Left: 38_17 with an injured Sandhill Crane near Horicon National Wildlife Refuge in early December. Right: 38_17 near Horicon National Wildlife Refuge in mid-February. Photos by Doug Pellerin

Cranes in Dodge Co, WI. Parent-reared bird 26_17 migrated to southwestern Indiana, where her remains were collected on the border of Indiana and Illinois in December 2017.

The costume-reared cohort was released at White River Marsh SWA in fall 2017; however, in early December it appeared they were not going to migrate south. They were divided into three smaller groups to encourage migration. Two of these groups were translocated to the Wisconsin River area in Sauk County, where they migrated south with Sandhill Cranes. 3_17 and 7_17 spent the winter at Wheeler NWR in Alabama, and 4_17 and 6_17 spent the winter in Fulton Co, KY. The last group of costume-reared cranes (1_17, 2_17, and 8_17) was translocated to Goose Pond FWA in Indiana, which they left to spent the winter in Talladega Co, AL.

Winter habitat use of Whooping Cranes in the Eastern Migratory Population

Hillary Thompson, Clemson University & International Crane Foundation

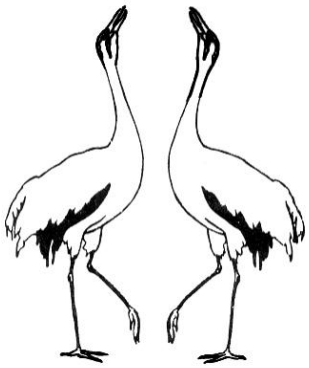
Whooping Cranes in the reintroduced Eastern Migratory Population (EMP) were originally led by ultralight aircraft from Wisconsin to wintering areas in gulf coastal Florida. However, some Whooping Cranes have shifted to using inland marshes in winter. More recently, some have not migrated as far south as Florida and instead use agricultural areas in the Midwest. Southwestern Indiana and northern Alabama are currently the two most highly used wintering areas in the Eastern Migratory Population, and both of those landscapes are dominated by agriculture.

In the wild Aransas-Wood Buffalo Population, Whooping Cranes use Texas gulf coastal marshes almost exclusively during winter, where they occupy and have high site fidelity to territories. The wild population of Whooping Cranes is self-sustaining and successfully fledges chicks on a regular basis. High winter habitat quality may be contributing to this success. In the EMP, Whooping Cranes are not yet self-sustaining, use agricultural landscapes, and do not defend territories during winter. This difference in habitat use and behavior may be contributing to their lack of success. My Master's thesis research, done at Clemson University with support from the Nemours Wildlife Foundation, Clemson University, and the International Crane Foundation, focused on the winter habitat use of Whooping Cranes in the EMP. More specifically, I examined factors influencing daily home range sizes of winter areas throughout the distribution of the EMP, habitat characteristics of used areas within crane home ranges, water depths and vegetation heights of used areas, and behavior associations with habitat.

Wintering Whooping Cranes in Indiana (left), Tennessee (center), and Georgia (right).

We collected data in the field during two winters (2014-15 and 2015-16) on 20 and 23 groups of cranes, respectively, in eight states across three regions (North: Indiana, Illinois, Kentucky; Central: Tennessee, Alabama; South: Florida, Georgia, Louisiana). At each site, we tracked a group of cranes for one full day, recording their location, behavior, and the habitat characteristics of their location. We found that cranes in the north more often wintered in large groups, had the largest home range sizes, and preferred agricultural areas. Cranes in the north also most often used agricultural areas for foraging, and often used seasonally flooded fields instead of wetlands. Cranes in the central region selected for agricultural areas and wetlands, were most often seen in pairs, and foraged in both wetlands and agricultural areas. In the south, cranes had the smallest home ranges, and those home ranges were mostly comprised of wetlands. Cranes in the south did not select any habitat characteristics disproportionately to what was available, but wintering areas in the south were the closest to wetlands and had many wetlands available to cranes. Unlike in the central and north regions, cranes in the south did not use agriculture, but foraged in both grasslands (often pastures) and wetlands. In all regions, cranes preferred to loaf in wetlands, and did not tend to use areas with deep water or tall vegetation.

This study investigated habitats used within crane home ranges, but did not assess the selection of those home ranges from what is available in the flyway, or how winter site selection has changed over time. We identified differences in winter habitat use and behavior throughout the winter distribution of this population, and future studies should address the potential impacts of those differences on crane energetics, and potentially breeding success.



Louisiana Whooping Crane Update

Eva Szyszkoski, Louisiana Department of Wildlife and Fisheries

Female L6-12 and one of her two newly hatched chicks in Jefferson Davis Parish on 20 April 2018. Photo by LDWF/Eva Szyszkoski.

Autumn 2017 – As of 1 November 2017, the Louisiana non-migratory population consisted of a maximum of 49 individuals (24 males, 25 females).

2017 Cohort – Twenty-three captive reared juveniles were released into the Louisiana population in the winter of 2017/18. The first shipment of 11 cranes (6 males, 5 females) arrived at the White Lake Wetlands Conservation Area from the International Crane Foundation in Wisconsin on 8 November. They received their permanent bands and transmitters on the evening of their arrival and were placed in the top-netted portion of the release pen. They were released on 21 November.

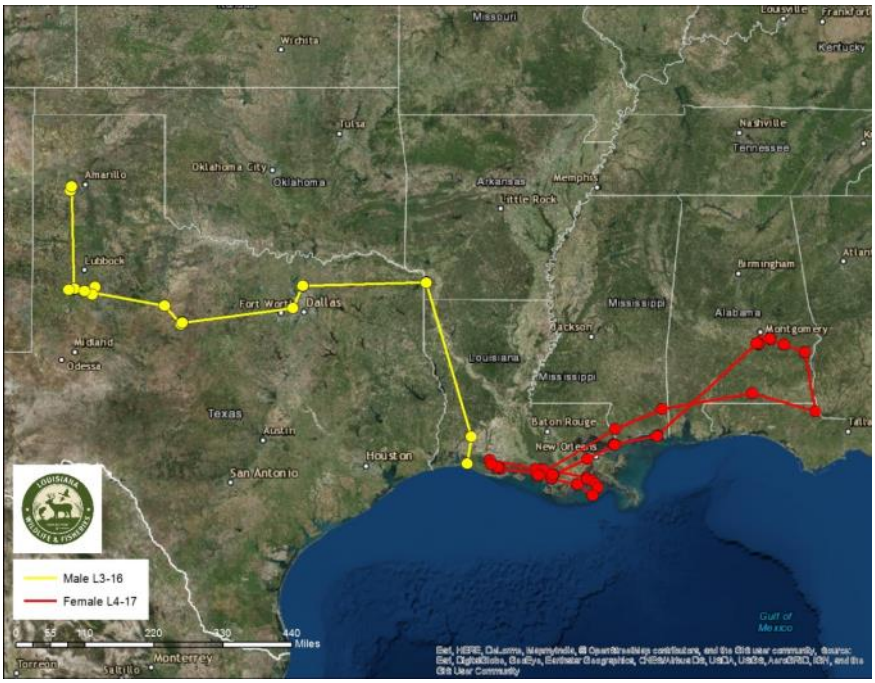
The second shipment of 12 cranes (7 males, 5 females) arrived at the Rockefeller Wildlife Refuge from the Freeport-McMoRan Audubon Species Survival Center in New Orleans on 14 November. They were banded upon arrival and placed in the top-netted section of the release pen. They were released on 6 December. Cranes in this group consisted of 3 parent reared juveniles and 9 costume reared. They had been hatched and raised at the Calgary Zoo (2), the Patuxent Wildlife Research Center in Maryland (7) and the Audubon Species Survival Center (3) before being shipped to and socialized together in New Orleans.

Supplemental food was discontinued at both release pens after 31 January.

Captures – Six free-flying cranes were captured for banding and transmitter replacement between 25 October and 28 November, including wild-hatched juvenile, LW3-17.

Removal – Male L10-11 suffered an injury to his left wing, from an unknown cause on the afternoon of 2 March; however, he continued to incubate his nest with mate L11-11. On 20 March and after full term incubation, L10-11 was captured and transported to the Freeport-McMoRan Audubon Species Survival Center in New Orleans for evaluation. An initial exam did not show any broken bones or evidence of foul play; however, there was significant damage to blood vessels that prevented a more thorough exam at the time. Despite treatment, the damage to the blood vessels and the radial nerve could not be repaired and a decision was made to amputate the distal end of the wing the following week. His wing is healing and he is adjusting well to captivity. He will remain in New Orleans until permanent placement at a captive facility.

Travel in other states – Six 2-year-old cranes spent the winter of 2018 in Jefferson County, Texas and five yearlings arrived in late February (one died in early March). Some of these cranes made short trips back to Louisiana before returning to Texas. Two additional cranes made short trips into eastern Texas, but did not stay for more than a couple days in a row.



Juvenile female L4-17 left the White Lake WCA in Vermilion Parish shortly after her release and spent time in SE Louisiana before traveling into Bullock County, Alabama. She returned to Louisiana on 31 January (see map).

After summering in Canada, male L3-16 returned south to winter in Lynn County, Texas where he was observed with Sandhill Cranes and an unbanded Whooping Crane likely from the western flock. He returned to Louisiana in early April, nearly a year since leaving (see map).

Reproduction – As of 20 April 2018, seven pairs initiated nine nests with eggs during this fifth year of nesting. Five nests were completed by 3 April with no hatches. Three nests (one first nest and two renests) are currently active. One young pair may have potentially begun incubation on a first nest in late March; however, they were not sitting just a few days later and no egg fragments were found, so it is not clear if they ever had an egg.

One pair hatched out two chicks. This pair (female L6-12 & male L8-13) is the same pair that hatched out two chicks in 2016 and reared one of them to fledging.

Mortalities – Mortalities from November to mid-March included one juvenile male in Texas and one juvenile male, one adult male, and one adult female in Louisiana. Two long-term missing cranes (a breeding pair) were also removed from the population totals.

Current Population Size – As of 20 April 2018, the Louisiana non-migratory population consisted of a maximum of 67 individuals (32 males, 33 females and 2 newly hatched chicks).

TWO CITED FOR SHOOTING ENDANGERED WHOOPING CRANES, OBSTRUCTION OF JUSTICE

BATON ROUGE, La. (10 April 2018) – Two Acadia Parish residents have been cited for violating the Endangered Species Act in connection with the shooting of two endangered whooping cranes in 2016, the Louisiana Department of Wildlife and Fisheries announced today.

Citations were issued on April 3 to Kaenon Constantin, 25, and a juvenile who allegedly shot the cranes with .22-caliber rifles from an all-terrain vehicle, according to the department. They were also cited for hunting from a public road and obstruction of justice.

The cranes were found just south of Rayne off Highway 35 and Hains Highway on the afternoon of May 20, 2016.

Agents seized the rifles and ATV, according to the department. Further penalties were not specified, but the combination of alleged violations could result in more than 11 years in jail and fines of up to $65,000.

By Ben Myers, *The Acadiana Advocate*

Mississippi Sandhill Crane Update

Scott Hereford, Mississippi Sandhill Crane NWR, Gautier, MS

Release – On 7 November 2017, Audubon Species Survival Center staff transferred 3 captive-reared juveniles. We measured, banded, radio-tagged and placed them in the netted pen at East Flat, the third consecutive year using that release site. We released them from the pen on 5 December. 1701, 1702 and 1703 stayed together in the pen area for the first weeks. On 21 December, 1702 was found caught in the pen top netting. She sustained leg injuries, likely associated with capture myopathy, and had difficulty standing and walking. With technical assistance from ASSC veterinarian Dr. Priscilla Joyner, we provided support. We observed her condition slowly improving and she flew again a week later. She seemed to recover fully within 2 weeks. The trio flew 7 km northwest to the Jackson County wastewater facility and have remained mostly there since January.

Population – As of January, there were 133 wild Mississippi sandhill cranes, including 101 banded and 32 unbanded. There were 55 males, 63 females, and 15 unknown gender. Forty-four were hatched on the Refuge, 66 at ASSC, 20 at White Oak, and 3 from Patuxent. There were 72 using the eastern or Gautier area, 45 in the west or Ocean Springs area, and 16 in the south or Fontainebleau area. The 133 included 38 pairs.

Nesting – We think at least 22 pairs have nested so far this year, including two new pairs (24 nests total, 2 renest). We have located 15. Six nests have hatched chicks; with the first nest hatching about March 21. Six chicks are on the ground now. We discovered some of the nests using small Unmanned Aerial Systems. See adjoining report.

Using Unmanned Aerial Systems to Locate Crane Nests

For the third consecutive spring, we tested the feasibility of various sensors on small Unmanned Aerial Systems (UAS) or "drones" to detect MS sandhill crane nests/eggs/chicks on the Refuge.

On 30 March and 5 April, through an end-product agreement, Innovative Imaging and Research (http://www.i2rcorp.com) used a custom endurance quadcopter and a FLIR Vue Pro infrared camera to collect and provide 5200 geo-referenced jpeg stills made over 11 flights. The UAS flew at an altitude of 35-43 meters, at 5-7 meters per second, taking 1-2 stills per second. From these data, I was able to discern 3 known nests and discover 2 others. We could discern standing adult, incubating adult (see FLIR image on next page), and even eggs. In a few cases, I was able to detect a large nest platform (without egg) with a crane walking on trails. The IR images were better than color at picking up nests in habitat with overstory, e.g. swamp strand.

On 10-12 April, FWS Remote Pilot Scott Bishaw visited the Refuge to further test color video and to try IR video. He used a 3DR quadcopter with either a FLIR Vue Pro camera or a GoPro color camera. We conducted 30 flights over the 3 days. I used FPV goggles to view the missions live. From the video imagery, I was able to see 2 known nests and discover 3 new ones.

Video has the advantage of picking up crane movement, without which I would not have been able to detect some nests. Unfortunately, video is not yet able to be easily geo-referenced, so it takes a series of steps to determine a location. Also, video takes more post-processing effort and the files and far larger than stills. IR stills have the advantages of being geo-referenced, require little post-processing, and a far smaller size. IR is much more effective at picking up nests in woody vegetation. We can expect that IR will work best when used in early morning or at night when the temperature difference between ambient and cranes is the largest.

These location data from unmanned aerial surveys allowed us to assess crane nesting, use of restored and managed habitats, and make timely decisions on areas for prescribed burns. Added benefits include reducing nest disturbance from ground nest searches and increased employee safety from an unmanned vs. manned aerial survey. Given available resources, we plan to conduct more tests in May and June.

Everett E. Hanna PhD Dissertation

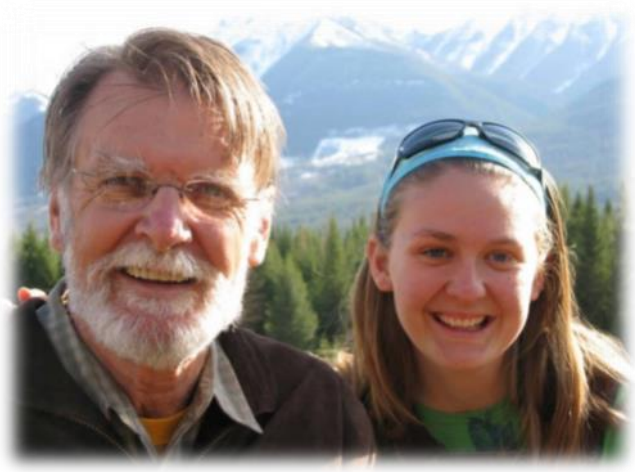
Autumn Foraging and Staging Ecology of Eastern Population Sandhill Cranes (*Antigone canadensis tabida*)

Abstract — Spatial and temporal variation in the density and distribution of waste agricultural grain (grain herein) during staging can affect the carrying capacity of habitats that support avian populations. Such variation in food resources can also have proximate effects on behavioural ecology (e.g., influence optimal behaviour). The Eastern Population of Greater Sandhill Cranes (Antigone canadensis tabida; EP herein) likely began to recolonize Ontario and its historic range starting in the early 1900s and now relies on agricultural grain during migration. Accordingly, ecologists possess little knowledge of how EP crane behavioural ecology may be affected by grain. Thus, my study focused on grain effects on the following topics: 1) age-specific foraging scale and numerical response, 2) age-specific foraging efficiency, and 3) roost use. I used field observation and experimentation, GPS tracking, and GIS analysis to investigate these topics at a key staging area on Manitoulin Island, Ontario, Canada. Although adult cranes remain with offspring during autumn staging and juveniles continue to grow and learn, juveniles did not appear to affect family group field use. Relative food density at a scale of 5 km from feeding fields had the strongest effect on field use, approximately aligning with mean foraging flight distance (6.4 ± 0.15 km) calculated from GPS tracking data. Adult cranes did not forage more efficiently than juveniles; if anything, juveniles may have foraged more efficiently than adults. Alternatively, the social contexts of foragers (e.g., small family flocks or larger mixed flocks) may have obscured age differences in foraging efficiency, grain may not have been sufficiently novel to affect behaviour, or juvenile cranes may learn to forage for grain relatively quickly. Both anthropogenic disturbance and grain affected roost use. Distance to primary paved roads had the most important effect on roost use, although grain density within 12 km of roosts also had an effect. However, road type (e.g., paved, gravel) may not be an accurate index of nighttime traffic when cranes typically use roost wetlands. Thus, I conclude that grain affects crane foraging and roosting behaviour during staging, but effects vary in nature between field use, foraging efficiency, and roost use contexts.

The entire dissertation is available at https://ir.lib.uwo.ca/etd/4675

Congratulations Everett!!

Remembering artist Bill Lishman, the man who flew with Canada geese



Bill Lishman pictured with his daughter Carmen when she was a little girl. (C. Lishman)

Carmen Lishman says there was "never a dull moment" growing up with Bill Lishman for a father.

"He grew up on a farm so he always said the best hours are between 5 and 8 a.m.," she told *As It Happens* host Carol Off.

"So we were up early. We were outside."

Lishman — an award-winning artist, writer and filmmaker — was the first person to lead a flight of geese with an aircraft, a feat that inspired the 1996 Oscar-nominated film *Fly Away Home.*

He died on December 30, 2017 from leukemia. He was 78.

"He had such an active imagination, an active life, an active spirit that, you know, in these last few weeks, seeing his body kind of hold him back, it felt a bit like a relief when he passed because we knew it was kind of cramping his style to be so unwell," Carmen said.

He is survived by his wife of 50 years, Paula, 68; their two sons, Aaron, 45, and Geordie, 42; and daughter Carmen, 34.

Carmen said he was always enlisting the help of his family to complete one wild project or another — including working on their 2,600-square-foot underground home in Scugog Township, Ont., north of Toronto, or helping with his eccentric sculptures.

Lishman created two massive replicas of the world famous Stonehenge formations — one made of rusty old cars, and another sculpted out of ice from Lake Scugog.

"He always talked about that experience he had when he walked into Stonehenge and he thought, 'The Druids were really on to something,' and that there was some kind of cosmic connection that that shape created," Carmen said.
"He had a spiritual relation to that shape and form."

But he was most famous for training Canada geese to fly alongside him in his tiny ultra-light plane, which was immortalized in his autobiography *Father Goose* and the feature film *Fly Away Home.*

Carmen said the idea came to him in the mid-80s, when he was flying his home-built aircraft and was briefly joined by a flock of ducks.

"He came home from that flight just raging. He said nothing before that moment in his life was as meaningful as when he could see a bird in flight, each feather passing over itself when the bird was flapping," she said.

"Just the whole experience was so magical for him he had to repeat it."

He'd read about how goslings imprint on the first thing they see when they hatch, believing it to be their parents. So he hatched goslings on his property and trained them to imprint on him and his family and the sound of his ultra-light engine.

"We would show them our faces and play them the sound of the engine through a little tape recorder, so as long as those two things were together, they knew they had to be with us," Carmen said.

"So we would run through the forest with the tape recorder in hand and they would chase after us "

Her father made his first successful flight with 12 Canada geese in V-formation in 1988, then guided 18 of the birds from Scugog to Virginia in 1993 with partner Joe Duff. After their success with Canada geese, the two co-founders of Operation Migration began working with cranes in the mid-1990s, which ultimately led to establishment of the Easter Migratory Population of Whooping Cranes in the 2000s.

Carmen told *As It Happens* she remembers her father for his love of nature and all that it represented. "One of the things that I thought about a lot on the day that he passed was his comment that there are no straight lines in nature. And if you think about it, it's true," she said.

"And so curved spaces and curved thinking and imagination that runs in curved lines was really what moved him and made him feel most comfortable."

Lightly edited story transcript of an interview with Carmen Lishman on CBC Radio's As It Happens*, January 3, 2018, http:// www.cbc.ca/radio/asithappens/*

Theodore A. Bookhout, 1931–2018

Dr. Ted Bookhout died at age 86 on 26 February 2018 in Columbus, Ohio. Originally from Salem, Illinois, Ted attended Southern Illinois University, where he received his B.A. in Botany in 1952 and M.S. in Zoology in 1954. After being drafted and serving in the U.S. Army as a biologist in Maryland, he conducted his doctoral research on snowshoe hares in the Upper Peninsula of Michigan. He earned his Ph.D. degree in Wildlife Management from the University of Michigan in 1963. Shortly thereafter, he became Leader of the Ohio Cooperative Wildlife (later Fish and Wildlife) Research Unit at The Ohio State University, where he was Professor of Zoology and of Natural Resources until his retirement in 1996. Research by him and his graduate students concentrated on wetlands, waterfowl, surface mine ecology, and endangered species. Ted was active in The Wildlife Society throughout his career, serving as President, editor of The Journal of Wildlife Management, editor of the fifth edition of the Wildlife Techniques Manual, and he was named a TWS Fellow in 2012.

In 1983, when the U.S. Fish and Wildlife Service was considering establishment of a population of whooping cranes in eastern United States, Ted proposed Upper Michigan as a reintroduction site, where he had research ongoing with yellow rails on Seney National Wildlife Refuge. With field work beginning in 1984, he supervised a decade-long series of projects based at Seney, first with study of the abundance, reproduction, migration, and wintering of the local sandhill cranes, followed by studies in adjacent Ontario, development of costume-rearing and gentle release reintroduction techniques, and habitat use.

Ted's many graduate students spread far and wide within the field of wildlife biology during his tenure. The conservation community has lost a dedicated and respected professional. The crane community has lost a pioneer whose groundwork laid the foundation for many of the accomplishments to date. Many of us have lost a major professor, supervisor, mentor, and friend.

Richard Urbanek, New Lisbon, Wisconsin

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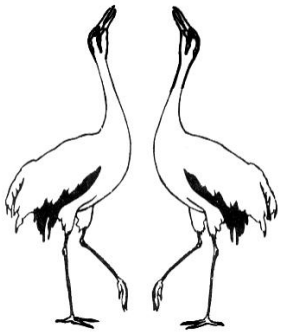

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