

September 2019

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

The unraveling of decades of species conservation

By 1942 it was thought that only twenty-two Whooping Cranes (*Antigone canadensis*) remained in North America, the result of widespread draining of wetland habitat for farming and overhunting by both market and sport hunters. The crane eventually became one of the first animals to be protected under the 1973 Endangered Species Act, but its recovery was slow. By the spring of 1976, federal breeding and recovery

programs were under way, but there were still fewer than a hundred Whoopers in the wild.

The Endangered Species Act is considered to be a model of environmental legislation for the rest of the world. It has saved more than two hundred species from extinction (ninety-nine per cent of the species it has listed) in its forty-five-year history, including a number of species that were very close to the edge but are now recovering — Florida manatees, grizzly bears, American alligators, Black-footed ferrets, and species like the California condor, Whooping Cranes, and wolves. Others, like the Bald Eagle and Peregrine Falcon, have been taken off the endangered list entirely.

Since 1973 when President Nixon signed the Endangered Species Act into law, the U.S. population has increased from two hundred million to more than three hundred million, and in recent years, scientists have found that animals and plants are going extinct at an accelerating rate. In May 2019, a United Nations report on biodiversity found that climate change and other forms of environmental degradation threaten a million more species with extinction, many within a few decades.

The Trump administration continues to make sweeping changes that reduce protections for endangered and threatened species, while making it easier for industries to build mines and roads, and to drill for oil and gas, on critical habitat.

The rules, first announced in draft form last summer, limit protections for threatened species, make it easier to remove species from the endangered list, and allow economic considerations to overrule what studies have shown is necessary for a species' survival.

Long-range climate projections for events such as glacial melt and extended heat waves could legally be ignored, if addressing these issues might conflict with a proposed development project. Another amendment will make it harder to designate a habitat as critical for a species' survival, if that species

does not currently occupy it. A third change would mean that a species newly listed as threatened would no longer receive automatic protection from hunting, trapping, or other direct forms of mortality. Instead, these practices could continue unchanged while a management plan is drafted over many months, or even years, on a case-by-case basis.

There have been a number of setbacks in environmental policy under the Trump administration, including the December 2017 reinterpretation of the Migratory Bird Treaty Act (MBTA). The act was originally signed as a treaty with Britain (acting on behalf of Canada) in 1916 and then signed into law in the US in 1918. The law was designed to protect migratory bird species in North America, or at least in the United States and Canada. And, whereas before under the Act, oil and gas, wind, and solar operators that accidentally killed birds could face legal liability for the incidental deaths of birds ensnared by uncovered oil-waste pits or unmarked transmission lines, industries could now avoid prosecution for incidental take, even when the deaths could have been prevented.

As reported by the National Audubon Society, in June 2019, the House Natural Resources Committee held a historic hearing on the Migratory Bird Treaty Act, to consider draft legislation that would reaffirm longstanding protections for birds. Audubon's Vice President for Bird Conservation, Stan Senner, testified in front of the wildlife subcommittee in support of a Congressional proposal to reaffirm bird protections under the law.

Chairman Jared Huffman of the subcommittee, and other Members of Congress, raised serious concerns over the administration's reinterpretation of the law from December 2017, which overturns decades of policy by administrations under both parties that protected birds from these hazards. The legal opinion has removed a key incentive for industries to implement basic practices that save birds, and the ability to recover fines for bird deaths from disasters such as oil spills.

The draft legislation would reaffirm the policy and practice of at least fifty years that birds are protected from industrial hazards. Additionally, it would direct a permitting framework that would require the adoption of best management practices and other conditions in order to allow these industries to comply with the law.

In his testimony, Senner noted that the administration's policy change has "put at risk the significant progress that stakeholders have made in advancing bird conservation", and that it impacts "every state, district, and person who cares about birds", while calling on Congress to "find common ground on this vital law and help protect birds and the places they need, today and tomorrow."

From an article by the New Yorker, The Trump Administration Finds a New Target: Endangered Species: https://www.newyorker.com/news/daily-comment/the-trump-administration-finds-a-new-target-endangered-species

To learn more about the United Nation Report, Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating,' go here:

https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/

For a PDF and to read the full Statement of Stanley Senner Vice President for Bird Conservation, National Audubon Society, Missoula, Montana, to the U.S. House Committee on Natural Resources Subcommittee on Water, Oceans, and Wildlife Legislative Hearing on Discussion Draft of the Migratory Bird Protection Act, go here:

https://www.audubon.org/sites/default/files/mbta_senner_testimony_2019_06_13.pdf

https://www.audubon.org/news/audubon-testifies-us-house-hearing-migratory-bird-treaty-act

To learn more about the Migratory Bird Treaty Act of 1918, go here: https://www.fws.gov/laws/lawsdigest/migtrea.html

Eastern Migratory Population of WHOOPERS

Eastern Migratory Population WHCR Update - September 1, 2019

In the last month Whooping Cranes have mostly stayed on their summer territories and chicks are getting bigger!! A huge thank-you to the staff of the Fish and Wildlife Service, the Departments of Natural Resources of flyway states, the International Crane Foundation, and all the volunteers who help us keep track of the cranes throughout the year. We appreciate your contribution to the recovery of the Whooping Crane Eastern Migratory Population.

- Whooping Crane Eastern Partnership

Population Estimate

The current estimated population is 85 (40 F, 43 M, 2 U). This includes two of the three wild-hatched chicks from 2019. The third will be added to population totals once it has fledged. To the best of our knowledge, as of 1 September at least 72 Whooping Cranes are in Wisconsin, 4 are in Michigan, 1 is in Iowa, and 1 is in Illinois. The remaining birds' locations have not been confirmed in the last month.

2019 Wild-hatched chicks:

As of 1 September, Wisconsin has 3 wild-hatched chicks alive, shown below in bold.

W1-19 is still with parents 12-11/5-11 in Juneau Co and is doing well. W1-19 fledged earlier this summer and has been exploring some new areas. (As of the August update - banded)

W14-19 is still with parents 12-03 and 12-05 in Juneau Co and is doing well. W14-19 fledged during August and is checking out more of the wetlands at Necedah NWR. (As of the August update - received its permanent band and a transmitter in July)

W19-19 is still with parents 9-05 and 13-03 (their third nesting attempt this season) in Juneau Co., and will fledge mid-September.

Mortality or Long-term missing

16-07 (F) was found dead at Necedah NWR, Wisconsin, on 25 August but she likely died a week or so earlier. Her mate 7-07 (M) has now been seen with W3-10 (F) who lost her mate earlier this summer. Cause of death is unknown.

1-04 (M) has not been seen since January in Illinois. His mate 16-07 (F) nested with another male this year before her death (see above). We suspect 1-04 is dead and have removed him from the population totals above.

24-09 (M) has not been seen since late May. His mate 42-09 (F) was seen alone during June and July and now has been seen with another male. We suspect 24-09 is dead but have not found his carcass. He has been removed from the population totals above.

Mortality or Long-term missing, WCEP August 2019 report:

9-03 (F) was found dead on 3 July at Necedah National Wildlife Refuge in Juneau Co, WI. Cause of death appears to be predation. Chick W16_19 is still with male 3_04.

Mortality or Long-term missing, WCEP July, 2019 report:

3-11 (M) died in early June and was collected 6 June in Adams Co, WI. His body was found next to his nest and his mate (#7-11) was nearby. We collected two eggs from the nest that were about to hatch, one of which hatched in captivity. Cause of death was septicemia.

41-09 (M) died of unknown causes sometime during 2018. His transmitter and remains were collected 3 June 2019 in Juneau Co.

Mortality or Long-term missing, WCEP June, 2019 report:

19-17 (M) died after colliding with a powerline on 9 May in Marathon Co, WI.

39-17 (F) was in Ontario, Canada, but died during May (shot and killed on Barrie Island, Ontario)

8-04 (M) died during the last week of May in Juneau Co, WI, and necropsy results are pending as to cause of death. *Update: #8-04 was found dead on May 31 with W3-10 and chick W5-19 nearby.*Cause of death was infection.

29-16 (M) died of unknown causes sometime during 2018, but his transmitter and remains were collected 25 May in Juneau Co.

33-17 (F) hasn't been seen since October 2017, is considered long-term missing, and has been removed from our population totals.

29-09 (M), 34-09 (F), and 38-09 (M) haven't been seen since December 2017, are considered long-term missing, and have been removed from our population totals.

65-15 (F), 38-08 (F), and 19-14 (F) haven't been seen since March 2018, are considered long-term missing, and have been removed from our population totals.

10-09 (M) and 32-09 (F) haven't been seen since May 2018, are considered long-term missing, and have been removed from our population totals.

For the monthly Whooping Crane Eastern Migratory Population updates that include population estimates, reproduction, wild-chick updates, cohort updates and mortalities, go here: http://www.bringbackthecranes.org/project-updates/

To learn more about the individual cranes in the eastern population, go here: http://www.bringbackthecranes.org/emp-whooping-crane-biographies/

Data courtesy of Whooping Crane Eastern Partnership (WCEP)

UL= ultralight (Chicks were captive-hatched, then raised by costumed handlers and taught to follow an ultralight for their first migration to Florida); **DAR= Direct Autumn Release** (Chicks are captive-hatched then released in the fall in the company of adult cranes from whom they will learn the migration route); **PR=Parent Reared** (chicks are captive-hatched and raised by captive Whooping Cranes, then released near a wild crane pair in hopes the pair will "adopt" the juvenile and lead it on migration); **W = wild hatched** to a wild Whooping Crane pair that then teach the migration route to the juvenile.

Crane ACTIVITY PACKETS available

The International Crane Foundation is excited to offer activity packets for ages preschool through high school, along with select activities in Spanish, for use in your classroom! Please contact them for more information at 608-356-9462, ext. 127, or go here: https://www.savingcranes.org/education/activity-packets/. Then follow the links to view PDF versions of the packets (the files will automatically download).

Level I: Chick Chat: An Introduction to Cranes Preschool – 2nd grade

Level II: Cranes, Kids and Wetlands: Exploring Cranes and Their Habitats $3-5\ \text{Grade}$

Level III: Cranes, Communities and Cultures 6 – 8 Grade

Level IV: Crane Conservation: Studies in Crane Behavior, Genetic Diversity, and the Linkages between People and Cranes

9 – 12 Grade

Aransas-Wood Buffalo WHOOPERS

Report Your Observations

Friends of the Wild Whoopers asks the public to report any Whooping Cranes seen along rivers, wetlands and fields along their migration path. Report your observations to the wildlife agency in your state. Should you see a Whooping Crane, please do not get close or disturb it. Keep your distance and make a note of date, time, location, and what the Whooping Crane is doing. If the Whooping Crane is wearing bands or a transmitter, please note the band color(s) and what leg(s) the bands are on.

Documented sightings help Friends of the Wild Whoopers and other conservation groups monitoring the cranes to gather important data as to stopover habitat used by the wild population of Whooping Cranes during migration. With just over 500 wild Whooping Cranes migrating along the Central Flyway, every sighting is important.

Nebraska

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

North Dakota

Report Whooping Crane sightings to U.S. Fish and Wildlife Service offices at Lostwood (701) 848-2466, or Long Lake (701) 387-4397, national wildlife refuges; the state Game and Fish Department in Bismarck, (701) 328-6300, or to local game wardens across the state.

Oklahoma

The Oklahoma Department of Wildlife Conservation is asking for your help in logging the migration path of the cranes. Sightings can be logged online here or by calling Endangered species biologist Matt Fullerton at (580) 571-5820, or wildlife diversity biologist Mark Howery at (405) 990-7259.

Texas

Texas Whooper Watch also has a project in <u>iNaturalist</u> that is now fully functional. You can find it <u>here</u>. You can report sightings directly in <u>iNaturalist</u> via your Smart Phone. This allows you to easily provide photo verification and your location. If you are not a smart phone app user, you can still report via email: whoopingcranes@tpwd.state.tx.us or phone: (512) 389-TXWW (ext. 8999). Please note that our primary interest is in reports from outside the core wintering range.

To become a member of <u>Friends of the Wild Whoopers</u>, or, to just learn more about the group and its important research, go here: https://friendsofthewildwhoopers.org

Surveys reveal 97 nests and 37 fledglings

Helicopter surveys of both Whooping Crane nests and fledglings covering more than 1,500 square miles in Canada's Wood Buffalo National Park traditional nesting grounds and surrounding areas are part of the plan that has made the endangered Whooping Crane a symbol of species recovery and conservation. By counting the number of nests and then fledglings, Parks Canada, Canadian Wildlife Service, U.S. Fish and Wildlife Service, and other conservation groups gain important insights into the health of the world's last remaining natural nesting flock of Whooping Cranes.

In a joint effort between Parks Canada and the Canadian Wildlife Service, the Whooping Crane nest survey is conducted in May and the fledgling survey between late July and mid-August. This year ninety-seven (97) Whooping Crane nests were counted which is second only to the 2017 survey high count of a record 98 nests for the wild population.

A total of 37 fledged chicks from 36 sets of parents were observed, an increase from the 24 fledglings in 2018. Weather conditions during the nesting period were more favorable than in 2018 when a very rainy, cooler season may have contributed to failed nests and fewer chicks surviving to fledge.



A newly banded Whooping Crane chick at Wood Buffalo National Park.
Photo by Dr. Barry Hartup/International Crane Foundation

Field work by the numbers — banding Whooping Cranes at Wood Buffalo National Park

By Dr. Barry Hartup, Director of Conservation Medicine for the International Crane Foundation, August 2019

The fieldwork I've been assisting with at Wood Buffalo National Park in the Northwest Territories of Canada has wrapped up. We spent an amazing – and hard – four days banding 19 juvenile Whooping Cranes!

The project is aimed at better understanding the movements of family groups as they migrate south of Wood Buffalo through the Alberta oil sands and along the Central Flyway to their wintering grounds in Texas. Through blood and other samples from the banded chicks, we are also analyzing the health risks encountered by the families during migration and comparing various measures between the nesting and wintering grounds.

Here is a report by the numbers:

- 43 horse and deer fly bites, 39 visible scratches and 12 bruises on yours truly.
- 22 "runs" to locate chicks of up to 12 minutes through the wetlands of Wood Buffalo, plus return trips to the helicopter.
- 19 cranes banded over four 12-hour days. This equals half of the 2019 chicks counted during the recent population survey.
- 10 yards from one of the chicks, I lost my left shoe. But we found it again...
- 6 Gatorades, two bags of Miss Vickie's Applewood Smoked BBQ potato chips, and local pizza helped sustain the effort.
- 4 incredibly safe days of helicopter flights. The pilot Paul Smith worked with us in 2017 and virtually walked us to each bird via radio. Thank goodness for sea bands and ginger tabs to ward off motion sickness!

- 3 staff from Parks Canada rotated with us in the field. It was a true collaboration between the Canadian Wildlife Service, Parks Canada, U.S. Geological Survey, International Crane Foundation and the private helicopter company Phoenix Heli-Flight, Inc.
- 2 rainbows greeted us upon our return to Fort Smith, Canada, as squalls moved through the area.
- 1 happy vet. In five trips to Wood Buffalo since 2010, I have had the privilege to participate in the safe capture of 60 young Whooping Cranes truly beautiful creatures.

For more photos of the banding work by Dr. Barry Hartup of the International Crane Foundation, and colleagues, go here: https://www.savingcranes.org/field-work-by-the-numbers-banding-whooping-cranes-at-wood-buffalo-national-park/

General News

Editor: The scientific name for the Sandhill Crane is now Antigone canadensis. Some of the following quotes may refer to the previous name, Grus canadensis. Also, bird species names are proper nouns and should be capitalized, at least in formal writing. We have not edited the following to conform to Whooping Crane or Sandhill Crane, instead leaving the capitalization as it appears in the original source.

Alabama:

After over a century of protected recovery, Sandhills to be hunted again

By the late 1800's the Eastern Migratory Population of Greater Sandhill Cranes was on the verge of extirpation from most of its historic breeding range due to unregulated market hunting and widespread habitat loss. However, with the signing of the Migratory Bird Treaty Act (MBTA) in 1916, federal laws were put in place providing protection for all migratory bird species. Under the MBTA it has taken over a century for the species to recover, and Sandhill Crane numbers are on the upswing despite the species' low-recruitment rate (usually only one of the two chicks hatched to breeding pairs survive to fledge). Alabama joins the eastern states of Kentucky and Tennessee in implementing a Sandhill season.

If there is habitat, cranes will come. That certainly is the case at the Wheeler National Wildlife Refuge (NWR) near Decatur Alabama. Large numbers of Sandhills and Whooping Cranes reliably spend the winter there, so much so that people travel there knowing the odds are good of seeing both crane species from the refuge observation tower. In January 2019, nearly 7,000 people attended the weekend-long, "Festival of Cranes" at the NWR where the main attraction was at least 20 Whooping Cranes and thousands of Sandhill Cranes moving about the refuge.

With an increase in wintering Sandhills, the Alabama Wildlife and Freshwater Fisheries Division (WFF) began conducting crane counts in 2010 as part of their annual aerial waterfowl surveys. According to the surveys, Sandhill Crane numbers in Alabama have increased an average of 16% per year over the past 10 years, with the latest 5-year average of 15,029 birds. According to Alabama waterfowl biologist Seth Maddox, most are concentrated in the vicinity of the Wheeler National Wildlife Refuge near Decatur with some Sandhills wintering near the Crow Creek Refuge near Bridgeport and around Weiss Lake – most in the Tennessee River Valley.

Based on increasing crane numbers, and following the 2010 EMP Sandhill Crane Management Plan, Alabama requested and was granted an experimental three-year Sandhill season to begin this year, running from 3 December 2019 – 5 January 2020, and then from 16-31 January 2020. Friends of Wheeler and other advocates were behind the 10-day break in the season to accommodate the highly popular Festival of Cranes. Next year's Festival of Cranes is 11-12 January 2020.

Ricky Ingram, project leader at Wheeler National Refuge, said that while hunting is one of the six priority uses of lands in the national refuge system, there will be no waterfowl or crane hunting at Wheeler in the upcoming season. It is hoped the hunt will not adversely affect the festival.

Season details:

Hunting will be limited to north Alabama in a zone that runs from the Georgia state line down Interstate 20 to Birmingham, then north of I-22 to the Mississippi state line. The hunt is limited to north Alabama as Sandhills generally pass through that area before heading east to Georgia and south into Florida. And, according to Maddox, there are areas south of Birmingham associated with non-migratory populations of Sandhills, in southeast Mississippi and in Florida, where those cranes are protected.

- 1,200 tags to 400 hunters (3 tags per hunter) via a drawing (open only to Alabama residents).
- If drawn, individual must take and pass an online test on species identification and regulations before a permit and tags are issued.
- Hunters must purchase a federal duck stamp; HIP (Harvest Information Program) license, and if hunting on a Wildlife Management Area, a WMA license
- At end of season all permit holders are required to take a post-season survey provided by the Alabama Wildlife and Freshwater Fisheries (WFF) Division. If hunters fail to complete the survey, they will not be eligible for future drawings. WFF must provide survey information to USFWS as a requirement to continue the experimental season.

Economic impact of Refuges – "Banking on Nature"

Editor: The following is used with permission of the Birding Community E-bulletin. To read the complete article in the August 2019 bulletin, go here:

https://mail.google.com/mail/u/0/#inbox/FMfcgxwDqfGdSFSMdBJVBxVxXZDBZjnD

Every five years, the U.S. Fish and Wildlife Service (FWS) releases a report on the economic impact of visitation to our National Wildlife Refuges. The report is called "Banking on Nature," and the most recent report, released earlier this summer, documents the 2017 economic findings. The report is the sixth in a series of studies since 1997. This research was conducted on 162 National Wildlife Refuges across the country to estimate economic impacts. According to the report, 53.6 million people visited refuges in that fiscal year (2017-2018)

There was at least one other loss in the current report: The 2013 report had a useful two-page appendix on the impact of birding in the Refuge System with material and tables on NWRs with high birding visitation, birding expenditures on sample refuges, and related job incomes on these refuges. Regrettably such similar information is lacking in the current report.

You can access the new 32-page summary study here, with expanded details on individual refuges available through the same page:

https://www.fws.gov/economics/divisionpublications/bankingOnNature/BoN2017/bon2017.asp

For back copies of the Birding Community E-bulletin, go here: http://refugeassociation.org/news/birding-bulletin/

Wheeler NWR boosts local economy

The Wheeler National Wildlife Refuge located along the Tennessee River between Huntsville and Decatur, Alabama, was established in 1938 to provide habitat for wintering and migrating birds. Considered the easternmost refuge in the Mississippi flyway, this 35,000-acre refuge attracts thousands of wintering waterfowl and Sandhill Cranes each year. Beginning in the winter of 2004 several of the reintroduced eastern migratory population of Whooping Cranes first appeared at the Refuge and since then numbers of wintering Whoopers have increased. The Refuge also manages and protects habitat for 13 federally listed endangered or threatened species.

According to the USFWS economic report "Banking on Nature," mentioned above, Wheeler National Wildlife Refuge had a regional economic impact of \$33.3 million in 2017. Teresa Adams, supervisory park ranger for the refuge, said she was pleased by the numbers, but stressed the refuge's role in the Tennessee Valley has less to do with economics and more to do with providing an opportunity for visitors to get back to nature.

Of the \$33.3 million in direct economic impact, non-residents accounted for \$12 million, or 21.3%, of the total. Fishing-related expenditures accounted for 61% of the total. The report said 1,389,418 people visited the refuge in 2017. The majority of that number (564,005) were there to fish.

For a PDF, or to read "The Economic Contributions of Recreational Visitation at Wheeler National Wildlife Refuge" by USFWS, Division of Economics, go here:

https://www.fws.gov/economics/divisionpublications/bankingonnature/bon2017/refuges/Wheeler%20R%204.pdf

Canada:

Search continues for shooter of Manitoulin Island Whooping Crane

Crime Stoppers of Sault Ste. Marie and Algoma District, in partnership with the Wildlife Enforcement Division of Environment & Climate Change Canada is still seeking the public's assistance in identifying suspects in connection to the shooting death of a two-year old female Whooping Crane. According to reports on social media, shots from a shotgun and small caliber 22 were heard the evening of May 5 where the crane was later found dead. The crane was on private property in the area of N. Line and 10th Side Road on the north end of Barrie Island in Northern Ontario.

Female #39-17, one of 85 cranes in the reintroduced eastern migratory population of Whooping Cranes, was tracked by its telemetry from southern Indiana to the upper peninsula of Michigan before settling on Manitoulin Island in late April. People were aware of its presence as it moved about the island in the company of Sandhill Cranes. In Canada Whooping Cranes are protected by the Species at Risk Act (SARA),).

To listen to the Radio "Up North" Wendy Bird interview with Sheldon Jordan, Director General of Wildlife Enforcement for Environment and Climate Change Canada, go here: http://www.cbc.ca/player/play/1527471683602/

June 2019 <u>Sault Ste Marie CrimeStoppers</u> announcement of shooting: https://youtu.be/z1w3ovPYO-M

Anyone with information concerning the shooting should contact the Crime Stoppers Tips Hotline at **1-800-222-TIPS (8477).** The <u>Whooping Crane Conservation Association (WCCA)</u> and <u>International Crane Foundation</u> are offering a \$3,000 reward for information leading to the suspect's arrest.



Whooping Crane #39-17 found shot on Barrie Island, Ontario Canada. Photo by Nelson Jeffkins



Proposed site of Teck's Frontier Mine 30 km south of Wood Buffalo National Park. If built it would be the largest mine ever constructed in Alberta's oilsands. Photo: Louis Bockner / Sierra Club BC

UNESCO gives Canada until 2020 to save Wood Buffalo NP

A 7 June 2019 draft decision by UNESCO World Heritage Centre on the state of conservation of Wood Buffalo National Park World Heritage Site recognized the significant effort and investment that Canada and its partners, including Parks Canada, have made to strengthen the protection and management of the World Heritage Site, as well as the Government of Canada's investment of \$27.5 million through Budget 2018 to support the development of the Action Plan and its early implementation.

UNESCO also praised the creation of a new Wildland Provincial Parks by the Government of Alberta, which will contribute to the conservation of more than 6.7 million hectares of boreal forest, the largest contiguous protected boreal forest in the world. These protected areas provide significant buffers and landscape connectivity to Wood Buffalo National Park World Heritage Site. However, unless Canada addresses the threats facing the park and deterioration of the Peace Athabasca Delta, Wood Buffalo NP may be listed as a World Heritage site in Danger.

According to a 3 July 2019 article by *The Narwhal*, Canada has until December 2020 to report back on what it has done to address dropping water levels in the delta, including looking at the effects of dams on the Peace River, including the Site C dam, and pollution from adjacent oilsands development, including the proposed Teck Frontier oilsands mine, which would be built 30 kilometers (*see also this issue* Environmental Impact Issues: Canada/ Energy development versus endangered species, p. 20) from the park's boundary. UNESCO also wants a full report on the effects of the B.C. Hydro's Site C dam (which is still under construction), a risk assessment of oilsands tailings ponds and stronger management sharing of the park with Indigenous people.

To read The Narwhal article by Judith Lavoie, 'This must be Canada's last chance': UN gives feds 18 months to save Wood Buffalo, *go here:*

https://thenarwhal.ca/this-must-be-canadas-last-chance-un-gives-feds-18-months-to-save-wood-buffalo/

Louisiana:

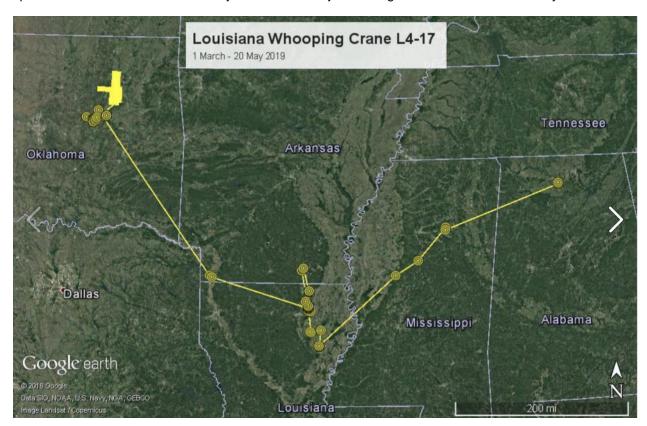
Failed nesting season

According to the Louisiana Department of Wildlife and Fisheries, last year was a good year for the Whooping Cranes nesting in Louisiana – 5 chicks hatched and all 5 survived to fledge. Unfortunately, 2019 has not been a good year – 6 chicks hatched but sadly none of them survived. Almost weekly rain and flooding events resulted in failed nests and likely contributed to the loss of small chicks. The last two hatched chicks, W5-19 and LW6-19, disappeared in early June when about a week or two of age.

Louisiana Whooping Cranes are resilient, as well as persistent as seen during the course of the season, as some of the pairs attempted second and third re-nestings. Final tally for the season was 27 nesting attempts by 13 pairs. Whooping Cranes are also a long-lived species, so while this year has been disappointing and frustrating, biologists are hopeful for the future.

Update on Louisiana's wandering female L4-17

In a 28 May update by the Louisiana Department of Wildlife and Fisheries (LDWF), it was reported that female Whooping Crane L4-17 – after spending the winter at Wheeler National Wildlife Refuge in Alabama – headed home to Louisiana in early March, arriving in Franklin Parish on 4 March 2019. However, not one to stay put for long, she left Louisiana just over a month later and headed northwest, entering Oklahoma on 10 April before settling in Tulsa County on 5 May 2019. As a reminder, L4-17 spent the summer in Oklahoma last year so LDFW is just waiting to see what she does this year!



Whooper numbers in a nutshell

Currently Louisiana's reintroduced, non-migratory population of Whooping Cranes stands at 72. The reintroduced Eastern Migratory Population has 85, there are about 10 cranes remaining in Florida, and the migratory population that winters on the gulf coast of TX at and around the <u>Aransas National Wildlife</u>

Refuge is a little over 500 at last count. Additionally, there are approximately 165 in captivity, so the world population of Whooping Cranes is still under a total of 1,000 birds.

Audubon Institute's crane season

The Freeport-McMoRan Audubon Species Survival Center occupies about 1,000 acres in a wooded area hugging the Mississippi River. For several decades, the center has reared endangered Mississippi Sandhill Cranes at the facility which are then released at the Mississippi Sandhill Crane National Wildlife Refuge to join 135 others in the non-migrating population there. In 2018 the Species Survival Center added Whooping Cranes to their mix after severe budget cuts ended the 50-year old Whooping Crane program at the Patuxent Wildlife Center in Maryland.

An Audubon Institute spokesperson said a total of 14 chicks were raised this spring and earlier this summer at the center, including: five Sandhill costume-reared Sandhill Cranes; five parent-reared Sandhill Cranes; three costume-reared Whooping Cranes; and one parent-reared Whooping Crane.

Help LDWF by reporting all Whooping Crane sightings

Anyone encountering a Whooping Crane is advised to observe the bird from a distance and to please report your sighting to the Louisiana Department of Wildlife and Fisheries by using the following link: http://www.wlf.louisiana.gov/webform/whooping-crane-reporting-form

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

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

Nebraska:

Improvements underway at Rowe Sanctuary

What were once referred to as "viewing blinds" overlooking the Platte River sandbars will now be called "discovery stations." The new stations are to have backs that when opened will create open air space with a large deck that can be used throughout the year for education programs as well as other events. The goal of the improved stations is to provide visitors with wider, better views up and down the river, and side to side when viewing Sandhill Cranes roosting on Platte River sandbars at sunrise and flying to those roosts at sunset.

Framework for the first of four new "discovery stations" at Rowe Sanctuary is currently taking shape near a well-used Sandhill Crane viewing blind along the Platte River east of the <u>lain Nicolson Audubon Center</u>. Two more stations will be located west – on the south side of the Platte River, and the fourth will be built on a new site farther west.

The new multipurpose structure represents bigger plans to expand and enhance buildings and trails at the Rowe Sanctuary to better meet needs of spring migration season birders and people who attend outdoor education programs at Rowe throughout the year. Trails to the stations are to be improved and ramps will replace stairs to allow better access for people with disabilities. There will still be crane viewing opportunities inside the Nicolson Audubon Center for guests unable to do a discovery station tour. Work is targeted for completion by 31 December 2019.

"We've been planning this really since 2014 or 2015, when we had our 40th anniversary," said Rowe	
Sanctuary Director Bill Taddicken. A University of Nebraska at Kearney study determined the economi	ic
and tax revenue impact of the 2017 Sandhill Crane migration on central Nebraska was \$14.3 million. T	Γhe
improvements can only enhance the Platte River Sandhill experience for visitors making it is a win-win	1
investment in Rowe Sanctuary's future.	

Texas:

Houston Zoo walks the talk

The <u>Houston Zoo</u> has put into action steps not only to keep Whooping Cranes safe but to help them thrive. What better partner to have in this endeavor than the <u>International Crane Foundation (ICF)</u>, a team that works with diverse partners in Texas to protect the coastal ecosystem, its wildlife, and the vital coastal economy? As part of this partnership, the zoo helped establish a Whooping Crane Outreach Coordinator position in Rockport, Texas and works closely with the team there to help the public develop awareness and caring for Whooping Cranes.

In May, the Houston Zoo led a "human behavior change" training workshop for its partners at ICF as well as representatives from San Antonio Bay Partnership, USFWS, Texas Parks & Wildlife Department (TPWD), Texas Sea Grant, and Mission-Aransas National Estuarine Research Reserve to design effective human awareness campaigns aimed at reducing threats to Whooping Cranes. The training covered human behavior change principles –principles the Zoo uses to encourage everyone to not only care about wildlife but to easily adopt everyday actions that will help save animals in the wild (i.e. using reusable bags and water bottles or skipping the straw). The Whooping Crane team has asked for assistance in reducing the number of abandoned crab traps in Texas bays.

The Blue Crab is one of the Whooping Crane's favorite foods. On their wintering grounds along the Gulf Coast of Texas, these birds feed almost exclusively on the crabs. When Blue Crab populations are healthy, so are the Whooping Cranes. Fewer abandoned traps in the water means not only more crabs can be caught in a sustainable, ocean-friendly manner, but more food for the Whooping Cranes.

The team's work to prevent traps from being abandoned is in the early stages, but the Houston Zoo and partner organizations will continue to protect native wildlife and local economies by participating in crabtrap cleanups every February during the crab trap closure period. This year the Houston Zoo and Galveston Bay Foundation removed and properly disposed of 141 traps, saving over 2,300 blue crabs and many other animals like otters that can also get trapped in the abandoned traps.

Wisconsin:

Milwaukee County Zoo's Whooping Crane pair become foster parents

Foster male "Torch" arrived at the International Crane Foundation as an egg from the Calgary Zoo in 2006 and was transferred to the Milwaukee Zoo that year. Foster female "Tiki" came from an egg laid by a wild Whooping Crane pair at Necedah National Wildlife Refuge that was then transferred from the International Crane Foundation in 2008 to the Patuxent Research Refuge in Maryland for incubation and hatching. Tiki came to Milwaukee later as a companion for Torch.

On 12 May 2019 the International Crane Foundation (ICF) delivered a Whooping Crane egg from a captive pair at the ICF Baraboo Wisconsin facility – a female named "Achilles" and a male named "Woody"– to the Milwaukee County Zoo in an incubator. Zookeepers there swapped out an infertile egg laid by Tiki with the fertile egg– in hopes that Torch and Tiki would incubate the egg. They did, and a healthy chick hatched on May 16, 2019! Whoop! Whoop!

According to zookeepers Torch and Tiki are excellent foster parents, teaching the chick how to forage and find food. Initially there was a privacy fence around the Whooper's habitat in the <u>Herb and Nada Mahler Family Aviary</u> but it was removed on July 26 when the chick was introduced to the public.

Milwaukee Zoo aviary keeper Caty Coutant worked at Patuxent Wildlife Research Center, which ran a Whooping Crane breeding program for 50 years until the program closed last year due to budget cuts by the Trump administration. The International Crane Foundation, zoos and other private wildlife centers took over the breeding work.

"It's an honor to be part of the species recovery efforts," said Milwaukee Zoo Curator of birds Alex Waier. "By raising this chick we'll hopefully encourage the (International Crane Foundation) to use this pair for more fostering."

Nesting Whoopers and planes don't mix

Balancing human health and safety with recovery of threatened and endangered species is an aspect of Wildlife Services operations. Wildlife Services-Wisconsin provides wildlife hazard assistance to Volk Field Combat Readiness Training Center and that assistance was called upon in May 2019 after a pair of cranes built a nest next to the runway of the military airfield in Juneau County. The county is also home to Necedah National Wildlife Refuge where the majority of the reintroduced eastern migratory population of Whooping Cranes nest.

Wildlife Services worked cooperatively with the U.S. Fish and Wildlife Service, Wisconsin Department of Natural Resources, <u>International Crane Foundation</u> and Volk Field to remove three eggs from the nest. The eggs were taken to the International Crane Foundation in nearby Baraboo and placed in another Whooping Crane nest. Since the egg removal, the crane pair moved approximately two miles north of the base, outside the risk area for airfield traffic.

This isn't the first collaboration at Volk Field. In May 2014 a pair of Whooping Cranes were unfazed by the airbase surroundings therefore putting themselves and those associated with the base at risk. Wildlife Services captured the male crane. The collaborating partners had decided the male Whooper, which had unsuccessfully paired with different females over several years, was not contributing to expanding the breeding population. So, after capture, it was transported to Zoo New England where it is exhibited at the Stone Zoo in Boston.

Habitat Matters!

Canada:

Interior wetlands: shrinking footholds

Interior freshwater wetlands are areas that have fresh water in large enough amounts from rain and melted snow to remain on the surface most of the time, as indicated by poorly drained soil after the ground below is soaked or saturated, as well as vegetation and biological activity adapted to wet environments. In North America, the four main wetland categories are based on the type of plant growth or vegetation present, and the depth and how permanent the surface water: ponds, swamps, marshes and peat bogs.

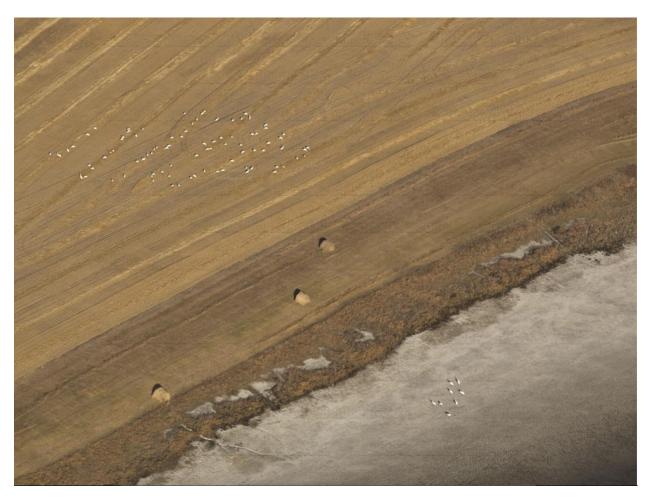
There are of two types, organic (peatlands) and mineral, and are classified in five categories: bogs and fens, which are both peatlands; marshes and shallow water, which are both mineral; and swamps, which can be either. Canada has approximately 1.5 million kilometers of wetlands. This represents about 16% of Canada's land mass and approximately one quarter of the world's remaining wetlands. Thirty-seven of Canada's wetlands, an area covering almost 131,000 kilometers, have been designated as wetlands of international importance.

Wetlands are important as one of Earth's most productive ecosystems, supporting a disproportionately high number of species, including species at risk and significant numbers of migratory birds, fish, amphibians, a wide diversity of plants, and many other species. Wetlands provide essential services such as controlling floods by absorbing water during flood conditions, recharging groundwater and maintaining stream flows, filtering sediments and pollutants, cycling nutrients, stabilizing shorelines and reducing erosion, slowly releasing water when there is drought, and sequestering carbon.

Dr. Bondar speaks about the Wetland biome of the Athabasca Delta and for a photo of it, go here: https://www.therobertabondarfoundation.org/travelling-exhibition/biomes/#wetlands

Whooping Cranes Nesting Habitat - Wetlands Interior, Northwest Territories

For an aerial view of Interior Wetlands, Whooping Crane Nesting Habitat, Wood Buffalo National Park, NWT, Canada, go here: https://youtu.be/sx_IRuya4io



Whooping Cranes on agricultural land during Fall migration stopover in Saskatchewan, Canada. Photo by Dr. Roberta Bondar/Roberta Bondar Foundation

Whooping Crane Migratory Stopover - Wetlands Interior, Saskatchewan

To watch another short video by the Foundation showing aerial and surface views of interior wetlands, as well as a large group of Whooping Cranes using migratory stopover habitat in Saskatchewan, Canada, go here: https://youtu.be/vXp_KIYKMr0

A bird's eye view of Whooping Cranes' isolated wetlands

The following is from a 2015 article by Alisa Opar for Audubon Magazine.

The only remaining wild flock of Whooping Cranes splits its time between breeding grounds in Canada's remote boreal marshes and wintering grounds on the Texas Gulf Coast. These photographs offer a rare look at their pristine summertime stronghold in Alberta's Wood Buffalo National Park, which was discovered only in the middle of the last century.

The vast, unspoiled habitat has been critical to the elegant bird's recovery, and has boosted the whooper's ability to brave the threats it faces along its <u>narrow</u>, <u>2,500-mile migratory route</u>.

The cranes flock to these vast wetlands in late April. Shallow ponds ringed by pine-and spruce-dotted ridges provide ideal habitat for breeding and raising young, and foraging. watery expanses also offer protection from earthbound predators, including foxes and black bears. Drier years, like this one, can hinder a chick's chances of survival; more pathways open up for carnivores to reach the birds, and adults may have to forage farther from their nests, which means less food for offspring. An August fledgling count will reveal how youngsters fared this year.

Wood Buffalo boasts countless freshwater ponds. Amid these watering holes are also salt plains, the remnants of an ancient inland sea that once stretched across much of North America—cutting southeast through the plains to the Gulf of Mexico, similar to the route the cranes travel on their biannual journeys.

To read the article and to see stunning aerial photographs of the Whooping Crane breeding grounds at Woods Buffalo NP taken by photographer Tom Lynn, go here: https://www.audubon.org/magazine/september-october-2015/a-birds-eye-view-whooping-cranes

lowa:

Nahant Marsh copes with damage after historic flood

Nahant Marsh is a 305-acre preserve located in southwest Davenport. It is part of a 513-acre wetland complex that is bordered by the Mississippi River, Interstate 280, and Highway 22.

From 1969-1995 the Quad Cities Trap and Skeet Gun Club owned the marsh and used it as a shooting range, and over time saturating the marsh with toxic lead shot. In 1994 sick and dying waterfowl were reported triggering an investigation that determined the marsh and surrounding land had reached lethal levels of lead. Not only were waterfowl, wildlife and vegetation being poisoned by lead toxicosis, but it was now considered a threat to human life. Subsequently in 1996, the 265-acre Nahant Marsh was listed as an EPA super fund site in need of cleanup. \$2 million was awarded to remove what would be a staggering 143 tons of lead from the marsh sediment and shoreline.

Included in the EPA cleanup agreement was the stipulation that the city of Davenport would maintain the marsh as natural habitat and use it for education. This marked for the first time in EPA history that a super fund site would become a nature preserve and education center. Since 2003, the Friends of Nahant Marsh group have come together each spring to clean up the marsh, remove invasive species and plant native trees and bushes. 430 species of plants have been documented at the marsh.

The long road back from a once-dying marsh to healthy habitat makes this year's more than 90-day inundation by the Mississippi river all the more distressing. Marshes are resilient but can only tolerate being underwater for short periods of time, helping to absorb gallons of floodwater and decrease flooding downstream, before being adversely affected. According to Executive Director of Nahant Marsh, Brian Ritter, there are dead plants, trash, rubber tires and fuel contamination from the flooding documented in the marsh so it is unclear as to what long-term impact that holds for the marsh and the wildlife that has come to depend on it. "We had a nest of Sandhill Cranes," Ritter said. Those are rare for our area.

They've only come back the last few years. There were two eggs in that nest, and they would have been fine, but the river came up and flooded them out."

To watch a 2013 PBS lowa Public television short video about Nahant Marsh, go here: https://youtu.be/E86CvgYc3ss

To learn more about Nahant Marsh, go here: https://nahantmarsh.org

Kansas:

Whooping Crane sightings at Quivira NWR - 2011-2019

Editor: The following data from Quivira underscores the importance of stopover habitat along the migration corridor of the Aransas-Wood Buffalo population of wild Whoopers. The NWR provides critical habitat for the cranes to forage and roost during their fall and spring migrations.

"Whooping Cranes occur regularly each fall at Quivira, from late October through the month of November. Each fall season varies in terms of the total number of cranes reported, but the average through the season is 30-40 cranes. Although sightings of 10-12 in one flock occur occasionally each year, most group sizes average 2-5 individuals. Most stops are for overnight with the cranes gone from the area by mid-morning. A few groups, or individuals, may stay a week or more before moving on. Also, during some years a Whooping Crane may linger into December or into the new year."

Spring, 2019: The first sightings of the spring was a group of 4 adults on March 23, and another 12 adults on the flats north of NE 170th on Sunday, March 24. The last reported cranes was a flock of 14 adults north of NE 170th on April 17th (later than usual). The spring season totaled 89 stopover Whooping Cranes and is the highest spring total to date.

Fall, 2018: A single adult Whooping Crane was observed and photographed in Big Salt Marsh on 5 October 2018, representing the earliest fall migration on record (the previous early date was October 6). During the month of October, the refuge experienced a larger than usual early movement of 47 cranes. By 9 November 2018, 104 had been recorded at Quivira.

For a complete daily listing of confirmed sightings of the Whoopers at Quivira National Wildlife Refuge, g	0
here: https://www.fws.gov/refuge/Quivira/what_we_do/science/whooping_crane_sightings.html	

Texas:

National wildlife refuges focus on wildlife

National Wildlife Refuges play an important role in conservation because refuges are just that – land specifically set aside to protect the wildlife it was created for, with limited accessibility to the public. The wildlife conservation mission of the National Wildlife Refuge System and the U.S. Fish and Wildlife Service ensures the Aransas National Wildlife Refuge will continue to conserve, protect and enhance its land for the benefit of wildlife and the American people.

Aransas National Wildlife Refuge, situated primarily on the Blackjack peninsula, is the main unit of the Aransas Refuge and lies behind Matagorda Island, part of a long chain of barrier islands extending down the Texas coastline. The refuge is surrounded by several shallow bays where strong winds push bay waters onto a landscape that, on the mainland, gradually shifts from salt to brackish and eventually to freshwater marsh. Aransas NWR is made up of a patchwork of different habitats that include oak

savannah, coastal prairie, fresh and brackish wetlands. Together the habitats provide sustenance to an array of wildlife. 400 species of birds including the Whooping Crane make use of the refuge.

For public access, there are 5 hiking trails at with the longest being 1.4 miles, and a 16-mile paved tour loop giving views of the beautiful Texas savannah. A 40' observation tower built in 2012, is accessible and gives birders on the refuge the best chance of seeing a Whooping Crane(s) feeding in the marsh from mid-October through March. It is built in a wooded area but rises above the trees for a panoramic view of San Antonio Bay and Mustang Lake.

Matagorda Island is a 56,683-acre barrier island, stretching for 38 miles, and is home to coyotes, alligators, wintering Whooping Cranes and Kemp's Ridley Sea Turtles. The island can only be accessed from the water by way of a 25-mile long paddling trail. Matagorda is also one of the few places accessible for camping to the general public (managed by Texas Parks & Wildlife) on the refuge.

Prescribed burns benefit Aransas NWR prairie

Fire has restorative properties, especially for the endangered coastal prairie habitat used by equally rare Whooping Cranes and the Attwater's Prairie Chicken. Once extending from Corpus Christi to Lafayette Louisiana, today there is less than one-tenth percent of prairie remaining due primarily to farming, cattle grazing and urban sprawl. Wet conditions at the refuge, 70 inches of rain since September 2018, has slowed the schedule for the burns.

The U.S. Fish and Wildlife Service last burned the Tatton Unit (along SH-35) of the refuge three years ago. However, to successfully eradicate woody invasives, <u>prescribed burns</u> need to be repeated several times, so Aransas NWR conducted one at the unit in early August 2019. According to Scott Affeldt, assistant <u>fire management</u> officer, it will take at least 10 years to see the landscape return to a prairie.

Prescribed bu	ırns are also s	scheduled for th	e Blackjack and	d <u>Matagorda</u> U	nits of Aransas	NWR this winter.

Minnesota:

Minnesota Land Trust partners to protect threatened waterways

Bob Scanlan grew up spending summers working on the farm established by his grandfather outside of Brownsville in the 1940s and has been farming as long as he can remember. As development slowly began to encroach on the farm, the family worked with the Minnesota Land Trust, and was able to protect 98 acres of their farm with a conservation easement, ensuring the land stays protected from development forever. "With this I'm able to keep farming my land the way I have been, graze cattle, and protect the environmental integrity of my land," Bob said. "It's a win-win." Additionally, the property falls within a critical flyway for migratory birds and Sandhill Cranes, Bald Eagles, and other raptors have been observed along the property's Wildcat Creek.

Bob developed a managed intensive grazing system that allows cattle forages to grow back and grow deeper roots. But he also retired intensive row crop farming around Wildcat Creek that has allowed native plants to regain a foothold. Both modifications go towards helping to protect the water quality of the threatened Mississippi River.

"Many of the waterways that feed into the Mississippi here in the <u>Driftless</u> are in private hands, making protection projects like this incredibly important if we're going to protect the water quality of that river," said Nick Bancks, program manager for the Minnesota Land Trust. "Even better, this connects to another Land Trust protected property, compounding the benefit of what Bob and Michelle have done with their land."

To read more about the Minnesota Land Trust, information can be found here: www.mnland.org

ENVIRONMENTAL impact issues:

Feds urged to severely restrict pesticides in endangered species critical habitat

In early January 2019 the <u>Center for Biological Diversity</u>, petitioned the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to prohibit nearly all uses of pesticides in areas designated as critical habitat for endangered species, including Whooping Cranes and Puget Sound orcas.

The petition calls for the federal agencies to use their authority under the Endangered Species Act to put in place measures to protect endangered wildlife from harmful pesticides. It comes after decades of intransigence by the Environmental Protection Agency, which has refused to comply with the legal mandates of the Endangered Species Act to protect the nation's most imperiled species from highly toxic pesticides like chlorpyrifos and atrazine that are known to harm wildlife.

To read the <u>Center for Biological Diversity's</u> "Petition for Rulemaking to Protect Endangered Species from Pesticides by Restricting Pesticide Use in Critical Habitat," *go here:* https://www.biologicaldiversity.org/campaigns/pesticides_reduction/pdfs/Petition-to-FWS-and-NMFS-To%20Prohibit-Use-of-Pesticides-in-Critical-Habitat.pdf

Farmers, conservationists challenge approval of Monsanto's Crop-damaging Dicamba pesticide

The following is from a 14 August 2019 Center for Biological Diversity press release:

Dicamba, an old generation toxic herbicide, was given new life as XtendiMax, due to the failure of Monsanto's Roundup herbicide. Dicamba is still toxic, still highly drift-prone and still damaging to nontarget crops.

"Four public-interest organizations (National Family Farm Coalition, Pesticide Action Network, Center for Food Safety, and Center for Biological Diversity, represented jointly by legal counsel from Center for Food Safety and the Center for Biological Diversity), representing farmers and conservationists have made their legal case in a federal lawsuit against the U.S. Environmental Protection Agency and Monsanto. The opening brief, filed mid-August, challenges the approval of a pesticide that was designed to be sprayed on soybeans and cotton crops genetically engineered by Monsanto to tolerate being sprayed with Dicamba.

Ignoring warnings of the potential for extensive damage to nearby crops from the drift-prone pesticide, the EPA first approved XtendiMax in late 2016. The groups sued the EPA in 2017, but in November 2018 the EPA renewed the pesticide's approval before the court could issue its verdict, requiring further litigation.

According to researchers who track crop damage, the first two seasons of XtendiMax use were an unprecedented disaster. Just as critics warned, dicamba sprayed on Monsanto's GE soybeans and cotton vaporized and drifted, resulting in damage to millions of acres of crops and wild plants. Across much of the country, dicamba drift was linked to damage to more than 4 million acres of soybeans, as well as scores of vegetable and fruit crops, trees and shrubs. Flowering plants near croplands have also suffered, potentially harming pollinators and hundreds of endangered animal and plant species.

Beyond its failure to protect farmers, the EPA put hundreds of endangered species at greater risk. Despite the agency's own conclusion that the approval might harm an extraordinary number of protected birds, mammals and insects across dozens of states, the EPA refused to seek the guidance of the federal expert wildlife agencies, as the Endangered Species Act requires. Instead, the agency denied that there would be any risk and approved the pesticide without any measures to protect endangered plants and animals.

"The Trump EPA's reckless rush to appease Monsanto has pushed endangered Whooping Cranes, Karner Blue Butterflies, Rusty Patched Bumblebees and hundreds of other species closer to extinction," said Stephanie Parent, a senior attorney at the Center for Biological Diversity. "It's disgusting but hardly surprising that Trump's administration can disregard the law and the welfare of farmers and our most endangered plants and animals."

To read the entire press release, go here: https://biologicaldiversity.org/w/news/press-releases/farmers-conservationists-challenge-approval-of-monsantos-crop-damaging-dicamba-pesticide-2019-08-14/

The Center for Biological Diversity is a national, nonprofit conservation organization with more than 1.4 million members and online activists dedicated to the protection of endangered species and wild places.

About CFS: Center for Food Safety's mission is to empower people, support farmers, and protect the earth from the harmful impacts of industrial agriculture. Through groundbreaking legal, scientific, and grassroots action, we protect and promote your right to safe food and the environment. Please join our more than 900,000 advocates across the country at www.centerforfoodsafety.org. Twitter:

@CFSTrueFood, @CFS_Press

Canada:

Energy development versus endangered species

Some Canadian provinces still have no dedicated legislation for the protection of species at risk – <u>Alberta is one of those</u>. Provincial officials in Alberta routinely approve resource development at the expense of species at risk.

With the Responsible Energy Development Act, passed on 10 December 2012 and proclaimed on 17 June 2013, the Alberta Energy Regulator (AER) became the single regulator for upstream oil, gas, oil sands and coal projects in Alberta. The AER is responsible for regulating energy resource developments under the specified enactments – Public Lands Act, Environmental Protection and Enhancement Act, Water Act and Part 8 of the Mines and Minerals Act – from initial application to reclamation.

On 25 July 2019 the Alberta Energy Regulator approved yet another new oilsands mine to be constructed and operated by Teck Resources just 30 kilometers (18.64 miles) south of Wood Buffalo National Park, despite finding that the mine will have significant adverse impacts on what is left of habitat used by threatened woodland caribou in this region of Alberta, the Ronald Lake Bison, moose and other furbearers, listed species at risk (federal and provincial), bird species that depend on the specialized regional habitat as breeding grounds; migrating waterfowl, the air (total greenhouse gas emissions from the project are estimated to be about 4.1 million tonnes of CO2 equivalent per year), the Athabasca River, groundwater levels and in particular – the endangered Aransas-Wood Buffalo population of Whooping Cranes.

The Alberta Energy Regulator acknowledged that the proposed Teck mine falls in the migratory route for the only native population of migratory Whooping Cranes in the world (their summer breeding habitat is protected in Wood Buffalo National Park), and that during migration, the cranes could land on the mine's tailings ponds and come into contact with the toxic soup – basically a death sentence.

In Canada, the Whooping Crane is listed as an endangered species under Species at Risk Act (SARA), and is protected by the federal Migratory Birds Convention Act, the Canada National Parks Act in Wood Buffalo National Park, as well as the Saskatchewan and Alberta Wildlife Acts, and the Manitoba Endangered Species Act. Mortality risk during migration is considered to be a primary threat to the overall total population of about 500 birds.

Nonetheless, the Alberta Energy Regulator declared that any additional mortality of cranes because of this new mine would not have any adverse impact on the species. According to the AER the mine would

rely on proposed bird deterrent mechanisms to prevent cranes from landing in the tailings ponds. However, according to a study done by the University of Alberta in its Research on Avian Protection Project the effectiveness of all known deterrent mechanisms used by oilsands operators (cannons, radar scanners and scarecrows) do not completely prevent bird deaths, so any adverse impact on an endangered species should be viewed as significant.

The Teck mine still requires federal approval before it can proceed, so there is perhaps still a distant hope of protecting further destruction of habitat for the threatened caribou and endangered cranes.

To read, or download a PDF of the 2019 ABAER 008/CEAA Reference No. 65505 Report of the Joint Review Panel, Teck Resources Limited Frontier Oil Sands Mine Project, Fort McMurray Area, July 25, 2019 [Joint Review Panel Established by the Federal Minister of Environment and Climate Change and the Alberta Energy Regulator], *go here:*

https://aer.ca/documents/decisions/2019/2019ABAER008.pdf

To read a 2017 article about oilsands bird deaths and the University of Alberta Research on Avian Protection Project, go here: https://www.cbc.ca/news/canada/edmonton/alberta-oilsands-bird-deaths-suncor-tailings-ponds-1.4300715

Editor: The following are excerpts taken from the Report of the Joint Review Panel, Teck Resources Limited Frontier Oil Sands Mine Project and pertain specifically to Wood Buffalo NP, pages 523-526 and the Aransas-Wood Buffalo population of Whooping Crane, from the introduction xxiv-xxvi and Section 23: Wildlife, pages 459-467. Disturbing reading to say the least.

Effects to the Outstanding Universal Value of Wood Buffalo National Park World Heritage Site

Water Quantity and Quality in the Peace-Athabasca Delta

"The Frontier project is also not expected to result in measureable effects to water quality in the Peace-Athabasca Delta, Lake Claire, or Ronald Lake. However, the Frontier project has the potential to adversely affect water quality in the Peace-Athabasca Delta and Wood Buffalo National Park through three contaminant pathways: releases from the project area to the Athabasca River, which would flow into the Peace-Athabasca Delta; releases from the project area to the Ronald Lake watershed, which would flow via Buckton Creek into Lake Claire; and aerial deposition of metals, polycyclic aromatic hydrocarbons, or acidifying compounds from the project, which could affect water quality. The panel expects that these effects will be minimal given the low magnitude of changes predicted at the local study area level and the distance between the Frontier project and the Peace-Athabasca Delta and Wood Buffalo National Park, which will further reduce contaminant concentrations in air and water before they reach these areas."

Migratory Waterfowl and Water Birds

"The project will result in the loss of high- and moderate-suitability habitat for migratory birds within the project disturbance area. While this will have a negative effect on waterfowl nesting and rearing habitat and reduce the available waterfowl stopover habitat, considerable habitat remains available in the region. As migratory pathways are not fully understood, it is difficult to assess the magnitude of this effect on birds migrating to and from Wood Buffalo National Park, but the panel expects the magnitude to be low.

Participant Involvement in the Review Process Section 1: Climate Change Considerations

Nongovernmental Organizations Not Attending the Hearing (25 September 2018) Page 21 [114] The International Crane Foundation expressed concerns related to the endangered Whooping Crane and the potential for the Frontier project to pose a threat to the species. They noted that Wood Buffalo National Park is home to the only self-sustaining population of Whooping Crane in North America, and the Frontier project is expected to add approximately 6000 hectares (14,826 acres) of tailings to the region, posing potential risks to the Whooping Crane because they use the Frontier project area as a stopover site during their migration.

Government of Canada (25 September 2018) Page 23

[124] Parks Canada participated in the hearing as a federal authority to provide specialist or expert advice related to its mandate in the management of protected areas, in particular national parks. Parks Canada's main interest in the Frontier project is because of its close proximity to Wood Buffalo National Park. Wood Buffalo National Park would be less than 30 kilometers (18.64 miles) north of the Frontier project. Parks Canada's submission focused on Whooping Crane, the wolf-bison predator-prey relationship, migratory waterfowl, water quantity and quality of the Peace-Athabasca Delta and the Great Plains-Boreal Grasslands. Parks Canada's recommendations are set out in Appendix 7.

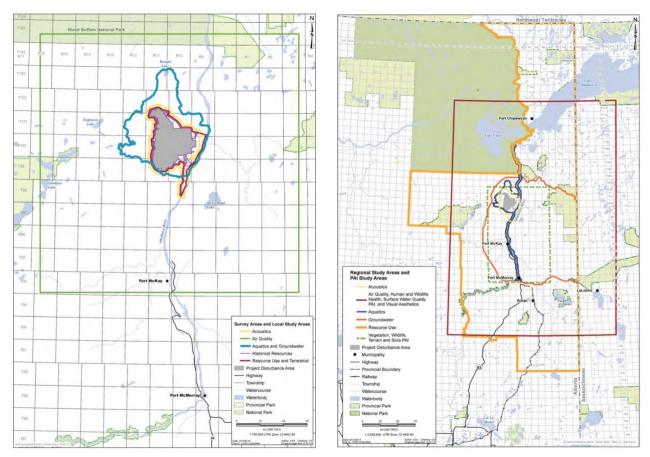
[125] Parks Canada concluded that that project will likely result in large-scale ecosystem change, and that the Frontier project will likely adversely affect the outstanding universal value of Wood Buffalo National Park.

Section 23: Wildlife (page 459)

[2339] Teck acknowledged a valid link between migratory birds including the Whooping Crane and the project. The migration corridor for waterfowl and water birds, including Whooping Crane, to Wood Buffalo National Park passes over the mineable oil sands area, including the project. Despite the implementation of extensive bird deterrent programs, tailings areas within the region present a mortality risk to migratory birds if direct exposure occurs. Data from individuals fitted with collars suggests the Whooping Crane migratory corridor for some individuals of the Aransas-Wood Buffalo population overlaps the mineable oil sands area and the regional study area. Recent data indicates five confirmed and two probable sightings of Whooping Crane have been recorded in the oil sands region.

Habitat

[2340] Teck reported that potential effects to Whooping Crane habitat apply only to stopover habitat used during migration as this species is known not to breed within the regional study area. Whooping Crane use a variety of wetlands along their migration corridor, favouring temporary and seasonal wetlands in the spring, and semi-permanent or permanent wetlands in the fall. Ponds, lakes, marshes, rivers, creeks and other shallow open-water environments are considered suitable stopover habitat for Whooping Crane.



(Left) Figure 4. Local study area, p.125; (Right) Figure 5. Regional study areas, p.126

[2341] In the terrestrial local study area there is a 2894.5 ha (7,152 acre) (98.6 per cent reduction) of high-suitability habitat from base case to application case. A small amount of Whooping Crane stopover habitat is expected to remain along the eastern edge of the terrestrial local study area where small water bodies are present.

[2347] Parks Canada indicated that the project will contribute directly to the loss of stopover habitat for Whooping Crane. Parks Canada stated the project would remove up to 2747 ha (6,788 acres) (best-case scenario) to 3159 ha (7,806 acres) (worst-case scenario) of high and moderate quality Whooping Crane stopover habitat and contribute an approximately 5 per cent cumulative decline in high and moderate quality stopover habitat in the regional study area.

South Dakota:

Triple H Wind facility granted construction permit

On 9 July 2019 the South Dakota Public Utilities Commission (PUC) approved a construction permit for the Triple H Wind project, a wind energy facility capable of generating up to 250.54 megawatts of energy in Hyde County South Dakota. Triple H must adhere to 41 conditions specified by the commission during the construction and operation of the project. Shadow flicker, sound level, land restoration after construction, potential impacts to Whooping Cranes and ice throw are among the details the conditions address.

The proposed project, located approximately 3.2 miles southwest of Highmore, will include up to 92 wind turbines spread over a 27,247.5-acre area. The project footprint will also include access roads, underground collector lines and fiberoptic cable, a collection substation, one permanent meteorological tower, a 345-kV interconnection switching station, a sonic detection and ranging unit, and an operations and maintenance facility.

The Triple H Wind Project docket can be viewed on the PUC's website at www.puc.sd.gov, Commission Actions, Commission Dockets, Electric Dockets, 2019 Electric Dockets, EL19-007 - In the Matter of the Application of Triple H Wind Project, LLC for a Permit of a Wind Energy Facility in Hyde County, South Dakota. https://puc.sd.gov/Dockets/Electric/2019/EL19-007.aspx

Triple H Wind Project: Figure 11 Incidental Whooping Crane observations (map graphic) https://puc.sd.gov/commission/dockets/electric/2019/el19-007/a11.pdf

8 July 2019 letter from SD Public Utilities Commission concerning Whooping Cranes and the wind farm https://puc.sd.gov/commission/dockets/electric/2019/el19-007/ltr070919.pdf

Applicant shall establish a procedure for preventing whooping crane collisions with turbines during operations by establishing and implementing formal plans for monitoring the project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the project and shutting down turbines and/or construction activities within 2 miles of whooping crane sightings. The South Dakota Game, Fish, and Parks will be consulted on the procedure to minimize impacts to whooping cranes.

Whooping Crane (the following is from the 5 February 2018 application for a Facility Permit/ Effect on Terrestrial Ecosystems/ pages 9-10)

The whooping crane (*Grus americana*) is a federally and state endangered migratory species that prefers stopovers in croplands interspersed with palustrine wetlands (USFWS 2016d). The only self-sustaining wild population, with an estimated 505 whooping cranes (including 49 juveniles and 183 adult pairs) as of the winter of 2017-2018, over-winters in the Texas Gulf Coast at the Aransas National Wildlife Refuge (USFWS 2018b). The cranes then migrate north through Oklahoma, Kansas, Nebraska, and the Dakotas to breed in the Northwest Territories of Canada (USFWS 2016e). Each spring and fall, 95 percent of whooping crane sightings occur within a 180-mile (289-km) wide

migration corridor along this route (Stehn 1998). The Project Area is within the 50 percent migration corridor (Pearse, Brandt, Rabbe, and Bidwell 2019).

Whooping cranes occasionally migrate with sandhill cranes (Grus canadensis), so stop-over sites used by sandhill cranes may be used to identify potential whooping crane stop-over areas (CWS and USFWS 2007). The Project Area provides potentially suitable habitat for both sandhill and whooping crane species as it is primarily composed of herbaceous cover and cropland with interspersed streams and areas of open water. Although no whooping crane sightings have been documented within the Project Area, there have been eight confirmed sightings between 1991 and 2011 within 10 miles (16 km) of the current Project Area (Cooperative Whooping Crane Tracking Project [CWCTP] 2016) (Figure 11 in Appendix A). In the spring of 2010, during crane monitoring at the Titan I Wind Facility in Hand County, approximately 6 miles (9.25 km) northeast of the Project Area, a group of five whooping cranes spent three days approximately 2 miles (3.22 km) from the Project. The closest they ever were on the ground from a turbine was 1.2 miles (2 km; Stehn 2011).

Whooping cranes generally migrate at 1,000 to 5,000 feet (305-1,524 m), altitudes well above turbine height (Stehn and Wassenich 2007); thus, for the most part, whooping cranes are unlikely to collide with turbines. However, whooping cranes ascend and descend during landing or in inclement weather, they may fly at lower altitudes, sometimes within rotor swept areas.

To read the full Triple H Wind Project Hyde County, South Dakota; Application to the South Dakota Public Utilities Commission for a Facility Permit, February 5, 2018, go here: https://puc.sd.gov/commission/dockets/electric/2019/el19-007/application.pdf

Science News:

Studying the Whooping Crane Microbiome

Submitted 24 June 2019 by Dr. Barry Hartup, Director of Conservation Medicine for the <u>International Crane Foundation</u>.

"Health management has been at the core of good egg production and successful captive rearing of endangered Whooping Cranes at the International Crane Foundation since the early 1990s. Across the Whooping Crane recovery program, however, there is a renewed emphasis on improving and fine-tuning our approaches in order to achieve more lasting success with the reintroduction of this species. No reintroduced population is as yet self-sustaining. Specifically, the International Whooping Crane Recovery Team and the newly created Whooping Crane Species Survival Plan is in the midst of reorganizing the uses of the captive flock and emphasizing the production of more parent-reared cranes for release. The idea is to "build a better bird" from several vantage points, such as behavior and health.

Concerns over use of formulated diet, development of the immune system, and long-term behavioral consequences of a captive upbringing have led us to question the role of the gut microbiome in the Whooping Crane chicks we raise for release.

Studies of Red-crowned Cranes in China have shown that artificial rearing alters the diversity of the gut microbiome in chicks (Xie, Y. et al. Sci. Rep. 6, 33350; doi: 10.1038/srep33350, 2016). Altered microbial diversity during development can have lifelong impacts on host immunity and other aspects of health. These effects may be ameliorated through microbial transfers between adults and chicks.

This year we started working with Dr. Kevin Kohl of the University of Pittsburgh to test if fecal transplants from healthy Whooping Crane parents into artificially reared chicks (aka costume-or hand-reared chicks) will alter their gut microbial diversity and improve health outcomes.

Research from the past two years has shown several bacterial genera that differ in abundance and proportion between parent- and artificially reared Whooping Cranes. The

sampled droppings of the artificially reared chicks lacked the genus Fusobacterium, which has been implicated in the development of systemic immunity in numerous animal systems. Additionally, these chicks exhibited higher proportions of opportunistic pathogens in swabs of their upper respiratory system.

With Dr. Kohl's collaborative partnership, we hope to begin to shed light on this aspect of artificially reared Whooping Cranes. We predict this project will have a significant impact on crane health and well-being and serve as a model for approaching these issues in other endangered bird reintroduction programs."

Reintroduction medicine: Whooping Cranes in Wisconsin

Dominique L. Keller, Barry K. Hartup
Published in *Zoo Biology* 32:600–607, 2013. © 2013 Wiley Periodicals, Inc. DOI:10.1002/zoo.21097

Abstract: This paper presents veterinary management strategies and diagnostic findings in the reintroduction of the endangered whooping crane (Grus americana). Between 2005 and 2010, 63 (27 male, 36 female) hatchling whooping cranes were assigned to a reintroduction project involving autumn release of costume-reared chicks in Wisconsin. Veterinary care included preventive measures and comprehensive pre-release evaluations to improve fitness and reduce translocation of potential disease agents to native habitats. A total of 44 clinically normal birds were released (70% of assigned individuals). Cases of morbidity were classified according to primary body system affected. Musculoskeletal disorders were described in 57 birds (90%); five birds were removed from the project prior to release (8%), all for abnormalities that prevented normal function. Fourteen birds died or were euthanized prior to release (22%); pre-release mortality was attributed to developmental abnormality, predation, trauma or infectious disease. Chronic respiratory aspergillosis, diagnosed in seven birds (11%), was the most common infectious disease of concern. Predation and trauma were primary causes of post-release mortality; no evidence of infectious disease of captive origin was detected in the study population by the end of 2010. The assessment of data accumulated by this project helped to outline successful health management strategies, as well as identify and mitigate ongoing risks to captive whooping cranes that impede reintroduction efforts and achieving management goals for species recovery.

Pathogenicity of West Nile virus and response to vaccination in sandhill cranes (*Grus canadensis*) using a killed vaccine

Glenn H. Olsen, Kimberli J. Miller, Douglas E. Docherty, Valerie S. Bochsler, and Louis Sileo "Pathogenicity of West Nile Virus and Response to Vaccination in Sandhill Cranes (*Grus canadensis*) Using a Killed Vaccine," *Journal of Zoo and Wildlife Medicine* 40(2), 263-271, (1 June 2009). https://doi.org/10.1638/2008-0017.1

Abstract: West Nile virus was introduced into the United States in the vicinity of New York, New York, USA in 1999. The virus has since killed large numbers of birds nationwide, especially, but not limited to, crows (*Corvus brachyrhinchos*). One sandhill crane (*Grus canadensis*) at the Bridgeport Zoo (Bridgeport, Connecticut, USA) reportedly died from West Nile virus, so sandhill cranes and endangered whooping cranes (*Grus americana*), both in the wild and in captive breeding colonies at United States Geological Service (USGS) Patuxent Wildlife Research Center (Laurel, Maryland, USA) were considered at risk. A killed vaccine in sandhill cranes was evaluated by vaccinating and then challenging these cranes with live West Nile virus. No sandhill cranes inoculated with the killed vaccine developed significant titers when compared with unvaccinated controls. No sandhill cranes inoculated with the vaccine and challenged with the virus died from West Nile virus infection. In addition, no unvaccinated challenged sandhill cranes died. However, 2 days postchallenge, vaccinated cranes had significantly less viremia (P < 0.05) than unvaccinated cranes. Seven days postchallenge vaccinated cranes had significantly less weight loss (P < 0.05) as compared with unvaccinated cranes. Vaccinated sandhill cranes developed significantly higher titers 14 days postchallenge and were viremic for shorter periods of time after challenge than unvaccinated

individuals. Unvaccinated challenged cranes had glial cell aggregates in both the brain and brain stem areas, and this was not observed in vaccinated challenged cranes or in vaccinated unchallenged cranes. VIEW ON BIOONE

https://www.semanticscholar.org/paper/Pathogenicity-of-West-Nile-virus-and-response-to-in-Olsen-Miller/705a4898c8fe0c364f67a199832c2a25744bef8d

Predicting Future Range Expansion of Whooping Crane (*Grus americana*) Winter Habitat Using Long-Term Census and Remotely Sensed Data

by Nicole Aileen Davis, M.S.

Abstract: The whooping crane (*Grus americana*) is one of the most threatened crane species in the world and has been identified as an endangered species since 1967. The last wild-population of the whooping crane, the Aransas-Wood Buffalo Population (AWBP), breeds in Wood Buffalo National Park and surrounding areas in the Northwest Territories of Canada and migrates 2,500 km through the Central Flyway to their wintering grounds within the Aransas National Wildlife Refuge and surrounding areas on the Texas Coast. The Endangered Species Act (ESA) recovery plan for this species outlines objectives to down-list the species from endangered to threatened status, including an objective for a self-sustaining wild population size of at least 1,000 individuals, including 250 breeding pairs. However, the feasibility of meeting this objective requires an assessment of space- use by wintering whooping cranes and of the amount of available habitat within the winter range to support the recovery goal population size.

Historic location data for 42 color-banded whooping crane individuals were used to analyze space-use strategies by three identified classes of cranes during the winter season; i.e., subadult (immature), associated (non-mating pair), and paired/family (mating pair). Space-use was analyzed by estimating winter whooping crane home range and core area extents from kernel density estimators. The resulting home range estimates supported previous descriptions based on observation data of the distribution of the three identified classes on the wintering grounds. The resulting core area estimates yielded a similar spatial distribution as winter territories identified by U.S. Fish and Wildlife Service annual winter monitoring and identified a positive relationship between core area size and land cover diversity ...

To read the full abstract and Nicole Aileen Davis's dissertation, go here: https://digital.library.txstate.edu/bitstream/handle/10877/8324/DAVIS-DISSERTATION-2019.pdf?sequence=1&isAllowed=y

John J. Lynch Papers now available to researchers

Special Collections at the University of Louisiana at Lafayette is proud to present the papers of Louisiana biologist John J. Lynch. Lynch was a flyway biologist who surveyed migratory patterns of waterfowl. Some of his most important work included the study, recovery, and preservation of Whooping Cranes. He helped rescue surviving cranes in Louisiana and even hatched the first Whooping Crane egg in captivity. His daughter, Mary Lynch Courville, donated the collection.

In 1955, Lynch and his family moved the Lafayette, Louisiana, where he joined the Biology department at University of Southwestern Louisiana (now the University of Louisiana at Lafayette). He taught on coastal marshes and worked as an advisor to graduate students. He continued to run surveys on Whooping Crane habits in the Canadian Arctic and other waterfowl in the Arctic, North American, and Asia.

Lynch received several honors during his career. These include the Preservation of Endangered Wildlife in North America Award, the Louisiana Wildlife Federation Professional Conservation Award, and the Whooping Crane Conservation Association Honor Award. He died on 20 August 1983 in Lafayette and is buried at Calvary Cemetery.

The John J. Lynch Papers include his entire body of research on Whooping Cranes, marsh ecology, wildlife, and much more. The collection also includes correspondence, maps, news clippings and newsletters, and materials related to the associations he belonged to. These papers are housed in the

University of Louisiana at Lafayette University Archives and Acadiana Manuscripts Collection under Coll. 387.

John J. Lynch Papers

Collection 387

Lynch, John J. (1914-1983). Papers, 1934-2000, n.d.

B. Documents

- 1-03 Permits: "To take alive one whooping crane at or in the vicinity of White Lake, Louisiana; to crate and take this whooping crane to the Aranzas (*sic*) National Refuge in Texas for liberation on that Refuge", 1 March 1950
- 1-04 Resolution: "Rosie and Crip are themselves distinguished citizens of our city, and of the world, being 2 of only 58 whooping cranes now known to be in existence", San Antonio Chamber of Commerce correspondence included, 8 August 1967

For more information about the collection and a full inventory of the material, go here: https://library.louisiana.edu/news-events/news/20190729/john-j-lynch-papers-now-available

Kudos!

Alabama Whooping Crane Conservation Song

In a creative collaboration with Wheeler National Wildlife Refuge during its 2019 Festival of the Cranes, Ms. Bagwell, Priceville Elementary art and music teacher, and her 3rd Grade students created a musical composition to promote Whooping Crane conservation. The International Crane Foundation's mascot, "Hope," joined the students as they produced a video recording of the Whooping Crane Conservation Song. The recording will be used on social media outlets by Priceville Elementary, the International Crane Foundation and Wheeler National Wildlife Refuge.

KUDOS to those who brought this idea to life: Ms. Susie Bagwell, Alabama's Priceville Elementary 3rd Graders, International Crane Foundation representatives, Lexi Eiler, the Whooping Crane Outreach Program Assistant, volunteer Amber Wilson, and mascot "Hope."

Watch an introduction to the film here:

https://www.facebook.com/pricevilleelementary/videos/401247220470364/

For the music video, go here:

https://www.youtube.com/watch?v=8-qlnQ79cxU#action=share

Kenneth Dubke named winner of Robert Sparks Walker Lifetime Achievement Award

Tennessee Department of Environment and Conservation Commissioner David Salyers announced Kenneth Dubke, known as "The Birdman," as the winner of the department's 2019 Robert Sparks Walker Lifetime Achievement Award. Dubke, 88, a National Park Service's former district ranger at Point Park on Lookout Mountain until his 1991 retirement, received the honor at the annual Governor's Environmental Stewardship Awards event.

"Ken Dubke has been a champion for the study and protection of the avian species across Tennessee for more than 60 years," Salyers said in a news release. "His passion for birds and their future on the planet has been extraordinary, and Tennessee is indebted to his lifelong commitment to nature. He is most deserving of this honor."

His career and efforts have made an impact from Upper East Tennessee to Reelfoot Lake in West Tennessee. Dubke has been instrumental in the preservation of Golden Eagles, Osprey and Whooping

Cranes in the state. Dubke established public hawk watches at Signal Point on Signal Mountain as well as the first formal Eagle Days program at Reelfoot Lake in West Tennessee. His work on the Eagle Days program made it the "pivotal location for bald eagle restoration in the state," according to state officials. His work also led to a network of Tennessee wildlife viewing areas across Tennessee.

Behind the name on the award: Robert Sparks Walker was born on February 4th, 1878. From an early age, he nurtured an adamant love of nature. Walker grew up on a 100-acre farm on the eastern side of Chattanooga (now called East Brainerd), through which flowed the Chickamauga Creek. Here he developed an interest in plants and animals that followed him throughout his entire life. Walker founded the Chattanooga Audubon Society in 1943 and with help from the organization, he turned his childhood home and farm into the Elise Chapin Wildlife Sanctuary, now known as Audubon Acres.

To learn more about Robert Sparks Walker, go here: https://www.chattanoogaaudubon.org/robert-sparks-walker.html

And more about Kenneth Dubke, go here:

https://www.timesfreepress.com/news/breakingnews/story/2019/aug/01/signal-mountain-man-honored-birds/500281/

Audubon of Kansas director honored with conservation award

Ron Klataske, executive director of <u>Audubon of Kansas</u>, was recently honored with the <u>Western Association of Fish and Wildlife Agencies' (WAFWA) President's Award</u> in recognition of his long-time commitment to conservation efforts in Kansas, Nebraska and the central Great Plains. Brad Loveless, Secretary of the Kansas Department of Wildlife, Parks and Tourism (KDWPT), acting in his capacity as WAFWA president, presented the award to Klataske at the WAFWA Annual Conference in Manhattan, KS on 15 July 2019.

Klataske has led conservation efforts for 50 years as a representative of the National Audubon Society from 1970 to 1998 and Audubon of Kansas beginning in 1999. His portfolio of successful campaigns includes the Tallgrass Prairie National Preserve in the Kansas Flint Hills and the designation of a 76-mile portion of the Niobrara River in Nebraska as a National Scenic River. He was a driving force behind the creation of the Konza Prairie Biological Research Station south of Manhattan, the Tallgrass Prairie in Oklahoma, a trail system using the flood control levees along the Kansas River in Lawrence and the linear trail in Manhattan. He was instrumental in stopping proposed dam and diversion projects on Nebraska's Platte and Niobrara rivers and his efforts helped preserve the migration stopover locations of the Sandhill Crane. Klataske spearheaded the formation of Nebraska's crane festival to celebrate the annual migration of the cranes. The festival will have its 50th anniversary in March 2020 and educates and inspires thousands of visitors each year.

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The Art of Cranes

"Crane Dance" corn maze partners for crane conservation

In partnership with the International Crane Foundation, the 2019 Treinen Farm "Crane Dance" Corn Maze in Lodi celebrates Wisconsin's Sandhill and Whooping Cranes, as well as crane species around the world. The International Crane Foundation, located in Baraboo, Wisconsin, works worldwide to conserve cranes and the ecosystems, watersheds, and flyways on which they depend. The International Crane foundation staff and volunteers will be joining us this fall for interactive fun and education related to these beautiful cranes.

The Treinen Farm "Crane Dance" corn maze opens August 31 and is open weekends beginning with the Labor Day weekend through early November 2019.

Look for International Crane Foundation staff sharing information on all things crane every weekend beginning September 28 through October 27 from 10:00 a.m. to 3:00 p.m.!

To plan a visit to the Treinen Farm as well as to see photos of the truly a-MAZE-ing Crane corn maze and learn the history behind it, go here: https://treinenfarm.com/mazes/

1,000 Cranes for Iraq

The ancient Japanese tradition of *senbazuru* promises that a person who folds 1000 cranes will be granted a wish, such as long life or recovery from illness.

Inspired by the discovery of 1,000 multicolored origami cranes in an Iraqi bomb shelter, Adrian Dominican Sister Barbara Cervenka worked more than three years on "1,000 Cranes for Iraq," a fundraising art project to help the Dominican community and their work with Iraqi communities affected by Isis.

To learn more about the "1,000 Cranes for Iraq" project, go here: www.1000cranesforiraq.org

For background information, go here:

https://www.lenconnect.com/news/20190528/painting-project-helps-dominican-sisters-in-iraq http://www.1000cranesforiraq.org

Mural project in Bozeman MT highlights endangered species

The <u>Craighead Institute</u>, a conservation science and research organization, is spearheading the Threatened and Endangered Species Project with help from Sweet Pea Festival. The 12 murals will depict endangered species in Montana, ranging from the Grizzly bear to the Spalding's campion plant.

April Craighead, a wildlife biologist at the institute, came up with the project and said she was inspired by the Audubon Mural Project in New York City begun by the National Audubon Society in 2014. The Audubon murals depict birds threatened by climate change and has targeted 314 species for murals.

Artist and engineer Juliene Sinclair created the art depicting two Whooping Cranes. https://www.bozemandailychronicle.com/news/mural-project-in-bozeman-aims-to-highlight-endangered-species/article_e9f9512f-01a2-5278-a720-19bc32459c40.html



Juliene Sinclair's mural of two endangered Whooping Cranes now grace a building in Bozeman.

Community murals

Dane Arts Mural Arts (DAMA) is a public art project that trains artists and youth to collaborate on neighborhood mural projects in under-resourced urban and rural communities throughout Dane County, Wisconsin. Through DAMA, community artists train in the process of creating community murals. They use art as an educational tool to make a difference in the lives of Dane County communities with an emphasis on working with at-risk youth. The Glendale Mural of two Sandhill Cranes will be installed on the exterior playground wall. The La Follette high school students help paint this mural along with the MSCR after school students.

For photos of the students their work on the Glendale mural and painting the Sandhill mural, go here: https://daneartsmuralarts.org/glendale-mural

Greater Yellowstone Crane Festival poster

This year 28 artists submitted pieces for the <u>Greater Yellowstone Crane Festival</u> (see Upcoming Events: 16-21 September 2019) poster contest. Judges from the Teton Regional Land Trust and the Greater Sandhill Crane Initiative named Helen Seay as the 2019 poster artist for her depiction of a flying Sandhill Crane. The festival supports the efforts of the <u>Greater Sandhill Crane Initiative</u>, a conservation project to protect habitat and resources for cranes and other important species of the Greater Yellowstone Ecosystem.

To read more and to see the festival poster, go here: https://www.tetonvalleynews.net/entertainment/helen-seay-wins-crane-fest-poster-contest/article_2b62ef35-cf65-5c56-8cd3-a32cbb4617a1.html

National Geographic "Day to Night" exhibit comes to Wyoming

Editor: By the time the September e-bulletin is out this exhibit will have ended (May 24-August 18, 2019). However, as the photography is amazing, and the Sandhill Crane migration at Rowe Sanctuary is one of the featured highlights I thought the photographer and his work should be mentioned. Some of the work from the exhibit can be seen through the links below.

"A photography exhibition showcasing stunning images by Stephen Wilkes that capture the passage of time. The exhibition features expansive and powerful mega-prints of captivating bird migrations, measuring roughly 7 feet tall and 12 feet wide. The prints focus on migratory species and their habitats that are under threat due to climate change and human impact, such as commercial fishing and menacing tourists. Visitors get an intimate look at: Black-browed albatrosses, Northern gannets, Sandhill cranes, and Lesser flamingos. Behind the scenes of each massive image, visitors learn about the species, the location where Wilkes photographed them, and what makes them integral to the ecosystem. Wilkes' photography can be used as an instrument for change, inspiring solutions to help protect species and habitats that are at risk."

- National Museum of Wildlife Art

According to an introduction to the show, an obsession with science, a love for photography, and a lot of patience enabled National Geographic photographer Stephen Wilkes to create a stunning photography exhibit titled Day to Night: In the Field with Stephen Wilkes, that had been on display at the National Museum of Wildlife Art, Jackson Wyoming from May 24 - August 18, 2019.

For most, photography is a way to record time—specifically, freezing one moment in time. But Wilkes warps time in his work, crafting each Day to Night picture by shooting up to 2,000 images from a fixed-camera angle continuously for up to 36 hours. He then selects approximately 50 of these images and blends them into a final photograph that seamlessly captures one location as it transitions from day to night. Each print measures roughly 7 feet tall by 12 feet wide.

The avian-themed Day to Night series was formed while Wilkes was on assignment for a National Geographic article in 2017 documenting bird migrations. The exhibition features four bird species: Blackbrowed Albatrosses in the Falkland Islands; Northern Gannets on Bass Rock, off the coast of Scotland; Sandhill Cranes on Nebraska's Platte River; and Lesser Flamingos on Kenya's Lake Bogoria.

To read more about the Day to Night exhibit, go here: https://buckrail.com/national-geographic-day-to-night-exhibit-comes-to-jackson/

Or to listen to Stephen Wilkes' TedTalk, go here: https://youtu.be/afev0ZjAhUA

"The Lobstick Prince, A Whooping Crane Story"

This is a true story written by Captain Tommy Moore about the famous Lobstick Family of Whooping Cranes. Moore has been leading trips through the Aransas National Wildlife Refuge aboard the Skimmer since 2003, giving him a unique insight into the life of the famous Lobstick family of Whooping Cranes. Illustrator Evelyn Atkinson's watercolors provide perspective of both the cranes and habitat that are the Texas Coastal Bend.

To purchase a copy of the book, go here: "The Lobstick Prince, A Whooping Crane Story." Or to learn more about the Lobstick Whoopers, go here: https://whoopingcrane.com/lobstick-whooper-remains-a-mystery/

Sandhill Crane Display Dictionary (Pocket Naturalist® Guide)

This illustrated folding guide from Waterford Press highlights the elaborate body language rituals used by the Sandhill Cranes to convey intent, establish dominance, show arousal, preserve their nest territory, and pair bond males and females. Lightweight, laminated format makes this guide excellent for use in the field. Compact 4" x 8" size unfolds to 8" x 22". Color photographs, pictures, and information are located on both sides of the card. A perfect introductory guide for all ages and experience levels. https://www.acornnaturalists.com/sandhill-crane-display-dictionary-pocket-naturalistr-guide.html

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Upcoming Events:

Yampa Valley Crane Festival (8th annual)

Dates: Thursday, August 29 – Sunday, September 1, 2019 Location: Steamboat Springs and Hayden, Colorado

Greater Sandhill Cranes are an iconic species of the Yampa Valley and Northwest Colorado. In 2012, the Colorado Crane Conservation Coalition, Inc. sponsored the inaugural Yampa Valley Crane Festival. Colorado Crane Conservation Coalition is dedicated to the conservation and protection of Greater Sandhill Cranes in Colorado. The festival seeks to educate the public about cranes and to emphasize conservation of the special habitat that supports the cranes and the many other species of birds and wildlife in Northwest Colorado.

For more information about the Yampa Valley Crane Festival and a daily schedule of events, go here: http://www.coloradocranes.org/

Treinen Farm "Crane Dance" corn maze

Dates: Saturday, August 31 – early November 2019

Location: Lodi, Wisconsin

To plan your visit, go here: https://treinenfarm.com/plan-your-visit/

Come see and experience an amazing dancing cranes corn maze. International Crane Foundation staff will be sharing information on all things crane every weekend beginning September 28 through October 27 from 10:00 a.m. to 3:00 p.m.!

Princeton Whooping Crane Festival

Dates: 13-15 September 2019 Times vary depending on events Location: Princeton, Wisconsin

The kick-off dinner will take place at the Green Lake American Legion Post 306 at 5:30 pm on Friday, September 13. The event will feature keynote speaker, Anne Lacy. Lacy is the Crane Research Coordinator at the International Crane Foundation in Baraboo, Wisconsin. Lacy's presentation, "Only Threatened: Update on the Whooping Crane Reintroduction" will give an update on the ongoing reintroduction of the eastern population of Whooping Cranes. Cranefest is a one-of-a-kind event families and festival goers and nature lovers do not want to miss. The event is held at the Princeton Public School on Saturday September 14th and is open to the public. The festival celebrates and supports the ongoing efforts to save the endangered Whooping Crane from extinction.

For more information about the festival go here: https://www.facebook.com/whooperfest/
To register for several of the events, go here:

https://www.eventbrite.com/o/whooping-crane-festival-princeton-wisconsin-23400081940

Evenings with Audubon: A risky climate for cranes, wetlands, and our world

Speaker: Dr. Rich Beilfuss, President & CEO of the International Crane Foundation

Date: Tuesday, 17 September 2019

7:00 PM - 8:00 PM

Locaton: Urban League of Greater Madison

2222 South Park Street Madison, WI, 53713

"Cranes are among the most endangered bird families, and flagships for understanding the risks of climate change to biodiversity worldwide—especially where wetland loss and watershed degradation already impact biodiversity. In Texas, rising sea levels and reduced freshwater inflows threaten the coastal marshes used by Endangered Whooping Cranes. To manage and secure wetlands facing climate change, we draw lessons from decades of crane conservation—that the needs of cranes, many other species, and people are linked strongly to healthy wetlands and watersheds."

Cosponsored by Madison Audubon and Community Shares of Wisconsin For more information, go here:

https://madisonaudubon.org/events/2019/9/17/evenings-with-audubon-cranes-climate-change

International Crane Foundation Member Appreciation Day

Date: Saturday, 21 September 2019

10:00 a.m. - 5:00 p.m.

Location: International Crane Foundation Headquarters

E11376 Shady Lane Road, Baraboo, Wisconsin 53913

The day includes behind the scenes peak at the major site renovation; a guided prairie walk on the Foundation's restored prairie; radio tracking demonstrations; a photo opportunity with ICF's Whooping Crane mascot, "Hope," and talks by crane experts.

It's not too late to become a member! Join the flock today by visiting www.savingcranes.org/membership or call 608-356-9462, ext.,807, or email membership@savingcranes.org. Memberships may also be purchased or renewed at the Visitor Center the day of the event. Whoop! Whoop!

Greater Yellowstone Crane Festival

Date: 16-21 September 2019

Driggs, Idaho

The Greater Yellowstone Crane Festival is held to celebrate the annual migration of Sandhill Cranes through Teton Valley.

Teton Regional Land Trust is a 501© (3) whose mission is to conserve working farms and ranches, fish and wildlife habitat, and scenic open spaces in eastern Idaho for this and future generations. For more information, please call 208-354-8939 or visit the website at: www.tetonlandtrust.org.

Jasper-Pulaski Fish & Wildlife Area

Dates: From late September through December Location: Jasper-Pulaski Fish & Wildlife Area

5822 N. Fish and Wildlife Lane, Medaryville, Indiana

(US 421, about 15 miles north of Monon)

Best viewing times: Sunrise, as the flocks rise and fly out of roosting marshes, and about one hour before sunset, as the flocks return to Goose Pasture. Sandhills congregate at the 8,142-acre Jasper-Pulaski Fish & Wildlife area; approximately 10,000-12,000 Sandhills can be seen in the area.

Kankakee River Sandhill Crane Paddle

Date: Sunday, 13 October 2019 Time: Check website for times

Venue: Yellow River Public Access at English Lake to Dunn's Bridge

Address: English Lake Yellow River Access, English Lake, IN

Phone: 224-415-6554

Admission: Check website for fees

ABOUT

Join Northwest Indiana Paddlers, family, and friends for this annual fall event. A relaxing 8.6-mile paddle down the Kankakee River will be followed by a trip to Jasper-Pulaski Fish and Wildlife Area where you will witness one of America's greatest wildlife spectacles: tens of thousands of Sandhill Cranes visiting the shallow marches on their annual migration. Don't forget your binoculars and cameras!

2019 Celebration of Cranes

Dates: Friday, 1 November 2019, 8:00 a.m. – Sunday, 3 November 2019, 5:00 p.m. Quivira National Wildlife Refuge, Stafford County, Kansas (map)

Save the date this autumn and come enjoy the amazing assemblage of cranes and other birds that gather at the refuge during the fall migration. Join <u>Audubon of Kansas</u> the first weekend of November at Quivira National Wildlife Refuge for our second annual Celebration of Cranes. There will be van tours, nature walks and other activities for all ages throughout the weekend so keep an eye on this space for further details as they are announced.

Check here for updates/details of celebration: https://www.audubonofkansas.org/events/

32nd Annual Festival of the Cranes

Dates: 20-23 November 2019

Location: Bosque del Apache NWR, New Mexico

Over 135 events during the week that you can register for starting on September 3, 2019. Photographers, birders and wildlife enthusiasts from around the country come together in celebration of the return of the Sandhill Cranes to their winter home. Come on Saturday November 23rd for free fun for children of all ages. The Tour Loop entrance fee is waived during this event.

Registration begins on 3 September 2019

For more information go to the festival website:

https://www.friendsofbosquedelapache.org/festival-of-the-cranes.aspx

Holiday with the Cranes on Galveston Island

Dates: 14-15 December 2019 Location: Galveston Island, TX

Holiday with the Cranes is presented by the Galveston Island Nature Tourism Council, a nonprofit volunteer organization that helps connect people with nature experiences and outdoor adventures and promotes the value of natural habitats and resources in the Galveston Island area.

Closer to the festival date, check here for more festival information including the festival itinerary, and to register for fieldtrips please go here: http://www.galvestonnaturetourism.org/holiday-with-the-cranes-2018/

Sandhill Crane Kayak Tour at Hiwassee Wildlife Refuge

Date: Saturday, December 7 and December 14, 2019

10:00 a.m. – 12:00 p.m.

Location: Hiwassee Wildlife Refuge, TN

The Hiwassee Refuge is located at the confluence of the Tennessee and Hiwassee Rivers, about one hour north of Chattanooga. The area attracts a variety of birds and during the winter, as many as 15,000 to 20,000 cranes have been known to overwinter on Hiwassee Island. This site has the largest winter flock of Sandhill Cranes in the southeast United States outside of Florida.

Cost; \$75 per person. All kayak equipment and guides will be provided by REI, and are included for these tours. Previous kayaking experience recommended, but not required.

For more information and to register for the tours, go here:

https://www.rei.com/events/93323/sandhill-crane-kayak-tour-at-hiwassee-wildlife-refuge

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

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