

Whooping Crane Eastern Partnership

2018 Annual Report



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Introduction

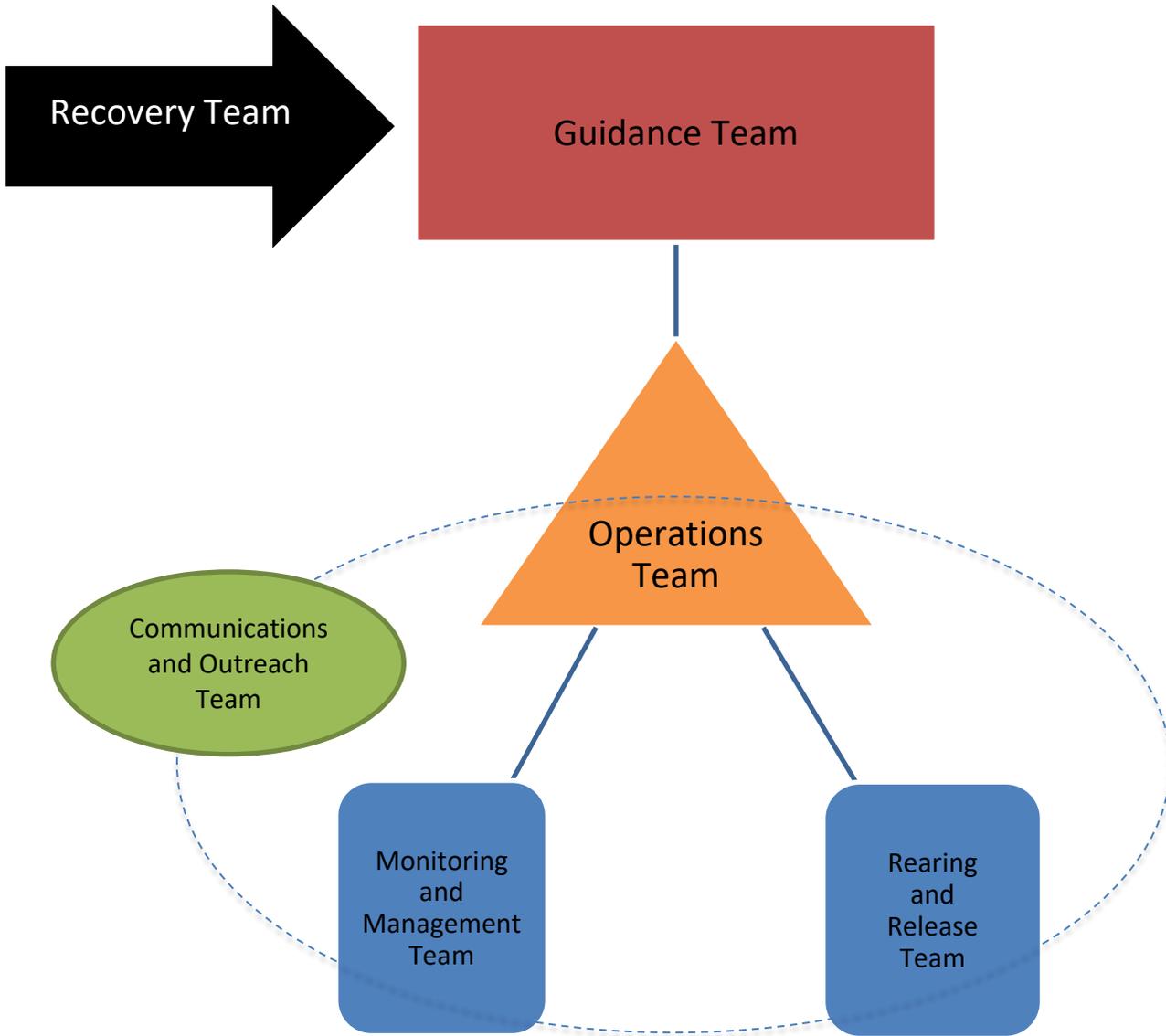
The Whooping Crane Eastern Partnership (WCEP) implements its activities through coordinated efforts by partners working with state and federal agencies that have jurisdiction over the whooping cranes and/or the habitats they use. The partnership works through a team approach: key areas of WCEP activity and day-to-day decisions are addressed by one or more project teams that include individuals from partners with expertise in that area.

Where is WCEP with respect to its fundamental goal of creating a self-sustaining Eastern Migratory Population (EMP) of whooping cranes? The minimal benchmark in the 2007 Third revision of the International Recovery Plan for a second population such as the EMP is a self-sustaining flock comprised of 100 birds and 25 breeding pairs. We continued to meet the goal, in part, for Criterion 1 this year: the maximum size of the eastern migratory population in December 2018, was 101 birds (45 Female, 53 Male, 3 Unknown) and there were 17 breeding pairs this year.

While releases have continued into the EMP, lack of natural recruitment continues to be a major impediment to achieving the goal of a self-sustaining population. In spring, there were a total of 23 nests by 17 breeding pairs of cranes, from which 10 chicks hatched. Six of these chicks made it to fledging, and five wintered with their parents and completed their first fall and spring migrations. In August, one family group (two adults and two juveniles) were released at Horicon National Wildlife Refuge, and in October, two additional parent-reared chicks were released at White River Marsh State Wildlife Area in areas where there were other Whooping Cranes. The size of the EMP has remained relatively flat in recent years and additional birds are necessary to provide resilience, so that the number of nesting pairs may remain stable in the face of environmental and demographic variation in the coming years.

Two major changes in 2018 were the closure of the Whooping Crane breeding program at Patuxent Wildlife Research Center and Operation Migration's departure from the partnership. Although the loss of Patuxent as a major breeding center was difficult, we feel that the change will ultimately make the partnership stronger and more resilient. The closure of the Patuxent program resulted in the transfer of their birds to new partners, including White Oak Conservation in Florida and the Dallas Zoo in Texas. These partners bring new resources and energy to WCEP, as we work together to develop a healthy and self-sustaining Eastern Migratory Population. Operation Migration was a valued partner in WCEP for two decades, contributing countless hours, resources, and talent to our shared goal of returning a migratory population of Whooping Cranes to the eastern United States. Together, we have been very successful in reintroducing Whooping Cranes back to the Eastern United States, teaching them to migrate, form pairs, and hatch chicks successfully. As we look forward to the future, we still believe that a healthy and self-sustaining Eastern Migratory Population of Whooping Cranes is achievable.

WCEP Organizational Chart



Operations Team

Sarah Warner, U.S. Fish and Wildlife Service

Davin Lopez, Wisconsin Department of Natural Resources

Each WCEP operational team is intended to have co-chairs. These co-chairs make up the Operations Team. Project decisions that cannot be made within a team or between teams are made by the Operations Team. Building off the redevelopment of the Operations Team functionality that began in 2015, the Operation Team is continuing to attempt to have more input and discussion between teams in order to capitalize on each team's strengths and expertise. The Operations Team Co-chairs are also charged with updating the Guidance Team on the project needs, operations, and decisions. Beginning in 2015, to help facilitate communications between the Guidance Team and the Operations Team, the Operations Team Co-chairs sit in on the monthly Guidance Team calls. To further integrate the two teams, 2018 saw the initiation of a joint one hour Guidance Team and Operations Team call, with the Operation Team meeting before the joint call, and the Guidance Team after the joint call. While this format proved to be effective, scheduling issues were a problem and many calls had to be cancelled. As in the past, when joint team decisions needed to be made, if the Operations Team was unable to come to agreement on a decision that involves multiple teams, they sought the support of the Guidance Team. In 2018, the Operations Team accomplishments include:

- Monthly conference calls to discuss project operations held on the first Thursday of each month; summary notes of the call are posted to the WCEP Google Drive.
- 2017 WCEP Annual Report was drafted by Operational Teams Co-chairs; compiled by the Communications and Outreach Team; reviewed and edited by the Operations Team and Guidance Team; finalized and posted on the BringBacktheCranes.org website. Drafting of 2018 Annual Report was initiated in March 2019.
- Continued efforts to more fully engage with the Guidance Team.
- Assisted the Rearing and Release Team with fully implementing Parent Rearing as the preferred chick rearing method.
- Continued to work with the Guidance Team on improving efficiencies across WCEP.
- Helped the Guidance Team and COT team through the transition of losing founding partner Operation Migration.

Rearing and Release Team

Kim Boardman, International Crane Foundation
Scott Tidmus, Disney's Animal Kingdom

Rearing and Release Team Annual Report 2018

Captive rearing efforts for EMP releases were significantly impacted by the closing of USGS Patuxent Wildlife Research Center in 2018. Based on the 2016 USFWS guidance document, parent rearing methods were used for all releases into this population. Parent rearing occurred at International Crane Foundation, White Oak (as an experimental rearing), and the Calgary Zoo.

Rearing management goals were to:

- Promote natural behaviors of chicks through pen management as outlined in 2016 work plan (i.e. access to water for roosting, maintaining low vegetation to promote flight, minimizing human disturbance/handling)
- If chicks are to be socialized prior to transfer, remove from parents so cohort can acclimate. This acclimation time period should be no less than 2 weeks and can be longer based on birds and behavior.

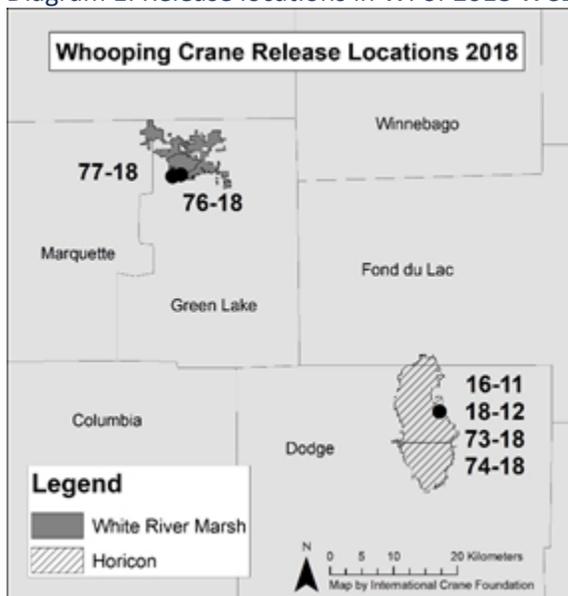
Captive breeding centers are encouraged to implement additional management that promotes natural behaviors based on their environment & facilities. (Example – seeing if one pair can rear a set of two crane chicks in a captive setting.)

2018 Parent Rearing Summary

Three chicks were hatched and reared at ICF; however, only 2 survived to be release candidates. 76-11 was banded on 20 September and released on 2 Oct 2018. 77-18 was banded on 25 September and released on 11 Oct 2018. Both birds were released at White River Marsh State Wildlife Area in the vicinity of the same target pair, 67-15/5-12; however different release sites were used for each bird.

White Oak hatched 2 chicks and successfully twinned them with parents. This family unit (16-11/18-12 and offspring 73-18, 74-18) were transferred to WI for release at Horicon Marsh. This release effort was led by Monitoring and Management Team as part of an experimental resocialization attempt with 18-12/16-11 started in fall 2016.

Diagram 1. Release locations in WI of 2018 WCEP birds



The Calgary Zoo also successfully twinned a pair of chicks and produced 2 chicks for release efforts; however, a transfer couldn't be coordinated in time for a fall release. Options to incorporate these birds into a release program will continue to be evaluated.

Table 1. Summary of 2018 Parent Reared Releases

<u>Bird ID</u>	<u>Sex</u>	<u>Band date</u>	<u>Release County</u>	<u>Release Date</u>	<u>Release Time</u>	<u>Target adults</u>		
							<u>Death Note</u>	<u>Fall Migration Notes</u>
73_18	F	26-Jul-18	Dodge	25-Aug-18	6:05	16-11/18-12		Left WI on 18 Nov with 16-11, wintered in Jasper Co, IN
74_18	M	26-Jul-18	Dodge	25-Aug-18	6:05	16-11/18-12		Left WI on 18 Nov with 16-11, wintered in Jasper Co, IN
76_18	F	20-Sep-18	Green Lake	2-Oct-18	17:20	67-15/5-11	12 Oct 2018 Predation	
77_18	M	25-Sep-18	Green Lake	11-Oct-18	16:36	67-15/5-12		Left WI on 15 Nov. Migrated with SACR, wintered in Sarasota Co, FL

Monitoring and Management Team

Anne Lacy, International Crane Foundation

Davin Lopez, Wisconsin Department of Natural Resources

Prepared by Hillary Thompson and Jeannie van Vianen, International Crane Foundation

During 2018, there were about 101 Whooping Cranes in the Eastern Migratory Population. The majority spent the summer in Wisconsin, with the exception of 10 birds that spent all or part of the summer in Michigan, Minnesota, Iowa, or Illinois (Fig. 1). We recorded a total of 23 nests by 17 breeding pairs of cranes, from which 10 chicks hatched. Six of these chicks made it to fledging, and five wintered with their parents, and completed their first fall migration. In August, one family group (two adults and two juveniles) were released at Horicon National Wildlife Refuge, and in October, two additional parent-reared chicks were released at White River Marsh State Wildlife Area in areas where there were other Whooping Cranes. There was one mortality in the 2018 cohort (female 76-18) from predation in Wisconsin prior to migration. There were five adult mortalities during 2018, due to predation, emaciation, and unknown causes. Members of the Whooping Crane Eastern Partnership captured two adult Whooping Cranes during 2018 for transmitter replacement, as well as 5 wild-hatched juveniles and one wild-hatched adult for initial transmitter deployment, which will help us track individuals in this population to inform our management decisions and future releases.

Highlights related to monitoring and management of the EMP from 2018 include:

- This year we recorded a total of 23 nests by 17 different pairs breeding in Wisconsin. Due to weather and other unforeseen circumstances we had reduced nest monitoring this year. The numbers reported here are the total we observed but there may have been a few missed short-term nests, or chicks who only lived a few days. One first nest had two eggs removed as part of the active nest management protocol. Four additional nests (two first nests, two re-nests) had one of the two eggs removed for captive rearing. 10 nests failed due to predation, a snow storm, or unknown causes. Two nests were incubated full term, and three nests had unknown outcomes but the pairs were confirmed later without chicks. 10 chicks hatched from 4 first nests and 3 re-nests. Six wild-hatched chicks made it to fledging and five survived their first fall migration (Table 1).
 - Two adults were captured for transmitter replacement, and five wild-hatched chicks and one wild-hatched adult were captured for initial banding.
 - There were six mortalities confirmed during 2018: four in Wisconsin, one in Illinois, and one in Kentucky.
 - We released one family group (two adults, two juveniles) at Horicon National Wildlife Refuge in August (see below), and two parent-reared juveniles at White River Marsh State Wildlife Area in Green Lake County in October. One of the juveniles died in Green Lake County from predation prior to migration.
 - In 2016, we captured male 16-11 after he had nested with a Sandhill Crane and brought him to White Oak Conservation in Yulee Florida with a female Whooping Crane (18-12 or Hemlock) who had been slated for a DAR release in 2012 but was never released. The two formed a pair bond in captivity and in 2018 hatched two of their own chicks, 73-18 and 74-18. The family group was released at Horicon National Wildlife Refuge in August 2018. The female, 18-12, died due to emaciation at Horicon prior to migration. 16-11 and the two juveniles migrated to northwestern Indiana, where they spent the winter.

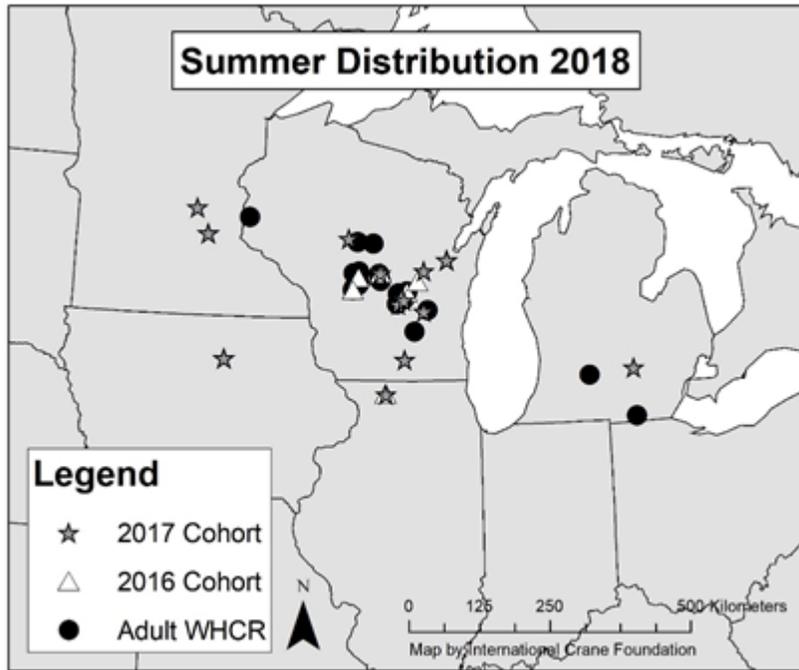


Figure 1. Summer distribution of the Eastern Migratory Population of Whooping Cranes during 2018

Winter 2017/2018

The maximum population size as of 31 December 2017 was 110 birds (57 males, 50 females, 3 unknown). The final wintering locations of Whooping Cranes in the EMP during winter 2017/2018 were as follows (Figure 2):

- Wisconsin – 1
- Indiana – 32
- Illinois – 7
- Kentucky – 8-10
- Tennessee – 8-9
- Louisiana – 2
- Alabama – 26
- Georgia – 2
- Florida – 5
- Unknown – 16-19

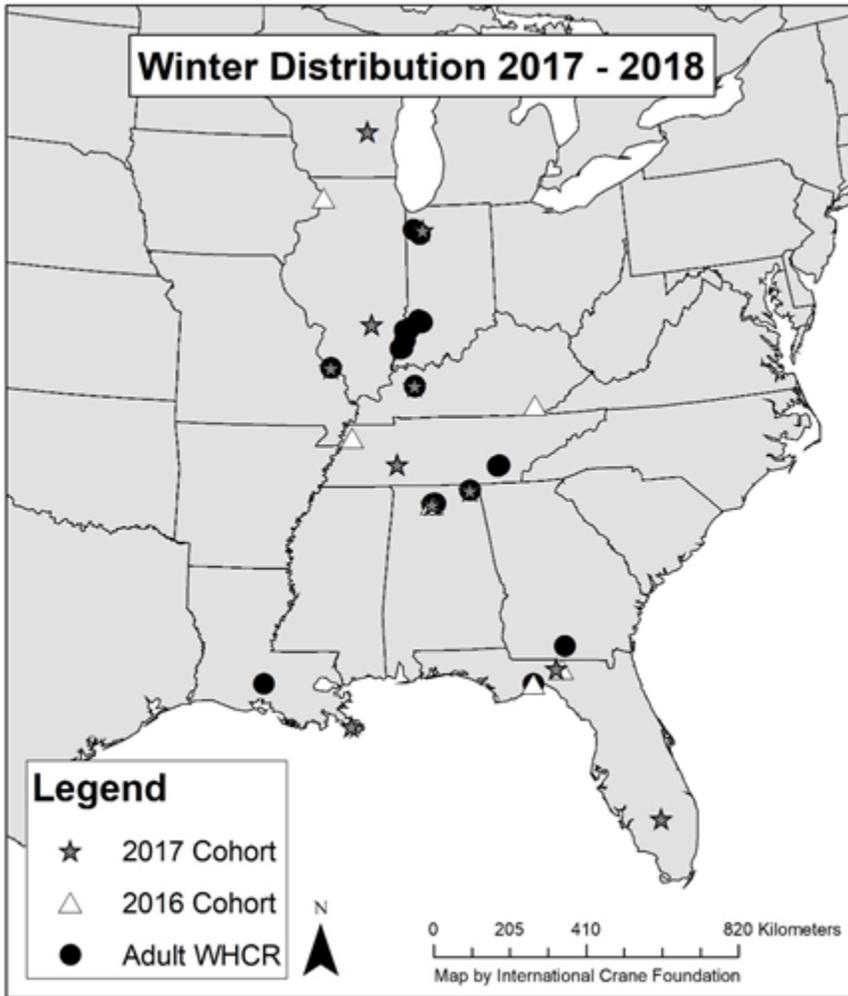


Figure 2. Distribution of the Eastern Migratory Population of Whooping Cranes during winter 2017-2018

Captures and Banding

- Five pre-fledged wild-hatched chicks at Necedah National Wildlife Refuge were captured and outfitted with transmitters for a chick survival study in coordination with University of Wisconsin – Oshkosh and University of Wisconsin – Stevens Point. Three wild-hatched chicks (W5-18, W6-18, and W10-18) were re-captured for placement of permanent bands and transmitter at Necedah NWR. Two other wild-hatched chicks (W1-18 and W3-18) were captured on private property for placement of bands and transmitter. In addition, the remaining 2017 chick that was not yet banded was captured on 17 July and had bands and a transmitter placed.
- Captures for transmitter replacement:
 - 4-13 Marquette County 16 May
 - 36-09 Necedah NWR 10 September

Winter distribution as of 7 January 2019

The maximum population size as of 7 January 2019 was 101 (45 Female, 53 Male, 3 Unknown). The distribution of these birds at this time is as follows (Figure 3):

- Indiana – 33
- Illinois – 11
- Kentucky – 9

- Tennessee – 6
- Alabama – 18
- Georgia – 2
- Florida – 5
- Unknown – 17

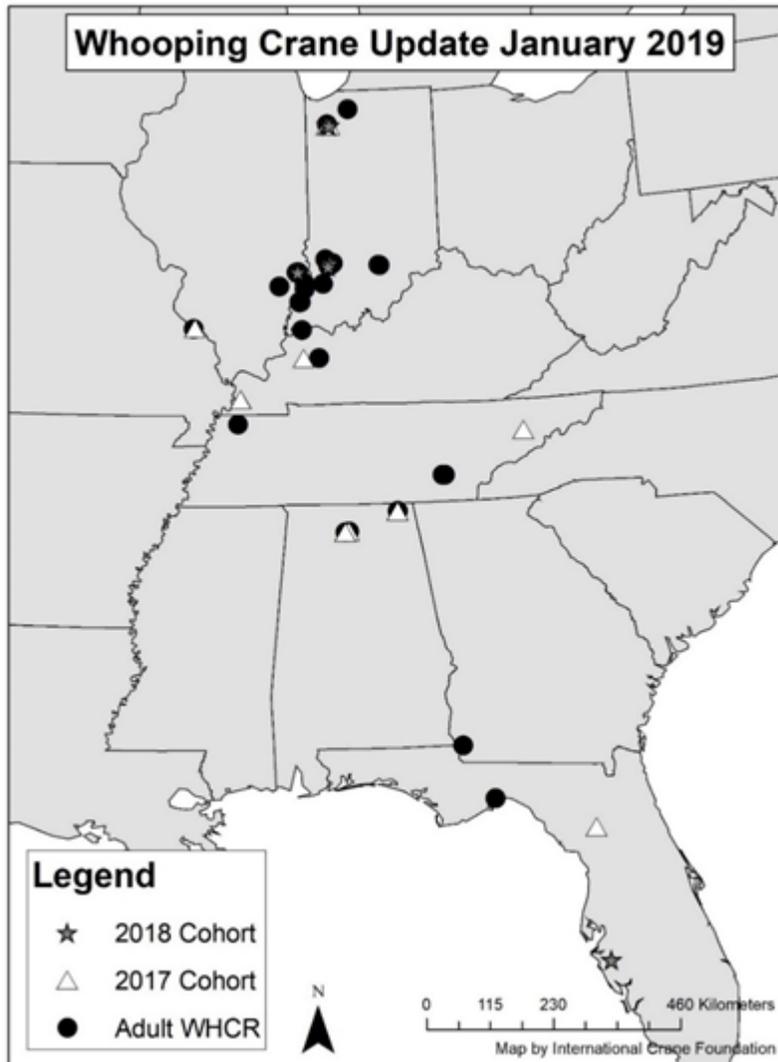


Figure 3. Distribution of wintering Whooping Cranes in the Eastern Migratory Population as of 7 January 2019.

Survival

As of 31 December 2018, there have been 291 Whooping Cranes released since the beginning of the reintroduction in 2001. This number does not include the 17 HY2006 ultralight-led juveniles that died during confinement in a storm and one HY2007 ultralight-led juvenile that was removed from the project prior to release. There have been twenty-one wild-hatched chicks that survived to fledging, eighteen of which have been recruited to the EMP (see Reproduction section below). The total released or wild-hatched chicks in this population since 2001 is 309 (Figure 4), of which 101 (32.7 %) may be alive in the EMP as of 7 January 2019 (Figure 5).

- There were six confirmed mortalities recorded in 2018 (not including wild-hatched chicks born in 2018):
- 30-17 – 19 April, predation

- 39-16 – 22 August, cause unknown
- 71-16 – 31 August, cause unknown
- 18-12 – 22 September, emaciation
- 76-18 – 12 October, predation
- 36-17 – 19 November, cause unknown

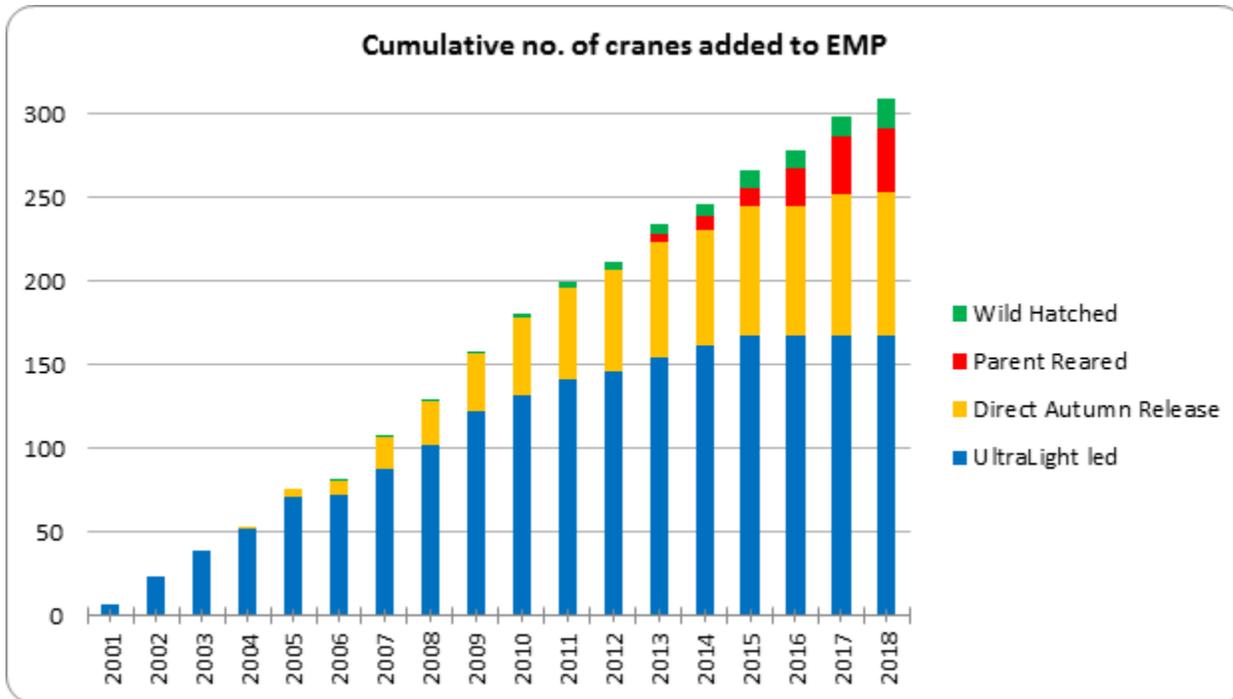


Figure 4. Cumulative number of cranes added to the Eastern Migratory Population by rearing method since 2001. As of 2018, there have been 167 UltraLight led, 86 Direct Autumn Release, 38 Parent Reared, and 18 Wild Hatched Whooping Cranes added to the EMP.

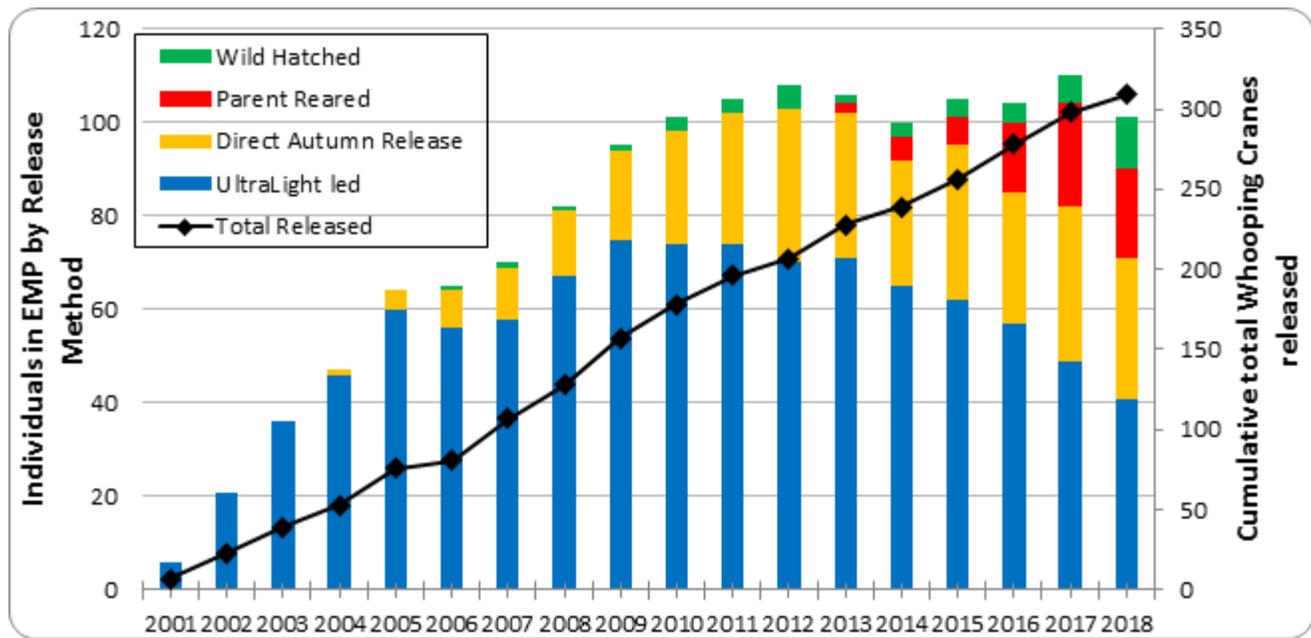


Figure 5. Population size of EMP by rearing method. As of 7 January 2019 there were 101 birds recorded in the EMP (left axis; 53 males, 45 females, 3 unknown). Black line indicates the total birds released into the population cumulatively (right axis; same number as figure 4, above).

Reproduction

- This year we recorded a total of 23 nests by 17 different pairs breeding in Wisconsin. Due to weather and other unforeseen circumstances we had reduced nest monitoring this year. The numbers reported here are the total we observed but there may have been a few missed short-term nests, or chicks who only lived a few days.
- One first nest had two eggs removed as part of the active nest management protocol. Four additional nests (two first nests, two re-nests) had one of the two eggs removed for captive rearing.
- 10 nests failed due to predation, a snow storm, or unknown causes. Two nests were incubated full term, and three nests had unknown outcomes but the pairs were confirmed later without chicks.
- 10 chicks hatched from 4 first nests and 3 re-nests (Table 1). Six wild-hatched chicks made it to fledging, and five migrated south (Table 2).
- To date, there have been a total of 299 nests (230 first nests, and 69 re-nests), leading to 115 chicks hatched in the wild and 21 fledged chicks. As of 31 December 2018, eleven wild-hatched birds survive in the wild (Tables 2 and 3).

Table 1. Nesting summary for 2018. Asterisks indicate a re-nest.

Female	Male	Nest outcome	Date completed	County	Chick(s)	Notes
36_09	18_03	Failed	4/15/18	Juneau		Abandoned during snow storm
9_03	3_04	Failed	4/15/18	Juneau		Abandoned during snow storm

13_03	9_05	Failed	4/15/18	Juneau		Abandoned during snow storm
W1_06	1_10	Failed	4/15/18	Juneau		Abandoned during snow storm
16_07	1_04	Failed	4/15/18	Juneau		Abandoned during snow storm
24_08	14_08	Active nest management	4/30/18	Juneau		Both eggs collected. One egg hatched, the other died during hatching process - both in captivity on 22 May.
59_13	1_11	Failed	Estimated 5/3/18	St. Croix		Nesting dates estimated based on bird behavior but nest never observed.
12_11	5_11	Hatched (2 of 2)	Estimated 5/4/18 Confirmed 5/7/18	Juneau	W1-18, W2-18	W1-18 fledged and migrated south with parents
27_14	10_11	Failed	5/7/18	Marquette		Believed to be flooded out
42_09	24_09	Hatched (2 of 2)	Estimated 5/27/18 Confirmed 6/5/18	Adams	W3-18, W4-18	Hatch date estimated based on chick age. Chicks confirmed 5 June.
W3_10	8_04	Hatched (1 of 1)	5/30/18	Juneau	W5-18	Second egg was collected on 23 April and hatched in captivity 30 May

32_09	19_10	Incubated full term	6/5/18	Juneau		Took one egg for captive rearing. Collected 23 April and hatched 30 May. Second egg found on nest 5 June with a hole the size of two quarters and rotting goop inside. No sign of developing colt.
16_07	1_04	Hatched (1 of 1)*	6/3/18	Juneau	W6-18	Collected second egg for captive rearing on 23 April, which hatched in captivity on 5 June.
3_14	4_12	Unknown	Estimated 6/2/18 Confirmed 6/6/18	Green Lake		Nest was due to hatch early June but pair was seen 6 June with no chicks. May have hatched and only survived a few days. Nest was not visible from anywhere.
36_09	18_03	Incubated full term*	6/12/18	Juneau		Took one egg for captive rearing on 23 April which was infertile. Second egg pulled after they sat 10 days past full term.
7_11	3_11	Unknown	Estimated 6/6/18 Confirmed 6/29/18	Adams		Nest was due to hatch early June but pair was seen 29 June with no chicks. May have lost young chicks but nest was not visible to confirm.
5_10	28_08	Unknown	Estimated 6/6/18 Confirmed 7/17/18	Marathon		Nest was due to hatch early June but pair was seen 17 July with no chicks. May have been brooding on 29 June, but no chicks were confirmed. May have lost young chicks but nest was not visible to confirm.
25_09	2_04	Failed	6/7/18	Juneau		Predated

9_03	3_04	Hatched (2 of 2)*	6/13/18	Juneau	W7-18, W8-18	Chicks hatched 11 June (W7) and 13 June (W8). Neither survived to fledging.
24_08	14_08	Hatched (1 of ?)*	6/14/18	Juneau	W9-18	Unknown how many eggs were laid but confirmed one hatch. 14-08 disappeared (and is presumed dead) before chick fledged. W9-18 was old enough to have fledged, but flight was not observed. W9-18 died prior to migration.
27_14	10_11	Failed*	6/12/18	Marquette		Nest failed two days prior to estimated hatch
59_13	1_11	Failed*	6/7/18	St. Croix		Nesting dates estimated based on bird behavior but nest never observed.
23_10	4_08	Hatched (1 of 1)	6/20/18	Juneau	W10-18	W10-18 survived to fledge and migrated south with parents.

Table 2. Nest initiation dates, number of nests, number of chicks hatched, and number of chicks fledged 2005-2018

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
First Nest Initiation	16 Apr	5-6 Apr	3 Apr	7 Apr	2 Apr	<1 Apr	3-4 Apr	<26 Mar	15 Apr	7 Apr	1-3 Apr	29-31 Mar	30 Mar	8 April	
# First Nests	2	5	4	11	12	12	20	22	21	25	27	27	25	17	230
# Renests	0	1	1	0	5	5	2	7	2	3	10	16	11	6	69
Total Nests	2	6	5	11	17	17	22	29	23	28	37	43	36	23	299
# Hatched	0	2	0	0	2	7	4	9	3	13	24	23	18	10	115

# Fledged	0	1	0	0	0	2	0	2	1	1	3	3*	2	6*	21
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*One chick was old enough to have fledged when it died, but flights were never observed.

Table 3. Pairs that have successfully fledged chicks with years of fledging

Sire	Dam	Year(s)		
11_02	17_02	2006		
3_04	9_03	2010	2013	2015
12_02	19_04	2010	2012	2014
9_05	13_03	2012		
10_09	17_07	2015		
2_04	25_09	2015		
29_09	12_03	2016		
1_04	8_05	2016		
12_02	4_11	2016*		
14_08	24_08	2017	2018**	
24_09	42_09	2017	2018	
5_11	12_11	2018		
4_08	23_10	2018		
8_04	W3_10	2018		
1_04	16_07	2018		

*12-02 died before chick fledged. Chick was old enough to have fledged when it died, but flights were never observed. 4-11 was found shot at her wintering area at the beginning of 2017.

** 14-08 disappeared before chick fledged and 14-08 is believed to be dead. The chick (W9-18) was old enough to have fledged when it died, but flights were never observed.

Communications and Outreach Team

Sara Gavney Moore, International Crane Foundation

Trina Soyk, US-Fish and Wildlife Service

The WCEP Communications and Outreach Team (COT) is responsible for all external communications on behalf of WCEP. It also functions to improve internal communication among the functional teams that make up WCEP, and is the main group responsible for compiling and maintaining the internal monthly minutes newsletter and WCEP Google Drive, the main repository for notes and documents generated by the various WCEP teams.

WCEP Website

The partnership website bringbackthecranes.org had 4,826 unique visitors in 2018. This represents a decrease of 41% from 2017 when the site had 11,771 visitors. **The decrease in the number of visitors and other metrics are likely due to a change in search ranking caused by the launch of the new website. Over time, the search ranking will increase and these metrics should stabilize to pre-2018 numbers.**

- The number of “pageviews” decreased with 20,330 versus 30,879 (2017). This represents a drop of 34 percent. A “pageview” is defined as the total number of pages viewed. Repeated views of a single page are counted.
- Our “sessions” total likewise decreased for 2018 with 9,547 vs 15,279 in 2017. A “session” is the period when a user is actively engaged with multiple pages on a website.

Partnership websites are also a source of information on program activities. As an example, the International Crane Foundation’s website savingcranes.org received 46,733 pageviews relating to Whooping Crane content in 2018.

WCEP Media Releases/Articles

The COT issued ad hoc press releases throughout the year in response to important milestones, including: “Whooping Cranes will soon return to Wisconsin,” “Endangered Whooping Crane chicks hatch at White Oak Conservation,” “Whooping Crane family of four flown north to Horicon Marsh” and “Whooping Crane Eastern Partnership sees best year yet for wild-hatched chicks.” We also covered the closing of the Whooping Crane program at Patuxent Wildlife Research Center and Operation Migration’s departure from the Partnership on our social media.

Monthly Project Updates produced by the International Crane Foundation were shared via WCEP and partner’s social media channels and websites.

Traditional Media Coverage

Coverage of Whooping Crane Eastern Partnership (keyword) appeared in the following outlets during 2018.

Sixty-one total media stories with total reach: **56,479,158**

Headline	Source	Reach
Western whooping crane population tops 500	MySouTex.com	6,468

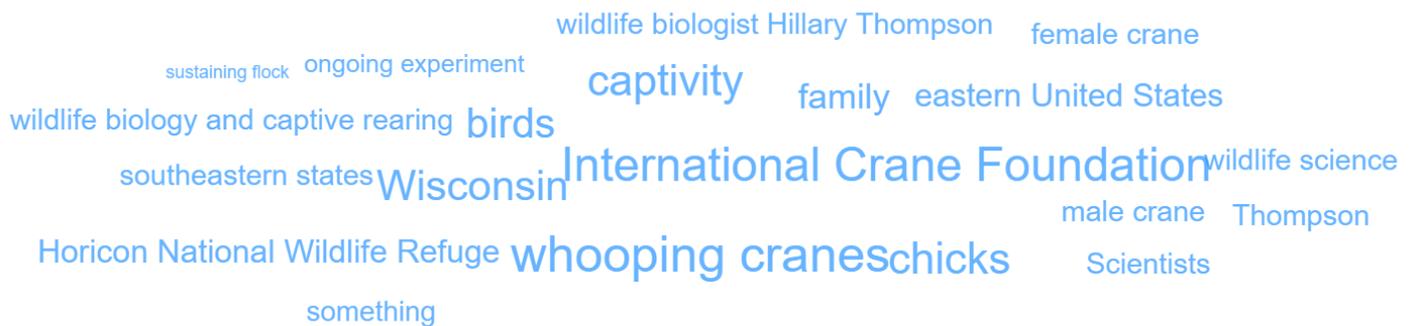
Flocking to the Festival	El Defensor Chieftain	2,788
Fifty-year whooping crane program will close at Patuxent refuge	The Washington Post	31,542,172
Day trip: Whooping Cranes return to Indiana	Cincinnati Enquirer	835,995
Whooping crane era coming to an end at Patuxent research center, as budget cuts cancel 50-year-old breeding program	The Baltimore Sun	1,435,689
End of an era: 50-year-old whooping crane breeding program coming to a close at Maryland's Patuxent refuge	The Baltimore Sun	13,79,317
Whooping crane era coming to an end at Patuxent research center, as budget cuts cancel 50-year-old breeding program	CapitalGazette.com	116,586
Whooping crane era coming to an end at Patuxent research center, as budget cuts cancel 50-year-old breeding program	Carroll County Times	31,083
Correction: Whooping Cranes story	Firenews	77,279
Operation Migration helped whooping cranes survive	The Farmington Independent	1,274
Operation Migration helped whooping cranes survive	Hastings Star Gazette	4,039
Operation Migration helped whooping cranes survive	Woodbury Bulletin	5,653
Operation Migration helped whooping cranes survive	Hudson Star Observer	8,189
Operation Migration helped whooping cranes survive	Republican Eagle	5,852
Operation Migration helped whooping cranes survive	South Washington County Bulletin	4,027
Operation Migration helped whooping cranes survive	Rosemount Town Pages	459
Operation Migration helped whooping cranes survive	New Richmond News	7,208

Operation Migration helped whooping cranes survive	Rosemount Town Pages	1,053
Correction: Whooping Cranes story	The Washington Times	3,136,120
Correction: Whooping Cranes story	HeraldCourier.com	85,253
Correction: Whooping Cranes story	The Middletown Press	34,408
Correction: Whooping Cranes story	Merced Sun-Star	63,598
Correction: Whooping Cranes story	The Olympian	90,688
Correction: Whooping Cranes story	Centre Daily Times	68,275
Correction: Whooping Cranes story	Associated Press	4,974,939
Correction: Whooping Cranes story	The News Tribune	261,732
Correction: Whooping Cranes story	Macon Telegraph	144,309
Correction: Whooping Cranes story	Madison.com	290,795
Correction: Whooping Cranes story	The Journal Times Online	89,986
Correction: Whooping Cranes story	WiscNews	57,105
Correction: Whooping Cranes story	GazetteXtra.com	36,866
Correction: Whooping Cranes story	The Kansas City Star	1,496,049
Correction: Whooping Cranes story	La Crosse Tribune	123,356
Correction: Whooping Cranes story	AP (Hosted)	312,082
Wisconsin researchers work to help whooping cranes	Greater Milwaukee Today	11,351

Researchers help whooping cranes	The Eau Claire Leader Telegram	59,849
Wisconsin researchers work to help whooping cranes	CBS 58 News	89,641
Wisconsin researchers work to help whooping cranes	Fox6now.com	452,383
Wisconsin researchers work to help whooping cranes	Laredo Morning Times	223,239
Wisconsin researchers work to help whooping cranes	StarTribune.com	1,764,194
Wisconsin researchers work to help whooping cranes	Associated Press	4,974,939
Wisconsin researchers work to help whooping cranes	GazetteXtra.com	36,866
Wisconsin researchers work to help whooping cranes	Clay Center Dispatch	4,306
Wisconsin researchers work to help whooping cranes	WiscNews	57,105
Wisconsin researchers work to help whooping cranes	Madison.com	290,795
Wisconsin researchers work to help whooping cranes	La Crosse Tribune	123,356
Wisconsin researchers work to help whooping cranes	The Journal Times Online	89,986
Wisconsin researchers work to help whooping cranes	AP (Hosted)	312,082
Wisconsin researchers work to help whooping cranes	The Republic	34,704
Whooping crane story continues in Wisconsin	The Country Today	655
Operation Migration to dissolve	IronMountainDailyNews.com	10,498
'Craniacs' conservation group Operation Migration shutting down after 25 years	Madison.com	427,037
'Craniacs' conservation group Operation Migration shutting down after 25 years	Chippewa Herald	25,310

'Craniacs' conservation group Operation Migration shutting down after 25 years	La Crosse Tribune	79,962
'Craniacs' conservation group Operation Migration shutting down after 25 years	WiscNews	51,099
Buresh Blog: Dry spell... The Players	Action News Jax	393,861
Whooping crane chicks hatch at White Oak in conservation milestone	Jacksonville.com	202,392
Whooping crane chicks hatch at White Oak in conservation milestone	News-JournalOnline.com	1,277
Endangered Whooping Crane Chicks Hatch at White Oak	Fernandina Observer	2,925
Experience calendar: Fond du Lac County events for February 2018	Fond Du Lac Reporter	20,622
What's Next in The Effort To Save Whooping Cranes?	Northern Public Radio	8,032

The themes highlighted in our media outreach are illustrated below, with the larger phrases representing a higher number of mentions:



WCEP Social Media Sites

WCEP has social media accounts on both Twitter and Facebook. We currently have 363 Twitter followers and 2,305 Facebook followers. We post updates on Facebook, as well as articles related to other endangered species recovery efforts and linking to WCEP partner projects. Social media sites provide WCEP with an additional tool to better reach new and existing audiences about the project and its partners.

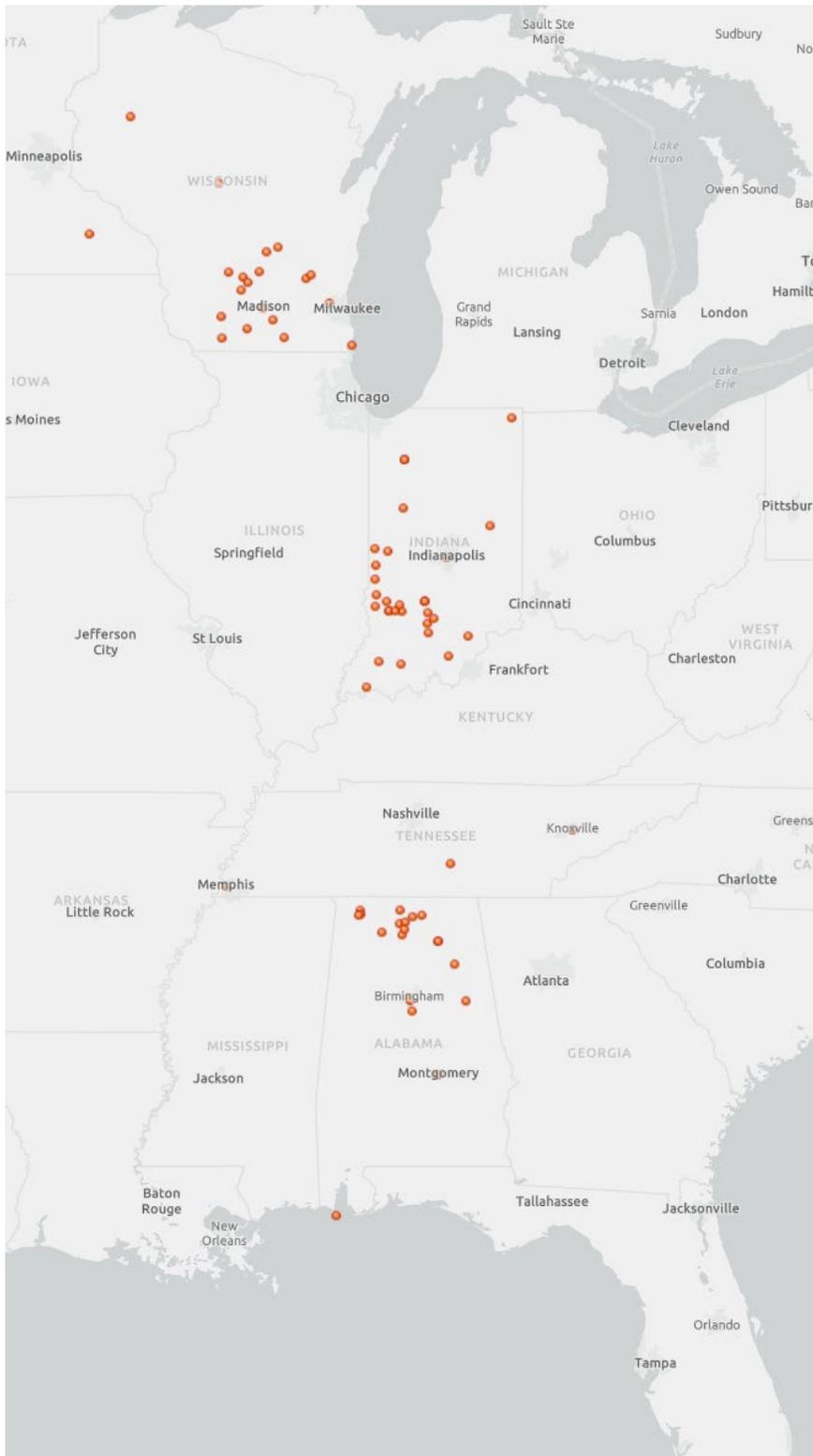
Education and outreach programs and events

WCEP partners conducted many programs and outreach events designed to raise awareness about Whooping Cranes and the EMP reintroduction project. We continued to work with our core audience, as well as building our following with outreach events and materials designed to reach non-traditional audiences. Presentations about Whooping Cranes were given at schools, zoos, state parks, birding groups, assisted living facilities, and other venues.

Birding and crane-specific festivals are an important part of WCEP outreach. This year WCEP partners tabled and presented at the Whooping Crane Festival in Port Aransas, Texas; the Whooping Crane Festival in Princeton, Wisconsin; the Sandhill Crane Festival in Lodi, California; International Migratory Bird Day in Florida; and the Festival of the Cranes in Decatur, Alabama; the Biggest Week in American Birding in Ohio; and Marsh Madness in Indiana.

In 2018, ICF continued a fourth year of outreach in Wisconsin. ICF repeated many of the previous year's activities, with outreach events, presence at gun shows and nature festivals, and K-12 education. ICF's Whooping Crane outreach intern lead the program. ICF participated in 30 events and reached over 2,900 people in Wisconsin in 2018.

The winter of 2018-19 was the second year of ICF's Whooping Crane outreach program in Indiana. ICF was able to hire seasonal employees in both Alabama and Indiana. Between the two programs, we had interactions at 125 outreach events. This does not include traditional and social media. We had more programs in Tennessee this year, after drumming up some enthusiasm from the Tennessee Ornithological Society at their annual chapter meeting.



Locations of outreach events conducted by ICF in the eastern migratory flyway in 2018.