

WHOOPING CRANE RECOVERY ACTIVITIES

OCTOBER 1998 - FEBRUARY 1999

by Tom Stehn, Whooping Crane Coordinator, USFWS
Aransas National Wildlife Refuge

FALL MIGRATION, CANADA TO TEXAS

Several notable events occurred during the fall whooping crane migration, including bird(s) injured and/or blown off course.

Injured adult female o/w-BWsp (1986) was sighted at the Quivira NWR in Kansas on November 10. She apparently had a broken leg just below the tibiotarsus and was basically using only one leg. She flew up to 8 miles daily to feed in grain fields, making capture problematical. Kent Clegg was contracted to try to catch the bird using night-lighting and helicopter prop wash, but was unsuccessful. The availability of food as well as the presence of sandhills made capture with drugged bait using alpha-chloralose impossible. After the marshes at Quivira froze up and the thousands of sandhills had all departed, the injured female apparently also migrated on December 29. She has not been seen since that date. Her mate and chick that had left the female behind at Quivira arrived at Aransas by November 23. The male subsequently re-paired starting about one week after reaching Aransas.

A report of a crane with a bad leg at Aransas on November 4th and again on November 25th could not be confirmed. A sighting rated as probable was made of a pair of whoopers up the Texas Coast near Mad Island during a Christmas bird count on December 21. One of the whoopers had a leg that dangled in flight.

Another hazardous event involved a party of American hunters in Saskatchewan on September 30 firing at a flock of sandhills containing one whooper. The whooper apparently was not hit.

An unusual weather condition November 10 brought record low pressure and strong west winds to the upper U.S. Thousands of sandhills were blown eastward into Iowa where sandhills are rarely seen. One probable report of a single whooper took place in central Iowa near Des Moines, and a confirmed single whooper was photographed in flight over Illinois Beach State Park near Chicago. The whoopers also had to survive a blizzard that hit Saskatchewan October 9-10.

Generally mild weather delayed the whooping crane migration, with the first arrival at Aransas documented October 28. This is nearly two weeks later than average. Although local fisherman reported seeing two whoopers on October 22, this could not be confirmed during an aerial census the same day. Seven whoopers were present on October 29, and only 16 on November 5. The latest whooper sightings in Saskatchewan occurred November 9.

The following is excerpted from a report written by **Wally Jobman** of the **Cooperative Whooping Crane Tracking Project** during the 1998 fall migration;

"The first dates recorded for confirmed observations of migrating whooping cranes were August 12 in Canada and October 2 in the United States. The last sighting date was January 24. Sightings were reported from Saskatchewan (62), North Dakota (9), South Dakota (4), Nebraska (7), Kansas (15), Oklahoma (1), Texas (5), and Illinois (1). The combined total of 104 confirmed sightings established a new fall migration record."

"Weather during September and October was mild with above-average temperatures. Based on the number of sightings reported in SK and ND during late October and early November, it appeared that the majority of migrant cranes were still north of Nebraska. The first confirmed arrival at Aransas (2 birds) was on October 28, further confirmation that the migration was about 2 weeks later than average. On November 9 and 10, an intense storm center moved northeast across the Dakotas, creating blizzard conditions. Northwest and west winds of 30-50 mph swept across the Dakotas, Nebraska, and Kansas. A large migration of waterfowl and cranes occurred on November 11 and for several days following, during which large numbers of migrating sandhill cranes were reported in eastern Nebraska and Iowa. It is unusual to see sandhill cranes migrating through eastern Nebraska and Iowa, and was likely the result of the strong winds associated with the November 9-10 storm. Also, possibly as a result of the storm, a single whooping crane was confirmed (i.e. by photograph) at Illinois Beach State Park, about 5 miles north of Waukegon, Illinois on November 11, and a highly probable sighting of an adult-plumaged whooping crane was reported near Des Moines, Iowa on November 12. On November 12, sightings of whooping crane family groups were confirmed in eastern Nebraska (i.e. the furthest east sighting ever confirmed in Nebraska) and eastern Kansas. One might speculate that the leg injury to the whooping crane, first observed at Quivira NWR on November 12, was the result of the strong winds."

ARANSAS

The first arrival at Aransas was confirmed on October 28, although it is possible that two whoopers were present on October 22 as reported by local fishermen after the arrival of a low pressure system with favorable migration conditions. About 77 percent (i.e., 140 birds) of the arrivals occurred between November 13 and December 3. A record 182 cranes are believed to have arrived at Aransas, including 18 young birds. Two of the 18 family groups arrived in December. On January 4, 1999, an adult-plumaged whooping crane was confirmed wintering with sandhill cranes located west of San Antonio near Sabinal, Uvalde County, Texas. This was a record 183rd bird in the flock. A whooping crane was observed with sandhills on January 24 near Brazos Bend State Park in Fort Bend County, Texas and was still present through February 7. It could be the crane observed near Sabinal (i.e. last seen January 21), an Aransas bird that moved north, or a new bird, possibly the juvenile during the 1997-98 that wintered with sandhills in Brazoria County and could have returned to the same general vicinity. Because of this uncertainty, the peak winter count remained at 183.

Average mortality apparently kept flock size below the 190+ cranes hoped for. Sixteen (9% of the population) adult/sub-adult cranes, of the maximum number possible (181 present last spring plus 18 juveniles produced in 1998), had not arrived at Aransas. Another indication of mortality during the fall migration was that of the 24 juveniles fledged in August in Wood Buffalo, only 18 made it to Aransas, indicating 25 % mortality of the young post-fledging, an above average figure. In some cases, family group(s) were reported in Saskatchewan but failed to arrive at Aransas with their juvenile.

With 18 young added to the population, if mortality had been less than average, this would cause the population to grow above the peak of 182 last winter. However, the count is a disappointing 183, indicating average mortality occurred. Production of more than 20 young, and mortality of less than 10 birds over the summer, is needed for the population to show a big increase. The flock consists of 100 adults, 65 subadults, and 18 young.

Conditions for the whoopers at Aransas were excellent. Heavy rains in the fall lowered marsh salinities to 6-8 ppt. Wolfberries, although present, were apparently a below average crop but were available through December. Blue crab counts in November and December were extremely abundant, and although declined in number, remained available into February.

Multiple prescribed burns were carried out on Matagorda Island, and two burns were done on the refuge. The whoopers made moderate to light use of the refuge burns, with use limited because of all the crabs in the marsh.

Weekly aerial census flights documented the arrival of cranes, the presence of chicks and banded birds, and mapped the location of territories.

Date	Adults	Young	Total
Oct 22	0	0	0
Oct 29	7	0	7
Nov 5	16	0	16
Nov 13	30	2	32
Nov 19	66	3	69
Nov 2	128	12	140
Dec 3	156	16	172
Dec 17	160	18	178
Dec 30	161	18	179
Jan 8	164	18	182

Record numbers were found on San Jose Island ($35 + 3 = 38$) on February 12, and on Matagorda Island on February 24 ($49 + 6 = 55$).

For FY 99, the Corps of Engineers received around \$4 million from Congress for the Aransas Section 216 project. Most of the money will be used to complete the shoreline erosion control of the crane marshes. Plans call for the completion of the 216 Project in the year 2000.

The refuge re-posted waters closed to all access. Local fisherman were notified why the closure was necessary to prevent disturbance of the cranes. The presence of airboats and primarily the increasing use of kayaks had made access into the shallow crane marshes possible even during the low tides found during winter.

The refuge met with Conoco to plan gas well drilling prospects in 1999, including a new road and pad next to Egg Point in the Point Pasture. Agency meetings were also held with Mitchell Energy about the need to re-plant the Phase III marsh creation project, which was done in early winter. The Aransas Interagency Coordination Team met with Waterways Experiment Station biologists to plan creating new marshes with the beneficial use of dredged material.

Doug Bergeson, Recovery Team member and Park Ranger/graduate student in Wood Buffalo National Park, visited the refuge January 7-9 and helped on a census flight.

I gave talks to a National Park Service group on January 27, to a Smithsonian group February 19 and at the Whooping Crane Festival in Port Aransas on February 26.

In the December-January, 1999 issue, the National Wildlife Federation selected the whooping crane as one of 25 rare species in its endangered species campaign called "Save Endangered species: Keep the Wild Alive, all for the 25th anniversary of the Endangered species Act.

A special hunt designed to control snow goose numbers began in South Texas on February 20 and will continue nationwide into the spring. Use of electronic calls, unplugged shotguns, and no bag limit are aimed to increase the harvest. To provide protection for whooping cranes, four areas are closed to this special hunt starting March 10. They are Bosque del Apache and Monte Vista NWRs, a five-mile wide zone along the Platte River, and an area around the critical habitat at Aransas. None of these special closures will change snow goose harvest this spring since none of the areas were going to allow a spring hunt regardless.

SPECIMENS

Arrangements were made for the Florida State Museum in Gainesville to hold whooping crane specimens from the Florida reintroduction project. Many of these specimens resulted from bobcat predation and only certain parts (hollow bones, wing feathers, etc.) were usable.

In December, instructions were given and shipments of whooper specimens made to U. of New Mexico (4), U. of Nevada Las Vegas (2), and the North Carolina State Museum

of Natural Sciences (2). Also, plans are being made to ship one nestling and one juvenile to the U. of Michigan.

CAPTIVE CRANES

CALGARY

Calgary raised three whooping crane chicks. Two chicks were shipped commercially from Calgary to Patuxent November 23. Special thanks go to Pam Pritchard at the Calgary Zoo for getting the export permits and making all the arrangements, while I had my hands full getting the import permits. Shipment of endangered wildlife across a border is difficult and time consuming administratively.

INTERNATIONAL CRANE FOUNDATION (ICF)

ICF successfully raised six chicks that were transported to Florida November 18 in Windway Corporation's private jet. They also shipped unpaired subadult male "Fred" to New Orleans on December 15.

PATUXENT WILDLIFE RESEARCH CENTER

Following construction of pools, juveniles successfully adapted to roosting in water after about 10 days in the socialization pens. Patuxent shipped 7 birds to Florida on January 7th. Six had metal removed prior to shipment. The ingestion of metal at Patuxent continues to be a chronic problem. Seven more whoopers were shipped to Florida on January 27. Two of these chicks were reared in Calgary, then transferred and incorporated into the cohort at Patuxent in November. One juvenile held back from this shipment due to metal ingestion problem died of lead toxicity. The third and final Patuxent cohort of eight was transported to Florida on February 17. All birds were flown in the Windway Corporation jet for which we are grateful for their help.

Organization began for the upcoming review of the crane program at Patuxent in mid-March. This review is done every 5+ years to ensure that the program meets rigorous scientific criteria and is accomplishing objectives.

A first-time hunt of white-tailed deer held near the crane area at Patuxent was carried out without disturbing the cranes. Special regulations were imposed by the refuge staff so that no disturbance to endangered species would occur.

AUDUBON CENTER FOR RESEARCH OF ENDANGERED SPECIES

At the last Recovery Team meeting, the New Orleans Zoo was approved to become a new breeding center for whooping cranes. They received their first pair of cranes. ICF provided unpaired male Fred, while White Oak transported female Devonie (originally raised in Calgary) to New Orleans about December 20. This marked a historic return of whooping cranes to New Orleans.

ADMINISTRATION

Claire Mirande of ICF and graduate student Ken Jones are making pairing recommendations based on new genetic information. They are conferring with all the captive flock managers to include behavioral information of the birds.

Dwight Knapik of the Calgary Zoo has become the new chairman of the Captive Site Selection Committee and is working hard processing applications for new display and breeding facilities.

REINTRODUCTION PROJECTS

STAGE-BY-STAGE TRUCKING

Dr. David Ellis' stage-by-stage sandhill trucking experiment in Utah and Arizona ran into problems with disease. The project had 14 juveniles transported to Fish Springs, Utah, in mid-September that had been raised at Patuxent. One died of bacterial infection and an uncooperative bird was eliminated from the experiment prior to migration. During the migration, another uncooperative bird went the wrong way. At an overnight stop, six more birds apparently ingested a toxin and five died. The six remaining birds made it to the wintering grounds and integrated into the wild. The uncooperative bird lost early in the migration was also transported to the Gila River site. It and the six remaining stage-by-stage birds all survive.

ONE-BY-ONE GUIDE BIRD INTRODUCTION

Ten juvenile parent-reared sandhills raised at Patuxent were shipped to Arizona in the summer for an experiment to develop a technique for rapidly building the flock of survivors of motorized migrations. The juveniles were released one-by-one at 2-6 day intervals into one small flock of four survivors from the 1996 trucking migration. By September 22, eight had been released. Unfortunately, five broke off and formed a separate group of juveniles that started the migration 25 September, while three that stayed with four trucking adults migrated 05 October. None of the juveniles in either group arrived on the wintering grounds with the trucking survivors. The only two that we found were 300 miles off course near San Diego, California. None of the others have been detected.

Dr. Ellis expects to know by April if the stage-by-stage birds move north on their own and by May if any of the birds in the adoption releases (parent-reared juveniles) make it back to northern Arizona. Because of unfavorable results in the adoption experiments and high mortality in the stage-by-stage experiment, the plan is to repeat both in 1999.

OPERATION MIGRATION (OM)

OM conditioned 16 sandhills, hatched at Patuxent WRC, to follow an airplane for flights up to 1.5 hours in length. The experiment was designed to keep the birds as wild as

possible while conditioning them to follow the aircraft. After delays in obtaining permits, they departed Ontario on October 15 and trucked 15 birds to South Carolina. One sandhill was killed through aggression in the trailer during the first leg. Thereafter the birds were individually boxed for the remainder of the trip. On October 21, thirteen birds were led by an ultralight for the last leg of the journey to the Tom Yawkey Wildlife Center. Twelve sandhills followed perfectly, however, one broke off during the final flight. All efforts to locate the errant bird using radio tracking failed. One sandhill was killed by a bobcat on November 26.

Eleven sandhills are currently alive and free to move in and out of a 250 x 150 ft. open release pen. The flock is being encouraged to stay in the area by means of a costume dummy and supplemental feeding which will continue until March 1. It will be very interesting to see if these trucked sandhills migrate north in the spring. Check out <http://fathergoose.durham.net/today.htm> for a full narrative of their experiments.

FLORIDA

The following is taken from a report by Marty Folk, FGFWFC, Kissimmee, in the Unison Call, Vol. 10, No. 2, 1998.

"During the first half of 1998 we saw lower than average survival (14 mortalities of newly released chicks (probably associated with a number of factors) and lower than average survival (6 mortalities) of older birds (associated with high-powered rifle, a powerline, and flightlessness during simultaneous molting of remiges). In contrast, during the second half of 1998 we saw higher than average survival (1 mortality among whoopers older than 1 year of age. We lost 2 of 6 chicks released in November. At the end of the year there were 58 trackable whooping cranes in Florida. This included 6 pairs."

"1998 was a year of record-breaking temperatures and drought in Florida. At the end of the year, when marsh water levels should be fairly high at the beginning of the dry season, the levels were already low. This winter/spring we expect lower than average survival of newly released chicks and reduced breeding activity in older cranes."

ICF successfully raised six chicks that were shipped to Florida on November 18. Although the cranes were using proper habitat and roosting in water, two of the six died from bobcat predation, and one died hitting a powerline.

Three chick cohorts raised at Patuxent (20 birds), with two birds added from Calgary, were shipped to Florida in January and February. Although discussions were held that a worsening drought might force the cancellation of the last shipment, the final cohort of all parent-reared birds was flown to Florida on February 17. Seventeen of the 22 are currently alive.

Totals for juveniles released in Florida during the 1998-99 winter equaled 28 with 20 of these surviving at the end of February. Fifty-three subadults are remaining from hatch

years 1992-1997. Thus, the whooper population in Florida as of February 28 is 53 subadults + 20 juveniles = 73.

On January 5, one 3-year-old whooper was killed by an alligator. This was the second documented case of predation by gators on the whoopers. The loss was associated with the drought forcing the whoopers to use deeper water than normal. One juvenile was taken by an alligator on January 27 while still in the release pen. The rest of the birds were moved to a different pen in shallower water. Most mortality continues to be primarily from bobcat predation.

Three pairs have started nest building as of mid-February.

Preliminary contacts were made with the manager at Chassahowitzka NWR to brief her about the proposed migratory reintroduction project. Contacts were also made with the Director of FGFWFC.

ROCKY MOUNTAINS

All three whooping cranes that summered in Yellowstone National Park migrated and staged in the Teton Basin west of Driggs, Idaho in late September. This movement occurred after the close of the special sandhill crane hunt in Idaho so no conflicts occurred. The whoopers did not remain together during the migration, pulling out of the Teton Basin September 26-28th. One ultralight whooper that summered in Slough Creek made it to Monte Vista October 10th and then traveled on to Bosque del Apache NWR. The other ultralight whooper was sighted in Farmington in northern New Mexico close to the course flown by the ultralight but west of the usual sandhill migration corridor. It allowed relatively close approach by the person who sighted the bird. This whooper then apparently moved on to Wilcox, Arizona where it was reported, but not confirmed, on November 23rd. After a long period of being missing, it was confirmed north of Wilcox on February 9th. Five days later, the ultralight whooper suddenly appeared at Bosque del Apache, having completed the migration and returning to the winter home it had been shown when following the ultralight.

The two remaining cross-fostered whoopers all wintered in their usual spots in the Rio Grande Valley, with one at Casa Colorado, and one plus the hybrid at Bosque. Five out of seven of the 1997 ultralight sandhills were located at Monte Vista and then wintered at Bosque.

Kent Clegg had numerous speaking engagements about his project, including at the Bosque Crane Festival, the public museum in Milwaukee, Wisconsin, and at Whooping Crane Day in New Mexico. His project and resultant publicity are very popular.

Kent Clegg met with the Wyoming Game and Fish Department on October 29th to explain his program and research objectives. However, the state remains reluctant to support the reintroduction of more whooping cranes in the west.

Michael Finley, Supervisor of Yellowstone NP, met with Steven Saunders, Assistant to Don Barry in the Interior Department, and requested that more whoopers be reintroduced into the Park.

Jim Lewis and Kent Clegg circulated their white paper and 5-year research proposal in early February. More discussions are ongoing about this potential project.

WISCONSIN

Following the Recovery Team meeting in August, contacts were made about the proposed assessment study of Wisconsin by Dr. John Cannon. Funding for this was obtained through the ICF from two corporations for Cannon's study.

A briefing was held November 9 in Minneapolis for USFWS-Region 3 and November 10 in Madison for the Wisconsin DNR concerning the possible whooping crane reintroduction. All parties seemed receptive and thoughts are being developed for future planning efforts. Dr. John Cannon is currently assessing the suitability of WI as a release site. Potential release sites were looked at from both the ground and the air in mid-November by Brian Johns, myself, and Richard Urbanek.

I worked on FWS News articles about the current whooping crane status and eastern reintroduction proposal, and a second article mentioning the support of the western crane work by the Turner Foundation.

NORTH AMERICAN CRANE WORKING GROUP

This organization has recently created a web page at www.portup.com/~nacwg. It is full of information on cranes. Also, the Whooping Crane Conservation Association's web site is at www.whoopingcrane.com.

This biannual report, along with my weekly census reports, are found on www.electrotex.com/aoc. My sincere thanks go to Patty Beasley who volunteers her time and posts this information on the web page of an electrical firm located in Corpus Christi.

WHOOPING CRANE NUMBERS, February 28, 1999.

Wild Populations

Location	Adults	Young	Total
Aransas/Wood Buffalo NP	165	18	183
Rocky Mountains	4	0	4
Florida	53	20	73
Subtotal in Wild	222	38	260

Captive Populations

Location	Adults	Young	Breeding Pairs	Total
Patuxent WRC, Md.	40	4	10	44
International Crane Foundation, Wis.	30	1	6	31
Calgary Zoo, Alta.	20	1	2	21
San Antonio Zoological Gardens, Tex.	4	0	2	4
White Oak Conservation Center, Fla.	1	0	0	1
Lowery Park Zoo, Tampa, Fla.	1	0	0	1
Audubon Institute, New Orleans, La.	2	0	0	2
Subtotal	98	6	20	104

TOTALS (Wild + Captive) = 364

Compiled by Tom Stehn, February 28, 1999.