

WHOOPING CRANE RECOVERY ACTIVITIES

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HIGHLIGHTS

The National Audubon Society's list of the top ten endangered birds in the continental United States for 2006 has the whooping crane listed third behind the ivory-billed woodpecker and California condor. This shows that whooping cranes still have a long way to travel on the road to recovery.

The 2005-06 winter for the Aransas-Wood Buffalo flock was one of disappointment. Despite the arrival of 30 juveniles including one set of twins in the fall, the total population only reached 220, an increase of 3 birds from the previous winter. Starting in December, food resources were limited and salinities were high, forcing the cranes to make daily flights to fresh water to drink. One 28-year-old male and 5 juveniles died during the winter, leaving the population at 214 in the spring, 2006. This was one bird less than the previous spring.

Twenty-three juvenile whooping cranes were successfully released into the eastern migratory population. Nineteen were flown behind the ultralight on a journey that took 61 days. Four released in the fall in Wisconsin followed other cranes to suitable wintering areas. All migrated back north in the spring. Sixty-four whooping cranes currently make up the migratory eastern whooping crane population.

The nonmigratory whooping cranes in Florida had initiated 10 nests as of the first week in April. Three of the nests hatched 4 chicks, with 3 of the chicks currently surviving. Four nests failed, and 3 nests were still being incubated.

Two of the captive flocks had to re-build following nasty weather events. The Species Survival Center in New Orleans had a major clean-up following Hurricane Katrina in August. Patuxent had to repair over 100 pens following a 20-inch snowfall in February.

Journey North is making a difference in educating young people about whooping cranes. One of the nation's premier Internet-based "citizen science" projects, Journey North enables students in 11,000 schools to watch spring sweep across the

northern hemisphere by following the migration patterns of whooping cranes and other species. Their free, online educational web site on animal migration had 2.23 million page views in March. The whooping crane has always been one of their featured species. Jane Duden, who compiles all the whooping crane information for Journey North, visited Aransas and the whooping crane festival in Port Aransas at the end of February. She spent time on the Refuge in addition to attending events and tours. The festival this year was dedicated to Aransas Refuge Biologist Tom Stehn and over 3,000 people attended multiple events.

The Whooping Crane Recovery Team held their annual meeting in February in Zacatecas, Mexico in conjunction with the 10th North American Crane Workshop. At these meetings, the Recovery Team formulated its annual work plan, and numerous scientists presented their research findings at the workshop. Thanks go to Dr. Felipe Chavez-Ramirez who organized these international meetings of crane scientists.

ARANSAS – WOOD BUFFALO FLOCK

FALL MIGRATION 2005

The fall migration was the 61st migration monitored since tracking began in the fall of 1975. It is a cooperative effort by private organizations, state and federal conservation agencies, and the Canadian Wildlife Service (CWS). U.S. records are compiled by Dr. Martha Tacha of USFWS-Endangered Species in Grand Island, Nebraska.

The first dates recorded for confirmed observations of migrating whooping cranes were August 8 in Canada and October 22 in the United States. The last sighting date was January 5, 2006 in South Dakota. Most of the birds had departed Canada by October 22 when temperatures dropped well below freezing, although 10 sightings totaling 38 birds were made in Canada after that date. Canadian Whooping Crane Coordinator Brian Johns picked up in Saskatchewan the carcass of a 28-year-old bird, the flock's oldest known-age female. The cause of death was not determined (but likely age-related). Her mate and juvenile continued the migration and arrived safely at Aransas. One subadult stayed north of the border with a probable sighting reported December 8th. Perhaps it was this same bird that was in South Dakota December 23 – January 5. With South Dakota completely frozen over, speculation was that this bird was ill, although it flew and behaved normally.

Sightings (n=84) were reported from Saskatchewan (38), Alberta (1), Manitoba, (1) Montana (1), North Dakota (14), South Dakota (6), Nebraska (3), Kansas (8), Oklahoma (6), and Texas (6). Five of the 8 sightings in Kansas were at or near Quivira NWR, and 4 sightings were at Salt Plains NWR in Oklahoma. Only 1 sighting was made on the Platte River in Nebraska that experienced low flows as drought continued throughout the summer. The largest groups reported were 19 cranes at Muskiki Lake in Saskatchewan on October 18, 17 cranes in Mercer County, North Dakota on October 22, and 15 cranes in Alfalfa County, Oklahoma on October 23-24.

ARANSAS NATIONAL WILDLIFE REFUGE

National Estuarine Research Reserve

The National Oceanic and Atmospheric Administration on March 22 released the final *Environmental Impact Statement and Management Plan* for the proposed Mission-Aransas National Estuarine Research Reserve (NERR) in Texas. This set in motion one of the final steps needed for official designation of the research reserve. The new Mission-Aransas NERR will be located on the Texas coast in Aransas and Refugio counties about 30 miles northeast of Corpus Christi. Mission-Aransas includes 185,708 acres and would be the third largest reserve in the system. The reserve includes wetland, upland and marine environments typically found in the western Gulf of Mexico. It includes portions of whooping crane critical habitat along with all of the Aransas National Wildlife Refuge and a southern section of Matagorda Island NWR. The reserve will be managed by the University of Texas at Austin's Marine Science Institute in Port Aransas. NERR designation ensures access to funding for research and education programs, environmental monitoring and science-based training programs for coastal managers and decision makers. Site Manager Dr. Paul Montagna stated that "Research and monitoring will help coastal decision makers manage these vital resources on a foundation of sound science, and it will help to educate the next generation of marine scientists and decision makers."

Land Development / Other

Land developments have surfaced threatening whooping crane habitat. One company has proposed building a 400-lot canal subdivision on property that whooping cranes occasionally use near Port O'Connor. Their request for a 404 Permit is currently being assessed for possible formal consultation under the Endangered Species Act (ESA). A second company has purchased land that includes whooping crane critical habitat at Welder Flats and also wants to put up housing. Developers are also looking at land that includes whooping crane marshes north of Holiday Beach. With development ongoing all along the Texas coast at a rapid rate, USFWS will have to try to protect whooping crane habitat as required under the ESA. Two seismic operations are anticipated in 2006 in areas including whooping crane habitat. The Refuge and Ecological Services office are working with the companies involved.

A coastal pickup of abandoned blue crab traps organized by Texas Parks and Wildlife Department was conducted in February. With this annual program, the number of abandoned traps in whooping crane critical habitat continues to decline. This year, Texas Parks and Wildlife crews each spent a day on Matagorda Island and San Jose Island picking up traps in the crane area.

Water Issues

After San Antonio Water Systems (SAWS) withdrew from the Lower Guadalupe Water Supply Project (LGWSP), the Guadalupe Blanco River Authority (GBRA) announced in

October it would re-configure the LGWSP and remove the groundwater component of the project. In the new scheme, river water impounded at the mouth of the Guadalupe would be pumped back to a 10-county area in the upper end of the watershed. Opponents tried to get this new LGWSP removed from the State Water Plan, but were unsuccessful.

An Environmental Flows Advisory Committee was appointed by the Governor of Texas at the end of October to address requirements for instream flows for rivers and freshwater inflows into bay and estuary systems. This committee is similar to one appointed for the previous legislature to report on the issue.

The San Marcos River Foundation (SMRF) won their law suit over the state's denial of their request for a water right for an instream flow in the Guadalupe River. Their water rights application for over 1.1 million acre-feet was sent by the District Judge of Travis County back to the state agency for an administrative hearing. SMRF is waiting to learn if the state will appeal the case to the next level of courts.

PLANNING and ADMINISTRATION

The General Accounting Office did an audit of the effectiveness of recovery actions, including plans and expenditures. The whooping crane was one of the species selected to review due to the high expenditures of recovery estimated at 125 million, higher than any of the 107 species reviewed. Tom Stehn participated in a conference call in October and also submitted additional cost estimates. A final GAO report was released in April, 2006. The report stated that the success of the Endangered Species Act (ESA) was difficult to measure since some recovery plans reviewed indicated that some species were not likely to be recovered for up to 50 years. When evaluating the ESA, one needs to consider the prospects for recovery rather than just counting up the number of species that have gone extinct (9) and the species recovered (17) out of the 1,272 species listed in the U.S. The GAO recommended that cost estimates and recovery timetables be compiled in the biennial recovery report to Congress. This report could then be used to measure program success and would also provide policy makers with valuable information for identifying resource needs.

The Contingency Plan for the State-Federal Protection of Whooping Cranes was approved in the spring by the Central Flyway Council. The new plan applies only to endangered whooping cranes located in the Central Flyway. A committee of state and federal personnel had clarified text and updated information in the plan. Special thanks go to Helen Hands of the Kansas Department of Wildlife and Parks for all her efforts helping Tom Stehn and others get this task completed.

Progress continued to be made finalizing the revised Whooping Crane Recovery Plan. Tom Stehn wrote a section responding to public comments received and made needed changes. Data was updated through March, 2006. An additional peer review was conducted at the Crane Workshop to meet new policy directives and more changes were made to the draft plan. This plan should become final in 2006.

FLORIDA NONMIGRATORY FLOCK

There are a maximum of 58 whooping cranes in the nonmigratory Florida population, with 50 birds being monitored. No whooping cranes produced from the captive centers in 2005 or 2006 will be reintroduced into the Florida flock. Five of the Florida nonmigratory cranes apparently took a “vacation” trip to South Carolina in May of 2005. They quickly moved on and their whereabouts remained unknown. In September, 1 from the group of 5 was confirmed back in Florida, but the other 4 have not re-surfaced. During the last 3 months of 2005, two mortalities were documented (power line collision, aspergillosis). Three migratory whooping cranes spent most of December in close proximity to a non-migratory female whooping crane near Lake Wales. This association later broke up. The Florida team transported all of their pen-building materials to a new stop-over and holding site for the WCEP birds (Halpata Tasthanaki Preserve in Marion Co) and helped construct a large 2-acre enclosure for the 19 young birds being led by ultra-light aircraft from Wisconsin this fall. One adult crane was captured and placed in the Halpata pen when it interfered with the nesting attempts of a pair of cranes. Later, a smaller portable pen was built to hold this bird in a more central location to the Florida nonmigratory flock. Florida staff also prepared papers and presented them at the 10th North American Crane Workshop.

In the spring, the 10 pairs that nested in 2006 were similar to the 8 pairs that nested last year. However, production was better with 3 chicks surviving into April, and 3 nests still being incubated. This compared with the 1 chick hatched in 2005 that died at 6 days of age. Florida is currently experiencing a drought, with the driest March on record. Marsh water levels dropped rapidly which is expected to deter any failed whooping crane pairs from re-nesting. Unfortunately, a new cause of mortality was recorded for the flock when one nesting female was either stepped on or kicked by a cow, suffering massive damage to her back.

After a long career with the Florida Fish and Wildlife Conservation Commission, biologist Steve Nesbitt is retiring in April. In his distinguished career, Steve has published many scientific papers, is a leading expert on cranes in North America, and has won several awards including the Lawrence Walkinshaw award at the 10th North American Crane Workshop.

WHOOPING CRANE EASTERN PARTNERSHIP (WCEP)

It was a very successful fall of 2005 for the migration team headed up by Operation Migration. Twenty whooping crane juveniles headed south from Wisconsin following ultralight aircraft. The ultralight migration took 61 days, with flights made on 22 of those days. One bird died en route, apparently from aggression by pen mates at a stopover where the weather had kept the team grounded for 8 days. The birds were flown to a holding pen at Halpata Tasthanaki Preserve to wait until the older whooping cranes had returned to the release pen at Chassahowitzka NWR and then dispersed. Numerous partners had pitched in to build a large temporary holding pen at Halpata for the cranes. This included FL Fish and Wildlife Conservation Commission, Southwest FL Water

Management District, USFWS, Jacksonville Zoo, Disney Animal Kingdom and USGS – Patuxent. Billy Brooks of USFWS – Jacksonville coordinated this major effort that turned out to be very successful and an important new strategy for managing the juvenile whooping cranes in Florida. The migration team returned to Florida in January and flew the birds from Halpata to the salt marsh pen site at Chassahowitzka. One bird wouldn't follow the aircraft and was placed in a crate and transported by boat.

In the fall, 4 juveniles were released with older wild whooping cranes at Necedah NWR in Wisconsin using a technique referred to as Direct Autumn Release (DAR). It was expected that the juveniles would follow other cranes to suitable wintering sites in the eastern crane flyway. Although it was hoped the juveniles would associate singly with older whooping cranes, the 4 following release got back together as a cohort. On November 24th, they took off with sandhill cranes and headed south, quickly outdistancing the ground tracking team. One DAR juvenile split off, flying 455 miles the first day and roosting in Indiana. On the second day of the migration, the other 3 DAR birds reached Hiwassee Wildlife Refuge in Meigs County, Tennessee, but at different times indicating they were migrating separately and following sandhills.

Two of the DAR birds wintered at Hiwassee, while the other two continued the migration and wintered in separate parts of Florida. All 4 of these DAR birds migrated back north in spring, 2006. During the winter, 3 migratory male whooping cranes associated with an older nonmigratory Florida female in Polk County, Florida. As expected, this association did not last, with the migratory cranes moving on towards the end of February.

One older whooping crane (9-03) continued to migrate out of the expected migration corridor. This bird has a history of this, having spent her second summer in Michigan, and then wintered in North Carolina, only to summer in 2005 in Vermont and New York after spring migration through southeastern Ontario. This bird was captured in December, 2005 on a catfish farm in Beaufort County, North Carolina and transported on a Windway Capital Corporation jet to Florida. She was released at Hixtown Swamp in Madison County, Florida which 3 other whooping cranes were using. Unfortunately, 9-03 migrated north in the spring with one of the juvenile whooping cranes and led it to Michigan.

The 19 juveniles all migrated from Chassahowitzka, one with an older whooping crane, and the other 18 together on March 28. Fourteen of the ultralight juveniles stayed together and returned to the core release area in Wisconsin after a migration of 11 days. The 5 other ultralight juveniles and the 4 DAR birds all left Florida in late March and headed north. One older whooping crane and 1 juvenile migrated together off-course to Michigan, and 1 other bird went to Ontario. In early April, 1 crane that nested at Necedah last year was by itself in Minnesota.

Post-release survival of the Eastern Migratory Population (EMP) has been 64 out of the 76 released. Seven pairs had formed in 2005, with a potential for up to 12 pairs in 2006. Obtaining funding for the WCEP partnership was difficult in 2005, especially for the non-profit partners. However, much was accomplished during the year. The 2005

Annual Report of the Whooping Crane Eastern Partnership was sent out electronically in early April, 2006. Wisconsin is well along in producing a draft management plan for the whooping cranes in their state. In 2006, a flock genetics plan was prepared by Dr. Ken Jones of Kansas State University. Special emphasis will be placed on the genetic makeup of the EMP. The Partnership and Recovery Team decided not to breed 2 females at Patuxent that have already produced many offspring for WCEP which could lead to pairings between full siblings if additional offspring were released. They also planned to release half of the offspring from pairs that previously would have had all their offspring retained in the captive flock. Overall project goals remain the same; to establish a self-sustaining population of a minimum of 100 migratory whooping cranes in eastern North America with 25 breeding pairs. With projected losses of 10% a year, it will take a total of 10 years of releases of at least 20 birds each year to reach this population goal. The project is currently in its 6th year.

CAPTIVE FLOCKS

The amount of effort and care that goes into captive breeding of whooping crane is phenomenal. This program is extremely important for saving the species if something happens to the wild flocks, and also provides young for reintroduction programs.

Whereas the Species Survival Center had a major battle last August with Hurricane Katrina, the Patuxent Wildlife Research Center was the next captive breeding facility struck by Mother Nature. A 20-inch snow storm on February 11th pulled down flight netting and bent chain link fencing despite staff efforts throughout the night to knock snow off of the overhead nets. Some of the cranes escaped but eventually all were recaptured. Others were treated for minor injuries. One hundred out of 105 pens were damaged. All flight netting had to be replaced and about 6,000 feet of chain link repaired and/or replaced. All this happened just prior to the breeding season and there were major concerns that breeding in 2006 would be disrupted. With emergency funding obtained (over \$120 K just for materials) and additional labor coming from other facilities (more than 100 volunteers helped out over several weeks), cranes were moved to temporary pens as pens were repaired one series at a time. It took a tremendous effort but deadlines were met: the birds were all back in their original pens just before the laying season. Egg laying was delayed at Patuxent, with the first egg laid April 10th. One positive result from the storm is that netting has been installed so that it can be lowered in a storm to reduce the damage caused by heavy snow accumulating on the nets.

At the International Crane Foundation (ICF), additional work was planned on their new chick-rearing facility that will enable it to handle up to 20 chicks in 2006. ICF was running out of pen space for the older cranes, and shipped 3 whooping cranes to the San Antonio Zoo on February 6th, including one female needed for pairing. On April 10th

they shipped 4 cranes to Patuxent where future mates reside. ICF worked to switch mates between a pair that had not laid in 5 years with a 10-year-old pair that never laid. It is hoped that the switches will stimulate egg-laying. One pair is formed and the other is being socialized. In addition, another male was removed from a female that has never

laid in 20 years. He is being socialized with a young female who is also a better genetic match.

The Species Survival Center in New Orleans, Louisiana did exactly that in 2005 – they survived an unprecedented natural disaster that tore apart the city. Like Patuxent, they had cranes to re-capture after Hurricane Katrina and facilities to repair. A tremendous amount was accomplished. In the spring of 2006, they were able to start building a new whooping crane breeding facility that will initially hold 5 pairs in larger ponded pens. Congratulations and kudos to all the crane people at SSC and Patuxent for accomplishing so much in very difficult circumstances.

Calgary currently has 8 breeding pairs of whooping cranes, 1 unpaired male, 2 birds on public display, plus three 2005 hatch birds. Fall health checks showed all birds appear to be in good health. One more enclosure was expanded, and one pair is currently in their larger breeding enclosure.

After several years serving as chair of the Captive Site Selection Committee, Mr. Dwight Knapik of the Calgary Zoo decided to rotate the job to someone else. Tom Stehn with help from Brian Johns will take over the duties. Thanks go to Dwight for his years of service.

WHOOPING CRANE NUMBERS – April 1, 2006

Wild Populations

	Adult	Young	Total	Adult Pairs
Aransas/Wood Buffalo	189	25	214 ^A	69
Rocky Mountains	0	0	0	0
Florida non-migratory	58 ^B	0	58 ^B	14
Wisconsin/Florida migratory	41	23 ^C	64	2
Subtotal in the Wild	288	48	336	87

^A The peak population for the Aransas-Wood Buffalo flock in the 2005-06 winter was $190 + 30 = 220$. One adult and 5 juveniles have died at Aransas since arriving in the fall, 2005.

^B This number is an estimate since not all whooping cranes in Florida can be located on a regular basis. No chicks fledged in the wild in 2005.

^C These are chicks that either followed ultralights (n=19) or other cranes (n=4) to FL.

Captive Populations

	Adult	Young*	Total	Breeding Pairs
Patuxent WRC, Maryland	53	2	55	13
International Crane Foundation, WI	32	4	36	10
Devonian Wildl. Cons.Cent./Calgary	17	3	20	7
Species Survival Center, Louisiana	8	0	8	1
Calgary Zoo, Alberta	2	0	2	0
New Orleans Zoo, Louisiana	2	0	2	0
San Antonio Zoo, Texas	8	1	9	1
Homosassa Springs Wildl State Park	1	0	1	0
Lowry Park Zoo, Tampa, Florida	2	0	2	0
Subtotal in Captivity	125	10	135	32

* Numbers are of young remaining at the captive center after eggs and/or birds were shipped out for reintroductions in 2005. In most cases, these young are genetically valuable and will become future captive breeding stock.

TOTALS (Wild + Captive) 336 + 135 = 471