

WHOOPING CRANE RECOVERY ACTIVITIES
April – September, 2006

by Tom Stehn
U. S. Fish and Wildlife Service (USFWS)
Whooping Crane Coordinator

CONTENTS

HIGHLIGHTS / LOW POINTS.....	2
ARANSAS – WOOD BUFFALO FLOCK	3
Spring Migration, 2006	3
Wood Buffalo National Park	3
Platte River, Nebraska	4
Aransas National Wildlife Refuge	4
Water Issues	5
Land Development	6
Oil and Gas	6
National Estuarine Research Reserve	7
ADMINISTRATION.....	7
FLORIDA NONMIGRATORY FLOCK	8
WHOOPING CRANE EASTERN PARTNERSHIP	9
CAPTIVE FLOCKS	11
WHOOPING CRANE SCORECARD	13

HIGHLIGHTS

The number of whooping cranes in North America reached 500 for presumably the first time in over 100 years! However, one captive juvenile died from metal ingestion in the fall to drop the total to 499. Once the cranes arrive at Aransas and are counted, total numbers should be above 500.

It has been a record production year for all three whooping crane populations in the wild (49 in Canada, 4 in Florida and 2 in Wisconsin). In addition, the captive flocks produced 36 chicks that will be reintroduced back into the eastern migratory population (n=23) or held back in captivity for breeding because of their valuable genetics (n=11). Two captive chicks that developed leg problems will be placed in captivity on display at the Jacksonville Zoo in Florida. In Wisconsin, the 2 chicks are the first wild hatchlings in the mid-west in over 100 years! The eastern migratory population of whooping cranes should reach 86 wild birds in its 6th year of the reintroduction.

Dr. Jane Goodall visits Operation Migration at its camp on the Necedah National Wildlife Refuge to see the whooping cranes. Recovery Team member Dr. George Archibald receives the Indianapolis Heroes of Animal Conservation award.

LOW POINTS

The threat of land development on the wintering grounds has become imminent with construction expected to start this fall on a 776-house canal lot subdivision on lands that whooping cranes occasionally used. Land development for people on the Texas coast is growing exponentially and threatens the cranes.

Budget shortfalls exist for both private and government operations in whooping crane recovery. Programs such as flying the cranes behind ultralight aircraft on migration, shipping eggs between captive facilities for reintroduction programs, paying for genetic testing for paternities of captive chicks, and census and monitoring flights for the Aransas-Wood Buffalo and Eastern Migratory populations have created a financial squeeze felt by all partners. However, substantial progress continues to be made by multiple recovery partners.

ARANSAS – WOOD BUFFALO FLOCK

Spring Migration, 2006

The mortality of 6 whooping cranes at Aransas during the 2005-06 winter left 214 in the flock at the start of the spring migration. An estimated 163 cranes (76% of the flock) initiated migration from Aransas between March 29 and April 12th. In the first week of April, the only reports received of whooping cranes in migration were seven cranes on the Platte River (2 singles, a pair, and a family). One color-banded family made the trip from Aransas to Nebraska in four days and, (after a three-day rest), from there to central South Dakota in one day. The single crane on the Platte River from March 11 to April 1 was believed to have been the subadult crane that wintered with sandhills in extreme south Texas and has never been to Aransas. By mid-April, sighting reports of whooping cranes had been received from as far north as North Dakota. Martha Tacha of USFWS-Endangered Species in Grand Island, Nebraska recorded 24 total confirmed migration sightings in spring, 2006 between March 11 and June 15. Sightings were located in North Dakota (9), South Dakota (3), Nebraska (9), Kansas (1), Oklahoma (1) and Minnesota (1). The sighting of 2 adults on June 15 occurred in Minnesota about 60 miles north of Duluth, east of the usual migration corridor. Three whooping cranes remained at Aransas National Wildlife Refuge (NWR) during the summer.

On April 12th at Aransas, one chick was observed all by itself on its parents' territory on San Jose Island. Whooping crane juveniles normally separate from their parents either shortly after arrival on the nesting grounds, en route in the northern parts of the migration, or occasionally separate at Aransas. Presumably the parents started the migration and the juvenile had no idea what was going on or perhaps just wasn't quite ready to migrate, so it stayed behind. The juvenile migrated later on and presumably returned to the Canadian nesting grounds. It probably showed up on its parent's nesting territory, but would have been driven off by the parents who will not tolerate last year's chick.

Wood Buffalo National Park, Canada

Production surveys on the nesting grounds carried out June 13-17 in a Partanavia twin-engine aircraft piloted by Jim Bredy, USFWS-Region II documented a record hatch of 76 chicks from the record 62 nests found by Brian Johns and Lea Craig-Moore of the Canadian Wildlife Service in May. Previous highs were 66 chicks hatched and 61 nests found a few years ago. Fifty-two of the 62 nests (84%) produced one or more chicks. The 76 chicks included 24 sets of twins. The record chick production in 2006 resulted from both high productivity and a large number of nests. An estimated 9 known adult pairs including two single adults failed to nest but were present on their territories, comparable to the 7 pairs that failed to nest in 2005. Thus, there are an estimated 71 breeding pairs in the Aransas-Wood Buffalo population. Water conditions on the nesting grounds looked slightly above average and the weather was good throughout most of June, so biologists were optimistic that survival of the chicks would be above average. I want to thank the Refuge and Endangered Species divisions of USFWS and the Canadian Wildlife Service for funding the June production surveys and acknowledge the tremendous skill of Pilot Jim Bredy and Canadian Whooping Crane Coordinator Brian Johns for his knowledge of the

nesting pairs in the virtual maize of small ponds that characterize the nesting grounds in Wood Buffalo National Park.

The good news from the nesting grounds continued into the summer. In mid-August, Brian and Lea found a record for August of 49 young at fledging age, including 8 sets of twins. Previously, the highest number of chicks found in August had been 39. The August aerial surveys were conducted when the juveniles are close to fledging. Survival of fledged chicks is usually quite good, although losses of chicks from twin families still seems to happen frequently. As many as 40 juveniles may make it to Aransas this fall. If adult mortality is about average, there should be 230+ whooping cranes in the flock in the 2006-07 winter, surpassing the record high of 220 present in the 2005-06 winter. This increase of the population is anticipated since it is in the growth portion of the 10-year population cycle that has occurred during the middle of every decade. However, I had also predicted the population would reach 230 last winter, but the higher than average loss of 25 adult birds between spring and fall, 2005 had kept the population from a sizable increase.

Platte River, Nebraska

The Environmental Impact Statement for the Platte River Recovery Implementation Program (Program) was issued jointly by the Fish and Wildlife Service (Service) and Bureau of Reclamation in May, 2006. The Service analyzed the program developed by the Governance Committee and issued a biological opinion in June outlining the expected impacts for the first 13 years of the program. The Service concluded that the proposed Program would not likely jeopardize the continued existence of the four target species (whooping crane, interior least tern, Northern Great Plains population of the piping plover and pallid sturgeon), or other listed species in the central and lower reaches of the Platte River. On September 27, Secretary of the Interior Kempthorne signed the Record of Decision to participate in the Program. However, the Governors of Nebraska, Colorado and Wyoming also need to sign the Program agreement to implement the Program, pending Federal and State appropriation of funds.

Aransas National Wildlife Refuge

Three whooping cranes did not migrate and remained all summer on the south half of the Aransas National Wildlife Refuge. The three included the 2004 Lobstick juvenile that was injured in spring 2005 and has never migrated north. All three cranes look fine, but I always worry that the failure to migrate is an indication of a health problem. The Lobstick bird was solitary at the beginning of the summer but then joined the other two.

Save Cedar Bayou, Inc. continued efforts to get Cedar Bayou dredged that serves as a connection between Critical Habitat and the Gulf of Mexico. The bayou re-opened several years ago by a tropical storm has remained open but flows are reduced from siltation. An ongoing engineering study for the dredging entered Phase II to provide engineering specifications and permits for the work. A preliminary meeting was held in May with USFWS and other agencies regarding permits.

Water Issues in Texas

In May, a court order was issued in the San Marcos River Foundation (SMRF) case that strongly supported the actions of SMRF. To recap: SMRF had filed suit against the Texas Council on Environmental Quality (TCEQ) in 2003 because their application for a large in-stream water right had been denied by TCEQ but had not been handled according to state law. TCEQ stated they lacked the authority to consider applications to leave water in the river. The court order says that TCEQ **does** have the authority. Based on the wording in the court order, SMRF is also hopeful that the priority date in 2000 for their water right's application will be honored, a critical aspect of Texas water law. SMRF's priority date is very important because so many other water right applications have been made since 2000 when SMRF first applied. These later applications ask to remove water from rivers in the Guadalupe River basin, usually to sell it. In Texas, you get your water in the order determined by your priority date, which is set when you apply for the water. Newer applications may not get water during dry periods.

The court ordered the SMRF water rights application to be re-considered by TCEQ. SMRF was very pleased with the final order and considered this order a good step forward in their effort to make sure that rivers, bays and estuaries have enough water left in them to remain healthy. The court order was subsequently appealed by the Attorney General's office for TCEQ seeking to overturn the earlier decision. TCEQ is saying once again that they do not have the authority to issue water rights to leave water in the river, and they are further delaying the process.

The drought in central Texas continued in 2006, with Stage 1 water use restrictions implemented early in the summer and stage 2 restrictions taking effect in many cities and towns in September. Articles appear almost daily in San Antonio news papers about the water supply. Battles are ongoing over allowable pumping levels from the Edwards Aquifer including impacts to freshwater springs that support several endangered species. Current zoning restrictions limiting what percentage of each piece of land must remain undeveloped to allow re-charge of the aquifer continue to be discussed. Large projects with reservoirs to supply the San Antonio area with additional water from Texas rivers, both from the Guadalupe and Colorado Rivers are being pursued. Water issues are quite chaotic, with human population growth threatening to push up against a limited natural resource.

In contrast to the drought in the center of the state, the Texas coast received above average rainfall. Freshwater swales at Aransas Refuge remained full most of the summer. Thus, although freshwater inflows were presumably below average due to the drought in the watershed, coastal rains presumably helped out and hopefully maintained the productivity of the bays. The coastal rains were substantial. During one period, Aransas Pass, Texas received rain on 9 consecutive days totaling 12.8 inches. Rockport was pictured on the Weather Channel because of flooding in the downtown, deep enough that some of the streets were impassable for about 24-hours.

Land Development

Every year, USFWS reports to Congress on the status of all endangered species. This year, I changed the status of the whooping crane from “increasing” to “stable” based on growing threats. Even though whooping crane numbers are continuing to increase, threats to the winter range have in the past year become imminent due to proposed housing developments in areas occasionally used by the cranes. Without protecting additional lands, whooping cranes will not have additional winter areas to support flock expansion and recovery goals may never be reached. In addition, the growing demand for water threatens freshwater inflows at Aransas that are needed to maintain abundant blue crab populations, the primary food source for whooping cranes. Also, continued construction of power lines including those associated with proposed wind farms in the migration corridor potentially threatens the species.

At Aransas, the USFWS Ecological Services office in Corpus Christi completed a non-jeopardy biology opinion for the proposed housing development near Port O’Connor called “The Sanctuary”. Construction on this 776- house canal lot subdivision is expected to begin shortly on a 680-acre tract. Whooping cranes had occasionally been documented using this property. As other developments arise, my concern is that upland habitat needed by cranes during periods of food shortage will no longer be available, and disturbance will prevent the cranes from using marshes adjacent to the development. To balance out these expected impacts, the developer is providing \$200,000 to be used for protecting other lands near crane areas and will establish conservation easements on wetland areas (209 acres) on two sides of the development, including 65 acres that will be developed as wetlands.

A second canal lot housing development is proposed on a property that includes some whooping crane critical habitat adjacent to the whooping crane use area at Welder Flats. To try to protect needed habitat, the Texas Nature Conservancy working closely with USFW has applied for a 1.5 million dollar grant from the Coastal Impacts Assistance Program (CIAP) to protect 5,000 acres of crane habitat in the next 3 years primarily through purchase of conservation easements. About one third of the wintering whooping crane flock currently winters on private lands. Some of these lands are threatened with housing developments right up to the edge of marshes used by cranes. It is essential that suitable buffers be established to limit human disturbance to the cranes, give them upland areas to use for additional foraging areas in times of food shortage, and provide them fresh water to drink in upland ponds when salinities in the marsh become extreme. Efforts to protect needed lands must begin immediately. The CIAP grant would be an excellent first step. Some matching money is available from the “Sanctuary” housing development agreement as well as the potential for other small pots of money through other USFWS- Ecological Services activities to strengthen the CIAP grant application.

Oil and Gas

Oil and gas operations are nearly always ongoing every summer at Aransas. This summer, a large seismic operation was conducted on the Lamar Peninsula and St. Charles Bay that included the Refuge’s Tatton Unit and marsh areas used by cranes on both sides of the Lamar Peninsula. A 3-D seismic exploration had been completed over much of this area in years past, but permits can still be obtained in such circumstances. Although restrictions were placed on the types of

equipment that could enter marsh areas and compliance was good in most instances, some tracks were still made in a few marshes used by whooping cranes. Fortunately, the tracks usually recovery fairly rapidly, though it is not known if or to what extent damage has been caused. A second company wanting to do seismic work on the southern parts of Lamar Peninsula that would have overlapped portions of the project described above withdrew their permit application as they ran into the deadline for completing the work prior to the arrival of the whooping cranes.

This summer additional natural gas wells were drilled adjacent to crane areas on Matagorda Island; the second year in a row for drilling. An application is expected from a company next summer wanting to drill down to 20,000 feet to recover natural gas. Drilling to this depth will make it difficult to complete the work during the time period when the cranes are in Canada, so some kind of compromise will have to be reached.

National Estuarine Research Reserve (NERR)

The NERR that includes portions of whooping crane critical habitat was officially designated May 6 with ceremonies at the University of Texas Marine Science Center attended by Senator Kay Bailey Hutchinson and Representative Solomon Ortiz. Refuge Manager Charles Holbrook represented the refuge that is included within the boundaries of the NERR. The establishment of the NERR has taken multiple years but should soon provide funding from the National Oceanic and Atmospheric Administration for basic monitoring and biological research focused on estuarine issues.

ADMINISTRATION

Progress continued with both the *Whooping Crane Recovery Plan* and the *Memorandum of Understanding on the Conservation of the Whooping Crane* finalized during the summer. The Recovery Plan is currently being routed for signature, while the MOU will have to undergo additional review by departments in Washington.

In August, leading crane conservationist Dr. George Archibald was honored to receive the Indianapolis Zoo's Heroes of Animal Conservation award, the largest international monetary award of 100 K given to an individual for conservation of a single animal species. Archibald's work and dedication for more than 30 years of dedication to saving endangered crane species includes everything from dancing with human-reared cranes to enhance fertilization to promoting a program to reestablish a migratory flock of Whooping Cranes in eastern North America. We are proud to have Dr. Archibald as a member of the Whooping Crane Recovery Team on which he has served for many years.

Two new members appointed to the Whooping Crane Recovery team are Marty Folk of the Florida Fish and Wildlife Conservation Commission and Dr. Felipe Chavez-Ramirez of the Platte River Whooping Crane Habitat Trust. They take the chairs previously filled by Steve Nesbitt and Dr. Julie Langenberg.

The next Whooping Crane Recovery Team meeting will be held Feb. 1-2 in Lafayette, Louisiana. There will be crane meetings all that week. The Whooping Crane Eastern

Partnership (WCEP) will meet Jan. 29-30; a field trip to White Lake will take place on Jan. 31st, followed by the recovery team meeting. The Whooping Crane Conservation Association will have their meeting the afternoon of Feb. 2nd while the Recovery Team meets in closed session. A field trip to Marsh Island will take place on Saturday, Feb. 3. Come join us and become a “craniac” that week. Louisiana hospitality is guaranteed!

The North American Crane Working Group (NACWG) has decided to hold the next crane workshop in the fall of either 2008 or 2009 in Wisconsin. The meetings will be timed so that attendees should be able to see juvenile whooping cranes being flown behind ultralights, visit sandhill crane research sites conducted by ICF, and attend the Crane Festival held every fall at the Necedah National Wildlife Refuge (NWR).

FLORIDA NONMIGRATORY POPULATION

In 2006, a record 4 chicks fledged in the Florida population! Previously, the most fledged in a single year was 2. This brings the project total to 8 chicks fledged in the wild. Season totals were as follows: 12 pairs nested*, 9 chicks total hatched**, 7 nests hatched at least 1 chick**, 5 nests failed with 7 un-hatched eggs collected.

(* = ties a record, ** = breaks a record).

The production of 4 fledglings was unexpected since conditions were dry with fires in many parts of Florida in May. Rainfall since January was below normal. Wetlands were nearly dry--water levels were approaching the level seen during the Great Drought--when, in 2000, all wetlands in central Florida dried up. So, how did 4 chicks fledge in this drought year?

Marty Folk writes:

“Location, location, location. There are regional differences in rainfall and wetland water levels. The 4 chicks fledged in an area of Lake County that had good water at the beginning of the breeding season. Perhaps, more importantly, the wetlands where the pairs were successful were 1) relatively large in area, 2) deep, and 3) numerous--so they were slow to dry up. Plus, the families were able to move to adjacent marshes if one dried completely. The 4 chicks fledged this year were in 4 families. Two pairs were first-time nesters. It was the male's first attempt in a third pair-with a female that had layed 2 times in the past with a different male, but failed to hatch. The 4th pair was experienced. Unfortunately, 2 of the 4 chicks were from full sibling pairs.”

One adult female whooping crane was captured and held in a pen at Kanapaha Prairie pen near Gainesville to stop its interference with another nesting pair. Unfortunately, the penned bird was killed by an alligator in early June just prior to when the team was going to release her with the nesting season over and the other pair's chick just about fledged.

EASTERN MIGRATORY POPULATION

On June 22nd, the first wild whooping crane chicks were hatched in Wisconsin in over 100 years! The parents were both 4-year-old whooping cranes hatched in captivity at the Patuxent Wildlife Research Center and led in migration in 2002 behind ultralight aircraft from Wisconsin to Florida. The hatching of the twin chicks validates that captive whooping cranes isolation-raised and taught a migration have the behaviors needed to become successful parents.

From a Whooping Crane Eastern Partnership news release:

"This is a long awaited moment," said Signe Holtz, director of the Wisconsin Department of Natural Resources' Bureau of Endangered Resources, "the success of this effort sets a goal for endangered species recovery efforts everywhere. The partnership of public, private and government organizations that has made this possible shows what can be done when we all pull together with a common goal in sight. These chicks have a long and dangerous road ahead of them, but with luck we'll see them wing south with their parents this fall."

In all, 5 whooping crane pairs nested in Wisconsin. All nests were abandoned for unknown reasons prior to hatching of the eggs. It is a priority to try to learn why the pairs abandoned their nests. For next year, 3 sets of video equipment have been purchased to monitor nests to see what factors are involved in abandonment. Predation, lack of food in nearby marshes, and inexperience of the parents are potential factors. Two eggs picked up from one abandoned nest were taken to the International Crane Foundation, and later flown to the Patuxent Wildlife Research Center in Maryland where both hatched. Although one of the chicks developed leg problems and had to be euthanized, the other chick successfully graduated from the ultralight training program, was flown back to Wisconsin, and will migrate this fall behind the ultralights.

At the Necedah NWR, one pair re-nested, stuck with it, and successfully hatched two chicks. The chicks grew quickly and both fledged. However, shortly before fledging, one of the chicks started spending time up to 0.25 miles apart from the parents, behavior never observed in twin whooping crane families in Canada. Post-fledging, one of the chicks disappeared and is listed as "missing" and may be dead. In general, crane parents only occasionally are able to raise two chicks.

Bird movements were monitored intensively throughout the spring and summer. In the spring, 2 wayward birds were captured in New York and 1 in Michigan and returned to central Wisconsin. Especially in the early years of a reintroduction, it is felt very important to try to concentrate birds in the core release area to promote breeding. Windway Capital, Inc. graciously supplied aircraft to transport project personnel to these other states who usually were able to capture the birds and return by aircraft to Wisconsin on the same day. Capture attempts on some of the other birds were unsuccessful. The summer distribution of birds included 60 in Wisconsin and 3 in Michigan. A few birds wandered to Iowa or Minnesota in both the spring and fall.

In 2006, captive-hatched birds were raised for the ultralight (n=18) and direct autumn release (DAR) (n=7) projects. Early training for the ultralight project is conducted at Patuxent, with the birds subsequently flown to Wisconsin in several groups by Windway Capital, Inc. Flight

training continues throughout the summer at Necedah NWR. Chicks for the DAR program are hatched at the International Crane Foundation and later transported to Necedah. This reintroduction method releases isolation-reared chicks into groups of older whooping cranes or sandhill cranes in the fall with the juveniles following older cranes to the wintering grounds in Florida or other southeastern states in the crane flyway. Two of the chicks had hock rotation problems and were pulled from the DAR release program. These 2 cranes were shipped to the Jacksonville Zoo in Florida and will be placed on display in an exhibit featuring native Florida wildlife. The whooping crane captive site committee did an assessment of the Jacksonville facility to ensure the cranes will receive good care and that their facilities can be modified to provide a suitable home for the cranes. Jacksonville is very happy to be receiving the birds and is glad to continue to support the project. Last fall, personnel from the Zoo helped construct the whooping crane holding pen at Halpata Tastanaki Preserve where the ultralight cranes resided for several weeks before they were flown on to Chassahowitzka NWR.

A draft management plan for the Whooping Crane has been prepared by the Wisconsin Department of Natural Resources (DNR). This document includes information on the migration corridor and wintering areas and thus has application for the entire eastern migratory population. The Wisconsin DNR has also developed a whooping crane monitoring database that interfaces with GIS data and Natural Heritage Inventory information on state, federal and private lands. Plans are to compose maps of whooping crane habitat and land use, develop specialized data summaries and other GIS products to support the Whooping Crane Management Plan.

Outreach activities continued and are an important part of the reintroduction. A film produced by Operation Migration entitled "Bringing Back the Cranes" was a finalist in May at the International Wildlife Film Festival in Missoula, Montana.

Famous biologist Jane Goodall visited Operation Migration at its camp on the Necedah NWR in September, was given a ride in an ultralight during a training flight, and was dressed in a crane costume and got to work with the birds, herding them into the pens and getting a close-up look. Dr. Goodall was as thrilled to see the cranes and efforts to reintroduce them back into eastern North America as project personnel were to meet her. She is a marvelous lady and continues to promote conservation world-wide with her inspirational message.

The annual fall meeting of the Whooping Crane Eastern Partnership (WCEP) was held September 18-20. This is an important opportunity for project personnel from all the different partners to meet in person and plan future actions.

CAPTIVE FLOCKS

The captive flock managers all seemed to hit production targets nearly perfectly in 2006! This is a very talented group of dedicated professionals since breeding whooping cranes in captivity is a very difficult operation.

The breeding season began with a disastrous snowstorm at the Patuxent Wildlife Research Center during which some of the cranes escaped and over 100 pens were damaged. Patuxent scraped together funds and rallied help from all around the area to make repairs. The personal dedication and commitment of all involved in this operation was outstanding. Within one month, all the pens were repaired and re-designed so that netting can be lowered in future when heavy snows fall. The disturbance to the cranes delayed the breeding season by about a month, with the first egg laid on April 10th. Overall production was about average. The quick actions of all involved had prevented a disaster. We are so grateful for what Patuxent achieved.

Kathy O'Malley decided to leave her job at Patuxent and take a job with the Department of Agriculture. Kathy has been the "chick mama" for approximately 21 years at Patuxent, so she is going to be missed. Thanks Kathy for all those long hours and nights caring for hatchlings and inducing them to take their first bites of food!

Calgary had their best production season ever. Now in their second full year using artificial insemination techniques, egg fertility rose dramatically and flock manager Dwight Knapik made 3 trips across the border carrying 12 eggs for the reintroduction programs, 8 of which hatched. Finding funding for these flights was difficult and had to come from different sources including the Canadian Wildlife Service, the Calgary Zoo, and other donated funds. Permit issues kept Pam Pritchard of the Calgary Zoo and I fully occupied in the spring. The most difficult thing I have to deal with annually involves the international shipment of endangered species. Approximately 7 permits are needed for each shipment, materials have to be inspected by Customs, USFWS and USDA, and everything has to be timed perfectly. Whooping crane blood samples from some of the chicks were imported in September to Therion Labs in Saratoga Springs, New York for paternity testing. The permit process was again very difficult with probably over 100 person-hours spent to coordinate the shipment. FedEx failed to clear the package with USFWS in Memphis and lost the original of the Canadian export permit. This created a storm of communications during the shipment process and added additional complexity. This bureaucratic process needs to be simplified!

In the spring, approximately 26 eggs in 7 shipments were carried in suitcase incubators between facilities to try to meet numerical targets for the ultralight and direct autumn release projects. Shipments involved flights from the International Crane Foundation (ICF), the Calgary Zoo, and Species Survival Center in New Orleans to Patuxent. Additional egg shipments occurred between Patuxent and Calgary to ICF. The egg shipments are carefully orchestrated to meet numerical targets and also try to have similar aged chicks for each of the reintroduction projects. Flock managers talked on weekly conference calls throughout the spring with the USFWS whooping crane coordinator to plan all these shipments. A major need of the recovery program is to get dedicated funding for these flights; right now each facility is scraping the bottom of the barrel to get flights either donated or paid for.

ICF shipped 4 cranes to Patuxent on April 10th to open up pen space and provide suitable mates for some of the young cranes at Patuxent. They also shipped 3 cranes to the San Antonio Zoo to free up more pens for the 2006 chicks. A chick was hatched at the Amoco whooping crane exhibit at ICF and provided great viewing for the public all summer. The chick has valuable genetics and will be kept in captivity as a future breeder.

One crane was shipped from Patuxent to Homosassa Springs, Florida on May 16th. After a long day in a crate, the crane named "Rocky" entered his new pen on slightly wobbly legs and immediately drank. He was readily foraging on smelt the next day and adjusted well to his new home. Rocky will be paired with a female already on exhibit at Homosassa Springs Wildlife State Park.

The new whooping crane facility at the Freeport McMoRan Audubon Species Survival Center (SSC) in New Orleans is nearly finished. Five new "double" pens with large ponds have been constructed. Great dedication has been shown by personnel at SSC considering all the hardships they have faced in New Orleans in the past year post-Katrina.

On September 21-22, a genetics summit was held for flock managers and support personnel at ICF led by geneticist Dr. Ken Jones from Kansas State University. The product of this effort was a methodology worked out to create a new breeding chart for the entire flock that will provide better information to create the proper pairings to maximize the preservation of the genetic material in captivity. This new chart was produced by Ken in October and distributed to the flock managers. Decisions will be made as needed involving specific pairings, artificial insemination pairings, and shipments of birds between facilities. Decisions will hopefully be finalized in February at the upcoming recovery team meeting. Special thanks go to Ken who donated his time to this effort and has made a huge difference in the genetic management of the captive and reintroduced flocks over the last 10 years.

WHOOPING CRANE NUMBERS – SEPTEMBER 30, 2006

Wild Populations

	Adult	Young	Total	Adult Pairs
Aransas/Wood Buffalo	214	^A	214 ^A	71
Rocky Mountains	0	0	0	0
Florida non-migratory	50 ^B	4	54 ^B	17
Wisconsin/Florida migratory	61	25 ^C	86	5
Subtotal in the Wild	325	29	354	93

^A The population of the Aransas-Wood Buffalo flock in the spring, 2006 was 214. A record 47 chicks in mid-August have survived from the record 76 chicks and 62 nests found in June. These chicks are not listed above since a total population count cannot be done during the summer and it is not known what adult mortality has occurred. If adult mortality between spring and fall is about average, there should be 230+ whooping cranes at Aransas in the 2006-07 winter.

^B This number is an estimate since not all whooping cranes in Florida can be located on a regular basis. Four chicks fledged in the wild in 2006. Birds routinely monitored include 46 adults and 4 chicks.

^C One pair hatched twin chicks, the first whooping cranes to hatch in the wild in Wisconsin in over 100 years. One of the chicks listed above is “missing” and may have died. An additional 23 captive-reared young are at Necedah National Wildlife Refuge in central Wisconsin and are expected to be reintroduced into the wild starting in fall, 2006.

Captive Populations

	Adult	Young*	Total	Breeding Pairs
Patuxent WRC, Maryland	57	3	60	15
International Crane Foundation, WI	32	5	37	11
Devonian Wildl. Cons. Cent./Calgary	19	3	22	6
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	0	8	1
Homosassa Springs Wildl State Park	2	0	2	0
Lowry Park Zoo, Tampa, Florida	2	0	2	0
Jacksonville Zoo, Florida ^D	0	2 ^D	2	0
Subtotal in Captivity	132	13	145	34

* Numbers are of young remaining at the captive centers after eggs and/or birds were shipped out for reintroductions in 2006. In most cases, these young are genetically valuable and will become future captive breeding stock.

^D Two juveniles currently at the Necedah NWR have health problems and may be shipped to the Jacksonville Zoo in Florida in October, 2006.

TOTALS (Wild + Captive) 354 + 145= 499