THE UNISON CALL

A Newsletter of the North American Crane Working Group

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Florida Whoopers Hatch!

Article by Marty Folk and Steve Nesbitt

This spring, despite drought, a milestone event took place for the Florida reintroduction project. A pair of whooping cranes hatched the first eggs in the wild in the United States in 60 years! The male parent was raised by the Patuxent Wildlife Research Center and the female by the International Crane Foundation. These isolation-reared birds hatched their first nest before their 5th birthdays. The eggs hatched 16 and 18 March. Between the first and second weeks post-hatching one chick was lost to unknown causes. The surviving chick was raised to near fledging before it was killed by a bobcat. At that time the whooper family's marshes literally dried up under their feet. The chick was not yet flight-capable so it suffered the fate of many Florida sandhill crane chicks during drought years. The whooper chick's death was due to natural circumstances and we were well aware early on that the odds were not in favor of the chicks' long-term survival.

But the season was a resounding success because this historic pair of whoopers showed us that whooping cranes raised in captivity and released into the wild can do what has to be done for this project to work --reproduce themselves. In past breeding seasons we saw whoopers form pair bonds, set up territories, and build nests. Last year 2 pair laid eggs but the nests failed due to natural causes. This year we identified 15 pairs, 3 nests with eggs, and one nest hatching. We were impressed by the successful pair's nest attendance and the fact that they hatched both eggs. We were impressed when the pair raised a chick through the first couple weeks of life, a time when the chicks are especially vulnerable to avian predators and other hazards. Again we were impressed with the parent's ability to raise the surviving chick almost to fledging.

When we captured the chick at 66 days of age for attachment of a radio-transmitter and quick exam, we found the chick's feather development to be more advanced than what we'd expect from the literature. Its flight feather development was similar to what we'd expect for a Florida Sandhill Crane at that age. Perhaps an abundance of food resources was responsible.

The parents seemed to have no problem finding enough food to keep the chick content. For several weeks post-hatching the parents fed the chicks many small prey items, including crayfish, small frogs, and aquatic insects. As the surviving chick grew, the size of prey items that the parents offered it grew. Snakes and aquatic salamanders became important in the chick's diet. Later in the chick's development, the parents and chick mainly ate an exotic "aquarium" catfish that had become naturalized in the marshes. We don't know the relative abundance of different sized prey items in the marsh as the chick grew and the marsh water level shrank. We do know that the parents raised their chick within a very confined area near the nest. They made several short journeys away from the nest marsh but perhaps 98% of their time was spent in an area of just a few acres of high quality marsh. Much more habitat was available to them but not used, perhaps because these adjacent areas were inhabited by other cranes. A pair of sandhill cranes hatched 2 chicks within sight of the whooper pair, less than 100m from them.

During this year's breeding season it was fascinating to watch the changes in behavior in the parents of the first successful nest. After years of watching whoopers in Florida we saw "new" behaviors that were brought out by their parental urges. After egg-laying they "locked in" on the nest. Even the bird that wasn't incubating at the time usually was within 200m. During incubation the male especially became more protective of the nest area. At his peak he defended the area against cranes, wading birds and even ducks. Both male and female showed an acute awareness of potential avian predators such as hawks, vultures, and eagles. They responded to these overflying birds by inflating their feathers, vocalizing, and running toward the nest if they weren't already at it. In the past we've never seen responses, other than an awareness, to these species. During parenthood the whoopers advanced to a new level of awareness and thinking that they had not experienced previously. Likewise, this project moved on to a level where we know for a fact that these birds can do what we had hoped they could.

The first-time whooper parents met or exceeded all expectations. More of the fifteen pairs we observed this spring would have nested, had there been better water levels in marshes. Next spring, if we have a normal or a wetter-than-normal year, we can expect great things from the Florida flock. At this time (early June 2000) the Florida flock numbers around 80 whoopers.

NEWS & ANNOUNCEMENTS

CRANE WORKSHOP A SUCCESS

In the words of NACWG President Scott Hereford, "The Eighth North American Crane Workshop was an unqualified success...what had to be one of the most stimulating and enjoyable workshops ever." Indeed, January's workshop in Albuquerque, New Mexico, was well attended and enjoyed by over 80 crane biologists, managers, captive breeders

and crane enthusiasts. All came together for the presentation of papers, a NACWG business meeting, a field trip, a banquet, and lots of comradery.

The Workshop was very well-organized and time flew by with a schedule full of meetings and activities. A mariachi band kept the mood light as folks met or became reacquainted at the ice-breaker on Tuesday night. At the technical sessions on Wednesday and Friday, 40 papers covering a wide range of crane topics were presented. " Thanks and Good Job!" to all the presenters.

At the business meeting on Wednesday, we discussed the NACWG website, *The Unison Call,* the workshop proceedings, and President Hereford urged members to join the membership and awards committees. There was an election of NACWG board members. Gary Lingle, who is a founding member of NACWG, and who has served on the board in many roles, stepped down from his current position as Treasurer. We are very grateful to Gary for all the time and effort he has given to the organization. The other board members agreed to serve another term. Tom Hoffman was nominated and elected as the new Treasurer. A location for the next workshop was also discussed at the business meeting. Members voted on six suggested locations, choosing Central California. However, someone in California is needed to help organize the next conference. If no one steps forward, the 9th North American Crane Workshop will be held at the 2nd choice location, the International Crane Foundation in Baraboo, Wisconsin. Proposed dates for the next workshop are: January 2004, if in California; September 2003, if at ICF.

Thursday's field trip to Bosque del Apache NWR was one of the highlights of the workshop. We had a wonderful tour of the refuge, seeing many sandhill cranes and snow geese, two whooping cranes, and plenty of other waterfowl and wildlife. Even folks on the "hot bus" , despite a broken air conditioner, had a great time on the bus tour. An even greater treat, however, was experiencing "the fly-in" at dusk. It was spectacular to see thousands of cranes and geese fly in to roost-- some right over our heads -- at dusk. Thanks to John Taylor and the rest of the Bosque staff for the fantastic visit, especially the delicious luncheon they made and served.

The workshop ended on Friday evening with a dinner and awards banquet. Entertainment after dinner included a dance production and play performed by local school children. The children did a beautiful job and their enthusiasm for crane conservation was heart-warming and inspiring. Several awards were also presented. The Walkinshaw Award was presented to retired FWS biologist Jim Lewis, for his lifetime contributions to crane conservation. For their crane work in the Rocky Mountains, Special Achievement Awards were presented to: Wendy Brown, Rod Drewien, Bill Huey, Jerome Pratt, and Lawrence Smith. Jessica Peterson received the Student Paper Award for her paper, "Population genetics of mid-continent sandhill cranes". John Taylor and Jo Rogers were recognized for organizing the workshop with *Grus Lagniappe* Awards.

The NACWG thanks Scott Hereford, John Taylor, Jo Rogers and all the others who helped put together such a wonderful workshop. GREAT JOB! For those of you who

missed the workshop, plan to attend the next one in 2004. If it's half as good as this past workshop, it'll be a great time!

Jane Nicolich

CUBA

During the first 2 weeks of February 2001, the International Crane Foundation will take a group of 14 professional crane biologists and educators to Los Indios Nature Reserve, Cuba, to study the Cuban Sandhill Crane and to conduct educational programs in schools in areas surrounding the reserve. Costs of the trip, including airfare, is $2000 payable to ICF and tax-deductible. If you are interested in joining this group, please contact Tom Hoffmann in Seattle, thoffmann@hoffmanns.com <mailto:thoffmann@hoffmanns.com> or 206-286-8607.

Tom Hoffmann, Seattle, WA

Dale Hjertaas Steps Down as Whooping Crane Recovery Team Member

For those of you who attended the short meeting of the Whooping Crane Recovery Team in conjunction with the North American Crane Workshop in Albuquerque you will know that Dale Hjertaas has stepped down as a member of the recovery team. Dale has served on the team since the inception of the Canadian Team in 1985 and has always had a knack of keeping the team on track and focused. Dale has always placed the welfare of the Whooping Crane in the forefront and was never afraid to suggest new options when the team seemed to be at a roadblock.

Dale is not leaving the Recovery Program altogether. As many of you know he has been appointed as a board member of the Whooping Crane Conservation Association and will still be involved in Whooping Crane Recovery from that perspective.

The North American Crane Working Group would like to thank Dale for his past and continued dedication on behalf of the Whooping Crane recovery program. Thank you Dale.

Brian Johns

The late Jake Valentine will be honored as a "Conservation Hero" at the National Conservation Training Center in West Virginia. A large poster with a picture of Jake and short biographical caption should be finished soon and put on display at an as yet

unknown location on the campus. Thousands of conservation professionals attending training at NCTC are inspired by reading about past heros of conservation on display. We are extremely pleased that Jake will join them.

Crane Exhibit

Planning is well underway for an upcoming crane exhibit at the National Conservation Training Center in Shepherdstown, West Virginia. It will be the first for presentation in the new Lab Building. Those willing to donate personal and/or professional artifacts related to crane conservation, please contact Dr. Jewel Bennett, 304/876-7469 or jewell_bennett@fws.gov .

Scott Hereford

PUBLICATION AVAILABLE

Marcia Miller of the Beckman Research Institute in Duarte, California, informed us this recent publication:

Jarvi, S.I., Goto, R.M., Gee, G.F., Briles, W.E. and Miller, M.M. 1999. Identification, inheritance and linkage of B-G-like and MHC class I genes in cranes. J. Hered. 90(1): 152-159.

Thanks, Marcia. If anyone else has recently published or have run across something that you'd like to share, please send the citation to the Editor.

Welcome New Members

Nancy Cox, Albuquerque NM; Marianne Wellington, Baraboo WI; Jo Rogers, Socorro NM; Chester McConnell, Lawrenceburg TN; Alan Keitt, Archer FL; Joseph Engler, Ridgefield WA; William Carrick, Toronto ONT; Jane Austin, Jamestown ND; Carolee Mellon, Lansdowne MD; Matthew Kinloch, Laurel MD; Clayton Derby, Cheyenne WY; Evelyn Horn, Eckert CO; Randy Hill, Othello WA; Xiomara Galvez, Havanna CUBA; Judith Buhrman, Seminole FL; Ron Miller, Homosassa FL; Patty Walcott, Alturas CA; Philip Mesner, Victoria British Columbia; Frederick Beald, East Bridgewater, MA; Richard Erickson, Othello,WA; Harmony Frazier, Seattle, WA; Rhonda Gerber; Randy Hill, Othello, WA; William L. Kendall, Laurel, MD; Kenneth Kowalczyk, Seattle, WA; Christina L. Mann, Bellingham, WA; Sean G. Schmidt, Seattle, WA; John Shadle, Columbus, NE; and Christine Williams.

REGIONAL REPORTS

MISSISSIPPI

Thirteen captive-reared cranes were released onto the refuge between November and February. All were released at new sites: a hard release of one in constructed wetlands north of Ocean Springs Unit, five in Beasley Pond in southern Gautier Unit, and seven in Sullivan Pond on Ocean Springs Unit. All still survive.

The second driest spring in a century and the driest May on record resulted in extreme conditions for crane nesting. No late winter rains filled in the nesting areas and the area was 15" short for the year by end of May. We're talking parched! Nevertheless, a record high 21 pairs had active nests and two pair renested . One nest is still being incubated and a few more renests may yet be expected . There was extreme nest and chick loss but one chick is surviving. Among the highlights was the first nesting of an Audubon-reared bird, the use of a new CNA, and the nesting, if IDs are correct from partial band combinations, of the oldest first-time nester. An 18-yr.old female, Patuxent 616, nested for the first time and her mate wild-hatched #628, was nesting for the 1st time since 1986. Two chicks had 3g radios implanted by Glenn Olsen in the chick mortality study. A late term egg and a chick were transferred to Audubon for rearing for release.

Two new crop units or food plots totaling over nine acres were built to provide extra food for cranes in the eastern Ocean Springs Unit.

The 3rd Annual Gautier Crane Fest was held in March.

The first ever capture of a greater sandhill crane in the area was recorded in February. Caught using the coffin trap, the bird was marked with a FWS band and an orange color band above the hock. Please be on the lookout.

Over several months, three cranes died from entanglement or electrocution in a powerline north of the Ocean Springs Unit between a new roost and an established feeding area. The target section of powerlines and phonelines was buried by Singing River Electric and BellSouth with refuge in-kind labor assistance. The breeding female #243 and her radio-tagged chick were victim of predation (bobcat). This was first known record here of chick and parent killed at same time. In a bizarre incident, Crane #039 died from asphyxiation two days after capture (she looked fine upon release and was fixed moving during post release period). Necropsy at Madison reported a piece of corn stuck in trachea. Of great interest was the finding that this 10 year-old female had an oviduct but no ovary, and so would have never bred. The oldest known Patuxent bird, Crane #637, a captive-reared HY83 (that's right-17 years old) male, was found dead, probably of predation.

The refuge website has changed to http://mississippisandhillcrane.fws.gov

Scott Hereford, Gautier, MS

CANADA

Wood Buffalo Whooping Crane Breeding Season Update:

Habitat conditions on the breeding grounds appear to be near normal, with water levels slightly above average. This improvement in water levels is welcomed, since water levels are very important in determining the number of young that will survive to fledging age. In the year leading up to the start of the 1999 breeding season rainfall was only 79% of normal, this resulted in about 35% (long term average 46%) of the nests actually fledging a young. During 1999 rainfall was over 3 times normal, which refilled the wetlands and led to the habitat conditions that are present this season.

In May, 2000, 50 Whooping Crane nests were observed in Wood Buffalo National Park and surrounding areas. Forty eight of the nests were located in the park while 2 were just outside. In 1999 there were 48 known nesting pairs. There could be an additional nest or two present as well. One pair, in particular, that has nested in the past has not been seen on their traditional territory for the past 2 summers but they still winter at Aransas. Searches for this pair and others will take place in mid June in conjunction with the hatching success surveys.

Brian Johns, Saskatoon, Saskatchewan

TEXAS

The peak population of whooping cranes at Aransas during the 1999-2000 winter equalled 171 white-plumaged birds and 17 juveniles, totalling 188 cranes. One subadult wintered with sandhills in West Texas and apparently never made it to Aransas. The flock consisted of 96 adults (48 pairs or potential pairs), 75 subadults, and 17 juveniles. The 188 cranes is probably the peak population this century and was an increase of five over the peak of 183 during the 1998-99 winter.

An estimated 182 whooping cranes were present at Aransas in the spring of 1999. With the addition of 17 young that arrived at Aransas, the flock could have reached a maximum of 199 whoopers. The peak population of 188 thus represents a loss of 11 cranes (6.0 % of the spring, 1999 population of 182). At least one mortality is believed to have occurred in the fall, 1999 migration when a single adult with a chick was sighted in migration. One adult banded GwG-YbY (1987) died during the 1999-2000 winter. An estimated 187 cranes started the spring, 2000 migration.

Food resources were considered marginal during the 1999-2000 winter. Blue crabs were abundant in the fall, but declined rapidly. Almost no crabs were available in January and February. Use of clams and/or invertebrates such as mud shrimp or bloodworms in open

bay habitat was observed. Wolfberries were available for the cranes in November and December. Acorns were available on prescribed burns which received heavy and sustained use. This use was correlated with the drop in blue crab availability. Except for portions of March, salinities were high throughout the winter so that crane use of freshwater sources occurred on a daily basis.

Adult cranes and/or potential pairs occupied 48 territories and/or use areas, three less than last winter. Thirty-six cranes were color marked (1 less than last winter), representing 19.1% of the population. Territories and/or use areas were located on the Refuge (21), Lamar (1), San Jose (9), Matagorda (13), and Welder (4). Cranes generally were found on the refuge (94), Lamar (3), San Jose Island (29), Matagorda Island (35), Welder Flats (26), and West Texas (1). The average of 94 cranes on the refuge, 27 more than last winter, resulted from cranes being attracted by refuge prescribed burns. Large flocks formed on the burns, including a record high of 32 cranes observed together January 21. Record highs for the 1998-99 winter were documented on the refuge (112) and Welder Flats (31).

Tom Stehn, Aransas, Texas

MEXICO

During December 1999, we surveyed >150 wetland units by air and ground in 6 states in the Mexican Interior Highlands (from north to south: Chihuahua, Durango, Zacatecas, San Luis Potosi, Aguascalientes, and Jalisco). Surveys started at the New Mexico/Texas border in Chihuahua and continued southward for >1,200 km to Laguna de Sayula, south of Guadalajara in the state of Jalisco. Although efforts were directed at counting geese, we also recorded numbers of sandhills cranes. Our study was funded primarily by Ducks Unlimited, Inc. with assistance from the U.S. Fish and Wildlife Service.

We recorded 37,921 cranes in the 2 northern Mexican states of Chihuahua (37,627) and Durango (294). Cranes were recorded at 15 wetland areas and >97% were on 4 areas in northern and central Chihuahua: 1) Laguna de Babicora (26,000), 2) Ascension Valley (4,200), 3) Laguna de los Mexicanos (3,600), and 4) Laguna de Victorio (3,200). Ground surveys revealed that most cranes were the Lesser subspecies (*Grus canadensis canadensis*). As in previous crane surveys in Mexico, Laguna de Babicora was the most important wintering area (J. Wildl. Mgmt. 60:270-285).

21.5+ year-old Crane Recovered in Mexico: During our survey we visited the hunting lodge of Fernando Boyer at Laguna de Babicora, Chihuahua, and obtained a band (628-21255) from a crane shot by a hunter on 13 November 1999. The bird also had a blue plastic leg band. Information provided by the Bird Banding Laboratory, Laurel, Maryland, showed that the crane had been banded by the Oklahoma Wildlife Research Unit on 5 April 1980 near Tryon, Nebraska. It had hatched in 1978 or earlier and was at least 21.5 years old when harvested.

Rod Drewien, Wayan, ID; John Taylor, Socorro, NM; Alberto Lafon and Manuel Ochoa, Chihuahua, Chihuahua, MX

WEST COAST

The Board of Directors of the North American Crane Working Group has approved the establishment of a new committee, The West Coast Crane Working Group with Board member Tom Hoffmann of Seattle as the Chair. The West Coast Crane Working Group promotes research on crane conservation and management, fosters better understanding and appreciation of cranes and their habitat among the general public and addresses conservation issues affecting cranes and their wetland habitats. The Working Group accomplishes these goals through research, education, and advocacy.

The Washington State Greater Sandhill Crane Recovery Plan is being drafted by the Washington Department of Fish and Wildlife with financial support from the Working Group.

A newly established program will capture cranes in their wintering grounds, primarily in California, fit small radio transmitters to their legs and track their migration via satellite from their wintering grounds to their breeding grounds, in Canada, Alaska, and Siberia, and back. Once breeding, staging, stopover and wintering areas along the long migration routes have been identified, these areas will be evaluated for threats to the cranes. The primary threat is loss of wetland habitat due to draining or flooding. Other factors also play a role in the loss of cranes during migration, such as power line collisions. Blood samples will also be taken from the cranes at the time of capture for genetic research and research on diseases.

The Working Group promotes crane festivals in the wintering, stopover and breeding communities. A crane festival is held in Othello, Washington each March and another in Lodi, California each November. Other festivals will be organized.

Students and others will be able to follow migrating cranes on their computers. The satellite tracking maps and other educational material will be available over the Internet. Lesson plans are available for study units on cranes for all grade levels, K through 12. There is an international student crane art exchange which fosters contacts between schools and students in all the countries where cranes are present. A portion of the crane research supported by the Working Group will be undertaken by undergraduate and graduate students at West Coast colleges and universities.

The Working Group endorses and supports further federal and state support for existing crane research projects, assists other organizations in protecting crane habitat, promotes conservation on private lands and the study and management of the human dimensions of crane conservation.

Cranes are wonderful ambassadors for promoting conservation of wetlands as well as larger concerns, such as mutual understanding and respect along their international migration routes. They are all "our " cranes.

The Working Group is seeking individuals, foundations, corporations and other funders who are interested in supporting our programs. The group is a part of a not for profit organization and all support is tax deductible.

For further information please contact Tom Hoffmann in Seattle, thoffmann@hoffmanns.com <mailto:thoffmann@hoffmanns.com> or 206-286-8607.

Tom Hoffmann, Seattle, WA

CAPTIVE FLOCKS

On the captive whooping crane news front, all institutions had a successful year to date (June). The San Antonio Zoo, San Antonio, Texas, had six eggs from their two pairs and are successfully costume rearing two chicks. The other four eggs were infertile. The Calgary Zoo, Calgary, Alberta, has had four whooping crane pairs lay a total of 21 eggs. Eleven of these were fertile, nine infertile, one broken, and six chicks have hatched. One chick died at five days of age, so now they are costume rearing five chicks for the release program.

USGS Patuxent Wildlife Research Center, Laurel, Maryland, has had eight whooping crane pairs lay 51 eggs. Six of the pairs bred naturally, and two were artificially inseminated. There are 24 chicks being costumed reared and 7 being parent reared. One chick died of a respiratory infection, and one was euthanized because of severe congenital leg deformities.

The International Crane Foundation, Baraboo, Wisconsin, is costume rearing four whooping crane chicks, with two more eggs due to hatch shortly. In addition they are rearing two white-naped crane chicks, one black-necked crane chick, and one greater sandhill crane chick.

Other species being reared in captivity include 13 Mississippi sandhill crane chicks being costume reared for release at the Audubon Zoo, New Orleans, Louisiana. Two more chicks are due to hatch to bring the total to 15. Eight greater sandhill cranes are being costume reared at Necedah National Wildlife Refuge, Necedah, Wisconsin, and an additional 16 greater sandhill cranes are being costume reared at Patuxent for an experimental reintroduction along a migratory corridor stretching from Wisconsin to Florida. These 24 birds will be trained to follow ultralight aircraft on the migration. Cooperators on rearing and training the chicks in captivity include the U.S. Fish and Wildlife Service, Operation Migration, the International Crane Foundation, and USGS Patuxent Wildlife Research Center.

Glenn Olsen, Laurel, Maryland

IN MEMORIAM

Jake Valentine, retired FWS biologist and father of the Mississippi Sandhill Crane National Wildlife Refuge, died at home February 4 in Lafayette, LA after a short illness. Jake was born in 1917 in Racine, Wisconsin. He served in the U.S. Army during WWII and received a Silver Star for heroism in the Pacific Theatre at Saidor. He received his MA in Zoology in 1950 from the University of Wisconsin. He joined the U.S. Fish and Wildlife Service upon graduation and served as refuge manager at Slade (ND), Chincoteague (VA), and Loxahatchee (FL) National Wildlife Refuges before becoming Regional Wildlife Biologist for the Gulf Coast, based in Lafayette, LA. One of his early assignments was to investigate the effects of Interstate 10 construction on the small remnant population of sandhill cranes in Jackson County, Mississippi. His energy, persistence, and dedication to the cranes led to the creation of the Mississippi Sandhill Crane NWR . Jake was a hard-working naturalist, mentor, and unforgettable character with a fierce dedication to the resource. He remained very involved well after his official retirement in the early 1980s. He authored several papers on the Mississippi sandhill crane, well represented in nearly all the North American and international crane workshops from 1975-1996. He was the first recipient of the NACWG's Walkinshaw Crane Conservation Award, presented at the Mississippi Workshop in 1996. His endurance and durability in the field was legendary, even in hid mid-70s. He led a colorful, fulfilling, and important life and has left a great legacy that many of us are fortunate to have benefitted. See NACWG website for photo and more info.

Scott Hereford

RESEARCH

PROPOSED EASTERN MIGRATORY WHOOPING CRANE REINTRODUCTION

Following the selection in September, 1999 of central Wisconsin as a release site for reintroduction of migratory whooping cranes in the east, a very fruitful partnership has evolved and worked hard getting the project started. Key players have included the Wisconsin DNR, USFWS-Regions 3 and 4, ICF, Operation Migration, USGS Patuxent Wildlife Research Center, the Wisconsin Natural Resources Foundation, National Fish and Wildlife Foundation, and numerous other participants. Five working teams have been formed to deal with fund-raising and budget, outreach and education, regulatory and permits, flyway coordination, and the bird team for field operations, Three project meetings were held in Madison, WI, along with monthly conference calls for partners.

Briefings have been given to the USFWS-Washington office, Congressional delegations, and Flyway Councils. All Flyway States, including Wisconsin and Florida, have given permission to proceed with detailed planning for the project. It is understood that an eastern migratory population will be designated experimental/nonessential, must not impact hunting programs or affect the nonmigratory reintroduction program in Florida. A draft Environmental Assessment and 10j rule have been prepared for NEPA compliance. Funds have been received from the National Fish and Wildlife Foundation and Wisconsin Natural Resources Foundation. Field operations have begun for the proposed ultralight-led migration of sandhill cranes in the fall of 2000 between Necedah and Chassahowitzka NWRs. Sandhill crane eggs collected from Wisconsin were hatched at Necedah NWR and at Patuxent Wildlife Research Center. If the sandhill project is successful and the entire project stays on schedule, it is hoped that whooping cranes will be led south in the fall, 2001.

Tom Stehn

The Unison Call is published twice a year, winter/spring and summer/fall. Membership is based on a calendar year. All contributions, suggestions, opinions, drawings, cartoons are very welcome! Send newsletter items to:

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Deadlines are June 10 and December 10. Please send information on a disc (either size) in WordPerfect or as a WordPerfect attachment (e-mail) whenever possible.