

THE UNISON CALL

A Newsletter of the North American Crane Working Group

Vol. 14, No. 2, January 2003

NEWS & ANNOUNCEMENTS

IN SEARCH OF CRANE COUNTERS!

On April 12, 2003 the International Crane Foundation (ICF) in Baraboo, Wisconsin is sponsoring the 28th Annual Midwest Sandhill Crane Count. The Count is used to monitor the general population trends and distribution of sandhill cranes in the Upper Midwest, as well as to promote awareness of cranes and wetland conservation throughout the Count area.

In 2002, approximately 2,500 participants tallied over 10,000 cranes in Wisconsin and portions of Illinois, Michigan, Minnesota, and Iowa. The Count provides a unique opportunity for both experienced and novice birders to participate in one of the largest single species surveys in the world, while assisting ICF's efforts to preserve and study the world's 15 species of cranes and the natural communities on which they depend.

Despite their current abundance, sandhill cranes were considered a threatened species in the Midwest just thirty years ago. Sandhill cranes were common in the Upper Midwest in the mid1800s, but declined rapidly after 1875 due to over hunting, wetland loss, and human disturbance. By 1936, only about twenty-five pairs survived in Wisconsin, and the species was considered rare elsewhere in the region. Since that time, hunting restrictions, the restoration and protection of wetlands, and the adaptability of the birds has allowed the sandhill population to rebound, slowly at first, but with rapid growth throughout the 1980s and 1990s. Crane Count observations also indicate that the cranes have become more tolerant of human activity, adapting well to changing land use patterns.

For more information on how you may become involved in the Count, contact Joan Garland, ICF Outreach Coordinator, at (608) 356-9462 ext. 142 or visit the ICF website at www.savingcranes.org.

DUES ARE DUE. It's time to renew your membership in the NACWG. Please fill out the form at the end of the newsletter and send in with your dues.

THE UNISON CALL NEEDS A NEW EDITOR!

As of this issue, I will be retiring as editor of *The Unison Call*. I have enjoyed putting together the newsletter, but after seven years I am ready to pass on the task to another enthusiastic member. Surely there is someone out there willing to volunteer a little time and hopefully some fresh ideas!

The editor's job is quite easy and requires a time commitment of approximately two weekends per year. Most submissions are made routinely, so the main task is organizing the articles. As editor, it is actually quite fun to be one of the first people to receive the most recent, exciting crane news. The only requirements are use of a word processor and an interest in crane biology. Access to e-mail is also very helpful. If you have an interest, or would like to know more, please contact President Scott Hereford at the address below. Please consider volunteering – the NACWG needs you!

I would like to thank everyone who has helped me with the newsletter during my stint as editor. I especially appreciated the efforts of the "regulars", who routinely contribute articles. You make *The Unison Call* a success. Thank you! Best wishes to the new editor.

Jane Nicolich

To volunteer, contact Scott at:

Scott Hereford MS Sandhill Crane NWR 7200 Crane Lane Gautier, MS 39553 scott_hereford@fws.gov

REGIONAL REPORTS

FLORIDA

Our fledged whooping crane chick (named Lucky by volunteers Gene and Tina Tindell) and its parents have stayed in the Leesburg area of Lake County since the fledging. We captured the entire family on 3 September for routine health exams and new transmitters. Results from blood work revealed what we suspected—Lucky is a male. The family has been enjoying the high quality crane habitats (open fields with marshes) in the Leesburg area. By October, Lucky's appearance was completely white except for brown feathers

on the head and upper neck (fig. 1). Good summer rains returned marsh water levels to normal. The family's nest marsh has re-hydrated back to being a lake, like it was before the 4-year drought. Therefore, unless it dries up a lot over winter, the pair will not be able to re-nest in the same place.



Lucky and his parents forage on a marsh edge in rural Lake County on 9 October 2002.

Marty Folk, Kissimmee, FL and Steve Nesbitt, Gainesville, FL

CANADA

Aransas/Wood Buffalo Whooping Cranes

Because of a late spring in the boreal plains of Canada, Whooping Cranes nesting in Wood Buffalo National Park and surrounding area were delayed by about 10 days. In total, the Canadian Wildlife Service discovered 50 nesting pairs during the 2002 nesting season. Six pairs that had nested in 2001 plus two additional pairs were present but not nesting. The CWS and the USFWS conducted hatching success surveys in a Fish and Wildlife Service Partenavia aircraft. This aircraft is excellent for the June survey work because of its excellent visibility and the added safety of twin engines. These surveys involve locating all cranes know to be on the nesting area, looking for tiny chicks and coloured leg bands. During the surveys, 33 chicks, including five sets of twins were observed. In addition, seven eggs were still being incubated in five nests and had yet to hatch.

Whooping Crane chick survival surveys were conducted at the end of August and 17 young were discovered. Another four pairs that had young in June were not found. One

of those pairs later returned to Aransas with a chick, bringing the fledged chick total to at least 18.

This marks the third year that unison calls were recorded for unbanded pairs. Unison calls were recorded for 13 unmarked pairs. Dr. Bernhard Wessling from Ammersbek, Germany has developed a technique to distinguish one breeding pair from another by analysing their unison call. The analysis of the unison call is a nonintrusive method of identifying pairs, and is used to identify the same pair on their summer and winter territories.

Egg shell membranes and feathers were collected at a few nests for genetic analysis. Ken Jones, University of Illinois, will determine if there is enough mitochondrial DNA remaining after exposure to UV radiation and compare the usefulness of egg shell membrane vs. feathers. Knowledge of the genetic diversity of the wild flock will enable the genetics management group to determine how well represented the original wild birds are in the captive flock.

As many as 6 subadults, in 3 pairs, summered south of the breeding grounds and were observed in central Saskatchewan and Alberta. Due to the late nesting season fall departures from the breeding grounds were later than normal. Birds arrived on the Saskatchewan staging area as early as September 15 and lingered until October 27. The 12 family groups that were seen included some of the smallest young ever observed on migration. In total 128 cranes were observed in Saskatchewan. Cranes would likely have stayed longer but with snow on the ground and the month being the 3rd coldest October on record they decided it best to head for warmer climes and the blue crabs on the gulf coast.

Brian Johns, Saskatoon, Saskatchewan

GREAT LAKES

2001 Fall Sandhill Crane Census--Results were compiled by Len Schumann. Of 31,602 individuals tallied during 24 October-5 November, 12,903 were counted in Wisconsin, 8,060 in Michigan, 10,123 at Jasper-Pulaski Fish and Wildlife Area (J-P) in Indiana, 171 at other sites in Indiana, 97 in Tennessee, 162 in Georgia, and 86 in Florida. Peak count at J-P was 21,454 on 21 November.

2002 Fall Sandhill Crane Census--The count at J-P on the coordinated count date, 30 October, was 14,873. The peak count, a new record, was 34,629 on 26 November. The previous record was 32,559 on 6 November 1991.

Richard P. Urbanek, Necedah, Wisconsin/Crystal River,, Florida

ARANSAS

The Aransas/Wood Buffalo flock of whooping cranes increased slightly in 2002. By mid-December, 166 adult and 16 young-of-the-year had arrived at Aransas. The estimated total of 182 is; a) six birds higher than the peak population of 176 during the 2001-02 winter b) nine birds higher than the spring, 2002 population of 173. c) six birds less than the record high of 188 in the 1999-2000 winter. d) indicates that 7 adult/subadult whooping cranes died between spring and fall, 2002, a figure below that of mortality documented in recent years.

No more sightings have been reported of cranes in migration. One whooping crane may have departed northern Kansas on November 30, the last known migration sighting of the fall. Although there were no reports of mortality during the fall migration, two breeding pairs have failed to show up at Aransas. Both pairs had contained a banded male, ages 21 and 24, respectively. It is not known if their unbanded mates have returned to the wintering area. One whooping crane with an injured left wing was reported on the Platte River in Nebraska through November 10th. It is believed this bird made it to Aransas where a bird with a drooping wing was first observed November 26th. The arrival of 16 young at Aransas was a pleasant number from the 17 chicks counted in Canada in mid-August. One chick is believed to have died after arriving on the wintering grounds. This family group was not sighted on the first three census flights in December, with a pair found where the family group had been. This leaves the flock size estimate in mid-December at 181. The flock consists of 132 adults (66 pairs or potential pairs), 34 subadults, and 15 chicks.

Abundant summer rains in Texas and inflows that created floods on the Guadalupe River helped produce an abundant blue crab population that awaited the whooping cranes when they arrived. Marsh salinities are low and food is abundant, so it should be a very good winter for the whooping cranes.

Tom Stehn, Aransas, Texas

MISSISSIPPI

The Mississippi sandhill population, found only on and adjacent the refuge named after it, remained between 110-120. Approximately 88 were observed on the Annual Autumn Crane Count; 27 people participated. Two cohorts of five were soft-released early in the year. There was the second hard release at the refuge; two were marked and let go in a wastewater treatment constructed wetland.

The nesting season produced 38 year highs for pairs (24), total nests (25), and fledged young (5). Two of the five were "twins", only the second time documented here. That was also the first recent nest in an area treated with a growing season burn. Two pairs nested outside the savannas in a brackish marsh. The first fledge from a pair with an Audubon-reared crane occurred.

The cranes found new and interesting ways to perish. There were the first cases of crane mortality by lightning strike and airplane collision. Crane #018, a HY90 Patuxent-reared

male, severely injured his wing in a vehicle collision along Interstate 10 and was taken to Audubon to become part of captive flock.

Nine AHY, including three unbanded, and three HY cranes were captured and reradiotagged,. In one 24-hour period in December, cranes were captured using three different methods: walk-in, noose, and "coffin". Six colts were radio-tagged and monitored in the fifth year of the chick mortality study (Glenn Olsen PI).

Al Schriver is the new Project Leader of the Gulf Coast Refuge Complex, that includes MS Sandhill Crane NWR. Al brings 25 years experience in the refuge system. A refuge Biological Review will occur in March.

Scott Hereford, Gautier, MS

ROCKY MOUNTAINS

September Population Estimate of Rocky Mountain Greater Sandhill Cranes

Greater sandhill cranes of the Rocky Mountain Population were counted at 66 premigration and migration staging areas in Colorado, Idaho, Montana, Utah and Wyoming in mid-September 2002. The annual aerial and ground survey is a cooperative effort of the Pacific and Central Flyway states, the U.S. Fish and Wildlife Service, and the Jackson Hole Bird Club.

A total of 18,803 cranes was recorded with 40.9% in Idaho, 25.8% in Montana, 16.2% in Wyoming, 9.9% in Utah, and 7.2 % in Colorado. Over 59% of all cranes were at 10 sites, and the 6 most important (> 1,000) were: 1) Ashton- St. Anthony, ID (Henrys Fork Snake River) -- 1,876, 2) Teton Basin, ID -- 1,504, 3) Grays Lake, ID 1,467, 4) Beaverhead-Ruby River Valley, MT -- 1,350, 5) Tri-state Bear River Valley in ID, UT, and WY -- 1,284, and Farson, WY -- 1,051. The 2002 population estimate (18,803) is below the peak estimate of 19,990 recorded in September 2000.

Rod Drewein, Wayan, ID, Phil Thorpe, Lakewood, CO, and Doug Benning, Bailey, CO

October Recruitment Survey of the Rocky Mountain Population of Greater Sandhill Cranes

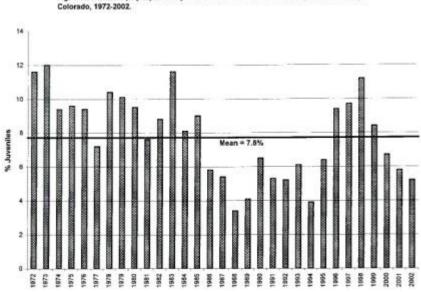
Greater sandhill cranes of the Rocky Mountain Population (RMP) were surveyed for the 31st consecutive year to assess the proportion of juveniles (recruitment) in the population at their fall staging area in the San Luis Valley, Colorado. Population recruitment surveys are conducted annually during October in Colorado: survey methodology was described elsewhere (J. Wildl. Mgmt. 1995 (59) 339-356).

Fifty-six flocks were sampled and 7,641 cranes were classified, including 6,663 (90.1%) RMP greaters and 758 (9.9%) Mid-continent Population (MCP) lesser subspecies.

Recruitment rates were 5.2% in RMP greaters and 14.5% in MCP lessers. Mean brood size for RMP families was 1.16 (n=253), whereas for MCP lessers it was 1.13 (n=71).

The 5.2 % recruitment rate for RMP greaters was 33.3% below the 31-year mean (7.8%, Fig. 1). Low recruitment in the RMP during 2002 was attributed to ongoing severe drought over much of the breeding grounds in Colorado, Idaho, Montana, Utah, and Wyoming where many wetlands were dry or nearly dry during the past summer.

Fig. 1. Recruitment (% juv.) in Rocky Mountain Greater Sandhill Cranes, San Luis



Rod Drewien, Wayan, ID

Two 20-year Old Greater Sandhill Crane Siblings

In August 1982, we banded and neck-collared 2 flightless juvenile siblings at Grays Lake, Idaho. Later observations revealed they were males (unison calls). Both eventually paired and established breeding territories at Grays Lake, and every September both siblings and their mates (and occasional young) staged near the same refuge grain fields. Over the years, I observed the 2 siblings and their mates intermittently "hanging out" as a quartet during fall staging periods, resting, preening, and feeding together. The 2 pairs have also been recorded together during migration and winter on several occasions. Although 1 male lost its metal FWS band several years ago, both still retain their distinctive neck collars as of September 2002. These observations demonstrate that long-term individual recognition occurs among wild sandhill crane siblings.

Rod Drewien, Wayan, ID

CAPTIVE FLOCKS

The whooping crane program at the San Antonio Zoo in Texas produced two whooping cranes this year for the release program in Florida. One bird has been sent to the Patuxent Wildlife Research Center in Maryland to integrate into their five whooping cranes being raised for release. The second whooping crane was held up in Texas due to a mistake at the laboratory where the avian tuberculosis testing is being done. The sample at the laboratory was lost and needed to be rerun. However, this was not discovered until it was too late to ship this crane with the other to Patuxent in November. Other news from San Antonio is that they have received a third male whooping crane, so now they have three pairs.

The Species Survival Center of the Audubon Institute in New Orleans, Louisiana was raising 18 Mississippi sandhill crane chicks, 17 for release and one for flock replacement. In July, 7 of the release cranes died of West Nile virus. The 10 surviving chicks have now been sent to the Mississippi Sandhill Crane National Wildlife Refuge. No adult Mississippi sandhill cranes or adult whooping cranes were lost from the West Nile virus. The Species Survival Center has eight adult whooping cranes, one pair and six birds that will be rearranged into three new pairs. They are looking forward to producing some whooping crane chicks.

The White Oak Conservation Center double clutched their Mississippi sandhill cranes this year. In the first clutch they had three fertile eggs. The eggs were sent to the Audubon Institute for costume rearing, and all three hatched. In the second clutch, two eggs were sent to Audubon and one chick was parent-reared at White Oak. It is scheduled to be released on the Refuge this winter.

Calgary Zoo has six active pairs of whooping cranes, with 24 eggs laid, six of which were fertile, 13 infertile, and five broken or unknown fertility. Two eggs hatched; the two chicks were males that were raised to fledging. They were sent to the International Crane Foundation in September to socialize with their whooping cranes going to the Florida release program. Two breeding age females died in late April, one from an oviduct infection and egg binding and the other the result of severe trauma caused by her mate. The zoo is doing some shifting of potential pairs. Currently they have 17 whooping cranes, eight as breeding pairs, and one as a single male (the male who killed the female in April). In 2003 they will be using artificial insemination on one pair that has only laid infertile eggs thus far. The International Crane Foundation has seven breeding pairs of whooping cranes, produced 33 eggs, 16 known to be fertile. Ten chicks hatched and eight survive.

Patuxent Wildlife Research Center has 10 breeding pairs of whooping cranes, with 43 eggs laid, 27 fertile, and 22 hatching. In addition, three fertile eggs were received from ICF to be part of the Whooping Crane Eastern Partnership project and receive ultralight training starting at Patuxent. These three and 14 others from the Patuxent flock were transferred to Necedah National Wildlife Refuge in June for further ultralight training. One of the ICF whooping cranes needed to be euthanized after an accident during the first part of the migration. However, sixteen of the whooping cranes have completed the migration behind the ultralights and are now down in Florida, along with four of the five whooping cranes from last year's ultralight experiment.

In addition, Patuxent has five whooping crane chicks for release in Florida early in 2003 plus the one bird from San Antonio Zoo. Patuxent lost one breeding female whooping crane earlier in the year. In addition, 16 adult sandhill cranes participated in a West Nile vaccination study, and four greater sandhill crane chicks were raised for a blimp project this year. I thank Megan Lauber, Mike Taylor, Josef San Miguel, Dwight Knapik, and Jane Nicolich for information used in this article.

Glenn Olsen, Laurel, MD

NOTES FROM THE FIELD

SUMMERING AND FALL MIGRATION OF THE FIRST COHORT OF MIGRATORY WHOOPING CRANES REINTRODUCED INTO EASTERN NORTH AMERICA

The five whooping cranes that wintered at Chassahowitzka NWR migrated back to Central Wisconsin in spring 2002 (see preceding issue of the Unison Call). A group of four (nos. 1, 2, 5, and 6) returned to Necedah NWR on 19 April, and a lone female (no. 7) returned on 3 May.

Spring Wandering

After their return, the five yearlings, like previously released experimental sandhill cranes led on fall migration by ultralight aircraft, moved to several temporary locations in Wisconsin, generally south and east of Necedah NWR. After one night of roosting, all of the cranes left Necedah on the day following return. The group of four moved to several sites, spending the largest amounts of time 17 miles south near Mauston, southern Juneau County (23 April-~5 May) and 108 miles southeast near Cold Spring, Jefferson County (~10 May - 1 June for three birds, until 8 June for crane no. 6). No. 6 had remained separate from the other birds after he sustained a minor leg injury ~20 May. The group of three returned to Necedah on 2 June, moved back to Mauston on 12 June, then returned to Necedah on 26 June. No. 6 returned to Necedah on 9 June.

No. 7 apparently spent 5-26 May in southern Wisconsin (exact location unknown), moved to Leola grasslands in Adams County on 27 May, then to Rush Lake, Winnebago/Fond du Lac Counties) ~29 May, where she remained until ~22 June. She then moved to Radke Pool, Horicon NWR in southern Fond du Lac County, 82 miles eastsoutheast of Necedah.

Summer Home Range

After his return on 9 June, no. 6 settled in the Rynearson Pools area of the refuge and remained there for the summer. The group of three also returned to the Rynearson Pools area, and after some interference with training of the current year's cranes to follow ultralight aircraft, efforts by project personnel to frighten them resulted in separation of no. 5 from the group. He remained apart and by 10 July settled for the remainder of the

summer about 6 miles north at Sprague-Mather Pool on the northern part of the refuge. Nos. 1 and 2, a male and female behaving as a pair, briefly left the refuge to the northwest but returned to Rynearson on 7 July and remained for the summer. All of the whooping cranes associated with sandhill cranes, and nos. 1, 2, and 6 consistently roosted with sandhill cranes from mid-July onward. No. 7 remained at Radke Pool, Horicon NWR, after arriving there in late June.

Autumn Staging

Nos. 1 and 2 remained on East Rynearson Pool during most of the fall staging period. Exceptions consisted of return to west of Mauston (mainly the same area used in late June) to feed in harvested cornfields on 8-10 and 13 October and 1, 2, and 12 November, and roosting in other wetlands on four nights associated with these off-refuge forays. After 12 November the pair remained on drawdown East Rynearson, feeding extensively on fish trapped in the shallows, until they migrated on 21 November.

Unlike the pair, the three single yearling whooping cranes each became integral members of staging sandhill crane flocks:

No. 5 left Necedah NWR on 7 October and joined a flock of sandhill cranes staging northeast of Mauston. That flock fed in local cornfields and roosted in wetlands south of Castle Rock Lake. On 2 or 3 November he joined the staging flock at Quincy Bluff, 7 miles eastward in Adams County. On 4 November he moved 18 miles southeast to a large staging area at Widow Green Marsh, near Briggsville, southwestern Marquette County, where he usually roosted in marsh along Neenah Creek or South Branch. He migrated on 23 November.

No. 6 also left Necedah NWR on 7 October and joined the staging sandhill cranes north of Briggsville. At that time the flock fed in local cornfields and roosted mainly in Widow Green Marsh. By 3 November he was in a flock foraging 4 miles northeast of Widow Green Marsh and roosting in Endeavor Marsh 4 miles east of that feeding area. He migrated on 9 or 10 November.

No. 7 remained in the northern Horicon NWR area and by late September had joined large sandhill crane flocks that were roosting in Teal and Luehring Pools (in Dodge County and just south of Radke Pool) and feeding in recently harvested cornfields east of the refuge. She migrated on 15 November.

Autumn Migration

Four of the five cranes followed the same general pattern, i.e., a direct migration consisting of six consecutive flight days with one-night stops at the major crane congregation areas of Jasper-Pulaski (J-P), Indiana, and Hiwassee Wildlife Refuge, Tennessee, and three opportunistic stops (one between J-P and Hiwassee; two between Hiwassee and the Central Gulf Coast of Florida). No. 6 followed a different pattern; he spent several days on a staging area at the Wisconsin-Illinois border before passing

through J-P and then completing migration at Hiwassee. Available data indicate that all whooping cranes migrated with sandhills except during the final approach in Florida. Specific data are as follows:

Nos. 1 and 2 flew from Necedah NWR to J-P on 21 November and left J-P the next morning. The pair arrived at Hiwassee on 23 November, left the next morning, and made overnight stops near Concord, Georgia, and Lake Butler, Florida, before arriving at St. Martins Marsh Aquatic Preserve in early afternoon of 26 November. No. 5 left the Briggsville staging area on 23 November and arrived at Hiwassee on 25 November. He left the next morning and arrived at the pen on Chassahowitzka NWR on 28 November. After leaving Endeavor Marsh on 9 or 10 November, no. 6 moved to a staging area that included parts of Kenosha and Walworth Counties, Wisconsin, and McHenry County, Illinois. He flew to J-P on 16 November, left the next morning, and arrived at Hiwassee on 18 November, where he remained with wintering sandhill cranes. No. 7 left Horicon NWR on 15 November and arrived at the pen on Chassahowitzka on 20 November (observed there the following morning). She remained a few days and then joined wintering sandhill cranes 135 miles northnorthwest at Hixtown Swamp, Madison County, Florida (found there on 28 November).

Summary

Survival of the migratory whooping crane flock has been 100% through late winter, spring, summer, fall, and fall migration. Foraging, roosting, and human avoidance behaviors remain within acceptable limits.

Richard P. Urbanek, U.S. Fish and Wildlife Service and International Crane Foundation, and Lara E. A. Fondow and Colleen D. Satyshur, International Crane Foundation, on behalf of Whooping Crane Eastern Partnership

WEST COAST SANDHILL CRANE STUDY - UPDATE

In November 2001, the West Coast Crane Working Group initiated a pilot project using satellite telemetry to track movements of sandhill cranes (Grus canadensis) from Ridgefield National Wildlife Refuge (NWR) in southwest Washington and Sauvie Island Wildlife Area (WA), just across the Columbia River in Oregon, to other staging and wintering areas, as well as nesting grounds. Sandhill cranes use Ridgefield NWR, Sauvie Island WA, and surrounding farm lands. This region serves both as a staging and wintering area, but the nesting locations and migratory routes to nesting areas and other migrating and wintering sites are unknown. It has been assumed that all three subspecies of cranes use this area, however, there is a degree of uncertainty about the subspecies composition of these flocks. Therefore, in order to determine subspecies, breeding areas, migratory paths, and other wintering areas, we initiated this study using satellite transmitters.

Six of the 8 cranes captured were marked with transmitters; 2 others only received colored bands for visual identification. Four each were captured at Ridgefield NWR and

Sauvie Island WA. We tracked the movements of the birds via satellite technology, and documented their spring migration routes and destinations. Based on the data we obtained, it appears that the birds move down the Columbia River, follow the Washington coast northward, cross Cape Flattery, across Vancouver Island, and up the coast of British Columbia (BC). Two of the birds stopped in southern Alaska, while the other 4 ended their journeys along the coast of northern and central BC. This is within the range previously identified as supporting a population of Canadian Sandhill Cranes.

Unfortunately, 3 of the satellite transmitters failed during summer. Of the remaining 3, one has never moved from an island in BC and either died or the transmitter detached. The other 2 moved back to Ridgefield NWR and Sauvie Island Wildlife Area in late September. One of these quit transmitting in late October, but this bird wintered last year at Ridgefield NWR and was not expected to migrate. The last remaining crane with an active transmitter moved to California through Oregon's Willamette Valley in early November, stopping at Butte Valley Wildlife Area (Meiss Lake), just south of the Oregon border for a day or so and then moved to the very north end of the Sacramento Valley, near Nelson, Butte County, California where it has remained through early December.

This study was sponsored by the West Coast Crane Working Group, in partnership with Ridgefield National Wildlife Refuge (U.S. Fish and Wildlife Service) and Sauvie Island Wildlife Area (Oregon Department of Fish and Wildlife), with funding contributed by the Paul L. King Charitable Foundation, the Foley/Frischkorn Wildlife and Conservation Fund, and the Chevron Research and Technology Company.

For additional details, see:

http://www.geocities.com/wccwg/Research/PTT051602/PTTstudy.htm

Gary L. Ivey, Thomas J. Hoffmann, and Caroline P. Herziger

The Mission of the North American Crane Group

NACWG is an organization of professional biologists, aviculturists, land managers, and other interested individuals dedicated to the conservation of cranes and their habitats in North America.

NACWG:

Sponsors a North American Crane Workshop every 3-4 years.

Promulgates technical information including a published Proceedings of a North American Workshop and a semi-annual newsletter.

Addresses conservation issues affecting cranes and their habitats.

Promotes appropriate research on crane conservation and management.

Promotes a better understanding and appreciation of cranes and their habitats among the general public.

Editor's Note: *The Unison Call* is a forum to share updates and opinions. The articles in the "Notes from the Field" section are scientific updates and are not peer reviewed. Reviews and opinions included in any section of the newsletter are those of the author and do not represent the views of the NACWG.

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! Until a new editor has been named, you can send newsletter items to the following address, and they will be forwarded:

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E-MAIL:

Deadlines are June 10 and December 10. Please send information as a Microsoft Word attachment (e-mail) whenever possible.

Happy New Year to AU!