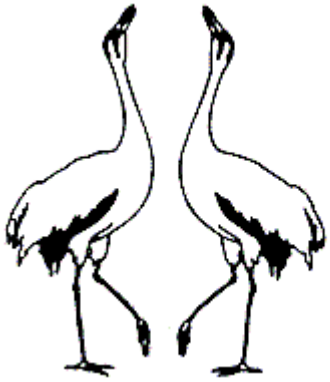

THE UNISON CALL

A Newsletter of the North American Crane Working Group

January 2002

NEWS & ANNOUNCEMENTS

Proceedings of the 8th North American Crane Workshop Appears

In mid December this volume, reporting the January 2000 symposium in New Mexico, was printed. Thanks to all those who contributed articles, reviewed papers, and served as editors. Thanks also to all of those who behind the scenes participated in the research efforts. Special thanks to Cathy Ellis who agreed to serve as technical editor, but ended up also doing layout on the volume. Editing, proofing, and assembling the volume became a family project. Because I ran out of space in the preface, I could not mention there, but wish to mention here that not only did Cathy work closely with me but one of my sons, Merlin, electronically scanned many of the photographs and my daughter, Karina, did a final proof reading of all of the articles.

The book contains 34 articles and 12 abstracts including the work of nearly 90 authors/coauthors. There are also some appropriate tributes to several of the people who have been important in crane management and conservation. There is a major focus in the volume on reintroduction projects (14 articles), but there is also much on ecology, medicine, and husbandry.

David H. Ellis

Copies have been sent to all authors, coauthors, and conference attendees. Additional copies available from:

Librarian, International Crane Foundation

E-11376 Shady Lane Road
Baraboo, WI 53913-9778

$25 postpaid

Dues Are Due! If you haven't paid your NACWG annual membership dues yet, now is the time. Please fill out the form on the last page of this newsletter and send it in with your payment.

Newsletter Goes Electronic

During the last NACWG Board Meeting, the board decided that after this issue, *The Unison Call* will be sent to members electronically (in a PDF file), rather than through the Postal Service. We are doing this to save on mailing costs. For those of you who wish to continue receiving a paper copy of *The Unison Call*, we will maintain that option for a cost of $5, in addition to your dues. When paying your dues this year, please be sure to note your preference on the form. And if you're going electronic with us, please be sure to include your e-mail address!

Introducing ICF's New Curator

ICF is pleased to welcome Michael Putnam as its new Curator of Birds, in charge of the captive flock of cranes and other bird programs. Actually, Mike is returning to Baraboo after an absence of 18 years. From 1980-82, Mike supervised ICF's avicultural programs, and was closely involved with hatching the first captive bred Siberian Crane in the world, "Dushenska", and ICF's first ever whooping crane chick "Gee Whiz".

Mike left ICF to pursue graduate studies, including M.S. research on egg formation in cranes and Ph.D. research on forest birds of Madagascar. In the intervening years, Mike has gained diverse experience in field research and conservation. Returning to ICF in September, he has been getting acquainted with the whooping cranes and looks forward to fostering strong connections between captive and field programs.

Jim Harris, ICF President

Cranes in the Classroom?

Education Resources from the International Crane Foundation

If you are someone you know is an educator, the International Crane Foundation (ICF) has an offer for you! ICF's education department is providing

crane teaching tools (including curriculum, activities, and loan of educational trunks) to interested teachers free of charge. Resources are available to both formal and non-formal educators for use in classrooms, nature centers, youth groups, or anywhere people want to learn about cranes!

Bringing cranes into the classroom is easier than you think (no permits required!). With cranes as your teaching tool, students will discover adaptations, natural processes, interconnections, habitat, geography, and a great deal more. Offerings include:

Crane Trunks: ICF's educational Crane Trunks are packed with tools to teach students of all ages about cranes. The trunks focus on whooping cranes and include model skulls, legs, and eggs, sample food items, isolation costume and puppet (for raising cranes in captivity), and activities to bring the materials to life (schools pay only for return UPS shipping).

Classroom Voyage Curriculum: Designed for 5th through 8th grade students, Classroom Voyage helps students discover crane adaptations, habitat, migration, and mapping. Through thematic lessons and real crane migration data, students 'participate' in a cross-continental sandhill crane migration from Texas to Siberia.

Activity Packets: Explore cranes with activity packets! Activities available include: Chick Chat (an introduction to cranes for grades K-2), Cranes, Kids, and Wetlands (exploring crane adaptations and habitat with grades 3-5), Can a Crane Live Here? (habitat and adaptation activities for grades 6-8), and Why Can't You Behave? (a crane behavior study for grades 9-12).

Contact the International Crane Foundation's Education Outreach Coordinator at (608) 356-9462 ext. 142, or by e-mail at explorer@savingcranes.org to participate! Visit our website for more information at www.savingcranes.org.

Rachel Jepson Wolf

ICF Newsletter Available on CD

Over 100 issues of the ICF Bugle have been digitized and are available on CD (1974-2001). The issues are full color and exact replicas of the originals. The CD (+index) is available for $20 from ICF librarian Betsy Didrickson. library@savingcranes.org.

The six most recent years are available free on the ICF website at:
http://www.savingcranes.com/whatsnew/buglearchived.asp

Betsy Didrickson, ICF Librarian

REGIONAL REPORTS

FLORIDA

In early December 2001 the population of nonmigratory Florida whooping cranes was 87. This included 6 Patuxent birds that were released this fall. The shipment of another cohort that was to arrive in November will be postponed until January in order to give a bird with a neck injury a chance to recover before shipment. Since our last report for the Unison Call, we've "reclaimed" 3 of 10 birds that had been unaccounted for since their radical dispersal in 2000. The return of these 3 birds gives reason to be optimistic that other "missing" birds will show up. Late summer rains restored marsh water to levels that we had not seen since the beginning of the 3-year drought. If winter rains help sustain marsh water, we will have good nesting potential this spring. After nearly 5 years of dedicated service, Kathy Sullivan resigned from our team and moved out to Arizona to join her husband Jeff who accepted a position with the US Forest Service. We will miss Kathy but we look forward to seeing her at the Crane Workshop in 2003. Jeannette Parker has filled the position that Kathy vacated. Jeannette's background is with rare Florida birds, making her a good candidate to help offset the loss of Kathy Sullivan.

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

CANADA

Whooping Cranes - Aransas/Wood Buffalo breeding season report:

Habitat conditions appeared above normal at the beginning of the breeding season and remained so throughout the summer. Precipitation between 1 May,2000 and 30 April, 2001 was above average. Fifty- three whooping crane nests were discovered. All, but 2, were discovered in Wood Buffalo National Park. Forty of last year's 50 nesting pairs are again nesting this year. In addition, 6 pairs that have bred in the past but failed to breed during the 2000 nesting season are nesting again. There are 6 new pairs breeding. Five of the pairs that nested in 2000 are occupying territories but are not nesting this year.

Forty-two young cranes were accounted for in mid June and one nest had yet to hatch. Eleven pairs had twin young. All families with twins had each lost at least one of their

chicks by mid August. The nesting pair that hadn't hatched their eggs by mid June was not observed in August.

In June 9 x 9 colour infrared aerial photography was completed for areas not covered by the current photographs. One area was photographed using digital video and the photography is currently being assessed. Photography was completed by the USFWS, Albuquerque.

In mid August 14 chicks were observed during the surveys. One pair that had a chick in June was not observed and with the unhatched nest pair not observed, the maximum number of chicks could have been 16.

Eleven pairs of cranes were approached on the ground August 14 - 15 and unison calls were recorded from 10 of those pairs. Calls were solicited from each pair by playing a pre-recorded unison call over a megaphone and then recording the pair's response. Calls have been annotated and forwarded to B.Wesling for analysis.

From August 15-18 the Whooping Crane Conservation Association held their Annual Meeting in Fort Smith. The highlight of the meeting was an overflight of the crane nesting marshes.

Migration Monitoring:

In the spring of 2001, there were 24 confirmed sightings in prairie Canada. The earliest recorded sighting was on April 18, 2001 and the latest recorded spring sighting was on May 29, 2001. Several birds summered south of the breeding range (Whitford Lake, Alberta 1, Winifred Lake, Alberta 1 and McAlister Lake, Sask. 1). During the fall of 2001, there were 73 cranes confirmed in the prairies. The first cranes showed up in Saskatchewan on Sept. 19 and 20. The bulk of the birds moved through in October and the last birds in Canada were a family group near Estevan, Saskatchewan from Nov.4-19. Sandhill Crane hunting was restricted at 5 locations in Saskatchewan due to the presence of Whooping Cranes.

Brian Johns, Saskatoon, Saskatchewan

ROCKY MOUNTAINS

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 30th 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. 1995:959) 339-356).

Sixty-seven flocks were sampled and 8,741 cranes were classified, including 8,211 (93.9%) RMP greaters and 530 (6.1%) Mid-continent Population (MCP) lesser subspecies. Recruitment rates were 5.8 % in RMP greaters and 12.6% in MCP lessers. Mean brood size for RMP families was 1.15(n=352), whereas for MCP lessers it was 1.11 (n=65).

The 5.8% recruitment rate for RMP greaters was 27.5% below the long-term mean (8%, Fig. 1). Low recruitment in the RMP during 2001 was attributed to ongoing severe drought over much of the breeding grounds in southern Idaho, western Wyoming and northern Utah where many wetlands were dry or nearly dry during the past summer.

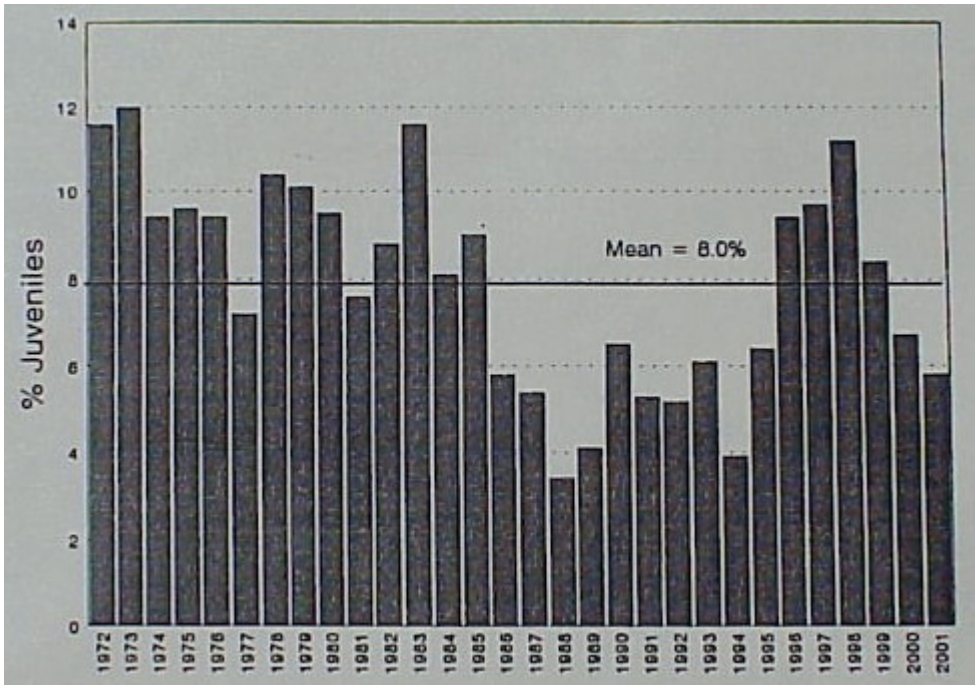

Fig. 1. Recruitment (% juv.) in Rocky Mountain Greater Sandhill Cranes, San Luis Valley, Colorado, 1972-2001.

Rod Drewien, Wayan, ID and Bill Kendall, Laurel, MD

ARANSAS

There has been a small increase for the one remaining wild flock of whooping cranes. The Wood Buffalo-Aransas flock size as of December 18, 2001 was estimated at 161 adults + 15 juveniles = 176 total. Flock size in spring of 2001 was 174. One crane is still presumably in the northeastern Panhandle of Texas and would be the 177th crane. There are no other reports of whooping cranes still in migration. The 15 chicks that arrived exceeded expectations from the mid-August survey of 14 fledged young. Two single adult families (one adult + one chick) arrived at Aransas this fall, indicating a loss of one

adult since August. Spring-to-fall mortality was apparently higher than hoped for, totaling around 12 white-plumaged birds.

Habitat conditions look much better for the cranes this winter than last. Fall rains have lowered salinities and crabs are more abundant than last winter. The cranes in November and December fed heavily on blue crabs and wolfberries.

Tom Stehn, Aransas, Texas

GREAT LAKES

2000 Fall Sandhill Crane Census--Results were compiled by Len Schumann. Of 33,105 individuals tallied during 27 October-5 November, 14,985 were counted in Wisconsin, 6,116 in Michigan, 11,531 at Jasper-Pulaski Fish and Wildlife Area in Indiana, 355 at other sites in Indiana, 94 in Tennessee, and 24 in Florida. Peak count at J-P was 16,267 on 30 November.

2001 Fall Sandhill Crane Census--The count at J-P on the coordinated count date, 26 October, was 7,743, and peak count was 21,454 on 21 November.

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

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NOTES FROM THE FIELD

SANDHILL CRANES MIRED IN MUD DURING MIGRATION STOP IN NEW MEXICO

A unique set of circumstances resulted in a lethal situation for approximately 70 Rocky Mountain Population (RMP) greater sandhill cranes during the fall migration, 2001. Several locations along the Chama, Jemez and Rio Grande Rivers in New Mexico are used consistently as "non-traditional" overnight roost sites during migration between the San Luis Valley migration stop and winter areas, particularly in fall (Stahlecker 1992). The Jemez River and the upper end of Jemez Reservoir is the most heavily used of these sites. Stahlecker (1992) found that 54% of cranes roosting overnight utilized this area during 4 fall seasons.

Jemez Canyon Dam spans the Jemez River in Sandoval County, NM, approximately two miles upstream from its confluence with the Rio Grande. The dam, authorized for flood and sediment control, is located on lands of the Pueblo of Santa Ana, and is managed by the Army Corps of Engineers (Corps). Originally used for floodwater storage or large

volumes of spring runoff, the Corps began maintaining a small persistent pool to trap sediment within the reservoir basin in 1979, and in 1985 was expanded to approximately 20,000 acre-ft. The sediment pool storage agreement with the Interstate Stream Commission expired in December 2000 and was not renewed due to the increasing scarcity of available water and the fact that the Rio Grande is in a sediment starved condition. In October 2000, the pool was reduced to approximately 4,000 acre-feet of storage. In spring 2001, about 13,000 acre-feet of water were stored in the reservoir for the purpose of eventual release for the benefit of downstream population of the endangered Rio Grande silvery minnow. The Corps planned to store the water overwinter 2001-2002, however, in August 2001, the Corps discovered a bulkhead door of the dam outlet would not function properly in a major flood event. The pool was fully evacuated by October 27, 2001 to facilitate repair. However, the drawdown after years of water storage and sediment storage resulted in approximately 200 acres at the downstream end of the reservoir becoming a treacherous pool of saturated silt and clay estimated to be some 30 feet deep. These conditions prevailed during the time that cranes began their migration south.

On November 6, two cranes stuck in the mud at the reservoir were reported to the Corps. The following day, the Corps observed 24 trapped cranes. Cranes became mired to their bellies immediately upon attempting to land on the surface, which from above appeared to be a very attractive shallow water roost site. Interestingly, although other avian species sometimes landed in the mud, only cranes became trapped. Ducks were observed landing and immediately taking off again.

The Corps immediately instituted a variety of harassment techniques to discourage cranes from roosting in the hazardous area. Personnel fired cracker shells and pyrotechnics, and a large World War II era searchlight played over the area during evening hours. However, over the next 3 weeks, additional birds occasionally wandered into the area after safely roosting upstream.

Numerous methods of rescue for trapped birds were investigated and rejected. Conditions were not suitable for either hovercraft or airboats, and a helicopter operation was deemed to be too dangerous. Only one bird was rescued from the shore. On November 16, the Corps received a "Go Devil", a 20-horse power outboard motor on an eight-foot shaft which, when used with a small lightweight flat-bottom boat, moved through the more viscous mud. However, it could not move through the areas completely dry on the surface, in which some cranes were trapped.

Over the next several days, biologists from the Corps, Hawks Aloft (a local NGO), and the U.S. Fish and Wildlife Service retrieved 16 live cranes from the mud using the boat. Some cranes had been mired in the mud for up to four days and remained alive. Three birds were treated by a wildlife rehabilitator, the remainder were treated by veterinary staff at the Albuquerque Biological Park. Three cranes died in captivity, 2 from probable respiratory failure after inhaling mud, and one from myopathy. All birds that died had been trapped for over 24 hours. The 14 survivors were banded and released at Bosque del Apache Refuge, and Refuge staff are assisting in monitoring their survival.

In all, eighty-four birds were trapped in the reservoir November 6-28. Seventeen were rescued, and 67 died on site. Three others died in captivity. Over 4,400 cranes roosted safely upstream during this period.

We hope to present further details of this event at the NACWG symposium next year.

Literature Cited: Stahlecker, D.W. 1991. Crane Migration in Northern New Mexico. Pages 1-7 in Proceedings 1988 North American Crane Workshop, D. Wood, ed. State of Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program

Wendy Brown, William DeRagon, Gail Garber

RETURN AND SUMMERING OF EXPERIMENTAL SANDHILL CRANES USED TO TEST REINTRODUCTION TECHNIQUES FOR REESTABLISHMENT OF AN EASTERN MIGRATORY POPULATION OF WHOOPING CRANES

As part of an effort to develop reintroduction techniques for the endangered whooping crane, the Whooping Crane Eastern Partnership conducted two research studies using costume/isolation-reared greater sandhill cranes reared and released in 2000: One involved leading sandhill cranes with ultralight aircraft to a predetermined wintering area. The other involved testing a variant of releasing captive-reared sandhill cranes into wild sandhill crane flocks.

Sandhill Cranes Flying with Ultralight Aircraft

Of 14 sandhill cranes flying with ultralight aircraft, 12 survived to winter in Florida: 11 were led to Chassahowitzka NWR/St. Martins Marsh Aquatic Preserve on the west-central Gulf Coast. One male disassociated from the flock on the first day of migration, joined wild sandhill cranes, and wintered in Volusia County in northeastern Florida. On

25 February, 10 of the cranes (5 males, 5 females) departed on spring migration. On 17 March the remaining female departed alone.

Nine of the group of 10 cranes returned as a group to their rearing area on Necedah NWR for overnight stops on 27 April and 18 May. The group returned to the refuge again on 18 June with 8 members. For the most part they were in Marquette County during the interim, where 1 of the original 9 returning birds remained behind. The group remained on the refuge 34 days, and then all but 1 male (# 14) departed on 23 July. The group of 7 birds then inhabited sites in eastern Adams County until 21 September. On that date the group moved to western Adams Co., just east of Necedah NWR. On 6 October they returned to the refuge, where the group of 7 rejoined with # 14 and again became a group of 8. The group then spent most of its time in Monroe Co., 13 miles westsouthwest of the original rearing area, with frequent visits to the refuge, until it departed from the refuge

with more than 1,000 wild, staging cranes on 19 November. The 5 birds with functional transmitters were tracked to Jasper-Pulaski State Fish and Wildlife Area in northwestern Indiana on that day, where the group disbanded among the more than 20,000 wild migrating cranes present.

One male (# 8) of the 12 cranes that arrived in Florida (1 of the group of 10 that departed on 25 February) has not been recorded on the target summering area or elsewhere. The female (# 13) that began spring migration alone on 17 March was reported near Old Fort, western North Carolina, on 21 June, having not completed the migration, apparently without fear of humans, and showing symptoms of chronic illness. She was removed from the study. The female (# 5) that remained behind in Marquette County on 18 June spent most of the summer with wild cranes in southern Adams or Marquette Counties. She returned to the refuge on 17 November and migrated to Jasper-Pulaski on 19 November. The male (# 2) that joined wild sandhill cranes on the first day of fall 2000 migration spent most of the summer with wild cranes in the vicinity of Necedah NWR.

Sandhill Cranes Released into Wild Sandhill Crane Flocks

Eight sandhill cranes reared from hatching at a facility on Necedah NWR were individually released at 4 major sandhill crane staging areas in Central Wisconsin in mid-October. All migrated with wild flocks in mid-November. Six of the 8 cranes were confirmed wintering within large wild flocks on major sandhill crane wintering areas in Tennessee, Georgia, and Florida. One female and 1 male with malfunctioning transmitters were not found during the winter.

All 8 of the cranes returned to Central Wisconsin in spring 2001 as integral members of the wild population. Four males and 1 female summered in the immediate rearing/release areas. One male returned to his release site in spring, spent most of the summer in northeastern Adams County, and later staged at a release site in the northern part of the primary study area. Another male, who appeared on the refuge in late spring, and a female, observed 6 times in April at a large crane area 34 miles southeast of the rearing site, could not be monitored further because of nonfunctional transmitters. The 6 birds still being monitored in late fall (5 remaining with functioning transmitters but broken antennae) began their second fall migration either on or shortly before 19 November 2001. Three were found at Jasper-Pulaski on that evening and another at Hiwassee State Wildlife Refuge in eastern Tennessee on 25 November.

Conclusion and Prospectus

The high survival, high return rate, and appropriate human avoidance behavior demonstrated by these techniques indicate that both may be useful in reintroducing whooping cranes to Central Wisconsin. The experimental sandhill cranes will continue to be monitored as functioning of their radiotransmitters permits.

Richard P. Urbanek, U.S. Fish and Wildlife Service and International Crane Foundation, on behalf of Whooping Crane Eastern Partnership

LEVELS OF FECAL CORTICOSTERONE IN SANDHILL CRANES TRAINED TO FOLLOW ULTRALIGHT AIRCRAFT

The use of fecal corticosterone (FC) assays as a measure of stress in North American cranes has been limited to controlled laboratory trials[1,2]. In 2000, we applied this technique in the field through a pilot study. Our goal was to document trends in FC concentrations among a cohort of 14 sandhill cranes that experienced aircraft training and migration similar to that planned for reintroduced migratory whooping cranes. Fecal samples were available from known individuals only once in late June when the pre-fledging cranes were shipped to Wisconsin from Maryland where the birds hatched and were first trained to follow the aircraft. Fresh samples were subsequently collected anonymously every two weeks during flight training until migration in October, and then approximately every other day during a 40 day migration. Corticosterone levels >200 ng/g were considered increased over baseline.

Increased FC levels (median 292.4 ng/g, n=12) were observed in several cranes upon arrival in Wisconsin, likely reflecting the stress of shipment. The lower FC levels observed in some cranes at that date were likely due to collection of feces voided prior to a hormonal increase. Corticosterone elevation in feces may not occur for two hours after adrenocortical stimulation. FC levels in the cranes returned to baseline levels over the following weeks and were sustained until migration (median 93.1 ng/g, n=32), despite increasing contact time with the ultralight aircraft and a shifting dominance hierarchy within the group. There were no significant differences in FC levels between the ultralight-trained group and an age-matched control group of sandhill cranes reared at the same refuge when samples obtained close in time were compared. We believe that our limited sampling frequency and sample size on these dates, however, provided insufficient statistical power to discern differences in FC trends between these groups.

Results from the migration phase of the project revealed increased FC variability and modestly elevated mean FC levels compared to summer training levels (median 132.8 ng/g, n=82; $p < 0.001$). The observed trends likely reflect increased stress associated with intense physical exertion and unfamiliar surroundings at daily stopover sites. The cranes, however, appeared to attenuate their corticosterone response over the course of the migration, as FC levels exhibited a significant declining trend during this time ($p < 0.02$). The mean FC level during the last week of migration was significantly lower than that observed during the first week of migration ($p < 0.05$), and did not differ from FC levels one month prior to migration. Occasional large increases in FC concentrations during the migration, either among individuals or reflected in an elevated daily group mean, were associated with preceding overnight disturbances (nearby predators) or demanding flight conditions the day prior (long distance and/or flight time).

Our pilot study revealed the promise and limitations of using FC levels as an indicator of stress: 1) several instances of FC elevations in the sandhill cranes were well correlated with significant events believed to be associated with acute stress, such as shipment, recent capture and restraint, difficult flight conditions and overnight predator disturbance,

2) sampling must be more consistent and less opportunistic, both on a daily and weekly basis, and provide for larger sample sizes to increase statistical power to detect longer-term trends indicative of chronic stress, and 3) behavioral and environmental correlates must also be rigorously sampled to provide the necessary data for interpretation of the FC measures.

We have refined and extended our monitoring of FC concentrations in whooping cranes trained to migrate behind ultralight aircraft this year.

REFERENCES

1. Ludders, J. W., J. A. Langenberg, N. M. Czekala, H. N. Erb and H. McCormick. 1998. Serum corticosterone response to adrenocorticotropic hormone stimulation in Florida sandhill cranes. Journal of Wildlife Diseases 34: 715-721.

2. Ludders, J. W., J. A. Langenberg, N. M. Czekala and H. N. Erb. 2001. Fecal corticosterone reflects serum corticosterone in Florida sandhill cranes (Grus canadensis pratensis). Journal of Wildlife Diseases 37: 646-652.

Barry K. Hartup, Baraboo, Wisconsin
Coauthors: Nancy M. Czekala, Glenn H. Olsen, Julia A. Langenberg and Joanne Paul-Murphy

BOOK REVIEW

CRANES The Noblest Flyers In Natural History & Cultural Lore

By Alice Lindsay Price. 2001. $20. La Alameda Press, 9636 Guadalupe Trail NW, Albuquerque, NM 87114. 235 pp. In the Preface, this book is described as the story of the Sandhill and Whooping Cranes and their survival into the twenty-first century. As a contribution to the already voluminous literature about cranes, the unique aspect and literary strength of this book is that Ms. Price writes in detail about the cultural lore (American Indian, Japanese, Egyptian, Greek, etc.) of literature, myth and story, to show what cranes are to human observers. The crane novice will find the book interesting. Emphasis is placed on history of the King Ranch, Robert Allen's early studies, the first captive breeding efforts, and discovery of the nesting grounds. These noteworthy events of 50 to 70 years ago have already been described in detail in a half dozen other books. Only a few pages address recovery progress of the last two decades (i.e., the experimental introduction of whooping cranes into the Kissimmee Prairie of Florida, improvements in captive rearing, techniques for introducing migratory crane populations). Information is generally not presented in chronological time sequence and it may be difficult for the uninformed reader to comprehend how events unfolded. The map on page 48 erroneously

places Grays Lake NWR in Wyoming, fails to include the two most important captive populations (Patuxent Wildlife Research Center and International Crane Foundation), and changes the name of Chassahowitzka NWR in Florida to Howtzfa NWR. Ms. Price reports (p. 149) that cranes were imprinted on a truck's engine during research by Dr. David Ellis. An accurate interpretation would be that crane chicks were conditioned to the engine noise so they would not be fearful. The researchers then used the crane's following instinct, and brood calls from a tape recorder, to teach the cranes to follow a truck.

Dr. James Lewis

Other Comments:

"It was a very interesting book. Alice Price was at our last [NACWG] Workshop, is a WCCA member and a great voice for the cranes." *Walt Sturgeon.*

"Alice Price has created lovely literature about cranes. It is informative, entertaining and inspiring." *George Archibald.*

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! Send newsletter items to:

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