



THE UNISON CALL

- A Newsletter of the North American Crane Working Group -

Spring/Summer 2009
Vol. 20 No. 1

President's Message

I wanted to take this opportunity via the President's Note to provide some highlights from the recent meeting of the Executive Board (Jane Austin, president; Richard Urbanek, vice president; Glenn Olsen, treasurer; Tracy Grazia, secretary; Felipe Chavez-Ramirez, Barry Hartup, and Marilyn Spaulding, board members). The board met via conference call on 9 July.

Barry Hartup, editor for the proceedings of the 2008 workshop (Wisconsin Dells), reported progress for the 25 papers submitted for publication for the 11th Proceedings. Most outside reviews have been completed and authors should complete revisions by the end of August. Barry will investigate publishers in his local area and also the publisher used for the previous proceedings. He anticipates getting the final proceedings to the printer in December for a 2009 publication date.

Plans are underway for the next North American Crane Workshop. The board accepted the offer from Felipe to host the 12th North American Crane Workshop on the central Platte River in early spring 2011. Felipe will investigate further details for location, logistics, and best dates for the meeting. We will be seeking a Science Chair to organize and lead the technical sessions and an editor, or co-editors, willing to take on the important task of taking the presented papers to print. So plan for 2011 and look for more information about this in the next Unison Call!

Thanks to Glenn Olsen and retired board member Tom Hoffman, we have finally negotiated our way through the administrative details of the Internet to get the NACWG website back up so Richard Urbanek and Ingrid Barcelo can update the looks and content of our website (www.nacwg.org). Websites are a critical face to the world about an organization as well as a source of valuable information. If you have suggestions on how to improve our website, or ideas of materials or

links that should be included, please e-mail me (jaustin@usgs.gov) and I will pass them on to Richard and Ingrid.

Also important in our increasingly electronic world is electronic access to crane publications – our past workshop proceedings. The Library at the International Crane Foundation (ICF) has been generous in their assistance in providing electronic versions of the 1981, 1983, 1987, 6th, 7th, and the 8th NACWG Proceedings on-line as PDFs via their digital library (www.savingcranes.org/digitalbooks.html). The 9th and 10th proceedings will soon be uploaded there as well, providing open access to many recent crane papers. Visit the ICF Digital Library for these and many other great resources.

The board also discussed membership, and the challenges of remembering to pay our modest dues annually when members only receive communications from NACWG twice a year via the Unison Call. Our primary activity is the crane workshop, which is usually held every 3 years. Hence, we agreed that a more effective approach for membership would be to include a 3-year membership as part of the registration fee at each workshop, starting in at the 2011 workshop. We will still keep the annual dues structure for others who didn't attend a workshop or who join in years between workshops. This longer-term membership will help keep folks more consistently connected with NACWG, informed of news in the crane world via the Unison Call, and alerted to the next workshop. If you know of others who are interested in cranes but aren't members, please pass on a copy of the Unison Call or direct them to our web site.

Jane Austin, President

Regional Reports

Wild Whooping Crane Population

The following article, sent by Tom Stehn, sums up the water problems facing whooping cranes at Aransas NWR and is reprinted from: “Human Use of River Water is Killing Whooping Cranes,” *Houston Chronicle*, May 5, 2009.

“Last winter was a difficult one for the cranes . . . the worst in recent history for the whooping crane. . . . The flock had grown from 16 birds in 1941 to 270 birds in the fall of 2009. However, last winter seven adults and 16 chicks died, totaling 23 birds and 8.5 percent of the flock. This is rivaled only by the 1990/1991 winter when 11 birds out of 146, or 7.5 percent of the flock died.

“Most of the birds from this past winter were believed to have died from a lack of suitable protein and fat in their diet as well as from stress associated with daily flights to sources of fresh drinking water. Stressed and emaciated birds are less likely to have reproductive success. Thus the toll from this hard winter is yet to be fully realized.

“The bays and estuaries that are the winter home of the crane are being hard hit by human water management decisions. In both 1990/1991 and 2008/2009, Texas was experiencing a drought and the flows in the Guadalupe and San Antonio rivers that feed San Antonio Bay and adjacent bays were very low — arguably due in part to our abuse of these river systems. Less fresh water reached the bays and estuaries upon which the cranes depend than can be explained simply by the drought. Our water withdrawals further lessened those flows and magnified the crisis.

“Lower flows have a direct effect upon the natural productivity of the bays and estuaries. Species such as blue crab spend much of their lives moving from one portion of the estuary to another, in large part following or seeking a preferred salinity level. Except during spawning, when the female migrates to saltier water, the ideal salinity for the blue crabs is less than 15 parts per thousand (ppt).

“Salinity levels in the whooping crane wintering grounds were high this year. An April 7, 2009, report revealed measurements at Aransas National Wildlife Refuge of 29 ppt at the refuge boat ramp and 39 ppt in the adjacent marsh. The Gulf of Mexico typically is 32 ppt whereas the estuary is usually much lower.

“It is also clear that the marshes typically used by the cranes were devoid of blue crabs. In good years, crabs make up 85 percent of the whooping crane diet. Yet in January through April of this year, field surveys showed that there were alarmingly few blue crabs in these marshes. There is a strong correlation between the increased salinity and the absence of blue crabs as well as between the absence of crabs and the cranes dying of malnutrition.

“On the basis of these relationships, it is important to understand the extent to which the human use of the Guadalupe and San Antonio river water increased the salinity in the bays and estuaries, thereby reducing the number of blue crabs and ultimately causing the cranes to be weakened or to die of malnutrition. Computer modeling indicates that human uses of fresh river water have worsened this salinity problem over that which would have occurred naturally in 1990 and in 2008. Additionally, proposed future uses of these rivers promise to further reduce these inflows, leading to even greater reductions in blue crab production and further increases in whooping crane mortality.

“If the scenario described above is correct, then under the terms of the Endangered Species Act, the deaths of the cranes this past winter could be considered a “take.” A “take” is prohibited by the terms of the Endangered Species Act. In other words, human usage of water from the Guadalupe and San Antonio river systems may be seen as violating the Endangered Species Act. This bad situation will only be worsened if more water is removed from the already overdrafted river system.

“Groups are fighting to obtain water rights for the bays and estuaries, but virtually no water is currently dedicated to that purpose. The San Marcos River Foundation filed a permit application to set aside water for San Antonio Bay — water that could have been used to support the crane — but that request was denied by the state. The planning process put in motion by the Texas Legislature is moving at a snail’s pace.

“To date, reason and persuasion have fallen on deaf ears. The bottom line is that the policies of the state of Texas and of those authorities that are managing the Guadalupe and San Antonio rivers are killing the whooping cranes. And that is simply not acceptable and must stop.”

Ron Sass, Professor of Natural Sciences emeritus, Rice University

Jim Blackburn, environmental attorney, Texans for a Sound Energy Policy Alliance

The following additional information was written by Jim Blackburn as a “Coastal Update, January 2009.” I have met with him to talk about the huge water need of a proposed nuclear power plant that will use Guadalupe River waters, which potentially could be going instead to the cranes’ critical habitat. I was hoping that the power plant would be situated in the watershed of the Colorado River, a little further up the coast from Aransas which gets more water than does the Guadalupe River. Rainfall and inflows increase as one travels north up the Texas Coast.

On July 1st, the nation’s largest producer of nuclear energy, Chicago-based Exelon Corp., announced that it has postponed plans to build a pair of new reactors near Victoria, Texas, citing concerns over the economy and the limited availability of federal loan guarantees. However, they are keeping their options to build the reactors at a future date and will continue to seek a site permit from the Nuclear Regulatory Commission that would allow it to restart the Victoria project anytime over the next 20 years.

Key among the needs is a water supply capable of filling its cooling reservoirs. Exelon had an agreement with the river authority to reserve 75,000 acre-feet which is more than a third of the water all of San Antonio uses during a dry year. The agreement, which is simply to hold the rights and doesn’t involve any actual water, would have ended June 30 without the extension. But Exelon paid the river authority \$1.1 million to extend the water rights reservation for a year with the understanding it would begin negotiating a longer extension next month. In mid-July, Attorney Jim Blackburn has indicated that a letter of intent to sue the Texas Council on Environmental Quality may be forthcoming later this year to protect river inflows into the whooping crane area.

Thomas V. Stehn, Whooping Crane Coordinator, U.S. Fish and Wildlife Service

The Guadalupe River Situation

Many of you may remember when the Rio Grande went dry in 2000. Many of us have watched Nueces Bay suffer from the cut-off of freshwater inflow. We know that we humans can dry up a river,

and we know that such action can negatively affect a bay. The next situation on the coast that bears particular attention is the Guadalupe River and the San Antonio Bay.

The Guadalupe Blanco River Authority (GBRA) has an average of 115,242 acre-feet of unused water rights. After promising 60,000 acre feet of this water for the San Marcos/New Braunfels area, GBRA has now optioned 75,000 acre feet of this right to Exelon in Victoria for a nuclear power plant. They also have announced that they will divert approximately 30,000 acre-feet to the Coletto Creek power plant and will use a similar amount of water from Canyon Dam for local water supply. They also have applied to the Texas Commission on Environmental Quality for a permit to divert 25,000 to 50,000 acre feet of “new” water in the middle reach of the Guadalupe, arguably for use in the middle basin.

The problem is simply this – there is not enough water in the river to meet all of these demands and to also provide fresh water inflows for San Antonio Bay. In fact, in order to gain the 50,000 acre feet, GBRA will seek an allocation of water that is not available 100% of the time. The base flow of the river is already allocated. We are now starting to see permit applications for less frequently available water. And the bay still has no water dedicated to its health.

The problem identified above will only get worse due to climate change according to a 2007 article in *Science* magazine. In this article, the authors present the results of several different modeling teams, all of whom agree that the temperature in most of the Guadalupe River watershed will increase, evaporation will increase, and rainfall in the western portion of the watershed will decrease. According to Dr. Ron Sass, a climate specialist at Rice University, the potential exists that approximately 135,000 fewer acre-feet of water could be available over the long term on the river. On top of that, Dr. Sass is concerned that increased evaporation could increase salinity in the bay, further adding to the need for dedicated inflows.

To date, we have been discussing water availability in the context of historic base flows and availabilities. That past standard no longer works. We should start talking about the climate change’s impact on water availability, and we need to start soon. Water rights that are assumed to be dependable (i.e., 100% available year in and year out) may not be, and the bay may be more vulnerable than previously thought. Both water engineering and water law are based upon historic rainfall and water availability patterns. Unfortunately, historic patterns cannot reliably predict future availability when the climate is changing.

This is only one of a number of engineering and law-related issues implicit in the fact that the climate is changing. The sooner we begin to honestly and openly discuss these issues, the better. Here are several interesting issues that are likely to be discussed/debated during 2009.

- Realizing and Protecting the Natural Economic Value of Wetlands – During Ike, we saw the value of wetlands in reducing and absorbing storm surge. During 2009 we are likely to see a focus placed on saving wetlands because of their flood abatement value.
- Continued Development of Wind Farms
- Water Rights For the Bays

Jim Blackburn, environmental attorney, Texans for a Sound Energy Policy Alliance

Whooping Cranes in Wood Buffalo National Park

Whooping crane production surveys in Canada located 52 chicks that hatched from 62 nests. This compared with 64 chicks produced from 66 nests including 12 sets of twins in 2008. Sixty-two or more chicks had hatched each year 2004-2008, so results in 2009 were a little disappointing. However, production was surprisingly good given the fact that 21.4% of the flock died between the spring of 2008 and the spring of 2009, and habitat conditions were poor on the wintering grounds in the 2008-09 winter. Ten nests hatched two chicks each, 32 nests hatched 1 chick, 18 nests hatched zero chicks, and eggs in 2 nests were still being incubated at the close of the survey. The 62 nests located were 4 less than the record high of 66 nests in 2008. An estimated 10 pairs failed to nest for unknown reasons. The 73% of nests that hatched at least 1 chick in 2009 was equivalent to the 16-year average of 72%. Approximately 175 different white-plumaged whooping cranes were sighted on the June surveys out of a total maximum population of 247 in the Aransas-Wood Buffalo population. Color bands were read on 7 pairs in the population.

The surveys were conducted June 16-20 in the USFWS Region 2 Partanavia with Pilot Jim Bredy and Biologists Lea Craig-Moore of the Canadian Wildlife Service and Tom Stehn of U. S. Fish and Wildlife Service with 22 flight hours. The timing of the surveys was ideal, with all chicks sighted quite small in size with most still close to the nesting pond indicative of a very young age. Habitat conditions were rated as very good in May with a slightly later than average snow melt. Water levels remained good in June, although a few ponds were starting to show dry edges as water levels declined.

*Brian Johns and Lea Craig-Moore via
Thomas V. Stehn, Whooping Crane Coordinator, U.S. Fish and Wildlife Service*

Patuxent Wildlife Research Center

For the 2009 spring breeding season of the whooping cranes at USGS Patuxent Wildlife Research Center in Laurel, Maryland USA, we had 31 chicks hatch. Of the 31 chicks, 17 came from eggs laid at Patuxent, while our partners in the Whooping Crane Eastern Partnership (WCEP) contributed the remainder. WCEP partners sent the following eggs to Patuxent: the International Crane Foundation contributed 4 eggs, the Calgary Zoo 6 eggs, and the San Antonio Zoo 1 egg. From wild nests at Necedah National Wildlife Refuge came 3 eggs salvaged after the parent birds abandoned their nests. In a turn about, Patuxent sent one fertile, late laid whooping crane egg to the International Crane Foundation to be reared there for the Direct Autumn Release program.

Of the 31 chicks, 23 were raised by folks in costumes and trained, starting at the early age of 7 days, to follow the ultralight aircraft of WCEP partner, Operation Migration. We kept the chicks at Patuxent until they were 40-50 days of age, then sent them in an airplane to Necedah National Wildlife Refuge for continuing flight training. Sometime in mid-October, the birds will take to the air behind the ultralight aircraft to fly the migration route to Florida.

Four of the chicks raised this year were kept back to add to the captive flocks. Three are genetically valuable birds to be used for eventual breeding, and one bird will be used to start a captive research flock.

We lost 4 chicks that hatched this year. One chick had difficulty hatching and tore a shell membrane resulting in hemorrhage within the egg. The chick was very weak and died within a day of hatching. Two other chicks hatched with deformities, one dying at 3 days of age and the other, apparently blind, was euthanized at 4 days of age. One chick was euthanized at 20 days of age because of leg deformities plus developmental and respiratory problems.

We initiated a new project at Patuxent to examine semen from our male breeding whooping cranes to try to determine why some pairs are infertile or have low fertility. We are doing this in cooperation with partners from the C2S2 group of zoos, namely the National Zoo's Conservation and Research Center in Front Royal, Virginia. We are also continuing to refine a proposal to rear whooping crane chicks by foster parents for a one-by-one release of juveniles, possibly as early as next fall, in Wisconsin.

Glenn H. Olsen, Patuxent Wildlife Research Center, Laurel, MD

Eastern Migratory Whooping Crane Reintroductions

Winter 2008/09 and Spring 2009.—Winter distribution, including 14 ultralight-led juveniles at two winter release sites, was Florida (45), Tennessee (19), Alabama (7), South Carolina (4), Georgia (4), Indiana (1), and state undetermined (7). Mortalities during January-June included 5 HY2008 birds: 1 direct autumn release (DAR) female wintering in Florida (predation), a male missing and suspected dead at the same site, an ultralight male during spring migration in Illinois (vehicle collision), a newly returned ultralight male in Wisconsin (predation), and a DAR female during spring wandering (powerline collision). Scavenged remains of an unpaired 5-year-old female were also recovered near her previous summering area outside the core reintroduction area in Wisconsin. All of the confirmed mortalities occurred during April. In early June, a 2-year-old male was removed from the population and transferred to captivity after demonstrating chronic human (non) avoidance problems.

Reproduction.—Twelve pairs (11 on Necedah National Wildlife Refuge, 1 in a private cranberry reservoir in Wood County) nested in early or mid April 2009 in the core reintroduction area in central Wisconsin. All first nests were unsuccessful. Most pairs deserted their nests in a synchronous pattern similar to that noted in previous years. Several pairs (5 confirmed, 1 other possible) renested in mid-May coincident with relatively constant and cool weather during that month. Two renests produced chicks. The chick from a renest on Necedah NWR disappeared at 2 weeks of age. A renest in Wood County produced 2 infertile eggs. These were replaced with a captive-produced egg from the International Crane Foundation; the chick hatched and remained alive as of this writing in early July.

Current Population Size.—As of late June 2009, the eastern migratory population consisted of an estimated 79 birds (47 males, 31 females, and 1 chick) including 72 in Wisconsin, 2 in Michigan, and 5 at undetermined locations. Of the 78 white birds, 64 are from ultralight migrations, 13 are DAR birds, and 1 is the result of natural reproduction.

Richard P. Urbanek, U.S. Fish and Wildlife Service, for Whooping Crane Eastern Partnership

Florida Resident Whooping Cranes

As many know, the primary mission of this project has shifted from the establishment of a population to research on why the population has a low likelihood of long-term sustainability and how we can apply what we learn from this flock to other reintroductions. Another goal is to enhance our understanding of some basic life history details that have not been described previously for the species, such as incubation behavior and molt.

Priority data to be collected includes sources of mortality for older birds, especially males which are not living past 10 years of age in this flock. Most of the older cranes in this flock have died or gone missing during the March to June period. With that knowledge, in March 2009, we began an intensive monitoring schedule that involved checking high-priority (oldest) birds on a *daily* basis. We have not monitored the population this intensively since the early years of the project; our normal schedule has been 2-3 checks/week. Despite daily monitoring of most birds from March to June, we did not document any mortalities. However, we documented substantial movements, likely associated with the drought. Thus far in 2009, five birds have dispersed out of central Florida and we cannot account for them. We expect some of these birds to return to previous home ranges as marshes begin to hold water again. At the end of June, we were monitoring 25 birds (9 pairs).

We also continue to monitor this flock to collect data on breeding activity. The six months from November 2008 to April 2009 were the driest six months in Florida history. Prior to that, we have been experiencing drought conditions since 2006. May 2009 turned out to be the wettest on record, but it barely began to replenish water in the marshes. Despite on-going drought, we had 4 nests during the 2009 breeding season. Our earliest nest was initiated 20 February, and this pair hatched a chick on 20 March. At the time of this article, the chick was old enough to have fledged, but we have not documented it flying yet for perhaps several reasons. This pair maintains a small territory and never leaves it, so there is little pressure to fly. More importantly, as the chick approached fledging age, the male shed his flight feathers so the family will be grounded together until he regains flight 44± days later. This chick is the 10th to fledge in the wild from this flock.

One pair, normally fertile, incubated long, and we finally collected their eggs. They renested but abandoned the second nest when water levels declined leaving dry ground around the nest. (Another nest was also abandoned as water dried up around them.) How did the first pair manage to fledge a chick during this drought? They nested in a marsh connected to lake, so their water levels were more permanent than those of isolated marshes. Fortunately, the marsh is isolated from the air boat traffic that is common on the lake.

We collected behavioral data at 3 of the 4 nests via video surveillance systems. We are in the process of entering data from this year's and previous years' video tapes; thus far we have entered >1000 hrs of incubation behavior. Of interest this year was one nest for which the male molted during incubation (only the second time we have documented this). Usually the birds molt after nesting; this was a re-nest. After shedding his flight feathers, the male shirked his incubation duties, and, from preliminary video data, it appears he incubated <5% of the time.

Marty Folk, Florida Fish and Wildlife Conservation Commission

News and Announcements

In Memoriam

I regret to inform the membership of the passing of Judith Buhrman on 1 July from cancer. Judith was a member of the NACWG for 10 years. Many of you met her at one of several workshops that she attended (see photograph below). Judith was a dedicated, long-term volunteer for the Florida Project and an ardent fan of the cranes. In later years, she worked in our agency's research library in St. Petersburg where she could expertly track down even the most obscure article. She also was the membership secretary for the Whooping Crane Conservation Association for several years. Judith had a fiery passion for cranes, but also for all birds, plants and all of nature.

For someone not formally trained in biology, Judith was very well read and astute; she could discuss complex biological topics all day with any "trained" biologist. Her enthusiasm was contagious; I recall a field trip with the Florida Ornithological Society where we were botanizing as much as birding, and Judith was such a wealth of knowledge, just beaming at the find of this plant or the other. Judith was remarkable in that she could think "globally" but also recognize that it takes individual people to make the changes necessary to improve the planet. She was advocating "green" long before it was fashionable. Judith was active in the Florida Native Plant Society and had a passion for classical music and her two pet parrots. Her life was an example of how to live in a "friendly" way with nature. Judith Buhrman enhanced the environmental consciousness of untold people.



Judith Buhrman (middle) with Tracy Grazia (left) and Kathy Sullivan (right) enjoy the Mariachi band at the Eighth North American Crane Workshop in New Mexico in January 2000.

Marty Folk

Whoopers Happening: Podcast by Mark Chenoweth

For the last three years, Mark Chenoweth has produced a podcast about Whooping Cranes, called "Whoopers Happening." This is the only podcast updated each month (or more often during migration) dealing with these rare birds and those who work with them.

Mark wrote, "I talk with Marty Folk, Tom Stehn, Joe Duff, Beverly Paulan, Sara Zimorski and many of the folks at Operation Migration, the ICF and others regularly on the podcast. I have a new reduced time format, which makes it more of a report than the casual chat I did for over 3 years. I think the

shorter duration and more concise information will appeal to marginal craniacs, and others who are not big followers of the Whoopers and those working with the new Eastern Introduced Flock.”

The link for the podcast is: <http://whoopershappening.com>. For RSS syndication to get follow-ups and new episodes automatically use <http://whoopershappening.com/rss2.aspx>

Mark added, “*Whoopers Happening* is a labor of love, though I would not refuse a sponsor if one ever wanted to be a part of the podcasts. It’s a limited audience, but one that is world-wide and very loyal as the numbers I get show.” The site also has links to websites by Operation Migration, the International Crane Foundation, Journey North, WCEP, and Bird Freak.

Operation Migrations is Initiating a New Program: Give a WHOOP! and Celebrate with OM

We’re writing to let you know about a new and fun campaign we have just launched. It is called “*Give a WHOOP!*”

As we migrate south this fall with the Class of 2009 we will mark the 10,000th mile that Operation Migration has flown leading Whooping cranes on their first migration (somewhere over Illinois). To celebrate with us we invite you to *Give a WHOOP!* and show the world you care about wildlife - especially Whooping cranes. Our hope is to collect an Honor Roll of 10,000 WHOOPS! – one for each of the 10,000 migration miles we’ve flown. No mean feat.....after all, it’s the equivalent of flying halfway around the world!

Give a WHOOP! and your name could be drawn to receive one of more than 200 thank you gifts including: a week’s accommodation in Fort Meyers Beach, Florida, and a 5-day all expense paid BackStage Visit for two with the OM Team in Necedah, Wisconsin.

And....we’re planning to host a live, online WHOOP! IT UP event and we’d like you to ‘come’. Click the [link](#) below to read all about *Give a WHOOP!* and to see how easy it is for you to participate and ‘come to the party’. [Give a WHOOP!](#) today and join the celebration of an aviation and avian milestone!

Editor’s Note: *The Unison Call* is a forum to share updates and opinions. Articles are not peer reviewed. Reviews and opinions included in any section of the newsletter are those of the author and do not necessarily represent the views of the NACWG.

The Unison Call is published twice yearly, winter/spring and summer/fall. Membership is based on a calendar year. Contributions, suggestions, opinions, drawings, cartoons, and photographs are welcome. Items can be sent to:

David and Cathy Ellis, Editors
3722 Defiance St., Oracle, AZ 85623
E-mail: dcellis@theriver.com

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

You are invited to join the North American Crane Working Group

Membership is based on a calendar year. A membership directory is periodically mailed to members. Provide the contact information below **that you want printed** in the directory.

Members: Please check the date code on the mailing label. This represents the year through which your membership is current. If you have questions, please contact Glenn Olsen (address below).

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