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***** News Highlight *****

Whooping Cranes Have Challenging Year Everywhere



Rough and dingy plumage shows the stress these whooping cranes were under at Aransas National Wildlife Refuge this winter. ****Photo courtesy of Brian Bailey, creativeimages@charter.net ****

Wood Buffalo/Aransas Flock

Supplemental Feeding of Whooping Cranes at Aransas National Wildlife Refuge

The whooping cranes returned to Aransas National Wildlife Refuge (NWR) in the fall to face difficult conditions. Their natural marsh foods were at low levels due to the prolonged drought. Commercial crabbing had dropped to very low levels due to the reduced catch experienced throughout the summer and fall. Blue crabs (an important food source for whooping cranes that make up 80-90% of their diet when available) were present initially, but refuge surveys showed that numbers dropped off through November. Blue crabs were scarce throughout December and January as tides were lowered by low pressure systems and most remaining crabs moved out into the deeper bays. Although this is a typical winter pattern, the wolfberry crop was very low, a food that the cranes rely heavily on in the fall. The crab drop-off affected a whooping crane population already facing a reduced food supply. In addition, marsh salinities all fall were above the threshold of 21 parts per thousand that forces cranes to seek out fresh water to drink. Reduced food supplies coupled with cranes having to use additional energy reserves to find fresh water to drink further exacerbated effects from the prolonged drought. These extreme conditions have not been documented at Aransas NWR in the last 26 years.

The whooping cranes were seen in unusual places this winter. Up to 4 cranes foraged daily in the farm fields north of the refuge. A record 20 whooping cranes wintered on the Lamar Peninsula utilizing game feeders in locations never used by cranes before. Food shortages affect whooping cranes in two other ways--direct mortality and lowered productivity. Research done by Felipe Chavez-Ramirez in 1994 documented that up to 37% of whooping cranes failed to nest following a poor blue crab winter at Aransas NWR.

Supplemental feeding was endorsed by the whooping crane coordinators of Canada and the U.S, the International Recovery Team, USFWS-ES in Corpus Christi, and by the Project Leader at Aransas NWR.

The feeding was intended to give the cranes a necessary boost to get them through the winter and increase production in the coming summer. Feed was dispersed by automatic feeders placed on roads that the cranes already utilized to obtain grit. The roads have open vistas so that predation would not be a factor. The corn was spread thinly to reduce consumption by wild hogs. Corn provides a diet high in carbohydrates; however, crane veterinarian Dr. Barry Hartup at the International Crane Foundation stated that the cranes will be getting enough other food items to provide for a balanced diet. Aggression was not expected to be a problem since the whooping cranes were already concentrating at water holes and routinely maintained pecking orders when in groups. Crane feeding areas were placed at 3-mile intervals so that most cranes could remain in the general area of their normal range.

Motion-activated cameras and field observations were used to measure crane response to the feeding sites. Personnel documented crane use and behavior at feeding areas to look for unforeseen events. Tom Stehn reports a "moderate response" by the whooping cranes to the feeding sites. Crane use of the wintering grounds was also monitored by boat and airplane (as is done routinely) to assess how the supplemental feeding might affect crane use patterns.

In addition to supplemental feeding, refuge staff conducted prescribed burns to provide additional short-term food resources.

Grus Americana is a biannual newsletter for members of the Whooping Crane Conservation Association, a nonprofit tax exempt organization dedicated to the conservation of whooping cranes.

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Flock Size and Mortality

With estimated losses that have occurred at Aransas National Wildlife Refuge (NWR) this winter, the current flock size is estimated at 225 adults + 22 juveniles = 247. The estimated peak winter flock size was 232 adults + 38 juveniles = 270 total. Mortality this winter is estimated at 7 adults and 16 chicks totaling 23 whooping cranes, a loss of 8.5% of the flock that was a record 270 in the fall. In the last 20 years, the current winter ranks as the worst in terms of mortality, ahead of 1990 when 7.5% of the whooping cranes (11 out of 146) died at Aransas. The 3rd worst winter in 1993 showed a 4.9% loss at Aransas (7 out of 143). Mortality in the 2008-09 winter (23 birds) can be added to the 34 whooping cranes that left Aransas in the spring of 2008 and failed to return in the fall. Thus, 57 whooping cranes have died in the last 12 months, or 21.4% of the flock of 266 present at Aransas in the spring, 2008.

Tom Stehn reports “The drought rated as “exceptional” shows no sign of ending in central and south Texas. Overall, these continue to be some of the worst conditions I have ever observed for the cranes at Aransas, with some birds looking thin and with disheveled plumage. A blue crab count done on April 1st found zero crabs in the marsh. The cranes are getting somewhat of an energy boost by catching fiddler crabs just prior to migration”.

On a Brighter Note

Brian Johns, the Canadian Whooping Crane Coordinator, reported on June 1st: “Lea Craig-Moore and Kathy St. Laurent have completed the breeding pair surveys in Wood Buffalo National Park and surrounding area. Habitat conditions were good, with water levels being higher than normal. The spring was slightly later than average and the northern portions of the nesting area still had a number of snow banks and some frozen wetlands. In total 61 nests were discovered, only 5 fewer than the all time high of 66 in 2008. Another 22 pairs of cranes were observed, half of which have likely bred in previous years and the remainder were subadult pairs”.*****Edited by Marty Folk, Florida FWCC with material largely provided by Tom Stehn, USFWS*****



Sputnik lands at Aransas NWR? No, these whooping cranes are near an automatic feeder that disperses corn. Note the rough and dingy plumage on these birds, indicative of stress. The banded bird in the foreground is an old female. Photo was taken by a motion-activated camera. Photo courtesy Tom Stehn and Aransas NWR.

Human use of River Water is Killing Whooping Cranes

Houston Chronicle Commentary By Ron Sass and Jim Blackburn, May 5, 2009

The winter of 2008/2009 was the worst in recent history for the whooping crane, the icon of federally protected endangered species. 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.

Sass is the Harry C. and Olga K. Wiess Professor of Natural Sciences emeritus at Rice University. Blackburn is an environmental attorney for Texans for a Sound Energy Policy Alliance.

Illustrating the Whooping Crane Migration Corridor in the Central Flyway

The whooping cranes that migrate 2500 miles twice annually through the Central Flyway of North America breed in Wood Buffalo National Park in Canada's Northwest Territories and winter at Aransas National Wildlife Refuge on the southeast Texas Coast. This Aransas-Wood Buffalo Population (AWBP) is currently the only self-sustaining population of whooping cranes in the world. Because most of the mortality suffered by the AWP occurs during migration, understanding the use of migration stopover sites is important for evaluating potential sources of disturbance and mortality to the cranes. Therefore, knowledge of the route used by whooping cranes to migrate to and from their wintering and breeding areas is crucial to recovery of this endangered species.

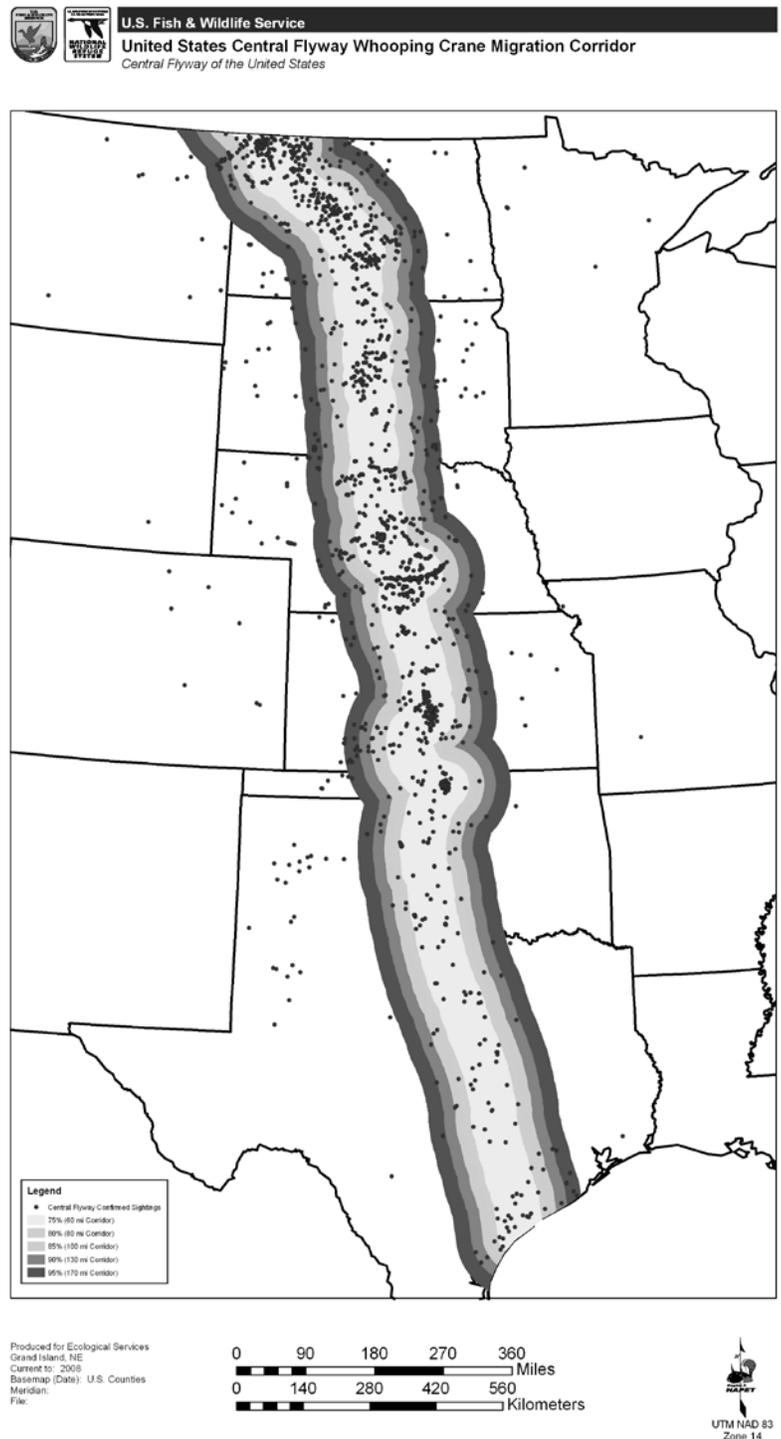
The Cooperative Whooping Crane Tracking Project (CWCTP) was initiated in 1975 to collect a variety of information on whooping crane migration through the Central Flyway. Since its inception, a network of federal and state cooperating agencies has collected information on whooping crane migration stopovers. During migrations, two federal and two state resource agency contacts in Texas, Oklahoma, Kansas, Nebraska, South Dakota and North Dakota funnel whooping crane sighting reports to the Project Coordinator in the U.S. Fish and Wildlife Service (Service) Nebraska Field Office in Grand Island, Nebraska. The CWCTP Coordinator maintains the sighting database, updates the cooperators at least weekly on the progress of each migration, and distributes a migration summary to the cooperators following each migration. In the fall of 2007, the Service's Habitat and Population Evaluation Team located in Grand Island, Nebraska, converted the CWCTP database to GIS format to facilitate input, updates, and provide output options in a spatial context.

The CWCTP database includes a hardcopy file of whooping crane sighting reports and a digital database in various formats based on those sighting reports. Information regarding the observer and his or her experience; the number and maturity of the cranes seen; the date, time, location and circumstances of the crane sighting; and a description of the cranes seen are included with each report. There is only one record for each sighting in the database; a report's location information documents only the first location of the crane group even though, in many cases, the group was observed at multiple locations during their stay in a local area. These incidental whooping crane sightings (i.e., sightings not resulting from a standardized survey or study) are classified as confirmed, probable or unconfirmed based on criteria established in the Aransas-Wood Buffalo Population Whooping Crane Contingency Plan, with which the CWCTP was integrated in 1984. One of the purposes of the Contingency Plan is to establish a framework for appropriate responses to a variety of situations in the migration corridor that may be hazardous to migrating whooping cranes. A subset of the database along with site evaluation (habitat) information collected between 1975 and 1999 was summarized by Austin and Richert (2001).

Whooping cranes are largely opportunistic in their use of stopover sites along the Central Flyway, and will use sites with available habitat when weather or diurnal conditions require a break in migration. Because much of the Central Flyway is sparsely populated, only a small percent of stopovers are observed, those observed may not be identified, those identified may not be reported, and those reported may not be confirmed (only confirmed sightings are included in the database). So, even though the CWCTP database contains 2,110 confirmed whooping crane sightings through the spring migration of 2009, it is nevertheless estimated that as little as 4 percent of crane stopovers are reported, based on the crane population and average daily flight distances during migration.

The figure to the right illustrates the whooping crane migration corridor in the United States portion of the Central Flyway, based on confirmed whooping crane sightings in the CWCTP database. The bumps in the migration corridor result from the high concentration of sighting reports from Salt Plains National Wildlife Refuge in northern Oklahoma, Quivira National Wildlife Refuge in central Kansas, and the central Platte River in south central Nebraska. The lighter shaded central band in the corridor contains 75 percent of the confirmed sightings included in the analysis, while the outside boundaries of the corridor contain 95 percent of all the sightings included in the analysis.

Bias is an inherent characteristic of any data obtained through incidental sightings. That is, for the subset of crane use that is recorded, relatively more sightings are recorded in areas such as national wildlife refuges where knowledgeable observers are available to look for cranes and report their presence. Conversely, remote areas of high use may not be documented due to the absence of observers. However, use of areas such as national wildlife refuges is also determined to some extent by habitat management on the areas and availability of alternative habitat in the region. For these reasons, representations of the crane migration corridor based on percent of confirmed sightings should be interpreted conservatively, particularly in Oklahoma and Kansas where a very high percent of sightings occur on a few national wildlife refuges.



Literature Cited: Austin, E.A. and A.L. Richert. 2001. A comprehensive review of observational and site evaluation data of migrant whooping cranes in the United States, 1943-99. U.S. Geological Survey. Northern Prairie Wildlife Research Center, Jamestown, North Dakota, and State Museum, University of Nebraska, Lincoln, Nebraska. 157 pp. *****Martha Tacha, USFWS, Grand Island, NE*****

Updates from Reintroductions

Eastern Migratory Population

The eastern migratory whooping crane population currently totals 79 birds, including 48 males and 31 females. We entered the 2009 nesting season with a total of 12 potential breeding pairs, and upon returning to Wisconsin from their respective wintering areas, all pairs established nesting territories. By April 21, all twelve pairs were incubating, 11 on Necedah National Wildlife Refuge (NWR) and one on a private cranberry operation in adjacent Wood County.

In a repeat of the pattern observed over the past two years, all nests were abandoned between April 18 and May 3, with the largest number abandoned on April 23 to 24. This latter period coincided with a period of the warmest temperatures of the season to date, and the first significant emergence of black flies. Going into the nesting season, several theories were advanced to explain the nest abandonment observed in previous years. The leading theory was that incubating birds were unable to tolerate the abundant blood-feeding blackflies (*Simulium emarginatum*) that emerged in large numbers with the first significant warm weather. Observations in 2008 noted a correlation between the pulse of emerging blackfly adults and the period of nest abandonment.

An alternate theory proposed that incubating birds were nutritionally stressed, such that the appearance of numerous prey items triggered by rising temperatures induced them to leave their incubation duties to replenish their depleted reserves. In preparation for the 2009 nesting season, several research studies were designed to give greater insight into the actual cause of nest abandonment.

The Whooping Crane Eastern Partnership enlisted the aid of Dr. Peter Adler of Clemson University, a nationally recognized expert on black flies. A student of Dr. Adler is locating and mapping black fly breeding areas on Necedah NWR and vicinity to identify how they relate to whooping crane nesting areas. Adult black flies are also being sampled through the use of CO₂ traps distributed throughout the areas used by nesting whooping cranes. These traps are being operated through the nesting period to characterize the numbers, locations and species of black flies within whooping crane nesting habitat. A number of whooping crane decoys, some outfitted with real whooping crane wings, are being used to test black fly attraction to whooping cranes.

Data are also being collected to investigate the effect of energy balance of incubating whooping cranes on nesting success. Whooping cranes are being observed to determine what birds are eating and the habitat they occupy while foraging, and additional sampling is being conducted to determine what food items are available at Necedah NWR. At least seven whooping crane nests were monitored with either cameras or observers in blinds, collecting information on time budgets of nesting and non-breeding whooping cranes. This information is intended to give greater insight into the role of energy balance on nest abandonment. Supplemental food has been provided to at least four of the seven nesting pairs, to see if the addition of food resources leads to higher nesting success.

Data are still being collected, so we cannot yet say with confidence what has caused the nest abandonment that has plagued this population. However, we remain optimistic that renesting may yet result in successful nesting in 2009. At least four pairs have renested, with at least three pairs currently incubating in early June. If successful, these nests could be expected to hatch sometime in mid- to late June. In 2006, the only chick successfully fledged from this population came from a reneest, and hatched on June 22.

**** *Joel Trick, USFWS, New Franken, WI* ****

Florida Resident Flock

We continued to study the non-migratory whooping cranes in Florida (28 birds, 11 pairs) in order to enhance knowledge of the flock and provide information that has implications for future reintroductions. In March we began an intensive monitoring schedule (checking most birds every day; the usual schedule was checking each bird 3 times/week) in order to gather enhanced data on survival and dispersal. We continued data entry and management for behavioral analyses of nesting cranes and thus far have computerized 814 hours of video observations from nests. Since our last update we have not seen many mortalities but documented substantial movements by much of the flock (likely drought-related). Some birds have dispersed beyond where we could find them (beyond the central Florida peninsula), only to return later. Several are still missing. Dispersal is a suspected reason why birds have “gone missing” in the past, never to return. We suspect movements were primarily a response to drought. Since the beginning of the year one pair has been bouncing between 4 points in north and central Florida, traveling at least 748 km (465 miles). This much traveling of course increases the odds of travel-related mortality such as collisions with power lines. Despite the drought, 3 pairs had 4 nests (1 was a re-nest after the initial nesting attempt failed) during the 2009 breeding season. Two of the nests were abandoned when water around the nest dried up. A third nest was incubated past a normal period of incubation; we collected the eggs and determined they were infertile (possibly due to drought). One nest resulted in a hatched chick. The parents raised it up and by the time of this newsletter the chick was making its first flights.

The most recent drought in Florida began in 2006. In May this year we finally received some badly needed drought relief. The rains in May didn't completely replenish our rainfall deficit, but it was a good start. See next article for more information.

*****Marty Folk, Florida Fish and Wildlife Conservation Commission*****

Message from the New WCCA President: Whoopers Need Our Help

Starting this note I feel a deep sense of gratitude. Many individuals helped and are helping in whooping crane recovery and in continuity of the Whooping Crane Conservation Association (WCCA). The WCCA wouldn't be here without people like Jerry Pratt. I'll try to do as well as Wendy Brown did as president. Thanks Wendy! Thanks to Marty Folk who makes this outstanding newsletter possible and who invited me to add this note.

As president I see whooper survival from many angles. The wild and captive whooping crane populations continue to grow. Monitoring on migration, at Aransas and at Wood Buffalo provides reliable population estimates and may reveal acute stressors on the Aransas-Wood Buffalo population (AWBP).

Viable captive flocks exist in Canada and the United States. They produce birds for release, for research and for maintenance of the captive flocks. Artificial insemination sustains production from many of the pairs. An active gene pool management plan ensures a diverse gene pool protecting the captive populations from a genetic dead end.

The recovery program has made great strides, but many threats face the whoopers. You've seen these threats described in our newsletter and will see them in greater detail in this issue.

The AWBP (central to whooping crane recovery) faces serious threats in Texas. Climate change and growing urban populations threaten fresh water flow into the bay. Diminished fresh water flow causes lower crab populations, the main food for whoopers in winter. Developments on the bay and around the Aransas area reduce the whooper foraging areas, force changes in food sources, and increase disturbance. Diseases, like avian tuberculosis and avian cholera, pose a threat too.

The release population in Florida is failing. The Florida release appears unable to produce a viable population. Mortality exceeds any probable recruitment estimates. No further releases are planned but the surviving birds are being monitored. Results from the some of the decision-making process are available in a report at this site: http://research.myfwc.com/publications/publication_info.asp?id=58528

The migratory, ultralight-led population survives and grows thanks to Whooping Crane Eastern Partnership. But most nesting attempts fail. According to a 2008 grant proposal, black flies cause the birds to abandon nests with eggs. The Whooping Crane Eastern Partnership and the recovery team are working on the problem. I think more could be done. Political rather than scientific issues hinder some efforts. We provided a small grant to Operation Migration for the 2009 ultralight-release.

Let's not dwell on these challenges. Remember, only 14 birds existed in 1942 and over 500 do today. A handful of biologists and volunteers were available in 1942 and today we have hundreds. Our society was not knowledgeable of or supportive of endangered species conservation but it is today.

We need to press conservation issues, and support appropriate recovery efforts. Send me (george.f.gee@gmail.com) or any other trustee a note when you see threats to the whooping crane you think need to be addressed. We've come a long way but have a long way to go. You can help by getting new members. It doesn't cost much to join WCCA but an informed community is our most important asset.

****George F. Gee, President, WCCA****

Connecting People With Nature: Ensuring the Future of Conservation
Secretary Salazar Presents *Partners in Conservation* Award to Operation Migration
 May 8, 2009– Washington, DC

Secretary of the Interior Ken Salazar today presented a *Partners in Conservation Award* to Operation Migration for their efforts to reintroduce the whooping crane to its native flyway in the eastern United States.

It was one of 26 national awards to individuals and organizations presented at a ceremony at Interior headquarters in Washington, D.C. to honor "those who achieve natural resource goals in collaboration and partnership with others." It was one of four nominated by U.S. Fish and Wildlife Service.

The *Partners in Conservation Awards* recognize conservation achievements resulting from the cooperation and participation of individuals and organizations including landowners; citizens' groups; private sector and nongovernmental organizations; and federal, state, local, and/or tribal governments.

"The *Partners in Conservation Awards* demonstrate that our greatest conservation legacies often emerge when stakeholders, agencies, and citizens from a wide range of backgrounds come together to address shared challenges," the Secretary said. "Operation Migration has successfully reintroduced whooping cranes into their historic range in eastern North America by teaching them to migrate; few other organizations have such a direct interaction with the species they are trying to preserve."

Operation Migration, based in Ontario, Canada is a founding member of the Whooping Crane Eastern Partnership, a coalition of nine public and private agencies from Canada and the United States organized to reintroduce a self-sustaining population of whooping cranes (*Grus Americana*) into their historic range in eastern North America. Since 2001, eight generations of Whooping cranes have been taught to migrate in an effort designed to develop a self-sustaining population of the endangered species.

"These awards recognize the dedicated efforts of people from all walks of life, from across our nation– and from across our borders with Canada and Mexico," Salazar noted. "They celebrate partnerships that conserve and restore our nation's treasured landscapes and watersheds, partnerships that engage Native American communities, and partnerships that engage youth."

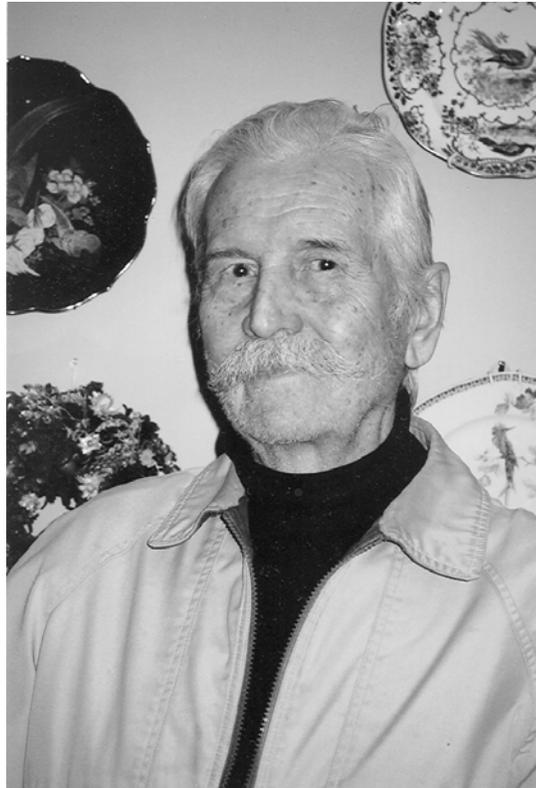
List of Operation Migration Staff and Volunteers presented with individual award certificates:

Deke Clark	Brooke Pennypacker	Dale Richter
Liz Condie	Heather Ray	Nan Rudd
Chris Danilko	Richard van Heuvelen	Walter Sturgeon
Joseph Duff	Paula and Don Lounsbury	Jack Wrighter
Chris Gullikson	George McCubbin	
Beverly Paulan	Gerald Murphy	

In Memoriam

We regret to inform the membership of the passing of **Anteo Talevi** of Don Mills, Ontario, Canada. In his memory, members of his family have made generous donations to the WCCA and requested that others may memorialize him through donations to our group. Here is a copy of his obituary from the newspaper:

September 2, 1920 - February 3, 2009
 WWII Veteran
 Flight Lieutenant RCAF
 409 Squadron
 Night Fighter Pilot
 RCAF Reserve following WWII
 Cherished and devoted husband of Antonietta Mallozzi, loving and caring father of Leonora (Douglas Breault) and Evelina (Brian Edwards). Doting grandfather of Maximilian and Nicholas Breault and Jake Edwards. Proud uncle. Affectionate brother-in-law. Anteo was a life long flyer, a dedicated environmentalist and wildlife conservationist and avid astronomer. Anteo will be deeply missed but will live in our hearts forever. A Memorial Service will be held on February 20, 2009, at 2 p.m. at Cosburn United Church, 1108 Greenwood Ave. In Anteo's memory, donations to the Whooping Crane Conservation Association, 1475 Regal Ct., Kissimmee, FL 34744, or Sunnybrook Hospital Foundation would be appreciated. Online condolences may be made at www.heritagefuneralcentre.ca



Anteo was a long-time life member of our group and a very generous contributor. It is through his type of generosity that allows our all-volunteer, non-profit group to make significant strides toward conservation of the magnificent whooping crane.

The WCCA is going Green!

You now have the opportunity to receive your WCCA newsletter electronically. This will save our organization money and also save the world some trees! Some of you were given the opportunity to select this option on a renewal form that was recently sent out. Life members and others who did not receive that mailing (because you had already renewed for 2009)-please email the membership secretary Jeannette Parker at the following email address: jmaeparker@cox.net and indicate that you would like to begin getting the newsletter by email. *Unless you specifically request it, we will assume that you 1) want to discontinue receiving the paper newsletter once you sign up for the electronic version, and 2) you want your newsletter sent to the email address that you use to contact us; if you want it sent to a different email address, please provide that within the body of your email.* After signing up, your newsletter will come as an attached file in "pdf" format. You will need a free software program, Adobe Reader, to read the pdf format newsletter. Adobe Reader can be downloaded at: <http://get.adobe.com/reader/>. We encourage all members who have email access to begin accepting their newsletters this way. It behooves us as a conservation organization to save resources when possible. Thanks for considering this and we look forward to hearing from you via email soon!

Honor Roll of Donors

Thanks to the following individuals who contributed extra money over and above their annual dues; all contributions will be used toward conservation of the whooping crane:

Mary Abbott, Leonora Breault, John Canter, Frances Carter, Tonio and Rosella Carrubba, Susan Crawshaw, Richard Cuneo, Mary Peace Douglas, Jake Edwards, Ray Erikson, Daniel Fantore, Helen Johnson, Hildegard Kaigler, Peggy Leifeste, Betty Larnes, Harry Lumsden, Glenn McCormick, Robert and Sara Miner, Optimist Club of Govan Inc., Ray Prophett, Carl Racchini, The Sanibel - Captiva Audubon Society, Wilma Schaffert, PG Scholefield, Sara Simmonds, Francis Switzer, Antonietta Talevi, Evelina Talevi, Emily White.

Membership Information

For Membership information, e-mail jmaeparker@cox.net or call Jeannette at 407-460-2399. Also visit our great web site: <http://whoopingcrane.com/> for lots of additional information and past newsletters.

For those who recently renewed-if some of you don't receive your newsletter electronically like you requested it might mean we had trouble reading your email address, or your address wasn't included on your renewal form. If you did check the "go green" box and still receive your newsletter through the postal service, then please email Jeannette Parker at jmaeparker@cox.net and she will send you your electronic version.

Please note-you might have recently received 2 renewal notices. Our printer/mailer accidently used the mailing address of our previous membership person and then did a re-send of the renewal mailing with the proper address. The 2nd mailing did not cost our group anything.

WCCA Says Thanks and Welcome to Its Web Administrators

In recent months there has been a smooth change in WCCA's operation of its web site "whoopingcrane.com". Keith Durham retired as web administrator after serving for eight years. During Keith's service WCCA's web site experienced vast improvements which attracted thousands more people to whooping cranes. Like all other WCCA staff members, Keith volunteered his services with no monetary compensation. In fact, Keith personally paid for a number of web related costs and refused any reimbursement. Keith volunteered thousands of hours and hundreds of dollars to improve the website and keep it up to date. When offered reimbursement for items purchased for the web site, Keith said, "All other WCCA staff people volunteer their time and money and I will do likewise." WCCA sincerely thanks Keith Durham for all of his volunteer services.

After Keith's retirement, Melissa Staff of Summertown, Tennessee graciously volunteered to become WCCA's new web administrator. Melissa has been on the job a few months and has already mastered the position. Actually she did not have much to learn in her new position because she was already an expert at managing web pages and other internet work. Melissa and her husband Philip own and manage P & M Productions and provide a variety of services to the public. Melissa is currently working on updating WCCA's web page, so look for some interesting changes in the near future. WCCA is blessed to have Melissa as our new volunteer web administrator. Thanks Melissa for your decision to assist WCCA in its important efforts to save whooping cranes and their habitats.

Chester McConnell who serves as editor of WCCA's web page explained, "I have been extremely fortunate to have volunteers like Melissa and Keith to work with me on our web page. I know nothing about the technical aspects of web page operation and would be unable to function without their expert services. WCCA's web page is visited by many thousands of people who had no contact with us in the past. It is our window to the world and helps inform thousands about whooping cranes. Thank you Keith and Melissa".

Members—please send your correct address if the one shown below is wrong. Send to the return address below.

Whooping Crane Conservation Association
1475 Regal Ct.
Kissimmee, FL 34744

Return Service Requested

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Leesburg, FL
Permit No. 1040



A female (right) looks on as 2 male whooping cranes spar with “butterfly threat” postures. The photographer caught these 2 males with their wings in the most extreme positions during that posture. This is one of the most amazing whooper photos I’ve seen...very artistic...look at the symmetry and balance...almost surreal in the fog. ****Photo by Steve Baynes, Florida Fish and Wildlife Conservation Commission****