

# **Whooping Crane Migratory Reintroduction Project**

## **Spring Migration Frequently Asked Questions**

### **1. How do the birds know when to leave?**

Seasonal migration enables birds to avoid the physiological stresses of unfavorable climates and to exploit food supplies that are available for only limited periods each year. Migration presumably evolved as a means of increasing lifetime reproductive output. It permits exploitation of areas that either are more productive or provide less competition than the wintering grounds. Birds do not rely on a single source of information to guide them on their travels or to tell them when to leave. Instead, they possess the ability to use redundant cues from a variety of sources such as the degree of the setting sun or moreover, daylight periods in spring and consistently warmer temperatures.

### **2. How do you know they'll leave at all (without an ultralight to show them the way)?**

The successful independent return of the five whooping cranes from the 2001 migration is our best evidence. Additionally, our project partner, Operation Migration, has conducted several previous migration studies involving other species of migratory birds. All of these birds have initiated the return migration at the appropriate time, without the aid of the ultralights. The field team acts as surrogates and tries to replicate, as closely as possible the natural process: like wild bird parents they care for the young birds over the summer and lead them south in the fall. Then, as in nature, they separate from them on the wintering ground and the young generation is on its own to return alone. This process has been repeated for millions of years - it is a survival mechanism that has been firmly established in migratory species.

### **3. What makes you believe they'll go back to Wisconsin and not either stay in Florida with the non-migratory flock, or go elsewhere?**

In the life of a bird there are two geographical areas that hold a great amount of significance: the fledging ground, which is often also the breeding grounds or "northern terminus" and the wintering location or "southern terminus." As the Necedah National Wildlife Refuge was the first area they saw from the air when they first learned to fly, we have every reason to believe they will return to the vicinity of the refuge. As their early flight exposure covered large areas of the refuge, they will likely wander like any bachelor flock until they find suitable habitat. At the wintering location on the Chassahowitzka National Wildlife Refuge in Florida, the birds began developing their independence under the watchful eye of their surrogate parents. The successful departure from their winter home and independent return of the five whooping cranes from the 2001 migration is our best evidence.

### **4. What will you do if the whooping cranes don't return to Wisconsin or to the Refuge?**

We will monitor the birds throughout the spring. The cranes each wear a radio transmitter and two have additional satellite transmitter equipment. This will enable biologists to track the movements of the cranes. Should some or all of the cranes not make the complete return migration to Wisconsin, biologists will evaluate each situation to determine if human intervention is necessary or not.

### **5. How long do you think the return flight will take?**

The return north could take a few days to several weeks and may vary from bird to bird. The whooping cranes from this project will be monitored and tracked throughout their flight north using radio telemetry and satellite transmitters. All of the cranes are fitted with conventional radio transmitters and two cranes are wearing satellite transmitters, which broadcast signals to the ARGOS/NASA satellite. Data provided by this system will allow us to track their movements.

## **6. Will they stay on the Refuge?**

It is expected that the whooping cranes will return to the refuge and the general area around it. Central Wisconsin was selected in part due to the vast area of suitable habitat. Normal behavior for bachelor flocks of cranes is a sort of nomadic pattern. They roam about the area around their natal grounds and learn about life as a crane. They socialize with others and eventually pair up. These pairs then select a territory and set up housekeeping. Many wild sandhills in the area nest in and around the refuge, the adjacent state and county owned property and in privately held cranberry water impoundments. We expect that the whooping cranes will exhibit similar behavior. The size of whooper territories depends on a great many variables, but at most the refuge isn't physically capable of hosting all the future breeding pairs that will secure this population as self-sustaining. Thus, we expect the birds will spread out beyond the refuge boundaries over time.

## **7. Will they want to return to the pens?**

The cranes will likely return to the area of the pens, and may show some interest in the handlers initially. However, they will quickly break the attachment, if they haven't already, to assert their independence as any teenager would. As is common with most species, adolescents and young adults tend to separate from their parents in order to establish their own place in the flock and to begin forming pair bonds with suitable mates. The whooping cranes from the 2001 migration returned to the pen area, but over a short period of time began to ignore those areas as they moved out to find their own territories.

## **8. Since there isn't an equal number of males and females, what will the "odd" ones do for a mate?**

In natural wild flocks, young cranes (and other cranes without territories) join together in "juvenile" or "bachelor" flocks until they select a mate and secure a territory. This pairing off generally occurs when the birds reach sexual maturity between four to seven years of age. As we add more birds to the flock through additional ultralight migrations, this year's whooping cranes may select mates from their own reintroduction cohort or from subsequent reintroductions. Because this is a new type of release, we do not know how these birds will behave and can only speculate based on the behavior of other wild and reintroduced whooping cranes.

## **9. What are we going to do to protect the now "wild" whoopers from people?**

Because these whooping cranes were raised using a strict isolation rearing protocol, they have a natural fear of humans and human environs. We must also rely on public support in helping to keep these and other large water birds from acclimating to humans. The public can help by not approaching or attempting to feed these and other large bird species. These cranes and other birds like them are quite capable of foraging and finding their own suitable foods and should not learn to rely on humans to provide food. Whooping cranes are omnivores and eat a variety of foods in the wild. Insects and other invertebrates (crabs, crayfish, etc.), small vertebrates (rodents, etc.), roots, tubers, and seeds are all important components of a whooping crane's diet. Blue crabs in the cranes' winter ecosystem are an especially important food source.

## **10. How closely are we going to monitor the birds on the return migration?**

Two people, each equipped with radio-signal tracking vehicles are ready to follow the birds on their entire spring migration. If the flock splits into separate groups the two vehicles can track in different areas and an airplane is on standby to follow the cranes if ground tracking becomes difficult. Two of the cranes will also be tracked by satellite telemetry. These transmitters automatically report data directly to us, so we can continue to track the birds, even if contact with plane or ground crew is lost. The birds will continue to be monitored this summer and during their next fall migration using the satellite and radio tracking

equipment. In all these cases, the tracking personnel will monitor the birds from a distance and not intervene unless necessary.

**11. What are potential predators the birds may encounter along the route and what are the dangers they face?**

Although efforts have been made to minimize mortality, some will inevitably occur as captive-reared birds adapt to the wild. In the north, wolves are known predators of adult Sandhill cranes and would be potential predators of adult whooping cranes, as would coyotes, and bald and golden eagles throughout the flyway. During the rearing, training, southern migration and wintering phases of the project we have taken steps to reduce natural mortality from predators, fluctuating food availability, disease, and wild feeding inexperience through threat management, as well as vaccination, gentle release, supplemental feeding for a post-release period, and pre-release conditioning. This conditioning included teaching the birds the habit of roosting in standing water. Predation by bobcats has been a significant source of mortality in Florida's non-migratory flock and resulted in the loss of two birds in this year's migratory study flock, and teaching this roosting behavior to young birds should help to reduce losses to wolves, coyotes, and bobcats. Collision with power lines and fences are known hazards to wild whooping cranes. We hope to reduce human-caused mortality through information and education efforts directed at landowners and land users, and through continual reviews and management without disruption of human activities in the summer and wintering areas.

**12. Will the cranes migrate as a group?**

Until the cranes begin to pair bond with mates and raise their own young they may establish temporary bonds with flock mates and form "bachelor" cohorts. They may stay together as one group or break up into smaller flocks.

**13. If the cranes appear to be in trouble during the journey north will WCEP intervene?**

Under normal circumstances tracking personnel will not approach the birds, however, various federal and state permits authorize project biologists and veterinarians to relocate whooping cranes to avoid conflict with human activities; that have moved outside the appropriate release area or the Non-essential/Experimental (NEP) area when removal is necessary or requested; and within the NEP area to improve survival and recovery prospects, as well as aid animals that are sick, injured or otherwise in need of special care. If a whooping crane is determined to be unfit to remain in the wild, it will be returned to captivity. Project biologists are also authorized to salvage dead whooping cranes.

**14. What role will the flyway states play during the northern migration?**

As they did during the migration south, our state wildlife partners will help coordinate the migration with private and public landowners, as needed. Additionally, some of the stopover locations may be located on state-owned wildlife lands. All seven flyway states and the adjoining 13 border states continue to be kept fully informed of project progress.

**15. How will interested citizens be kept informed - where could they follow migration progress? Can they expect to see the cranes?**

The Whooping Crane Eastern Partnership ([www.bringbackthecranes.org](http://www.bringbackthecranes.org)), the International Crane Foundation ([www.savingcranes.org](http://www.savingcranes.org)) and Operation Migration, Inc. ([www.operationmigration.org](http://www.operationmigration.org)) web sites will post regular updates during the return flight. Several of the cranes will be fitted with satellite transmitters, which will provide us with regular data allowing us to accurately pinpoint the sites selected by the cranes during their northern migration. Students and teachers may prefer to follow along on Journey North's website ([www.learner.org](http://www.learner.org)), which will include lesson plans and maps geared to students.

Whooping cranes are reclusive birds by nature and tend to shy away from humans. As the population of this reintroduced flock increases gradually, over the next few years, it is expected that sightings of these rare birds will become more common, especially in the flyway during migration. In the meantime, interested citizens can best show their support by respecting the delicate balance in which this flock must survive and getting their updates through the above mentioned media and the partnership.

**16. If I see a whooper on my property-on my neighbor's property or at the park, what should I do?**

The most important thing to remember is do not approach the bird. Each exposure lessens the birds' natural fear of humans, which is an important survival mechanism. You should contact your local Department of Natural Resources to report your sighting and they will advise you accordingly.

**17. Where do they stop along the way?**

While the birds were shown the proper migration pathway during the southern migration, where the whoopers stop on their journey north is unknown and most likely to be at places where they have never seen before. Previous studies have shown that the birds do not always follow the same route used during the flight south. We do expect that during migration the whooping cranes will likely use a variety of feeding and roosting habitats, including crop lands, marshes, and submerged sandbars in rivers.

**18. Will the new whooping cranes reared for this year's study be migrating with the already established cranes from last year?**

No, we anticipate the new generation will be handled just as their older cousins were in previous years. The birds will be hatched and initially reared at the U.S. Geological Survey Patuxent Wildlife Research Center in Maryland, then transported to the Necedah National Wildlife Refuge in central Wisconsin for fledging and flight training with the ultralight aircraft. The birds will then be led south in the fall. In future years, we may use other methods to introduce new birds to the flyway, including one-by-one releases into the core group of existing whooping cranes from previous years. Over time, each succeeding group of young whooping cranes can be expected to gradually begin interacting with previously released birds. How often and how quickly this will occur is unknown. One of the reasons for monitoring the birds over an extended period of time is to develop an understanding of such interactions.

**19. Are there genetic problems/issues with having related whooping cranes pair bond and breed?**

The ultimate genetic goal of the reintroduction program is to establish wild reintroduced populations that possess the maximum level of genetic diversity available from the existing captive population. Early reintroduction will likely consist of a biased sample of the genetic diversity of the captive gene pool, with certain genetic lineages over-represented. This bias will be corrected at a later date by selecting and re-establishing breeding whooping cranes that, theoretically, compensate for any genetic biases in earlier releases.

**20. Why do some whooping crane flocks migrate, while others do not?**

Exactly why some migratory birds seem to choose not to migratory is still not fully understood. What we do know is that generally some migratory birds, such as the geese, sandhill cranes and whooping cranes, learn the migration path from adult birds in the flock. The instinct to migrate seems genetically encoded, but without an adult to show it the way juvenile birds do not where to go.

In the case of the two eastern North America reintroduction projects this concept is being tested. The flock of whooping cranes in the Florida non-migratory study has never been shown where to migrate and thus simply do not know where to go. So they tend to stay in the general geographic area where they are

released. While the migratory flock is being taught to a migratory route from central Wisconsin to Florida along a known flyway using ultralight pilots and aircraft as surrogate adults. As a result, we believe these birds will make the journey back north unaided just as their wild cousins do in the existing flock out west.

## **21. Who is the Whooping Crane Eastern Partnership?**

The Whooping Crane Eastern Partnership is a consortium of people representing a wide variety of private organizations and public agencies working to reintroduce a migratory flock of whooping cranes back into eastern North America. The ultimate goal of the project is to reintroduce enough birds to the flyway to establish a self-sustaining flock containing at least 25 adult breeding pairs.

Founding members of the Whooping Crane Eastern Partnership are the International Crane Foundation, International Whooping Crane Recovery Team, Operation Migration Inc., National Fish and Wildlife Foundation, Natural Resources Foundation of Wisconsin, U.S. Fish and Wildlife Service, USGS/Patuxent Wildlife Research Center and Madison Wildlife Health Center, and Wisconsin Department of Natural Resources. Many other flyway States, provinces, private individuals and conservation groups have joined forces with and support WCEP by donating resources, funding and personnel.

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