U. S. Fish & Wildlife Service

Whooping Cranes:

The Road to Survival



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Introduction

Whooping cranes are one of the best known of all endangered species and symbolize the struggle to maintain the vanishing creatures of this world. One scientist estimated that only 1400 whoopers survived by 1860. Their population continued to decline due to drainage of wetlands, conversion of grasslands to agriculture, and hunting until only 15 or 16 cranes survived the winter of 1941-42 in Texas. The present world population is about 450 wild and captive whooping cranes (2005). Only one self-sustaining population survives in the wild; these birds spend the winter at Aransas National Wildlife Refuge on the Texas coast and nest in Wood Buffalo National Park in the Northwest Territories of Canada,



Adult whooping crane.
Photograph by Tom Stehn



Juvenile whooping crane with adult.
FWS Photograph

migrating 2,500 miles twice annually. There are approximately 200 birds in this flock. Over the last 50 years this population has increased an average of 4. 6 percent annually. If this rate continues, the population wintering along the Texas coast will total 400 birds by the year 2020.



Whooping cranes at Patuxent.
Photograph by Robin Doughty

The United States and Canada work cooperatively to recover this species to portions of its original range. Three main captive flocks have been developed to produce cranes for reintroduction to the wild. These flocks are located at Patuxent Wildlife Research Center near Laurel, Maryland; at the International Crane Foundation near Baraboo, Wisconsin; and the Calgary Zoo, Calgary, Alberta, Canada. Starting in 1993, captive crane juveniles have been released into the wild in central Florida, in an experimental effort to introduce a nonmigratory flock. Beginning in 2001, whooping cranes taught a migration behind ultralight aircraft between Wisconsin and Florida have been introduced into the Eastern United States.

Identification

Whooping cranes are magnificent birds, unique to North America. They are the tallest bird in North America, standing nearly 5 feet tall, with a long, sinuous neck and long legs. They have red and black markings on their heads with long, pointed beaks. Their snow-white body feathers are accented by jet-black wing tips (visible only when the wings are extended). Their wingspan measures 7-feet across. During the fall, juveniles have rusty brown plumage with some white adult feathers just beginning to appear. Whoopers fly with a slow wingbeat, straight neck, and legs trailing out beyond their tail.



Whooping cranes in flight.
Photograph by Steve Hillebrand



White pelicans



Snow geese



Great egret
Above Photographs, FWS

Two legally hunted wildlife species, sandhill cranes and snow geese, are similar in appearance to whooping cranes. They and other birds which are sometimes misidentified as whoopers are illustrated in this leaflet. The sandhill crane is gray and smaller with a wingspan of 5-feet, but sometimes appear whitish in bright light. Sandhill cranes occur in flocks of two to hundreds. Snow geese and white pelicans are white with black wingtips (geese) or wing edges (pelicans) but both have short legs that do not extend beyond the tail when in flight. Snow geese generally occur in large flocks, are much smaller than whooping cranes, and fly with a rapid wingbeat. White pelicans fly with their neck folded and can be distinguished by their large yellow bill. Herons and egrets also fly with their long necks folded.

Natural History

Our fascination with whoopers partially results from their loud vocalizations and elaborate courtship rituals which help strengthen pair bonds. Courtship behavior consists of calling, wing flapping, head bowing, and tremendous leaps into the air by both birds. These dances begin in late winter as a prelude to mating, but may occur at other times as whoopers defend their territories or show excitement.



Dancing cranes.
FWS Photograph

Whooping cranes pair for life but will re-mate following the death of a mate. Whoopers may survive up to 30 years in the wild and 35 to 40 years in captivity. They generally begin to produce eggs when 4 or 5 years old and lay two eggs but seldom are successful in rearing more than one chick. The nests are built forming

small platforms made of bulrushes, cattails and sedges. Wetlands are the main source of food for whoopers where they find crabs, crayfish, frogs, clams, large insects and minnows. In Canada, the young chicks feed on dragonfly larvae. In the uplands whooping cranes feed on small grains, acorns and berries. At night they stand (roost) in shallow water where they are safe from coyotes and bobcats.



Sandhill cranes with whooping crane.
FWS Photograph

Fall migration begins in September. Whooping cranes normally migrate as a single pair, family group, or in small flocks, sometimes accompanying sandhill cranes. Flocks of up to ten whoopers have been observed feeding at stopover areas. They migrate during the day and stop every night to feed and rest. They prefer to stop at isolated areas away from human disturbance. It is during these stops as they make a short flight to find food that they can be killed colliding with power lines, the greatest source of mortality for fledged whooping cranes. Between mid-October and mid-December, they arrive on their wintering grounds. Spring migration begins in March and they reach the breeding grounds by early May.

The Rocky Mountain Population

The First Experiment

Between 1975-1988, whooping crane eggs were placed in sandhill crane nests in Idaho. The foster parents reared the whooping cranes and taught them how to survive in the



Sandhill cranes take flight.
Photograph by Dick Stenzel



Crane chick and puppet.
FWS Photograph

wild, when to migrate and where to spend the winter. The population peaked at 33 in 1985, but these birds never paired and produced young. The absence of breeding is thought to have been caused by improper sexual imprinting since most species of birds identify their parents or foster parents as a model for their future mate. The last remaining whooping crane in the Rocky Mountains died in 2002. No more whoopers will be introduced into the Rocky Mountains.

The Second and Third Flocks

In the 1980s, scientists developed a technique of raising cranes in captivity called costume-rearing where crane handlers are dressed in a costume that somewhat resembles a crane. The birds are properly imprinted on their own species with models as well as live cranes kept in adjacent pens. Since the birds are kept isolated from non-costumed humans, the birds grow up to be wild.



Feeding crane chicks.
Photograph by Carl R. Sams II

Starting in 1993, captive whooping cranes were released annually in central Florida. Since cranes learn migration from their parents, these cranes raised in captivity had never been taught a migration and stay throughout the year in Florida. There are currently about 60 nonmigratory whooping cranes in Florida (2005). Some have paired up, nested and fledged chicks, proving they were properly imprinted. Predation by bobcats continues to be the main source of mortality for the Florida whoopers.



Whooping cranes learn to migrate.
Photograph by Operation Migration

How would you teach a flock of whooping cranes to migrate? A group called the Whooping Crane Eastern Partnership began in 2001

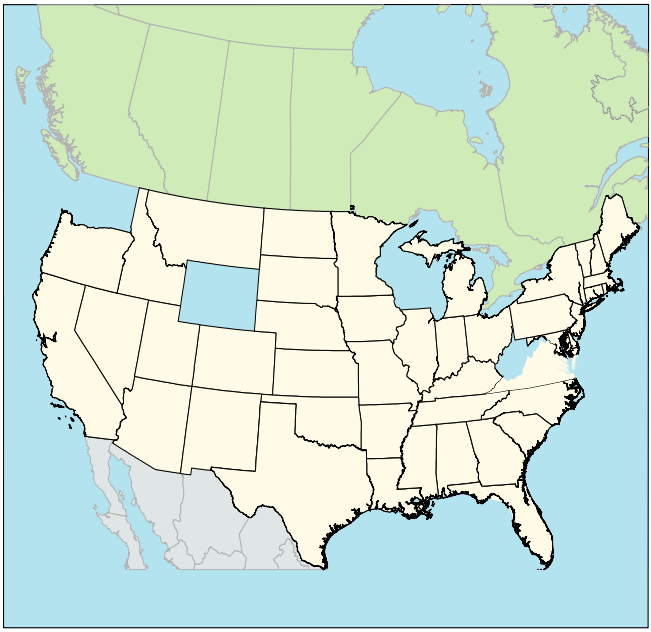

Figure 2. The principal known breeding and wintering areas of the whooping crane (Grus americana) *(adapted from Meine and Archibald 1996).*

introducing costume-reared whooping cranes into the wild. The cranes in their first fall are led in migration behind ultralight aircraft between the Necedah National Wildlife Refuge in Wisconsin and the Chassahowitzka NWR on the West Coast of Florida. The migration can take as long as two months to make the 1,200-mile journey. The cranes are then provided food all winter at a release site. In the spring, the cranes take off completely on their own to return back to Wisconsin and learn wild behavior, and will continue to migrate the rest of their lives. There are currently 47 cranes in this eastern migratory population (2005), with about 15 more juvenile cranes led south every fall.

Viewing, Protection, and Reporting Sightings

There are three places in the United States where whoopers can reliably be viewed. Whooping cranes are a major tourist attraction on the central Texas coast in winter, with an

annual festival held at the end of February in Port Aransas. Tour boats offer trips from Rockport, Texas to view cranes along the Gulf Intracoastal Waterway, and one pair can usually be seen from an observation tower at the Aransas NWR near Austwell. Whooping cranes from the reintroduced flocks can best be viewed south of Orlando, Florida, or at the Necedah NWR in Wisconsin.

Sandhill crane and snow goose hunters should be on the look out at all times during the various hunts for whooping cranes. Whooping cranes are protected by the Endangered Species Act of the United States. Penalties for shooting a whooping crane can be up to 1 year in jail and a $100,000 fine. The Act authorizes payment of up to $2500 for information leading to the arrest and conviction of any person harassing, shooting, or attempting to take a whooping crane. Contact your local State Game and Fish Office, or the U.S. Fish and Wildlife Service for further information, or to report possible violations.

Threats

If you see whooping cranes during the migration periods of March-May or September-December, please report the observation to your State Game and Fish Office or to the U.S. Fish and Wildlife Service, Grand Island, Nebraska, phone 308/382-6468.

Although giant strides have been made in safeguarding their habitat and preventing shooting, whooping cranes today remain very much endangered. Primary threats include collisions with power lines in migration, loss of stopover habitat, loss of genetic diversity, disease, and a decline in habitat quality at Aransas due to loss of freshwater inflows or a potential oil spill. Global warming and associated sea level rise will potentially make the current

winter marshes too deep for the cranes to use, and could change the climate on their northern nesting grounds. Young crane chicks may be susceptible to new diseases introduced into North America, including West Nile Virus. For the species to survive, mankind will have to remain vigilant and devise strategies to counter these threats. Although the whooping crane is a tremendous success story for conservation, the public needs to continue to support the species as future chapters are being written.

There are numerous web sites to learn about whooping cranes. Sites include:

Web Sites

www. whoopingcrane. com
www. bringbackthecranes. org
www. operationmigration. org
www. pwrc. usgs. gov/cranes. htm
www. savingcranes. org
www. fws. gov/southwest/refuges/aransas. html



Whooping crane
Photograph by Steve Van Riper

U. S. Fish and Wildlife Service
Division of Ecological Services
P. O. Box 1306
Albuquerque, New Mexico 87103
505/248-6920
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http://southwest. fws. gov

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P. O. Box 100
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