

Sandhill Crane

Grus Canadensis



Photo credit: Darren Colello

By Clara Johnson

A spectacular sight in nature is a flock of sandhill cranes dancing on the arctic tundra, or in flight migrating in long lines or Vs across the middle of the North American continent.

The sandhill crane is a very tall wading bird with a loud call, a graceful flight on huge wings, and an energetic dance that is performed frequently throughout the year for mating as well as for stress reduction – just for the fun of it, it seems! It is a social bird that gathers in large numbers during its migration, and most of the estimated 500,000 cranes in North America pause in their migration in one area of the Platte River Basin of Nebraska each spring.

Characteristics

The sandhill crane is a stately wading bird known for its graceful flight and its energetic mating dance. It is one of the world's tallest birds. The adult stands up to 1.5 meters (5 feet) high, weighs about 4.5 to 6 kg (10 to 14 pounds), and has a wing span of up to 2 meters (6.5 feet). The adult crane has a red forehead without feathers, white cheeks, a long black bill, and a long grey neck. The long black bill has a serrated edge and is very hard and sharp.

The crane's large body and long wings are naturally grey but it likes to preen mud into its feathers, which can often make them look brown and rusty from the iron content in the mud. The mud works as camouflage, letting the cranes match the ground colour of the area they are living in. They have a set of long drooping feathers on their tail, which looks very much like a "bustle". Their legs are long and black and they have long black toes with sharp claws on the ends. The juvenile crane has a crown of feathers on its forehead and is a grey-brown cinnamon colour all over.

Male and female sandhill cranes look very similar. One way of telling them apart is to watch them dancing together in pairs (see [Behaviour](#)).

During the sandhill crane's migration flights the birds will fly in long lines or in Vs. They make a loud garoo-oo-a-a-a horn trumpeting type of call when they fly which can be heard more than 1.6 km (1 mile) away. This means it is likely you will hear them long before you actually see them in flight.

The sandhill crane is often confused with the great blue heron, which is similar in size to the crane. You can distinguish the birds by markings and behaviour. The heron does not have the red forehead of the sandhill crane and the heron holds its neck in an "S" curve while flying, while the crane holds its neck straight out. The heron is often found in and around salt water, while the crane prefers fresh water. The sandhill crane also looks very similar to the very rare whooping crane. The whooping crane is snow white all over with a different head colour pattern.

Life Cycle

Each spring most sandhill cranes fly from the southern United States and northern Mexico area to nesting grounds in the northern regions of North America or even as far as north eastern Siberia. To successfully breed and produce healthy young birds these cranes need to stop in the middle of their migration to rest, eat, socialize, mate, and build their strength for their long flight north. The Platte River region in Nebraska is their main destination for this stopover – a gathering area for up to 500,000 birds. The birds will gain up to 20% of total body weight during their stopover.

Sandhill cranes arrive at their breeding grounds between late April and early June. They nest in separate pairs in wetland areas, building nests on the ground from surrounding vegetation. They prefer to site the nest near or in the water with easy access to vegetation tall enough for both adult and juvenile birds to hide in when they feel threatened or their nesting area is disturbed. The cranes mate when they are three to six years old and pair bond for life. Their normal life span is about 25 years. They do not compete for mates and both males and females perform elaborate mating rituals when courting.

The female sandhill crane lays two grey brown spotted eggs. Both the female and the male will incubate the eggs. The eggs hatch in 28 to 32 days. The young birds are able to walk as soon as they have hatched and can catch their own insects for food very soon afterwards but are often fed food items by their parents. In two months from the time they hatch, the young birds must be ready to migrate south with their parents. They will grow about 2.5 cm (1 inch) a day and will reach their full adult size in nine weeks. They take their first flight, or *fledge*, when they are 65 to 75 days old. The young cranes will migrate south to their wintering grounds with their parents in the fall and migrate back north in the spring.

While staying in their wintering grounds, sandhill cranes roost in large groups at night, standing in shallow water or on wet lowlands.

Habitat & Behaviour

Sandhill cranes are omnivorous, feeding on young vegetation, grain, seeds, berries, insects, invertebrates such as earthworms, small animals like mice and lemmings, snakes, and small birds. They can be found in open freshwater wetlands, lowland tundra marshes, low elevation bogs, and farm fields.

Sandhill cranes live in North America and in the Siberian region of Russia. There are six subspecies. Three of the subspecies spend the winter in Mexico or the southern United States in Texas, New Mexico, or California and then migrate in the spring to northern areas of Canada, Alaska, and northeastern Siberia. The other three subspecies do not migrate and live year-round.

in either a small area in Mississippi, Florida, or Cuba. These more sedentary subspecies that do not migrate, especially the Mississippi and Cuban flocks, are at a high risk of extinction.

For the sandhill cranes that do migrate, the migration path from their southern wintering grounds to their northern breeding grounds follows a narrow flyway up the middle of the North American continent. The Platte River Basin of Nebraska is a vitally important region for sandhill cranes to stopover on their way north. The cranes spend four to six weeks there between February and April on their way north and a shorter time on their way south in September and October.

Bird watchers in the Pacific Northwest region, the prairies, and western Great Lakes areas of North America can watch sandhill cranes during their migration in the spring and fall. Sandhill cranes like to nest in isolated areas. The cranes typically nest in large numbers and spend the summer in Northern Ontario, Nunavut, Northwest Territories, Yukon, Alaska, or Siberia. The Yukon Territory and Alaska are excellent places to view them in summer. Some of the Sandhill Cranes nest further south in Canada, a small number breeding in the Queen Charlotte Islands off the coast of British Columbia, others flying inland to the Burns Bog conservation area near Vancouver.

The sandhill crane is well known for its elaborate and energetic dancing and its distinctive calls. The dance is done by two cranes together – one male, one female – with equal energy and vocalizations from both cranes. The dance starts with deep bows by both cranes. The male crane throws back his head onto his body and gives a deep call. The female then puts her head back about 45 degrees and make a higher-pitched call or two. Both cranes then perform leaps into the air, run and jump, skip and flap their wings, bow, and toss sticks or grass, all the while calling out to each other. This goes on for several minutes at a time.

This dancing is considered a mating ritual, but it is performed many times throughout the year by sandhill cranes of all ages. It is thought that dancing is a stress-relieving activity that reduces aggressive behaviour and strengthens the bond between pair bonded cranes.

Sandhill cranes have several distinct calls. The basic call is a loud kar-r-r-o-o-o which can be heard from a great distance of more than 1.6 km (1 mile) away. During the spring migration stopover in the Platte River Basin of Nebraska, the volume of the calling performed by the thousands of cranes has been described as being as deafening as the noise in a crowded football stadium.

A soft call called a *contact call* is used by cranes to keep track of each other when they cannot see each other in tall vegetation. Another soft call is made by unborn cranes from inside the egg, to which the adults respond with a purring sound.

The *unison call* is a distinctive call and dance performed by many crane species. This is a synchronized duet and dance performed by a pair bonded couple. Young couples perform the unison call with less perfect synchronization than couples who have been together for many years. Some researchers believe this dance is important for getting both birds into breeding condition at the same time, which is important for successful reproduction.

You can listen to each of these calls as well as those of the Whooping Crane from the International Crane Foundation or Operation Migration websites listed in [Web Resources](#).

Threats

Habitat loss is a major concern for the future. The three subspecies of sandhill cranes which migrate north to breed are not considered to be at risk, but there is concern that these populations are being forced further north because of human development in the wetland areas where they nest. Breeding pairs of sandhill cranes are becoming harder to find in the southern Canada; in British Columbia there used to be many breeding pairs but there are now none. Prior

to the 1920s many cranes nested in areas of British Columbia such as the South Okanagan, but these areas were increasingly occupied and developed by humans, so the cranes have been forced to fly further north to nest and breed.

In the Platte River Basin, a critically important habitat and stopover for most sandhill cranes migrating north, flood management structures, filling in of wetlands to create farm land, and gravel mining has reduced the cranes habitat from about 320 km (200 miles) of the river (down to about 130 km (80 miles)).

The non-migrating Mississippi and Cuban sandhill cranes are listed as endangered. The Florida Sandhill Crane is listed as threatened. All are threatened by encroaching human development into the wetland areas that they inhabit.

Through work done to help the endangered whooping crane, the concept of an aerial migration “habitat” which is part of the crane’s migration route has been developed. This is a restricted flying area for aircraft. Reducing human air traffic in these areas during migration could be an important preservation step taken in the future for sandhill cranes as well.

Sandhill cranes have been hunted by humans in Canada and the United States since the early 1960s. In the Canadian provinces of Saskatchewan and Manitoba, they are hunted during their southward migration. In the United States, hunting of migrating Sandhill Cranes is permitted in every state they migrate or winter in except for Nebraska. The Mississippi and Florida subspecies are not hunted in those states. Sandhill cranes have been hunted in Mexico since the 1940s.

What We Can Do To Help

Surveys of sandhill cranes are used to track the health of the species and plan actions to assist in their continued health. If you live in one of the areas of North America where the cranes are or have been known to breed and you find a nest, do not disturb the nest, but contact your local wildlife or parks office to report sightings of nests and cranes with young.

Sandhill cranes have been known to eat young plants and seeds from farmers’ fields especially during their migration north in years when the climate is very harsh and cold. Farmers would then need to reseed their fields after the birds are gone. However, these birds need this nourishment to survive and produce healthy young. Many farmers are known to have a “soft heart” when they see a flock of cranes in their fields and are willing to let the cranes take what they need and just enjoy the spectacular show of the birds before they fly away.

Habitat conservation measures are increasingly important to protect the migration stopover areas. The sandhill cranes have a very long way to travel in their migrations and need the right kind of resting sites. We must protect these sites from human disturbance and development.

Other Interesting Facts

A fossil found in Nebraska near the sandhill crane’s gathering ground in the Platte River Basin has been dated at about 10 million years old. This Miocene era fossil is structurally identical to the sandhill crane that lives in North America today!

Bibliography

Book Resources:

Alsop, Fred J. II 2002 *Birds of Canada* (Dorling Kindersley Handbooks)

Armstrong, Robert H. 1995 *Guide to the Birds of Alaska* (Alaska Northwest Books)

Baron, Nancy and Acorn, John 1997 *Birds of the Pacific Northwest Coast* (Lone Pine Publishing)

Baughman, Mel (ed.) 2003 *National Geographic Reference Atlas to the Birds of North America*

West, George C. 2002 *A Birder's Guide to Alaska* (American Birding Association)

Web Resources:

Each of the following websites has good detail on the characteristics etc. of the Sandhill Crane:

Alaska Department of Fish & Game

<http://www.adfg.state.ak.us/pubs/notebook/bird/crane.php>

British Columbia Habitat Atlas for Wildlife at Risk

<http://wlapwww.gov.bc.ca/sir/fwh/wld/atlas/species/sandhill.html>

Environment Canada Yukon News "yourYukon"

<http://www.taiga.net/yourYukon/col143.html>

International Crane Foundation

<http://www.savingcranes.org>

Operation Migration

http://www.operationmigration.org/work_wcranes.html

Platte River Whooping Crane Maintenance Trust, Inc.

http://www.whoopingcrane.org/html/sandhill_cranes1.shtml

US Geological Survey - Northern Prairie Wildlife Research Center

<http://www.npwrc.usgs.gov/resource/birds/cranes/gruscana.htm>

These two websites provides details of viewing tours in the Platte River area:

Crane Meadows Nature Center

<http://www.cranemeadows.org/crane.htm>

Rowe Sanctuary & The Ian Nicolson Audubon Centre

<http://www.rowsanctuary.org>