

Field Guide to Crane Behavior



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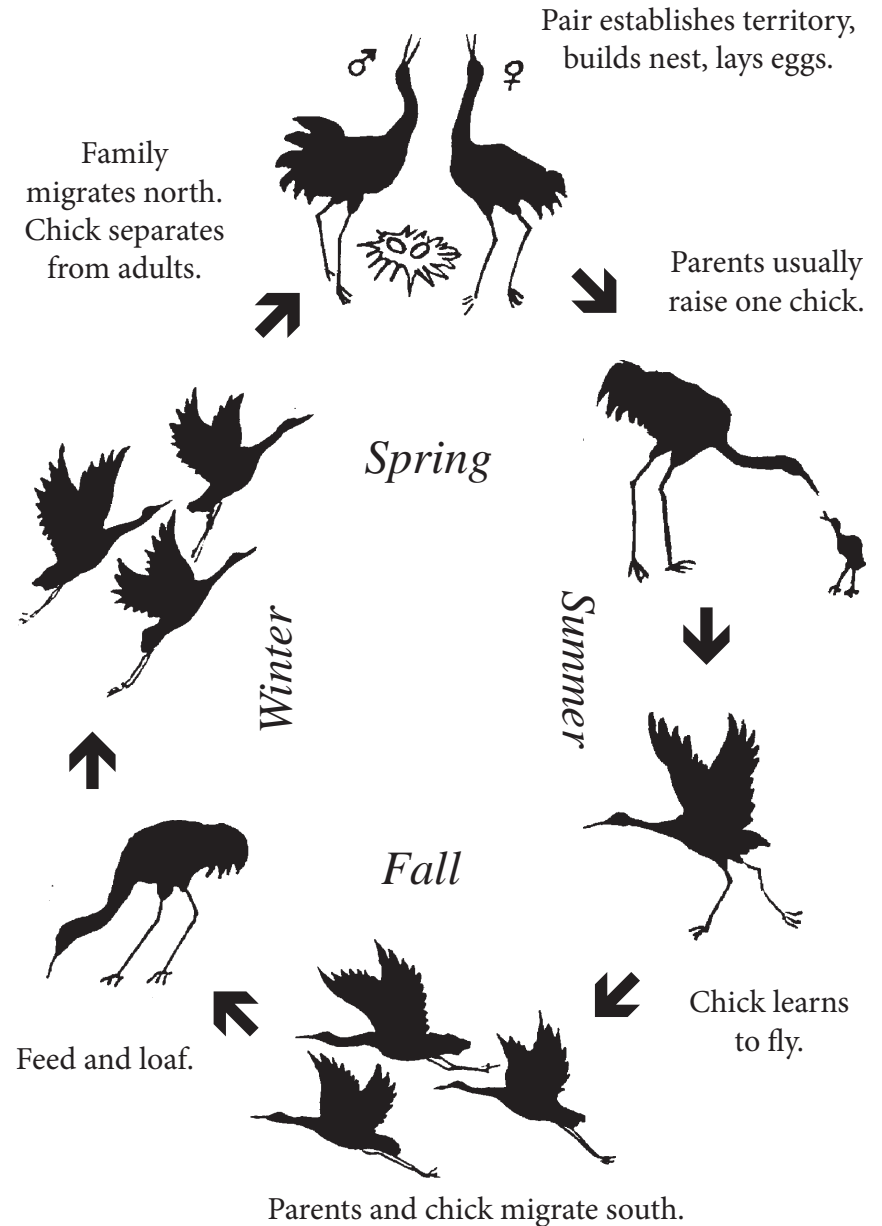
Crane Behaviors

Both cranes and people behave in ways that communicate specific emotions or ideas. For example, we might light candles, serve a nice dinner, and play soft music when we're dating. Cranes don't play music, but they do dance with a prospective mate during their courtship.

Similarly, we put up fences and "No Trespassing" signs when we want to keep others off our property. Cranes do the same, but by ruffling feathers, flapping wings, and showing their red patch to other cranes as they establish their property (territories) in spring.

In fact, cranes have an entire language of behaviors that you can learn to understand. Take this booklet with you when you visit ICF. Every time you see a crane do something, look it up in the field guide. You'll learn the name of this behavior and what it means. Remember, even when an animal appears to be doing "nothing," it is still exhibiting some form of behavior.

Crane Annual Cycle



Maintenance



Preening: Cleaning and arranging feathers with bill. Uropygial gland on top of the tail secretes an oil used to condition feathers.

Since feathers wear out, the old feathers are molted once a year and new feathers are grown. Cranes spend a lot of time caring for them by preening.

Foraging: Much of a crane's time is spent looking for food. Cranes are omnivores, eating both plants and animals. Much of their food comes from probing in the ground with their beaks. While many food items are found in wetland areas, cranes will also feed in upland prairies, savannas, and agricultural fields.



Look for areas that have been dug up in the pens at ICF. You may also see cranes catch and eat insects.

Roosting: In the wild, cranes spend the night in the shallow water of a pond or river. The sound of splashing water will alert them to an approaching predator. Individuals roost with head over the back and tucked under a wing, sometimes standing on one leg.

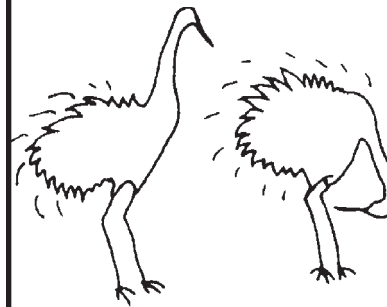


Territorial/Threat



Threat Walk: A slow, stiff strut with neck crooked. Tertiary wing feathers (look like tail feathers) are raised slightly. **Toes are extended stiffly**, rather than closing at each step. Often done at edge of territory to define boundary.

This is a low-intensity threat and is often seen at ICF, especially in the spring when the cranes are more aggressively defending their territories.



Ruffle Threat: The crane raises its feathers and ruffles or flaps its wings. Often concluded by the bird bowing and growling. Common display done by all species.

Another low-intensity threat behavior often seen at ICF.



Flap Display: Wings beat violently, head is down with red patch pointed at intruder.

Another low-intensity threat behavior. Less commonly seen than the two threats listed above.

Territorial/Threat

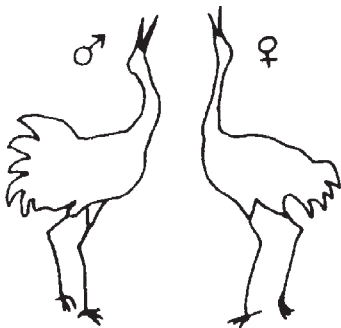


Arch Display: Wings held high and back arched, with beak usually pointed toward the sky. The red patch is expanded in size and displayed prominently. So an adversary can see the patch more easily, the bird may face the opposite direction and tip its head back.

This is a medium-intensity threat behavior. The extended wings make the bird appear larger and more intimidating.



Drop Wing Threat: The head is thrown over shoulder with beak pointed at back. Wing tip on one side drops below hock or lower and held for several seconds. Usually done following ruffle or other threats. This is a medium-intensity threat.



Unison Call: Performed by a mated pair to defend territory and reinforce the pair bond. Male and female each have different postures and series of calls.

This behavior has a dual purpose; it helps to reinforce pair bonds and serves to warn other birds away from occupied territories.

Migration

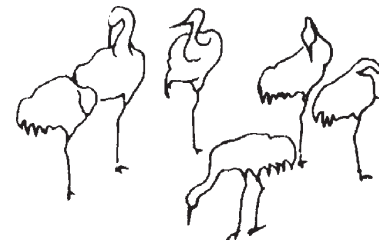


Pre-flight Posture: The neck is stiffly stretched horizontally prior to take-off. May help flock synchronize flight, or gauge readiness of other birds to fly.

Often seen at ICF in spring and fall, as cranes experience “migratory restlessness.”

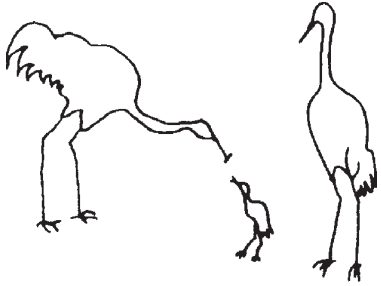


Fledging: As a chick approaches three months, its first set of flight feathers are nearly complete. Parents run and flap their wings to encourage chicks to fly. After several weeks of practice, the chick is ready to learn the migration route from parents.



Staging: Flocks of crane families congregate in wetlands to rest and feed before or during migration. During these periods, cranes are able to build up fat reserves. Young birds form “bachelor flocks” during spring migration and shortly after arriving at summering areas. Slightly older birds often find mates at staging areas.

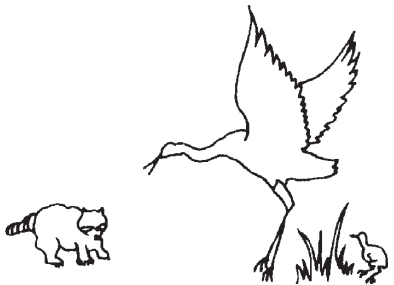
Chick Rearing



Feeding: Newly-hatched chicks feed on items presented by the parents. After a few weeks, chick is foraging with parents, who will continue to introduce the chick to new food items for several months.



Brooding: Chick huddles under one of the sitting parent's wings to keep warm and dry. While males will occasionally brood a chick, females usually perform this duty. Brooding is especially important shortly after the chick hatches since the chick cannot yet control its body temperature. Without the brooding behavior of the adults the chick might not survive.



Distraction Display: Parents attract a potential predator by calling, displaying other threats, and sometimes using the “broken-wing” display to distract predators from the nest or nearby chicks. A crane may lead the predator a safe distance away, then return to the family.

Territorial/Threat



Crouch Threat: The crane will fan its wings slightly and then drop to the ground for a few seconds.

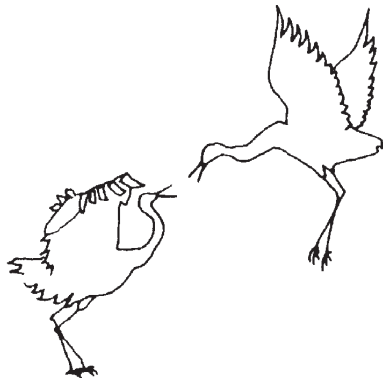
Cranes often incorporate normal behaviors into their threats. The crouch threat looks like an incubating bird. An incubating bird has much to lose and therefore is not likely to retreat. In this context, it becomes clear that this high-intensity threat is only used in response to extreme stress and should be taken seriously!



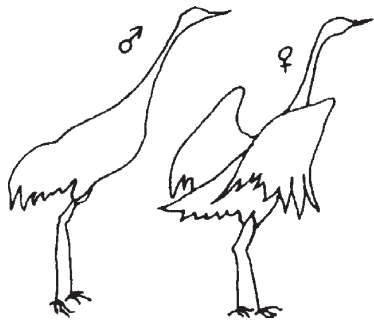
Guard Call: A single, bugling call done to scare away predators or warn other cranes away. Also used to warn mate or chicks of danger. May be echoed by the calling bird's mate.

This is a common call at ICF as visitors walk around the Johnson Exhibit Pod.

Courtship & Mating



Dancing: Elaborate series of displays including bowing, arching, stick-tossing, and jumping. Dances often include many aggressive or threat displays as pairing is stressful for these aggressive birds. Young cranes may dance to foster socialization, select a mate, or to relieve tension. Once paired, two cranes will normally remain together for life.



Pre-copulation Posture: Often preceded by dancing. Female faces away from male, spreads wings slightly and lifts tail to expose cloaca. Female gives loud purring call called the “pre-copulation call,” but copulation may be initiated by either male or female.

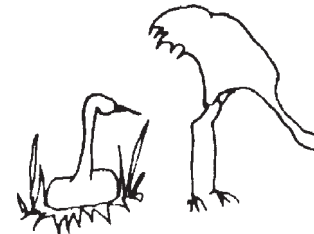


Copulation: Performed during the breeding season. Male stands on female's back and balances using his wings. Male lowers tail and briefly touches female's cloaca with his own to pass semen. After a few seconds, male dismounts over female's head.

Nesting



Nest-building: Both males and females gather sticks, leaves, and other debris and mound it into a nest. Materials are usually gathered close to the nest site. If the nest is built on the edge of a wetland, an area of open water sometimes forms around the nest as the cranes heap up the surrounding vegetation. Nest building may be ritualized in some species with the birds calling and strolling together.



Incubation: Male and female each incubate in shifts of about two to four hours during daylight hours then “exchange” the nest. At night, females do most of the incubating while males watch for predators. During the nest exchange, parents make a purring noise to the eggs. They also gently roll the eggs during the exchange insuring proper embryo development. Incubation lasts about 30 days in most species.



Nest Defense: Adults stand erect and with opened wings, the tips almost touching the ground. The cranes will also guard call as they try to drive away the invader.



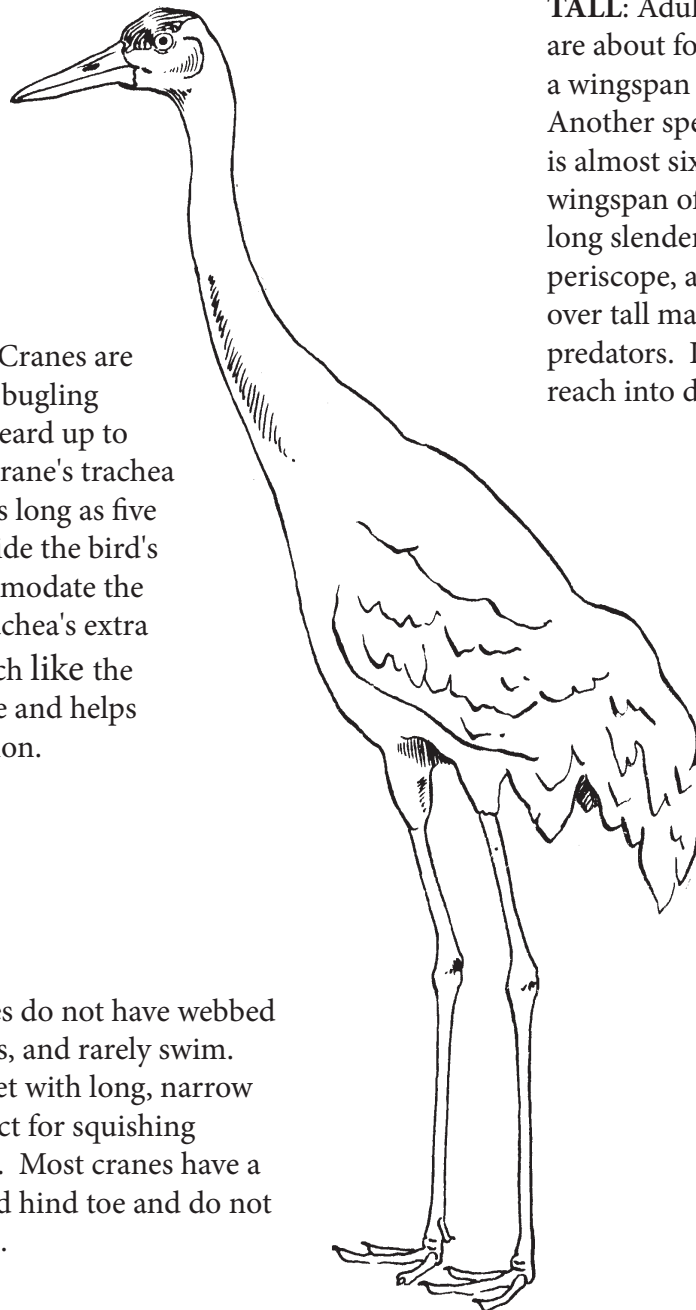
What is a Crane?

LONG BEAKS: Cranes have long, slender beaks to probe for food in the ground. This “tool” allows cranes to find food where many other animals cannot reach. This is one **adaptation** that cranes have for living in wetlands.

LONG TRACHEA: Cranes are noted for their loud, bugling calls, which can be heard up to two miles away. A crane's trachea (wind pipe) can be as long as five feet and is coiled inside the bird's breastbone to accommodate the extra length. The trachea's extra length resonates much like the tubing in a trombone and helps project the vocalization.

FEET: Cranes do not have webbed feet like ducks, and rarely swim. Their large feet with long, narrow toes are perfect for squishing through mud. Most cranes have a short, elevated hind toe and do not perch in trees.

RED PATCH: Most cranes have a bright red patch of bare skin on their head or neck. They often display the red patch to another crane to warn it away from their **territory**.



TALL: Adult Sandhill Cranes are about four feet tall and have a wingspan of five to seven feet. Another species, the Sarus Crane, is almost six feet tall and has a wingspan of nearly eight feet! The long slender neck, like a submarine periscope, allows the crane to look over tall marsh grasses to spot predators. It also allows cranes to reach into deep water to find food.

TAIL FEATHERS? Wing feathers are so long that they cover the short tail feathers when they are folded and give the appearance of a large tail.

LONG LEGS: To make it easy for cranes to walk through tall marsh grasses and wade in shallow water, they have the adaptation of long legs.



Crane Facts

**Cranes belong to a family of birds named
Gruidae.**

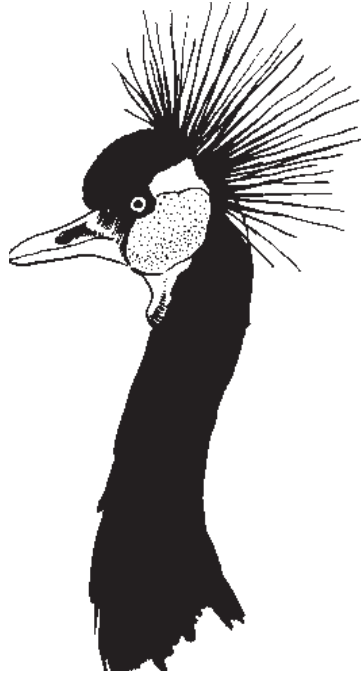
Cranes are a very ancient form of bird. Scientists have discovered fossils of crane bones that are over 25 million years old!

Cranes are found on every continent except South America and Antarctica.

They are different from storks, egrets, and herons, even though they look similar.

Cranes may choose a mate for life, and can live 20 - 30 years in the wild.

Cranes are famous for their courtship dancing and loud calls.



There are 15 different species of cranes, of which 11 are now threatened by extinction.

Two of the 15 species of cranes live in North America. Sandhill Cranes are found in the Midwest, as well as many other areas of North America. Whooping Cranes are found in Canada and the United States.

To many people around the world, cranes symbolize long life and happiness and have an important role in human culture.

Most species of cranes prefer to live in wet, soggy areas called wetlands, but may also find food in grasslands or prairies.

THREATS TO CRANES:



- * **Habitat loss and degradation**
- * **Overhunting and poaching**
- * **Poisoning**
- * **Human interference**
- * **Biological factors (disease, inbreeding)**
- * **Environmental factors (drought, natural disasters)**
- * **Hazards During Migration (power line collisions)**