

ONE OF EARTH'S
GREATEST
MIGRATIONS

Sandhill cranes in Nebraska

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Whether classified as an upland bird or waterfowl, sandhill cranes are an emblem of North American conservation successes. In the 1800s and 1900s, sandhills were extirpated from most of their home range, including most states east of the Mississippi River.

The Migratory Bird Treaty Act outlawed sandhill crane hunting in the US from 1918 to 1960 to protect the rebounding population, with the first hunting season reopening in the 1970s. Since then, 17 states have offered sandhill crane hunting annually. Nebraska is the only state in the Central Flyway that does not hold a crane season.

Hunting sandhill cranes—the oldest avian species on Earth—is the latest and greatest thing in waterfowling. An estimated 33,000 cranes are shot by hunters annually, who extol the cranes as “The Ribeye of the Sky,” as the filet mimics traits of a handsome cut of beef. Sandhill cranes are often bucket list birds, presenting a unique waterfowling challenge and excellent table fare. Hunters play an integral role in wildlife conservation by protecting the birds they hunt and the habitats that support avian species.

Nebraska is home to one of Earth’s last great migrations every year. One and a quarter million sandhill cranes converge on an 83-mile stretch of the Platte River yearly to feed, rest, and gain as much as 20 percent of their body weight. It’s their

annual stopover on a 5,000-mile route while flying between wintering areas in Texas and Mexico and their breeding grounds in Canada, Alaska, and Siberia. Three hundred or so species of other migrating birds also stop on the Platte, including whooping cranes, white-fronted geese, piping plovers, northern pintails, mallards, bald eagles, and snow geese.

Over 97 percent of Nebraska’s land is privately owned, but visitors can responsibly view sandhill cranes in central Nebraska from designated blinds, including the Crane Trust and Crane Cabin Retreat in Grand Island and Rowe Sanctuary and Funk Wildlife Refuge in Kearney. While all crane viewing opportunities are equally memorable and breathtaking, each experience has nuances.

Cranes begin to arrive on the Big Bend stretch of the Platte River in mid-February, and numbers peak in mid-March. “Cranes being here signifies spring,” said Chad Gideon, owner of the Crane Cabin Retreat in Grand Island.

In the fall, Gideon is a farmer and waterfowl hunter, and come spring, he offers overnight crane tours. Gideon’s blind sits on a stretch of the Platte River where it’s not uncommon to see tens of thousands of cranes almost cover the ultra-shallow Platte as they roost overnight. If you’re lucky, cranes will fly overhead as you’re in a pair of waders in the middle of the river.

“It’s the place to go if you don’t want to stay in a box and have rules,” said Brad Mellema, Executive Director of Grand

CRANING NECKS

The sheer number of birds migrating each year is fascinating, especially to the bird-watchers who gather every year to behold the sight.

Island Tourism. “You can see the cranes’ wings flap and almost see their eyes blink.”

Gideon’s father termed the river property a “dead horse,” but Gideon saw an opportunity to share his interest and fascination with the cranes. His evening river tours consist of 10 or fewer individuals so that he can interact one-on-one.

“The cranes take care of us. They imprint on certain areas of the river and come back year after year,” said Gideon. “If you take care of the cranes, they’ll return. The cranes never disappoint.”

The Crane Trust in Grand Island has a Nature and Visitor Center with protected lands. It offers expert-guided tours for guests to view the crane migration from heated Pietrok Family blinds—intentionally placed where cranes roost in the flat, wide parts of the river. A VIP experience with an overnight cabin stay and photography blinds are also available. All proceeds support local conservation efforts to protect the cranes.

Sandhill cranes stand 3-4 feet tall in a stately manner with white bodies and gray necks. Bright red hues color cranes’

featherless crowns, acting as a mood ring—contracting when the crane is relaxed and expanding when the bird is alert or excited. You’ll hear sandhill cranes before you see them as their rattling bugle vibrates your soul.

The magic happens at sunrise and 60-90 minutes before sunset when sandhill cranes gather to roost on the river for safety. Up to 10,000 birds glide together in one flock and never touch. As the sun sets, a gray carpet envelops the Platte. To combat freezing water, sandhill cranes employ concurrent heat exchange, a circulatory adaptation in their legs that shifts heat from warmer blood vessels to cooler ones, thus conserving energy.

Before a family group signals takeoff at sunrise, cranes slowly lower their heads to a 45-degree angle. Sandhill cranes communicate in 16 separate vocalizations and locate each other through sound. Listen closely; you’ll hear a juvenile trill mirroring a gym whistle. Mated pairs partake in unison calling—a female utters two calls for the male’s single call. Unlike waterfowl, sandhill cranes migrate primarily during daylight and use thermal updrafts to rise thousands of feet in the sky. Then, they glide slightly downward for miles until catching another thermal.

I witnessed the great sandhill crane migration with the man who dedicated his life to saving the world’s cranes: Dr. George Archibald, an international conservationist and



cofounder of the International Crane Foundation (ICF). He greeted every stranger in the blind, thrilled to be in the company of other “craniacs.”

Archibald is often known as the man who danced with a human-imprinted whooping crane for seven years. In 1941, less than 20 whooping cranes remained on Earth after a century of habit loss and overhunting.

In 1976, Tex was one of 100 whooping cranes left on Earth. Dancing influences a crane’s biological rhythms and activates its hormones in preparation for mating. The bow, ground-stab, jump, and stab-grab-wave are just a few dance steps a crane will use to facilitate bonding and allow rivals to size up one another and potential mates. As cranes age, their dancing becomes more intricate. Archibald bred Tex via artificial insemination by imitating a male crane’s behavior and courtship dancing. Tex’s offspring produced seven whooping cranes, releasing a captive flock into the wild.

“We developed costume mirroring, whereby humans wear costumes and on their hands, have a puppet that looks like the head and neck of a whooping crane,” said Archibald. “Crane chicks stay with their parents for about nine to 10 months and want to stay close to the costumed humans. This is a great

advantage because sometimes when released in the wild, they get lost during migration.”

Archibald can simply wear the crane costume, and the whooping cranes will approach him. Then, the whooping cranes are transported in plywood crates and released on the correct migration route.

“We’re very grateful to Operation Migration, wonderful people who came from Canada to Wisconsin every year from 2001 to 2015,” explained Archibald. “They took our captive-produced cranes, put on costumes, and taught the cranes to follow ultralight aircraft. It took them about two months to get from central Wisconsin to Florida because they could only fly in the early morning when there was zero wind. Sometimes they were held up for 10 days or more at one location.”

Today, a migratory flock of 543 whooping cranes nests in Wisconsin and winters in Florida. On the Platte, I observed 10 whooping cranes, 1.19 percent of the total population of 836 (including 293 in captivity). According to the whooping crane’s intrinsic rate of increase, the species has the potential to double every eight years. However, habitat loss, altered wetland conditions, climate change, and power line collisions

inhibit it. In February 2021, a new avian avoidance collision system was developed at Rowe Sanctuary, shining UV light on power lines. Crane collisions decreased by nearly 90 percent.

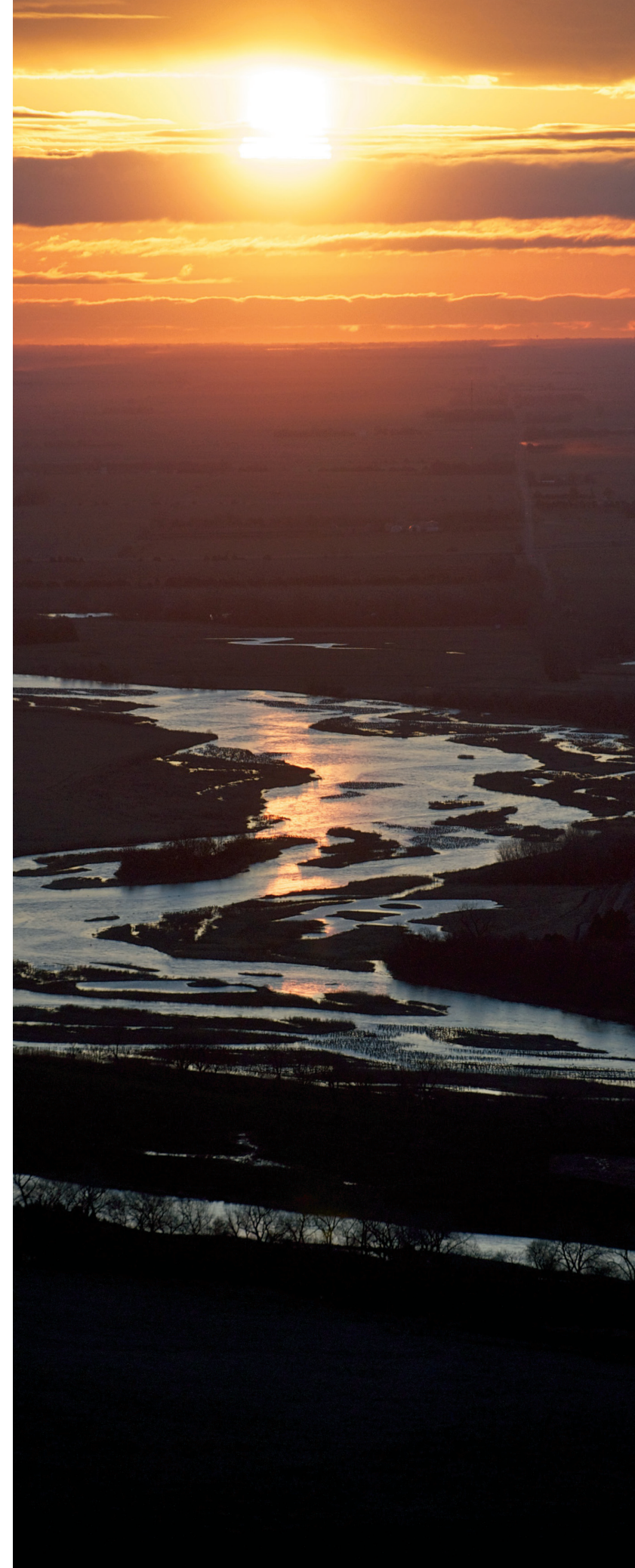
The future of various crane species was once as fragile as the intricate birds themselves. Archibald has given flight to international crane conservation, employing numerous crane reintroduction efforts in South Korea, the former Soviet Union, Iran, China, and Thailand. The ICF is the only place in the world where you can view all 15 species of cranes.

“When we hear his call, we hear no mere bird. We hear the trumpet in the orchestra of evolution... Now they stand humbled, adrift in history,” wrote Aldo Leopold, a conservationist who inspired Archibald. This was a lament of migrating sandhills losing their habitat, as the birds are hunted and rivers are drained for development.

Fossils document prehistoric cranes in Nebraska 10 million years ago. As the haunting honks of the sandhills

DANCES ON THE DELTA

The ballet of biology occurs every year against a beautiful backdrop of river marsh and sunsets.





CALL OF THE MILD

Cranes settle in for the evening at the Crane Trust lands along the Platte River.

began to silence, the Crane Trust was established as a non-profit organization in 1978 after Nebraska and the National Wildlife Federation objected to constructing the Grayrocks Dam on a tributary of the Platte River. The Platte River is a lifeline for countless species—and construction would’ve violated the Endangered Species Act. Money from the original endowment financed land acquisition and conservation easements in the Big Bend region of the Platte River. Sandhill cranes depend on vast stretches of shallow wetlands. When drained, this fertile ground risks being transformed into an agricultural field.

Through land management, scientific research, and education, the Crane Trust’s mission is to protect and maintain the physical, hydrological, and biological integrity of the Big Bend area of the Platte River so that it continues to function as a life support system for whooping cranes, sandhill cranes, and other migratory bird species.

The Crane Trust protects and maintains 8,105 acres of lowland tall grass prairie and wet meadows along the central Platte River through direct ownership or conservation easements. In 2020, the Crane Trust partnered with Ducks Unlimited (DU) to acquire one of the world’s largest sandhill crane roosting sites with funds from a North American Wetlands Conservation Act grant. The 128-acre Hall County property contains Platte River frontage and wet meadow habitat that attracts cranes during migration. It’s part of the Crane Trust’s South Side Vision to protect the southern banks of the central Platte River from development that would impact the habitat they own on the river’s north shore. Too much disruption on either side of the river would cause birds to flee.

“We’ve lost most wet meadows in Nebraska, so it’s important to restore the ones we can,” said Ele Nugent, DU Manager of Conservation Programs in Nebraska. “By restoring wetlands, we’ve provided an open habitat that benefits cranes and other wetland-dependent species like waterfowl.”

DU and the Crane Trust regularly partner on habitat restoration and are currently working on two land easements totaling over 400 acres. They also restore uplands adjacent to wetlands. “Working in those upland areas helps protect the wetland, especially if it’s in a cropped area,” noted Nugent. “Planting an upland buffer around a wetland prevents sediment from running off and soil from eroding from the cropped field and ending up in the wetland.”

Conservation practices such as habitat restoration and prescribed burning affect habitat for migratory birds. The Crane Trust surveys established sites to monitor resident and migratory birds, small mammals, and vegetation, utilizing insights to recommend management plans across the Plains region. Crane Trust research guides other North American conservation groups and land managers and is published in peer-reviewed journals.

The Crane Trust’s conservation efforts attempt to mimic what happened historically. A huge amount of work goes

into recreating what Mother Nature did naturally. The Crane Trust strives to replicate the natural influences that have shaped these habitats for millennia, including wildfires, bison grazing, and river dynamics. Fires and grazing are conducted in a rotational regime to allow certain areas to rest, thus creating a mosaic of habitats in different stages. To mimic the physical actions of high river flows, the Crane Trust mechanically clears vegetation from riverine islands and banks to create vital roosting and nesting habitats. The Trust also restores prairie habitats and manages invasive vegetation to promote plant diversity.

American bison once roamed freely across the Platte River Valley and played a keystone role in the river’s ecology. In 2015, the Crane Trust acquired a genetically important bison herd from Theodore Roosevelt National Park. Various grazing and management regimes simultaneously influence interlocked biological components on the prairie. Ultimately, the recipe for sustainable grasslands has included doses of grazing, rest, fire, and some mechanical means of vegetation control.

Since 1998, the Crane Trust has conducted aerial sandhill crane surveys during the spring migration. For 10 weeks, researchers fly along the river at a low altitude once a week, estimating sandhill crane roost numbers along an 80-mile stretch. On these flights, researchers count sandhill and whooping cranes, American white pelicans, trumpeter swans, and dark geese on the river and in adjacent wet meadows and fields.

“We don’t only have the most numerous crane species, the sandhill crane, but we also have the rarest, the whooping crane, with a wild flock of 536 individuals,” said Crane Trust Wildlife Biologist Bethany Ostrom. “We documented at least 188 individual whooping cranes using the Platte River this spring. That’s record numbers—many of them were right in front of our Crane Trust blinds.”

Weekly crane counts divulge the number of cranes each week of their migration and where they congregate in the highest numbers. February 14 marked the first flight of 2024, and sandhill cranes peaked on March 28 at 486,000. Biologists compare this intel across time and location to determine the habitat best for roosting cranes and occurring changes. Then, they can set new conservation priorities.

Crane Trust scientists fit whooping cranes with GPS telemetry devices, following their 5,000-mile migration route. This data informs solutions to save the cranes, including new information on crane habitat needs and causes and locations of mortality. They also follow the abundance and distribution of migrating sandhill cranes as they “stage” on the Platte River to improve habitat management practices.

Cranes are remarkable ambassadors for conservation programs for wetlands and grasslands. Because cranes migrate across continents, they’re a vehicle for international cooperation. It’s the people who love and save the cranes. The charisma of the cranes unites humans from all walks of life on a mission to preserve the environment necessary for their survival. 🦢