THE STATUS OF THE SANDHILL CRANE IN UTAH AND SOUTHERN IDAHO

WITH FIVE ILLUSTRATIONS

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It would seem that a bird as large as the Sandhill Crane (*Grus canadensis tabida*) would have been carefully watched and its every movement recorded; but because of its retiring habits, such seems not the case. In spite of its unusual size, one of the largest birds in America, it is rarely seen and remains relatively unknown, even, apparently, to those who have a fairly extensive interest in ornithology. In addressing inquiries to most laymen, we find that they confuse the Great Blue Heron with it and in most instances do not know the Sandhill Crane at all.

The numbers of the Sandhill Crane have decreased, and now it is not found over much of the range that formerly supported it, either as a migrant or as a breeding bird. Fremont reports that while he was at Bear Springs, at which point the Bear River turns south to flow into the Great Salt Lake (Soda Springs, Idaho), on August 27, 1843, "many cranes were seen during the day"; and three days later, in Cache Valley, Utah, he states that "in riding through the pass, numerous cranes were seen." On June 15, 1850, Stansbury reached the cove in the northeast part of Antelope Island in the Great Salt Lake, and recorded that "four graceful antelopes were quietly grazing on the grassy slopes, while the cry of the wild duck and the trumpet-note of the Sandhill Crane were heard in the distance." Baird, in the appendix to the Stansbury Report, makes this statement: "The brown cranes were found during fall and winter in immense flocks in the marshes along Salt Lake. They presented their usual watchfulness and difficulty of approach. No white ones were seen." Henshaw, an ornithologist of the

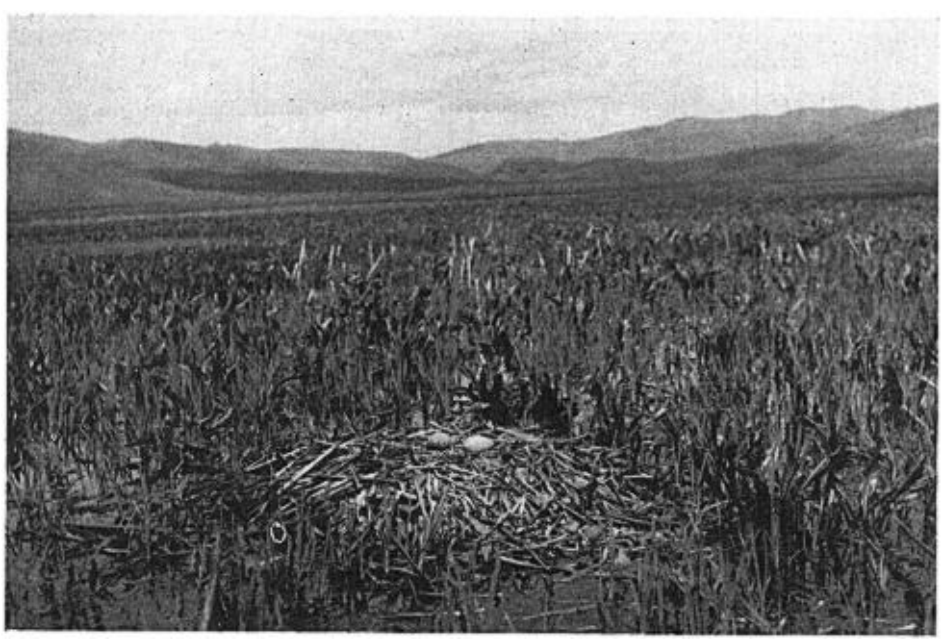

Fig. 8. Nest and eggs of Sandhill Crane in a rush and grass grown highland meadow.

Wheeler Survey, states that the Sandhill Crane was "first seen at Fish Springs, Utah, in August, 1872, by Dr. H. C. Yarrow." "It is fond of frequenting the old stubble fields in the vicinity of the settlements."

The earliest breeding records are the statements of Ridgway of his field work from June, 1867, to August, 1869, when he covered the route from Sacramento, California, to Salt Lake City, Utah. He was in Parley's Park, an elevated park mostly a "luxuriant meadow," lying at the eastern base of the main chain of the "Wahsatch" at an altitude of 6500 feet, and reports that the bird was breeding, but rare. He also states that the species "breeds in the Salt Lake Valley." His records from Simpson Lake, Utah, and Humboldt Lake, Utah, and the eggs from Simpson Lake, Utah, 1869, in the National Museum, are now referable to Nevada, since that region was cut off of Utah at an early date.

Old settlers have confirmed the report of the breeding of the Sandhill Crane along the Jordan River, which undoubtedly included many satisfactory areas. But with the early growth of Salt Lake City, these locations would have soon been deserted; the bird has not been seen there for many years.

Fish Springs, in Juab County, Utah, is at the north end of the Fish Springs Mountains, these extending northward into the Great Salt Desert. The waters from the Springs flow out from the mountains and are soon absorbed by the parched desert. Where the moisture is present, rushes grow. Formerly, this site was a Pony Express station and a prominent point on the Overland Route; but now the road is nearly deserted and almost impassable. The remains of the Pony Express cabin are now a small pile of rocks.

The Sandhill Cranes that were seen at Fish Springs by Dr. H. C. Yarrow in August, 1872, were probably breeding birds. Without doubt, there have been breeding birds right along in this region. The present rancher at the Springs knows the bird, has seen the nests which he states "contain two eggs," and has endeavored to protect the birds. The young have been seen, and on one occasion he "picked up a pair of nearly matured kids" to help them over a net fence. He reports that ten years ago there were about six pairs but that they have been gradually decreasing and in 1936 there were "two or three pairs." When the location was visited May 17, 1936, one bird was observed and definitely identified, but it was impossible to locate any nests.

An unconfirmed report is that a pair has nested in Snake Valley about fifty miles south of Callao in the valley west of the Fish Springs Mountains. The most southern breeding record in the intermountain region is that by Mearns who states that "a few pairs breed at Mormon Lake, where a Mormon settler took its eggs in 1886." Leopold, in a manuscript, January, 1919, reports "Reservation Ranch, White Mountain Apache Indian Reservation, seen July, 1910. Evidently breeding there." In a recent letter, Vorhies, who has visited both places and is familiar with the conditions there, is confident that there are now no breeding birds at either place.

The southernmost record of the breeding of the Sandhill Crane at the present time in Utah and the Great Basin is at Fish Springs, Utah, where, in spite of minimum molestation and maximum protection, the breeding colony is gradually decreasing. The Jordan River region, Parley's Park and Cache Valley have not supported colonies since the "early days."

In southern Idaho, the highland grassy meadows and water-soaked valleys in the more inaccessible parts of the mountains give safe retreat for the wary birds. Many of the valleys of the headwaters of the tributaries of the Snake River, both in Idaho

and Wyoming, are known to support breeding Sandhill Cranes. They have been reported breeding in Yellowstone Park along the Bechler River, a tributary of the Snake.

Typical breeding grounds are the open grassy or rush-covered valleys in the remote ranges. The nests are placed in the shallow ponds or soggy meadows fed by the reservoirs of melting snow. They may be placed in open water, among the rushes, grasses or other vegetation of shallow ponds, or even on the ground of stream banks. Large rounded piles of rushes, vegetation and debris, and algae from the bottom of the pond, scooped

Fig. 9. Nest and eggs of Sandhill Crane in a small slough where the water is shallow and the young rushes are just growing.

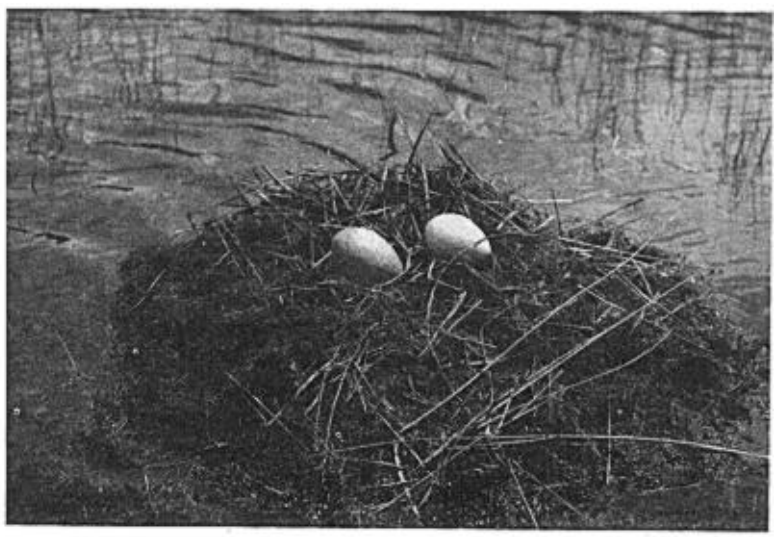

Fig. 10. Close-up of nest shown in figure 9. The nest is composed of wads of debris and algae gathered from the bottom of the slough, with a few sticks and reeds deposited on top.

up in wads with the bills of the birds, make up the nesting structure. If in a wet site, the nest is large enough to keep the eggs in the shallow depression in the top out of the water. If on higher and dryer land, it may be a mat of sticks, grass or stems about three feet in diameter and only a few inches thick. Apparently anything at hand, even cow manure, is acceptable as nest material.

Late May and early June is about the time of nesting; but it is variable, so that on the first of June eggs may have hatched or be almost fresh in the same locality. The young are adept at hiding.

Fig. 11. Nest and eggs of Sandhill Crane. This nest is composed of a large mass of rushes.

Fig. 12. Nest and eggs of Sandhill Crane on bank of a stream. The nest here is composed of a thin mat of sticks, twigs and leaves.

Thirteen eggs from southern Idaho average 9.75 cm. in length and 6.14 cm. in width. The shortest, 8.89 cm., is 6.10 cm. long; the longest, 10.59 cm., is also the narrowest, 5.75 cm., and the widest, 6.50 cm., is 10.23 cm. long.

In walking, the birds hold their heads partly lowered; the head moves backward and forward as if to take up the recoil. At intervals, they stop, stand still and lift the head high for better observation of the surroundings. In this attitude, but not in the same habitat, they somewhat resemble large Great Blue Herons of lighter gray color. At shorter distances, the most prominent characteristic of the breeding crane is the deep red, with a suggestion of mauve, of the head.

When disturbed, both adults may exhibit the so-called "injury feigning," by limping and flopping away in a manner similar to that of the curlew but made more pronounced and ridiculous by their large size. On the nest, they may remain motionless, watching, with the neck extended vertically or with head and neck close to the ground as if to be as inconspicuous as possible; and it is remarkable how so large a bird can blend in with its surroundings. In leaving the nest by flying, the hoarse, guttural croaking is emitted, but while on the nest, the bird apparently remains silent. At the time of courtship the male (apparently this sex) struts about its mate, sometimes with body and neck extended forward. Then it springs into the air a few inches to a few feet, repeating the dance and steps many times in rapid succession.

Spring migration through Utah varies from late February through much of March. In 1933 small flocks of eight or ten to fifteen or twenty were reported flying north over Utah Lake; and on March 2 one large flock was located in Box Elder County, north of Great Salt Lake, and it was reported to have been in the locality for the previous ten days. It seems that the migrating flocks congregate in this or similar regions prior to mating, separating for the scattered breeding grounds about the middle of April.

On this date the flock numbered 400 (counted on a moving picture film), and it was estimated by other observers that 1500 had been present the week before. The birds shift from place to place, but they seem to have been in the habit of seeking the feeding grounds in the morning, departing at about 11 a.m. to return about 4 p.m. and continue feeding until dark. They were extremely wary and it was impossible to approach the flock in the open country. As they took to wing, the voice had a somewhat goose-like quality, but with numbers "talking" it had a deep frog-like guttural croaking sound that continued to reach the hearer after the flock could no longer be seen.

At Fish Springs, the rancher reports that the cranes usually appear about March 15 to 20 and depart about September 15 to 20. In 1936 they arrived March 19. No records of fall migration through the central part of Utah have been obtained. It seems as if the southern migration is farther east, following the valleys of the Green River to those of the Colorado River, to the winter range in the southwestern United States and Mexico.

Conclusions.—Fish Springs, Utah, at the southern end of the Great Salt Desert, marks the southern limit of the present breeding range of the Sandhill Crane in the intermountain region. The spring migration seems to be through the central part of Utah, with the birds congregating in the open valleys north of Great Salt Lake for feeding prior to separating to seek the breeding grounds which are in the isolated valleys in southern Idaho and Wyoming drained by the Snake River. The fall migration is farther east, following the drainage system of the Green and Colorado rivers.

University of Utah, Salt Lake City, October 11, 1937.