UNUSUAL NEST SITE FOR GREATER SANDHILL CRANES IN COLORADO

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In Colorado, the Greater Sandhill Crane (*Grus canadensis tabida*) historically nested in high mountain parks (to 2896 m) over much of the western portion of the state (Sclater 1912, Bailey and Niedrach 1965). Currently it nests only in Jackson and Routt counties (Walkinshaw 1973, Bieniasz 1978, Ellis and Haskins 1982) in areas of open parkland with willow (*Salix* spp.) lined drainages and sagebrush (*Artemisia* spp.) covered ridges. These parklands are surrounded by Quaking Aspen (*Populus tremuloides*) with mixed Lodgepole Pine (*Pinus contorta*) and Subalpine Fir (*Abies lasiocarpa*). All previous confirmed Greater Sandhill Crane nests (n = 104) in Colorado have been in water or very closely associated with water (Ellis and Haskins 1982). This note describes a nest located during 1982 in habitat not previously reported for Greater Sandhill Cranes in Colorado.

On 18 June 1982 we received a report of a crane nest containing one egg near a dry-land wheat field 15 km northwest of Steamboat Springs (Routt County). A search on 24 June resulted in the discovery of a pair of adult Greater Sandhill Cranes. As we approached, the pair sounded alarm calls (Voss 1976), flushed, and circled overhead for approximately 1 minute before landing on a hillside 0.3 km away where they continued to call. A search in the area from which they flushed revealed a typically constructed ground nest of small diameter twigs. On top of the nest was an inner shell membrane and egg shell fragments. The parental behavior of the adults and the evidence found on the nest indicated that the egg had hatched successfully. Our search for the chick was unsuccessful. After we left the immediate area of the nest one of the adults returned; the other remained on the hillside, calling, until we departed.

The nest was placed on a hillside dominated by sagebrush, Gambel's Oak (*Quercus gambelii*), mule's ear (*Wyethia amplexicaulis*), and mixed grasses. A dry-land, fallow wheat field was located approximately 75 m east and a moderately used county road was 200 m east. No open water was visible from the nest although the presence of a small group of sedges (*Carex*; approximately 250 m²) just east of the county road suggests it may have been a seepage area earlier in the year. The nearest available water at the time of nest discovery consisted of a stock pond approximately 0.8 km away.

On 25 July we returned to band the chick. The area was very dry and most of the ground vegetation was dead. No cranes were seen during a thorough search. It is not known whether the chick perished or was taken to more suitable habitat by the adults.

The affinity of Greater Sandhill Cranes for water when choosing a nest site has been well documented (Walkinshaw 1973, Littlefield and Ryder 1968, Drewien 1974). In Oregon, Littlefield and Ryder (1968) found that only 2 of 122 nests were not in or very near water; both were approximately 200 m distant. Greater Sandhill Cranes in Idaho, however, show a stronger tendency to nest on dry land (Drewien 1974). Mean distance from water for the 150 dry-land nests observed by Drewien was 4.6 m (mode = 0.3 m). The aforementioned seepage may have provided the water element that seems to be essential to Greater Sandhill Crane nesting territories at the time of nest initiation.

Our observations were made while under the employ of the Colorado Division of Wildlife, federal aid project SE-5-1. We thank project coordinator Tom Lytle for logistic support. Ronald Ryder, C.D. Littlefield, Scott Derrickson, Joseph R. Murphy, Clayton M. White and Robert J. Meese reviewed earlier drafts of the manuscript.

NOTES

LITERATURE CITED

- Bailey, A.M. & R.J. Niedrach. 1965. Birds of Colorado. Vol. 1. Denver Mus. Nat. Hist., Denver.
- Bieniasz, K.A. 1978. The Greater Sandhill Crane in Routt County, Colorado. Pp. 197-203 in J.C. Lewis, ed., Proceedings 1978 crane workshop. Colorado State Univ. Print. Serv., Ft. Collins.
- Drewien, R.C. 1974. Ecology of Rocky Mountain Greater Sandhill Cranes. Ph.D. dissertation. Univ. Idaho, Moscow.
- Ellis, K.L. & J. Haskins. 1982. Whooping Crane and Greater Sandhill Crane population and habitat monitoring. Colorado Div. Wildl., Job Perfor. Rep., SE-5-1.
- Littlefield, C.D. & R.A. Ryder. 1968. Breeding biology of the Greater Sandhill Crane on Malheur National Wildlife Refuge, Oregon. Trans. 33rd North Am. Wildl. Conf.:444-454.
- Sclater, W.L. 1912. Birds of Colorado. Witherby & Co., London.
- Voss, K.S. 1976. Behavior of the Greater Sandhill Crane. M.S. thesis, Univ. Wisconsin, Madison.
- Walkinshaw, L. 1973. Cranes of the world. Winchester Press, New York.

Accepted 27 October 1984