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Andrew J. Caven

Emma M. Brinley Buckley

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Cass Co, 20 May (J&LS) and at PL 21 May (ERa). The third, a male in Nuckolls Co 30 Apr (TTu), was rather early; EEDs are 25-27 Apr.

Indigo Bunting: The 35 at FF 21 May (MW, BWi, JFG) was a good count; previous highs were 27-45. One in Sowbelly Canyon, Sioux Co, 29 May (BP) was the only Panhandle report; this species is rare in spring in the Panhandle. The hybrid zone with Lazuli Bunting is just east of the east edge of the Panhandle.

Dickcissel: No details were provided for a very early bird in Douglas Co 8 Apr (VKo). EEDs in the southeast are 15-18 Apr, although this species has been known to occur on a few occasions in winter months.

Greater Sandhill Crane (*Antigone canadensis tabida*) Copulation Detected Along the Big Bend of the Platte River, South-Central Nebraska

Andrew J. Caven
acaven@cranetrust.org
Crane Trust,
6611 W Whooping Crane Drive,
Wood River, NE 68883

Emma M. Brinley Buckley
brinleybuckleyem@unk.edu
Platte Basin Timelapse Project/University of Nebraska-Kearney
2504 9th Ave, Kearney, NE 68849

On 9 March 2017 at 0805 hrs, two *A. canadensis tabida* were observed copulating on a sandy island within the south channel of the Platte River, Hall County, Nebraska (40.790982°N, -98.404635°W, WGS84; 581 m elev.). Two biologists witnessed the copulation at a distance of about 175 m looking to the south from within an overnight viewing blind on the north bank of the south channel of the Platte River, utilizing an 80 mm spotting scope (20x60x magnification).

The sequence of events previous to the copulation followed very closely the observations reported by Tacha (1988). The copulation was preceded by the male holding the “bill up” display pointing its neck and bill in a straight line at approximately 45° to the body (Tacha 1988). The male initiated this behavior and held it longer, but the female also completed a “bill up” display previous to copulation. The male then paced around the female, she flattened her back and opened her wings partially, providing a spot for the male to land on top of her and place his feet atop her scapulars. Following this, the pair made a series of cloacal contacts with mounting lasting approximately 8 to 10 seconds. As Tacha (1988)

notes, the “bill up” display, which generally precedes and often also follows copulation, is performed by mated pairs from late April to May near the end of spring migration as well as on nesting territories.

Our observation of *A. canadensis tabida* copulation during spring migration staging in Nebraska seems to be both temporally early and farther south than most copulation records, given the species current breeding range (Tacha 1988; Tacha et al. 1992). However, *A. canadensis* was recorded regularly nesting in parts of Nebraska as late as 1904 (Sharpe et al. 2001). In the last 20 years, beginning in the mid-1990s, a few cases of nesting *A. canadensis* have again been recorded in Nebraska and adjacent states (Sharpe et al. 2001). Walkinshaw (1949) documented *A. canadensis* laying eggs as early as 7 April in both Oregon and Michigan.

The copulation we observed on 9 March was recorded on the stretch of river bordered to the north by Mormon Island, which is one of the largest tracts (1100 ha) of lowland tallgrass prairie and wet meadow habitat left along the Big Bend Reach of the Platte River in central Nebraska (Nagel and Kolstad 1987). This stretch of river often holds one of the largest *A. canadensis* roosts in the central Platte River, especially in early to mid-March when 60,000 or more birds have been recorded within a 3 mile stretch of river south of Mormon Island (Crane Trust, unpublished aerial survey data).

Research indicates that pair formation is linked to intact wet meadow habitats within 800 m of river roosting habitat (Tacha 1988; Tacha et al. 1992). It may be that the birds we observed copulating are relatively southern breeders; *A. c. tabida* is known to breed farther south than *A. c. canadensis* (Jones et al. 2005). This pair could be one of the few breeding pairs reclaiming historic more southerly breeding areas. Additionally, copulations within the staging area of the Platte River in central Nebraska, although clearly rare, may be more likely adjacent to wet meadow habitats, already demonstrated to be important in the formation of pair bonds (Tacha 1988).

Literature Cited

- Jones KL, Krapu GL, Brandt DA, Ashley MV. 2005. Population genetic structure in migratory sandhill cranes and the role of Pleistocene glaciations. *Molecular Ecology*, 14(9): 2645-2657.
- Nagel HG, Kolstad OA. 1987. Comparison of plant species composition of Mormon Island Crane Meadows and Lillian Annette Rowe Sanctuary in central Nebraska. *Transactions of the Nebraska Academy of Sciences and Affiliated Societies*. Paper 201.
- Sharpe RS, Silcock WR, Jorgensen JG. 2001. *Birds of Nebraska: their distribution and temporal occurrence*. Lincoln (NE): University of Nebraska Press.
- Tacha TC. 1988. Social organization of sandhill cranes from midcontinental North America. *Wildlife Monographs*, 3-37.
- Tacha TC, Nesbitt SA, Vohs PA. 1992. Sandhill Crane (*Grus canadensis*). No. 31 in A. Poole and F. Gill, editors. *The Birds of North America*. The Birds of North America, Inc., Philadelphia, PA.
- Walkinshaw LH. 1949. The sandhill cranes. *Cranbrook Institute of Science, Bloomfield Hills, MI, Bulletin 29*, 202 pp.