

SHORT COMMUNICATIONS

**EXTRA-PAIR FERTILIZATIONS IN SANDHILL CRANES REVEALED USING
MICROSATELLITE DNA MARKERS**

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Abstract. The presence of extra-pair fertilizations (EPF) in a dense breeding population of Sandhill Cranes (*Grus canadensis*) was examined using six microsatellite DNA markers. In this long-lived species that maintains long-term pair bonds, 4.4%–11% of 45 chicks were not genetically related to one social parent, and extra-pair chicks were present in 5.6%–22% of 18 family groups. Two confirmed extra-pair chicks were from different broods of the same pair that was socially bonded for a minimum of 12 years. The social male was rejected as the genetic father of both of these chicks. Three other potential cases of EPF (two cases in which the social male was rejected as the genetic parent, one in which the social female was rejected) could also have resulted from mate replacement prior to sampling. The range of EPF in this population of Sandhill Cranes is similar to that of other species with similar mating systems. In the confirmed cases of EPF, the female was able to increase her individual reproductive success without losing her territory.

Key words: extra-pair fertilization, *Grus canadensis*, microsatellites, monogamy, Sandhill Crane.