2010

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AN INDIVIDUAL WHOOPING CRANE’S FAMILY HISTORY

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Abstract: Between 1977 and 1988, 12 cohorts (134 individuals) of whooping cranes (Grus americana) were banded in Wood Buffalo National Park (WBNP, Canada-breeding ground) and monitored from Canada to Aransas National Wildlife Refuge (ANWR, Texas-wintering ground). During 2004, historical data on banded individuals was analyzed to estimate population parameters and life table of the wild population. This study used information from one of the few banded cranes known to be alive in 2008 since 1978. A genealogy tree (Family Tree Maker software) was developed from individual RwR-nil to represent its descendents and relatives, as well as a map (GIS) for geographic distribution. We found that his descendents were: 4 in the first generation, at least 13 in the second generation, and 4 in the fourth generation. In total 21 descendents arrived to ANWR, and 3 of them are still alive. We identified that all males in the family selected nesting and winter territories and did not change territories with new mates. Banded females did. All nests were established in the Sass River nesting area of WBNP, and all wintering territories were in Matagorda Island, which are close to their parents’ territories. History of mates, nesting fate (success, failures, no nest), number of eggs, chicks, and juveniles were analyzed, as were territory distribution and use of stopovers. Years of nesting success and failure occurred in synchrony among members of the family. Evidence of potential inbreeding, adoption, and extended family migration was collected. Information from this family will contribute to studies of kin selection and inclusive fitness.

Key words: Aransas-Wood Buffalo population, banding analysis, genealogy, Grus americana, whooping cranes.