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## OBSERVATIONS OF MOLT IN REINTRODUCED WHOOPING CRANES

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## OBSERVATIONS OF MOLT IN REINTRODUCED WHOOPING CRANES

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Whooping cranes (*Grus americana*, WHCR) complete a full flightless molt of primary flight feathers every 2-3 years. The flightless period may represent an important component of the annual cycle; however, molt patterns in WHCR are poorly understood. WHCR undergo a flightless period following ecdysis (feather loss) making them more vulnerable to predation threats, and likely changing their habitat selection from open wetlands to areas with a higher concentration of cover. Studies of molt in wild birds can then be compared to associated habitat needs at that critical time and inform the selection of future release sites elsewhere.

In 2011, 6 reintroduced Eastern Migratory Population (EMP) WHCR were identified as molting in and around Necedah NWR. Initially, secretive behavior and/or limited movement by the birds indicated possible molt; this was followed by visual confirmation through observing a wing flap so that presence/absence of remiges could be noted. Birds confirmed to be molting were WCEP IDs 29-09, 4-08, 13-02 and mate 18-02, and 12-02 and mate 19-04. The latter pair was confirmed to be molting only through the collection of 34 (of a maximum of 40) primary feathers on the pair's territory.

For the WCEP birds, all were confirmed to be molting within 6 days of each other during the first week of July. Each bird's primaries were observed to be approximately 25% emerged or less, placing the start date of molt for all 6 birds within 1 week of each other, around the first week of June. Two breeding pairs, 1 of same age (9 yr) and 1 2 years apart (7 and 9 yr), both molted simultaneously. Two other birds (not

paired or breeding) confirmed in molt were 2 and 3 years old, respectively.

The long-term records of captive WHCR at the International Crane Foundation (ICF) offer a valuable opportunity to examine feather loss throughout their many life stages. A review of daily husbandry records from captive WHCR at ICF (1990-2010) showed that initiation of feather loss for females preceded that of males. Females began molting as early as 31 March with the latest primary feather loss in late July, whereas the earliest date for males was 22 April and lasted until late summer (M. Levenhagen and M. Wellington, ICF, unpublished data). Contrary to findings in captive birds, of the 6 WCEP birds confirmed to be molting in 2011, both males and females appeared to initiate molt concurrently. Simultaneous molt within pairs is consistent with Florida sandhill cranes (*G. canadensis pratensis*), where there was no difference between the remigial molt of first year, second year, and adult birds (Nesbitt and Schwikert 2008). Sandhill cranes do not become flightless, however. The molting phase of a WHCR can be a vulnerable time presenting unique behavioral and environmental constraints. As efforts to reintroduce this species into the Eastern Flyway continue, understanding this phase is potentially vital to a successful reintroduction.

## LITERATURE CITED

- Nesbitt, S. A., and S. T. Schwikert. 2008. Timing of molt in Florida sandhill cranes. *Proceedings of the North American Crane Workshop* 10:125–127.

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