

1992

# RE-PAIRING OF WHOOPING CRANES AT ARANSAS NATIONAL WILDLIFE REFUGE

Thomas V. Stehn

*Aransas National Wildlife Refuge*

Follow this and additional works at: <http://digitalcommons.unl.edu/nacwgproc>



Part of the [Behavior and Ethology Commons](#), [Biodiversity Commons](#), [Ornithology Commons](#), [Population Biology Commons](#), and the [Terrestrial and Aquatic Ecology Commons](#)

---

Stehn, Thomas V., "RE-PAIRING OF WHOOPING CRANES AT ARANSAS NATIONAL WILDLIFE REFUGE" (1992). *North American Crane Workshop Proceedings*. 324.

<http://digitalcommons.unl.edu/nacwgproc/324>

This Article is brought to you for free and open access by the North American Crane Working Group at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in North American Crane Workshop Proceedings by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

## RE-PAIRING OF WHOOPING CRANES AT ARANSAS NATIONAL WILDLIFE REFUGE

THOMAS V. STEHN, *Aransas National Wildlife Refuge, Austwell, TX 77950*

**Abstract:** Adult whooping cranes (*Grus americana*) on the winter range at Aransas NWR without mates may re-pair over a period of several months, while others remain un-paired throughout the winter. However, 1 association formed during the winter did not result in a pair bond.

Proc. 1988 N. Am. Crane Workshop

Prior to initiation of color banding of whooping cranes in 1977, few observations had been reported on the formation of pair bonds in wild whooping cranes. Observations on the wintering grounds were limited to adults with chicks that lost mates. Such cranes were identified by the 1 adult with 1 young association that was unique among crane groupings present.

Allen (1952) observed a recognizable individual at Aransas. The bird, nicknamed 'Crip', was a male, rendered flightless as a result of injuries sustained during the fall 1945 migration. He joined with another flightless whooping crane in the summer of 1947. Dancing by Crip was observed, but not by his companion. The flightless duo remained together throughout the 1947-48 winter. In March 1948, the female was apparently shot and killed. Crip remained alone the rest of March and first 2 weeks of April.

On 17 April 1948, Allen observed Crip calling to a crane in flight, which then descended and landed within 3 m of Crip. It subsequently summered with Crip and remained with him the following winter. Crip was captured and placed in captivity in October 1949.

An observation of re-pairing at Aransas occurred in 1968. On 4 January, the adult female of a family group was killed by a hunter outside the boundary of the refuge. The widowed male remained with its chick for the following 2 months, recognizable on the weekly census flights as the only single parent with a chick. The pair was sighted in groups of cranes the first 3 weeks in March. The 24 March census revealed the male had taken a mate, a re-pairing within 79 days of loss of a mate. The chick remained with the new pair.

Blankinship (1985) reported another possible pair formation observed during the 1970-1971 winter:

In November 1970, a single adult crane, believed to be a female, arrived at Aransas National Wildlife Refuge (ANWR) with a chick. A single bird with a chick had been observed in Saskatchewan in September. This adult and chick remained alone until early March when an adult-plumaged bird, apparently a male, attempted to join them. This bird began defending an area around the female and chick and even joined a neighboring mated male in a cooperative attack on another bird which had landed near their common boundary. Although no threat behavior by the female was observed, the male was never seen closer to the female and chick than about 10 metres. The male would often stand and stare for several minutes at the female and chick who would continue to forage or preen in an apparently uninterested manner. These three birds were believed to have migrated together in April. A mated pair was observed on the same winter territory in the fall of 1971."

Blankinship (1976) recorded another instance of probable pair formation at Aransas.

"In late January 1973, one of the parents in a family group was lost to unknown causes. The surviving parent and young bird remained in the same area with little change in behavior. It was believed that the surviving adult was the female. Approximately three weeks later, on or just before February 14, the surviving parent took a new mate. The new bird would not tolerate the young bird and repeatedly drove it away, chasing it in the air for several hundred yards. The parent bird would remain on the ground, calling continu-

ously, until the new mate returned. The young bird would circle back and land a few hundred meters away from the adults. When the young crane tried to rejoin the adults, the behavior would be repeated. This continued for several days until the young bird finally stayed away. It roamed about, often chased by other whoopers on whose territory it happened to trespass, until it finally joined two birds in adult plumage on Blackjack Point."

Pair association occurred under similar circumstances during the 1984-85 winter when 2 single parents, each with a chick, arrived at Aransas. The single adult female was color-banded BWB-R (Hy 1979) with chick W-B (Hy 1984). Her former mate was injured and captured in North Dakota on 1 November 1984. A single adult male arrived at Aransas with chick Y-WBW (Hy 1984) approximately 14 November. It was unbanded and known as the Klewi 6 adult (E. Kuyt pers. comm.).

The male crane's winter territory was on Dunham Peninsula on the refuge, where he remained throughout the winter. The BWB-R female and chick are believed to have reached the refuge on 16 November 1984, first seen just south of Dunham Peninsula. The 2 were sighted in several locations on the refuge in the next few weeks and were apparently being chased from established territories by other whoopers. BWB-R had nested for the first time in the summer of 1984 (Kuyt & Goossen 1987) and had no established winter territory. On 21 November, boat captain Ted Appell observed an unbanded, white-plumaged crane with the single female and chick on Dunham Peninsula, and a banded subadult with the single male and chick. The last week in November and the first week in December, the pattern held steady with the single male and chick remaining on Dunham Peninsula, and the single female and chick grouping with other white-plumaged cranes, including BWsp-R (Hy 1983), a subadult, on the west side of Dunham Bay. On 12 December, he observed the 2 single parents with their chicks for the first time as a grouping of 4 on Dunham Peninsula. Extensive dancing by the adults was observed, continuing for several weeks (very unusual behavior for whooping cranes in December). It appears that by approximately the middle of December, 1 month after the 2 single parents had arrived, pair bond formation had started and sometime after 21 December the 2 single parents were apparently defending the winter territory of the Klewi 6 male. This continued throughout the remainder of the winter.

On 23 January, Captain Appell observed the unbanded male chasing the female's chick, W-B, continuing for nearly 2 weeks. The first 2 weeks in February, the grouping of 4 was observed more frequently, although the chick was still chased occasionally. From 13 February throughout the remainder of the winter, the chick was apparently tolerated by the male with no further aggression noted. However, each chick would usually associate most closely with its respective parent.

The group was observed departing on migration 3 April. They remained together, apparently being sighted together near Meadow Lake, Saskatchewan April 22-23 (Jobman 1985). Sometime in late April or early May, the Klewi 6 male apparently found a new mate, nesting unsuccessfully with an unbanded mate (E. Kuyt pers. comm.). The association formed during the previous winter thus did not lead to nesting. Upon return to Aransas in fall 1985, the winter territory of the Klewi 6 pair was much smaller than the 1984 - 85 territory, but was in the same location. Female BWB-R was not found in summer 1985 (E. Kuyt pers. comm.). Paul Goossen (pers. comm.) reported seeing BWB-R, W-B, and an unbanded crane together in September in Wood Buffalo National Park. Due to changes in the appearance of bands, I cannot confirm positively that BWB-R spent the 1985-86 winter at Aransas, but this appears to be the case. The crane thought to be BWB-R was with W-B and an unbanded crane throughout the winter in the vicinity of Dunham Bay. This appears to be an example of a mature female that failed to form another pair bond within the first year after losing her mate.

During winter 1987-1988, 2 unbanded adult members of different family groups were not located and presumed dead. On 10 December, adult male Y-BWsp (Hy 1984) with chick RWR-YBY (Hy 1987) were sighted grouped with 5 other cranes, including WBW-WBW, a female. The male was observed chasing the second subadult. On 16 December, only WBW-WBW was with the male and chick, behaving like a typical family group. For the next month, this grouping remained intact, although later the 3 cranes occasionally were with subadults. Crane Y-BWsp nested with WBW-WBW in summer 1988 (Kuyt pers. comm.).

The second apparently widowed adult was of unknown sex. This crane and its chick remained on their original winter territory until observed with subadults on 26 December farther south. Another family had apparently moved into the former territory of the widowed crane. On 22 December, the

widowed crane and chick were seen with a white-plumaged crane, although another crane often wandered several hundred yards from the other adult and chick. Beginning 23 December, the 3 cranes remained together, acting as a typical family but remaining southerly of the widowed crane's original winter territory.

On 21 November 1988, the unbanded mate of male r/w-BWB (Hy 1979) was missing and presumed dead. Five subsequent locations through 8 December had the male and chick as a group of 2 except for one association in a group of 5 on a burned upland. Starting 13 December, the male apparently re-paired. The new family group occasionally associated with other cranes in January but not in subsequent months. The new female initially kept a greater distance from the male and chick than in a typical family group, but the grouping later became tightly spaced.

On 3 January 1989, adult female BWsp-BWsp (Hy 1984) was killed by a waterfowl hunter. The widowed male and chick often associated with subadults the rest of the winter. The male apparently re-paired on the nesting grounds with a crane it had not associated with the previous winter (Kuyt pers. comm.).

On 4 January 1990, the North Dunham Bay unbanded female was presumed dead. Within 48 hours, after associating with a large subadult group, her widowed male, with chick, apparently re-paired with a 1986 banded female. The new family group remained in the North Dunham Bay territory and did not associate with other cranes.

All of the above observations have presumably involved pair formation in birds that were already sexually mature. A widowed adult whooper at Aransas will not always re-pair during the winter. In the winters of 1948-49, 1963-64 and 1977-78, single parents with chicks remained as groups of 2 throughout winter. Throughout winter 1958-59, a single adult with its 2 young remained in the same grouping. In January 1989, one crane of the North Sundown Bay family group was presumed dead. The remaining unbanded adult and chick split up, and neither remained in its former territory. In January 1990, male Y-G (Hy 1985) lost its mate. This crane spent the rest of the winter with other subadults with no apparent re-pairing.

Kuyt (pers. comm.) observed only a single adult in the Sass 2 composite nesting area in 1978 following the loss of 1 mate in the U.S. the previous year. Sass 2 was occupied in 1979 and in subsequent years.

Pair formation among subadults may be a

longer process than some of the re-pairing described above. Bishop (1984) studied subadult flocks at Aransas, noting that pair bonding appeared to be a lengthy process of familiarization, and that the existence of subadult flocks appeared to offer conditions under which available members could meet and select a suitable partner. The 6 pairs that formed during her study and following year were all in mutual proximity to each other at least 1 winter season.

One instance of pair bonding without a lengthy winter association in subadult flocks occurred in 1985. The radioed crane G-r/w (Hy 1981) spent the entire 1984-85 winter as a single on San Jose Island. It was last sighted on 1 April 1985, still as a single, and had started migration prior to 9 April. Kuyt (pers. comm.) found the crane nesting for the first time in 1985. The nesting attempt was unsuccessful in 1985 but successful in subsequent years. Thus it appears that this crane formed a pair bond with an unbanded crane sometime after leaving Aransas in the spring 1985.

A similar incident occurred in 1986. Crane Y-b/b (Hy 1983) spent most of the 1985 - 86 winter as a single on San Jose Island, but occasionally was joined by other subadults. Y-b/b apparently found a mate sometime after leaving San Jose Island in the spring of 1986; it nested for the first time that summer (E. Kuyt pers. comm.).

## LITERATURE CITED

- Allen, R.P. 1952. The whooping crane. Natl. Audubon Soc. Res. Rept. 3, 246p.
- Bishop, M.A. 1984. The dynamics of subadult flocks of whooping cranes wintering in Texas, 1978-79 through 1982-83. M.S. Thesis, Tex. A&M Univ., 128p.
- Blankinship, D.R. 1976. Studies of whooping cranes on the wintering grounds. Pp. 197-206 in J.C. Lewis (ed.), Proc. Int. Crane Workshop, Okla. State Univ.
- Blankinship, D.R. 1985. Notes on whooping crane pairing. Natl. Audubon Soc. Unpubl. Rept., Rockport, Tex.
- Jobman, W. 1985. Cooperative whooping crane tracking project. U.S. Fish & Wildl. Serv. Unpubl. Rept., Grand Island, Neb.
- Kuyt, E. & J.P. Goossen. 1987. Survival, age composition, sex ratio, and age at first breeding of whooping cranes in Wood Buffalo National Park, Canada. Pp. 230-244 in J.C. Lewis (ed.), Proc. 1985 Crane Workshop, Platte River Whooping Crane Habitat Maint. Trust, Grand Island, Neb.

