

## THE STATUS OF THE WHOOPING CRANE ON THE ARANSAS REFUGE, TEXAS

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The protection of the Whooping Crane (*Grus americana*) was a primary consideration in the acquisition of the Aransas National Wildlife Refuge in 1937. Consisting of 47,261 acres situated on a peninsula between San Antonio and Aransas bays, in Aransas and Refugio counties, Texas, the refuge includes habitat that has been used consistently by these cranes for many years. The isolation and primitive nature of this area with its many bays and uneven coastline have undoubtedly provided major attractions for the birds. The shallow bays contain abundant marine foods and, inland, numerous brackish and fresh water ponds supplement the cranes' food supply with a variety of aquatic organisms.

Several members of the Fish and Wildlife Service have reported observations of the cranes on land now within the refuge. During the winter of 1935-36, G. B. Saunders observed 14 cranes in the course of a reconnaissance visit, and J. Clark Salyer II in a trip made in March, 1936, to the large peninsula jutting into Aransas Bay counted six birds. The Aransas Refuge was placed under administration in 1938 and J. O. Stevenson reported there as its first manager, remaining until he was succeeded by the writer on November 16, 1941. Mr. Stevenson followed the activities of the cranes closely and his records together with the author's data serve as a basis for this report.

In the first fall, that of 1938, migrants appeared on October 21 when two "Whoopers" were seen with a flock of 40 Sandhill Cranes (*Grus canadensis*). The largest number seen at one time that winter was 14, including two family groups. There was reason to believe that at times as many as 18 birds were using the refuge; four immatures were noted at widely separated localities. Portions of courtship flights and dances were noted on March 4, April 4 and April 8, 1939, and by the last of April, 1939, the various groups began merging on the flats about Mullet Bay. The last birds seen that season were two individuals on May 6.

First fall migrants of the following season were seen on October 21, 1939, and four days later two family groups with one young each were present in the northeastern part of the refuge. On November 14 the unusual observation of a pair of adults with two young birds was made. The largest number seen that season was 22 including six immature individuals present during early November. The last birds were seen on May 1, 1940. Reappearing in the fall, first migrants were seen on October 22. The second pair of cranes with two young to be recorded from the refuge was noted on November 2. Some increase was apparent this winter when 26 birds were present on December 17, 1940. The last birds to migrate in the spring of 1941 left about May 1, but one pair accompanied by a young bird spent the summer on the refuge area. Courtship displays were noted on May 16 and 23, but no evidence of nesting was obtained. The three birds used the refuge consistently, making only an occasional trip to nearby Ayres Island. Mr. Stevenson watched closely the young bird's plumage change from the cinnamon hue of the immature to the pure white of the adult bird. Assuming that it was hatched in June, 1940, it was approximately 14 months old in August, 1941, at which time the adult molt was completed. This appears to be the first summer record for the species in Texas.

In 1941, the first fall migrants arrived on October 21, deviating little from the schedule of the previous three autumns. Observations by the author indicate that the 1941-42 season was a low point in the history of the cranes since the establishment of the refuge, and only 15 birds were known to have wintered there. There were no verified reports of other wintering birds in the locality to account for the decrease. The year 1941 was lowest, too, in the numbers of young birds seen, as only two immatures were noted with the adults. The species was last seen in the following spring on May 5, 1942.

The cranes were first noted on the refuge in the fall of 1942 on November 4, although it is probable that they had arrived several days prior to that date. The December count of 19 birds was the largest recorded during the winter of 1942-1943, and the species maintained that number through the season. Apparently, the past nesting period had been more successful as four immatures were also present, two of which were in the same family group. The last observation in the spring of 1943 was that of a family seen preparing to migrate on March 23; this spring marked the earliest departure date yet recorded for the refuge.

Three cranes seen on October 29, 1943, constituted the first record for the season; this number increased to 19 in December and 21 were counted during a census in late winter. Five young of the year were also present at the latter time, all single young of different pairs. The majority of the birds left in early April, 1944, and the last observation was that of two seen on April 21. The first fall migrants of 1944 were three birds seen on October 20. By November 21 some 18 birds, including three immature individuals, were using the refuge. Their numbers fell off in December, and not more than ten remained for the balance of the wintering period. The others scattered up and down the coast and reports concerning them were received from localities both north and south of the refuge. The last observation for this past spring was of a family of three in May, 1945.

Pairs or families of Whooping Cranes appear to be far from gregarious with other members of their species; this has been noted especially when the birds feed along the shorelines and on the flats. Each family (two adults and one young) or pair seems to prefer a large block of territory for its exclusive use. However, no fighting between Whooping Cranes has been observed at the Aransas Refuge. Fights between this species and Sandhill Cranes have been noted on several occasions with two or three Whooping Cranes disputing the right of a large flock of two hundred or more Sandhill Cranes to the use of a feeding or watering area. In 1941, when there were only 15 wintering Whooping Cranes using the refuge, they were found spaced widely over the eleven square miles of coastal flats. Increasing to 19 birds in 1942, the birds still appeared to find sufficient room on these flats. In 1943 and 1944, however, some extension of range was noted and birds were found at distant points where they had not previously been observed. There may be some question as to the total number of birds that will concentrate on the refuge, and possibly the number will never exceed the 1939 or 1940 populations. Mr. Stevenson, in his article "Will Bugles Blow No More?" (Texas Fish and Game, October, 1943) mentions the reports of early settlers in this area to the effect that hundreds of "Whoopers" had congregated here.

In so far as it has been possible to determine, there have been no losses to the wintering birds on the refuge either from predation or other causes. In the early days of the war when airplane training flights were frequently made over the refuge, some concern was felt as to the effect on the cranes; happily, the birds soon became so accustomed to the planes that even when they passed overhead at low altitudes the birds continued to feed unperturbed.

The cranes made greater use of the brushlands of the refuge during the season of 1943-44 and on several occasions were seen moving into the brushline above the flats, even in some instances penetrating far into the interior of the refuge.

Refuge records indicate that a total of 26 young have been led to the Aransas Refuge by their parents in the six winters since the area was placed under administration. This is not an impressive figure, it is true, but it does indicate that young birds are being produced, and as long as the species continues to breed, there is hope for its survival. It is unfortunate that the protection afforded the "Whoopers" by the Aransas Refuge is so limited; the task of insuring the Whooping Crane's continued survival would be less complicated if it were not given to migrations that take it half way across the continent.

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