

CRANES IN THE PLACE WHERE THE YELLOW RIVER FLOWED LONG AGO IN HENAN PROVINCE

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ABSTRACT

Six species of cranes have been seen between October and April in the areas along the abandoned Yellow River channel in Henan. We observed their species, numbers, arrival time and behavior from 1985 to 1987. This information offers a new basis for further studying crane migration routes and habitats in order to protect these birds.

INTRODUCTION

The abandoned Yellow River channel (the section under investigation) is 35 km northeast of Xinxang City, Henan Province. It is at 35°26' N and 114°22' E. According to historic records, we know the Yellow River changed its channel more than 1,500 times. Many highlands and lowlands formed with dense grass and a lot of fish—a good place for water birds. There are wetlands dominated by reed *Phragmites communis*, and rushes *Typha latifolia*. There are also young trees planted by the local people: willows *Salix matsudana*, poplars *Populus simoni*, and acacias *Robinia pseudoacacia*.

At the abandoned Yellow River channel area, nearly 40 species of large and medium water birds come to winter or stopover during migration. Eight species are classified as first-class protected animals on the national level.

NUMBERS AND SPECIES OF CRANES OBSERVED

Table 1 shows species, numbers, and duration of stay for cranes that winter or stopover in the area along the abandoned Yellow River channel. The number of the

common cranes is the largest and that of the hooded cranes is the smallest. In fall, the first migrating cranes are Siberian cranes and the last are red-crowned cranes. In spring, the order is opposite.

HABITS

Common cranes and demoiselle cranes stay at the abandoned Yellow River channel through winter. You can see them from October to the following April. We found 91 wintering common cranes and 5 wintering demoiselle (one flock) in winter 1985-86. Other crane species stay here only for a short period to rest and feed on their way to the south or the north. Swallows migrate at the same time as cranes. The cranes' migration is closely related to changing of temperature. At the end of autumn, when it is at 0° C, they appear in this area. In springtime, when it is between 0° C and 10° C, they pass through here on their way to the north. Wild geese and ducks usually arrive first, and then the cranes. Unlike common and demoiselle cranes, the length of stay for the other four crane species in this area ranges from one day

Species	Fall Migration			Spring Migration		
	Total Number	Date First Seen	Date Last Seen	Total Number	Date First Seen	Date Last Seen
Red-crowned crane <i>Grus japonensis</i>	12	24 Oct.	8 Nov.	6	5 Mar.	9 Apr.
Hooded crane <i>Grus monacha</i>	11	17 Oct.	4 Nov.	7	9 Mar.	23 Mar.
Siberian crane <i>Grus leucogeranus</i>	33	2 Oct.	26 Oct.	21	24 Mar.	27 Apr.
White-naped crane <i>Grus vipio</i>	14	12 Oct.	29 Oct.	9	10 Mar.	27 Mar.
Common crane <i>Grus grus</i>	139 ^a	5 Oct.	-	107 ^a	-	30 Mar.
Demoiselle crane <i>Anthropoides virgo</i>	15 ^a	11 Oct.	-	8 ^a	-	2 Apr.

Table 1. Species, number and duration of stay for cranes on the abandoned Yellow River channel 1985-1987.

^afor common and demoiselle cranes, the numbers of cranes are for the first flock sighted in autumn and the last flock in spring.

to two weeks. The duration chiefly depends on whether people disturb them.

Wintering cranes stay in the area along the abandoned Yellow River channel in flocks. We found that no crane moved around alone. Siberian and white-naped cranes always use the same areas, but the flocks never mix. Hooded cranes and white-naped cranes often have mixed flocks. The red-crowned cranes are always in small groups of two to seven. Common cranes never mix with other crane species; similarly demoiselle cranes keep separate from other species. Sometimes even different groups of the same species don't mix, perhaps because they come from different places or at different times. In winter, cranes of the same species seldom fight for food. But, there is competition among different species. For example, we have seen white-naped cranes chase red-crowned cranes when flocks of the two species were feeding close together. Such fighting usually happened in shallow water. We have also seen demoiselle cranes chasing common cranes.

There are several advantages for cranes to live in flocks in winter, such as discovering danger in time, enhancing their ability for self-defence, and increasing time of feeding since the time spent on guard is reduced. The latter is very important for them in winter when food is scarce, a critical factor for the survival of a crane population.

The cranes live on seeds of water plants, roots and stalks of grass, wheat seedlings, and corn, peanuts and sorghum left in the fields. In shallow water or swamps, they also eat small fish of many species, shrimp *Macrobrachium* and other small animals in water. Our observations indicate that numbers of water birds increase when areas of water, i.e., amount of precipitation, is larger.

We sighted the flock of five demoiselle cranes six times. They fed in shallow water, sand hills, and farmland. They moved to avoid people, being warier than other cranes, but sometimes they mixed with sheep when feeding.

Vigilance of cranes is high. For a crane flock, there are always some birds (at least one) on guard. The cranes will be alerted even when people are 150 m away. If there is

any unusual situation, they begin to warn their fellows by calling loudly.

HUMAN ACTIVITIES

In recent years, there have been more and more human activities along the abandoned Yellow River channel. Therefore, the cranes cannot look for food freely. They are forced to go to the sand hills by the river channel or to low-lying farm land where disturbance is infrequent. They come back to the swamps at dusk to catch small fish or drink water. After dark, they roost quietly near the river. The cranes begin to look for food at dawn. Except when resting, they spend all day looking for food so as to obtain energy for migration.

According to local people, some years ago there were many cranes. They weren't afraid of humans even when people were very close. You could hit them by throwing blocks of soil. Now, the cranes are all afraid of people. When disturbed, some red-crowned and Siberian cranes will move away, keep on migrating, or look for safe places to rest.

Various unfavorable factors affect the survival of cranes and other rare birds. At present, people fish in the water and deepen the fish ponds, causing the area of water to decrease gradually. Large areas of shallow water marshes thus become waste land and have been reclaimed for farming. In order to protect their fish, the fishermen kill the cranes and other water birds. In recent years, many people catch fish and cut grass. Always hunters are around. On 26 December 1985, we counted an average 2.3 persons per km. We heard a gun shot every 12 min. If this situation continues, the result is very clear.

This wetland is a stopover for cranes and other migratory water birds. We ought quickly to make effective measures of protection.

We can imagine that if the environment were little disturbed and reeds and rushes left uncut — so that cranes would have places to hide and abundant resources — there would be more and more water birds wintering here.