Hooded Crane Nabe-zuru (Jpn) *Grus monacha*

Morphology and classification

Classification: Gruiformes Gruidae

Total length:	About 100cm	Wing length:	480-530mm
Tail length:	160-190mm	Culmen length:	93-107mm
Tarsus length:	200-230mm		
Weight:	♂ 3280-4870g	♀ 3400-3740g	

Total length after del Hoyo (1996) and the others after Kiyosu (1978).

Appearance:

Male and female are similar in plumage coloration. They have an area of bare skin on the forehead. The skin exposed above the eye is red, but the other is black. They are charcoal gray all over except for the area from the head to the nape, which is white. They have tan bills and black legs. The iris of a pupil is deep orange or red.

In young birds, however, the exposed skin on the forehead is not distinct and the part from the head to the nape is tinged with dark brown.

Photo 1. Hooded Crane.

Vocalization:

Hooded Cranes utter a shrill call that sounds like "Kuwah, kuwah" in flight. Whereas exchanging calls between mates sound more clearly like “Kurrr”. The juveniles call in a penetrating voice like "Peep, peep".

Distribution and Habitat

Distribution:

The main breeding grounds of Hooded Cranes are Khabarovsk and Yakutsk, southeastern Russia, but they are also confirmed to breed in south of central Russia and in Russian border region with northeastern Mongolia. There is a record of their breeding in northeastern China. There is a possibility that they breed in northern Mongolia as well. The non-winter visitors are occasionally observed in the northeastern to the western part of Mongolia during the breeding period (Ellis et al. 1996, Ozaki & Baba 1994). Approximately 80-90% of the world population winters in Izumi, Kagoshima Prefecture, southern Japan. There is also a record of their wintering in Kumage region in Yamaguchi Prefecture, western Japan. Several to a few dozen birds are temporarily observed every winter in the other areas of southwestern Japan. Apart from Japan, they are known to winter in Suncheon Bay, South Korea and the estuary of the Chang Jiang River, Jiangxi, China.

Habitat:

Hooded Cranes breed in the marshland enclosed by forests, particularly in small-scale marshland with groves or bushes. They select a sphagnum swamp surrounded by woods and bushes as a nest site and do not nest in open places like reedbeds (Fujimaki et al. 1989). In the wintering period, they spend the daytime in paddy fields, cropland and rivers, and as a roost they use bare sandbanks of a river as well as water-flooded rice paddies. In China, they also roost in shallow areas of a lake, and in southern Korea they use mud flats of the innermost area of Suncheon Bay.

Life history

Breeding system:

Hooded Cranes are monogamous. It is assumed that once they have paired, they usually maintain the pair-bond. When a partner died, however, the bereaved one sometimes mates with another bird again.

Age of the first breeding:

Males and females are sexually mature at the age of about three and five years, respectively, but unpaired females do not lay eggs, even if they are mature (Ellis et al. 1996).

Nest:

There is no detailed information about the nest, but the size is assumed to vary greatly from one bird to another. There seems to be a nest with a diameter of several meters and a height of one meter. The study of Fujimaki et al. (1989) showed that they built a nest at a height of 15-20cm above the water. The diameter of a nest was about 60cm at the top and about 90cm at the bottom. The base of a nest was composed of sphagnum moss and sedge, on which dead reed and sedge leaves were densely laid, along with larch branches.

Egg:

The clutch size is two eggs and the egg size is about 97.0mm by 61.0mm.

Incubation period:

The incubation period is 27-30 days. Both male and female basically incubate their eggs in turn, but the female stops incubating two or three days before hatching.

Migration:

The migration route of Hooded Cranes was studied using the satellite transmitters. They were tracked in the autumn migration from Daursky Nature Reserve, south-central Russia and the spring migration from Izumi, Kagoshima Prefecture, southern Japan (Fig. 1).

Hooded Cranes tracked from Daursky Nature Reserve headed east for Jilin, northeastern China. After stopping over in Jilin, they flew south to the estuary of the Hwang Ho River along the coast of the East China Sea. After stopping over in the estuary, they took an inland course and moved straight to Lake Poyang, where they spent the winter (Higuchi et al. 1994). Hooded Cranes tracked from Izumi, on the other hand, headed north for the Sanjiiang Plain, China through the wetland on the west coast of the Korean Peninsula and the demilitarized zone between North and South Koreas. After stopping over in the plain, the crane traveled along the Amur River to arrive at the breeding grounds of Russia. The study showed that the

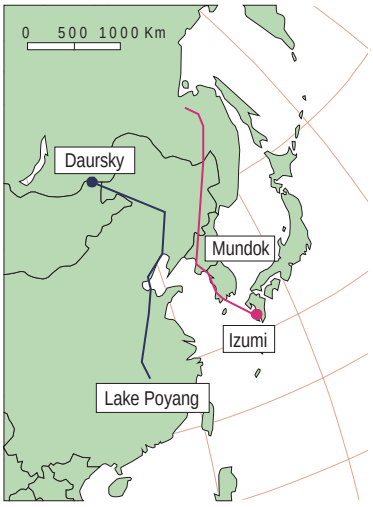

Fig. 1. Flyways of Hooded Cranes tracked by satellite

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Hooded Cranes spent about 30-40 days traveling about 3,000-4,000 km from the wintering site of Japan to the breeding grounds of Russia. After they arrived at the breeding grounds, they did not move a long distance (Higuchi et al. 1992).

Diet and foraging behavior

The diet consists of animal matter, such as fish (loach, etc.), amphibians (frogs, etc.), crustaceans (crabs, prawns, etc.), shellfish (mud snails, etc.) and insects (locusts, dragonfly larvae, etc.) as well as vegetable matter, such as cereals and roots. They feed by picking up food from the ground or thrusting the bill into the soil to obtain food.

Topics of ecology, behavior and conservation

Concentrated distribution of cranes

Hooded Cranes wintering in Izumi, Kagoshima Prefecture represent about 80-90% of the world population, which is not a favorable situation for them at all. Cranes have wintered in Izumi since the Edo period (17-19th century). They were designated as a national monument in 1952 and their feeding started the following year. The number of cranes wintering in Izumi has begun to increase since and more than 10,000 cranes including White-naped and Sandhill Cranes have visited Izumi every winter for the last ten years.

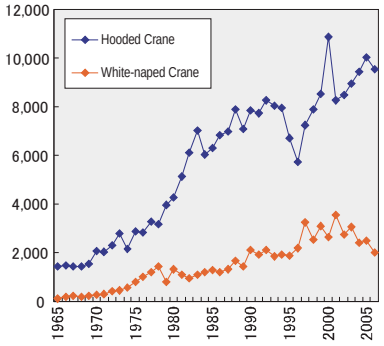

Fig. 2. Numbers of Hooded Cranes and White-naped Cranes wintering in Izumi. Y axis: birds, X axis: year.

Therefore, the local agriculture has suffered direct damage to crops as well as indirect damage, such as the destruction of a ridge between paddies and the concentration of crows foraging for the food for cranes. In addition, the local fishery has also suffered direct damage to farmed seaweeds from ducks concentrating in paddy fields flooded as a crane roost.

The outbreak of a contagious diseases is concerned because a large number of Baikal Teals died of poultry cholera in South Korea in 2000 and Black-faced Spoonbills died of botulism in Taiwan in 2002. It is suggested that Hooded Cranes carry a high risk of becoming extinct because infectious diseases spread swiftly among them when they are concentrated in such a small area as Izumi.

Project to disperse wintering cranes from Izumi

It is necessary to develop other wintering grounds and disperse cranes from Izumi to reduce the agricultural damage and the risk of extinction due to an epidemic of infectious diseases. The current issues on the wintering cranes has come to be understood in other areas than Izumi and Kumage (another important wintering ground) in recent years, and efforts to invite wintering cranes have started.

In Imari City on the migratory route of cranes, for instance, the city authorities have carried out a project with the cooperation of the citizens to secure a safe habitat and attract cranes by setting out their decoys and replaying their calls (Photo 2). So far one family of White-naped Cranes has stayed there every winter. In Nakamura City, Kochi Prefecture, Shikoku, on the other hand, efforts has been made to improve the habitat for cranes using a farming method of multi-natural type. Several dozen cranes visit there every winter, though they do not stay throughout the winter yet. Cranes stop over in the other prefectures of Shikoku as well and a crane information network has recently started to be established between this city and other stopover sites.

Photo 2. Decoy of Hooded Cranes at Nagahama reclaimed land, Imari, Saga.

The wintering ground of Suncheon Bay has been designated as a sanctuary in South Korea. The number of wintering cranes has increased from about 150 birds at the end of 1990s to more than 200 birds. In addition, the stopover site of the Nakdong River valley, Gumi City that several thousand cranes use while on migration is also planned to be a sanctuary. Much is expected from the future developments in South Korea.

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Languages of literature cited other than English: [J] in Japanese, [J+E] in Japanese with English summary.

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My relationship with cranes began when I got a job in the Wild Bird Society of Japan in October 1999 and carried out the study of cranes wintering in Suncheon Bay of South Korea. Currently I am engaged in a project to attract cranes to Imari City, Saga Prefecture and working hard to get them to winter in the city with the cooperation of the local people. I found myself in a situation where I had to put on a crane costume at the Bird Festival.