

A *toki* displaying its *toki-iro* (toki color) flight feathers

Toki in the Skies of Sado



Once in danger of extinction, the *toki* (Japanese crested ibis) of Sado Island in Niigata Prefecture have returned to the wild thanks to measures such as artificial breeding and habitat improvement conducted over many years.

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TOKI (*Nipponia Nippon*) stands 70 to 80 centimeters tall and has a wingspan of 130 centimeters. It has a whitish plumage, except during the breeding season, when its outstretched wings reveal rosy pink-tinged flight feathers. Since ancient times, that stunning color has been known in Japan as *toki-iro* (toki color).

Distributed widely in East Asia, *toki* were a common sight in the countryside all over Japan until the middle of the nineteenth century, when the population suddenly declined due to overhunting.

Furthermore, after World War Two, the widespread use of pesticides in paddy fields led to major changes in the natural habitat, such as a decrease in the numbers of small fish, frogs and insects on which the birds feed. As a result, *toki* became in danger of extinction.

Even the designation of *toki* as a protected species in 1952 did not halt their population decline. So in 1967, the prefectural government established a conservation center in the last habitat of the *toki*, Sado City (formerly Niibo Village) on remote Sado Island in Niigata Prefecture.

“The role of our center is to raise chicks born through artificial and natural breeding, acclimate them to the wild and release them,” says Kimura Hirobumi, current Director of the Sado Japanese Crested Ibis Conservation Center.

In 1981, the Ministry of the Environment captured the last five *toki* in Japan living on Sado Island and



began artificial breeding. When the birds were moved from the wild setting to the captive breeding environment, toki became an extinct species in the wild. The last bird born in the wild in 2003 died without leaving any offspring. However, 1999 saw the first successful attempt at artificial breeding of toki from a pair donated by China. The center continued to improve its breeding and rearing methods, and slowly but surely the number of toki bred in captivity increased.

At the same time, an environment was created that enabled the birds to survive in the wild. Sado City created biotopes and held environmental learning sessions for children, while local farmers cultivated rice using farming methods that nurture living creatures. Such methods included curbing the use of pesticides and chemical fertilizers, creating fishways to connect rice paddies and water sources, and irrigating the rice fields even in winter, to create a habitat for the living creatures that provide subsistence for toki. The rice cultivated by this farming method has been marketed since 2007 as Toki Brand Rice certified by Sado City.

“In 2008, we released the first ten toki born and

raised in the conservation center, and in 2012 a chick was born in the wild for the first time in thirty-six years. The combined efforts of the national government, local governments and local residents have come to fruition,” says Kimura.

Today, toki are also being bred outside Sado at facilities such as the Nagaoka City Toki Breeding Center in Niigata Prefecture and Tama Zoological Park in Hino City, Tokyo. The total number of birds being bred in captivity is now 176. Meanwhile, the number of wild toki on Sado Island has increased to around 400. Toki that have crossed the sea from Sado are even being sighted on mainland Honshu.

Toki are not easy to spot in the wild. However, at Toki Forest Park adjacent to the Sado Japanese Crested Ibis Conservation Center you can observe mounted specimens of toki and enjoy exhibits introducing initiatives to return the birds to the wild, as well as see toki being reared in captivity.

In Sado, many people continue to work together and keep watch to ensure that the habitat of these delicate birds with their beautiful pale rose-colored wings remains secure. 