History of the Crested Ibis
-Past to Present-

Sado Ranger Office, Ministry of the Environment

Profile of the Crested Ibis

- Classification　Pelecaniformes Threskiornithidae
- Scientific Name　*Nipponia nippon*
- Size　Total Length : About 75 cm
  Wing Span : About 140 cm
  Weight : About 1.8 kg
- Conservation Status　Critically Endangered (Japan)
  Endangered (IUCN Red List)
- Designations
  Special Natural Monument (Law for the Protection of Cultural Properties)
  Nationally Endangered Species of Wild Fauna and Flora (Species Conservation Act)
  Internationally Protected Bird

Chronology of the Crested Ibis

Until the Edo Era

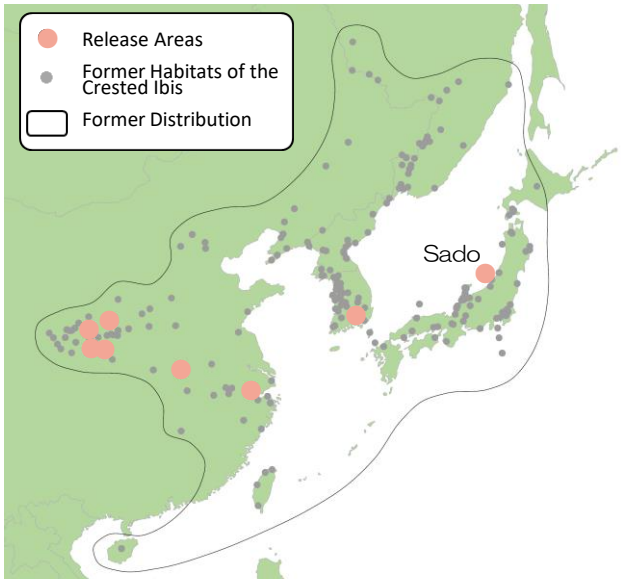
Distributed in a wide area of eastern Japan in the early Edo Era, but the ban on hunting by the Shogunate and the protection by daimyos increased the population of the bird, resulting in even wider distribution.

Meiji Era

Removal of the hunting ban resulted in a drastic decline in its population due to uncontrolled hunting.
Eliminated as vermin, sold as medicine, exported as a decorative item.

1908	Game Act Enforcement Regulations designated the bird as a protected bird
1926	Extinction registered due to uncontrolled hunting
1929	Crested ibis rediscovered on the Noto Peninsula
1931	Living crested ibis reported on Sado Island A wildlife safety zone established on Mt. Bijo on the Noto Peninsula
1934	Designation as a natural monument (Act on Protection of Cultural Properties)
1946	An attempt to feed crested ibis started by residents of Sado
1952	Designation as a special natural monument
1953	Inauguration of the Sado Toki Welfare Association (reorganized as the Sado Toki Conservation Association in 1959)
1957	Inauguration of the Hakui Toki Conservation Association
1959	Inauguration of the Crested Ibis Conservation and Propagation Project (Agency for Cultural Affairs and Niigata Prefectural Board of Education) Inauguration of the Niibo Toki Welfare Association ▶Surveillance campaign prohibited entry to breeding sites in the mountains ▶Feeding activities and establishment of pesticide-free feeding grounds ▶Movement for purchasing nationally-owned forest lands to secure crested ibis habitats
1962	Nesting habitat area nationalized
1967	Inauguration of the Sado Japanese Crested Ibis Conservation Center
1970	The last crested ibis living on the main island of Japan, named Nori, moved from Noto to Sado Island
1971	Inauguration of the Crested Ibis Protection Society of Ryotsu
1971	Inauguration of the Environmental Agency (spun off from the Agency for Cultural Affairs in 1975)
1981	All five wild crested ibises captured, thus extinct in the wild
1981	Rediscovery of wild crested ibises in China
1993	Categorized in the nationally endangered species of wild fauna and flora (Act on Conservation of Endangered Species)
1999	Two crested ibises sent by China as a gift (You-you and Yang-yang) The first successful captive breeding case in Japan (birth of Yu-yu)
2003	The Environmental Restoration Vision created, a material plan for them returning to the wild Kin, the last crested ibis born in Japan, died

Distribution of Crested Ibis



Yamashina・Nakanishi (1983), Birdlife International (2001), Ishikawa prefectural museum (2010) and Park et al. (2010) and So・Kawai (2015), and, making

Reintroduction of the Crested Ibis to the Wild
-Progress of the Reintroduction Program-

Sado Ranger Office, Ministry of the Environment

Long Term Efforts for the Protection of Crested Ibis in Sado and for Captive Breeding in Japan

1999年	Successful artificial incubation in Japan			
2003	Environment Restoration Vision formed, with a goal of having 60 crested ibises settled the revised program of the Crested Ibis Protection and Reproduction Program	Captive breeding and pre-release training, release and monitoring <Reintroduction Vision> Releasing a stable number of crested ibises Restoring the genetic diversity of the birds Inauguration of the Station for Crested Ibis to Return to the Wild	Habitat development <Nature Restoration Vision> Feeding environment developed by private entities, etc. in the east Kosado area Inauguration of the Sado Society for Crested Ibis and Rice Paddy Conservation	Social environmental improvement <Community Vision> Inauguration of the Liaison Council on Returning Crested Ibis to the Wild Inauguration of the Council for Developing a Symbiotic Island for Crested Ibis and Humans Inauguration of the Crested Ibis Conference Hall "Toki Koryu Kaikan"
2008	Release of crested ibis commenced			
		Decentralized breeding implemented Accumulation of training/releasing techniques Natural breeding of the released birds Restoring the genetic diversity of the birds Monitoring commenced	"Toki to Kurasu Sato" (Symbiotic Village with Crested Ibises) Rice Certification Program (Sado City,etc.) Habitat improvement in agricultural areas (Ministry of Agriculture,Forestry and Fisheries, Niigata Prefecture, Sado City, etc.) Habitat improvement around rivers (Niigata Prefecture,etc.) Habitat improvement in forests (Forestry Agency, Niigata Prefecture, Sado City,etc.) Biotopes improvement activities by relevant entities	Promotion and education of "the Guidelines for Coexistence of Humans and Crested Ibis" and "the Observation Guidelines" Sado Toki Fan Club,Toki Guides,and promotion activities by Toki Coexistence Promoters,etc. Holding Round-table Talks on Coexistence with Crested Ibis Inauguration of the Transdisciplinary Research Program "Crested Ibis Project" founded by Niigata University Crested Ibis Island Environmental Restoration Leadership Training Unit formed by Niigata University
2012	A case of successful breeding of wild crested ibises			
2013	Roadmap for Crested Ibis to Return to the Wild developed	Banding program started with wild crested ibis chicks	The use of agricultural chemicals reduced by 50% in koshihikari rice production (JA Sado)	Inauguration of Toki Fureai Plaza (Crested Ibis Interaction Plaza)
2014	Reached the goal of "having 60 crested ibises settled within Sado Island"			
2016	【Factors for the reestablishment of Toki population】・Long-term efforts and passion of the community members involved ・Consensus in the community as a whole for various continuous and cumulative engagements, as well as for symbiosis with crested ibis Development of the Roadmap for Crested Ibis to Return to the Wild 2020, with the goal of having 220 crested ibises settled	Birth of purely wild crested ibis: Inauguration of the counting program of crested ibises leaving their nests		
2018	Reached the goal of "having 220 crested ibises settled within Sado Island"			
			The use of neonicotinoid pesticides completely terminated in wet-rice cultivation (JA Sado)	Inauguration of Toki Observation Post (Toki no Mikata Teiryujo)
2019	Redesignated from "Extinct in the Wild(EW)" to "Critically Endangered(CR)"			
2021	Revised program of the Crested Ibis Protection and Reproduction Program Roadmap for Crested Ibis to Return to the Wild 2025 developed	Released throughout Sado Island		Inauguration of "Toki no Terrace"

Captive Breeding
-Ex Situ Conservation-

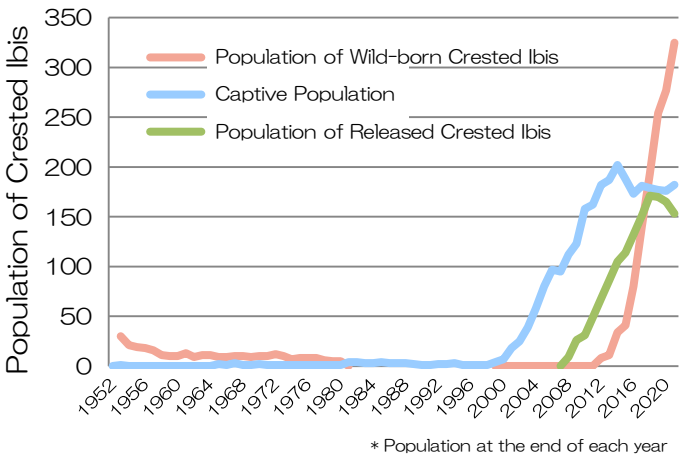
Sado Ranger Office, Ministry of the Environment

Captive Breeding of Crested Ibis

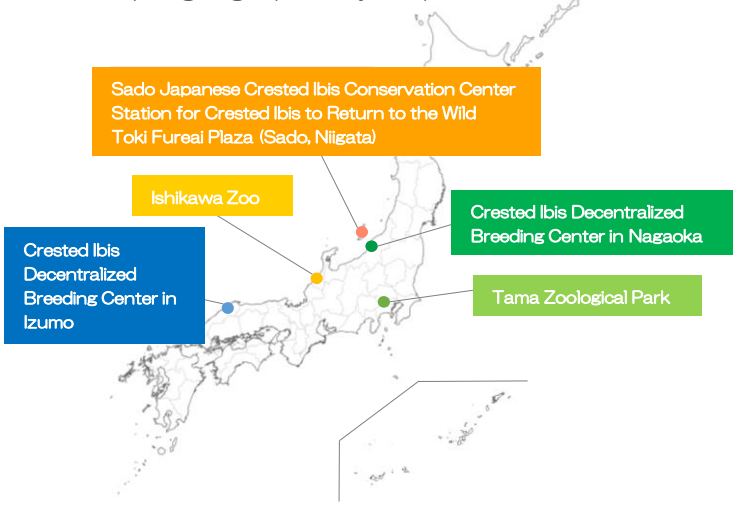
Domestically, efforts have been made to establish captive breeding methods for crested ibis mainly at Sado Japanese Crested Ibis Conservation Center in Niigata Prefecture.
A pair of crested ibises (You-you and Yang-yang) was brought to Japan from China in 1999. In the same year, Yu-yu was born, which marked the first successful case of a crested ibis' artificial hatching in Japan. Since then, captive breeding has been successful year after year and the population of crested ibis has increased gradually.

Population of Crested Ibis in Captivity and Decentralized Breeding Efforts

As a measure against risks posed by environmental changes and infectious diseases, including avian influenza, approximately 200 crested ibises are kept at multiple geographically-dispersed locations to secure a population to be released.



＊Population at the end of each year



Restoring the Genetic Diversity of the Crested Ibis

Seven crested ibises were donated by China, becoming the first generation to reproduce later generations to secure the genetic diversity of the species.

You-you and Yang-yang

Yi-shui

Guan-guan

Mei-mei

Hua-yang

Lou-lou

Present Captive Population of Crested Ibis

	Total Captive Population	Male	Female
Total	182	94	88
Sado Japanese Crested Ibis Conservation Center	77	36	41
Station for Crested Ibis to Return to the Wild	69	26	33
Toki Fureai Plaza (Sado, Niigata)	2	1	1
Tama Zoological Park	6	3	3
Ishikawa Zoo	9	4	5
Crested Ibis Decentralized Breeding Center in Nagaoka	9	7	2
Crested Ibis Decentralized Breeding Center in Izumo	10	7	3

(As of February 2, 2022)

Pre-release Training and Release

-Into the Vast Sky Over Sado Island-

Sado Ranger Office, Ministry of the Environment

Station for Crested Ibis to Return to the Wild and Pre-release Training

In 2003, the "Environmental Restoration Vision" was established to set a practical goal for Crested Ibis reintroduction in the wild.
In 2007, the Station for Crested Ibis to Return to the Wild was founded as a training facility for crested ibises to acquire abilities necessary to survive in the wild.
In September 2008, the first group of crested ibises was released. So far, a total of 25 groups have been released, sending 429 crested ibises in to the wild.

First Group of Crested Ibis Released in the Wild

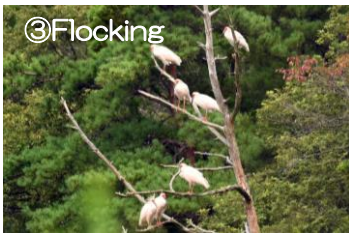
Pre-release Training Cages in an Environment Closed to Nature

Purposes of Pre-release Training

The training lasts about three months to let crested ibises acquire four key skills to survive in the wild after release.

The birds search for prey in muddy ponds similar to rice paddies by using the senses on the tip of their beak.

Birds learn to fly inside a spacious cage, measuring 80 meters long by 50 meters wide by 15 meters high.



Birds develop a habit of flocking by being trained to stay in a group of about twenty.

This gives the crested ibises opportunities to get used to human activities by showing them some farming activities, including mowing, and approaching vehicles, among others.

Outcomes of Releases through Today and Survival Rates of Released Crested Ibises

We currently use two ways to release birds in to the wild: One is called "hard release," where crested ibises are transported to a release point and set free from boxes there; whereas the other one is called "soft release," where the cage is opened to let the crested ibises to fly out of it freely at their own will.

Release Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Release Start Date	2008 9.25	2009 9.29	2010 11.1	2011 3.10	2011 9.27	2012 6.8	2012 9.28	2013 6.7	2013 9.27	2014 6.6	2014 9.26	2015 6.5	2015 9.25	2016 6.10	2016 9.23	2017 6.2	2017 9.22	2018 6.8	2018 10.15	2019 6.7	2019 9.27	2020 6.5	2020 9.18	2021 6.5	2021 9.17
Release Method	Hard	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Hard Soft	Soft	Hard Soft	Soft	Hard Soft	Hard Soft	Hard Soft
Number of Released Birds	10	19	13	18	18	13	17	17	17	17	18	19	19	18	19	18	19	19	19	20	17	18	16	17	14
Male	5	8	8	10	11	10	3	13	3	11	4	15	2	16	5	8	14	11	19	14	11	11	8	4	9
Female	5	11	5	8	7	3	14	4	14	6	14	4	17	2	14	10	5	8	0	6	6	7	8	13	5
One-year Survival Rates (%)	70.0	63.2	44.4	66.7	77.8	61.5	41.2	94.1	52.9	64.7	61.1	89.5	57.9	88.9	73.7	50.0	57.9	68.4	36.8	40.0	52.9	33.3	31.3	-	-
Population of Crested Ibises Traveling to the Mainland	4	3	2	0	0	0	0	0	1	1	0	0	1	1	3	0	0	1	0	0	0	0	0	0	0

▲Soft Release

▲Hard Release

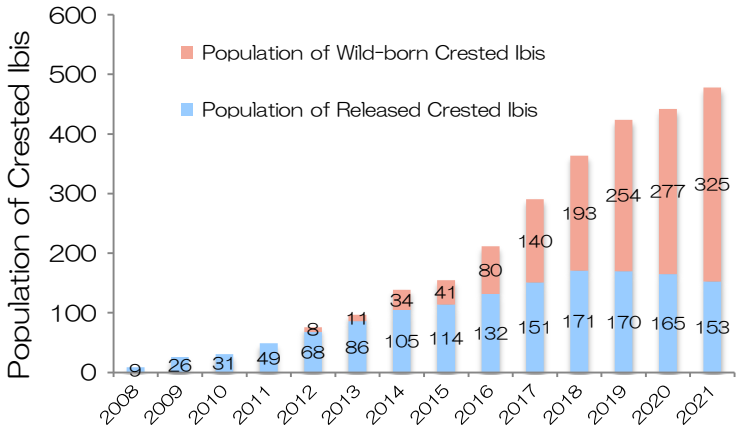
Crested Ibis in the Wild

-Post-release Behavior of Crested Ibises-

Sado Ranger Office, Ministry of the Environment

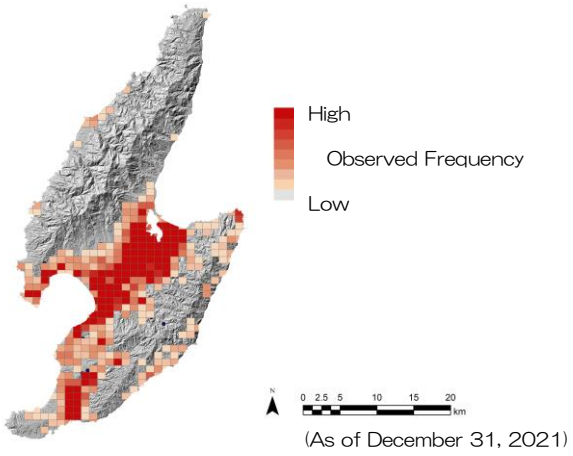
Wild Crested Ibis Population and Its Evolution

The continued releases of crested ibises and successful breeding in the wild have allowed the birds' population to increase continuously.



Distribution of Crested Ibis

The plains of Sado Island are their main habitat.



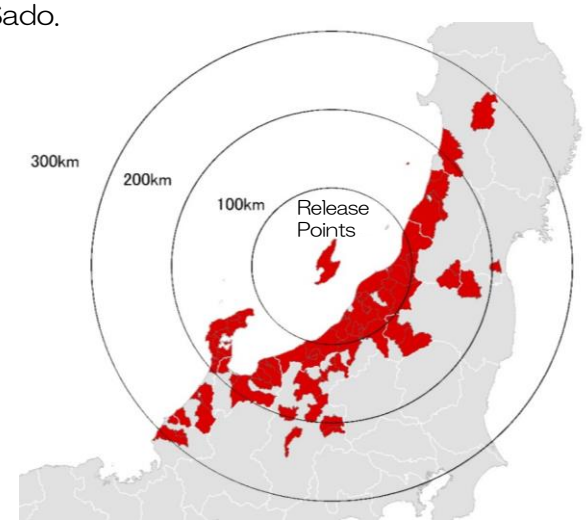
(As of December 31, 2021)

Habitat of Crested Ibis

Both the shallow water areas for feeding and the forest areas for roosting and nesting are required for crested ibises to survive. In Sado, where the crested ibis is a symbol, environment-friendly agriculture, biotope development, natural regeneration of rivers and forests, forest management, and other activities are promoted to create a habitat for crested ibis.

Dispersal to the Mainland

There are 27 confirmed cases of crested ibises flying to the mainland so far. Some crested ibises have been confirmed about 300 km away from Sado.



(2008~2021)

Foraging Environment for Crested Ibis

Deep Snow Season

Around the Rice Planting Season

Rice Growing Season

After the Harvest

Wild crested ibises prefer shallow water areas for foraging, but the frequency of their visits to rice paddies, biotopes, and ridges, etc., may vary depending on the season or the state of the rice paddies.

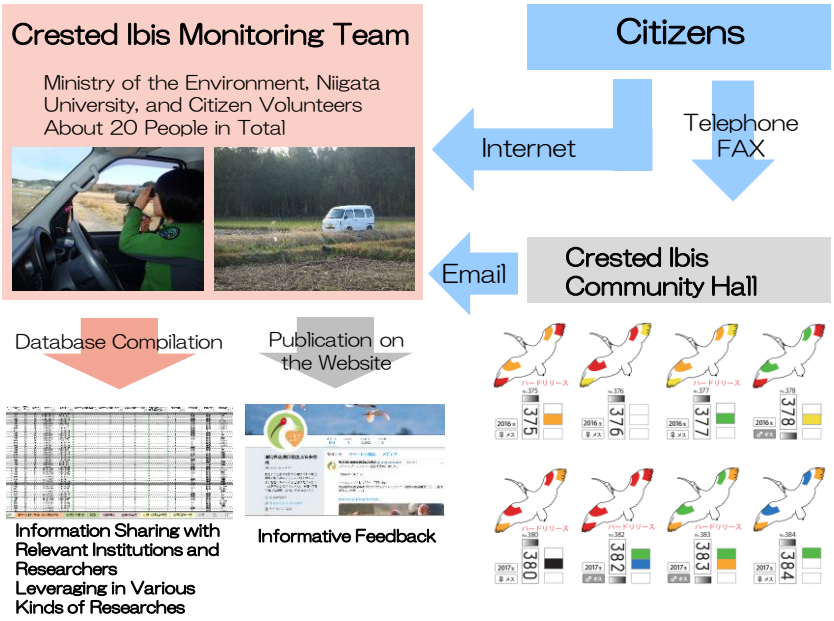
Monitoring the Crested Ibis

-Understanding the Progress of Reintroduction into the Wild-

Sado Ranger Office, Ministry of the Environment

What Do We Monitor about the Crested Ibises?

A research program monitors the population of crested ibis, their distribution, their survival rates, and their reproduction, among other metrics, to verify the progress of the crested ibises returning to the wild.
The crested ibis monitoring team, made up of members from the Ministry of the Environment, Niigata University, and citizen volunteers, conducts the research on an almost daily basis. In addition, information reported by citizen eyewitnesses also plays an important role.
The outcomes obtained from the monitoring are made use of in the captive breeding of crested ibis and the improvement of their habitat.



Monitoring Methods

①Verification of Their Survival

Each crested ibis is identified with a marker painted on their wing or with a band on their leg to monitor an individual's survival. Causes of death are also investigated.

②Reproductive Research

Hatching and fledging are recorded by observing the nests of the crested ibises. Unsuccessful breeding cases are subject to investigation of the causes.

③Counting Program of Crested Ibises Leaving Their Roosts

To keep track of the population of crested ibises throughout Sado Island, the number of birds flying out of their roosts is counted in September and November.

Your reporting on any crested ibis witnessed is much appreciated.

The population of crested ibises is increasing and their habitat is also expanding.
Any information from you serves as an important clue to understanding the situations of wild crested ibises. During the breeding season from February through July, in particular, information on the forests visited by crested ibises, among other information, could lead to the discovery of nesting sites. In case you have noticed any unusual behaviors of the crested ibises, such as the forests being particularly noisy lately, or crested ibises witnessed carrying branches, or if you have witnessed any crested ibises in an area in which they are rarely seen, please let us know.

Toll Free Number to Report Any Information on Crested Ibises Witnessed (within Niigata Prefecture)

☎0120-980-551

Online Form for Eyewitnesses

トキ目撃情報

Link: https://tokihogocenter.site/station/06f_rep/form.html

The Progress of Wild Crested Ibis Breeding
-Birth of New Life-

Sado Ranger Office, Ministry of the Environment

Color Evolutions in Crested Ibis Feathers

Sept. through Nov.

Basic Plumage

Coloration

Molting

Dec. through Aug.

Nuptial Plumage

Toki Color

The pale gentle pink feathers are one of the outstanding features of the crested ibis.

Makeup Colors

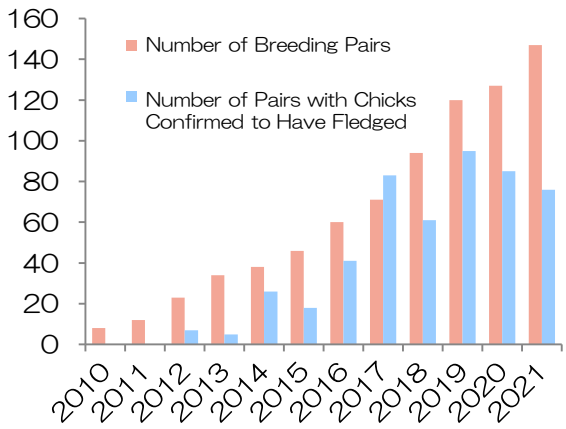
In around December, crested ibises rub the dark skin of their necks on their heads and down their backs as they bathe, resulting in the color of the feathers turning gray.
No other bird in the world shows this change in feather colors. The change in the colors of the plumage signifies the start of their breeding season.

Crested Ibis Breeding Cycles

Around January, the crested ibises start to exhibit courtship displays and find their mates.
Around February, they build nests, and lay eggs around March. The male and the female take turns keeping their eggs warm, until they hatch in about 28 days. After hatching, both the male and the female bring food for their chicks until they leave the nest at about 40 days.
When the breeding season ends, they form a flock inclusive of the juveniles that have just left their nest in the same year.

Results of Breeding to Date

In 2012, crested ibis chicks released from our facility fledged for the first time.
In 2016, chicks of the parents both born in the wild (purely wild crested ibises) fledged for the first time.



Results of Breeding to Date

Future of Crested Ibis Reintroduction

-For Coexistence of Humans and Crested Ibises-

Sado Ranger Office, Ministry of the Environment

How to Observe Crested Ibises -Support Them through Thoughtful Observation-

An increase in the population has provided more opportunities to observe wild crested ibises.
The Ministry of the Environment has prepared “How to Observe Crested Ibises,” a leaflet that outlines appropriate ways of observing wild crested ibises, based on the “Guidelines for Coexistence with Crested Ibises”, as part of its enhanced awareness/education programs.

トキのみかた

やさしい見方で
あなたもトキの味方に

①Keep a distance from the crested ibises and observe them silently.
②Try not to disturb the community. Do not enter farmland without permission.
③Stay inside your car when observing. (Do not block traffic.)
④Avoid loud noises or lights.
⑤Stay away from their nests during the breeding season (February through June).

Let’s Meet Wild Crest Ibises!

Toki no Mikata Teiryujo (Toki Observation Post)

※ In front of the Teiryujo

The post is located at the entrance to Crested Ibis Community Hall.
The crested ibises can be observed flying across in front of the post or resting on the withered trees.

Crested Ibis Community Hall/Toki no Mikata Teiryujo
Address: 1101-1 Niibo Katagami, Sado
Phone: 0259-24-6040

Toki no Terrace

In the indoor observation room, there is an exhibition on wild crested ibis, and its rooftop provides a panoramic view of the nature-rich landscape of Sado, which wild crested ibises inhabit.

Toki no Terrace/Station for Crested Ibis to Return to the Wild
Address: 1277 Niibo Shomyoji, Sado
Phone: 0259-24-6151