

# Lower Maruyama River and the surrounding rice paddies

**River,  
Estuary,  
Rice  
Paddy**

Geographical Coordinates: 35°37'N, 134°49'E / Altitude: 0-20m / Area: 1,094ha / Major Type of Wetland: E: Sand, shingle or pebble shores, F: Estuarine waters, M: Permanent rivers/streams/creeks, 2: Ponds, 3: Irrigated land / Designation: Special Protection Zone of National Wildlife Protection Area, Special Area of National Park, Class A River / Municipalities Involved: Toyooka City, Hyogo Prefecture / Ramsar Designation: July 2012, area extension: October 2018 / Ramsar Criteria: 2, 8



The lower reaches of the Maruyama River with river, rice paddies and artificial wetlands



An Oriental White Stork flying down in a pond



Farmers and a stork in rice paddies

## General Overview:

The site is located in Toyooka City in the north eastern Hyogo Prefecture. The keyword of this wetland is “Reintroduction of Oriental White Storks” and is characterized by being “a complex wetland formed by restoration and creation”.

The most distinctive feature of the site is that it includes 16km of the mainstream of the river. The incline of the 68km long Maruyama River becomes extremely small when it approaches the sea and the water surface resembles a still water. As the two hills at the river mouth almost block the river flow, the area has been blessed with abundant aquatic life. On the other hand, it has been afflicted by repeated floods.

Since the pace of the reintroduction of the storks accelerated, the Ministry of Land, Infrastructure, Transport and Tourism has been promoting nature restoration along with reinforced flood control. Half of the sand bank that obstructed the river flow in the middle of the river was removed to function as a marsh and many shoals were created on the riverbed. Moreover, Kaya Wetland was created, taking advantage of a farmland on the riverbed near the confluence of the Maruyama River and the Izushi River. As a result, the whole area around the lower Maruyama River became a good habitat for storks.

There are various types of wetland scattered around the river, such as the Toshima Wetland for “Hachigoro”, an artificial wet-

land constructed jointly by Hyogo Prefecture and Toyooka City, and marshes created from fallow rice paddies by local people as well as rice paddies in use. The stork reintroduction project brought about a new value to people’s lives and culture and the whole community in this area is working hard for the conservation of the wetlands.

560ha of this area was designated as a Ramsar Site in July 2012 and the designated area was extended to 1,094ha in October 2018 taking in the area in the upstream.

## Stork Reintroduction:

The Oriental White Stork *Ciconia boyciana* is a large bird with a wingspan as wide as 2m. It is categorized as Endangered in the IUCN Red List. Although it became extinct in Japan in 1971, a reintroduction project has been carried out in Toyooka City, which was the last habitat of this species in Japan. After releasing and captive breeding, a population of approximately 140 storks has been established in the wild in Japan as of 2018. There are few examples in the world of this kind of reintroduction conducted in a human habitation.

## Rice Production through the Stork Friendly Farming Method:

Rice paddies are important foraging habitats for storks. In Toyooka City, rice production through the Stork Friendly

Farming Method is spreading. For example, farmers keep the rice paddy flooded even in winter and/or delay the timing of midsummer drainage in order to sustain the metamorphosis and emergence of organisms in the paddy. As a result, migratory birds visit the rice paddies flooded during winter and the harvested rice branded as “Stork Natural Rice” is traded at a high price and brings about economic benefits to farmers.

## Stork Tourism:

The community of the Tai district was inspired by a stork visit and initiated an action to establish a wetland habitat in their fallow rice field. They also started new movements for tourism based on the local biodiversity, including the formation of “An-girls”, a group of volunteer wetland guide organized by local women.

## Contact Information:

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