

Lower Maruyama River and the surrounding rice paddies

Geographical Coordinates: 35°37'N, 134°49'E / Altitude: 0-20m / Area: 1,094ha / MajorType ofWetland: 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, River area (River Law) / Municipalities Involved: Toyooka City, Hyogo Prefecture / Ramsar Designation: July 2012, area extension: October 2018 / Ramsar Criteria: 2, 8

**River,
Estuary,
Rice
Paddy**



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



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 key-word of this wetland is "Reintroduction of Oriental White Stork" 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 more gentle as it approaches the sea, giving it the appearance of a tranquil pond. 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 to the area 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 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", the artificial wetland jointly constructed by Hyogo Prefecture and Toyooka City, and marshes created

from fallow rice paddies by local people as well as rice paddies in use. Notably, 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.

In July 2012, 560ha of this area was designated as a Ramsar Site. In October 2018, the designated area was extended to 1,094ha by including areas upstream of the original site.

Stork Reintroduction:

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, the species' last habitat in Japan. After releasing and captive breeding, a population of approximately 250 storks was established in the wild in Japan at the end of the 2021 fiscal year. There are few examples in the world of such a 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 sold at high prices and brings about economic benefits to farmers.

Stork Tourism:

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

Contact Information:

Toyooka City Office
<http://www.city.toyooka.lg.jp/>

