Japan
Lower Maruyama River and the Surrounding Rice Paddies

- Designation date: 3 July 2012
- Site number: 2055
- Coordinates: 35°36'39"N 134°50'23"E
- Area: 1,094,00 ha
1 - Summary

<table>
<thead>
<tr>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situated in Japan’s northern Hyogo Prefecture, the site Lower Maruyama River and the surrounding rice paddies consists of various types of wetlands, including the tranquil Maruyama River, estuary with a brackishwater zone stretching for more than 16km upstream, the surrounding rice paddies that are managed by organic agricultural systems that support the endangered storks, a constructed wetland (Toshima Wetland for “Hachigoro (the name of the last wild Stork that stayed in this wetland”) with both freshwater and brackish water zones, and the Kaya Wetland that was constructed out of a natural-area restoration project. These wetlands form an important breeding site and foraging habitat for the Oriental White Stork (Ciconia boyciana, categorized as Endangered in the IUCN Red List). The site also serves as a suitable habitat for the Black-spotted Pond Frog (Pelophylax nigromaculatus, classified as Near Threatened in the IUCN Red List) and the Japanese Weatherfish (Misgurnus anguillicaudatus), which serve as food resources for storks. The diverse mix of wetlands in the area serves as an ideal spawning and nursery habitat for a variety of fish, including threatened species such as the Northern Medaka (Oryzias sakaizumii, rated Vulnerable in the National Red List), the Fourspine Sculpin (Cottus kazika, rated Vulnerable in the National Red List) and the Kubo Goby (Gymnogobius scrobiculatus). Furthermore, the site is an ideal habitat for other bird species such as the Peregrine Falcon (Falco peregrines) and the Little Tern (Sterna albifrons), have been observed in the area. As such, the Lower Maruyama River and the surrounding rice paddies is an important example of a site that supports biological diversity involving a number of endangered species such as wild storks.</td>
</tr>
</tbody>
</table>
2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

<table>
<thead>
<tr>
<th>Name</th>
<th>Akitoshi Kawamoto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution/agency</td>
<td>Kinki Regional Environment Office, Ministry of the Environment of Japan</td>
</tr>
<tr>
<td>Postal address</td>
<td>8F, OMM, 1-7-31 Otemae, Chuo-ku, Osaka-shi, Osaka Prefecture, 540-6591, JAPAN</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:reo-kinki@env.go.jp">reo-kinki@env.go.jp</a></td>
</tr>
<tr>
<td>Phone</td>
<td>+81 6 4792 0706</td>
</tr>
<tr>
<td>Fax</td>
<td>+81 6 4790 2800</td>
</tr>
</tbody>
</table>

2.1.2 - Period of collection of data and information used to compile the RIS

From year 1998
To year 2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish) Lower Maruyama River and the Surrounding Rice Paddies

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

<table>
<thead>
<tr>
<th>(Update) A Changes to Site boundary</th>
<th>Yes ☐ No ☒</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Update) The boundary has been delineated more accurately</td>
<td>☐</td>
</tr>
<tr>
<td>(Update) The boundary has been extended</td>
<td>☒</td>
</tr>
<tr>
<td>(Update) The boundary has been restricted</td>
<td>☐</td>
</tr>
<tr>
<td>(Update) B Changes to Site area</td>
<td>the area has increased</td>
</tr>
<tr>
<td>(Update) The Site area has been calculated more accurately</td>
<td>☐</td>
</tr>
<tr>
<td>(Update) The Site area has been delineated more accurately</td>
<td>☐</td>
</tr>
<tr>
<td>(Update) The Site area has increased because of a boundary extension</td>
<td>☒</td>
</tr>
<tr>
<td>(Update) The Site area has decreased because of a boundary restriction</td>
<td>☐</td>
</tr>
</tbody>
</table>

2.1.5 - Changes to the ecological character of the Site

<table>
<thead>
<tr>
<th>(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Update) Optional textbox to provide further information</td>
<td>It has the extension of the similar landscape as before, with similar ecosystem.</td>
</tr>
</tbody>
</table>

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps 0

Boundaries description
The boundary is based on that of the Lower Maruyama River National Wildlife Protection Area. The site includes the non-designated portion of the Maruyama River site and lies within the boundaries of the San'in Kaigan National Park.

(Tai district)
The boundary is the same as that of the Tai district in the Lower Maruyama River Special Protection Zone, which lies within the Lower Maruyama River National Wildlife Protection Area.

(Kehi and Hatagami districts)
The boundary is the same as that of the Kehi and Hatagami districts in the Lower Maruyama River Special Protection Zone, which lie within the Lower Maruyama River National Wildlife Protection Area.

2.2.2 - General location

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) In which large administrative region does the site lie?</td>
<td>Hyogo Prefecture</td>
</tr>
<tr>
<td>b) What is the nearest town or population centre?</td>
<td>Toyooka City</td>
</tr>
</tbody>
</table>

2.2.3 - For wetlands on national boundaries only

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Does the wetland extend onto the territory of one or more other countries?</td>
<td>Yes</td>
</tr>
<tr>
<td>b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

2.2.4 - Area of the Site

| Official area, in hectares (ha):                      | 1094  |
| Area, in hectares (ha) as calculated from GIS boundaries | 1107.78 |

2.2.5 - Biogeography

<table>
<thead>
<tr>
<th>Biogeographic regions</th>
<th>Biogeographic region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Udvardy's Biogeographical Provinces</td>
<td>2.14.5 Manchu Japanese mixed forest</td>
</tr>
</tbody>
</table>
3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 2: Rare species and threatened ecological communities

☑ Criterion 8: Fish spawning grounds, etc.

Due to its gradual riverbed slope and its wide brackishwater area, the Maruyama River area is an ideal habitat for various species of fish, such as migratory fish, primary freshwater fish, which spend all of their life in freshwater, and peripheral freshwater fish, which spends time in both brackish water and the sea. In addition, the site is one of the few water systems in Japan that keep an ecological network, in the absence of dams in the mainstream of the middle and lower reaches of the Maruyama River that can block the run-up of migratory fish. Furthermore, the extensive rice paddy environment along the main stream and tributaries of the Maruyama River lead to an environment in which the river and the surrounding rice paddies together serve as a nursery and spawning grounds for fish. Among the pure freshwater fish species found in this site are the Northern Medaka (Oryzias sakaizumii), the Torrent Reddish Buhead (Liobagrus reini), rated Vulnerable in the National Red List and the Yoshinobori Goby (Bandedfin type; Rhinogobius sp., rated Near Threatened in the National Red List), which is a landlocked fish species found for the first time in the Maruyama River. The migratory fish species found in this site include the Fourspine Sculpin (Cottus kazika, Vulnerable: National Red List), the Japanese Three-spined Stickleback (Gasterosteus nipponicus, Threatened Local Population: National Red List), and the Japanese Eel (Anguilla japonica, Endangered: National Red List), among others. As for brackish water fish and peripheral freshwater fish, a variety of fish species have been recorded, including gobies such as the Kubo Goby (Gymnogobius scrobiculatus, Endangered: National Red List) and the Edo Goby (Gymnogobius macrognathos, Vulnerable: National Red List), among others. The Tajima Region, where the proposed Ramsar site is located, is also a unique area in terms of biogeography. This is because of crossbreeding of two species of Medaka fish commonly observed in this area: the Northern Medaka (Oryzias sakaizumii) and the Southern Medaka (O. latipes). The population of Northern Medaka in this crossbreeding belt has been found with mtDNA of Southern Medaka, while the latter in the Maruyama River was found with the mtDNA of Northern Medaka (Sakaizumi, 1990). As such, the region can be considered important from the standpoint of research on speciation and ecology of freshwater fish species.

3.2 - Plant species whose presence relates to the international importance of the site

<no data available>

3.3 - Animal species whose presence relates to the international importance of the site

<table>
<thead>
<tr>
<th>Phylum</th>
<th>Scientific name</th>
<th>Common name</th>
<th>Species qualifies under criterion</th>
<th>Species contributes under criterion</th>
<th>Pop. Size</th>
<th>% occurrence</th>
<th>IUCN Red List</th>
<th>CITES Appendix</th>
<th>CMS Appendix</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birds</td>
<td></td>
<td></td>
<td>2 4 6 9</td>
<td>3 5 7 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Critically Endangered (CR) in the National Red List, National endangered species</td>
</tr>
<tr>
<td>Fish, Mollusc and Crustacea</td>
<td>CHORDATA/ AVES</td>
<td>Ciconia boyciana</td>
<td>Oriental Stork; Oriental White Stork</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phylum</td>
<td>Scientific name</td>
<td>Common name</td>
<td>Species qualifies under criterion</td>
<td>Species contributes under criterion</td>
<td>Period of pop. Est.</td>
<td>% occurrence 1)</td>
<td>IUCN Red List</td>
<td>CITES Appendix</td>
<td>CMS Appendix</td>
<td>Other Status</td>
</tr>
<tr>
<td>------------------------</td>
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<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CHORDATA / ACTINOPTERYGII</td>
<td>Anguilla japonica</td>
<td>Japanese eel; Japanese eel</td>
<td>☑☑☑☑☑☑☑</td>
<td>☑☑☑☑☑☑☑</td>
<td>2 4 6 9 3 5 7 8</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>EN</td>
<td>☑☐☐☐☐ ☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
</tr>
<tr>
<td>CHORDATA / ACTINOPTERYGII</td>
<td>Eutheuctichthys glutinosa</td>
<td>Sting Like Goby</td>
<td>☑☑☑☑☑☑☑</td>
<td>☑☑☑☑☑☑☑</td>
<td>2 4 6 9 3 5 7 8</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
</tr>
<tr>
<td>CHORDATA / ACTINOPTERYGII</td>
<td>Gymnogobius sordidivittatus</td>
<td>Kubo Goby</td>
<td>☑☑☑☑☑☑☑</td>
<td>☑☑☑☑☑☑☑</td>
<td>2 4 6 9 3 5 7 8</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
</tr>
<tr>
<td>CHORDATA / CEPHALASPIDOMORPHI</td>
<td>Lethenteron camtschaticum</td>
<td>Southern Group of Japanese Brook Lamprey</td>
<td>☑☑☑☑☑☑☑</td>
<td>☑☑☑☑☑☑☑</td>
<td>2 4 6 9 3 5 7 8</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>VU</td>
<td>☑☐☐☐☐ ☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
</tr>
<tr>
<td>CHORDATA / ACTINOPTERYGII</td>
<td>Liobagrus reinii</td>
<td>Torrent Reddish Bulhead</td>
<td>☑☑☑☑☑☑☑</td>
<td>☑☑☑☑☑☑☑</td>
<td>2 4 6 9 3 5 7 8</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>VU</td>
<td>☑☐☐☐☐ ☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
</tr>
<tr>
<td>CHORDATA / ACTINOPTERYGII</td>
<td>Oryzias sakaizumii</td>
<td>Northern Medaka</td>
<td>☑☑☑☑☑☑☑</td>
<td>☑☑☑☑☑☑☑</td>
<td>2 4 6 9 3 5 7 8</td>
<td>☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
<td>VU</td>
<td>☑☐☐☐☐ ☑☐☐☐☐</td>
<td>☑☐☐☐☐</td>
</tr>
<tr>
<td>Phylum</td>
<td>Scientific name</td>
<td>Common name</td>
<td>Species qualifies under criterion</td>
<td>Species contributes under criterion</td>
<td>Pop. Size</td>
<td>Period of pop. Est.</td>
<td>% occurrence 1)</td>
<td>IUCN Red List</td>
<td>CITES Appendix I</td>
<td>CMS Appendix I</td>
</tr>
<tr>
<td>------------------------</td>
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</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTHROPODA / INSECTA</td>
<td>Mortonagrion hirosei</td>
<td>Four-spot Midget</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
<td>2 4 6 9 3 5 7 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Percentage of the total biogeographic population at the site

Criteria 8:

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>
4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

As a successful reintroduction site of the endangered Oriental White Stork, this site forms an environment with a diverse biota that supports the stork population. The Lower Maruyama River is characterized by a gradual riverbed slope and a brackish water area that stretches approximately 16km from the estuary. This has brought about a wide variety of fish species, with 31 primary freshwater fish species, 22 migratory fish species and 27 brackish/wetland water fish species (totaling 80 fish species including 4 alien and 1 breeding species) seen on record. The Tai district is a community inspired by an observation of the endangered Oriental White Stork in April 2008, which spurred conservation efforts by the local community, non-profit organizations and the municipal government, resulting in the district’s diverse biota of today. A diverse array of species adapted to forests, rivers as well as still water of the lowlands -- including 41 species of dragonflies -- has been observed in the area.

The Toshima Wetland for Hachigoro is a constructed wetland comprising of freshwater and brackish water zones. The connection of wetlands to the adjoining sea, rivers and rice paddies (2.5ha freshwater and 0.7ha brackish water wetland) has led to the creation of a diverse ecosystem. The site is recorded as home to 48 fish species including the Fourspine Sculpin (Cottus kazika) which is categorized as Vulnerable in the National Red List. The Kaya Wetland is a large-scale wetland constructed as a result of a nature area restoration project, conducted by the Ministry of Land, Infrastructure, Transport and Tourism of Japan. Various types of wetlands have been constructed as a reproduction area for fish and foraging ground for storks. An organic agricultural system that supports the endangered storks is widely employed in the rice paddies of districts of Tachino, Kajiwara, Yurui, Kodani, Nakanotani district, Kurami, Izu and Yasura. These rice paddies are also home to a large number of organisms including fish such as the Northern Medaka (Oryzias sakaizumii, categorized as Vulnerable), and Slender Bitterling (Tanakia lanceolate, categorized as Near Threatened), which are found in the agricultural water channels. Given these characteristics, the Ramsar site serves as an important habitat for birds, with 172 species observed in the area, including the endangered Oriental White Storks which have been reintroduced via local community efforts.

4.2 - What wetland type(s) are in the site?

<table>
<thead>
<tr>
<th>Wetland types (code and name)</th>
<th>Local name</th>
<th>Ranking of extent (1: greatest - 4: least)</th>
<th>Area (ha) of wetland type</th>
<th>Justification of Criterion 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>E: Sand, shingle or pebble shores</td>
<td>The Maruyama River, The Izushi River</td>
<td>1</td>
<td>587</td>
<td></td>
</tr>
<tr>
<td>F: Estuarine waters</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wetland types (code and name)</th>
<th>Local name</th>
<th>Ranking of extent (1: greatest - 4: least)</th>
<th>Area (ha) of wetland type</th>
<th>Justification of Criterion 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh water &gt;&gt; M: Permanent rivers/ streams/ creeks</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wetland types (code and name)</th>
<th>Local name</th>
<th>Ranking of extent (1: greatest - 4: least)</th>
<th>Area (ha) of wetland type</th>
<th>Justification of Criterion 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ponds</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigated land</td>
<td>18.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Maruyama River, which has a brackish water zone that stretches more than 16km from the estuary, along with a gradual riverbed slope, is the water source of the Toshima Wetland for Hachigoro, Kaya Wetland, and its surrounding rice paddies.

4.3 - Biological components

4.3.1 - Plant species

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>Position in range / endemism / other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azolla filiculoides</td>
<td>Azolla</td>
<td>Near Threatened (NT) in the National Red List, The organism grows in moist habitats such as wetlands, marshes and fallow rice paddies throughout Japan and other parts of east Asia. Loss of habitats such as wetlands in the lower reaches of rivers/estuaries</td>
</tr>
<tr>
<td>Monochoria korsakovii</td>
<td>Mizu-aoi</td>
<td>IUCN Red List LC, National Red List NT</td>
</tr>
<tr>
<td>Phragmites communis</td>
<td>Chinese-Phragm</td>
<td>Near Threatened (NT) in the National Red List, The organism grows in moist habitats such as wetlands, marshes and fallow rice paddies throughout Japan and other parts of east Asia. Loss of habitats such as wetlands in the lower reaches of rivers/estuaries</td>
</tr>
<tr>
<td>Persicaria anaginomor</td>
<td>Trigonocarpa</td>
<td>Near Threatened (NT) in the National Red List, The organism grows in sunny/moist grasslands to partially shaded wetland forests. Development in wetlands and natural succession can be drivers of population reduction.</td>
</tr>
<tr>
<td>Salvia pilosa</td>
<td>Near Threatened (NT) in the National Red List</td>
<td></td>
</tr>
<tr>
<td>Sparganium erectum</td>
<td>NT in the National Red List</td>
<td></td>
</tr>
<tr>
<td>Veronica undulata</td>
<td>Near Threatened (NT) in the National Red List</td>
<td></td>
</tr>
</tbody>
</table>

Invasive alien plant species

What is the Site like?, S4 - Page 1
<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>Impacts</th>
<th>Changes at RIS update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coreopsis lanceolata</td>
<td>Lance-leaved Coreopsis</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>Myriophyllum aquaticum</td>
<td>Parrotfeather Watermilfoil / Parrot Feather</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>Sicyos angulatus</td>
<td>Burr Cucumber / Star-cucumber</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>Veronica anagallis-aquatica</td>
<td>Water speedwell</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
</tbody>
</table>

**Persicaria erectominor trigonocarpa** is supposed to be **Persicaria erectominor var. trigonocarpa**

<table>
<thead>
<tr>
<th>Phylum</th>
<th>Scientific name</th>
<th>Common name</th>
<th>Pop. size</th>
<th>Period of pop. est.</th>
<th>% occurrence</th>
<th>Position in range/lendendismother</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHORDATA/AVES</td>
<td>Pandion haliaetus</td>
<td>Osprey</td>
<td></td>
<td></td>
<td></td>
<td>NT in the National Red List</td>
</tr>
<tr>
<td>MOLLUSCA/BIVALVIA</td>
<td>Corbicula japonica</td>
<td>Japanese Freshwater Clam</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Luciogobius guttatus</td>
<td>Warm Goby</td>
<td></td>
<td></td>
<td></td>
<td>Ampygodromous fish</td>
</tr>
<tr>
<td>CHORDATA/AVES</td>
<td>Accipiter gentilis tjiyasai</td>
<td>Northern Goshawk</td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>CHORDATA/AVES</td>
<td>Accipiter nius risoensis</td>
<td>Eurasian Sparrowhawk</td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Acheilognathus rhombeus</td>
<td>Kanehira Bitterling</td>
<td></td>
<td></td>
<td></td>
<td>Rank B in the Red List of Hyogo Prefecture, Primary freshwater fish</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Actias groma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>CHORDATA/AVES</td>
<td>Aix galericulata</td>
<td>Mandarin Duck</td>
<td></td>
<td></td>
<td></td>
<td>IUCN Red List LC, National Red List Data Deficient (DD)</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Asisargus pyeri</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Caeniopogon yamato</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Carabus tuberculatus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>MOLLUSCA/GASTROPODA</td>
<td>Cipangopaludina japonica</td>
<td>Japanese Mystery Snail</td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Cylindra brevis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Elisma fuscopterae</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>MOLLUSCA/GASTROPODA</td>
<td>Fluviocingula elegantula</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Gymnobothus unuaria</td>
<td>Floating Goby</td>
<td></td>
<td></td>
<td></td>
<td>Amphipodous fish</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Latidens japonicus</td>
<td>Japanese Seabass</td>
<td></td>
<td></td>
<td></td>
<td>Amphipodous fish</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Mugil cephalus</td>
<td>Flathead Grey Mullet</td>
<td></td>
<td></td>
<td></td>
<td>Peripheral freshwater fish</td>
</tr>
<tr>
<td>ARTHROPODA/INSECTA</td>
<td>Nacrophorus japonicus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Near Threatened (NT) in the National Red List</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Notocheilus rhychaii</td>
<td>Spotnape Ponyfish</td>
<td></td>
<td></td>
<td></td>
<td>Peripheral freshwater fish</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGII</td>
<td>Omobranchus punctatus</td>
<td>Japanese Breamy</td>
<td></td>
<td></td>
<td></td>
<td>Peripheral freshwater fish</td>
</tr>
</tbody>
</table>
### Invasive alien animal species

<table>
<thead>
<tr>
<th>Phylum</th>
<th>Scientific name</th>
<th>Common name</th>
<th>Impacts</th>
<th>Changes at RIS update</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHORDATA/AMPHIBIA</td>
<td>Gambusia affinis</td>
<td>Topminnow</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGI</td>
<td>Lepomis macrochirus</td>
<td>Bluegill</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>CHORDATA/ACTINOPTERYGI</td>
<td>Moecotus salmonis</td>
<td>Largemouth Bass</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>CHORDATA/MAMMALIA</td>
<td>Myocastor coypus</td>
<td>Coyput/Nutria</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
<tr>
<td>CHORDATA/MAMMALIA</td>
<td>Procion tori</td>
<td>Common Racoon</td>
<td>Actually (minor impacts)</td>
<td>No change</td>
</tr>
</tbody>
</table>

### 4.4 - Physical components

#### 4.4.1 - Climate

<table>
<thead>
<tr>
<th>Climatic region</th>
<th>Subregion</th>
</tr>
</thead>
<tbody>
<tr>
<td>C: Moist Mid-Latitude climate with mild winters</td>
<td>Cfa: Humid subtropical (Mid with no dry season, hot summer)</td>
</tr>
</tbody>
</table>

Because the site is located in a basin, it is hot and humid during the summer, while winters have heavy snowfall, with mostly cloudy, and frequently foggy, weather throughout the year (annual precipitation of 2,525mm, average temperature of 14.4°C, monthly mean temperature range of 3.5 to 27.4°C)

#### 4.4.2 - Geomorphic setting

What is the Site like?, S4 - Page 3
Maruyama River water system

4.4.3 - Soil

Organic ☑

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?

Yes ☐ No ☑

Please provide further information on the soil (optional):

4.4.4 - Water regime

Water permanence

<table>
<thead>
<tr>
<th>Presence?</th>
<th>Changes at RIS update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually permanent water present</td>
<td>☑ No change</td>
</tr>
</tbody>
</table>

Source of water that maintains character of the site

<table>
<thead>
<tr>
<th>Presence?</th>
<th>Predominant water source</th>
<th>Changes at RIS update</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ ☐ ☐ ☐</td>
<td>☑ ☐ ☐ ☐</td>
<td>☑ No change</td>
</tr>
</tbody>
</table>

Water destination

<table>
<thead>
<tr>
<th>Presence?</th>
<th>Changes at RIS update</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ ☐ ☐ ☐</td>
<td>☑ No change</td>
</tr>
</tbody>
</table>

Stability of water regime

<table>
<thead>
<tr>
<th>Presence?</th>
<th>Changes at RIS update</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ ☐ ☐ ☐</td>
<td>☑ No change</td>
</tr>
</tbody>
</table>

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

Because of the gradual slope of the riverbed in the lower reaches of Maruyama River, the brackish water zone, mixed with fresh water and sea water, stretches approximately 16km from the estuary. As the water from the 130,000ha catchment basin drains to the Sea of Japan, water levels of the river and rice paddies tend to fluctuate sharply from flooding caused by weather incidents such as typhoons, overflowing into the surrounding wetlands.

4.4.5 - Sediment regime

Sediment regime is highly variable, either seasonally or inter-annually ☑

Please provide further information on sediment (optional):

Sediment yield tends to fluctuate widely seasonally and interannually, due to large volumes of sand and silt carried into the riverbed and estuaries from floods caused by typhoons.

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4) ☑

Alkaline (pH>7.4) ☐

Please provide further information on pH (optional):

What is the Site like?, S4 - Page 4
4.4.7 - Water salinity

<table>
<thead>
<tr>
<th>salinity type</th>
<th>Fresh (&lt;0.5 g/l)</th>
<th>Mixohaline (brackish)/Mixosaline (0.5-30 g/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>changes at RIS update</td>
<td>No change</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Increase</td>
<td>Increase</td>
</tr>
<tr>
<td></td>
<td>Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td></td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Please provide further information on salinity (optional):

Due to the gradual slope of the riverbed in the lower reaches, Maruyama River has approx. 16km long brackish water zone, composed of a mixture of fresh water and sea water, as measured from the estuary. The annual average salinity concentration at the 13km point from the estuary is about 11% of the sea concentration (about 32g/l). Between May and December each year, the salinity of the waters tends to rise, leading to the formation of brackish water zones in the area. However, salinity tends to decline between January and April, leading to mostly freshwater conditions, resulting in large seasonal variation in salinity in the area. Furthermore, more than 16km upstream from the estuary and in surrounding rice paddies, the environment tends to consist mostly of fresh water.

Salinity concentration of Maruyama River January 2012-January 2018:
- Minato-oohashi: 1km upstream from the estuary: 0.25-32.13 g/l (annual avg. 17.1 g/l)
- Yuuwa-bashi: 5km upstream from the estuary: 0.06-32.3 g/l

4.4.8 - Dissolved or suspended nutrients in water

Unknown

Please provide further information on dissolved or suspended nutrients (optional):

<table>
<thead>
<tr>
<th>nutrient type</th>
<th>Minato-oohashi: 1km upstream from the estuary</th>
<th>Yuuwa-bashi: 5km upstream from the estuary</th>
<th>Tachino-oohashi: 13km upstream from the estuary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total nitrogen measured</td>
<td>No environmental quality standard</td>
<td>No environmental quality standard</td>
<td>No environmental quality standard</td>
</tr>
<tr>
<td></td>
<td>0.17-0.76 mg/L (annual avg. 0.51 mg/L)</td>
<td>0.25-0.85 mg/L (annual avg. 0.55 mg/L)</td>
<td>0.35-1.01 mg/L (annual avg. 0.66 mg/L)</td>
</tr>
<tr>
<td>Total phosphorus</td>
<td>No environmental quality standard</td>
<td>No environmental quality standard</td>
<td>No environmental quality standard</td>
</tr>
<tr>
<td></td>
<td>0.012-0.047 mg/L (annual avg. 0.034 mg/L)</td>
<td>0.018-0.087 mg/L (annual avg. 0.044 mg/L)</td>
<td>0.019-0.10 mg/L (annual avg. 0.042 mg/L)</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>Environmental quality standard class B: 3 mg/L or less</td>
<td>Environmental quality standard class B: 3 mg/L or less</td>
<td>Environmental quality standard class B: 3 mg/L or less</td>
</tr>
<tr>
<td></td>
<td>0.1-2.7 mg/L (annual avg. 1.2 mg/L)</td>
<td>0.1-6.4 mg/L (annual avg. 1.9 mg/L)</td>
<td>0.1-7.0 mg/L (annual avg. 1.3 mg/L)</td>
</tr>
</tbody>
</table>

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar or ii) significantly different site type:

- Surrounding area has greater urbanisation or development
- Surrounding area has higher human population density
- Surrounding area has more intensive agricultural use
- Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

Maruyama River is surrounded by wetlands, rice paddies, sandbars and woodlands and hills along the river. Residential area has been developed in the plain fields surrounding the site.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

<table>
<thead>
<tr>
<th>Ecosystem service</th>
<th>Examples</th>
<th>Importance/Extent/Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisioning</td>
<td>Food for humans</td>
<td>Sustenance for humans (e.g., fish, molluscs, grains)</td>
</tr>
<tr>
<td></td>
<td>Fresh water</td>
<td>Water for irrigated agriculture</td>
</tr>
<tr>
<td></td>
<td>Biochemical products</td>
<td>Extraction of material from birds</td>
</tr>
<tr>
<td>Regulating</td>
<td>Maintenance of hydrological regimes</td>
<td>Groundwater recharge and discharge</td>
</tr>
<tr>
<td></td>
<td>Maintenance of hydrological regimes</td>
<td>Storage and delivery of water as part of water supply systems for agriculture and industry</td>
</tr>
<tr>
<td></td>
<td>Biological control of pests and disease</td>
<td>Support of predators of agricultural pests (e.g., birds feeding on locusts)</td>
</tr>
<tr>
<td></td>
<td>Hazard reduction</td>
<td>Flood control, flood storage</td>
</tr>
</tbody>
</table>

Cultural Services
<table>
<thead>
<tr>
<th>Ecosystem service</th>
<th>Examples</th>
<th>Importance/Extent/Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreation and tourism</td>
<td>Recreational hunting and fishing</td>
<td>Low</td>
</tr>
<tr>
<td>Recreation and tourism</td>
<td>Water sports and activities</td>
<td>Low</td>
</tr>
<tr>
<td>Recreation and tourism</td>
<td>Picnics, outings, touring</td>
<td>Low</td>
</tr>
<tr>
<td>Scientific and educational</td>
<td>Important knowledge systems, importance for research (scientific reference area or site)</td>
<td>Medium</td>
</tr>
<tr>
<td>Scientific and educational</td>
<td>Educational activities and opportunities</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting Services</th>
<th>Ecosystem service</th>
<th>Importance/Extent/Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity</td>
<td>Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part</td>
<td>High</td>
</tr>
</tbody>
</table>

Within the site: About 80,000
Outside the site: About 140,000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ☐ No ☐ Unknown ☐

Where economic studies or assessments of economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies may be located (e.g. website links, citation of published literature):

https://ci.nii.ac.jp/naid/120005441121

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

Description if applicable

Since 2003, Toyooka City and Hyogo Prefecture, in partnership with entities such as the Japan Agricultural Cooperatives (JA), have been promoting an organic agricultural system that supports the endangered storks. The rice farming method aims to create a stork-friendly habitat by reducing the use of agricultural chemicals in order to spur growth of organisms in rice paddies. The method avoids applying agricultural chemicals (or reduces their use by 75%) and chemical fertilizers during the cultivation period, and involves purposefully delaying the mid-term drainage period from the typical late June to early July period (thereby encouraging the growth of frogs and dragonflies in the paddies by avoiding clashing with the period of frog metamorphoses from tadpoles and dragonflies turning from larvas) and flooding the rice paddies during winter or a month before planting (thereby encouraging the growth of tubific worms and the accumulation of fine-grained mud, which controls the growth of weeds). This farming method has been employed in 407.1ha of rice paddies (approximately 14.6% of all) in the city, as of 2017.

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

Description if applicable

Matsugo-no-Mizu (Water of the Last Moment) from the Toshima Wetland for “Hachigoro”

The Toshima Wetland for “Hachigoro” has a water spring that originates from the the local community as a sacred water source preserved for the “last moment” of a person’s life. The spring water also serves as an important spawning site for adjacent local woodlands and hills. The water has historically been protected by migratory fish, such as the Japanese Three-spined Stickleback (Gasterosteus nipponicus).

4.6 - Ecological processes

<no data available>
5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

<table>
<thead>
<tr>
<th>Public ownership</th>
<th>Within the Ramsar Site</th>
<th>In the surrounding area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local authority, municipality, (sub)district, etc.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>National/Federal government</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Provincial/region/state government</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Private ownership</th>
<th>Within the Ramsar Site</th>
<th>In the surrounding area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other types of private/individual owner(s)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cooperative/collective (e.g., farmers cooperative)</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Provide further information on the land tenure / ownership regime (optional):

The Toshima Wetland for “Hachigoro”
The Area: Public water surface 587ha, National land 1ha, Public land 39ha, Private land 822ha

Territorial Jurisdiction:
- The Ministry of Land, Infrastructure, Transport and Tourism of Japan (river area in the section designated by the Minister of Land, Infrastructure, Transport and Tourism)
- Hyogo Prefecture (prefectural roads)
- Toyooka City (The Toshima Wetland for “Hachigoro”)

Functional Jurisdiction:
- The Ministry of the Environment of Japan (national park, national wildlife protection area)
- The Ministry of Land, Infrastructure, Transport and Tourism of Japan (river area in the section designated by the Minister of Land, Infrastructure, Transport and Tourism)

5.1.2 - Management authority

Please list the local office/offices of any agency or organization responsible for managing the site:
Kinki Regional Environment Office, Ministry of the Environment of Japan

Provide the name and title of the person or people with responsibility for the wetland:
Akitoshi Kawamoto, Director General of Kinki Regional Environment Office

Postal address:
8F, OMM, 1-7-31 Otemae, Chuo-ku, Osaka-shi, Osaka Prefecture, 540-6591, JAPAN

E-mail address: reo-kinki@env.go.jp

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site’s ecological character

Transportation and service corridors

<table>
<thead>
<tr>
<th>Factors adversely affecting site</th>
<th>Actual threat</th>
<th>Potential threat</th>
<th>Within the site</th>
<th>Changes</th>
<th>In the surrounding area</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads and railroads</td>
<td>Medium impact</td>
<td>Medium impact</td>
<td></td>
<td>No change</td>
<td>✓</td>
<td>No change</td>
</tr>
</tbody>
</table>

Natural system modifications

<table>
<thead>
<tr>
<th>Factors adversely affecting site</th>
<th>Actual threat</th>
<th>Potential threat</th>
<th>Within the site</th>
<th>Changes</th>
<th>In the surrounding area</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dams and water management/use</td>
<td>Medium impact</td>
<td>Medium impact</td>
<td></td>
<td>No change</td>
<td>✓</td>
<td>No change</td>
</tr>
</tbody>
</table>

Pollution

<table>
<thead>
<tr>
<th>Factors adversely affecting site</th>
<th>Actual threat</th>
<th>Potential threat</th>
<th>Within the site</th>
<th>Changes</th>
<th>In the surrounding area</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household sewage, urban waste water</td>
<td>Medium impact</td>
<td>Medium impact</td>
<td>✓</td>
<td>No change</td>
<td></td>
<td>No change</td>
</tr>
</tbody>
</table>

Climate change and severe weather
Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
--- | --- | --- | --- | --- | --- | --- |
Storms and flooding | Medium impact | Medium impact | | ✔️ | | No change |

5.2.2 - Legal conservation status

**Global legal designations**

<table>
<thead>
<tr>
<th>Designation type</th>
<th>Name of area</th>
<th>Online information url</th>
<th>Overlap with Ramsar Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other global designation</td>
<td>San'in Kaigan Global Geopark</td>
<td><a href="http://sanin-geo.jp/">http://sanin-geo.jp/</a></td>
<td>whole</td>
</tr>
</tbody>
</table>

**National legal designations**

<table>
<thead>
<tr>
<th>Designation type</th>
<th>Name of area</th>
<th>Online information url</th>
<th>Overlap with Ramsar Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A River (Specified waterways of special importance protected by the government)</td>
<td>Maruyama River, Maruyama River Water System</td>
<td><a href="https://www.kkr.mlit.go.jp/river/kasen/maruyama.html">https://www.kkr.mlit.go.jp/river/kasen/maruyama.html</a></td>
<td>partly</td>
</tr>
<tr>
<td>National Park</td>
<td>San'inkaigan National Park</td>
<td><a href="https://www.env.go.jp/park/sanin/">https://www.env.go.jp/park/sanin/</a></td>
<td>partly</td>
</tr>
<tr>
<td>National Wildlife Protection Area</td>
<td>Lower Maruyama River National Wildlife Protection Area</td>
<td></td>
<td>partly</td>
</tr>
<tr>
<td>Special Protection Zone of National Wildlife Protection Area</td>
<td>Lower Maruyama River Special Protection Zone</td>
<td></td>
<td>partly</td>
</tr>
</tbody>
</table>

**Non-statutory designations**

<table>
<thead>
<tr>
<th>Designation type</th>
<th>Name of area</th>
<th>Online information url</th>
<th>Overlap with Ramsar Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other non-statutory designation</td>
<td>500 Important Wetlands in Japan &quot;Lower Maruyama River and the surrounding rice paddies&quot;</td>
<td><a href="http://www.env.go.jp/nature/important_wetland/wetland/w349.html">http://www.env.go.jp/nature/important_wetland/wetland/w349.html</a></td>
<td>partly</td>
</tr>
</tbody>
</table>

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

**Legal protection**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal protection</td>
<td>Implemented</td>
</tr>
</tbody>
</table>

**Species**

<table>
<thead>
<tr>
<th>Measures</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threatened/rare species management programmes</td>
<td>Implemented</td>
</tr>
<tr>
<td>Reintroductions</td>
<td>Implemented</td>
</tr>
<tr>
<td>Control of invasive alien plants</td>
<td>Implemented</td>
</tr>
<tr>
<td>Control of invasive alien animals</td>
<td>Implemented</td>
</tr>
</tbody>
</table>

**Human Activities**
<table>
<thead>
<tr>
<th>Measures</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication, education, and participation and awareness activities</td>
<td>Implemented</td>
</tr>
<tr>
<td>Harvest control/poaching enforcement</td>
<td>Implemented</td>
</tr>
<tr>
<td>Fisheries management/regulation</td>
<td>Implemented</td>
</tr>
<tr>
<td>Regulation/management of wastes</td>
<td>Implemented</td>
</tr>
<tr>
<td>Management of water abstraction/takes</td>
<td>Implemented</td>
</tr>
</tbody>
</table>

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes ☑ No ☐

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ☑ No ☐

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

Facilities Established for Research Purposes

Toshima Wetland for "Hachigoro": The center was constructed by Toyooka City in 2008 to conduct wetland management and operations, environmental education and interpretation for visitors.

Other Educational Activities

Activities in and around the wetland:
1. Volunteering work to help maintain robust wetland habitats for storks (40 activities a year, for approximately 320 people).
2. For children in/out of the city, provide hands-on learning experience on the environment, regarding storks and wetland conservation (Held 31 times a year for approximately 860 people).
3. Created biotope rice paddies out of fallow rice fields --- now actively used for children's monitoring organisms.


5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

<table>
<thead>
<tr>
<th>Monitoring</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal species (please specify)</td>
<td>Implemented</td>
</tr>
<tr>
<td>Water regime monitoring</td>
<td>Implemented</td>
</tr>
<tr>
<td>Birds</td>
<td>Implemented</td>
</tr>
</tbody>
</table>

- Scientific Study: Analysis of ecology and behaviour of Ciconia boyciana (Oriental White Stork) (Hyogo Park of the Oriental White Stork)

- Survey of the behaviour of Ciconia boyciana (Oriental White Stork) (Ministry of the Environment)

- Survey of the habitats of Ciconia boyciana (Oriental White Stork) (Ministry of the Environment)

- Monitoring survey of biota for the creation of habitats of Ciconia boyciana (Oriental White Stork) (Toyooka City)

- Field patrol in the Lower Maruyama River National Wildlife Protection Area (Ministry of the Environment): Conducted monitoring of mainly birds in the protected area

- Monitoring survey based on the nature restoration plan of the Maruyama River water system (Ministry of Land, Infrastructure, Transport and Tourism of Japan)

Implementation of focused monitoring program following the creation of wetlands (survey of biota: flora, fish, benthos, birds, and the survey of the physical environment: water quality, topography) and the national census of water basins
6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyogo Prefecture (2017), Red List by Hyogo Prefecture 2017 (mammals, amphibians, fish and spiders)</td>
<td></td>
</tr>
<tr>
<td>Kinki Regional Environment Office, Ministry of the Environment of Japan:</td>
<td></td>
</tr>
<tr>
<td>Ministry of Land, Infrastructure, Transport and Tourism of Japan:</td>
<td></td>
</tr>
<tr>
<td>Ministry of the Environment (2018), National Red List, 2018</td>
<td></td>
</tr>
<tr>
<td>Toyooka Office of Rivers and National Highways, Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan:</td>
<td></td>
</tr>
<tr>
<td>Toyooka City:</td>
<td></td>
</tr>
</tbody>
</table>

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)  
<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)  
<no file available>

iii. a description of the site in a national or regional wetland inventory  
<no file available>

iv. relevant Article 3.2 reports  
<no file available>

v. site management plan  
<no file available>

vi. other published literature  
<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

![A landscape of Lower Maruyama River taken from Toyooka Bridge located in the site “Lower Maruyama River and the surrounding rice paddies” (Toyooka City, 12-07-2012)](image_url)

6.1.4 - Designation letter and related data

Designation letter  
<1 file(s) uploaded>

Date of Designation | 2012-07-03