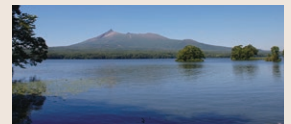
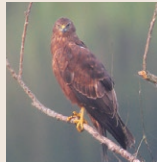
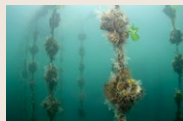


# Newly Designated and Extended Ramsar Sites in 2018

# RAMSAR SITES in JAPAN



## The Japanese Archipelago and its Nature

The Japanese Archipelago is a narrow island chain in the east of the Eurasian continent, spanning approximately 3,000km from north to south in parallel with the continent and separated from it by the Japan Sea. Japan has a national land area of 37.8 million ha, consists of four major islands, Hokkaido, Honshu, Shikoku and Kyushu, and more than 6,000 islands surrounding them. The geography of Japan is diverse with mountain ranges as high as 3,000m, a coastline approximately 30,000km in total, and many rivers and streams that flow down the steep slopes. Forests cover approximately 25 million ha, or 67% of the total land area of Japan, and most of them are found in mountainous areas. The slopes of mountains are generally steep and carved by intricate ravines and gorges. Most plains and basins are small in size and scattered among mountains and hills or along the coasts. Many of them were formed by sediments from the rivers.

Spanning across wide climatic zones from subtropical to subarctic, the average precipitation of most of the area in Japan exceeds 1,000mm per annum, and the climate is humid with a strong monsoon and four distinct seasons of spring, summer, autumn and winter.

Reflecting such natural conditions, land use in Japan is quite complex. For instance, most mountains and hilly areas are covered by forests with some parts used as pastures and orchards. Flatlands including plateaus, terraces and plains are used for agriculture or residence. Rice paddies dominate the plains except for sprawling urban areas.

In such a country where there is a rich growth of all forms of life, the Japanese have nurtured a culture to live in accordance with the changes of four seasons. Also, while being constantly forced to face natural disasters such as earthquakes, floods and volcanic eruptions, the Japanese have acclimated to nature instead of controlling it, and cultivated wide-ranging knowledge, skill, art, sensitivity and a sense of beauty.

Japan's biodiversity has been shaped by the climate, intricate land use, and traditional view of nature fostered in each region that focused on living in harmony with nature. Approximately 69,000 wild species (160 species of mammals, 700 species of birds, 32,000 species of insects, 7,000 species of vascular plants, etc.) including many endemic ones have been identified in Japan.

On the other hand, human interventions and the changing lifestyle induced by rapid urbanization during the period of high economic growth has exerted great pressure on the natural landscapes and the biota in Japan. As a result, quite a few animal and plant species are threatened with extinction.

## Characteristics of Wetlands in Japan

Because of the large amount of precipitation and the surrounding oceans, Japan is a country blessed with water. Consequently, diverse forms of wetlands are found within its small land area, including marshlands, rivers, ponds, lakes, sandy beaches, tidal flats, coral reefs, mangrove forests, seagrass/seaweed beds, rice paddies, reservoirs, springs and underground water systems, each of which supports local biodiversity.

### Marshlands:

In the field of soil science, marshlands are known as peatlands. These can be broadly classified into high moors (bog) which are rich in plant species such as sphagnum that are sustained only by nutrient-poor rainfall, low moors (fen) where reeds and sedge thrive enriched with nutrient salts from upper streams, and intermediate moors characterized by colonies of plants such as *Moliniopsis japonica*.

Because low moors are easily affected by development activities in the surrounding area, most of them at lower altitudes in Honshu and further south have long before been converted into rice paddies and residential areas.

Intermediate moors are mainly found in cooler areas, distributed widely as south as Yakushima Island, Kagoshima Prefecture.

Most of the high moors are found in the Chubu mountain region in Honshu as well as in Hokkaido, and provide important habitats for relict wild species of the Glacial Age.

### Rivers:

Japan has approximately 109 principal river systems encompassing about 14,000 rivers. Because of the mountainous topography, most rivers in Japan are short in length, and travel down steep inclines to the ocean. As the water of the rivers rise at once when there is a heavy rainfall in the upper streams, it often results in floods, flood control is the greatest challenge for river basin management in Japan. Out of the 113 major rivers in Japan, very few retain their natural state with no artificial construction such as dams and weirs. Most of the riverbanks are covered by artificial embankments and the habitat environments for aquatic species are increasingly degraded every year.

### Freshwater Lakes and Ponds:

Various types of lakes and ponds are scattered throughout the country. Some are in mountainous areas, while others lie in the plains or near the coast, such as the lakes which used to be a part of the sea and were left behind when the sea retreated. There are also numbers of artificial reservoirs constructed and managed as water sources for rice paddy

irrigation. Many of them are the habitats for migratory water birds such as ducks, geese and swans as well as for freshwater fish, plants, and insects such as dragonflies.

### Rice Paddies:

Rice paddies cover 2.5 million ha out of 37.8 million ha total land area in Japan. Rice cultivation has been the principal source of livelihood in Japan since ancient times. Rice paddies and the surrounding environment such as channels and reservoirs, and SATOYAMA that mainly have broad-leaved deciduous forests, mainly form secondary natural environments in Japan. This sort of secondary natural environment has been a rich repository of biodiversity maintained by moderate human disturbances such as undergrowth clearing and pond dredging, both of which have been conducted in people's daily lives. However, recently there is a problem that this balance is beginning to be lost because of the changing lifestyle.

Rice paddies are areas for food production as well as important feeding and stopover sites for migratory birds such as shorebirds, ducks, geese and swans. In addition, rice paddies provide vital habitats for aquatic species such as fish and insects.

At the COP10 in 2008, Japan and Korea jointly proposed a draft resolution on enhancing biodiversity in rice paddies as wetland systems, which was adopted unanimously.

### Groundwater Systems:

The wetland types recognized by the Ramsar Convention include subterranean karst topography and underground water systems formed in limestone areas. Japan also has this type of wetland which is designated as a Ramsar site.

### Coastlines:

Japan consists of over 6,000 islands and the total length of the coastline reaches 32,800km, of which 53.1% is natural coastline which retains natural condition with no artificial modification. However, artificial modification of the coastlines is progressing rapidly. Approximately 1,300km of natural coastline has been lost by artificial modification in the 20 years after 1978. In the main islands of Hokkaido, Honshu, Shikoku and Kyushu, natural coastline represents only 42.3% of the total, which is less than half. Some of the remaining natural coasts have important roles as habitats for rare dragonfly species that spawn and grow only in tidal wetlands and for sea turtles as their spawning grounds.

### Brackish Lakes:

There are a number of coastal lagoons in Japan and many of them are brackish, being linked to the sea. Often being the final depository of organic matters (nutrient salts etc.) from rivers, the brackish water areas are highly

# Status of Wetlands in Japan

productive because of their shallow water and complex ecosystems with a mixture of seawater and freshwater. They also play an important role for people as nurseries of marine resources and as coastal fishing grounds.

## Seagrass/Seaweed Beds:

Seagrass/Seaweed beds refer to coastal water bottoms with vast communities of seagrass such as Eelgrass and seaweed such as Kelp and Wakame. They have functions such as producing oxygen, purifying water and stabilizing the sea-bottom environment. In addition, they are important for coastal species including fish and sea turtles as their food sources, spawning sites, nursery grounds and shelter. People in Japan also have benefited from using the Seagrass/Seaweed beds as their fishing grounds for a long period of time.

According to the Survey on Marine Organisms Environment (Seagrass/Seaweed Bed) of 1994, Japan has a total 200,000ha of Seagrass/Seaweed beds (counting those exceeding 1ha in area) within the coastal waters less than 20m deep. Compared to the survey of 1978, 6,400ha of Seagrass/Seaweed beds have been lost by environmental degradation such as land reclamation and rocky-shore denudation. As these trends are still continuing today, their conservation is a pressing issue. In addition, there are many reports of damages by the tsunami caused by the Great East Japan Earthquake in 2011 in the Eelgrass bed growing at the innermost areas of bays. However, according to the report of the Ecosystems Monitoring Survey of the Pacific Coastal Areas of the Tohoku Region, some communities are recovering in some areas such as Matsushima Bay.

## Tidal flats:

According to the Seashore Survey (1998), 49,380ha of tidal flats that exceed 100m in width and 1ha in area during low tide were identified. When tidal flats are exposed and submerged repeatedly, nutrient rich sediments both from the river and sea are deposited there, to build up a rich community of microorganisms and benthos. The water purification function of these organisms attracts people's attention these days. Tidal flats are also indispensable for shorebirds as their feeding and resting sites.

Due to scarcities of flatlands, tidal flats tend to become the targets of various development projects in Japan, and consequently, a total of approx. 6,000ha tidal flats disappeared in the twenty years after 1978. Some of the existing tidal flats are under threat of development even now.

## Mangrove Forests:

According to the Seashore Survey (1998), out of 2,670ha of mangrove forests in Japan, over 95% are found in Okinawa Prefecture.

Although most are small in size, there are a few which exceed 100ha. Out of over 100 species of mangrove plants in the world, 7 species belonging to 4 families have been identified in Japan.

## Coral Reefs:

The total area of reef-building corals in Japan is approximately 35,350ha, most of which is found in the Nansei Islands further south of the Tokara Archipelago of Kagoshima Prefecture. The species diversity of reef-building corals found there is among the most outstanding in the world.

## Ramsar Sites in Japan

Japan became a contracting party to the Ramsar Convention in 1980 and designated Kushiro Shitsugen as the first Ramsar site in Japan. The Fifth Meeting of the Conference of the Contracting Parties (COP5) to the Ramsar Convention was held in Kushiro City in Japan in 1993. People in Japan and the rest of Asia became interested in wetlands through this event, which widely raised awareness of the objectives of the Ramsar Convention.

Japan has been promoting the designation of additional wetlands in accordance with the occasion of each COP. Two sites, Shizugawan in Miyagi Prefecture and Kasai Marine Park in Tokyo, were designated as new Ramsar sites at COP 13 held in the United Arab Emirates (UAE) in October 2018, counting 52 sites in Japan in total. Wetlands are classified into 42 types by the Annex I to the Resolution VIII.13 of the Ramsar Convention. The wetlands in Japan are designated as Ramsar sites mainly because they are important habitats for waterfowl, however, various types of wetlands such as marshlands, lakes, ponds, lagoons, rice paddies, seagrass/seaweed beds, tidal flats, mangrove forests, coral reefs and groundwater systems are also being designated, reflecting the diversity of Japan's wetland ecosystems.

The Ramsar Convention adopted the criteria and guidance for identifying wetlands of international importance of Annex II to the Resolution VIII.13 and so forth (see the reference). When selecting candidate wetlands for Ramsar sites, Japan sees the following as prerequisites:

1. Meet the criteria for identifying wetlands of international importance set by the Ramsar Convention.
2. Ensure long term conservation of the site through national legislation (Natural Parks Law, Wildlife Protection and Hunting Management Law etc.).
3. Gain the consent and support of local communities.

## The Conservation and Wise Use of Wetlands

Defining wetlands in the broadest of terms, the Ramsar Convention strives not only for their conservation but also for their wise use. The 'wise use' of wetlands is defined as "sustainable utilization for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem."

In Japan, where people have been fostering a culture to coexist with nature instead of controlling it, there are a number of examples of wise use practiced by people for a long period of time. Rice cultivation in paddies is a form of wetland maintenance and management. Harvesting reed and lotus for domestic use has a function to prevent eutrophication in lakes and marshes, and local rules for hunting and fishing are other examples of wise use. It often is important for the promotion of wise use in each region to review these local cultures and traditional practices of wetlands.

## Policies for Wetland Conservation:

Japan's national policy on wetlands is described in the National Biodiversity Strategy of Japan 2012-2020. In order to conserve the ecological character of wetlands while building consensus of the society, it directs us to promote conservation and wise use of wetland in a big picture encompassing the river basin and coastal areas, using various measures such as grasping the ecological changes and conservation status through monitoring, expanding protected areas, implementing nature restoration projects and building networks between wetlands.

## Laws for Natural Environment Conservation:

Legislations for nature conservation and wildlife protection in Japan include the Basic Environment Law, Basic Act on Biodiversity, Nature Conservation Law, Natural Parks Law, Law for the Protection of Cultural Properties, Wildlife Protection and Hunting Management Law, Law for the Conservation of Endangered Species of Wild Fauna and Flora, Law for the Promotion of Nature Restoration, and Invasive Alien Species Act. Some of the laws regulate the development activities and resource exploitation focusing on specific species and/or specific areas, and some of them promote restoration of lost natural environments.

Many wetlands and species in wetlands are covered under these laws.

## Diverse Stakeholder Participation and Awareness Raising:

Japanese municipalities with Ramsar sites established a network called the “Domestic Committee for Ramsar Sites related Municipalities in Japan”. They have meetings regularly aiming to promote local level wetland conservation activities and contribute to the appropriate management of Ramsar sites by encouraging information exchange and cooperation between cities, towns and villages.

As for prefectural level efforts, several prefectures include wetlands when designating conservation areas such as wildlife protection areas, nature conservation areas and natural parks, and/or formulating their own environmental legislation and environment projects regarding wetlands.

Conservation and wise use of wetlands may not be achieved without the understanding and participation of local people who live in the neighborhood of the wetlands. In many Ramsar sites in Japan, there are a number of examples of cooperation and collaboration by many stakeholders promoting local level activities.

## International Cooperation

International cooperation such as sharing experiences and technologies is vital to meet the goals of wetland conservation and wise use. Japan is engaged in a variety of international cooperation activities to meet the expectation to make an active contribution as a developed country in Asia. The following are some of the examples of international cooperation conducted by Japan.

## Support, Survey and Information Exchange for the Conservation of Wetlands:

Japan International Cooperation Agency (JICA) invites participants from developing countries to Japan for training courses on the conservation and wise use of wetlands. In addition, Japan has been carrying out several technology transfer projects for the conservation and sustainable use of wetland ecosystems in such countries as Iran, Uganda and Malaysia.

As for the financial assistance, the Ministry of Foreign Affairs of Japan supports various programs targeting wetlands conservation in Asia through voluntary contribution to the Ramsar Small Grants Fund. There is also a private sector small grant program by the Nagao Natural Environment Foundation in Japan.

The Ministry of the Environment of Japan organized surveys and workshops in Myanmar in order to compile a national inventory of important wetlands, which subsequently led to Myanmar's entry into the Ramsar Convention.

In addition, the Ministry has supported the designations of Ramsar sites and some other works in Malaysia, Vietnam, Thailand and Cambodia.

The Ministry has also supported the “Asian Wetland Symposium”, which has been held continuously and participated in by scientists, administrative bodies and NGOs for wetland conservation and management in Asia.

Japan proposed a draft resolution on encouragement and instructions to promote regional scientific and technical fora such as the “Asian Wetland Symposium”, and the draft was adopted at COP9 as Resolution IX.19.

## Bilateral Efforts for the Conservation of Migratory Birds:

Japan has signed bilateral conventions/agreements for migratory bird conservation with 4 countries, the United States, Russia, Australia and China respectively, and is working for the prohibition of migratory bird hunting, promotion of habitat conservation and joint surveys. Japan also has concluded the Japan-Korea Environment Protection and Cooperation Agreement, whereupon regular meetings and joint surveys have been organized for the protection of migratory birds.

## The East Asian-Australasian Flyway Partnership (EAAFP):

There are nine major flyways for migratory birds in the world. Japan belongs to the East Asian-Australasian Flyway, which is crucial to more than 50 million migratory waterfowl such as shorebirds, ducks, geese swans and cranes, including 33 worldwide endangered species. In addition, in Honshu, Shikoku, and Kyushu, migratory birds account for 60 percent of the recorded bird species, and as much as 80 percent in Hokkaido and Ryukyu islands. This indicates that the Japanese Archipelago is an important place for migratory birds.

The East Asian-Australasian Flyway Partnership (EAAFP) is a framework for international collaboration and cooperation to conserve migratory water birds and their habitats within East Asia and Australasian region. The Partnership was launched in 2006 under the initiative of the governments of Japan and Australia. EAAFP sets up the “Flyway Site Network” which is a network of internationally important sites for migratory water birds, promoting activities for awareness raising, conservation and scientific study for migratory water birds at each network site. As of October 2018, Japan has 33 network sites including 22 Ramsar sites.

## Reference :

**Annex II to Resolution VIII.13:  
Criteria and guidelines for Identifying Wetlands of  
International Importance**

Adopted by the 7th Meeting of the Conference of the Contracting Parties (1999), superseding earlier Criteria adopted by the 4th and 6th Meetings of the COP (1990 and 1996), to guide implementation of Article 2.1 on designation of Ramsar sites. Criterion 9 was added by the Resolution IX.1 Annex B adopted at COP9.

Group A of the Criteria. Sites containing representative, rare or unique wetland types

Criterion 1: A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.

Group B of the Criteria. Sites of international importance for conserving biological diversity

Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.

Criterion 3: A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.

Criterion 4: A wetland should be considered internationally important if it supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.

Specific criteria based on waterbirds

Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.

Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.

Specific criteria based on fish

Criterion 7: A wetland should be considered internationally important if it supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.

Criterion 8: A wetland should be considered internationally important if it is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks: either within the wetland or elsewhere, depend.

Specific criteria based on other taxa

Criterion 9: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

# Shizugawa-wan

Geographical Coordinates: 38°40'N, 141°30'E / Altitude: 0m / Area: 5,793ha / Major Type of Wetland: B: Marine subtidal aquatic beds (Underwater vegetation) / Designation: Marine Park Area of National Park / Municipalities Involved: Minamisanriku Town, Miyagi Prefecture / Ramsar Designation: October 2018 / Ramsar Criteria: 1,2,3,4,6

## Seaweed Bed



View of Shizugawa-wan from the southeast

### General Overview:

Shizugawa-wan is located in the southern Sanriku Coast facing the North Pacific. The environment of the bay is affected by three well balanced sea currents, the nutrient rich Oyashio, a cold current, and Kuroshio and Tsugaru, warm currents, which bring warm water from the south. This is the reason for the bay's extensive seaweed bed of two major and valuable Kelp species, Makonbu *Saccharina japonica*, that grows in the cold sea, and Arame *Eisenia bicyclis*, that grows in the warm sea. The bay has several islets such as Are and Tsubaki, along with rocky reefs, sandy silt shore and tidal flats on the coast.

More than 100 Brent Geese *Branta bernicla nigricans*, a national natural treasure classified as Vulnerable in the Red List by the Ministry of the Environment, Japan, winter here every year. In order to spend winter here, they need foods such as eelgrass and rocky reefs for resting. Fish-eating raptors such as White-tailed Eagles *Haliaeetus albicilla* and Steller's Sea Eagles *Haliaeetus pelagicus* also visit here to winter.

There is a monitoring station for monitoring the representative seaweed beds in Japan (Monitoring Sites 1000 Project conducted by the Ministry of the Environment) near Tsubaki islet approximately 4km away from Shizugawa Port. The monitoring has been carried out continuously since 2008. Although the tsunami after the Great East Japan Earthquake in 2011 brought about serious damage, the seaweed bed is recovering now.

### Diverse Types of Seaweed Beds:

Seaweed bed is called seaweed forest or seagrass meadow, and there are 4 types of seaweed beds in the bay, three seaweed beds consist of Kombu *Saccharina japonica*, Ara-

me *Eisenia bicyclis* and Garamo *Sargassum sp.* respectively, and one sea grass bed of eelgrass. More than 200 species of sea grasses and seaweeds have been identified in the eelgrass bed and there are 4 species such as *Zostera marina*, *Zostera caespitosa*, *Zostera caulescens* and *Phyllospadix iwatanensis* including several endangered species. It is hard to find such diverse seaweed beds in the world. In addition to the seaweed and sea grass species, the bay supports the marine biodiversity of more than 550 species as their feeding ground and habitat.

### Sustainable Aquaculture:

The bountiful Shizugawa-wan supports fishery, the main industry of Minamisanriku Town. Aquaculture of Oyster, Wakame and Silver Salmon in this bay has been supporting people's livelihood for a long time. The local community is aiming at sustainable aquaculture with proper management. The oysters produced here gained ASC certification, an eco-labeling for aquaculture products issued by the Aquaculture Stewardship Council.

### Centers of Nature Experience:

The site has Minamisanriku Marine Visitor Center of Sanriku Fukko (reconstruction) National Park. The visitor center releases nature information from the National Park and the Ramsar site in it. It also offers opportunities to enjoy nature, such as nature experience programs including kayaking.

There used to be a nature center for wise use of natural environment in the Tokura district, Minamisanriku Town, and the center organized several educational programs and capacity building activities before it was destroyed completely by the tsunami after the Great East Japan Earthquake. Currently, aiming at reestablishing the nature center,



Brent Geese



Aquaculture of oysters (Photo: WWF Japan)



Seaweed bed (Arame *Eisenia bicyclis*)

a preparatory office was set up in the town hall, to conduct activities such as environmental education activities and scientific researches including biota monitoring.

### Contact Information:

Minamisanriku Town Office  
<https://www.town.minamisanriku.miyagi.jp/>



# Kasai Marine Park

## Tidal Flat

Geographical Coordinates: 35°38'N, 139°51'E / Altitude: -4 - +4m / Area: 366ha / Major Type of Wetland: G: Intertidal mud, sand or salt flats / Designation: Special Protection Zone of National Wildlife Protection Area / Municipalities Involved: Edogawa-Ward, Tokyo / Ramsar Designation: October 2018 / Ramsar Criteria: 4,5,6



Aerial view of Kasai Marine Park from the southeast



Greater Scaups in winter



People enjoy recreational activities at Nishi Nagisa

### General Overview:

Kasai Marine Park is located in an estuary of Arakawa River and Kyu-Edogawa River at the innermost part of the Tokyo Bay. This area used to be an extensive tidal flat that prospered with laver aquaculture and coastal fishing for clam, goby etc. However, due to development activities such as land reclamation, the tidal flat was lost except for small remnant shallows, called Sanmaizu.

Kasai Marine Park was opened in 1989 as a site for conservation and restoration of the bountiful natural environment and as a place to enjoy nature observation and recreational activities on the seashore. In order to protect the remaining tidal flat, U-shaped training dikes were placed and two man-made beaches, Nishi Nagisa (west beach) and Higashi Nagisa (east beach), were constructed.

Pit sand was deposited to Nishi Nagisa and dredged mud and sand were deposited to Higashi Nagisa. Higashi Nagisa is connected to Sanmaizu, a natural tidal flat which is also included in the Ramsar site.

Nishi Nagisa is designated as a beach for recreation and Higashi Nagisa is designated as a habitat for species including birds and fish.

This site is also internationally important for biodiversity conservation in a highly developed urban city and as a role model of coexistence between the urban and natural environments.

### A Center of Biodiversity Conservation on the Coast of Tokyo Bay:

More than 126 species of birds have been identified here. During the low tide, this area becomes an extensive tidal flat with water less than 4m deep. It is a habitat for abundant organisms such as bivalves crustaceans and polychaeta. The shallow tidal flat has an important role as spawning and nursery grounds for fish. Located at an estuary, this site is a home of fresh water fish species such as Pacific Redfin and Japanese Barbel as well as migratory fish species such as Japanese Sea Bass and Ayu fish. Arboreous plants such as *Rosa luciae* and coastal vegetation such as *Fimbristylis ferruginea* have been identified on the ground along the coast.

### Wintering Site for Migratory Birds:

This site is an important wintering site for migratory birds because large flocks of migratory birds visit here for feeding, resting and roosting. Especially regarding Greater Scaups and Great Crested Grebes, more than 1% of their regional population in Asia visit here. Other Anatidae species such as Mallards, Eurasian Wigeons and Tufted Ducks are found here. This site is also an important habitat for Little Tern (Vulnerable-rated on the Red List of the Ministry of the Environment, Japan).

People's entry is restricted at Higashi Nagisa as an important protected area for birds and fish.

### Urban Wetland:

As Kasai Marine Park is easily accessible by public transportation from the center of Tokyo, it is a place for many people to appreciate marine nature and experience marine activities. At Nishi Nagisa, people can enjoy various recreational activities such as dry laver making, sea bathing and fishing as well as watching birds, fish and other organisms in the tidal flat.

### Contact Information:

Tokyo Metropolitan Government Office  
<http://www.metro.tokyo.jp/>



# 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

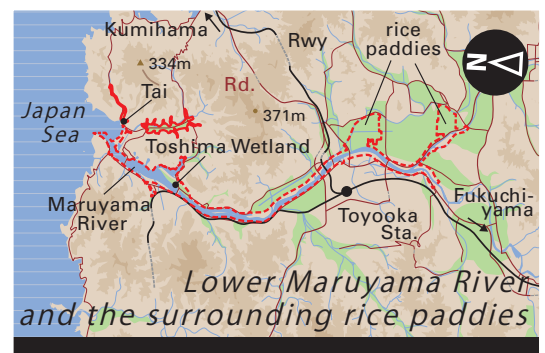
Farming Method is spreading. For example, farmers keep the rice paddy flooded even in winter and/or delay the timing of midsummer drainage in order to sustain the metamorphosis and emergence of organisms in the paddy. As a result, migratory birds visit the rice paddies flooded during winter and the harvested 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:

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



Newly Designated and Extended Ramsar Sites in 2018

## RAMSAR SITES in JAPAN

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