

Ramsar Information Sheet

Published on 1 January 1970

Japan Hinuma



Designation date: 28 May 2015 Ramsar ID: 2232 Coordinates: 36°16'41"N 140°30'17"E Official area (ha): 935,00 Number of zones: 1

https://rsis.ramsar.org/ris/2232 Created by RSIS V.0.9 on Friday 29 May 2015

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary The sea level rised and a cove was formed about 6,000 years ago, and then its entrance was narrowed with sands from rivers, which made the cove into a brackish lake, namely Hinuma. The seawater flows 10 km upstream to Hinuma through Naka River and Hinuma River at high tide, and blends with freshwater.

Since early times, Hinuma has been a fishery site for brackish fishes and clams such as Asian clams, gobies and pond smelts.

Hinuma provides habitats for many speices, including nationally endangered species such as damselfly (Mortonagrion hirosei) and Stellar 's Sea Eagle (Haliaeetus pelagicus) during important cycles of their lives. The damselfly was first recorded at Hinuma in 1971. More than 88 species of birds are observed at Hinuma. In winter, more than 10,000 ducks such as Mallard (Anas platyrhynchos) and Greater Scaup (Aythya marila) migrate to Hinuma for feeding and roosting. The number of Greater Scaup (Aythya marila) wintering at Hinuma is estimated at around 5,000 individuals annually and accounts for more than 1% of its population in East Asia.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Name	Mr. Tetsuro Uesugi
Institution/agency	Kanto Regional Environment Office, Minstry of the Environment, Japan
Postal address Meiji Yasuda Seimei Saitama 11-2 Shintoshin, Chuo-ku, S	a Shitoshin Building 18F, aitama-city, Saitama, 330-6018 JAPAN
E-mail	REO-KANTO@env.go.jp
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2.1.2 - Period of collection of data and information used to compile the RIS

From year	1971
To year	2015

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)) Hinuma
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Boundaries description (optional)

The Boundary is the same as that of the Hinuma Special Protection Area within Hinuma National Wildlife Protection Area, following the boundaries of publicly-owned water body, roads and dikes. The site extends onto the territory of three different municipalities (Ibaraki Town, Oarai Town, Hokota City), all of which belong to Ibaraki Prefecture in Kanto region.

2.2.2 - General location

a) In which large administrative region does the site lie?	Ibaraki Town, Oarai Town and Hokota City, Ibaraki Prefecture, Kanto region
b) What is the nearest town or population centre?	Hokota City

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes O No (

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes O No ()

2.2.4 - Area of the Site

Official area, in hectares (ha):	935
Area, in hectares (ha) as calculated from GIS boundaries	953.91

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical Provinces	2.14.5 Manchu-Japanese Mixed Forest

3 - Why is the Site important?

- 3.1 Ramsar Criteria and their justification
- ✓ Criterion 2 : Rare species and threatened ecological communities
- ✓ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ✓ Criterion 6 : >1% waterbird population

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

Dhuduma	Scientific name	Common name	Species	qualifies	s under o	criterion	Species	contribut	es under	criterion	Den Cine	Devied of non-Eat	0/			CMC Appendix I	Other Status	Justification
Phylum	Scientific name	Common name	2	4	6	9	3	5	7	8	Pop. Size	Period of pop. Est.	% occurrence	IUCIN Red List	CITES Appendix I	CIVIS Appendix I	Other Status	Justification
CHORDATA / AVES	Aythya marila	Greater Scaup		7	7						4912	2006-2015	2					Criterion 4: a key staging site in the non-breeding season, Criterion 6: Population name: mariloides, E Asia (1% = 2400), 2006 - 2806, 2007 - 1145, 2008 - 10389, 2009 - 9808, 2010 - 8320, 2011 - 7717, 2012 - 3241, 2013 - 1779, 2014 - 509
OUODDATA /	Haliaeetus pelagicus	Steller's Sea Eagle;Steller's Sea-Eagle	✓								1	2011-2015		VU ⊜t∰		V	Designated endangered species, the Law for the Conservation of Endangered Species of Wild Fauna and Flora, the Government of Japan, 2002	Population size: 2010 - 1, 2011 - 1, 2012 - 1, 2013 - 1, 2014 - 1
	Locustella pryeri	Japanese Marsh Warbler												NT O THE			Designated endangered species, the Law for the Conservation of Endangered Species of Wild Fauna and Flora, the Government of Japan, 2002	

More than 88 species of birds were observed at Hinuma during 2009-2013.

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

The sea level rised and a cove was formed about 6,000 years ago, and then its entrance was narrowed with sands from rivers, which made the cove into a brackish lake, namely Hinuma. The seawater flows into Hinuma at high tide and blends with freshwater. The salinity in Hinuma varies from place to place, which enables not only brackish water species but seawater creatures and freshwater creatures to inhabit here. Many kinds of fishes, shellfishes and crustaceans live here. Fishery is operational throughout the year, and Hinuma is one of the famous fishing sites for Asian clam (Corbicula japonica) in Japan. Also, many migratory shorebirds uch as Greater Scaups come here. Blessed with natural beauty and biodiversity, Hinuma is a great place for birdwatching for environmental education as well as fishing and windsurfing.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Q: Permanent saline/ brackish/ alkaline lakes		1	935	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Carex rugulosa		Shimo-Ishizaki lakeside, Naka-ishizaki lakeside, Ibaraki town
Carex scabrifolia		
Dioscorea bulbifera		
Monochoria korsakowii		
Penthorum chinense		Around the mouth of Oya River, Minowa, Hokota city
Phacelurus latifolius		

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	Aeshna mixta soneharai					NT, National Red List. It inhabits mainly at reed zone of Hinuma.
CHORDATA/ACTINOPTERYGII	Carassius auratus	crucian carp				Endemic subspecies. VU, National Red List. It inhabits near reed zone of Hinuma.
CHORDATA/ACTINOPTERYGII	Cottus reinii					EN, National Red List. It inhabits at Hnuma in the juvenile stage.

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/ACTINOPTERYGII	Eutaeniichthys gilli					NT, National Red List. It inhabits at shallow, sandy-muddy bottom in the brackish zone of Hinuma in the juvenile stage.
CHORDATA/ACTINOPTERYGII	Gymnogobius castaneus	Chestnut goby				Endemic species. EN, National Red List. It inhabits at reed zone of Hinuma.
CHORDATA/ACTINOPTERYGII	Gymnogobius macrognathos	Bigjaw goby				VU, National Red List. It inhabits at shallow, sandy-muddy bottom in the brackish zone of Hinuma.
CHORDATA/ACTINOPTERYGII	Hyporhamphus intermedius	halfbeak				NT, National Red List. It inhabits at reed zone of Hinuma.
ARTHROPODA/INSECTA	Mortonagrion hirosei					EN, National Red List. It inhabits at reed zone of Hinuma.
CHORDATA/ACTINOPTERYGII	Oryzias latipes	Japanese rice fish				VU, National Red List. It inhabits at reed zone of Hinuma.
ARTHROPODA/INSECTA	Stylurus nagoyanus					VU, National Red List. It inhabits at lakeside zone of Hinuma.

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/ACTINOPTERYGII	Ictalurus punctatus	Channel Catfish	Actually (minor impacts)	No change
CHORDATA/ACTINOPTERYGII	Lepomis macrochirus	Bluegill	Actually (minor impacts)	No change
CHORDATA/ACTINOPTERYGII	Micropterus salmoides	Largemouth Bass	Actually (minor impacts)	No change

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfa: Humid subtropical (Mild with no dry season, hot summer)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)	0
a) Maximum elevation above sea level (in metres)	0
	Lower part of river basin 🗹
	More than one river basin 🗹
Please name the river basin or basins. If the site	lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.
Naka River Basin and Hinuma River Basin	

4.4.3 - Soil

Mineral	\checkmark
Organic	\checkmark

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes O No

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change

Source of water that maintains character of the site

Presence? Predominant water s		Changes at RIS update
Water inputs from rainfall	\checkmark	No change
Water inputs from surface water		No change
Water inputs from groundwater		No change
Marine water		No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	No change
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

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

Tidal level change: 30-40cm Highest sea level: about 40cm

4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site

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

Please provide further information on sediment (optional):

Dredging sludge is conducted as needed.

4.4.6 - Water pH

Alkaline (pH>7.4)

Please provide further information on pH (optional):

pH: 7.8 on average

4.4.7 - Water salinity

Mixohaline (brackish)/Mixosaline (0 .5-30 g/l) 🗹

Please provide further information on salinity (optional):

Winter-spring: 8.0g/l at surface, 14.0g/l at bottom Summer: 0.1g/l at surface, 0.1-14.0g/l at bottom

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic 🗹

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 i) broadly similar O ii) significantly different Site differ from the site itself:

Surrounding area has greater urbanisation or development 🗹

Surrounding area has higher human population density 🔽

Surrounding area has more intensive agricultural use 🔽

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High

Regulating Services

RIS for Site no. 2232, Hinuma, Japan

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Flood control, flood storage	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Recreation and tourism	Water sports and activities	Medium
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Inspiration	Low
Spiritual and inspirational	Contemporary cultural significance, including for arts and creative inspiration, and including existence values	High
Spiritual and inspirational	Spiritual and religious values	Medium
Spiritual and inspirational	Aesthetic and sense of place values	High
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation Sediment retention		Medium
Soil formation	Accumulation of organic matter	Medium

Other ecosystem service(s) not included above:

More on spiritual value of the site: "Amba-matsuri (festival of peaceful waves)" is held here in Hinuma at the end of July every year to pray for the productiveness of grain and plentiful catch of fish. As a main ritual, the locals perform dances on a floating stage in Hinuma.

Within the site: 100000

Outside the site: 160000

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

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 The fishery of Asian clam (Corbicula japonica) has been conducted sustainably in accordance with the local fishing rule that defines the size and total catch allowed to fish for.

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

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government		\checkmark
Provincial/region/state government	\checkmark	\checkmark
Local authority, municipality, (sub)district, etc.		\checkmark

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Commercial (company)	\checkmark	\checkmark
Other types of private/individual owner(s)		\checkmark

Other

Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	\checkmark	\checkmark

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

Within Ramsar site: Public water 98.4%, Private land 1.6%

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

Kanto Regional Environment Office, Minstry of the Environment, Japan

Provide the name and title of the person or people with responsibility for the wetland: Mr. Tetsuro Uesugi

Postal address: Meiji Yasuda Seimei Saitama Shitoshin Building 18F, 11-2 Shintoshin, Chuo-ku, Saitama-city, Saitama prefecture 330-6018 JAPAN

E-mail address: REO-KANTO@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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Housing and urban areas	Low impact	Low impact		\checkmark
Commercial and industrial areas	Low impact	Low impact		\checkmark
Tourism and recreation areas	Low impact	Low impact	\checkmark	\checkmark

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Medium impact	Medium impact	\checkmark	\checkmark
Water abstraction	Low impact	Low impact	\checkmark	\checkmark
Dredging	Low impact	Low impact	\checkmark	\checkmark
Salinisation	Low impact	Low impact	\checkmark	\checkmark
Water releases	Low impact	Low impact	\checkmark	\checkmark
Canalisation and river regulation	Medium impact	Medium impact	\checkmark	\checkmark

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Annual and perennial non-timber crops	Low impact	Low impact		\checkmark
Livestock farming and ranching	Low impact	Low impact		\checkmark
Marine and freshwater aquaculture	Low impact	Low impact	\checkmark	

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Renewable energy	Low impact	Low impact	\checkmark	\checkmark

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Low impact		\checkmark
Shipping lanes	Low impact	Low impact	\checkmark	\checkmark

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Hunting and collecting terrestrial animals	Low impact	Low impact	\checkmark	\checkmark
Gathering terrestrial plants	Low impact	Low impact	\checkmark	\checkmark
Fishing and harvesting aquatic resources	Low impact	Low impact	\checkmark	

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Medium impact	Medium impact	\checkmark	\checkmark

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Dams and water management/use	Low impact	Low impact	\checkmark	\checkmark
Vegetation clearance/ land conversion	Low impact	Low impact	\checkmark	\checkmark

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	Low impact	Medium impact	\checkmark	\checkmark

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	Medium impact	Medium impact	\checkmark	\checkmark
Industrial and military effluents	Low impact	Low impact	\checkmark	\checkmark
Agricultural and forestry effluents	Medium impact	Medium impact	\checkmark	\checkmark
Garbage and solid waste	Medium impact	Medium impact	\checkmark	\checkmark
Air-borne pollutants	Low impact	Low impact	\checkmark	\checkmark

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Earthquakes/tsunamis	Medium impact	Medium impact	\checkmark	\checkmark
Avalanches/landslides	Low impact	Low impact	\checkmark	\checkmark

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	Low impact	Low impact	\checkmark	\checkmark
Droughts	Low impact	Low impact		\checkmark
Storms and flooding	Medium impact	Medium impact	\checkmark	\checkmark

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Special Protection Area of National Wildlife Protection Area	Hinuma Special Protection Area within Hinuma National Wildlife Protection Area		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Other non-statutory designation	Hinuma, 500 Important Wetlands in Japan, 2002		whole

5.2.3 - IUCN protected areas categories (2008)

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

5.2.4 - Key conservation measures

Legal protection

Measures Status
Legal protection Implemented

Habitat

Measures	Status	
Improvement of water quality	Partially implemented	
Habitat manipulation/enhancement	Partially implemented	

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

	1
Measures	Status
Regulation/management of wastes	Implemented
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented
Regulation/management of recreational activities	Partially implemented
Communication, education, and participation and awareness activities	Partially implemented
Research	Partially implemented

Other: Hinuma is abundant in marine species and supports fishery locally. Recently, there have been several issues caused by environmental pollution, impact of development on natural ecology, and change in people 's values. On the other hand, NGOs and others are promoting conservation activities such as Satochi-satoyama conservation which aim at protecting water sources, introducing sewage contamination management to reduce pressure on the environment, and restoring reed beds and submerged plants in Hinuma. Many conservation movements that are becoming more and more active contribute to the increased environmental awareness among local people as well as improved water quality and biodiversity of Hinuma.

Water quality was improved through treatment of sewage with septic tanks as well as awareness raising activities among local communities.

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 O 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 O No ()

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

An observation stand for bird watching will be built on a shore of Hinuma by the end of FY 2015. The observation stand will be utilized for environmental education, nature experience tours and others. In addition, introduction of agricultural education programs for school children including Asian clam fishing is underway.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Implemented
Plant community	Implemented
Plant species	Implemented
Animal community	Implemented
Animal species (please specify)	Implemented
Birds	Implemented

Animal species monitored: Mortonagrion hirosei (EN, National Red List. It inhabits at reed zone of Hinuma).

Population census of Anatidae is conducted every January by Ibaraki prefecture.

Monitoring of the invasive alien species listed under biological components is not conducted. This is because those three species usually inhabit in freshwater and since Hinuma is brackish water lake distribution of these species is limited to near-freshwater parts of Hinuma.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Compilation committee of Ibaraki town history, 1993, The History of Ibaraki Town;

Ibaraki Town, 2013, Basic Environmental Plan of Ibaraki Town;

Ibaraki Town, 2010, Hinuma Environment Conservation Plan of Ibaraki Town;

Ibaraki Town, 2013, The Survey Report on Water Quality of Hinuma;

Ministry of the Environment, Government of Japan, 2002, 500 Important Wetlands in Japan http://www.sizenken.biodic.go.jp/pc/weten/;

Ministry of the Environment, Government of Japan, 2006-2014, Report on population census of Anatidae;

Ministry of the Environment, Government of Japan, 2015, Provisional report on population census of Anatidae.

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

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



2damselflymale (Ibaraki Town, 11-07-2009)



4<u>s</u>caup1 (Ibaraki Town, 16-03-2014)



1<u>s</u>tellers<u>s</u>eaeagle.jpg (Ibaraki Town, 07-02-2014)

10<u>H</u>inuma<u>o</u>verview2 (Ibaraki Town, 26-11-2011)

3<u>d</u>amselfly<u>f</u>emale (Ibaraki Town, 11-07-2009)



8<u>H</u>inuma<u>d</u>awn (Ibaraki Town, 27-11-2012)



5<u>s</u>caup2 (Ibaraki Town, 30-10-2013)

9<u>H</u>inuma<u>o</u>verview1 (Ibaraki Town, 24-03-2015)







6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2015-05-28