



# Ramsar Information Sheet

Published on 10 January 2024

Update version, previously published on : 1 January 1995

## Japan Sakata



Designation date	28 March 1996
Site number	820
Coordinates	37°48'50"N 138°52'15"E
Area	76,00 ha

## 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

Sakata is a lagoon in the Niigata sand dune system parallel to the coast of the Sea of Japan. It has two lakes with fresh water: one is large and one considerably smaller. Water depth is shallow at around 1 m. There is no inflow river, and the lagoon is supplied by rainwater and springs from the surrounding sand dunes.

The height of the dunes is approximately 15–40 m. Surrounding sloped areas are fields or *Pinus thunbergii* (Japanese black pine) forest. The waterfront ecotone is a transitional zone with a forest of *Machilus thunbergii* Siebold et Zucc. and *Juglans mandshurica* Maxim (Manchurian walnut), wet communities like common reed and willow, and aquatic plants including *Euryale ferox* (Prickly Water Lily) and *Monochoria korsakowii* (heartleaf false pickerelweed). A nature ecosystem garden has been established in the area to preserve precious plant species: preservation activities such as transplanting are implemented.

Abundant vegetation and surrounding paddies overall provide suitable wintering areas for migratory freshwater birds including *Cygnus columbianus* (Tundra Swan), *Anas platyrhynchos* (Mallard), and *Anas crecca* (Common Teal). Because the water in the lagoon is supplied by springs and rainwater, the water temperature is relatively high even in winter, making it difficult to freeze. The Site therefore, becomes a special refuge for Anatidae when the water in the surrounding lakes become frozen. The number of birds, at such times, can exceed twenty thousand. In addition to lake-dependent birds, raptors such as *Accipiter gentilis* (Northern Goshawk) live in areas with Japanese black pine, while *Acrocephalus arundinaceus* (Great Reed Warbler) are found in the reed vegetation. Overall 210 species of bird have been recorded at Sakata. There are also abundant insects dependent on aquatic plants. Damselfly and other aquatic insects such as *Gerris babai* and *Dineutus orientalis* are good indicators of environmental health.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Responsible compiler

Institution/agency	Kanto Regional Environment Office, Ministry of the Environment of Japan
Postal address	6F, Saitama-shintoshin Joint Government Building No.1, 1-1 Shintoshin, Chuo Ward, Saitama City, Saitama Prefecture 330-9720, JAPAN

##### National Ramsar Administrative Authority

Institution/agency	Wildlife Division, Nature Conservation Bureau, Ministry of the Environment
Postal address	1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo Japan

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

From year	<input type="text" value="2015"/>
To year	<input type="text" value="2021"/>

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	<input type="text" value="Sakata"/>
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#### 2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input type="radio"/> No <input checked="" type="radio"/>
(Update) B. Changes to Site area	No change to area
(Update) For secretariat only: This update is an extension	<input type="checkbox"/>

#### 2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	Not evaluated
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## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

Former maps	<input type="text" value="0"/>
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#### Boundaries description

Sakata is located at 37°49' North latitude and at 138°53' East longitude.

Sakata is located in the Akatsuka district of Nishi Ward, Niigata City, between rows of sand dunes near the Sea of Japan. It is surrounded by sandy hills approximately 15 to 40 meters above sea level, the slopes of which are used as fields where watermelons and radishes are cultivated. It is a freshwater lake consisting of two lagoons, a small upper lagoon on the upstream side and a large lower lagoon on the downstream side. In 1996, 76 hectares of the lagoon, including the surrounding area, was designated as a Ramsar wetland. It is also located along Prefectural Road No. 2 Niigata-Teradomari Line to the northeast, adjacent to Mitarasegata Lagoon to the north, and backed by Mt. Kakuda to the southwest. Sakata is located within the Sado-Yahiko-Yoneyama Quasi-National Park, and the lagoon and surrounding area are designated as the third Kind Special Zone under the Nature Park Law. In addition, the lagoon and surrounding area are designated as a National Wildlife Protection Area.

### 2.2.2 - General location

a) In which large administrative region does the site lie?	<input type="text" value="Niigata City, Niigata Prefecture"/>
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b) What is the nearest town or population centre?	<input type="text" value="Niigata City, Niigata Prefecture"/>
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### 2.2.3 - For wetlands on national boundaries only

## RIS for Site no. 820, Sakata, Japan

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

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

### 2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

### 2.2.5 - Biogeography

#### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical Provinces	2.15.6 Oriental Deciduous Forest

### 3 - Why is the Site important?

#### 3.1 - Ramsar Criteria and their justification

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

Sakata is home to *Euryale ferox* (Prickly Water Lily) colonies; this is as a threatened species (Vulnerable - VU) on the national red list. Sakata is near the northern limit of its distribution and boasts one of the largest *Euryale forex* communities in Japan.

A large variety of birds are also observed at Sakata. This Site is a well-known wintering area of many Anatidae bird species in Japan, such as Bewick's Swan, Whooper Swans, Bean Goose and Greater White-fronted Goose imigrating from the Russian Far East.

Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

Start year

End year

Source of data:

Optional text box to provide further information

26,300 (2015.9-2016.5), 28,304 (2016.9-2017.5), 24,306 (2017.9-2018.5), 30,467 (2018.9-2019.5)  
4-year average: 27,344

Report of Monitoring Site 1000 Anatidae Survey. Ministry of the Environment  
<https://www.biodic.go.jp/moni1000/findings/reports/>

Criterion 6 : >1% waterbird population

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<b>Plantae</b>								
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Euryale ferox</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	National Red List: VU	Northern limit for the distribution in Japan National Red List: VU

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

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence <sup>1)</sup>	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
<b>Birds</b>																	

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA / AVES	<i>Anas acuta</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2064	2015.9-2019.5		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Anas clypeata</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Anas crecca</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8495	2015.9-2019.5	1.1	LC	<input type="checkbox"/>	<input type="checkbox"/>		Criterion 6 1% Pop. Size: 7700
CHORDATA / AVES	<i>Anas formosa</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	53	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>	Natioanal Red List: VU	
CHORDATA / AVES	<i>Anas penelope</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	49	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Anas platyrhynchos</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10742	2015.9-2019.5		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Anas poecilorhyncha zonorhyncha</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Anas strepera</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Anser albifrons</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	85	2015.9-2019.5		LC	<input type="checkbox"/>	<input type="checkbox"/>		Wintering species at Sakata, migrates from Far East Russia
CHORDATA / AVES	<i>Anser fabalis middendorffii</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	373	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		Wintering species at Sakata, migrates from Far East Russia
CHORDATA / AVES	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	120	2015.9-2019.5		VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Cygnus columbianus bewickii</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4943	2015.9-2019.5	11		<input type="checkbox"/>	<input type="checkbox"/>		Wintering species at Sakata, migrates from Far East Russia Criterion 6 1% Pop. Size: 450
CHORDATA / AVES	<i>Cygnus cygnus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	176	2015.9-2019.5		LC	<input type="checkbox"/>	<input type="checkbox"/>		Wintering species at Sakata, migrates from Far East Russia
CHORDATA / AVES	<i>Fulica atra</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	81	2015.9-2019.5		LC	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Gallinula chloropus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Mergellus albellus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Mergus merganser</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Podiceps cristatus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Podiceps nigricollis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA / AVES	<i>Tachybaptus ruficollis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	2015.9-2019.5			<input type="checkbox"/>	<input type="checkbox"/>		

1) Percentage of the total biogeographic population at the site

### 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

Sakata is a lagoon in the Niigata sand dune system parallel to the coast of the Sea of Japan. It has two lakes with fresh water: one is large and one considerably smaller. Water depth is shallow at around 1 m. There is no inflow river, and the lagoon is supplied by springs and rainwater from the surrounding sand dunes.

The height of the dunes is approximately 15–40 m. Surrounding sloped areas are fields or *Pinus thunbergii* Parl (Japanese black pine) forest. The waterfront ecotone is a transitional zone with a forest of *Machilus thunbergii* Siebold et Zucc and *Juglans mandshurica* Maxim (Manchurian Walnut), wet communities like common reed and willow, and aquatic plants including *Euryale ferox* (Prickly Water Lily) and *Monochoria korsakowii* (Heartleaf False Pickerelweed).

A nature ecosystem garden has been established in the area to preserve precious plant species: preservation activities such as transplanting are implemented.

Abundant vegetation provides a wintering spot for migratory freshwater birds including *Cygnus columbianus* (Tundra Swan), *Anas platyrhynchos* (Mallard), and *Anas crecca* (Common Teal). These birds come and go to surrounding paddies. Because the water in the lagoon is supplied by springs and rainwater, the water temperature is relatively high even in winter, making it difficult to freeze. The site, therefore, becomes a special refuge when the water of surrounding lakes freezes. The number of Anatidae species, at such times, can exceed twenty thousand. The number of Tundra Swan visiting comes up to 4,193. It is approximately ten percent of its population in the whole country and over one percent of its regional population in Japan/Korea (equivalent to 450), according to Report 2018/2019, Monitoring Site 1000 Anatidae Survey. Ministry of the Environment.

In addition to lake-dependent birds, raptors, such as *Accipiter gentilis* (Northern Goshawk), live in the Japanese black pine, while *Acrocephalus arundinaceus* (Great Reed Warbler) enjoys the reed community. Overall 210 species of bird have been recorded at Sakata.

In addition, there are abundant insects dependent on aquatic plants. Dragonfly-like damselfly and other aquatic insects, such as *Gerris babai* and *Dineutus orientalis*, are good indicators of environmental health.

Rare species including *Gnathopogon elongatus* (Tamoroko), *Silurus asotus* (Amur catfish), and *Rhinogobius kurodai* (Amur Goby, orange type) are also observed in the ponds of the alluvial plain.

### 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
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/pools	Sakata	1	76	

#### (ECD) Habitat connectivity

In terms of vegetation corridor access, the Site is isolated. Birds come and go using the surrounding ponds and swamps.

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/POLYPODIOPSIDA	<i>Marsilea quadrifolia</i>	IUCN Red List: LC
TRACHEOPHYTA/LILIOPSIDA	<i>Monochoria korsakowii</i>	IUCN Red List: LC

##### Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Sicyos angulatus</i>	Actual (minor impacts)	decrease
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Solidago altissima</i>	Actual (minor impacts)	decrease

#### 4.3.2 - Animal species

##### Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/ACTINOPTERYGII	<i>Ctenogobius kurodai</i>				Typical species of pond in plain
ARTHROPODA/INSECTA	<i>Dineutus orientalis</i>				National Red List : NT, Typical species of pond in plain
ARTHROPODA/INSECTA	<i>Gerris babai</i>				National Red List : NT, Typical species of pond in plain
CHORDATA/ACTINOPTERYGII	<i>Gnathopogon elongatus</i>				Typical species of pond in plain
CHORDATA/ACTINOPTERYGII	<i>Silurus asotus</i>				IUCN Red List : LC
CHORDATA/AVES	<i>Accipiter gentilis</i>				IUCN Red List : LC National Red List ;NT
CHORDATA/AVES	<i>Acrocephalus arundinaceus</i>				IUCN Red List : LC Trgoucak soecues if reed swamp
CHORDATA/AVES	<i>Cygnus columbianus columbianus</i>				

## 4.4 - Physical components

### 4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfc: Marine west coast (Mild with no dry season, cool summer)

### 4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

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.

The Site is not connected to any river and is supplied from groundwater and rainwater.

### 4.4.3 - Soil

Mineral

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

No available information

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)

- Soil type: the surrounding dune area is immature sand dune soil. Coarse grain gley soil is found around the lake.
- Lake bottom conditions: the bottom of the lake, 50–200 cm of humic soil has accumulated.

### 4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from groundwater	<input checked="" type="checkbox"/>	No change
Water inputs from precipitation	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	No change

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

There is no river flowing into the lake. Spring water and rainwater come from the surrounding sand dunes. The area of the groundwater basin is approximately 350 ha, while the estimated discharge of spring water is 1,300 m<sup>3</sup>/day. Some water is used for irrigation but the amount is small. A water gate is used to maintain a stable water level, 4.4-5.0 m above sea level.

(ECD) Connectivity of surface waters and of groundwater	Because the lake is supplied by spring water, the water quality of the spring water and nearby wells are similar. Groundwater may connect the wells to the lake.
(ECD) Stratification and mixing regime	Stratification is not observed because the water depth is shallow.

4.4.5 - Sediment regime

Sediment regime unknown

Please provide further information on sediment (optional):

Turbidity is not observed because the lake is supplied by spring water.

(ECD) Water turbidity and colour	Sediment regime is low. (The turbidity is high in summer due to the occurrence of Blue-green algae.)
(ECD) Light - reaching wetland	Enough (The light is difficult to reach in summer due to the occurrence of Blue-green algae.)
(ECD) Water temperature	0–30 °C. The effect of the spring water supply is to keep the water temperature stable at approximately 10–20 °C.

4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4 )

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Unknown

Please provide further information on pH (optional):

The spring water has a stable pH of around 6–7. In other places, the pH may increase to 7–10 as a consequence of deposits in the lake or plant activity.

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

(Update) Changes at RIS update No change  Increase  Decrease  Unknown

Unknown

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

The surrounding agricultural fields supply nitrogen to the lake, especially as nitrates. Excessive application of fertilizers may be responsible for lake water eutrophication.

(ECD) Dissolved organic carbon	COD in the lake is relatively stable throughout the year, 5–40 mg/L. The spring water has low COD, 10 mg/L.
(ECD) Redox potential of water and sediments	Unknown
(ECD) Water conductivity	Throughout the year, water conductivity remains in the range 30–40 s/m. In the spring water, it can be as 45s/n.

#### 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 site itself: i) broadly similar  ii) significantly different

- 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:

The surrounding area is sand dune covered by Japanese black pine. Beyond this, the land has been developed as paddy or for housing.

### 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)	Medium
Fresh water	Water for irrigated agriculture	Medium
Genetic materials	Ornamental species (live and dead)	Medium

##### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High

##### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Recreation and tourism	Recreational hunting and fishing	Medium

##### Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	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	High

Within the site:

Outside the site:

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

#### 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
- 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

<no data available>

### 4.6 - Ecological processes

(ECD) Primary production	Air temperature tends to rise because the site is alluvial plains. Productivity is relatively high.
(ECD) Nutrient cycling	The eutrofication occurs with planktons by the input of nutrate from surrounding fields.

(ECD) Carbon cycling	Plant residue produced in the lake accumulates at the bottom of the lake.
(ECD) Animal reproductive productivity	In summer, birds such as <i>Acrocephalus arundinaceus</i> (Great Reed Warbler) breed in the reed bed.
(ECD) Vegetational productivity, pollination, regeneration processes, succession, role of fire, etc.	Many endemic species live by this lowland wetland. The lake is isolated and surrounded by sand dunes, with agricultural fields beyond. These species may reproduce in the area.
(ECD) Notable species interactions, including grazing, predation, competition, diseases and pathogens	Nothing
(ECD) Notable aspects concerning animal and plant dispersal	Nothing
(ECD) Notable aspects concerning migration	It is a wintering habitat for migratory waterbirds including ducks and geese. Because the spring-fed water temperature is relatively high, the lake water does not freeze. The site becomes a special refuge when the water of surrounding lakes freeze.
(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity	The surrounding agricultural fields supply nitrogen to the lake, especially as nitrates. Excessive application of fertilizers may be responsible for lake water eutrophication.

## 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provincial/region/state government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The registered wetland is owned and managed by Niigata City. The surrounding area is mainly private agricultural fields. However, this land, including the agricultural fields, is designated as the Sado-Yahiko-Yoneyama Quasi-National Park, the Third Kind Special Zone. Development is prohibited.

#### 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, Ministry of the Environment of Japan

Provide the name and/or title of the person or people with responsibility for the wetland:

Toshiro Segawa, Director of Kanto Regional Environment Office

Postal address:

6F, Saitama-shintoshin Joing Government Building No.1, 1-1, Shintoshin, Chuo Ward, Saitama City, Saitama Prefecture 330-9720, 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	Changes	In the surrounding area	Changes
Unspecified development	Low impact	Low impact	<input type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	No change

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Water abstraction	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

#### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Annual and perennial non-timber crops	Medium impact	Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Renewable energy	Medium impact	Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	increase

#### Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

#### Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Gathering terrestrial plants	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Droughts	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

### 5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
City Parks Law	City park area		whole
Quasi-National Park	Sado-Yahiko-Yoneyama Quasi-National Park		whole
wildlife Protection Area	Sakata National Wildlife Protection Area		whole

### 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

Measures	Status
Legal protection	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

Measures	Status
Harvest controls/poaching enforcement	Implemented
Research	Implemented

### 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:

The Sakata Waterfowl and Wetland Center was established in May 1998. It provides educational information about waterbirds and wetland conservation works, and undertakes scientific research and monitoring.

URL of site-related webpage (if relevant): <https://www.city.niigata.lg.jp/kurashi/kankyo/hozen/shizenfureai/sakata/shizenkeikaku/index.html>

#### 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
Birds	Implemented
Plant species	Implemented
Plant community	Implemented

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

- Report 2018/2019. Monitoring Site 1000 Anatidae Survey. (2019) Biodiversity Center of Japan, Nature Conservation Bureau, Ministry of the Environment
- The plan of conservation for nature environment at Sakata. (2019) Niigata city.
- Ramsar site Sakata (2017) Niigata city
- Report of survey for vegetation around Sakata (Sakata and Mitaragata). (2017) Niigata city.
- Lagoons on the Niigata plain and lives of wild birds. (2015) Niigata city
- Report of survey for insects around Sakata 2010. (2011) Niigata city.
- Report of survey for fish and shellfish at Sakata and Mitaragata 2007. (2008) Niigata city.
- Report of overall analysis of matter cycle system. (2000) Niigata city.
- Report of development plan Sakata park (fundimental survey of bottom mud) (1999) Niigata city
- Fundamental land classification survey in Kaetsu development area – Yahiko · Uchino. (1973) Niigata Prefecture.

#### 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

<1 file(s) uploaded>

vi. other published literature

<no file available>

#### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Swans flying over Sakata ( Yasuo Sato, 27-03-2019 )



Swans and ducks in Sakata ( Yasuo Sato, 25-03-2019 )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation