

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

24 October, 2005

3. Country:

JAPAN

4. Name of the Ramsar site:

Tofutsu-ko

5. Map of site included:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps.

a) **hard copy** (required for inclusion of site in the Ramsar List): *yes* -or- *no*

b) **digital (electronic) format** (optional): *yes* -or- *no*

6. Geographical coordinates (latitude/longitude):

43°56'04"N, 144°23'40"E

7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Abashiri/ Hokkaido region

It is located in Abashiri City (population: c. 43,000, area: c. 471 sq. km) and Koshimizu-cho (population: c. 6,000, area: c. 287 sq. km), approximately 270 km east-northeast of Sapporo City (the capital of Hokkaido Prefecture, population: c.1.82 million, area: c. 1,121 sq. km).

8. Elevation: (average and/or max. & min.)

+ 1 m

9. Area: (in hectares)

900 ha

10. Overview:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Tofutsu-ko is a brackish lagoon which is located in the eastern part of Hokkaido Prefecture. salt marsh and freshwater wetland are well developed in the area. The site is one of the few important stopovers in Japan for ducks and geese, swans and shorebirds.

11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

12. Justification for the application of each Criterion listed in 11. above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1: Tofutsu-ko represents brackish lakes and low moors of Japan.

Criterion 2: It supports nationally endangered and globally endangered species *Grus japonensis* (Japanese Crane). [vulnerable species (VU)*1, endangered species (EN)*2, Domestic Endangered Species*3]

Note: *1 Red List of Threatened Wildlife of Japan. Ministry of the Environment

*2 IUCN Red List of Threatened Animals (2004)

*3 Designated under the Law for Conservation of Endangered Species of Wild Fauna and Flora (Species Conservation Law)

Criterion 3: Diverse vegetation, ducks and geese species, Japanese Crane *Grus japonensis* and various benthos are found in the complex natural environment composed of brackish lake, salt marsh and freshwater wetlands rich in biodiversity.

Criterion 5: Maximum 67,000 Anatidae species stopover during migration and the site regularly supports over 20,000 waterbirds.

Criterion 6: 1,467 (2.45%) of *Cygnus Cygnus* (Whooper Swan), 1,200 (2.18%) of *Anser Fabalis middendorffi* (Bean Goose), 58,912 (7.85%) of *Anas Penelope Linnaeus* (Wigeon), 3,141 (3.14%) of *Mergus albellus Linnaeus* (Smew), and 1,599 (1.6%) of *Mergus serrator Linnaeus* (Red-breasted Merganser) were recorded at the site. The site regularly supports over 1% (each of 600, 550, 7,500, 1,000 and 1000) respectively of the above mentioned species) of the East Asian region population.

13. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Japan

b) biogeographic regionalisation scheme (include reference citation):

Japan is recognized as single biogeographic region, because Japan is an island country which has unique and rich biota with many endemic species.

14. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Geology: dune layers

Geomorphology: an inland-sea lake

Soil type: peat soil, mineral soil

Origins: natural

Hydrology: 6 inflow streams, 1 outflow stream. It is a brackish lake because salt water flows in from the mouth of the lake.

Water quality: pH 9.0(8.6-9.3)(1991), DO 8.8(7.6-10.2)ppm(1991), COD 15.0(9.5-19.7)ppm(1991), T-N 0.71(0.24-1.28)ppm(1991), T-P 0.45(0.41-0.48)ppm(1991), salinity 11.25(3.27-19.61)‰(1991), Chl-a 20.1(8.4-37.5)µg/L(1991), BOD 2.4ppm(1982), SS 10ppm(1982), Cl⁻ 6.86ppm(1982), NH₄-N 0.189(-)ppm(1982), NO₂-N <0.003ppm(1982), NO₃-N <0.003ppm(1982), PO₄-P 0.009ppm(1982)

Water level fluctuation: None

Water depth: 1.1 m on average, 2.5 m at maximum

Climate: Cold climate, light rain year-round, high rate of sunshine. Annual precipitation: 802mm, annual mean temperature: 6.2 degrees Celsius, fluctuation of mean temperature in each month: -6.6-+19.4 degrees Celsius (average of Abashiri-area from 1971 to 2000)

15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Surface area: 146.25 sq.km

Geomorphology: Tofutsu-ko is a lake formed by development of sandbar. Its catchment area includes part of the northern area of Mokoto-yama mountain system and connected hills and flatland.

Soil type: sand, gravel, clay (Maruman-gawa, Onnenai-gawa, Urashibetsu-gawa), greyish-black volcanic ash and pumice(Onnenai-gawa, Urashibetsu-gawa)

General land use: meadow, cropland, coniferous forest, broad-leaved forest

Climate: Cold climate, light rain year-round, high rate of sunshine. Annual precipitation: 802mm, annual mean temperature: 6.2 degrees Celsius, fluctuation of mean temperature in each month: -6.6-+19.4 degrees Celsius (average of Abashiri-area from 1971 to 2000 year data)

16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

17. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

Q, G, H

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The site is one of the few important stopovers in Japan for Anatidae species including Whooper Swan *Cygnus Cygnus*, Bean Goose *Anser fabalis* and shorebirds. White-tailed Eagle *Haliaeetus albicilla* and Steller's Sea Eagle *Haliaeetus pelagicus* are wintering, and Japanese crane *Grus japonensis* is breeding in the site. There are both brackish bog and freshwater marsh around the lake.

The vegetation of brackish bog is composed of *Triglochin maritimum* community, *Triglochin palustre* community, and *Potentilla egedei* community. *Phragmites australis* community, *Carex lyngbyei* community, *Moliniopsis japonica* - *Myrica gale* v. *tomentosa* community, *Alnus japonica* forests are found in the freshwater marsh. *Zostera japonica* grows in the lake.

The lake is also an important habitat for shellfish such as *Corbicula* clam *Corbicula japonica*, Short-neck clam *Ruditapes philippinarum* and Oysters *Crassostrea gigas*.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Triglochin maritimum [vulnerable species (VU)*1]

Triglochin palustre [vulnerable species (VU)*1]

Salicornia europaea [vulnerable species (EN)*1]

Note: *1 Red List of Threatened Wildlife of Japan. Ministry of the Environment

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

[Birds]

Haliaeetus albicilla albicilla (White-tailed Eagle) [endangered species (EN)*1, near threatened species (NT)*2], Domestic Endangered Species*3]

Haliaeetus pelagicus pelagicus (Steller's Sea Eagle) [vulnerable species (VU)*1, Domestic Endangered Species*3]

Falco peregrinus japonensis (Peregrine Falcon) [vulnerable species (VU)*1, Nationally Endangered Species of Wild Fauna and Flora*3]

Emberiza aureola ornata (Yellow-breasted Bunting) [near threatened (NT)*1]

Note: *1 Red List of Threatened Wildlife of Japan. Ministry of the Environment

*2 IUCN Red List of Threatened Animals (2004)

*3 Designated under the Law for Conservation of Endangered Species of Wild Fauna and Flora (Species Conservation Law)

21. Social and cultural values:

e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

The lake has the following socio-economic values for the local communities:

- Commercial Fisheries of clams *Corbicula leana*, oyster and *Tapes japonica*;

- Annual fishery yield : 20-40 tons.
- Attractive landscapes

22. Land tenure/ownership:

(a) within the Ramsar site:

National land (publicly-owned water body): 900ha

(b) in the surrounding area:

National land, private land

23. Current land (including water) use:

(a) within the Ramsar site:

No resident, fishery right granted, tourism, bird-watching

(b) in the surroundings/catchment:

Meadow, cropland, coniferous forest, broad-leafed forest

24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

(a) within the Ramsar site:

- sediment inflow
- agricultural land development in upstream area
- human intrusion (trample)

(b) in the surrounding area:

- agricultural land development

25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

In 1st November 1992, it became a Special Protection Area of National Wildlife Protection Area of 900 hectares under the Wildlife Protection and Appropriate Hunting Law.

Capture of wildlife is in principle prohibited in the area. It is required to obtain permission from the Minister of the Environment when installation of artificial structure, reclamation of the water body and tree felling.

In July 1958, 900 ha area was declared as the Special zone of National park the Natural Parks Law. In the special zone, activities such as erecting structures, felling trees, mining minerals, and reclamation require permission from the Minister of the Environment.

26. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

None

27. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Scientific research:

- Population Census Survey of Anatidae (Ministry of the Environment)
- Survey and improvement project of wintering site of Geese in Hokkaido and Tohoku region, 2001 (Ministry of the Environment)

- National Survey on the Natural Environment (Ministry of the Environment)

Facility: There is no facility established for research.

28. Current conservation education:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

The students at Shiratoridai Elementary School count the number of swans visiting the site.

29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Numbers of tourists visit Shiratori Park to observe swans in winter and enjoy wild flower beds in early summer.

30. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

[Territorial]

Ministry of Land, Infrastructure and Transport

[Functional]

Ministry of the Environment (National Wildlife Protection Area, Quasi-National Park)

Hokkaido (Quasi-National Park)

Hokkaido Abashiri Construction Office (Publicly-owned water body)

31. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland

Kushiro Nature Conservation Office, Hokkaido Regional Environment Office,

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32. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

- Simon Delany et al. 2002 "Waterbird Population Estimates 3rd Edition" Wetlands International (Ramsar Criteria 6)
- Ministry of the Environment 2002 "Threatened Wildlife of Japan –Red Data Book 2nd ed.- Volume 2, Aves" (Ramsar Criteria 2)
- Environment Agency of Japan 2000 "Threatened Wildlife of Japan -Red Data Book 2nd ed. - Volume 8, Vascular Plants
- Environment Agency 1993 "The Fourth National Surveys on the Natural Environment Report on Lake and Marsh Survey"
- Environment Agency 1995 "The Fifth National Survey on the Natural Environment Report on Wetland Survey"
- Ministry of the Environment Nature Conservation Bureau 2002 "500 Important Wetlands in Japan"

- Environment Agency 1992 Special Protection Area Designation Plan of Tofutsu-ko National Wildlife Protection Area - Environment Agency 1992 Park Plan of Abashiri Quasi-National Park
- The Ornithological Society of Japan 2000 "Check-list of Japanese Birds Sixth Revised Edition"
- NACS-J/ WWF Japan 1996 "RED DATA BOOK of PLANT COMMUNITIES IN JAPAN"
- The IUCN Species Survival Commission "IUCN Red List of Threatened Species 2004"
- Japan Wildlife Research Center "Checklist of Species of Wildlife of Japan"
- HOIKUSYA "COLOURED ILLUSTRATIONS OF THE SHELLS OF JAPAN vol.II

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