

# Information Sheet on Ramsar Wetlands (RIS) – 2009-2015 version

Available for download from [http://www.ramsar.org/ris/key\\_ris\\_index.htm](http://www.ramsar.org/ris/key_ris_index.htm).

*Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8<sup>th</sup> Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9<sup>th</sup> Conference of the Contracting Parties (2005).*

## Notes 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. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

---

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

Mr. Seiji Ozawa  
Wildlife Division  
Nagano Nature Conservation Office  
Ministry of the Environment  
Nagano-daiichi-godochosha 3F  
Asahi-machi 1108  
Nagano-shi, Nagano-ken  
380-0846 JAPAN  
Tel: 026-231-6573  
Fax: 026-235-1226  
e-mail [NCO-NAGANO@env.go.jp](mailto:NCO-NAGANO@env.go.jp)

FOR OFFICE USE ONLY.

DD MM YY

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

Designation date

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|--|--|--|--|--|--|

Site Reference Number

---

### 2. Date this sheet was completed/updated:

November 30, 2011

---

### 3. Country:

JAPAN

---

### 4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Tateyama Midagahara and Dainichidaira

---

### 5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site  or  
b) Updated information on an existing Ramsar site

---

### 6. For RIS updates only, changes to the site since its designation or earlier update:

**a) Site boundary and area**

**The Ramsar site boundary and site area are unchanged:**

or

**If the site boundary has changed:**

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted\*\*

and/or

**If the site area has changed:**

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced\*\*

**\*\* Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

**b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:**

---

**7. Map of site:**

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

**a) A map of the site, with clearly delineated boundaries, is included as:**

- i) a **hard copy** (required for inclusion of site in the Ramsar List): ;
- ii) an **electronic format** (e.g. a JPEG or ArcView image) ;
- iii) a **GIS file providing geo-referenced site boundary vectors and attribute tables** .

**b) Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site overlaps the Special Protection Zone area in the Chubu-sangaku National Park and the boundaries for both are the same. The region, including Shomyo Valley and Shomyo Waterfall (), is designated as the Special Protection Zone area in order to strictly protect its excellent natural environment .

---

**8. Geographical coordinates** (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas

36°34'18" N, 137°32'06" E

---

**9. General location:**

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

Location :  
Tateyama-machi (City),  
Nakaniikawa-gun (District),  
Toyama-ken (Prefecture), Japan

This site is located in the south eastern area of Toyama Prefecture, which is situated in the Hokuriku region that is in the north western part of Honshu, mainland of Japan. Toyama Prefecture lies along the Sea of Japan..

**10. Elevation:** (in metres: average and/or maximum & minimum)

1,040 m-2,120 m  
No data available for average elevation

**11. Area:** (in hectares)

574 ha

**12. General overview of the site:**

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

Tateyama Midagahara and Dainichidaira extending over the flat lava plateau was formed by the past volcanic activity. It is a bog, shaped by subalpine cold climate as well as heavy snowfall, abundant water, and also by the influence of strong wind,. The wetland consists of Midagahara and Dainichidaira, both being snowpatch grasslands, and Shomyo Valley and Shomyou Waterfall, that boast abundant quantity of water. Windswept grasslands including about 1,000 ponds in this wetland, related profoundly to Tateyama Shinko (one of the mountain worships) present an open and unique scenery. Shomyo Waterfall being the highest in Japan at 350m with abundant quantity of water is designated as the National Place of Scenic Beauty and natural monument.

**13. Ramsar Criteria:**

Tick the box under 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). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

**14. Justification for the application of each Criterion listed in 13 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**

Tateyama Midagahara and Dainichidaira support a diversity of high-altitude wetland types in the Japanese Evergreen Forest biogeographic region. The site is dominated by a high altitude bog overlaid by snowpatch grasslands that includes about 1,000 ponds. The site extends over a flat lava plateau formed from the ancient flow of lava from the adjacent Mt. Tateyama (3,015m), and shaped by subalpine cold climate, heavy snowfall and strong winds. The Shomyou Waterfall found within the site is the tallest in Japan.

The plateau wetlands are cultivated by more than 5000mm of annual amount of precipitation, and are one of the important water resource for the rivers that flow from Mt. Tateyama to the Sea of Japan.

---

**15. 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:** Japanese Evergreen Forest

b) **biogeographic regionalisation scheme** (include reference citation): Udvardy, M. D. F. (1975). *A classification of the biogeographical provinces of the world*. IUCN.

---

**16. 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:**

Pyroclastic flow deposit, lava.

**Geomorphology:**

Plateau of lava, signifies a geographical feature mainly observed in the Midagahara area extending about 12 kilometers from east to west. Mt. Tateyama had erupted several times since about 200,000 years before and as a result, the pyroclastic flow (Shomyo Waterfall pyroclitic flow), a stream of volcanic ash and pumice, had been accumulated in a big quantity, to form gentle slopes.

**Origins:**

Natural. The flat lava plateau was formed by the volcanic products from mountains in Tateyama and the growth of trees was hindered because of bad drainage caused by gentle slope of the plateau.

**Hydrology:**

It is recharged by melted snow and rain water. There are no inflowing rivers to Midagahara but the water from the valleys of Ichinotani and Ninotani fall into Shomyo River as waterfall. There are no inflows or outflows of rivers to Dainichidaira.

**Soil type:**

Peaty soil

Data are not available for soil pH, salinity and nutrients.

**Water quality:**

Strong acid

Details of water quality of small ponds

pH : 4.77

EC( $\mu$ S/cm) : 13.5  
Cl : 435  
NO<sub>3</sub> : 7  
SO<sub>4</sub> : 1137  
Na : 220  
NH<sub>4</sub> : 42  
K : 63  
Mg : 76  
Ca : 219  
Silicic acid : 2247  
 $\delta^{18}\text{O}\text{‰}$  : -11.2

**Water depth:**

Normally small ponds are under 20cm in depth

**Water permanence:**

**Fluctuations in water level:**

Most of the ponds are always inundated with water. But some of the small ponds repeat appearance and disappearance according to the year and the season due to the quantity of melt water and rain and the difference of temperatures.

**General climate:**

It belongs to Type Dfb. The region concerned has the annual precipitation of as much as 5,000-6,000mm of which half pertains to snow accumulation. Midagahara has the average snow precipitation of 5m with continuous snow cover duration of more than 200 days from the middle of November to the end of June, representing one of Japan's foremost areas of heavy snowfall

---

**17. Physical features of the catchment area:**

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

Data not available for surface area of the basin

**General geology and geomorphological features:**

Mt. Tateyama started volcanic activity about 200,000 years ago from now, which consists of volcanically active stages from the first to the forth. Between these stages, lava plateau of Midagahara and etc., volcanic lakes of Mikuriga pond etc. and caldera of Mt. Tateyama had been formed and at the moment, the main spot of volcanic activity is in the valley named Jigokudani. The geological features are based on the Hida metamorphic rocks of the Precambrian period but granites penetrated between the Cretaceous period and the Paleogene period are also widely recognized. Volcanic rocks and deposits by volcanic eruption from Mt. Tateyama are observed at many places.

**Climate:**

Tateyama mountains with great differences in elevation experience tremendous climate change covering from the low area to the high area. The Cfa type of climate is seen at the Toyama Plains, but climate changes observed as Dfb at around 750m above sea level, Dfc at around 2000m above sea level are recognized respectively.(Cfa, Dfb, Dfc according to Koppen climate classification)

---

**18. Hydrological values:**

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

The site has an important water recharging function, of more than 5000mm of annual amount of precipitation. It is also one of the important water resources for the rivers that flow from Mount Tateyama to the Sea of Japan.

---

**19. 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.

Order of dominance: Va. M

---

**20. General ecological features:**

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Midagahara and Dainichidaira present typical mire vegetation, consisting of *Carex blepharicarpa* (Sedge), *Rhynchospora yasudana* and *Molinopsis japonica* with the hierarchy composed only by herbaceous species. Beside the above mentioned species, *Nephrophyllidium crista-galli* (Deer Cabbage), *Drosera rotundifolia* L. (Common Sundew), *Aletris foliata* (True Unicorn Root), *Geum pentapetalum* (Alentian Avens) and *Schizocodon soldanelloides* Sieb Et Zucc. *F. alinus* (Friged Galax) grow well. Invasion of *Sasa kurilensis* (Dwarf-bamboo) is partly seen and woody plants such as *Vaccinium uliginosum* (Bog Bilberry), *Acer tsbonoskii* (Butterfly Maple), and *Abies mariesii* (Maries' Fir) are observed in some places. As for the birds, besides *Cuculus canorus* (Common cuckoo) and *Emberiza cioides* (Siberian Meadow Bunting) corresponding to the grassland and the environment of forest edge, it offers a wintering spot for *Lagopus muta* (Ptarmigan). Moreover, there is a record of recognition of *Aquila chrysaetos* (Golden Eagle). Furthermore, inhabitation of alpine insects are observed such as *Colias palaeno* (Moorland Clouded Yellow), a representative alpine butterfly of Midagahara, and others such as *Brenthis ino* (Lesser Marbled Fritillary) and *Erebia nipponica* (Scotch Argus), dragonflies with highly limited distribution such as *Leucorrhinina dubia orientalis* (Leucorrhinia), and *Aesba juncea juncea* (Common Hawker) etc.

Specific plant community

- Plant community found in small ponds and swamps in wetlands of Midagahara  
(*Carex blepharicarpa* plant community, *Moliniopsis japonica* plant community, *Rhynchospora yasudana* plant community)
- *Pinus x hakodensis* in *Midagahara-Rhododendron tschonoskii* subsp. *trinerve* plant community

### 21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, 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.*

Species listed on the Red List of Ministry of the Environment

- *Carex paupercula* (Poor Sedge): Vulnerable (MOE Red List 2007 version)
- *Platanthera hyperborean* (Arctic Butterfly Orchid): Vulnerable (MOE Red List 2007 version)

### 22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, 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.*

Insects

*Colias palaeno* (Moorland Clouded Yellow): Near threatened (MOE Red List 2007 version)

*Lycaeides subsolanus*: (The Asama Silver-studded Blue) Vulnerable (MOE Red List 2007 version)

*Erebia niphonica*: Near threatened (MOE Red List 2007 version)

*Erebia ligea* (Arran Brown): Near threatened (MOE Red List 2007 version)

*Anthocharis cardamines* (Orange Tip): Near threatened (MOE Red List 2007 version)

Birds

*Lagopus mutus* (Ptarmigan): Vulnerable (MOE Red List 2006 version)

### 23. Social and cultural values:

- Describe if the site has any general social and/or 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:

Mt. Tateyama along with Mt. Fujisan and Mt. Hakusan has been one of Japan's "Three Holy Mountains" since old times. At present, this area is available for tourists to enjoy sightseeing and mountain climbing and for students to study the nature.

Tateyama area has been a place of mountain worship since ancient times embodying Buddhist world view of paradise and hell. Accordingly, place names are originated from mountain worship. For example, Midagahara is named for its description of alpine flowers in full bloom as in the Pure Land where Amida Nyorai (Amitabha Tathagata) lived. Supposing *Scirpus hondensis* to represent rice plants shining deeply to the sunlight, Gakinota, the rice paddies of preta, is so named as the place of rice planting for the hungry ghosts fallen into hell of Tateyama, to starve off their hunger. Shomyo (chanting the names of Buddha) Waterfall is said to have

been named for the roaring sound of waterfall as it closely resembles Buddhist prayer, representing the great nature of Tateyama as a symbol of worship.

**b)** Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box  and describe this importance under one or more of the following categories:

- i) sites which provide 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) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where 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:

---

**24. Land tenure/ownership:**

- a) within the Ramsar site:  
Midagahara : National land  
Dainichidaira : Municipal land owned by the village
- b) in the surrounding area:  
National land  
Municipal land owned by the village

---

**25. Current land (including water) use:**

- a) within the Ramsar site:  
Sightseeing, mountain climbing
  - b) in the surroundings/catchment:
    - Land use:  
The mountain district area is designated as the Chubu-sangaku National Park and especially at facility complex designated around Murodo area, interpreters trained by the prefecture actively conduct nature observation activities, and accordingly, the area avails itself as a sightseeing place. In addition, a number of mountain climbers visit the Tateyama mountain range and surrounding mountains of 3000 m class, for those are one of Japan's foremost mountainous areas. The base point of Tateyama mountain ranges, Asikuraji village, situated at the foot of the mountains was formally the base for the mountain worship and there still exist related facilities.
    - Water use:  
In course of time, Shomyo River becomes Jyouganji River and its water is used for drinking. Moreover, snowfall and waterfall precipitated in the catchment, penetrate into the underground. The water sprung out at Tateyama Station, the gateway for the Tateyama-Kurobe alpine route, is sold as drinking bottled water.
-



**26. 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:

Establishment of the Tateyama-Kurobe Alpine Route (in 1971) running through Midagahara plateau area brought about:

- the destruction of flora owing to the increase of users(past, present)
- the inflow of sediments into the wetland (past, present )
- invasion by alien plants (past, present )
- denudation (past, present)
- soil erosion etc. (past, present)

b) in the surrounding area:

- opening of the Tateyama-Kurobe Alpine Route (past, present)
- increase of users (past, present )

The same negative impacts cited in the section “within the Ramsar site” for the opening of this Alpine Route also apply for the surrounding area as well.

---

**27. Conservation measures taken:**

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

- National Park (designated in 1934): Whole area within the Chubu-sangaku National Park : Midagahara (394ha) and Dainichidaira (180ha) are both designated as Special Protection Zone.
- National Wildlife Protection Zone (designated in 1984): Midagahara is designated as the Tateyama Special Protection Zone of the National Wildlife Protection Zone.
- National Place of Scenic Beauty and Natural Monument (designated in 1973): Shomyo waterfall

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III  IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?:

Implementation of Management Plan for the Tateyama Area of Chubu-sangaku National Park (2001) is practiced.

d) Describe any other current management practices:

Works for maintenance, management and improvement of National Park facilities such as roadway, walkway, lodgings, and picnic area etc. are shared by the Ministry of the Environment, Toyama prefecture and private business operators.

Ministry of the Environment and Toyama Prefecture, in order to protect the vegetation, prepare footpaths of wooden for the use of general public. In addition, removal of alien species is conducted by Toyama Prefecture and NPO organizations etc.

---

**28. Conservation measures proposed but not yet implemented:**

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

None

---

**29. Current scientific research and facilities:**

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

- Current research projects: Monitoring research of flora in Tateyama area (Toyama prefecture: 1998-present)
- There are no research organization in Midagahara but researches on geology and climate are conducted at municipal museums in Toyama City and by other researchers.

---

**•30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

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

Nature trails within the wetland are maintained. In addition, Midagahara area and Shomyo Waterfall as their fields of activity, interpreters acknowledged by Toyama prefecture involve in the nature interpretation activities. Wooden footpaths are prepared to walk round Midagahara in about an hour.

---

**31. Current recreation and tourism:**

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

Midagahara is available for tourists in general for taking a walk because of easy access and well-maintained wooden footpaths. (as of 2011, nearly about 30,000 annual visitors) Natural interpretations led by local guides and interpreters trained by the prefecture etc. are also conducted. Dainichidaira, being a part of climbing route to Mt. Dainichi-lake, is a place for climbers for its good access as they could enjoy walking in the surrounding areas staying in the lodging houses in the wetland. Shomyo Waterfall for its easy access, is a place to enjoy the scenery from the nearby observation tower platform by many tourists, where occasions for natural interpretations are organized as well.

---

**32. Jurisdiction:**

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

- a) Territorial jurisdiction: Forestry Agency, Asikuraji village
- b) Functional jurisdiction: Ministry of the Environment, Forestry Agency

---

**33. 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.

Chubu Regional Environment Office  
Nagano Nature Conservation Office  
Nagano-daiichi-godochosha  
1108 Asahi-machi  
Nagano-shi, Nagano-ken  
380-0846 JAPAN

Mr. Seiji Ozawa  
TEL: +81-26-231-6570  
E-mail: [SEIJI\\_OZAWA@env.go.jp](mailto:SEIJI_OZAWA@env.go.jp)

---

**34. Bibliographical references:**

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

The 5<sup>th</sup> National Survey on the National Environment: Report of the National Survey on the wetlands (Environment Agency, 1995)

The 2<sup>nd</sup> National Survey on the National Environment: Report of the National Survey on the specific plant community (Environment Agency, 1978)

Report on the diversity of flora and fauna in Tateyama (Toyama prefecture, 1999)

Report on the research result of monitoring flora in Tateyama, the second stage (Toyama prefecture, 2008)

Academic research report of Tateyama Kurobe district (Toyama prefecture, 1976)

Geology and geomorphology of Toyama prefecture (Toyama prefecture, 1986)

“Water quality of Midagahara”: presentation material at Ecological Society of Japan and Polar Symposium by Department of Agriculture, University of Kyushu

---