



Ramsar Information Sheet

Published on 11 July 2017

Update version, previously published on : 1 January 2009

Sweden Tåkern



Designation date	5 December 1974
Site number	23
Coordinates	58°21'07"N 14°48'47"E
Area	5 421,00 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

Lake Tåkern is one of the most important nesting and feeding grounds in Northern Europe for many species of birds. The shallow lake (mean depth is only 0.8 m) is normally rich in submerged water plants and rich in fish-populations. The Lake surface is approx. 45 sqkm and the surrounding reed beds of about 15 sqkm is one of the largest in Europe. During recent years a total of 270 species of birds have been seen at the lake and over a hundred nest here: e.g., Black Tern, Bittern, Marsh Harrier and Great Reed Warbler.

The wet meadows at Lake Tåkern have been created by years of grazing and haymaking and extend to a total of 450 hectares. As these meadows are rich in lime they have a very diversified flora. Birdseye Primrose and orchids such as the Fly, Early Marsh and Musk Orchids flourish here. In order to preserve their biodiversity and to prevent overgrowth it is important to keep the meadows constantly grazed and mowed. Parts of the surroundings are wet forests of great importance. The area is a well visited wetland with the new Visitor centre, Naturum Tåkern, as the centre of information and recreation.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Lars Gezelius
Institution/agency	Länsstyrelsen i Östergötlands län
Postal address	SE-58 186 Linköping, Sweden
E-mail	lars.gezelius@lansstyrelsen.se
Phone	+46 10 2235000
Fax	+46 13 101381

Compiler 2

Name	Jenny Lonnstad
Institution/agency	Naturvårdsverket (Swedish EPA)
Postal address	Naturvårdsverket, SE 106 48 Stockholm, Sweden
E-mail	jenny.lonnstad@naturvardsverket.se
Phone	+46 10 698 15 92
Fax	+46 10 698 16 00

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

From year	2002
To year	2015

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Tåkern
Unofficial name (optional)	Tåkern (lake)

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 checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The boundary has been extended	<input checked="" type="checkbox"/>
(Update) The boundary has been restricted	<input checked="" type="checkbox"/>
(Update) B. Changes to Site area	the area has decreased
(Update) The Site area has been calculated more accurately	<input checked="" type="checkbox"/>
(Update) The Site has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The Site area has increased because of a boundary extension	<input checked="" type="checkbox"/>
(Update) The Site area has decreased because of a boundary restriction	<input checked="" 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?	Yes (actual)
(Update) Are the changes	Positive <input checked="" type="radio"/> Negative <input type="radio"/> Positive & Negative <input type="radio"/>
(Update) No information available	<input checked="" type="checkbox"/>
(Update) Changes resulting from causes operating within the existing boundaries?	<input type="checkbox"/>
(Update) Changes resulting from causes operating beyond the site's boundaries?	<input type="checkbox"/>

(Update) Changes consequent upon site boundary reduction alone (e.g., the exclusion of some wetland types formerly included within the site)?

(Update) Changes consequent upon site boundary increase alone (e.g., the inclusion of different wetland types in the site)?

(Update) Please describe any changes to the ecological character of the Ramsar Site, including in the application of the Criteria, since the previous RIS for the site.

The boundary of the site has been changed. It has been better delineated, in general resulting in that arable land and non-wetland forests have been excluded. Forest and meadows, some of them wet, have been included. So the wetland area has increased. The border of the Ramsar site now corresponds to the planned extended nature reserve.

(Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change) Yes

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps

Boundaries description

The border follows the planned new border of the enlarged nature reserve.

2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

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
Freshwater Ecoregions of the World (FEOW)	Ecoregion 40: Northern Baltic drainages
Other scheme (provide name below)	Sarmatic mixed forest
WWF Terrestrial Ecoregions	Sarmatic mixed forest PA0436
Udvardy's Biogeographical Provinces	10 = Boreonemoral
Bailey's Ecoregions	240 Marine division
EU biogeographic regionalization	Boreal
Other scheme (provide name below)	Boreo-nemoral zone.

Other biogeographic regionalisation scheme

DMEER 2002 (EEA) Digital Map of European Ecological Regions: Sarmatic mixed forest.

Nordiska ministerrådet, 1977. Naturgeografisk regionindelning av Norden. NU B 1977:34: Boreo-nemoral zone.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1 : Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

Other ecosystem services provided

Other reasons

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

- Criterion 4 : Support during critical life cycle stage or in adverse conditions

- Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

Start year

Source of data:

- Criterion 6 : >1% waterbird population

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
























Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Dactylorhiza incarnata</i>	Early Marsh-Orchid	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Protected species according to the (SFS 2007:845).	See textbox below the table and in section 3.1.
<i>Herminium monorchis</i>	Musk orchid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015, VU.	See textbox below the table and in section 3.1.
<i>Ophrys insectifera</i>	Fly Orchid	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC	<input type="checkbox"/>	Protected species according to the (SFS 2007:845).	See textbox below the table and in section 3.1.
<i>Primula farinosa</i>	Bird's-eye primrose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015, NT.	See textbox below the table and in section 3.1.

Criterion 2: For all species, their status in the Swedish red-list status and general information for that classification, their distribution etc can be found at <http://artfakta.artdatabanken.se/>.

Criteria 2 and 3: Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>. All the species mentioned are living in the EU-habitat 6410 mentioned under 3.4.

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

Phylum	Scientific name	Common 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
Birds																		
CHORDATA / AVES	<i>Acrocephalus arundinaceus</i>	Great Reed Warbler	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	400	2016		LC	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Breeding. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anas clypeata</i>	Northern Shoveler	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	40	2016			<input type="checkbox"/>	<input type="checkbox"/>		Breeding and staging. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anas querquedula</i>	Garganey	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	2016		VU	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VU).	Breeding. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anas strepera</i>	Gadwall	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	80	2016			<input type="checkbox"/>	<input type="checkbox"/>		Breeding and staging. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anser anser</i>	Greylag Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19230	2016	3	LC	<input type="checkbox"/>	<input type="checkbox"/>		Staging. According to WI the total population of "anser, NW Europe/South-west Europe" consists of 610000 individuals. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anser brachyrhynchus</i>	Pink-footed Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22	2016		LC	<input type="checkbox"/>	<input type="checkbox"/>		Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anser erythropus</i>	Lesser White-fronted Goose	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	2017	5	VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Swedish Red List 2015, (VU). EC Birds Directive, Annex 1.	Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	<i>Anser fabalis</i>	Bean Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7900	2016	20	LC	<input type="checkbox"/>	<input type="checkbox"/>		Staging. According to WI the total population of "fabalis, North-east Europe/North-west Europe" consists of 40000-45 000 individuals. See textbox below the table and section 3.1.

Phylum	Scientific name	Common 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								
CHORDATA / AVES	 <i>Aythya ferina</i>	Common Pochard	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12200	2016	4	VU 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VJ).	Staging. According to WI the total population of "North-east Europe/North-west Europe" consists of 300000 individuals. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Botaurus stellaris</i>	Eurasian Bittern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100	2016		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT). EC Birds Directive, Annex 1.	Breeding. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Calidris ferruginea</i>	Curlew Sandpiper	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	2016		NT 	<input type="checkbox"/>	<input type="checkbox"/>		Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Calidris minuta</i>	Little Stint	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20	2016		LC 	<input type="checkbox"/>	<input type="checkbox"/>		Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Chlidonias niger</i>	Black Tern	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	34	2016		VU 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VJ). EC Birds Directive, Annex 1.	Breeding. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Circus cyaneus</i>	Northern Harrier	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	94	2016		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT). EC Birds Directive, Annex 1.	Breeding. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Cygnus columbianus</i>	Tundra Swan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	2016		LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive, Annex 1.	Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Fulica atra atra</i>	Coot	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11500	2016			<input type="checkbox"/>	<input type="checkbox"/>		Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Grus grus</i>	Common Crane	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7650	2016	3	LC 	<input type="checkbox"/>	<input type="checkbox"/>		Important staging site. According to WI the total population of "grus, North-west Europe/Iberia & Morocco" consists of 240 000 individuals. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Hydroprogne caspia</i>	Caspian Tern	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50	2016		NT 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT). EC Birds Directive, Annex 1.	Staging. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Panurus biarmicus</i>	Bearded Reedling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	20000	2016		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Breeding and staging. See textbox below the table and section 3.1.
CHORDATA / AVES	 <i>Porzana porzana</i>	Spotted Crane	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	2016		LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VJ). EC Birds Directive, Annex 1.	Breeding. See textbox below the table and section 3.1.

1) Percentage of the total biogeographic population at the site

Criterion 2: For all species, their status in the Swedish red-list and general information for that classification, their distribution etc can be found at <http://artfakta.artdatabanken.se/>.

Criteria 2, 3, 4, 5, 6: Observation of the species can be found in the Swedish database for observations <http://www.artportalen.se/>.

Criterion 6 for the Lesser White-fronted Goose: The used total population for the Fennoscandia/Eastern Mediterranean population is 130 individuals. WI estimates 60-80 individuals excluding 50-70 for the Swedish population. Source: Niklas Liljebäck (the project for Lesser White-fronted Goose in Sweden) and David Schönberg Alm (the Swedish EPA).

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition—type vegetation	<input checked="" type="checkbox"/>	Lakes and ponds with mostly dirty grey to blue-green, more or less turbid, waters, particularly rich in dissolved bases, with free-floating surface communities, or, in deep, open waters, with associations of large pondweeds.	Included in the EC Habitats Directive, Annex I. The habitat was regarded as in unfavourable conservation status in the Swedish part of the boreal region (2013).
6410 Mblinia meadows on calcareous, peaty or clayey-silt-laden soils	<input checked="" type="checkbox"/>	Meadows on more or less nutrient poor soils. They stem from extensive management, sometimes with a mowing.	Included in the EC Habitats Directive, Annex I. The habitat was regarded as in unfavourable conservation status in the Swedish part of the boreal region (2013).
91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	<input checked="" type="checkbox"/>	Riparian forests of <i>Fraxinus</i> and/or <i>Alnus</i> species of temperate and boreal Europe lowland and hill watercourses.	Included in the EC Habitats Directive, Annex I. The habitat was regarded as in unfavourable conservation status in the Swedish part of the boreal region (2013).
6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	<input checked="" type="checkbox"/>	Wet and nitrophilous tall herb edge communities, along water courses and woodland borders.	Included in the EC Habitats Directive, Annex I. The habitat was regarded as in unfavourable conservation status in the Swedish part of the boreal region (2013).

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The Tåkern site includes a shallow lake with open water, submerged aquatic vegetation and fringing reed beds surrounded by meadows and forest patches. Lake Tåkern is one of the most important bird-lakes in northern Europe. It is important for water birds throughout the year, both for breeding and migratory birds. It supports large numbers of common species as well as many rare ones. The reed beds within the site are the largest in Northern Europe, and the Molina-meadows around the lake have a species-rich flora and fauna.

Lake Tåkern lies east of Lake Vättern in a region dominated by Cambrio-silurian bedrock and cultivated clay plains, with alkaline soils. In order to create new pastures and fields, the water level of Lake Tåkern was permanently lowered in 1842 – 1844 by 1.7 meters to an average depth of only 0.8m. The reed beds around the lake became more extensive and the water meadows around the shores well grazed. The lake is very eutrophic, with a bog (Dags Mosse) at the south-western end. According to a court decision on regulation, annual fluctuation should stay between 93,75 m (autumn) and 94,20 m (spring).

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 > Flowing water >> M: Permanent rivers/ streams/ creeks		0		
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		1	4500	Unique
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		2	150	Rare
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		0	50	Rare
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3	120	Rare

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
4: Seasonally flooded agricultural land		4	100	Rare

4.3 - Biological components

4.3.1 - Plant species

Invasive alien plant species

Scientific name	Common name	Impacts	Changes at RIS update
<i>Glyceria maxima</i>		Actually (minor impacts)	unknown

4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	<i>Neovison vison</i>	American Mnk	Actually (minor impacts)	No change

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfb: Humid continental (Humid with severe winter, no dry season, warm 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 part of the stream Motala ström/the canal Göta kanal catchment area, which has many small sub-basins. The site is the only large lake in the sub-basin for the river Mjölnaån. Mjölnaån enters the lake Vättern that has its outlet in the Motala stream that later on continues in Göta canal. The catchment area has its outlet in the bay Bråviken, part of the Baltic Sea. The lake was lowered to its present water level in the 1840s.

4.4.3 - Soil

Mineral

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

Organic

(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)

There is mostly clay at the site, but also some peat. The limestone found north of Lake Tåkern has made the water and the surrounding soils alkaline.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually seasonal, ephemeral or intermittent water present	
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	<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 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.

After alternating droughts and floods during the first half of the 20th century, the water level was regulated by means of a sluice on Mjölnaån, the lake's outflow. The water level is allowed to fluctuate by about 45 cm annually, with a spring maximum and late summer minimum. Spring floods are an important part of the water regime affecting the wet meadows.

4.4.5 - Sediment regime

Sediment regime unknown

Please provide further information on sediment (optional):

There is only little sedimentation taking place, approximately 1-2 mm per year.

4.4.6 - Water pH

Alkaline (pH>7.4)

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

Unknown

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 lake annually receives 7 tons of phosphorus and 200 tons of nitrogen, although it fluctuates between years. There are no obvious trends in the nutrient deposits. The influx origins mostly from the nearby arable land. In spite of being nutrient-rich, the water is often clear. Most of the nutrients are absorbed by the water vegetation and small planktonic algae seldom dominate.

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 i) broadly similar ii) significantly different site itself.

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 site is surrounded by arable land with intensive crop farming.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Reeds and fibre	Medium
Wetland non-food products	Livestock fodder	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Pollution control and detoxification	Water purification/waste treatment or dilution	High
Hazard reduction	Flood control, flood storage	High

Cultural Services

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

Other ecosystem service(s) not included above:

About 30 Stone Age settlements have been found around Lake Tåkern, evidence showing that the area was used for hunting and fishing. The earliest trace of human activity is represented by a bone harpoon, which could be as much as 9000 years old. The world's longest rune stone inscription, Rökstenen, is found in the neighbourhood. Many medieval churches are still in use around the lake, among them the oldest church in Sweden, north of Skåne County.

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

<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	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Private ownership

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

5.1.2 - Management authority

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

County Administrative Board of Östergötland

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

Head of Nature conservation unit at the County Administration

Postal address: Länsstyrelsen Östergötland
581 86 Linköping

E-mail address: natur.ostergotland@lansstyrelsen.se

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Energy production and mining

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

Transportation and service corridors

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

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Hunting and collecting terrestrial animals	Low impact	Medium 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

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use	Low impact	Medium 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	Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input checked="" 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
Storms and flooding	Low impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change
Habitat shifting and alteration	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Please describe any other threats (optional):

The invasive species present in the area are *Glyceria maxima* and American mink, more information in 4.3.1-2. The renewable energy that can become a threat for the site is plant for wind power.

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Tåkern		partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000 SCI and SPA	Tåkern	http://www.lansstyrelsen.se/Ostergotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/bevarandeplaner-kommunvis/Mjölby/Tåkern_20160122.pdf	partly
Site of national importance for nature conservation (Riksintresse)	Tåkern	http://nypub.vic-metria.nu/handlingar/rest/dokument/202511	partly
nature reserve	Tåkern	http://www.lansstyrelsen.se/ostergotland/Sv/djur-och-natur/skyddad-natur/naturreservat/vadstena/takern/Pages/index.aspx	partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Tåkern	http://datazone.birdlife.org/site/factsheet/lake-takern-iba-swe	

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

Habitat

Measures	Status
Catchment management initiatives/controls	Partially implemented
Improvement of water quality	Partially implemented
Habitat manipulation/enhancement	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

Measures	Status
Harvest controls/poaching enforcement	Partially implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	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:

There is an education centre (Naturum) at the site. The centre has an exhibition of the site and arranges guided tours. There are arranged footpath and bird towers which one is adapted for wheel chairs. The site is part of the wetlands and people project.

URL of site-related webpage (if relevant): <http://www.lansstyrelsen.se/ostergotland/Sv/djur-och-natur/friluftsliv/naturum-takern/Pages/index.aspx>

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Implemented
Plant community	Implemented
Animal community	Implemented
Birds	Implemented

Submerged macrophytes are surveyed by Linköping University.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Tåkerns Fältststion 2015. Årsrapport 2014 från Tåkerns Fältstation. Linköping 2015.

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

<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



View from Glänås Bird Tower
(Lars Gezellius, 25-06-2006)



View from Hov bird tower (Kurt Adolfsson, 10-04-2008)



View over the western reed-mosaic (Lars Gezellius, 23-09-2011)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 1974-12-05