



# Ramsar Information Sheet

Published on 6 April 2018

Update version, previously published on : 1 January 2002

## Sweden Kallgate-Hejnum



Designation date	14 November 2001
Site number	1120
Coordinates	57°40'41"N 18°41'51"E
Area	1 647,00 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

The site consists of a large and diverse area on the island of Gotland. There is a large mosaic complex of wetland, flat rocks and forest on limestone bedrock within the area. The wetlands consist of fens, small creeks and a number of springs. Some areas are temporarily flooded after snow melting. The fen vegetation is most often dominated by *Cladium mariscus*, but other parts have other vegetation types, for example rich fens and spring fens vegetation. The flora is particularly interesting, with a large number of rare plant species, many of them included in the Swedish Red List. The lime in the soils and a multitude of springs contribute to the special flora.

## 2 - Data & location

### 2.1 - Formal data

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

##### Compiler 1

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

From year	2002
To year	2017

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Kallgate-Hejnum
Unofficial name (optional)	Kallgate-Hejnum (peatlands)

#### 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  No

(Update) B. Changes to Site area No change to area

#### 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 (likely)

(Update) Are the changes Positive  Negative  Positive & Negative

(Update) Positive % 10

(Update) Negative % 1

(Update) No information available

(Update) Changes resulting from causes operating within the existing boundaries?

(Update) Changes resulting from causes operating beyond the site's boundaries?

(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.

A positive change is that parts of the site have been cleared from high grown vegetation and is now managed by grazing. Negative changes include that a forest have been cut in the north-eastern part of the site. Another negative change is that a creak has been illegally cleared from vegetation and sediment, with the purpose to increase the speed of the water flow. The water course is now under restoration.

(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 site border is the same as the border for the Swedish Mire Protection Plan (1994) for the site Kallgate.

### 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
Udvardy's Biogeographical Provinces	10. Boreonemoral
Bailey's Ecoregions	240. Marine division
WWF Terrestrial Ecoregions	Sarmatic mixed forest PA0436
Other scheme (provide name below)	Sarmatic mixed forest
Freshwater Ecoregions of the World (FEOW)	406. Northern Baltic drainages
EU biogeographic regionalization	Boreal

Other biogeographic regionalisation scheme

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

### 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

There are several areas with outflowing groundwater at the site. The water quality is very good. The area provides water for the aquatic areas downstream the site.

Other ecosystem services provided

The fens store some carbon, even if it not large amount with respect to the not so deep peat layer.

Other reasons

The site is a rare example of a natural wetland type (seasonally flooded areas on calcareous ground, Cladium fens, rich fens and spring fens) in the EU Boreal region. Cladium fens are rare in other parts of Sweden and the ones at the site are large ones.

- Criterion 2 : Rare species and threatened ecological communities











- Criterion 3 : Biological diversity












Justification

The site support many both rare and representative species connected with Cladium fens, spring fens and rich fens as well as temporarily flooded areas. Because of the lime in the soil the flora is very rich. Since limestone bedrock is comparatively rare in Sweden, there are several species that can be found at the site, that are more or less rare on mainland Sweden. The site has also a diversified moss flora. Characeae species grow on the bottom of the springs. The flora also contains 26 species of orchids.

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

#### 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>Anacamptis pyramidalis</i> 	Pyramidal orchid	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Swedish Red List 2015 (NT). Protected species according to the (SFS 2007:845).	See textbox below the table and in section 3.1.
<i>Campyliadelphus elodes</i> 	fine-leaved marsh feather-moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Centaureum erythraea</i> 	Common centaury	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Swedish Red list 2015 (VU).	See textbox below the table and in section 3.1.
<i>Cladium mariscus</i> 	Great Fen-Sedge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Cypripedium calceolus</i> 	Lady's-slipper orchid	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input checked="" type="checkbox"/>	EC Habitats Directive Annex II. Protected species according to the (SFS 2007:845).	One of two stands in the county. See textbox below the table and in section 3.1.
<i>Euphrasia salisburgensis schoenicola</i> 		<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.
<i>Fissidens adianthoides</i> 	maidenhair pocketmoss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.


















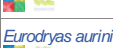






Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<i>Gymnadenia odoratissima</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Protected species according to the (SFS 2007:845). Globally the most northern site for the species.	The most northern stand for the species in the world. See textbox below the table and in section 3.1.
<i>Inula ensifolia</i> 		<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>Juncus subnodulosus</i> 	Bluntflower rush	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Leucobryum glaucum</i> 	pincushion moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Philonotis calcarea</i> 	thick-nerved apple-moss	<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.
<i>Potamogeton coloratus</i> 	Fen Pondweed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>	Swedish Red list 2015 (VU).	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.
<i>Schoenus ferrugineus</i> 	Narrow small-reed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Schoenus nigricans</i> 	Black Bog-rush	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LC 	<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Scorpidium cossonii</i> 	intermediate hook-moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Tofieldia calyculata</i> 	alpine asphodel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Tomentypnum nitens</i> 	woolly feather-moss	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.
<i>Trichocolea tomentella</i> 		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		See textbox below the table and in section 3.1.

Criterion 2 and 3: For all species, their status in the Swedish Red List and general information for that classification etc can be found at <http://artfakta.artdatabanken.se/>. Observations can be found in [www.artportalen.se](http://www.artportalen.se).

Additional species for the criteria 2 and 3: The site hosts the red-listed lichen *Coniocarpon cinnabarinum*, CR in the Swedish Red List of 2015. The species is dependent on the high humidity created by the wetlands.

Additional species for the criterion 3: In the central part of the site, where there is artesian groundwater, Characeae species grow on the bottom of the springs.

### 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 <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>																		
CHORDATA/ AVES	 <i>Accipiter gentilis</i>	Northern Goshawk	<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"/>				LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Breeding. See textbox below the table and in section 3.1.
CHORDATA/ AVES	 <i>Apus apus</i>	Common Swift	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VU).	Foraging. See textbox below the table and in section 3.1.	
CHORDATA/ AVES	 <i>Caprimulgus europaeus</i>	European Nightjar	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT). EC Birds Directive Annex I.	Breeding. See textbox below the table and in section 3.1.	
CHORDATA/ AVES	 <i>Circus pygargus</i>	Montagu's 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"/>	<input type="checkbox"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (EN). EC Birds Directive Annex I.	Breeding. See textbox below the table and in section 3.1.	
CHORDATA/ AVES	 <i>Emberiza citrinella</i>	Yellowhammer	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (CR).	Breeding. See textbox below the table and in section 3.1.	
CHORDATA/ AVES	 <i>Grus grus</i>	Common Crane	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive Annex I.	Foraging, displaying. See textbox below the table and in section 3.1.	
CHORDATA/ AVES	 <i>Lyrurus tetrix</i>		<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	EC Birds Directive Annex I.	Breeding. See textbox below the table and in section 3.1.	
CHORDATA/ AVES	 <i>Regulus regulus</i>	Goldcrest	<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"/>			LC 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VU).	Breeding. See textbox below the table and in section 3.1.	
<b>Others</b>																		
ARTHROPODA / INSECTA	 <i>Eupoecilia sanguisorbana</i>		<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VU).	Reproduction. See textbox below the table and in section 3.1.	
ARTHROPODA / INSECTA	 <i>Eurodryas aurinia</i>	Marsh fritillary	<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VU).	Reproduction. See textbox below the table and in section 3.1.	
ARTHROPODA / INSECTA	 <i>Melitaea cinxia</i>	Glanville fritillary	<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Reproduction. See textbox below the table and in section 3.1.	
ARTHROPODA / INSECTA	 <i>Parnassius apollo</i>	Apollo	<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"/>			VU 	<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Reproduction. See textbox below the table and in section 3.1.	
ARTHROPODA / INSECTA	 <i>Pilemostoma fastuosa</i>		<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (EN).	Reproduction. See textbox below the table and in section 3.1.	
ARTHROPODA / INSECTA	 <i>Scopula virgulata</i>		<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (VU).	Reproduction. See textbox below the table and in section 3.1.	
ARTHROPODA / INSECTA	 <i>Zygaena filipendulae</i>		<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"/>				<input type="checkbox"/>	<input type="checkbox"/>	Swedish Red List 2015, (NT).	Reproduction. See textbox below the table and in section 3.1.	

1) Percentage of the total biogeographic population at the site

Criterion 2, 3 and 4: For all species, their status in the Swedish Red List and general information for that classification etc can be found at <http://artfakta.artdatabanken.se/>. Observations can be found in [www.artportalen.se](http://www.artportalen.se).

### 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
7230. Alkaline fens	<input checked="" type="checkbox"/>	Wetlands mostly or largely occupied by peat- or tufa-producing small sedge and brown moss communities developed on soils permanently waterlogged, with a soligenous or topogenous base rich, often calcareous water supply.	The habitat is listed in EC Habitats Directive Annex II. The habitat had an unfavourable status in the Swedish part of the EU boreal region in 2013.
6410. Molinia meadows on calcareous, peaty or clayey-siltladen soils	<input checked="" type="checkbox"/>	Molinia meadows of plain to montane levels, on more or less wet nutrient poor soils (nitrogen, phosphorus). They stem from extensive management, sometimes with a mowing late in the year.	The habitat is listed in EC Habitats Directive Annex II. The habitat had an unfavourable status in the Swedish part of the EU boreal region in 2013.
3260. Water courses of plain to montane levels	<input checked="" type="checkbox"/>	Water courses of plain to montane levels, with submerged or floating vegetation of the Ranunculion fluitantis and Callitriche-Batrachion (low water level during summer) or aquatic mosses.	The habitat is listed in EC Habitats Directive Annex II. The habitat had an unfavourable status in the Swedish part of the EU boreal region in 2013.
7220. Petrifying springs with tufa formation	<input checked="" type="checkbox"/>	Hard water springs with active formation of travertine or tufa. These formations can be found in many ecosystems and can form complexes with mire habitats. They are generally small (point or linear formations) and dominated by bryophytes.	The habitat is listed in EC Habitats Directive Annex II. The habitat had an unfavourable status in the Swedish part of the EU boreal region in 2013.



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

### 4.1 - Ecological character

The site consists of a large and diverse area on the island of Gotland. There is a large mosaic complex of wetlands (mostly peatlands), flat bedrock and forests at the site. In the wetlands there are small areas of forested limestone bedrock or drier moraine "isles".

The wetlands consist of fens, small creeks and a number of springs. Some areas are temporarily flooded after snow melting. The fen vegetation is most often dominated by *Cladium mariscus*, but other parts have other vegetation types, for example rich fens and spring fen vegetation.

Since limestone bedrock is comparatively rare in Sweden, there are several species that can be found in the site, species that are more or less rare on mainland Sweden. There are several red-listed species at the site. The flora is particularly interesting, with a large number of rare plant species, many of them included in the Swedish Red List. The lime and a multitude of springs contribute to an interesting flora. In the central part of the site, where there is artesian groundwater, Characeae species grow on the bottom of the springs. The flora also contains 26 species of orchids. The site is locally affected by forestry and drainage.

### 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		Representative
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks	Temporära vattendrag	2		Rare
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		0		
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		0		Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Öppna myrar	4		Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Träddominerad våtmark mineraljord	3		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands	Trädklädda myrar	1		Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases	Källor	0		Representative

### 4.3 - Biological components

#### 4.3.1 - Plant species

<no data available>

#### 4.3.2 - Animal species

<no data available>

### 4.4 - Physical components

#### 4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with 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 situated in the Vikeån catchment area.

4.4.3 - Soil

Mneral

(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

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 groundwater	<input type="checkbox"/>	No change
Water inputs from rainfall	<input type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change
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 are plenty of springs within the site. By large unaffected by human activities which contributes to the maintenance of water quality. The area has a high value as a water reservoir.

4.4.5 - Sediment regime

Sediment regime unknown

Please provide further information on sediment (optional):

There is hardly any sediment regime at the site.

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

Oligotrophic

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

Unknown

#### 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

### 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

##### Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Livestock fodder	Medium

##### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	Medium
Hazard reduction	Flood control, flood storage	Low

##### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Low

##### Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Nutrient cycling	Carbon storage/sequestration	Low

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
Religious body/organization	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

The protected parts of the site are owned privately, by the Church and by state. The rest of the site is mainly privately owned. The surrounding area is mainly privately owned.

#### 5.1.2 - Management authority

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

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

Postal address:

E-mail address:

## 5.2 - Ecological character threats and responses (Management)

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

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

#### 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 type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Roads and railroads	Low impact	unknown 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
Logging and wood harvesting			<input type="checkbox"/>		<input checked="" type="checkbox"/>	

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Vegetation clearance/ land conversion			<input checked="" type="checkbox"/>		<input type="checkbox"/>	

Please describe any other threats (optional):

There are old ditches within the site, which have dried up the ground severely at some places. Threats to the rare flora include maintenance of ditches (new operations have been banned) and overgrowth/decreased grazing. On the other hand, too intense grazing can be harmful to several species. The roads traversing the site have probably also contributed to local dryness. Forestry is also a threat in many ways, even if it is not conducted within the site; areas next to the site have been clear-cut and forestry machines have damaged the site by being driven into it.

The "Unspecified" under "Transportation and service corridors" is referring to that forestry machines have damaged the site by being driven into it.

## 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	Bojstvatar SAC	<a href="http://www.lansstyrelsen.se/gotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/natura-2000-pa-gotland/bojstvatar1.pdf">http://www.lansstyrelsen.se/gotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/natura-2000-pa-gotland/bojstvatar1.pdf</a>	partly
EU Natura 2000	Hejnum Kallgate SAC	<a href="http://www.lansstyrelsen.se/gotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/natura-2000-pa-gotland/hejnum_kallgate.pdf">http://www.lansstyrelsen.se/gotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/natura-2000-pa-gotland/hejnum_kallgate.pdf</a>	partly
EU Natura 2000	Kallgatburg SAC	<a href="http://www.lansstyrelsen.se/gotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/natura-2000-pa-gotland/kallgatburg.pdf">http://www.lansstyrelsen.se/gotland/SiteCollectionDocuments/Sv/djur-och-natur/skyddad-natur/natura-2000/natura-2000-pa-gotland/kallgatburg.pdf</a>	partly

## National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature reserve	Bojstvatar	<a href="http://www.lansstyrelsen.se/Gotland/Sv/djur-och-natur/skyddad-natur/naturreservat/bojstvatar/Pages/default.aspx">http://www.lansstyrelsen.se/Gotland/Sv/djur-och-natur/skyddad-natur/naturreservat/bojstvatar/Pages/default.aspx</a>	partly
Nature reserve	Kallgatburg	<a href="http://www.lansstyrelsen.se/Gotland/Sv/djur-och-natur/skyddad-natur/naturreservat/kallgatburg/Pages/index.aspx">http://www.lansstyrelsen.se/Gotland/Sv/djur-och-natur/skyddad-natur/naturreservat/kallgatburg/Pages/index.aspx</a>	partly

## 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	Proposed

## Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Proposed

## Other:

There is on-going work with protecting the now unprotected parts of the Ramsar site as nature reserves.

## 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 are no visitor facilities especially for the Ramsar site but the nature reserve has information signs and a parking lot.

### 5.2.6 - Planning for restoration

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

Further information

Parts of the site have been restored to grassland and are now managed by grazing. One water course in the north is being restored 2017.

### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant community	Proposed

Parts of the site are monitored. Inventory of the species *Eurodryas aurinia* (Marsh fritillary) is performed on regular basis.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Martinsson, M. 1997. Våtmarker på Gotland. Del 1 och 2. Länsstyrelsen i Gotlands län.  
Naturvårdsverket. 1994. Myrskyddsplan för Sverige.

#### 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<1 file(s) uploaded>

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

Please provide at least one photograph of the site:



Fens with Brown Bog-rush (*Sebastian Bolander, 25-04-2017* )



Marsh with Great Fen-Sedge. (*Sebastian Bolander, 25-04-2017* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation