

# Ramsar Information Sheet

Published on 18 September 2018 Update version, previously published on : 1 January 2002

# **Sweden**Gotlands ostkust



Designation date 5 December 1974
Site number 21
Coordinates 57°16'18"N 18°38'54"E
Area 4 963,79 ha

https://rsis.ramsar.org/ris/21 Created by RSIS V.1.6 on - 8 May 2020

# 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 includes six sub sites along the east coast of the island Gotland (one of the largest) on the Baltic sea. It contains the coast including adjacent low-laying islands and sea. The site has a great diversity of marine and coastal wetlands. On land there are coastal grasslands, petrifying springs with tufa formation, calcareous fens, Molinia meadows on calcareous, clayey-siltladen soils and smaller streams that dry up during summer. Some of the grasslands are managed by grazing, others lack such management and have higher plant forms. The shores consist of sand, gravel and/or stone. Clay-rich sea bottom areas are exposed during low water levels. In some parts of the site, the shore is lobate, which provides sheltered environments for rich lower fauna. These areas are of great importance to breeding, resting and staging water birds.

# 2 - Data & location

# 2.1 - Formal data

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

| 0   | :  |     | 4 |
|-----|----|-----|---|
| Com | DΠ | ıer |   |

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

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

From year 2002

To year 2018

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Gotlands ostkust

Unofficial name (optional)

Gotlands ostkust (coast), Site originally designated as 'Rone Ytterholme - Laus holmar - Skenholmen'

# 2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

| <sup>(Update)</sup> A Changes to Site boundary Yes <b>◎</b> No <b>○</b>    |
|--|
| (Update) The boundary has been delineated more accurately ✓                |
| (Update) The boundary has been extended ✓                                  |
| <sup>(Update)</sup> The boundary has been restricted <b>☑</b>              |
| (Update) B. Changes to Site area the area has increased                    |
| <sup>(Update)</sup> The Site area has been calculated more accurately □    |
| <sup>(Update)</sup> The Site has been delineated more accurately <b>☑</b>  |
| (Update) The Site area has increased because of a boundary extension ✓     |
| (Update) The Site area has decreased because of a boundary restriction   ✓ |

# 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? |
|--|
| (Update) Are the changes Positive   ● Negative   O Positive   Negative   O   |
| (Update) Positive % 1  |
| (Update) No information available  |
| (Update) Optional text box to provide further information  |

| (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.   |
| The border has been changed to better correspond with other protected areas and elements in the landscape (for example roads and edges arable land) that make it easier to understand where the border is.  |
| In general, this has resulted in the exclusion or inclusion of areas containing sea water, built up areas, grasslands, arable land, forests, and small areas of wetland (beaches, shore meadows, swamps).   |
| (Update) Is the change in ecological character negative, human-induced AND a significant change (above the limit of acceptable change)  Yes O   |
| 2.2 - Site location  2.2.1 - Defining the Site boundaries  b) Digital map/image   |
| <1 file(s) uploaded>  |
| Former maps 0   |
| Boundaries description  |
| b) Laus holmar (the border follows the border of the Natura 2000 site). c) Närsholmen (the border follows the nature reserve) d) Hummelsbosholm (the border follows the Natura 2000 site except for in the south-west where it follows the borders of real estates) e) Grötlingboudd-Rone Ytterholme (the area includes the Natura 2000 site Grötlingboudd-Ytterholmen together with the surrounding sea as w as parts of the Grötlingbo peninsula south of the main road. The western border starts where the power line crosses the main road and then turns south-west in an almost straight line. Islands and adjacent sea area south of the peninsula is also included). f) Faludden (the area includes the outer half of the peninsula Faludden and the coastal areas to the north and to the south. At the inner half of the peninsula is the central land area between the roads not part of the site). |
| 2.2.2 - General location  |
| a) In which large administrative region does the site lie?  Gotland   |
| 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): 4963.79  |
| Area, in hectares (ha) as calculated from GIS boundaries  |
| 2.2.5. Ricgongraphy   |
| 2.2.5 - Biogeography  |

Biogeographic regions

| Regionalisation scheme(s)                 | Biogeographic region           |
|---|--------------------------------|
| Other scheme (provide name below)         | Sarmatic mixed forest          |
| WWF Terrestrial<br>Ecoregions             | Sarmatic mixed forest PA0436   |
| Udvardy's Biogeographical<br>Provinces    | 10. Boreonemoral               |
| Bailey's Ecoregions                       | 240 Marine Division            |
| EU biogeographic regionalization          | Boreal                         |
| Freshwater Ecoregions of the World (FEOW) | 406. Northern Baltic drainages |
| Marine Ecoregions of the World (MEOW)     | 24. Baltic seas                |
| Other scheme (provide name below)         | Marine Baltic                  |

#### Other biogeographic regionalisation scheme

EEA, 2001. Digital Map of European Ecological Regions (DMEER) - Sarmatic mixed forest EU Marine Regions - Marine Baltic.

# 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

Other ecosystem services provided

The site provides grasslands that is used as fodder for cattle and other grazing animals kept by local

The site is a representative example of near-natural coastal wetland types (like fens, shore meadows and different shore habitats) in the EU boreal region.

- ☑ Criterion 2 : Rare species and threatened ecological communities
- ☑ Criterion 3 : Biological diversity

The site supports rare/endangered species as well as more common ones in the EU boreal region. It also Justification supports species typical of the habitats at the site, some of the habitats for example shore meadows are not very frequent in the region.

- ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ☑ Criterion 5 : >20.000 waterbirds

Overall waterbird numbers > 40000

Start year 2002

Source of data: County administrative board

- ☑ Criterion 6 : >1% waterbird population
- ☑ Criterion 8 : Fish spawning grounds, etc.

Justification

The shallow waters and the coves with benthic vegetation at the site constitute many important spawning grounds and nursery areas for several fish species.

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<br>Red<br>List | CITES Appendix I | Other status                | Justification                                   |
|---------------------------|--------------------------|-------------|-------------|-------------|---------------------|------------------|-----------------------------|---|
| Atriplex pedunculata      | Pedunculate sea-purslane | <b>&gt;</b> | <b></b>     |             |                     |                  | Swedish Red List 2015 (EN). | See textbox below the table and in section 3.1. |
| Bupleurum tenuissimum     | Slender hare's-ear       |             | Ø           |             |                     |                  | Swedish Red List 2015 (NT). | See textbox below the table and in section 3.1. |
| Cirsium acaulon           |                          |             | V           |             |                     |                  | Swedish Red List 2015 (NT). | See textbox below the table and in section 3.1. |
| Eryngium maritimum        | Sea holly                | V           | Ø           |             |                     |                  | Swedish Red List 2015 (EN). | See textbox below the table and in section 3.1. |
| Primula farinosa farinosa | Bird's-eye primrose      | V           | V           |             |                     |                  | Swedish Red List 2015 (EN). | See textbox below the table and in section 3.1. |

Criterion 2 and 3: The species status in the Swedish Red List and general information for that classification as well as their distribution etc can be found at http://artfakta.artdatabanken.se/.

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

| Phylum            | Scientific name                   | Common name             | qi<br>t<br>cr | pecies lalifies under iterion 4   6   9 | C  | Species<br>ontribute<br>under<br>criterior<br>5 7 | Pop<br>Size | Period of pop. Est. | %<br>occurrence<br>1) |                   | CITES<br>Appendix .<br>I | CMS<br>Appendix<br>I | Other Status   | Justification   |
|-------------------|-----------------------------------|-------------------------|---------------|---|----|---|-------------|---------------------|-----------------------|-------------------|--------------------------|----------------------|--|---|
| Birds             | Birds                             |                         |               |   |    |   |             |                     |                       |                   |                          |                      |  |   |
| CHORDATA/<br>AVES | Aythya marila                     | Greater Scaup           | Ø.            | 790                                     | 00 |   | 5000        | 2002-2013           | 1.6                   | LC<br>Str         |                          |                      | Swedish Red List 2015 (VU).  | Important wintering site. See textbox below the table and in section 3.1.           |
| CHORDATA/<br>AVES | Branta leucopsis                  | Barnacle Goose          |               |   |    |   | 4000        | 0 2002-2013         | 5.2                   | LC                |                          |                      | Listed in the EC Birds Directive, Annex I.                             | Important for breeding and staging. See textbox below the table and in section 3.1. |
| CHORDATA/<br>AVES | Calidris alpina                   | Dunlin                  |               | 20C                                     |    |   | 20          | 2002-2013           |                       | LC<br>●辭          |                          |                      |  | Important for breeding. See textbox below the table and in section 3.1.             |
| CHORDATA/<br>AVES | Charadrius<br>hiaticula           | Common Ringed<br>Plover |               | <b>2</b> 00                             |    |   | 50          | 2002-2013           |                       | LC<br>©SS<br>©TSS |                          |                      |  | Important for breeding. See textbox below the table and in section 3.1.             |
| CHORDATA/<br>AVES | Cygnus<br>columbianus<br>bewickii | Tundra svan             |               | <b>2</b> 00                             | V  |   |             |                     |                       |                   |                          |                      |  | Staging during migration. See textbox below the table and in section 3.1.           |
| CHORDATA/<br>AVES | Hydroprogne caspia                | Caspian Tern            |               | 20c                                     |    |   | 100         | 2002-2013           |                       | LC<br>Sign        |                          |                      | Swedish Red List 2015 (NT). Listed in the EC Birds Directive, Annex I. | Important for breeding. See textbox below the table and in section 3.1.             |
| CHORDATA/<br>AVES | Limosa limosa                     | Black-tailed<br>Godwit  | <b>V</b>      | 20C                                     |    |   | 30          | 2002-2013           |                       | NT                |                          |                      | Swedish Red List 2015 (CR).  | Important for breeding. See textbox below the table and in section 3.1.             |
| CHORDATA/<br>AVES | Mergellus albellus                | Smew                    |               | 200                                     |    |   | 300         | 2002-2013           |                       | LC<br>om          |                          |                      | Listed in the EC Birds Directive, Annex I.                             | Important for staging. See textbox below the table and in section 3.1.              |
| CHORDATA/<br>AVES | Numenius arquata                  | Eurasian Curlew         |               | 20C                                     |    |   | 100         | 2002-2013           |                       | NT<br>●\$‡<br>●B# |                          |                      | Swedish Red List 2015 (NT).  | Important for breeding. See textbox below the table and in section 3.1.             |

| Phylum                      | Scientific name           | Common name  | c   | Spec<br>qualit<br>und<br>criter | fies<br>er<br>rion | cont     | ecies<br>ributes<br>nder<br>terion | Pop.<br>Size | Period of pop. Est. | %<br>occurrence<br>1) |                    | CITES<br>Appendix<br>I | CMS<br>Appendix<br>I | Other Status   | Justification   |
|-----------------------------|---------------------------|--|-----|---------------------------------|--------------------|----------|------------------------------------|--------------|---------------------|-----------------------|--------------------|------------------------|----------------------|--|---|
| CHORDATA/<br>AVES           | Philomachus pugnax        | Ruff   | V   | <b>V</b>                        |                    |          |                                    | 100          | 2002-2013           |                       |                    |                        |                      | Swedish Red List 2015 (VU). Listed in the EC Birds Directive, Annex I. | Important for breeding. See textbox below the table and in section 3.1. |
| CHORDATA/<br>AVES           | Recurvirostra<br>avosetta | Pied Avocet  |     | <b>2</b>                        |                    |          |                                    | 300          | 2002-2013           |                       | LC<br>offin        |                        |                      | Listed in the EC Birds Directive, Annex I.                             | Important for breeding. See textbox below the table and in section 3.1. |
| CHORDATA/<br>AVES           | Somateria<br>mollissima   | Common Eider   |     | <b>V</b>                        |                    | <b>2</b> |                                    |              |                     |                       | NT<br>orange       |                        |                      |  | Important for breeding. See textbox below the table and in section 3.1. |
| CHORDATA/<br>AVES           | Sterna paradisaea         | Arctic Tern  |     | <b>V</b>                        |                    |          |                                    | 400          | 2002-2013           |                       | LC<br>●節<br>●簡     |                        |                      | Listed in the EC Birds Directive, Annex I.                             | Important for breeding. See textbox below the table and in section 3.1. |
| CHORDATA/<br>AVES           | Sternula albifrons        | Little Tern  |     | <b>2</b>                        |                    | <b>2</b> |                                    |              |                     |                       | LC<br>Sign         |                        |                      |  | Important for breeding. See textbox below the table and in section 3.1. |
| CHORDATA/<br>AVES           | Thalasseus sandvicensis   | Sandwich Tern  |     | <b>2</b>                        |                    | <b>2</b> |                                    |              |                     |                       | LC<br>•#           |                        |                      |  | Important for breeding. See textbox below the table and in section 3.1. |
| Fish, Mollusc a             | and Crustacea             |  |     |                                 |                    |          |                                    |              |                     |                       |                    |                        |                      |  |   |
| CHORDATA/<br>ACTINOPTERYGI  | Coregonus peled           | Northern<br>whitefish;<br>Northern<br>whitefish;<br>Northern<br>whitefish;<br>Northern whitefish |     |                                 |                    |          |                                    |              |                     |                       | LC<br>• in<br>• in |                        |                      |  | Habitats for spawning. See textbox below the table and in section 3.1.  |
| CHORDATA/<br>ACTINOPTERYGI  |                           | Great northern pike  |     |                                 |                    | <b>2</b> |                                    |              |                     |                       | LC<br>OTSF         |                        |                      |  | Habitats for spawning. See textbox below the table and in section 3.1.  |
| CHORDATA/<br>ACTINOPTERYGI  | Platichthys flesus        | European flounder  | r 🔲 |                                 |                    | <b>2</b> |                                    |              |                     |                       | LC<br>•#           |                        |                      |  | Habitats for spawning. See textbox below the table and in section 3.1.  |
| CHORDATA/<br>ACTINOPTERYGII | Taurulus bubalis          | Rock sculpin;<br>Longspined<br>bullhead  |     |                                 |                    | <b>V</b> |                                    |              |                     |                       | LC<br>offi         |                        |                      |  | Habitats for spawning. See textbox below the table and in section 3.1.  |
| CHORDATA/<br>ACTINOPTERYGI  | Zoarces viviparus         | Viviparous eelpout   | t 🔲 |                                 |                    | <b>2</b> |                                    |              |                     |                       |                    |                        |                      |  | Habitats for spawning. See textbox below the table and in section 3.1.  |

<sup>1)</sup> Percentage of the total biogeographic population at the site

Criterion 2 and 3: The species status in the Swedish Red List and general information for that classification as well as their distribution etc can be found at http://artfakta.artdatabanken.se/.

#### Criterion 6:

For Branta leucopsis the total population "Russia/Germany & Netherlands" with a total of 77 000 individuals (according to the Wetlands International) have been used.

For Aythya marila the total population "marila, Northern Europe/Western Europe" with a total of 310 000 individuals (according to the Wetlands international) have been used.

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

# RIS for Site no. 21, Gotlands ostkust, Sweden

| Name of ecological community  | Community qualifies under<br>Criterion 2? | Description   | Justification  |
|---|---|---|--|
| 6410. Molinia meadows on calcareous, peaty or clayey-silt laden soils | V   | 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 unfavourable conservation status in the Swedish part of the EU Boreal region 2013.          |
| 1630. Boreal Baltic coastal meadows                                   | <b>2</b>                                  | Coastal meadows, mostly with low growing plants, in the geolittoral zone, sometimes interspersed with salt patches, low salinity (brackish water). Tide hardly exists; air pressure influence water levels to some extent. Mowing and grazing is important. | The habitat is listed in EC Habitats Directive Annex II. The habitat had unfavourable conservation status in the Swedish part of the EU Boreal region 2013.          |
| 1110. Sandbanks which are slightly covered by sea water all the time  |   | Sandbanks permanently submerged and predominantly surrounded by deeper water. Larger or smaller grain can occur. Water depth is seldom more than 20 metres.   | The habitat is listed in EC Habitats Directive<br>Annex II. The habitat had unfavourable<br>conservation status in the Swedish part of the<br>EU Boreal region 2013. |
| 7220. Petrifying springs with tufa formation                          | Ø   | 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 unfavourable conservation status in the Swedish part of the EU Boreal region 2013.          |
| 7230. Akaline fens  | ✓   | Wetlands mostly or largely occupied by peat-<br>or tufa-producing small sedge and brown<br>moss communities developed on soils<br>permanently waterlogged, with a soligenous<br>or topogenous base rich, often calcareous<br>water supply.                  | The habitat is listed in EC Habitats Directive Annex II. The habitat had unfavourable conservation status in the Swedish part of the EU Boreal region 2013.          |
| 1140. Mudflats and sandflats not covered by seawater at low tide      |   | Sands and muds of the coasts and associated lagoons, not covered by sea water at low tide, devoid of vascular plants, usually coated by blue algae and diatoms. They are of particular importance as feeding grounds for wild                               | The habitat is listed in EC Habitats Directive Annex II. The habitat had unfavourable conservation status in the Swedish part of the EU Boreal region 2013.          |

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

# 4.1 - Ecological character

The site includes six sub-sites along the east coast of the island Gotland (one of the largest) on the Baltic sea. It contains the coast of Gotland including adjacent low-laying islands and sea. The site has a great diversity of marine and coastal wetlands. On land there are coastal grasslands, petrifying springs with tufa formation, calcareous fens, Molinia meadows on calcareous, clayey-silt-laden soils and smaller streams that dry up during summer. Some of the grasslands are managed by grazing, others lack such management and have higher plant forms. The shores consist of sand, gravel and/or stone. Clay-rich sea bottom areas are exposed during low water levels. In some parts of the site, the shore is lobate, which provides sheltered environments for rich lower fauna. These areas are of great importance to breeding, resting and staging water birds.

Description of the sub-sites from north to south (all sub-sites include marine water areas);

- \* Skenholmen consists of the area closest to the shore on a flat open grassy island.
- \* Laus holmar consists of three islands with a system of natural shore embankments, some of which consist of sand-spurs that have been raised by land elevation. Only the island Storholmen is grazed.
- \* Närsholmen is a low-lying grazed peninsula, parts of the sub-site have distinctive banks of gravel.
- \* Hummelbosholm is a low-lying grazed peninsula. The sub-site also contains adjacent small open islands.
- \* Grötlingbo udde is a peninsula mostly made up of open grassland and shore meadows. The sub-site also contains adjacent small open islands and two larger ones. A large part of Grötlingboholme consists of shore gravel formed into very distinctive banks, especially at the southern end. These shore embankments even appear in long series on the most eastern larger island, where there are extensive shallows with protruding shoals.
- \* Faludden is flat and open peninsula with low-lying, long shallow shores of sand or stone. The sub-site contains a lot of grazed coastal and wet grasslands. South of the point of Faludden is a former bay, with a lot of reed, now cut off from the sea. To the east of that, there is a sandy bay with many sandbars and islets.

# 4.2 - What wetland type(s) are in the site?

| Marina | or coacts | al wetlands |
|--------|-----------|-------------|
|        |           |             |

| Wetland types (code and name)                                 | Local name            | Ranking of extent (1: greatest - 4: least) | Area (ha)<br>of wetland type | Justification of Criterion 1 |
|---|-----------------------|--|------------------------------|------------------------------|
| A: Permanent shallow marine waters                            |                       | 4  |                              | Representative               |
| B: Marine subtidal aquatic<br>beds<br>(Underwater vegetation) |                       | 0  |                              | Representative               |
| D: Rocky marine shores  |                       | 2  |                              | Representative               |
| E: Sand, shingle or pebble shores                             |                       | 3  |                              | Representative               |
| G: Intertidal mud, sand or salt flats                         | Blottlagda lerbottnar | 0  |                              | Representative               |
| Ga: Bivalve (shell-fish) reefs                                | Musselbankar          | 0  |                              | Representative               |
| H: Intertidal marshes   | Havsstrandängar       | 0  |                              | Representative               |
| J: Coastal brackish / saline lagoons                          | Brackvattenlaguner    | 0  |                              | Representative               |

#### Inland wetlands

| Wetland types (code and name)  | Local name                        | Ranking of extent (1: greatest - 4: least) | Area (ha)<br>of wetland type | Justification of Criterion 1 |
|--|-----------------------------------|--|------------------------------|------------------------------|
| Fresh water > Flowing<br>water >> M Permanent<br>rivers/<br>streams/<br>creeks   | Mndre vattendrag                  | 0  |                              | Representative               |
| Fresh water > Flowing<br>water >> N: Seasonal/<br>intermittent/<br>irregular rivers/<br>streams/<br>creeks                         | Temporära vättendrag              | 0  |                              |                              |
| Fresh water > Lakes and pools  >> O: Permanent freshwater lakes  | Stora sjöar                       | 0  |                              | Representative               |
| Fresh water > Marshes on<br>inorganic soils >> Ts:<br>Seasonal/<br>intermittent freshwater<br>marshes/<br>pools on inorganic soils | Tillfälliga färskvattensankmarker | 0  |                              | Representative               |
| Fresh water > Marshes on peat soils  >> U: Permanent Nonforested peatlands   | Rikkärr                           | 0  |                              | Representative               |
| Fresh water > Marshes on<br>inorganic<br>soils >> W: Shrub-<br>dominated wetlands  | Buskklädd våtmark                 | 0  |                              |                              |
| Fresh water > Flowing<br>water >><br>Y: Permanent Freshwater<br>springs; oases   | Källor                            | 0  |                              | Representative               |

#### Human-made wetlands

| Wetland types (code and name)             | Local name | Ranking of extent (1: greatest - 4: least) | Area (ha)<br>of wetland type | Justification of Criterion 1 |
|---|------------|--|------------------------------|------------------------------|
| 4: Seasonallyflooded<br>agricultural land |            | 1  |                              | Representative               |

#### Other non-wetland habitat

| Other non-wetland habitats within the site | Area (ha) if known |
|--|--------------------|
| Deep marine waters                         |                    |
|  |                    |

#### 4.3 - Biological components

#### 4.3.1 - Plant species

<no data available>

#### 4.3.2 - Animal species

Optional text box to provide further information

# 4.4 - Physical components

#### 4.4.1 - Climate

| Climatic region                                 | Subregion  |
|---|--|
| D: Moist Mid-Latitude climate with cold winters | Dfb: Humid continental<br>(Humid with severe winter,<br>no dry season, warm<br>summer) |

#### 4.4.2 - Geomorphic setting

| AND RESERVED AND ADDRESS OF A STREET AND ADDRESS OF A |      |
|---|------|
| a) Mnimum elevation above sea level (in metres)   | _    |
|   | 1 () |
| motroe)   | 0    |
| meues)  |      |
|   |      |

| a) Ivaximum elevation above sea level (in        |
|--|
| , \ 6  |
| 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  $\square$ 

Not in river basin  $\square$ 

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.

Faludden is flat and open with low-lying, long shallow shores of sand and or stone. South of the point of Faludden is Inre Stockviken, a former bay, now cut off from the sea. Yttre Stockviken is a shallow bay with many sandbars and islets.

A large part of Grötlingboholme consists of shore gravel formed into very distinctive banks, especially at the southern end. These shore embankments even appear in long series on Rone Ytterholme, where there are extensive shallows with protruding shoals. On the islands of Laus holmar islands there is a system of natural shore embankments, some of which consists of sand-spurs that have been raised by land elevation. Närsholmen and Hummelbosholm are low-lying peninsulas. Skenholmen is a flat island.

The site has a lot of examples on geomorphology typical in shore habitats.

#### 4.4.3 - Soil



Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?

#### Please provide further information on the soil (optional)

The soils at the site consist to a major part of gravel, sand and rock partly covered by a thin layer of organic soil. The northern island, Skenholmen, consists to a major part of boulder clay and gravel covered by a thin layer of organic soil.

#### 4.4.4 - Water regime

#### Water permanence

| The state of the s |                       |
|--|-----------------------|
| Presence?  | Changes at RIS update |
| Usually permanent water present  |                       |

#### Source of water that maintains character of the site

| Presence?                  | Predominant water source | Changes at RIS update |  |
|----------------------------|--------------------------|-----------------------|--|
| Water inputs from rainfall |                          | No change             |  |
| Marine water               | ✓                        | No change             |  |

#### Water destination

| Trator documentor. |                       |  |
|--------------------|-----------------------|--|
| Presence?          | Changes at RIS update |  |
| Marine             | No change             |  |

#### Stability of water regime

| outsing or maior 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.

The marine wetlands of the site have a hydrology that is controlled by the natural fluctuations in the Baltic Sea, due to differences in air pressure. Water levels are normally high during the winter and low during the summer. The flooding pattern is particularly pronounced in deep coves where the flood pattern is enhanced with particularly high water levels during storms at high flows. The parts of the areas not covered by marine wetlands are characterized by the precipitation that falls. Generally, there are high flow rates during the winter months when evaporation is low. In the summer, the relationship is the opposite.

#### 4.4.5 - Sediment regime

| Sediment regime is | highlyvariable | aither case | onally or into | r-annually 📝 |
|--------------------|----------------|-------------|----------------|--------------|
|                    |                |             |                |              |

 $^{ ext{(Update)}}$  Changes at RIS update No change lacktriangle Increase lacktriangle Decrease lacktriangle Unknown lacktriangle

Sediment regime unknown

# 4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

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

Unknown  $\square$ 

# 4.4.7 - Water salinity

Fresh (<0.5 g/l)

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

Euhaline/Eusaline (30-40 g/l)

(Update) Changes at RIS update No change 

● Increase 

O Decrease 

O Unknown 

O

Unknown  $\square$ 

Please provide further information on salinity (optional):

The process of amplitude variations and evaporation leads to natural salt enrichment of the beachy habitats.

#### 4.4.8 - Dissolved or suspended nutrients in water

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 i) broadly similar  $\circ$  ii) significantly different  $\circ$ 

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:

To the east is deeper sea water without islets etc. The west there are more arable land and forests used for forestry.

# 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

Provisioning Services

| Ecosystem service         | Examples   | Importance/Extent/Significance |  |
|---------------------------|--|--------------------------------|--|
| Food for humans           | Sustenance for humans (e.g., fish, molluscs, grains) | Low                            |  |
| Wetland non-food products | Livestock fodder                                     | Medium                         |  |

Regulating Services

| Ecosystem service                    | Examples  | Importance/Extent/Significance |  |
|--------------------------------------|---|--------------------------------|--|
| Pollution control and detoxification | Water purification/waste<br>treatment or dilution | Medium                         |  |

#### 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                           |
| Scientific and educational | Major scientific study site   | Medium                         |
| Scientific and educational | Important knowledge<br>systems, importance for<br>research (scientific<br>reference area or site) | Medium                         |

#### Other ecosystem service(s) not included above:

Services such as cleaning the inland water from nutrients before it flows into the Baltic Sea. This also improves the conditions for animals and vegetation in the Baltic Sea.

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ⑨ 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 $\hfill\Box$ 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  |

<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

| ı ub | lic owners | u III |
|------|------------|-------|

| ·                           |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Category                    | Within the Ramsar Site | In the surrounding area |
| National/Federal government | <b>/</b>               |                         |

#### Private ownership

| Category                                   | Within the Ramsar Site | In the surrounding area |
|--|------------------------|-------------------------|
| Other types of private/individual owner(s) | <b>✓</b>               | <b>✓</b>                |

#### 5.1.2 - Management authority

| Please list the local office / offices of any | County Administration Board on Gotland |
|---|--|
| agency or organization responsible for        |  |
| managing the site:                            |  |
| Provide the name and title of the person or   |  |
| people with responsibility for the wetland:   | Sebastian Bolander. Ecologist          |
| people with responsibility for the wettand.   |  |
|   | Länsstyrelsen Gotland                  |
| Postal address:                               | Visborgsallén 4                        |
|   | 621 85 VISBY                           |
|   |  |
| E-mail address:                               | sebastian.bolander@lansstyrelsen.se    |

# 5.2 - Ecological character threats and responses (Management)

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

Human settlements (non agricultural)

| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes   | In the surrounding area | Changes   |
|----------------------------------|---------------|------------------|-----------------|-----------|-------------------------|-----------|
| Housing and urban areas          | Low impact    | Low impact       | <b>&gt;</b>     | No change |                         | No change |

Natural system modifications

| Natural system modifications     |               |                  |                 |         |                         |         |
|----------------------------------|---------------|------------------|-----------------|---------|-------------------------|---------|
| Factors adversely affecting site | Actual threat | Potential threat | Within the site | Changes | In the surrounding area | Changes |
| Unspecified/others               |               |                  | 1               |         |                         |         |

#### Please describe any other threats (optional):

Since it is close to the coast, there is a hard pressure to build houses with sea view. The closest area to the coast line of Gotland has regulations against building houses. A special permit is necessary for building new houses.

# 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   | Austerrum SPA & SAC                    | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Faludden SPA & SAC                     | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Grötlingboudd-Ytterholmen<br>SPA & SAC | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Hummelbosholm SPA & SAC                | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Laus holmar SPA & SAC                  | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Närsholmen SPA & SAC                   | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Skenholmen SPA &SAC                    | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Södra Grötlingboudd SPA & SAC          | http://skyddadnatur.naturvardsve rket.se/ | partly                   |
| EU Natura 2000   | Yttre Stockviken SPA & SAC             | http://skyddadnatur.naturvardsve rket.se/ | partly                   |

National legal designations

| Designation type | Name of area    | Online information url  | Overlap with Ramsar Site |
|------------------|-----------------|---|--------------------------|
| bird sanctuary   | Faludden        |   | partly                   |
| bird sanctuary   | Hummelbosholm   |   | partly                   |
| bird sanctuary   | Skenholmen      |   | partly                   |
| bird sanctuary   | Stockviken      |   | partly                   |
| nature reserve   | Gotlandskusten  | https://www.lansstyrelsen.se/got<br>land/besok-och-upptack/naturrese<br>rvat/gotlandskusten.html  | partly                   |
| nature reserve   | Grötlingboholme | https://www.lansstyrelsen.se/got<br>land/besok-och-upptack/naturrese<br>rvat/grotlingboholme.html | partiy                   |
| nature reserve   | Laus holmar     | https://www.lansstyrelsen.se/got<br>land/besok-och-upptack/naturrese<br>rvat/laus-holmar.html     | partly                   |
| nature reserve   | Närsholmen      | https://www.lansstyrelsen.se/got<br>land/besok-och-upptack/naturrese<br>rvat/narsholmen.html      | partly                   |
| nature reserve   | Rone ytterholme | https://www.lansstyrelsen.se/got<br>land/besok-och-upptack/naturrese<br>rvat/rone-ytterholme.html | partly                   |

Non-statutory designations

| Designation type    | Name of area                       | Online information url  | Overlap with Ramsar Site |
|---------------------|------------------------------------|---|--------------------------|
| Important Bird Area | Coastal area of Eastern<br>Gotland | http://datazone.birdlife.org/sit<br>e/factsheet/coastal-area-of-east ern-<br>gotland-iba-sweden | partly                   |

# 5.2.3 - IUCN protected areas categories (2008)

| la Strict Nature Reserve   | ] |
|--|---|
| Ib Wilderness Area: protected area managed mainly for wilderness protection  | ] |
| Il National Park: protected area managed mainly for ecosystem protection and recreation                            | 9 |
| 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 | 9 |

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 | Partially implemented |  |

#### **Human Activities**

| Measures   | Status      |
|--|-------------|
| Livestock<br>management/exclusion<br>(excluding fisheries) | Implemented |

#### Other:

Grazing or mowing is needed for the grasslands every year.

#### 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 O No ●

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No opposesses with another Contracting Party?

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

The nature reserves have information boards that describe the nature in the different areas. There are roads and paths that allow the visitor to reach the areas and walk around. At Grötlingboholme there is a hide for bird watching.

#### 5.2.6 - Planning for restoration

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

# 5.2.7 - Monitoring implemented or proposed

| Monitoring | Status      |
|------------|-------------|
| Birds      | Implemented |

Monitoring of birds on meadows are implemented in all areas except for Skenholmen and Laus holmar.

# 6 - Additional material

# 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Hedgren, S., Kolehmainen, T. & Tydén, L. 1996. Inventering av häckande fåglar på gotländska strandängar. Länsstyrelsen i Gotlands län. Martinsson, M. 1997. Våtmarker på Gotland. Del 1 och 2. Länsstyrelsen i Gotlands län.

#### 6.1.2 - Additional reports and documents

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

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

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

iv. relevant Article 3.2 reports

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:



Grass meadows at the site Gotlands ostkust ( *Magnus Martinsson, 01-10-2007* )



Grass meadows at Närsholmen ( Sebastian Bolander, 13-04-2018 )



Grass meadows at Hummelbosholm ( Sebas Bolander, 18-04-2018 )



Pebbleshores at Närsholamen ( *Sebastian Bolander, 18-04-2018* )



Sesonal freshwater marshes at Hummelbosholm ( Sebastian Bolander, 18-04-2018 )



Sesonal flooded land at Grötlingboudd ( Sebastial Bolander, 18-04-2018 )



Sesonal flooded land at Grötlingboudd ( Sebastia Bolander, 18-04-2018 )

#### 6.1.4 - Designation letter and related data

#### **Designation letter**

<1 file(s) uploaded>

Date of Designation 1974-12-05