

# Ramsar Information Sheet

Published on 6 April 2017 Update version, previously published on : 1 January 2002

# Sweden Helge å



Designation date 5 December 1974
Site number 16
Coordinates 55°58'53"N 14°11'16"E
Area 8 042,00 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 the lower part of the river Helge å, its outlet into the Baltic sea. The river broadens into larger lakes at two places. A number of smaller rivers have their outlet into the river at the site. The site also includes the wet meadows and forests that surround the river and the lakes. The wet meadows are regularly flooded. Some arable land is also included. The river Helge å, is the greatest watercourse of Scania.

The site is a very important site for birds, especially waders like geese and ducks. The site also has high botanic values.

The watercourse is very rich of fish, 32 different species, for example Gudgeon, Sea trout, Green whiting and Sea lamprey. Even residual Salmon is established here. The redlisted Sheatfish is reintroduced in Helge å.

# 2 - Data & location

## 2.1 - Formal data

2.1	1.1	-	Name	and	ado	Iress	of	the	com	piler	of	this	RIS
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2.1.2 - Period of collection of data an	.1.2 - Period of collection of data and information used to compile the RIS								
From year 2002									
To year	2012								
2.1.3 - Name of the Ramsar Site									
Official name (in English, French or	Helge å								
Spanish)									
Spanisn) Unofficial name (optional)									
Unofficial name (optional)	Helge å (river)								
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Unofficial name (optional)  2.1.4 - Changes to the boundaries an (Update) A (Update) The boundary has been of (Update) The boundary The	Helge å (river)  d area of the Site since its designation or earlier update  Changes to Site boundary Yes ® No O  delineated more accurately  undary has been extended undary has been restricted undary has been extended undary has been extended undary has been extended undary has been restricted undary has been restri								

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

 $^{\text{(Update)}}$  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.

Since the last update 2002 big changes in the lake ecosystems have occurred. Among other things, the former extensive presence of Common Club-rush (Schoenoplectus lacustris) has completely disappeared, which have resulted in changing hydrological conditions, exposure to wind, deteriorating nesting opportunities for wetland birds. The Common reed (Phragmites australis) has also decreased, even if it is not on the same scale. The wader bird breeding on the wet meadows along the river and the lakes have decreased seriously. It is probably due to several factors, but the very comprehensive grazing from the fast increasing Greylag Goose, (Anser anser) population is considered to be one important contributing factor. There is also problem with metals flooding the meadows, metals coming from a drained area, now arable land surrounded by dykes. There is on-going work to find what measures have to be done to improve the situation.

The boundary has been changed in the northern part of the site, some houses with their closest surrounding have been excluded and some parts of the shore have been included. The changes are small and the total area the same.

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

#### 2.2 - Site location

#### 2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

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onnei maps	U

#### 2.2.2 - General location

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

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?

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

### 2.2.4 - Area of the Site

Official area, in hectares (ha): 8042

Area, in hectares (ha) as calculated from GIS boundaries 8048.32

## 2.2.5 - Biogeography

#### Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Continental
Bailey's Ecoregions	240 Marine division
Udvardy's Biogeographical Provinces	11 Mddle European Forest
WWF Terrestrial Ecoregions	Baltic mixed forest (PA0405)
Marine Ecoregions of the World (MEOW)	Baltic seas
Freshwater Ecoregions of the World (FEOW)	Ecoregion 406 Nothern Baltic drainages
Other scheme (provide name below)	23 Baltic Sea
Other scheme (provide name below)	Marine Baltic
Other scheme (provide name below)	Baltic mixed forest

## Other biogeographic regionalisation scheme

EEA 2007. Pan-European marine ecosystems: 23 Baltic Sea

EEA ETC/BD.EU marine regions: Marine Baltic

EEA 2002. Digital Map of European Ecological Regions (DMEER): Baltic 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

The site provides sediment and nutrient retention and export, and water purification and maintenance of water quality.

Other ecosystem services provided

The site provides fishing and livestock fodder. The site support grazing for local farmers.

The site supports a number of near-natural wetland types (shallow lakes, river, wet meadows and shrubdominated wetlands, forested wetlands). Several of them are listed in the EC Habitats Directive and have an unfavourable conservation status in the Swedish part of the EU Continental region. Several of the wetland types present are representative for the EU Continental region, but there is also a rare type for the Swedish part of this region. In the South of Sweden it is rare that agricultural lands are flooded regularly. During floods the otherwise large areas of non-wet agricultural land turns wet and is favourably for birds and other wildlife.

Other reasons

According to the EC Habitats Directive, the lakes are classified as natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation (3150) or O: Permanent freshwater lakes. The river is described as water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation (3260) or M: Permanent rivers/ streams/creeks. The river's shoreline consists mostly of pastures and Agricultural land but there is also some groves of trees. These are described as Alluvial forests with Alnus glutinosa and Fraxinus excelsior (91E0) or Xf Treedominated wetlands. The shallow marine are typical for marine areas with sandy bottoms in the Baltic sea. The shrub-dominated wetlands are often covered by bushes of Salix.

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

The site supports particular elements of biological diversity that are characteristic of the EU Continental Justification region. It's especially of importance for breeding waterbirds and staging migratory waterbird species. The site supports rare/endangered mammals, fishes, amphibians and birds.

- ☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions
- ☑ Criterion 5: >20,000 waterbirds

Overall waterbird numbers 35 000

Start year 2009

Source of data: Vattenriket Kristianstad

☑ 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
Helosciadium inundatum		<b></b>	<b></b> ✓				Swedish Red List 2015 (EN).	See textbox below the table and under 3.1.
Herminium monorchis		<b>2</b>	<b>2</b>				Swedish Red List 2015 (VU). Protected species in national legislation.	See textbox below the table and under 3.1.
Liparis Ioeselii			<b>2</b>				Swedish Red List 2015 (NT). Protected species in national legislation.	See textbox below the table and under 3.1.
Najas flexilis		<b>2</b>	<b>/</b>				Swedish Red List 2015 (EN).	See textbox below the table and under 3.1.
Potamogeton rutilus		<b>₽</b>	V				Swedish Red List 2015 (EN).	See textbox below the table and under 3.1.
Taraxacum austrinum		<b></b>	V				Swedish Red List 2015 (EN).	See textbox below the table and under 3.1.

Criterion 2 and 3: For all species, the Swedish red-list status and general information for that classification etc can be found at http://artfakta.artdatabanken.se/. Observation of the species can be found in the Swedish database for observations http://www.artportalen.se/.

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

3.3 - Anima	3 - Animal species whose presence relates to the international importance of the site														
Phylum	Scientific name	Common name	q	ipecie ualifie under riterio 4 6	es r on	contr un crit	cies ibutes der erion	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List		CMS Appendix I	Other Status	Justification
Birds															
CHORDATA/ AVES	Anas querquedula	Garganey	<b>V</b>	2		1		5	1996-2000					Swedish Red List 2015 (VU).	Breeding. See textbox below the table and in section 3.1.
CHORDATA/ AVES	Anser fabalis	Bean Goose		<b>V</b>		1		15000	1996-2000	35	LC Sign			Swedish Red List 2015 (NT).	The North-east Europe/North-west Europe population is altogether maximum 45000. Important resting site for the species. See textbox below the table and in section 3.1.
CHORDATA/ AVES	Botaurus stellaris	Eurasian Bittern				<b>7</b>		10			LC Sign			EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Carpodacus erythrinus	Common Rosefinch	Ø.					11			LC om			Swedish Red List 2015 (VU).	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Chlidonias niger	Black Tern	<b>/</b>					15			LC ©SF			Swedish Red List 2015 (VU). EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Circus aeruginosus	Western Marsh Harrier				<b>y</b>		25			LC OSS			EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Circus pygargus	Montagu's Harrier	<b>/</b>					2			LC Sign			Swedish Red List 2015 (EN).	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Crex crex	Corn Crake				<b>/</b>		2			LC			EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Cygnus columbianus	Tundra Swan			90	<b></b>		800	1996-2000	4	LC Sign			EC Birds Directive Annex I.	Cygnus bewickii, Western Siberia & NE Europe/North-west Europe has a total of 21 500 individuals according to Wetlands international. See textbox below the table and in 3.1.
CHORDATA/ AVES	Dendrocopos minor	Lesser Spotted Woodpecker				<b>7</b>		11			LC Site				See textbox below the table and in section 3.1.

Phylum	Scientific name	Common name	qua ui crit	ecies alifie nder terio	1	cont ui crit	ecies ributes nder erion	Size		% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Falco peregrinus	Peregrine Falcon				<i>7</i> 🗆		]			LC Sign	$\checkmark$		Swedish Red List 2015 (NT). EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Grus grus	Common Crane		70			900	7000	1996-2000	3	LC Sign				The North-west Europe/lberia & Morocco population of Grus grus is 240 000. The data is based on Birdlife Internationals data between the years 1996-2000 and birdcount in Pulken. Important resting site. See textbox below the table and in section 3.1.
CHORDATA/ AVES	Haliaeetus albicilla	White-tailed Eagle				1					LC Sisson	<b></b>	<b>√</b>	Swedish Red List 2015 (NT). EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Limosa limosa	Black-tailed Godwit	<b>V</b>	0		<b>7</b>		20	1996-2000		NT © the			Swedish Red List 2015 (CR).	Breeding. The data is based on Birdlife Internationals data between the years 1996-2000. See textbox below the table and in section 3.1.
CHORDATA/ AVES	Locustella fluviatilis	River Warbler				<b>2</b>		2			LC Sign			Swedish Red List 2015 (NT).	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Pandion haliaetus	Osprey; Western Osprey				<b>/</b>		)			LC Sign			EC Birds Directive Annex I.	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Panurus biarmicus	Bearded Reedling				1		20			LC • is • is			Swedish Red List 2015 (NT).	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Philomachus pugnax	Ruff	<b>V</b>			<i>7</i>		10	1996-2000					Swedish Red List 2015 (VU). EC Birds Directive Annex I.	Important resting site during migration. Breeding some years when the conditions are right. See textbox below the table and in section 3.1.
CHORDATA/ AVES	Porzana porzana	Spotted Crake	<b>V</b>					2			LC Sign			Swedish Red List 2015 (VU).	See textbox below the table and in section 3.1.
CHORDATA/ AVES	Remiz pendulinus	Eurasian Penduline Tit	<b>V</b>					10			LC ©#			Swedish Red List 2015 (EN).	See textbox below the table and in section 3.1.
Fish, Mollusc a	and Crustacea														
CHORDATA/ ACTINOPTERYGII						<i>1</i>								EC Habitat Directive Annex II.	See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII	Salmo trutta					<b>/</b>		)			LC ©#				See textbox below the table and in section 3.1.
CHORDATA/ ACTINOPTERYGII			<b>V</b>								LC ©#			Swedish Red List 2015 (VU).	See textbox below the table and in section 3.1.
Others															
CHORDATA/ AMPHIBIA	Epidalea calamita		<b>V</b>			<b>7</b>					LC Sign			Swedish Red List 2015 (VU).	See textbox below the table and in section 3.1.
CHORDATA/ MAMMALIA	Lutra lutra	European Otter				<b>7</b>					NT Str	<b>✓</b>		Swedish Red List 2015 (NT). EC Habitat Directive Annex II.	See textbox below the table and in section 3.1.

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

Criterion 2, 3, 4, 5 and 6: For all species, the Swedish red-list status and general information for that classification etc can be found at http://artfakta.artdatabanken.se/. Observation of the species can be found in the Swedish database for observations http://www.artportalen.se/.

Species that have data about numbers collected 1996-2000, have their population size based upon data from Birdlife International.

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

## RIS for Site no. 16, Helge å, Sweden

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
3150. Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	<b>V</b>	Lakes/ponds with dirty grey to blue-green, turbid, waters, particularly rich in dissolved bases (pH usually > 7), with free-floating surface communities of the Hydrocharition or, in deep, open waters, with associations of large pondweeds (Magnopotamion).	Included in the EC Habitats Directive Annex II, in unfavourable conservation status in the Swedish part of that region (2013).
3260. Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Ø	Water courses of plain to montane levels, with submerged or floating vegetation of the Ranunculion fluitantis and Callitricho-Batrachion (low water level during summer) or aquatic mosses.	Included in the EC Habitats Directive Annex II, in unfavourable conservation status in the Swedish part of that region (2013).
1130. Estuaries (Baltic sub type)	Ø	Estuaries are coastal inlets with a substantial freshwater influence on brackish water. They have no tide and have large wetland vegetation (helophytic) and luxurious aquatic vegetation in shallow water areas. Sand and mud flats can occur.	Included in the EC Habitats Directive Annex II, in unfavourable conservation status in the Swedish part of that region (2013).
91E0. Alluvial forests with Alnus glutinosa and Fraxinus excelsior	Ø	Riparian forests of ash and alder on heavy soils (often rich in alluvial deposits) and periodically inundated by rise of the water level. The herbaceous layer invariably includes many large species and vernal geophytes can occur.	Included in the EC Habitats Directive Annex II, in unfavourable conservation status in the Swedish part of that region (2013).

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

## 4.1 - Ecological character

The site is comprised of shallow freshwater lakes, the river Helge å including the outlet of its tributaries (Vramsån, Mjöån and Vinneån), reedbeds, scrubs, extensive wet grasslands, wet forests and alluvial forests.

The site contains the Natura 2000 wetland habitats Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation (3150), Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation (3260), Estuaries EU-code: 1130 Fennoscandian lowland species-rich dry to mesic grasslands EU-code: 6270 and Alluvial forests with Alnus glutinosa and Fraxinus excelsior EU-code: 91E0

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

## Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
A: Permanent shallow marine waters		0	30	Representative
F: Estuarine waters		0	31	Representative

#### Inland wetlands

iniand wetiands				
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 >> Mt Permanent rivers/ streams/ creeks		4	231	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		1	2164	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		3	342	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands		2	348	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		0	10	Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases		0		Representative

## 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: Seasonallyflooded agricultural land		0	70	Rare

## Other non-wetland habitat

out of the trade o	
Other non-wetland habitats within the site	Area (ha) if known
Farmland	

## 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 Md-Latitude dimate with mild winters	Cfb: Marine west coast (Mld with no dry season, warm summer)

Not yet as we know about. There is a future risk that water flows in the catchment area changes so much that it might affect the erosion and deposition of material in the area. There may also be flooding's during times of the year when water levels normally aren't high and that can affect the species living in the flooded areas. A raised sea level will affect the lower parts of the river and low-laying areas.

4.4.2 -	Geomo	rphic	setting

a) Mnimum elevation above sea level (in metres)
a) Maximum elevation above sea level (in metres)
Entire river basin
Upper part of river basin ☐
Mddle part of river basin □
Lower part of river basin <b>☑</b>
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 catchment area of the river Helge å is around 4 725 km. The sources are situated in the northern parts of Skåne and southern Småland. The Ramsar site is situated in the lower parts of the river system. A number of tributaries to Helge å have their lower parts at the site. The river Helge å enters the Baltic sea in the bay Hanöbukten.

In the north of the catchment area there are a lot of forests and wetlands, further downstream the amount of arable land increases. There are both deciduous and coniferous forests in the catchment area. The soil is dominated moraine from old bedrock and the soil is dominated by podzols.

## 4.4.3 - Soil

Mineral ⊌	
(Update) Changes at RIS update No change	
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

valor pormanonoc	
Presence?	Changes at RIS update
Usually permanent water present	No change

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

Course of water that maintains character of the site		
Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water		No change

## Water destination

riator accuriation	
Presence?	Changes at RIS update
To downstream catchment	No change
Marine	No change

## Stability of water regime

Presence? Changes at RIS upo	
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.

Helge å is Scania's largest river with a catchment area of 4725 km². The river flows 35 km through the Municipality of Kristianstad and passes on its way to the coast (Hanöbukten) two shallow lakes Araslövssjön and Hammarsjön. The entire system downstream Torsebro is only a few inches above sea level. The water level varies with the seasons with up to two meters. In winter the water is normally one meter above sea level. In summer, the water level sometimes is so close to sea that the river flows backward. During winter even the agricultural land on the Island "Blackan" is flooded. During floods large areas of otherwise dry land become wet. The lower stretches of the river, of which the site is a part, are not regulated and has an important role in flood control.

### 4.4.5 - Sediment regime

Significant transportation of sediments occurs on or through the site  $\ensuremath{\checkmark}$ 

(Update) Changes at RIS update No change 

● Increase 

O Decrease 

O Unknown 

O

Sediment regime unknown

Please provide further information on sediment (optional):

A general increase of brownification due to more and more humic compounds in the runoff water from coniferous forests and mires in the catchment area as well as a strong supply of iron from nearby embankments (for agriculture and settlement reasons) have detoriated the ecological conditions for invertebrates and vegetation in the river and lakes.

#### 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

Please provide further information on pH (optional):

The pH in the lowlands around Kristianstad is almost always between 6 and 8, which is good. Further upstream in the basin there are parts that are sensitive for acidification.

## 4.4.7 - Water salinity

Fresh (<0.5 g/l)

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

Unknown

Please provide further information on salinity (optional):

The conductivity is normally low in Helge å because of the salinity- and nutrient poor water upstream. But sometimes there is an inflow of saline water from Hanöbukten (Baltic sea) and then the salinity rises sharply. Around the city Kristianstad the conductivity also rises due to bedrocks rich in minerals and because much is supplied from farmland, industries and storm water.

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

Eutrophic 🗹

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

Unknown [

(ECD) Water conductivity The conductivity is normally low, but inflow of saline waters from the Baltic may change that temporarily.

## 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 O ii) significantly different  $\odot$ 

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:

See text under threat about changed vegetation, the big destructive flood 2007 and the problems with greylags goose and iron etc.

## 4.5 - Ecosystem services

## 4.5.1 - Ecosystem services/benefits

**Provisioning Services** 

1 To word ming Convictor		
Ecosystem service Examples I		Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Fresh water	Drinking water for humans and/or livestock	Low
Wetland non-food products	Other	Low
Wetland non-food products	Livestock fodder	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Low
Hazard reduction	Flood control, flood storage	Medium

#### Cultural Services

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

#### Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High

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

The remains from a medieval castle (Lillöhus) can be found within the site.
"Other wetland none-food products" is manure. The site provides fish and fishing.

Have studies or assessments been made of the economic valuation of vecosystem services provided by this Ramsar Site? Yes <sup> ●</sup> No <sup> ○</sup> Unknown <sup> ○</sup>

Where economic studies or assessments of economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies may be located (e.g. website links, citation of published literature):

An investigation on ecosystem services in Kristianstad vattenrike has been done (Ref. see section 6.1.1. Cronert 1991) The aim of this study was to map the ecosystem services, supplied by the flooded meadows in Kristianstads Vattenrike Biosphere Reserve. The Millennium Ecosystem Assessment (MA) also wanted to develop a method for this type of survey. The study, a so called social-ecological inventory, builds on the findings of MA and shows that all groups of ecosystem services are represented in the flooded meadows of Kristianstads Vattenrike. In the group of (1) regulating services, water regulation and detoxification was mentioned as important. In a literature study we also found that climate regulation can be added as a regulating service from the flooded meadows. The (2) provisioning services identified in the study were meat, fodder, fresh water and manure. Fodder and meat are strongly connected to the flooded meadows due to the management by means of grazing and mowing.

The group of services most often mentioned, were the (3) cultural.

Among these, recreational values such as bird watching, trekking and ice skating have been mentioned, but also the value of the area as a symbol of Kristianstad and as part of the local identity. Other important cultural services include education, inspiration and cultural history. The (4) supporting services are essential for generating the previously mentioned ecosystem services. Primary production and the cycling of water and nutrients were mentioned as supporting services in the flooded meadows.

## 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

(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity

There is a high market for arable land due to this sand land is perfect for growing lettuce. Pastures converted to cropland

# 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
Local authority, municipality, (sub)district, etc.	<b>2</b>	<b>v</b>
National/Federal government	<b>✓</b>	<b>✓</b>

Private ownership

i iivate owiicionip		
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

Länsstyrelsen i Skåne län/ (County Administrative Board of Skåne)

S-205 15 Malmö, Sweden

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

Biosphere Office and Technical Department

managing the site: Municipality of Kristianstad

Rådhuset

S-291 32 Kristianstad, Sweden

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

Marie Löfberg

Postal address:

Länsstyrelsen Skåne Kungsgatan 13 205 15 Malmö Sweden

E-mail address: marie.lofberg@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	Medium impact	Medium impact	✓	No change	✓	No change
Commercial and industrial areas	Medium impact	Medium impact	<b>~</b>	No change	✓	No change
Tourism and recreation areas	Medium impact	Medium impact	$\checkmark$	No change	<b>2</b>	No change
Unspecified development	High impact	High impact	V	No change	✓	No change

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Medium impact	Medium impact	✓	No change	✓	No change
Water abstraction	Medium impact	Medium impact	✓	No change	<b>2</b>	No change
Salinisation	Medium impact	Medium impact	✓	No change	<b>✓</b>	No change
Canalisation and river regulation	Medium impact	Medium impact	<b>✓</b>	No change	<b>2</b>	No change

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Annual and perennial non-timber crops	High impact	High impact	<b>2</b>	No change	<b>2</b>	No change

Energy production and mining

	9					
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Renewable energy	Medium impact	Medium impact	✓	No change	✓	No change

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	High impact	High impact	✓	No change	✓	No change
Aircraft flight paths	Medium impact	Medium impact	<b>✓</b>	No change	✓	No change

#### Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fishing and harvesting aquatic resources	Low impact	Low impact	<b>2</b>	No change	<b>/</b>	No change
Gathering terrestrial plants	Low impact	Low impact	<b>/</b>	No change	<b>2</b>	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	<b>&gt;</b>	No change	<b>&gt;</b>	No change

#### Natural system modifications

Natural system modifications						
Factors advers affecting site		Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified/oth	ers Low impact	Low impact	✓	No change	✓	No change
Dams and wat management/u	Medium impact	Medium impact	✓	No change	✓	No change
Vegetation cleara		High impact	<b>₽</b>	No change	<b>/</b>	No change

#### Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified			✓		<b>✓</b>	
Agricultural and forestry effluents	Medium impact	Medium impact	<b>2</b>	No change	<b>2</b>	No change

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

The former presence of many clumps of the Common Club-rush (Schoenoplectus lacustris) has totally disappeared from the lakes during the last 10 years, probably due to intensive grazing of Greylag goose. As a result the lake is much more exposed to wind, the protection of nesting birds has decreased and the amount submerse vegetation has decreased. In the wet grasslands, meadows, along the river and lakes, the number of nesting waders has declined sharply. The reason is not entirely clear, but probably has overgrazing of greylag geese and cattle contributed, as well as a strong destructive flood in the middle of summer 2007, which killed and destroyed the vegetation in large areas of semi-natural grasslands.

A general increase of brownification due to more and more humic compounds in the runoff water from coniferous forests and mires in the catchment area as well as a strong supply of iron from nearby embankments (for agriculture and settlement reasons) have detoriated the ecological conditions for invertebrates and vegetation in the river and lakes. Investigations will continue.

## 5.2.2 - Legal conservation status

## Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Kristianstads Vattenrike Biosphere Reserve	http://www.vattenriket.kristians tad.se/index.php?page=hem	partly

## Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	14 SAC and 4 SPA, see national legislation below		partly

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000 SAC (1)	Helgeå	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (10)	Håslöv	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly

_	_		
Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000 SAC (11)	Araslövsjön	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and.go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (12)	Lingenäsen	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/indexaspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (13)	Västra Fäladen	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and.go.to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (14)	Hercules	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/indexaspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (2)	Pulken	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (3)	Egeside	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (4)	Prästängen	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and.go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (5)	Vramsåns mynning	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/vramsan/Pages/de fault.aspx	partly
EU Natura 2000 SAC (6)	Hammarsjön	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (7)	Gamlegården	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (8)	Åsumallet	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and.go.to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SAC (9)	Björkhäll	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and.go.to bevarandeplaner an then to Kristianstad and then search for the site name.	partly

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000 SPA (1)	Egeside-Pulken-Yngsjö	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SPA(2)	Vramsåns mynningsområde	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SPA(3)	Hammarsjöområdet	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 /Pages/index.aspx.and.go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
EU Natura 2000 SPA (4)	Araslövsområdet	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/natura-2000 //Pages/indexaspx and go to bevarandeplaner an then to Kristianstad and then search for the site name.	partly
Nature reserve (1)	Åby ängar	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/aby-angar/Pages/ default.aspx	partly
Nature reserve (10)	Håslövs ängar	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/haslovs-angar/Pa ges/_index.aspx	partly
Nature reserve (11)	Årummet	http://www.vattenriket.kristians tad.se/naturreservat/arummet.php	partly
Nature reserve (12)	Istemäset	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/lsternaset/Pages /_index.asp	partly
Nature reserve (13)	Näsbyfält	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/nasby-falt/Pages /_index.aspx	partly
Nature reserve (14)	Fredriksdalsviken	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/fredriksdalsvike n/Pages/_index.aspx	partly
Nature reserve (2)	Pulken-Yngsjö	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/pulken-yngsjo/Pa ges/default.asp	partly
Nature reserve (3)	Egeside	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/egeside/Pages/de fault.aspx	partly
Nature reserve (4)	Rinkaby och Horna ängar	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/rinkaby-och-horn a- angar/Pages/_index.aspx	partly

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature reserve (5)	Vramsåns mynning	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/vramsan/Pages/de fault.aspx	partly
Nature reserve (6)	Hercules	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/hercules/Pages/_ index.aspx	partly
Nature reserve (7)	Homa sjömark	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/horna-sjomark/Pa ges/default.aspx	partly
Nature reserve (8)	Hovbyängar	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/hovby-angar/Page s/default.aspx	partly
Nature reserve (9)	Åsums ängar och Åsumsallet	http://www.lansstyrelsen.se/skan e/Sv/djur-och-natur/skyddad-natu r/skydd-skansk-natur/naturreserv at/kristianstad/asumangar/Pages/ default.aspx	partly

Non-statutory designations

 ,g			
Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	River Helgeån	http://datazone.birdlife.org/sit e/factsheet/river-helgeån-iba-s weden	partly

## 5.2.3 - IUCN protected areas categories (2008)

Ib Wilderness Area: protected area managed mainly for wilderness

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

M Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

# 5.2.4 - Key conservation measures

Legal protection

Legal protection			
Measures	Status		
Legal protection	Proposed		

#### Habitat

1 IGDTGC	
Measures	Status
Habitat manipulation/enhancement	Implemented
Improvement of water quality	Implemented

## Species

Measures	Status	
Reintroductions	Implemented	

## Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Partially implemented

#### Other:

Various measures have been taken to improve the opportunities for nesting and resting birds, fish and plants. Some examples are: to improve conditions for waders, measures have been done to reduce willow bushes and support grazing and hay making. The endangered catfish (Silurus glanis), which died out as a result of water pollution in the 1960s, has been re-introduced and the population is now increasing. Also the endangered salmon (Salmo salar) has been re-introduced in recent years.

The municipality has initiated and is managing a restoration project of the tributary river Vinnean, one of the major contributor of nitrogen and phosphorus to the river Helgean and the Ramsar site. The goal within the project is to establish 50 ha of wetlands (some of them situated within the Ramsar site) and so far 32 ha have been completed. The main goal is to reduce nutrients and enhance the biological diversity. Investigation will continue for the problems with iron.

#### 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 Yes O No 

Yes O No site?

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 processes 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.

During 2010 a new visitors centre, "naturum Vattenriket" was inaugurated. The municipality is responsible for the activities. There are four outdoor museums, 12 bird towers, one hide, trails as well as boat rides, nature school activities and folders.

URL of site-related webpage (if relevant): www.vattenriket.kristianstad.se

#### 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
Plant species	Implemented
Water quality	Implemented

The University of Lund carries out research of brownification. The County Administrative Board and the Municipality/Biospere office is monitoring breeding wader birds, ducks, Greylag goose, Catfish and endangered plant species as Fen Orchid (Liparis loeselii), the Fen Ragwort (Senecio paludosus) and Slender Naiad (Najas flexilis). The Local Birding association with Nedre Helgeans Bird Station carries out research, inventories and bird ringing.

## 6 - Additional material

## 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Cronert, H. 1991. Project "Kristianstads Vattenrike" – An Economic Approach to Wetland Management. In Wetland Management and Restoration. Proceedings of a Workshop, Sweden, 12-15 sep 1990. ed. CM Finlayson and Torsten Larsson. SNV-rapport 3992.

Cronert, H. 2000. Naturvård i Kristianstads Vattenrike, handlingsprogram 2001-2003. Kristianstads kommun, Länsstyrelsen i Skåne län.

Cronert, H. 2001. Araslövssjöns häckfåglar under ett kvarts sekel, Meddelande nr 25 från Helge åns Fågelstation, Anser 4/ 2001 s. 209-216

Cronert, H. 2010. Strandängsfåglar längs nedre Helgeån i Kristianstads Vattenrike 2009 –med jämförelser bakåt i tiden. Anser 2010:2.

Cronert, H. & Lindblad, T. Häckande simänder och vadare på strandängarna i Kristianstads Vattenrike. Resultat från en inventering våren 1997. Anser 37: s 89-102.

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Dahl, J. 2011. Provfiske i Hammarsjön och Araslövssjön 2010. Vattenriket i fokus 2011:02. Biosfärkontoret.

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Dahl, J. 2012. Provfiske efter mal i Nedre Helgeån 2011. Vattenriket i fokus 2012:05. Biosfärkontoret.

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Magnusson S-E., Magntorn K., Wallsten E., Cronert H. mfl. 2005. Ansökan till Unesco. Biosfärområde Kristianstads Vattenrike

Nekoro,M och Svedén,J. 2009. Ekosystemtjänsteanalys i Kristianstad vattenrike. Naturvårdsverket rapport 5947. Sthlm. http://www.naturvardsverket.se/Om-Naturvardsverket/Publikation

Olofsson, P. 2004-2012. Flyginventeringar av grågås i Hammarsjön Utförda av Patrik Olofsson/ Ecolmages .

Olofsson, P. 2006. Hammarsjöns häckande fåglar. Inventering 2006 och utveckling sedan 1956. Skriftserien Vattenriket i fokus 2006:01, Biosfärkontoret Kristianstads Vattenrike

Ollson, K-A. 2011. Uppföljning av gullstånds 2011.

Oveson, P. 2009. Markhävdkartering 2008. Hävdtillståndet på betesmarker och slåtterängar inom nedre Helgeåns våtmarksområde i Kristianstads Vattenrike. Vattenriket i fokus 2009:05

Wagnström, J., Magnusson, S-E., Söderlind, K. & Vägren, G. 1992. Fiskar i Kristianstads Vattenrike.

## 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



Helge å ( Kristian Nilsson, 05-09-2010 )



Reintroduction of catfish to Helge å ( *Kristian Nilsson*, 05-09-2010 )

## 6.1.4 - Designation letter and related data

## Designation letter

<1 file(s) uploaded>

Date of Designation 1974-12-05