

Ramsar Information Sheet

Published on 10 May 2023 Update version, previously published on : 9 July 2018

Norway

Froan Nature Reserve and Landscape Protection Area



Designation date 18 March 1996

Site number 809

Coordinates 64°05'55"N 09°13'17"E

Area 49 097,00 ha

RIS for Site no. 809, Froan Nature Reserve and Landscape Protection Area, Norway

Created by RSIS V.1.6 on - 10 May 2023

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 the large archipelago Froan, located northeast of the island Frøya. The Site is a coastal nature reserve, typified with hundreds of islands, skerries and islets, with shallow marine waters in the extreme outermost coastal zone. Extensive tidal zones with seaweed, kelp beds and to a lesser degree sandy shores, are also an important feature. The outermost parts of the area have naked skerries and rocky outcrops devoid of vegetation due to the rough seas, while the larger, more protected islands have bogs and meadows. The vegetation is to a large degree characterized by traditional agriculture methods, such as the large heather meadows that have been burned and grazed by livestock throughout centuries.

The Site is a very important wintering, moulting and breeding area for seabirds, and for breeding coastal seals, and supports both red-listed bird species as well as more common ones.

2 - Data & location

2.1 - Formal data

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

Institution/agency Norwegian Environment Agency P.O. Box 5672 Torgarden, N-7485 Trondheim, Norway Postal address

National Ramsar Administrative Authority

Postboks 5672 Sluppen Postal address Trondheim Norway

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

From year 1996 To year 2021

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Froan Nature Reserve and Landscape Protection Area Spanish)

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

(Update) A. Changes to Site boundary Yes O No O (Update) B. Changes to Site area No change to area $^{ ext{(Update)}}$ For secretariat only: This update is an extension \Box

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including Not evaluated applicable Criteria) changed since the previous RIS?

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

Former maps 0

Boundaries description

The boundaries are the same as for the Froan Nature Reserve and the Froan Landscape Protection Area. Due to conflicts caused by some established aquaculture within the boundaries of the Site, these areas were removed from the Ramsar Site and the area around the island Halten was added as a compensation. The removed area measures 30 ha, while the added area measures 440 ha.

2.2.2 - General location

a) In which large administrative region does Trøndelag the site lie? b) What is the nearest town or population Trondheim 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 O No 🖲

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): 49097

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

49097.68

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	1. Atlantic
Other scheme (provide name below)	2. Southern boreal zone, highly oceanic section (SbO3)

Other biogeographic regionalisation scheme

- 1. EU Habitat directive 92/43/EEC
- 2. Zonal division showing the variation in vegetation from south to north and from the lowlands to the mountains, and sectional graduation showing the variation between the coast and inland (ln: Moen, A. 1998. Nasjonalatlas for Norge; vegetasjon. Statens kartverk, Hønefoss).

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

Froan is a marine archipelago area with shallow waters dotted with numerous skerries, islets and islands. Other reasons This kind of archipelago is typical of the North-European coast, and supports high numbers of breeding seabirds, as well as seals. Froan is a very representative site for this type of coastal landscape.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

The Site supports breeding populations of the nationally red-listed species such as the common tern Sterna hirundo (EN), the black-legged kittiwake Rissa tridactyla (EN), and the Arctic puffin Fratercula arctica (EN).

Criterion 3 : Biological diversity

Justification

Extensive marine shallow waters with a large production of marine invertebrates and fish, combined with large seaweed beds and kelp forests sustain a rich animal life. The area is an important breeding site for both red-listed and more common species of seabirds. There are also strong populations of several species of seals, such as the grey seal Halichoerus grypus and the harbour seal Phoca vitulina.

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

Overall waterbird numbers 20 000

Start year 2005

End year 2005

Source of data: Norwegian Institute for Nature Research

Optional text box to provide further Over 20 000 water birds have been supported by the site since the designation, and the most recent information counts are from 2005 (Norwegian institute for nature research, 2006).

☑ Criterion 6 : >1% waterbird population

The site regularly supports more than 1% of the common eider population (Norway & Russia population), Optional text box to provide further with about 5000 wintering individuals and 2800 breeding pairs, about 2% of the great northern loon information population, with about 100 wintering individuals and about 2% of the great cormorant population, with about 2280 breeding individuals. However, more recent estimates does not exist.

☑ Criterion 9 : >1% non-avian animal population

Optional text box to provide further information

The world population of the grey seal Halichoerus grypus is estimated to 632,000 animals. The north-east Atlantic stock is much less than this (estimated 66,000 individuals in 2016). With 1200-1300 animals estimated in 2005, Froan therefore probably holds more than 2 % of the bio-geographic population of the species. Available data on the grey seal abundance were compiled and reviewed in the 2016 IUCN Red List assessments for the two recognized subspecies. See http://www.iucnredlist.org/details/9660/0

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

<no data available>

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

3.3 - Ani	mai species	wnose	presence rela	ates t	o tne interna	tional im	ipor	tance o	the site	9	
Phylum	Scientific name	criterio	ınder contributes	Pop. Size	Period of pop. Est.		IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Others									<u>'</u>		
CHORDATA / MAMMALIA		2 2 C		1200	2016	2	LC			National Red List Status: VU	Criterion 4: Important breeding site for this species. The area most likely suports 1% of the biographic population (North-east Atlantic stock)
CHORDATA/ MAMMALIA	Lutra lutra	V					NT	 ✓		Annex II Bern Convention	Criterion 4: Strong breeding population on the site.
CHORDATA/ MAMMALIA	Phoca vitulina			600	2004		LC				Criterion 4: Important breeding site for this species.
Birds											
CHORDATA/ AVES	Anser anser			2000	2005		LC				Criterion 4: Important breeding and moulting site for this species.
CHORDATA/ AVES	Cepphus grylle			3000			LC				App. 3000 breeding individuals Criterion 4: The site is a important breeding and wintering area for this species.
CHORDATA/ AVES	Clangula hyemalis			977	2005		VU				App. 977 wintering ind. Criterion 4: Important wintering site
CHORDATA/ AVES	Fratercula arctica	2					VU			National Red List Status: EN	Criterion 4: The species has a breding population on the site.
CHORDATA/ AVES	Gavia adamsii	Z					NT			National Red List Status: EN	Criterion 4: Wintering site for this species.
CHORDATA/ AVES	Gavia immer			100	2005	1.05	LC				Criterion 4 & 6: Important wintering site for this species, supports more than 1 % of the European population in this period (1% = 50 ind.)
CHORDATA / AVES	Haliaeetus albicilla						LC	\mathscr{J}	✓		Criterion 4: Important breeding site for this species.
CHORDATA/ AVES	Larus argentatus	V					LC			National Red List Status: VU	Criterion 4: Breeding site for this species.
CHORDATA / AVES	Larus marinus			3450	2005		LC				Criterion 4: Breeding site for this species.
	Mergus serrator						LC				Criterrion 4: Important wintering and moulting site for this species.
CHORDATA / AVES	Numenius arquata	77					NT			National Red List Status: EN	Criterion 4: Important wintering site for this species.
	Phalacrocorax aristotelis			1000	2005		LC				Criterion 4: Breeding site for this species, app. 1000 ind.

Phylum	Scientific name	qua	Specie lifies u criterio	nder contribu	ites erion	Pop. Size	Period of pop. Est.		IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Phalacrocorax carbo		V			2280	2005	2.35	LC				Criterion 4 & 6: Important breeding site for this species (2280 ind. observed in 2005), supports more than 1% of North-West European population (1% 1200 ind.)
CHORDATA / AVES	Rissa tridactyla	V	/						VU			National Red List Status: EN	Criterion 4: Important breeding site for this species.
CHORDATA/ AVES	Somateria mollissima	V	V			5000	2005	1.56	NT			National Red List Status: VU	Criterion 4: Important site for the species, app. 2800 breeding pairs and 5000 wintering individuals (Estimate from 2005).
CHORDATA / AVES	Stercorarius parasiticus		1						LC				Criterion 4: Important site for this species
CHORDATA / AVES	Sterna hirundo	1	1						LC			National Red List Status: EN, Annex II Bern Convention	Crterion 4: Breeds on the site.
CHORDATA/ AVES	Sterna paradisaea		2			7000	2005		LC				Criterion 4: Important breeding site for this species, app. 7000 individuals counted in 2005.

¹⁾ Percentage of the total biogeographic population at the site

Black-legged kittiwake: The main breeding population nests on the island Halten, which is not a part of the Ramsar site. The surrounding areas is however naturally of great importance to the species.

Population estimated are based mainly on counts during winter 2005-2006 (see Norwegian institute for nature research, 2006). More recent estimates does not exist.

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

	· ·	· · · · · · · · · · · · · · · · · · ·	
Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Coastal heath	2	Semi-natural nature type with low-growing heath vegetation	National Red List Status: EN

Optional text box to provide further information

Kelp forest: Marine shallow waters with a large production of seaweed and kelp, Important to biodiversity on the site, as they sustain a rich animal life.

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

4.1 - Ecological character

The area is characterized by numerous skerries and islands in the extreme outermost coastal zone devoid of vegetation due to the rough seas. Extensive marine shallow waters with a large production of marine invertebrates and fish, combined with large seaweed beds and kelp forests sustains a rich animal life. Larger islands in the landscape protection area, and partly also in the nature reserve, with coastal meadows and small bogs. The vegetation is dominated by common species on coastal shores, bogs and meadows, like different sedge and heather species. The area is free of the American mink (Neovison vison), which is very positive for the bird populations.

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		1		Representative
B: Marine subtidal aquatic beds (Underwater vegetation)		2		Representative
D: Rocky marine shores		3		Representative
E: Sand, shingle or pebble shores				

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		3		

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Other noteworthy plant species						
Phylum	Scientific name	Position in range / endemism / other				
TRACHEOPHYTA/MAGNOLIOPSIDA	Digitalis purpurea	The mild winter climate is ideal for cold sensitive plant species like Digitalis purpurea				

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfc: Subarctic (Severe winter, no dry season, cool summer)

The area has an Atlantic climate, with relatively cool summers and mild winters. Annual precipitation is relatively high exceeding 1200 mm.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)
a) Maximum elevation above sea level (in metres)
Entire river basin
Upper part of river basin
Middle part of river basin
Lower part of river basin
More than one river basin

KIS for Site no. 809, Froat	n mature Keserve an	tu Lanuscape Protectio	ii Area, Porway
	No	tin river basin \square	
		Coastal 🗹	
Please name the river basin or b	pasins. If the site lies in a	sub-basin, please also nam	e the larger river basin. For a coastal/marine site, please name the sea or ocean.
Norwegian Sea			
4.4.3 - Soil			
		Mineral ☑	
	(Update) Changes		Increase O Decrease O Unknown O
		le information	of inclease of Declease of Officionin of
Are soil types subject to char conditions	nge as a result of changin (e.g., increased salinity or	acidification)?	
Please provide further information	on on the soil (optional)		
			owers of the sea and ice. Extensive intertidal zones with seaweed and to a
lesser degree sandy shor	res are important fea	tures.	
4.4.4.100.1			
4.4.4 - Water regime			
Water permanence Presence? C	Changes at RIS update		
Usually permanent water present			
Source of water that maintains ch	aracter of the site	Changes at RIS update	
Marine water		No change	
Water destination			
Presence? C	Changes at RIS update		
Marine	No change		
Stability of water regime			
Presence? C Water levels fluctuating	Changes at RIS update		
(including tidal)	No change		
4.4.5 - Sediment regime			
	Sedimentreg	jime unknown 🗹	
4.4.6 - Water pH			
		Unknown 🗹	
4.4.7 - Water salinity			
		ine (30-40 g/l) ☑	
	^(Update) Changes	at RIS update No change	Increase O Decrease O Unknown O
		Unknown	
4.4.9 Dissalved or suppo	nded putrients in wat	0.5	
4.4.8 - Dissolved or suspe	nded nutrients in wat		
		Unknown 🗹	
4.4.9 - Features of the surr	ounding area which i	may affect the Site	
Please describe whether, and	-		
			ıilar ○ ii) significantly different
		site itself:	
Surrounding area h	as greater urbanisation of	r development \square	
Surrounding are	ea has higher human popu	ulation density \square	
Surrounding a	area has more intensive a	gricultural use 🗖	
Surrounding area has signific	antly different land cover o	r habitat types	
Please describe other ways in w	which the surrounding area	a is different:	

-IC	hı	na
1 13	1 11	ıш

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)	Medium
Wetland non-food products	Livestock fodder	Low

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	Low
Recreation and tourism	Water sports and activities	Low
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Scientific and educational	Long-term monitoring site	Medium

Supporting Services

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

Other ecosystem service(s) not included above:

Parts of this archipelago has been abandoned, while historically interesting fishing villages remain. Two monumental lighthouses are protected according to the Cultural Heritage Act.

Site: Nature conservation, fishing, grazing and some boating activity.

Surrounding/catchment: Fishing.

Boat tourists on a limited scale. Some houses have been turned into leisure houses.

Several long-running projects are conducted in the area. Notably, these are research on seals and monitoring of the breeding population of Phalacrocorax spp. At regular intervals, seabirds are counted. On a smaller scale, bird ringing and bird observations are conducted.

Have studies or assessments been made of the economic valuation of	Vas O Na O Link	nown (
ecosystem services provided by this Ramsar Site?	res O No O onk	IOWII

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 ivilizations 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 neir existence is strongly linked with the maintenance of the ecological character of the wetland	

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Priva	te	OW	/ne	rs	hi	n

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	₽	

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

site: Private.	
surrounding area: None	

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for	County Governor of Trøndelag
managing the site:	
Provide the name and/or title of the person or people with responsibility for the wetland:	County Governor of Trøndelag
Postal address:	
	N-7734 STEINKJER
E-mail address:	sftlpost@statsforvalteren.no

5.2 - Ecological character threats and responses (Management)

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

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Marine and freshwater aquaculture	unknown impact	unknown impact		No change	✓	increase

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	2	No change	✓	No change

Please describe any other threats (optional):

At the site: There is an established aquaculture inside the area that used to be Ramsar site. This was cause for some conflict at the time. The issue has been solved by removing these areas from the Ramsar area, and instead adding the area around island Halten. The removed area measured 30 ha, and the added island measures 440 ha.

In the surroundings/catchment: None.

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
landscape protection area	Froan		whole
nature reserve	Froan		whole

5.2.3 - IUCN protected areas categories (2008)

How is the Site managed?, S5 - Page 1

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

III Natural Monument: protected area managed mainly for conservation of specific natural features	
IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention	
V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation	
VI Managed Resource Protected Area: protected area managed mainly	

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site?

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 opposes 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.

Different leaflets and posters have been produced.

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
Animal species (please specify)	Implemented
Birds	Implemented

Several long running projects are conducted in the area. Notably, these are research on seals and monitoring of the breeding population of Phalacrocorax spp. At regular intervals, seabirds are counted. On a smaller scale, bird ringing and bird observations are conducted.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

County Governor in Sør-Trøndelag. 2015. Forvaltningsplan for verneområdene i Froan i Frøya kommune. (In Norwegian - Management plan for the protected areas in Froan in Frøya municipality).

Artsdatabanken (2021, 24. november). Norsk rødliste for arter 2021. https://www.artsdatabanken.no/lister/rodlisteforarter/2021

Lindgaard, A. and Henriksen, S. (eds.) 2011. Norsk rødliste for naturtyper 2011 - Norwegian red list for ecosystems and habitat types 2011. Artsdatabanken, Norway.

Moen, A. 1998. National atlas of Norway. Vegetation. Norwegian Mapping Authority, Hønefoss.

Norwegian Institute for Nature Research. 2006. Kartlegging og overvåking av sjøfugl og sjøpattedyr i Froan. NINA rapport 202. (In Norwegian -Monitoring of sea birds and sea Mammals in Froan).

http://critical-sites.wetlands.org/en

Numerous reports (in Norwegian) and studies have been published on the natural history and botanical history of the area.

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

<1 file(s) uploade

vi. other published literature

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Froan nature reserve (County Governor Sør-Trøndelag, 12-06-2012)



Froan nature reserve (County Governor Sør-Trøndelag, 12-06-2012



Froan nature reserve (County Governor Sør-Trøndelag, 13-06-2012)

6.1.4 - Designation letter and related data

Designation letter

Date of Designation 1996-03-18