

# **Ramsar Information Sheet**

Published on 8 May 2023 Update version, previously published on : 17 April 2018





Designation date 27 May 2013 Site number 2147 Coordinates 68°56'18"N 15°11'43"E Area 1 472,00 ha

https://rsis.ramsar.org/ris/2147 Created by RSIS V.1.6 on - 8 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

Grunnfjorden is a wetland area located in the north-eastern part of the island Langøya in the Vesterålen archipelago in northern Norway. The Site comprises a complex of large mires dominated by Sphagnum spp. with small rivers, pools and lakes, shallow beach areas with islets, skerries, large intertidal flats and a lagoon system with brackish water and freshwater. The largest freshwater system is lake Grunnvatnet, found northwest in Grunnfjorden. The Site area is mostly flat, with the highest point in Ramhaugen at 37 m.a.s.l.,. Along the shoreline, there are different vegetational communities from grass-rich slopes to mudflats. Some of the small ponds have belts of the water horsetail and the bottle sedge. On the extensive shallow water areas, there are large meadows of eelgrass.

Because of a high primary production combined with the variety of biotiopes, the Site provides key migratory routes for waterbirds, making it an internationally important staging area for many species during spring and autumn migration. The area is also particularly known for being one of the northernmost overwintering locations for whooper swans.

The Site is important for shoreline stabilization and archaeological/historical features are registered in the area. Main human activities within the Site are agriculture, cattle grazing, fishing, hunting, tourism, and berry picking (cloudberries). Most of the habitat types present at the Site have been cultivated or damaged by draining elsewhere in the area.

# 2 - Data & location

- 2.1 Formal data
- 2.1.1 Name and address of the compiler of this RIS

## Responsible compiler

Institution/agency Norwegian Environment Agency

Postal address Post box 5672 Torgarden, N-7485 Trondheim, Norway

## 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	1978
To year	2021

## 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Grunnfiorden		
Grunnfiorden	Official name (in English, French or	
		Gruppfiordon
On an information	On and the ball	Giuinijoiden
Spanish)	Spanisn) -	-

#### 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 O No O	
<sup>(Update)</sup> B. Changes to Site area No change to area	
<sup>(Update)</sup> For secretariat only: This update is an extension	

#### 2.1.5 - Changes to the ecological character of the Site

<sup>(Update)</sup> 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?

## 2.2 - Site location

#### 2.2.1 - Defining the Site boundaries

## b) Digital map/image

<1 file(s) uploaded>

Former maps 0

#### Boundaries description

The boundary is the same as for the existing Grunnfjorden Nature Reserve. The reserve has one part with mires and one marine part. The mire is divided by a road.

## 2.2.2 - General location

a) In which large administrative region does	Nordland County
the site her	
b) What is the nearest town or population centre?	Harstad

## 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  $\textcircled{\sc op}$ 

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): 1472

Area in hectares (ha) as calculated from	
	1485.108
GIS boundaries	

## 2.2.5 - Biogeography

Biogeographic regions											
Regionalisation scheme(s)	Biogeographic region										
EU biogeographic regionalization	Atlantic										

Other biogeographic regionalisation scheme

European Environmental Agency (EEA, 2012): http://www.eea.europa.eu/data-and-maps/figures/biogeographical-regions-in-europe-1

# 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 reasons Other reasons The site supports a large and intact mud flat/sand flat in northern Norway. It also comprises large and characteristic fjord mires which are typical and representative for the northern coastal plains. Most of these habitat types have been cultivated or damaged by draining elsewhere in the area.

## Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information Nationally threatened species breeds in the area.

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

Optional taxt have a revide further	The Site provides key migratory routes for waterbirds, making it an internationally important staging area
optional text box to provide further	for many species during spring and autumn migration. The area is also particularly known for being one of
mormation	the northernmost overwintering locations for whooper swans.

## 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

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion 3 5 7 8	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Others											
CHORDATA/ MAMMALIA	Lutra lutra	Vooo					NT			Ann. Il Berne Convention	Criterion 2: This threatened species uses the site during the year. This species probably breeds on the site.
Fish, Mollusc a	nd Crustacea										
CHORDATA/ ACTINOPTERYGII	Salmo trutta						LC				Criterion 4: This species migrate up Grunnvatet and Trettenelva
Birds											
CHORDATA/ AVES	Anas penelope										Criterion 4: The reserve is an important staging area for this species. Up to 2 000 individuals have been observed during migrations.
CHORDATA/ AVES	Anas platyrhynchos						LC				Criterion 4: The reserve is an important staging area for this species, some also breed here.
CHORDATA/ AVES	Anser anser						LC				Criterion 4: The reserve is an important staging area for this species. In the breeding season this species is considered a character species.

Phylum	Scientific name	9 0 0 2	Spec jualit und rite 4	cies fies ler rion 6	9 3	Spe contr un crite 5	ecies ribute nder erior 7	s es n 8	Pop. Size	Perio	d of po	p. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix	Other Status	Justification
CHORDATA/ AVES	Anser brachyrhynchus		Z											LC				Criterion 4: The reserve is an important staging area for this species
CHORDATA/ AVES	Aythya marila	V												LC			National Red List: Considered as EN	Criterion 2: This threatened species visits the site occasionally through the year, but is not a regular species here.
CHORDATA/ AVES	Calidris alpina	V	Ø											LC			Ann. II Berne Convention	Criterion 4: In the breeding season this species is considered a character species. 15 breeding pairs (2013).
CHORDATA/ AVES	Calidris canutus		Z											NT			Svalbard Red List: Considered as VU	Criterion 4: The reserve is an important staging area for this species
CHORDATA/ AVES	Calidris maritima	V	Ø											LC			Ann. II Berne Convention	Criterion 4: The reserve is an important staging area for this species. 100-200 individuals have been observed during spring migration.
CHORDATA/ AVES	Cepphus grylle		Ø											LC				Criterion 4: The site is important as a breeding site for this species.
CHORDATA/ AVES	Chroicocephalus ridibundus	V	Z														National Red List: Considered as CR	Criterion 4: The site is important as a breeding site for this species.
CHORDATA/ AVES	Clangula hyemalis	Ø	V											VU				Criterion 4: This is an overwintering species for this wetland.
CHORDATA/ AVES	Cygnus cygnus	V	Ø						100					LC			Ann. II Berne Convention, Emerald Network	Criterion 4: The marine part is important for moulting waterbirds such as this species. The site represents a northerly wintering area for this species. Over 100 individuals have been observed in the reserve midwinter.
CHORDATA/ AVES	Falco peregrinus	I	Ø											LC	<b>X</b>			Criterion 4: This species is commonly found foraging during autumn migration.
CHORDATA/ AVES	Falco rusticolus		Z											LC	×		National Red List: Considered as VU	Criterion 4: This species is commonly found foraging during autumn migration.
CHORDATA/ AVES	Fratercula arctica	V												VU			National Red List: Considered as EN	Criterion 2: This threatened species visits the site occasionally through the year, but is not a regular species here.
CHORDATA/ AVES	Gavia arctica													LC				Criterion 4: In the breeding season this species is considered a character species. The site is also utilized as an overwintering area.
CHORDATA/ AVES	Gavia stellata		Z											LC				Criterion 4: In the breeding season this species is considered a character species.
CHORDATA/ AVES	Haematopus ostralegus		V											NT				Criterion 4: In the breeding season this species is considered a character species. 16 breeding pairs (2013).
CHORDATA/ AVES	Larus argentatus	×	Ø											LC			National Red List: Considered as VU	Criterion 4: In the breeding season this species is considered a character species. 14 breeding pairs (2013).
CHORDATA/ AVES	Larus canus	I	Ø											LC			National Red List: Considered as VU	Criterion 4: In the breeding season this species is considered a character species. 26-27 breeding pairs (2013).
CHORDATA/ AVES	Larus marinus		Z											LC				Criterion 4: In the breeding season this species is considered a character species. 47 breeding pairs (2013).

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9	Species contributes under criterion 3 5 7 8	Pop. Size	Period of pop. Est.	% IUC occurrence Re 1) Lis	N d Appendix	CMS I Appendix I	Other Status	Justification
CHORDATA/ AVES	Limosa limosa	ØOOC				NT			National Red List: Considered as CR	Criterion 4: This is one of the rarest breeding species to be found in Norway. A report from 2017 found a pair of this species in this wetland, and to likely be breeding inside with area. However, this is not a regular breeder within this wetland.
CHORDATA/ AVES	Melanitta fusca	ØØOC				VL			National Red List: Considered as VU	Criterion 4: This is an overwintering species for this wetland.
CHORDATA/ AVES	Mergus serrator					LC				Criterion 4: This species breeds here. During summer months one can also find large aggregations moulting individuals. 7-11 breeding pairs (2013).
CHORDATA/ AVES	Numenius arquata	ØØOC				NT			National Red List: Considered as EN	Criterion 4: The site is important as a breeding site for this species.
CHORDATA/ AVES	Numenius phaeopus					LC				Criterion 4: In the breeding season this species is considered a character species. 20 breeding pairs (2013).
CHORDATA/ AVES	Philomachus pugnax	ØOOC							National Red List: Considered as VU	Criterion 2: This threatened species visits the site occasionally through the year, but is not a regular species here.
CHORDATA/ AVES	Pluvialis apricaria					LC				Criterion 4: In the breeding season this species is considered a character species. 24 breeding pairs (2013)
CHORDATA/ AVES	Somateria mollissima	ØØOC				N			National Red List: Considered as VU	Criterion 4: This species breeds here. 15-20 breeding pairs (2013).
CHORDATA/ AVES	Stercorarius parasiticus	200				LC			National Red List: Considered as VU	Criterion 4: The site is important as a breeding site for this species. 53 breeding pairs (2013).
CHORDATA/ AVES	Tringa totanus					LC				Criterion 4: In the breeding season this species is considered a character species. 25 breeding pairs (2013).
CHORDATA/ AVES	Vanellus vanellus					NT			National Red List: Considered as CR	Criterion 4: The reserve is an important staging area for this species. The site is important as a breeding site for this species.

1) Percentage of the total biogeographic population at the site

Capitalized letters shows the species' status on the National Red List 2021.

# 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
Tidal meadow	V		National Red List: Considered as VU

Optional text box to provide further information

Capitalized letters shows the habitats' status on the National Red List for Ecosystems and Habitat types 2018.

Eelgrass meadow: The extensive shallow water areas are supporting large communities of eelgrass Zostera spp. important for invertebrates as well as grazing waterbirds.

Drift lines: An area of the shore on which material is deposited or washed up containing nutrients, comprising important foraging opportunities for waterfowl.

Coastal bog: This nature type is found within the Ramsar-site.

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

## 4.1 - Ecological character

The Grunnfjorden site is situated in the boreal vegetational zone, and is characterized by:

• Extensive mire areas dominated by Sphagnum spp., usually poor in nutrients, but with elements of more nutritious parts, particularly in the south. The mire area contains a number of ponds and lakes.

• Marine tidal zones with mud- and sandflats, and shallow marine waters, including communities with Zostera, Potamogeton and Salicornia.

• A unique lagoon system in the tidal zones, where brackish or freshwater conditions occur with aquatic vegetation (e.g. Potamogeton, Equisetum).

• Wet salt-influenced meadows, e.g. typically with Puccinellia and Carex.

• Since the mire mostly receives water from precipitation, the flora is characterised as poor, however, the unspoiled habitat itself is characterized as botanically interesting. In some smaller parts, nutritious water from the bedrock contributes to a richer flora.

• The eastern marine part is characterized by battered islets and skerries, and more sheltered bays and tidal zones.

## 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		4	177	
G: Intertidal mud, sand or salt flats		2	294	
H: Intertidal marshes		0	29	
J: Coastal brackish / saline lagoons		3	191	

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		0	15	
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		0	29	
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		1	736	Representative

## 4.3 - Biological components

#### 4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/POLYPODIOPSIDA	Dryopteris carthusiana	A species not usually encountered in this region.
TRACHEOPHYTA/MAGNOLIOPSIDA	Galium trifidum	This species does not have a wide distribution in this region.
TRACHEOPHYTA/LILIOPSIDA	Ruppia maritima	A species not usually encountered in this region.
TRACHEOPHYTA/LILIOPSIDA	Sparganium emersum	This species does not have a wide distribution in this region.

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/PINOPSIDA	Picea abies	Potential	No change

#### 4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
CHORDATA/ACTINOPTERYGII	Oncorhynchus mykiss	Potential	No change

## 4.4 - Physical components

What is the Site like?, S4 - Page 1

#### 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 Site has an oceanic climate with mild winters and relatively wet and cool summers. Annual average temperature og 4-6°C, with and average temperature of 12-16°C in July and 0-4°C in January. Annual average precipitation between 1500-2000 mm, with 220-240 days of precipitation per year.

#### 4.4.2 - Geomorphic setting

) Minimum elevation above sea level (in metres) 0
) 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 $\Box$
Not in river basin
Coastal 🗹

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The site belongs to two river basins, Grunnvatnet and Tretneelva. They both flows out into the Norwegian Sea.

## 4.4.3 - Soil

## Mineral 🗹

<sup>(Update)</sup> Changes at RIS update No change <sup>(Update)</sup> Increase <sup>(Update)</sup> Decrease <sup>(Update)</sup> Unknown <sup>(Update)</sup>

No available information

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)

Clay, silt and gravel dominate in the marine parts, whereas peat covers most of the mire area. In the mire area we find moraine and seabeddeposits, overgrown with precipitation-mires dotted with small ponds and lakes.

#### 4.4.4 - Water regime

Water permanence	
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 precipitation	×	No change	
Marine water		No change	

#### Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The site comprises a large area of shallow water. The variation between high and low tides measured at Andenes (the closest measure station) averages 134 cm on an annual basis.

There are tidal marine zones with mud- and sandflats, sheltered bays, islets and skerries with shallow marine waters, including a lagoon system with brackish water and freshwater.

4.4.5 - Sediment regime

Sediment regime unknown

#### 4.4.6 - Water pH

Unknown 🗷

## 4.4.7 - Water salinity

Fresh (<0.5 g/l)</td>

(Update) Changes at RIS update

No change Increase Decrease Unknown

Mxohaline (brackish)/Mxosaline (0.5-30 g/l)

(Update) Changes at RIS update

No change Increase Decrease Unknown

(Update) Changes at RIS update

No change Increase Decrease

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Unknown **Automanian Contraction Co** 

Please describe other ways in which the surrounding area is different:

Agricultural activities, mainly grazing by cattle and harvesting of grass occurs in the site.

## 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	Other	Medium
Wetland non-food products	Livestock fodder	Medium

#### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	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	Medium	
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium	

#### Supporting Services

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

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

Agricultural activities: there are some cattle grazing in the area and a fence is put up to keep the cattle away from the road.

The area is to some extent used by tourists and residents, mainly for berry picking (cloudberry), fishing and hunting. The area is occasionally visited by birdwatchers.

Archeological/historical sites are registered within the area.

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site?

## 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  $\Box$  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

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

## 5.1.2 - Management authority

Please list the local office / offices of any	County Governor of Nordland
agency or organization responsible for	
managing the site:	
Postal address:	Statsforvalteren i Nordland Pb. 1405 N-8002 Bodø
E-mail address:	sfnopost@statsforvalteren.no

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

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

١	Water regulation							
	Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes	
	Dredging		Medium impact	s.	No change		No change	

Agriculture and aquaculture						
Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Livestock farming and ranching		Medium impact		No change	V	No change
Non specified	Medium impact	Low impact	×	No change	1	No change

## Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified		Medium impact	×	No change		No change

#### Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Logging and wood harvesting		Medium impact	×.	No change		No change

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified/others		Medium impact		No change	×	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species		Medium impact	X	No change		No change

#### Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Unspecified		Medium impact		No change	×	No change
Agricultural and forestry effluents		Medium impact		No change	Ø	No change

Please describe any other threats (optional):

#### There is a road going through the Ramsar site.

In the catchment area, there is some agricultural land and activities, which leads to erosion and nutritious run-off. However, the number of farms and the extent of agricultural land in the catchment area is decreasing.

A power line extending across the mire has resulted in several birds colliding (with death as an outcome), however, measures have been taken to place the power line below ground in order to prevent further collisions.

Cultivation of mires, prior to the area being protected, in order to increase cloudberry output still shape the landscape in some places.

Common spruce was removed from the protected area in 2010. Mink is also observed inside the area, but less frequently now than previous years.

Illegal driving by motorized vehicles creates traces and damages to the vegetational cover and soil, alter natural drainage conditions and/or could increase erosion.

## 5.2.2 - Legal conservation status

#### National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Reserve	Grunnfjorden		whole

## 5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve 📝

- Ib Wilderness Area: protected area managed mainly for wilderness protection
  - II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

#### 5.2.4 - Key conservation measures

#### Legal protection

Measures	Status
Legal protection	Implemented

#### Human Activities

Measures	Status
Harvest controls/poaching enforcement	Implemented
Regulation/management of recreational activities	Implemented

#### 5.2.5 - Management planning

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

Has a management effectiveness assessment been undertaken for the

site? Yes 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 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:

Posters with information about the Nature Reserve, ecological and biological facts and information of the regulations of activities have been put up in five different places.

5.2.6 - Planning for restoration

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

RIS for Site no. 2147, Grunnfjorden, Norway

## 5.2.7 - Monitoring implemented or proposed

<no data available>

# 6 - Additional material

## 6.1 - Additional reports and documents

## 6.1.1 - Bibliographical references

Forvaltningsplan for Grunnfjorden naturreservat 2013-2022, Fylkesmannen i Nordland, Miljøvernavdelinga. Rapport nr. 7/2013.

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

Artsdatabanken (2018). Norsk rødliste for naturtyper 2018. Hentet (July 2022) fra https://www.artsdatabanken.no/rodlistefornaturtyper - 2018 Norwegian Red List for Ecosystems and Habitat Types. Artsdatabanken, Norway

Heggøy, O. & Eggen, M. 2017. Svarthalespove i Nord-Norge 2017. NOF-Rapport 2017-4. 17 s.

Eggen, M. & Heggøy, O. 2016. Svarthalespove i Nord-Norge 2016. NOF-Rapport 9- 2016. 21 s.

Ellefsen, K.O., Nilsen, E. & Solheim, W. 1979. Stormyra/Grunnfjorden. Rapport, 38 s.

Larsen, B. H. & Wergeland Krog, O. M. 2010. Grunnfjorden naturreservat i Øksnes kommune. Naturtyper og fugl. Miljøfaglig Utredning Rapport 2010:50. ISBN: 978-82-8138-444-6

Elven, R., Alm, T., Edvardsen, H., Fjelland, M., Fredriksen, K. E. & Johansen, V. 1988. Botaniske verneverdier på havstrender i Nordland. C: Beskrivelser for regionene Ofoten og Lofoten/Vesterålen.

Fylkesmannen i Nordland. 1985. Utkast til verneplan for våtmarksområder i Nordland fylke. Rapport 6-142. Moen, A. 1998. National Atlas of Norway, Vegetation. Norwegian Mapping Authoroty, Hønefoss. Kålås, J.A., Viken, Å. og Bakken, T. (red.) 2006. Norsk Rødliste 2006 – 2006 Norwegian Red List. Artsdatabanken, Norway

Øksnes kommune. 1978. Generalplan for Øksnes kommune. Arbeidsrapport 17. 25 s.

#### 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)

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) uploaded>

vi. other published literature <5 file(s) uploaded>

## 6.1.3 - Photograph(s) of the Site

#### Please provide at least one photograph of the site:



#### 6.1.4 - Designation letter and related data

Designation letter

<1 Tile(s) uploaded>

Date of Designation 2013-05-27