



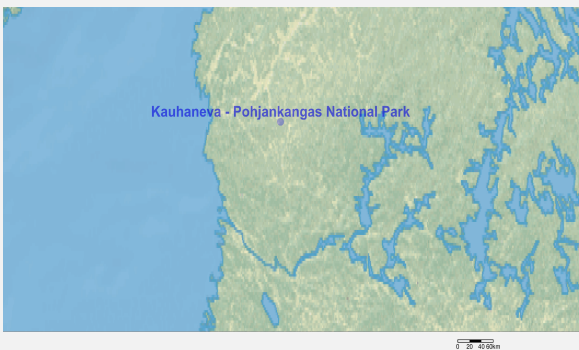
Ramsar Information Sheet

Published on 27 April 2023

Update version, previously published on : 1 January 2005

Finland

Kauhaneva - Pohjankangas National Park



Designation date	2 February 2004
Site number	1511
Coordinates	62°11'N 22°25'13"E
Area	6 849,00 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 mires of Kauhaneva form the largest and most representative raised bog area in Southern Ostrobothnia and one of the key areas for protecting ombrotrophic bogs. Forests are mainly dry pine forests. Large areas of forests are situated on eskers. Kauhaneva is a diverse wetland complex with different mire types and mire bird fauna is well represented. It is an important staging area for geese and cranes. The cultural values of the site include the Kyrönkankaantie medieval road going through the site, and the site is a popular location for recreation. Kauhaneva - Pohjankangas National Park is an important mire conservation site in southern Finland, comprising mostly natural mire complexes, but also some degraded and restored parts. The peat deposits and the carbon store within the peat is significant.

There are 38 archaeological sites within this Ramsar site. The earliest of them are pits for hunting forest reindeer and housepits, dating to the Stone Age. The tar pits are traces of an economically important historical livelihood, tar burning. The most prominent archaeological site is the Medieval road Kyrönkankaantie that once was the only land route from Southern Finland to Ostrobothnia. The road is still in use as a recreational route. It crosses the mire of Kauhaneva and there is a possibility of preserved submerged road layers. A local folklore tradition associated to the kettle hole of Lapinkaivo, recorded in 1674, relates to an early (later disappeared) Sami settlement in the region.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Finnish Environment Institute (SYKE), Natural Environment Centre
Postal address	PO Box 140 FI-00251

National Ramsar Administrative Authority

Institution/agency	Metsähallitus, Parks and Wildlife Finland
Postal address	PO Box 94 FI-01301 Vantaa Finland

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

From year	2010
To year	2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Kauhaneva - Pohjankangas National Park
Unofficial name (optional)	Kauhanevan – Pohjankankaan kansallispuisto

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 <input type="radio"/> No <input checked="" type="radio"/>
(Update) B. Changes to Site area	No change to area
(Update) For secretariat only: This update is an extension	<input type="checkbox"/>

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	No
(Update) Optional text box to provide further information	Wetland types and species, and ecosystem services have been reassessed according to current knowledge, but there are no changes to the ecological character.

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<2 file(s) uploaded>

Former maps	0
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Boundaries description

The site follows the boundaries of the Natura 2000 sites FI0800002 Kauhaneva - Pohjankangas SPA and FI0800003 Kauhaneva - Pohjankangas SAC (overlapping).

2.2.2 - General location

a) In which large administrative region does the site lie?	Southern Ostrobothnia, Satakunta
b) What is the nearest town or population centre?	Kauhajoki / Honkajoki / Karvia

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

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

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Boreal region
Other scheme (provide name below)	Middle boreal forest vegetation zone

Other biogeographic regionalisation scheme

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	<p>Virgin mires play an important role in maintenance of water quality. Kauhaneva - Pohjankangas mires are located in the headwater section between two River Basins, and the mires are influenced by large groundwater aquifers within eskers that border the mires.</p>
Other ecosystem services provided	<p>As an active and mostly pristine peat bog, the site is very valuable for carbon storage and flood control. The site also harbours biodiversity and high cultural values, and serves as a source of inspiration and recreation.</p> <p>Kauhaneva - Pohjankangas mires are considered very important for carbon storage, comprising natural, undisturbed parts but also degraded and nowadays largely restored parts, where the carbon leakage after drainage has been diminished or stopped altogether. Mire restoration has been initially implemented for biodiversity purposes, but restoration also serves to protect the carbon stores in the peat. Hence, the paragraph 121 under Criterion 1 in the Ramsar COP11 Resolution XI.8, Annex 2 is applied, stating that the mires of Kauhaneva - Pohjankangas:</p> <p>"vi) have a major hydrological influence in the context of at least regional climate regulation or stability (e.g., certain areas of cloud-forest or rainforest, wetlands or wetland complexes in semi-arid, arid or desert areas, tundra, peatland, coastal or other wetland systems acting as sinks for carbon, etc.)"</p> <p>Currently, the Ramsar site comprises peatland as follows:</p> <ul style="list-style-type: none"> - 4662 ha of peatland in total, of which - 339 ha is still in drained state, drainage mostly for forestry implemented 1970-1985 - 582 ha of restored mires, implemented 1996-2014. <p>The site is a National Park with tracks and guidance, and information about the peatland restoration is available for visitors.</p>
Other reasons	<p>The site is a representative example of natural and near-natural wetland types (peatlands) in the EU Boreal region, included in the Natura 2000 Network, designated both as SPA and SCI with two priority natural wetland habitat types (active raised bogs, aapa mires).</p>

- Criterion 2 : Rare species and threatened ecological communities
- Criterion 4 : Support during critical life cycle stage or in adverse conditions

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

<no data available>

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

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence ¹⁾	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA/MAMMALIA	<i>Canis lupus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	National Red List - VU, Habitats Directive - Annexes IV (II)	
CHORDATA/MAMMALIA	<i>Lynx lynx</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	Habitats Directive - Annexes IV (II)	
Birds																	
CHORDATA/AVES	<i>Aegolius funereus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Anser fabalis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Aythya fuligula</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	
CHORDATA/AVES	<i>Bubo bubo</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Chroicocephalus ridibundus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU	
CHORDATA/AVES	<i>Circus cyaneus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Cygnus cygnus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Emberiza hortulana</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Emberiza rustica</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Gavia arctica</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Glaucidium passerinum</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Grus grus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Hydrocoloeus minutus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Larus fuscus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Limosa limosa</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN	
CHORDATA/AVES	<i>Lullula arborea</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Lyrurus tetrix</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Pernis apivorus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Philomachus pugnax</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - CR EU Birds Directive - Annex I	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Picoides tridactylus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Pluvialis apricaria</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Podiceps auritus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - EN; EU Birds Directive - Annex I	
CHORDATA/AVES	<i>Sterna hirundo</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	The Site supports this species during migratory periods.
CHORDATA/AVES	<i>Tetrao urogallus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
CHORDATA/ AVES	<i>Tringa glareola</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds Directive - Annex I	The Site supports this species during migratory periods.
CHORDATA/ AVES	<i>Tringa totanus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>	National Red List - VU	

1) Percentage of the total biogeographic population at the site

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
Bog woodland	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Natural dystrophic lakes and ponds	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Fennoscandian natural rivers	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Water courses of plain to montane levels with Ranunculus fluitans and Callitriche-Batrachion vegetation	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Active raised bogs	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Degraded raised bogs still capable of natural regeneration	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Transition mires and quaking bogs	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Fennoscandian springs and springfens	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Alkaline fens	<input checked="" type="checkbox"/>		Habitats Directive - Annex I
Aapa mires	<input checked="" type="checkbox"/>		Habitats Directive - Annex I

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

4.1 - Ecological character

The site represents the Mire vegetation region of Concentric bogs. The area includes ca. 2 900 ha of mires and ca. 60 ha of water. The wetland is composed of several closely situated mires, of which the largest is Kauhaneva, an exceptionally well developed raised bog with large minerotrophic flark and sedge (*Carex* spp.) fens, small brooks and tens of ponds and pools. Aapa mires are uncommon. Pohjankangas and Nummikangas are esker formations beside the mires, characterized by barren Pine (*Pinus sylvestris*) heath forests. The medieval Kyrönkangas road has lead people along the eskers and over the mires for centuries and the site is rich with archaeological records. The eskers are a very important regional source for groundwater, which has an ecologically remarkable influence in certain parts of the peatland as well as streams flowing through and out of the mire complex. The esker formation of Kolmentuulenlakki includes brook beds with impressive topography.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		3		Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		3		
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		1		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		2		Representative
Fresh water > Flowing water >> Y: Permanent Freshwater springs; oases		4		Representative

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

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

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin

Not in river basin

Coastal

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

The site lies on the divide between Kyrönjoki and Karvianjoki River Basins, mostly draining into the latter.

4.4.3 - Soil

Mineral

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

Organic

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

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

Mainly peat with smaller areas of glacial ground moraine and glacial gravel and sand.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	
Usually seasonal, ephemeral or intermittent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from groundwater	<input type="checkbox"/>	No change
Water inputs from precipitation	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
To downstream catchment	No change
Feeds groundwater	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	unknown

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

Raised bogs are dependent on rain water. Parts of the eskers that host the aquifers in the area are within the site, and the discharging groundwater has significant effect on the mires in many locations.

Depth of water: Shallow. Water-level high in spring because of melting snow.

4.4.5 - Sediment regime

Sediment regime unknown

4.4.6 - Water pH

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

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

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Dystrophic

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

Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Mire waters dystrophic.

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself:
 i) broadly similar ii) significantly different

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

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

The Ramsar site is uninhabited, settlements are found in the surrounding area. The site is protected nature with pristine and valuable peatlands and forests, some of which need restoration. Land use outside the site is intensive, including forestry, peat mining, and agriculture.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Drinking water for humans and/or livestock	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

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

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Accumulation of organic matter	Medium
Nutrient cycling	Carbon storage/sequestration	High

Other ecosystem service(s) not included above:

Kolmentuulenlakki Esker forms a part of a nationally important landscape area. A medieval trade route winds along the eskers. Significant values also include scientific research, birdwatching and outdoor recreation.

Within the site: 1000s

Outside the site: 1000s

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

Description if applicable

There are 38 archaeological sites within this Ramsar site. The earliest of them are pits for hunting forest reindeer and housepits, dating to the Stone Age. The tar pits are traces of an economically important historical livelihood, tar burning. The most prominent archaeological site is the Medieval road Kyrönkankaantie that once was the only land route from Southern Finland to Ostrobothnia. The road is still in use as a recreational route. It crosses the mire of Kauhaneva and there is a possibility of preserved submerged road layers. A local folklore tradition associated to the kettle hole of Lapinkaivo, recorded in 1674, relates to an early (later disappeared) Sami settlement in the region.

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

4.6 - Ecological processes

<no data available>

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

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5.1.2 - Management authority

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

Metsähallitus Parks and Wildlife Finland

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

Mr. Antti Below, conservation biologist

Postal address:

P.o. Box 94, 01301 Vantaa, Finland

E-mail address:

antti.below@metsa.fi

5.2 - Ecological character threats and responses (Management)

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

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Medium impact	Medium impact	<input checked="" type="checkbox"/>	decrease	<input checked="" type="checkbox"/>	unknown
Water abstraction	Low impact	Medium impact	<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Medium impact	High impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Logging and wood harvesting	Low impact	Medium impact	<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use	Low impact	Medium impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	unknown
Vegetation clearance/land conversion	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	unknown

Please describe any other threats (optional):

Parts of the mires were drained mostly during 1970-1985, causing changes in the vegetation. A part of the forests were logged till the early 1960s. Forestry drainage and peat mining in the surroundings affect negatively on the site. Groundwater is abstracted from the connected aquifers and there are initiatives to increase the abstraction, which may have negative impact on the habitat types.

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Kauhaneva-Pohjankangas SAC/SPA	http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=FI08000_03	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Esker Conservation Programme			partly
Mire Conservation Programme			partly
National Park			partly

5.2.3 - IUCN protected areas categories (2008)

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

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Partially implemented

Habitat

Measures	Status
Hydrology management/restoration	Partially implemented

Human Activities

Measures	Status
Regulation/management of recreational activities	Partially implemented

Other:

The site is included in the Natura 2000 Network, designated both as SPA and SCI. Kauhaneva–Pohjankangas National Park (5,879 ha) was established in 1982. A major part of the mires is also included in the Mire Conservation Programme. Pohjankangas and Nummikangas are included in the Esker Conservation Programme.

A master plan for the National Park was established in 1985. Hunting, fishing (in most places) and use of motor vehicles outside the roads are prohibited. The middle parts of Kauhaneva Mire form a restricted area (450 ha) where access is prohibited from April to mid September. Restoration of mires was carried out under the EU Life project in 1996–99 by filling up ditches and cutting trees.

Conservation of the Natura 2000 site outside the already protected areas will be carried out under the Nature Conservation Act, Land Use and Building Act, Land Extraction Act, Water Act and Forest Act. The planned extension of the National Park covers 1 000 ha and will be implemented by land purchases from private owners to the state for conservation when applicable. The extension will be implemented once enough land has been purchased.

5.2.5 - Management planning

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

Has a management effectiveness assessment been undertaken for the site? Yes No

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

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

A nature observation tower, a trail with duckboards (2 km) and a camping site have been constructed in the National Park. The park had ca. 6 000 visitors in 2003.

URL of site-related webpage (if relevant): <http://www.nationalparks.fi/en/kauhaneva-pohjankangasnp>

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Plant community	Implemented

The breeding bird fauna of the mires was surveyed in 1977–83, 1996 and 2016. The volume of bird populations was estimated in 1986 and 2016 by using line transect censuses. The flora of the National Park was surveyed in 1985 and mires were studied closely in 1994. The impact of restoration measures is monitored. The phytoplankton was studied in the 1990s. The area of Kolmentuulenlakki is an esker research site of the Academy of Finland.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- Eloranta, P. 1995. Phytoplankton of the nationalpark lakes in central and southern Finland. *Annales Botanici Fennici* 32.
- Heikkilä, R., Kuznetsov, O., Lindholm, T., Aapala, K., Antipin, V., Djatshkova, T. & Shevelin, P. 2001. Complexes, vegetation, flora and dynamics of Kauhaneva mire system, western Finland. *The Finnish Environment* 489, Finnish Environment Institute.
- Hellemaa, P. 1980. Pohjankangas Kuninkaanlähteeltä Karvianjoelle. M.Sc. thesis. University of Helsinki, Department of Geography.
- Hyvärinen, E., Juslén, A., Kempainen, E., Uddström, A. & Liukko, U.-M. (eds.) 2019. The 2019 Red List of Finnish Species. Ympäristöministeriö & Suomen ympäristökeskus. Helsinki. 704 p.
- Leivo, M., Asanti, T., Koskimies, P., Lammi, E., Lampolahti, J., Mikkola-Roos, M. & Virolainen, E. 2002. Suomen tärkeät lintualueet FINIBA. BirdLife Suomen julkaisuja 4, Suomen graafiset palvelut, Kuopio.
- Luomuksen lajirekisteri 2014.
- Metsähallitus 1985. Kauhanevan–Pohjankankaan kansallispuiston runkosuunnitelma. Metsähallitus SU 4:72.
- Metsähallitus 2013: Luontotyyppi-inventointi. MHGIS ja YSAGIS -tietokannat, luontotyyppi-aineisto 15.11.2013.
- Metsähallitus: Linnustoselvitykset 2004 ja 2005.
- Metsähallituksen lajirekisteri 2014.
- Metsähallitus: Kauhaneva-Pohjankankaan Natura 2000- alueen hoito- ja käyttösuunnitelma. Dno 3635/623/2008.
- Metsähallitus: Kauhanevan-Pohjankankaan kansallispuiston kävijätutkimus 2007. Sarja B 137.
- Metsähallitus: Lauhanvuoren ja Kauhanevan-Pohjankankaan kansallispuistojen yritystutkimus 2007. Sarja B 138.
- Vähämäki, J. 1983. Kauhanevan pesimälinnusto vuosina 1977–1983. Hippiainen.
- Working group on the need for forest protection in southern Finland and Ostrobothnia. Chairman Ruuhijärvi, R., Secretaries Kuusinen, M., Raunio, A. and Eisto, K. 2000. Forest protection in southern Finland and Ostrobothnia. *The Finnish Environment* 437. Ministry of the Environment.

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

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



A view over the mire and eskers of Kauhaneva-Pohjankangas. The Kyrönkangas road crosses the mire diagonally from lower right to upper left corner of the image. (Jari Ilmonen, 20-08-2013)



Restored edges of a mire complex in the Kauhaneva - Pohjankangas National Park. (Jari Ilmonen, 20-08-2013)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2004-02-02