

Ramsar Information Sheet

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EstoniaSoomaa



Designation date 5 June 1997
Site number 912

Coordinates 58°26'26"N 25°06'28"E Area 39 639,00 ha

https://rsis.ramsar.org/ris/912 Created by RSIS V.1.6 on - 20 May 2020

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

Soomaa is an extensive, flat area of five large bog complexes separated by unregulated rivers with floodplain meadows, alluvial forests and wooded meadows and surrounded by extensive forests, including swamp forests and carrs. Being the most representative and valuable part of the remaining large wilderness area in southwest Estonia, the wetland is important as a nesting biotope of mire birds and the stopover site for migrating birds.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Compiler 2

Name	Kai Kimmel
Institution/agency	Estonian Wetland Society
Postal address	Suurküla 21, Häädemeeste, 86001 Pärnumaa, Estonia
E-mail	kkimmel@hot.ee
Phone	+3725289685
Name	Marika Kose
Institution/agency	Estonian Wetland Society
Postal address	Suurküla 21, Häädemeeste, 86001 Pärnumaa, Estonia
E-mail	marika.kose@mail.ee
Phone	+37256561373

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

From year 2012

To year 2019

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Soomaa

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

(Update) B. Changes to Site area No change to area

2.1.5 - Changes to the ecological character of the Site

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

(Update) Optional text box to provide further information

No principal changes, but due to wetland restoration projects the hydrological conditions of mires is improving in some localities.

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 an existing protected area – Soomaa National Park.

2.2.2 - General location

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

Pärnu,Viljandi Counties

b) What is the nearest town or population centre? Viljandi

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?

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

2.2.4 - Area of the Site

Official area, in hectares (ha): 39639

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

39848.264

2.2.5 - Biogeography

Biogeographic regions

nogoograpino rogiono							
Regionalisation scheme(s)	Biogeographic region						
EU biogeographic regionalization	1. Boreal						
Freshwater Ecoregions of the World (FEOW)	terrestrial area Sarmatic mixed forests freshwater area Southern Baltic Lowlands temperate floodplain rivers and wetlands						

Other biogeographic regionalisation scheme

1: EEA, European Environment Agency, http://www.eea.europa.eu/publications/report_2002_0524_154909

2: Olson, D. M, E. Dinerstein, E.D. Wikramanayake, N.D. Burgess, G.V.N. Powell, E.C. Underwood, J.A. D'amico, I. Itoua, H.E. Strand, J.C. Morrison, C.J. Loucks, T.F. Allnutt, T.H. Ricketts, Y. Kura, J.F. Lamoreux, W.W.Wettengel, P. Hedao, & K.R. Kassem. 2001. Terrestrial Ecoregions of the World: A New Map of Life on Earth. - BioScience 51:933-938.

Abell, R., Thieme, M. L., Revenga, C., Bryer, M., Kottelat, M., Bogutskaya, N., Coad, B., Mandrak, N., Contreras Balderas, S., Bussing, W., Stiassny, M., Skelton, P., Allen, G., Unmack, P., Naseka, A., Ng, R., Sindorf, N., Robertson, J., Armijo, E., Higgins, J., Heibel, T.J., Wikramanayake, E., Olson, D., Lopez, H. L., Reis, R. E., Lundberg, J.G., Sabaj Perez, M.H., Petry P., 2008, Freshwater Ecoregions of the World: A New Map of Biogeographic Units for Freshwater Biodiversity Conservation. - BioScience 58: 403-414.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided

The runoff is regulated naturally by bogs and forests. The site is important for groundwater recharge and discharge, water quality and for flood control.

Other ecosystem services provided

Biodiversity maintenance. Nutrient cycling. Climate change mitigation. Carbon sequestration. Aesthetic and landscape values. Recreation and tourism. Scientific and educational services.

The site is a particularly good representative of natural and near-natural non-forested and forested peatlands, freshwater swamp forests, freshwater lakes, permanent rivers as well as the whole mosaic wetland complex, characteristic of the Boreal Biogeographical region. The site is the most valuable part of the extensive wilderness area remaining in SW Estonia. Kuresoo Bog is one of the two best survived large bogs in Estonia, its species diversity is among the highest. Annual floods of Halliste River and its tributaries are of international importance.

Other reason

Wetland habitats presented in Soomaa and listed in Annex I of the Habitat Directive are active raised bogs (*7110), transition mires and quaking bogs (7140), bog woodland (*91D0), Fennoscandian deciduous swamp woods (*9080), northern boreal alluvial meadows (6450), lakes (Natural dystrophic lakes and ponds - 3160), rivers and streams (Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation - 3260) and also alluvial forests with Alnus glutinosa and Fraxinus excelsior (91E0) and riparian mixed forests of Quercus robur, Ulmus laevis, Fraxinus excelsior along the great rivers (91F0).

The wetland complex playing substantial hydrological, biological and ecological role in the region is identified both as an IBA and Natura 2000 site, as well as an international level core area in the Pan European Ecological Network and PAN Parks wilderness area.

☑ Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

The site supports particular elements of biological diversity that are rare or particularly characteristic of the Boreal biogeographic region such as untouched naturally open raised bogs and peatland forests, which contain a significant proportion of characteristic species (e.g. Sphagnum mosses), as well as floodplain meadows and floodplain forests.

Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region are:

Justification

Plants: Sword Lily Gladiolus imbricatus, Siberian Iris Iris sibirica, Lady's Slipper Cypripedium calceolus, Marsh Club Moss Lycopodiella inundata, Stonecrop Sedum telephium and Sphagnum sp.

Birds: Corncrake Crex crex, Golden Eagle Aquila chrysaetos, Whimbrel Numenius phaeopus, Golden Plover Pluvialis apricaria, Wood Sandpiper Tringa glareola, Dunlin Calidris alpina schinzii, Merlin Falco columbarius, Willow Grouse Lagopus lagopus, Montagu´s Harrier Circus pygargus, Great Snipe Gallinago media.

Mammals: Wolf Canis lupus, Brown Bear Ursus arctos, Lynx Lynx lynx, Otter Lutra lutra, Beaver Castor fiber, Flying Squirrel Pteromys volans.

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

☑ Criterion 6 : >1% waterbird population

☑ Criterion 8 : Fish spawning grounds, etc.

Justification	It is an important spawning ground for the fish Pike Esox lucius.

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

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Cinna latifolia		Ø					Annexes II of the Habitat Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
Cypripedium calceolus	Lady's Slipper	V	V		LC		Annexes II of the Habitat Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
Lycopodiella inundata	Marsh Club Moss		V		LC			Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
Pulsatilla pratensis		V					Annexes II of the Habitat Directive	Criterion II. Species is present in the site.

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

Phylum	Scientific name	Common name	Species qualifies under criterion	Specie contribution unde criteri 9 3 5 7	r S	Pop. Size	Period of pop. Est.	currence	UCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds													
CHORDATA/ AVES		Common Kingfisher	2 20			5	2018		LC			Annex I of the Bird Directive	criterion 2, Breeding, 5 p
CHORDATA/ AVES	Aquila chrysaetos	Golden Eagle				3	2018		LC			Annex I of the Bird Directive; highly endangered and strongly protected (I category) in Estonia	3-4 pairs Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES		Greater Spotted Eagle	2 000						W		✓	Annex I of the Bird Directive; highly endangered and strongly protected (I category) in Estonia	
CHORDATA/ AVES	Aquila pomarina	Lesser Spotted Eagle				10	2018		LC			AnnexI of the Bird Directive; highly endangered and strongly protected (I category) in Estonia	10 pairs Criterion 4: The forests support good populations of birds
CHORDATA/ AVES	Calidris alpina schinzii					5	2018					Annex I of the Bird Directive. EN in Red List of Estonia	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region- 5 p
CHORDATA/ AVES	Caprimulgus europaeus	European Nightjar			1	120	2018		LC			Annex I of the Bird Directive	120 p. Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Ciconia nigra	Black Stork				2	2018		LC			Annex I of the Bird Directive; highly endangered and strongly protected (I category) in Estonia	2 pairs

Phylum	Scientific name	Common name	0	Species qualifies under criterion 4 6		Species contributes under criterion 3 5 7 8	Size					x Other Status	Justification
CHORDATA/ AVES	Circus aeruginosus	Western Marsh Harrier	V			2 000	6	2018	LC			Annex I of the Bird Directive	6 pairs Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Circus pygargus	Montagu's Harrier	V	2 00		2 000	5	2018	LC			Annex I of the Bird Directive	5 p; Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Crex crex	Corn Crake	1			2 000	200	2018	LC			Annex I of the Bird Directive	200 pairs Criterion 4: The site supports this species.
CHORDATA/ AVES	Cygnus columbianus bewickii	Bewick's Swan	V		_] 1750	8				Annex I of the Bird Directive	Criterion 4: The site is a nesting biotope of mire birds and the stopover site for this migrating species. Criterion 6: Biogeographic region: Western Siberia & NE Europe/North-west Europe
CHORDATA/ AVES	Dendrocopos leucotos	White-backed Woodpecker	1				85	2018	LC			Annex I of the Bird Directive	Criterion 4: The forests support good populations of birds . 85p
CHORDATA/ AVES	Falco columbarius	Merlin	V			2 000			LC			Annex I of the Bird Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Gallinago media	Great Snipe	V	2 00		2 000	30	2018	NT			Annex I of the Bird Directive; highly endangered and strongly protected (I category) in Estonia	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region, 30p
CHORDATA/ AVES	Glaucidium passerinum	Eurasian Pygmy Owl	V	2 00		2 000	35	2018	LC			Annex I of the Bird Directive	35 p. Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Grus grus	Common Crane	V	2 0			1000	2018	LC			Annex I of the Bird Directive	during spring migration approximately 1000 ind. Criterion 4: The site supports this species during spring migration. 60 pairs
CHORDATA/ AVES	Haliaeetus albicilla	White-tailed Eagle	1] 1	2018	LC	✓	V	Annex I of the Bird Directive	1 pair breeding
CHORDATA/ AVES	Lanius collurio	Red-backed Shrike	V			2 000	300	2018	LC			Annex I of the Bird Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region, 300 pairs
CHORDATA/ AVES	Limosa limosa	Black-tailed Godwit	V		_		15	2018	NT			IUCN red listed, VU in Europe.	15 breeding pairs, Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Lyrurus tetrix	Eurasian Black Grouse; Black Grouse	V	2 0	_		200	2018	LC			Annex I of the Bird Directive	Criterion 2, 200 breeding pairs.
CHORDATA/ AVES	Numenius arquata	Eurasian Curlew	V		_		10	2018	NT			IUCN red listed, VU in Europe.	10 breeding pairs, Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Pernis apivorus	European Honey Buzzard	V			2 000	15		LC			Annex I of the Bird Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region, 15 pairs
CHORDATA/ AVES	Philomachus pugnax	Ruff	V			2 000	5	2018				Annex I of the Bird Directive; highly endangered and strongly protected (I category) in Estonia	Criterion 4: the site supports this species. 5 p. Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Picoides tridactylus	Three-toed Woodpecker	/				40	2018	LC			Annex I of the Bird Directive	Criterion 2: 40 breeding pairs

Phylum	Scientific name	Common name	Species qualifie under criterio 2 4 6	s con u n cri	pecies tributes Inder iterion	Size		IUCN Red List		CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Pluvialis apricaria	European Golden Plover; European Golden-Plover	770			540	2018	LC			Annex I of the Bird Directive	ca 540 pairs; Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Porzana porzana	Spotted Crake	2			20	2018	LC			Annex I of the Bird Directive	20 p. Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Strix uralensis	Ural Owl	990			50	2018	LC			Annex I of the Bird Directive	50 p. Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Tetrao urogallus	Western Capercaillie	22C			80	2018	LC			Annex I of the Bird Directive	Criterion 4: The forests support good populations of birds , 80 p
CHORDATA/ AVES	Tringa glareola	Wood Sandpiper				170	2018	LC			Annex I of the Bird Directive	10-15% of birds out of the total number in Estonia nest here; Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ AVES	Vanellus vanellus	Northern Lapwing	2 20			170	2018	NT			IUCN red listed, VU in Europe.	170 breeding pairs, Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
Fish, Mollusc	Fish, Mollusc and Crustacea											
CHORDATA/ ACTINOPTERYG	Esox lucius	Northern pike				9		LC				Criterion 8: It is an important spawning ground for the fish Pike Esox lucius.
MOLLUSCA/ BIVALVIA	Unio crassus		\square					EN			Annexes II and IV of the Habitat Directive	
Others												
CHORDATA/ MAMMALIA	Canis lupus	Wolf	990					LC	2			2-3 packs; Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region, Criterion 4: The site is a refuge for this species with large habitat requirements
ARTHROPODA/ INSECTA	Hypodryas maturna										Annexes II and IV of the Habitat Directive	
CHORDATA/ MAMMALIA	Lutra lutra	European Otter						NT	✓		Annexes II and IV of the Habitat Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
ARTHROPODA/ INSECTA	Lycaena dispar		\square								Annexes II and IV of the Habitat Directive	
CHORDATA/ MAMMALIA	Lynx lynx	Eurasian Lynx] 14		LC				12-15; Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region Criterion 4: The site is a refuge for this species with large habitat requirements
CHORDATA/ MAMMALIA	Myotis dasycneme	pond bat; Pond Myotis						NT			Annexes II and IV of the Habitat Directive	
CHORDATA/ MAMMALIA	Pteromys volans	Siberian Flying Squirrel						LC			highly endangered and strongly protected (I category) in Estonia; Annexes II and IV of the Habitat Directive	Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region
CHORDATA/ MAMMALIA	Ursus arctos	Brown Bear; Grizzly Bear	200			6		LC	V			5-6; Criterion 3: Characteristic species important for maintaining the biological diversity of the Boreal Biogeographical Region Criterion 4: The site is a refuge for this species with large habitat requirements

1) Percentage of the total biogeographic population at the site

Criterion 6:

Wetland regularly supports 2,5-10% of the individuals of the NW European (non-br) population of Bewick's Swan Cygnus columbianus bewickii (during the autumn migration approximately 500 and during spring migration approximately 2000 ind).

Criterion 4:

The species composition of extensive bogs (especially Kuresoo Bog) is one of the most representative in Estonia, including Whimbrel Numenius phaeopus (more than 100 pairs; a quarter of Estonia's population), Golden Eagle Aquila chrysaetos (3-4 pairs), Willow Grouse Lagopus (one of two vital populations in Estonia), Plover Pluvialis apricaria (ca 150 pairs), Wood Sandpiper Tringa glareola (10-15% of birds out of the total number in Estonia nest here), Montagu's Harrier Circus pygargus (5-7p), Common Crane Grus grus (20-30 pairs). The forests support good populations of birds which include Black Stork Ciconia nigra (3-4 pairs), Lesser Spotted Eagle Aquila pomarina (5-6 pairs), White-backed Woodpecker Dendrocopos leucotos and Cappercallie Tetrao urogallus.

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
Western taiga	2		EU Habitats Directive, Annex I
Bog woodland (*91D0)	✓		EU Habitats Directive, Annex I
Riparian mixed forests of Quercus robur, Ulmus laevis, Fraxinus excelsior along the great rivers (91F0)	Ø		EU Habitats Directive, Annex I
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (91E0)	Ø		EU Habitats Directive, Annex I
Rivers and streams (Water courses of plain to montane levels)	✓		EU Habitats Directive, Annex I
Lakes (Natural dystrophic lakes and ponds - 3160)	✓		EU Habitats Directive, Annex I
Northern boreal alluvial meadows (6450)	✓		EU Habitats Directive, Annex I
Fennoscandian deciduous swamp woods (*9080)	₩		EU Habitats Directive, Annex I
Transition mires and quaking bogs (7140)	V		EU Habitats Directive, Annex I
Active raised bogs (*7110)	✓		EU Habitats Directive, Annex I

Optional text box to provide further information

The site is a particularly good representative of natural and near-natural non-forested and forested peatlands, freshwater swamp forests, freshwater lakes, permanent rivers as well as the whole mosaic wetland complex, characteristic of the Boreal Biogeographical region. The site is the most valuable part of the extensive wilderness area remaining in SW Estonia. Kuresoo Bog is one of the two best survived large bogs in Estonia, its species diversity is among the highest. Annual floods of Halliste River and its tributaries are of international importance. Wetland habitats presented in Soomaa and listed in Annex I of the Habitat Directive and also alluvial forests of different types. The wetland complex playing substantial hydrological, biological and ecological role in the region is identified both as an IBA and Natura 2000 site, as well as an international level core area in the Pan European Ecological Network and PAN Parks wilderness area.

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

4.1 - Ecological character

The peatland areas are composed of 75% of bogs (which are of transition type between maritime and continental; mainly open-grass bogs and dwarf-shrub bogs; partly pine bogs), 20% of transition bogs, and 5% of fens (which due to lack of drainage, have survived in their original state). There is one dystrophic relic lake (6 ha) and numerous bog-pools. The forests wedged between bogs and flooded over by the river waters several times a year are wet, or moist, swamp and floodplain forests. Both the alluvial meadows and forests on the riverbanks are of great botanical value. In the floodplain forests there grow soft-leaved elms (rare in Estonia), ashes, oaks, limes, elms and a character species of the growth site - the Hop Humulus lupulus. The unique swamp forests (carrs) surround the site.

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

Inland wetlands

ilianu wellanus				
Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> Mt Permanent rivers/ streams/ creeks		3	154.9511	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		4	6.0062	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		3	212.8002	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		2	1194.345	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		1	20816.04	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands		4	6.7712	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		2	2122.298	Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		1	9388.198	Representative

Human-made wetlands				
Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
2: Ponds		4	5.3273	
9: Canals and drainage channels or ditches		4	1.5238	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Astragalus arenarius		Nationally protected species
Gladiolus imbricatus		nationally sprotected species
Hylotelephium telephium telephium		Nationally protected species
Iris sibirica		Nationally protected species

Optional text box to provide further information

In total, 524 vascular plant species have been registered. The rich flora of floodplain meadows includes endangered Sword Lily Gladiolus imbricatus, Siberian Iris Iris sibirica and Sedum telphium. In dry pine forests on dunes extremely rare Sand Milk Vetch Astragalus arenarius grows.

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	Aegolius funereus	Boreal Owl	15	2018		Nationally protected
CHORDATAMAMMALIA	Castor fiber	Eurasian Beaver	280	2013		
CHORDATAVAVES	Lagopus lagopus	Willow Ptarmigan;Willow Grouse	2	2018		Nationally protected
CHORDATAVAVES	Lanius excubitor	Northern Shrike;Great Grey Shrike	50	2018		Nationally protected
CHORDATA/AVES	Numenius phaeopus	Whimbrel	190	2018		Nationally protected
CHORDATAVAVES	Tetrastes bonasia	Hazel Grouse	400	2018		Nationally protected
CHORDATA/AVES	Tringa nebularia	Common Greenshank	60	2018		Nationally protected
CHORDATAVAVES	Tringa ochropus	Green Sandpiper	140	2018		Nationally protected
CHORDATAVAVES	Tringa totanus	Common Redshank	150	2018		Nationally protected

Optional text box to provide further information

Birds: The globally near-threatened Corncrake Crex crex is common (200 pairs) in floodplain meadows. The species composition of extensive bogs (especially Kuresoo Bog) is one of the most representative in Estonia, including Whimbrel Numenius phaeopus (more than 190 pairs; a quarter of Estonia's population), Golden Eagle Aquila chrysaetos (3-4 pairs), Willow Grouse Lagopus lagopus (one of two vital populations in Estonia), Plover Pluvialis apricaria (ca 540 pairs), Wood Sandpiper (Tringa glareola 10-15% of birds out of the total number in Estonia nest here), Montagu's Harrier Circus pygargus (5 p), Common Crane Grus grus (60 pairs). The forests support good populations of birds which include Black Stork Ciconia nigra (2 pairs), Lesser Spotted Eagle Aquila pomarina (10 pairs), White-backed Woodpecker Dendrocopos leucotos 85pairs, Dryocopus martius 60 pairs, Dryocopus medisu 10 pairs and Cappercaillie Tetrao urogallus 80 pairs.

Also Sylvia nisoria (20 p), Ficedula parva (1100 p), Picus canus(50 p) are present.

Mammals: 36 species of mammals have been counted, including Wolf Canis lupus (1-2 packs), Lynx Lynx lynx (12-15), Brown Bear Ursus arctos (5-6), Otter Lutra lutra, Beaver Castor fiber and Flying Squirrel Pteromys volans.

4.4 - Physical components

4.4.1 - Climate

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

Transitional area from the sub-maritime climate to more continental climate of inland Estonia. Mean annual temperature is +4,5-5 0 C (in July +16,60 C and in February -6,6 0C) Mean annual precipitation is 740 mm. Snow cover lasts in average 98 days. Climate is transitional from sub-maritime to sub-continental type.

4.4.2 - Geomorphic setting

a) Mnimum elevation above sea level (in metres)
a) Maximum elevation above sea level (in metres)
Entire river basin
Upper part of river basin
Middle part of river basin
Lower part of river basin
More than one river basin
Not in river basin
Coastal C

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.

Navesti river, Halliste river, Kõpu river, Tõramaa river, Raudna river, Lemmjõgi river

4.4.3 - Soil



conditions (e.g., increased salinity or acidification)?

Please provide further information on the soil (optional)

Devonian sandstone bedrock is covered by sand and lake sediments and with peat. The depth of the peat layer is 3 - 6 m, reaching a maximum of 9.5 m. The bogs of Soomaa have the highest marginal slope in Estonia (up to 6 m).

In the extremely flat and low area with clavey soils (Eutric Gleysols and Dystric Histosols dominate) the surface water flow away with difficulties causing floods and high ground water table supporting the paludification process.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change
Usually seasonal, ephemeral or intermittent water present	No change

Source of water that maintains character of the site

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

Water destination

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

Stability of water regime

Presence?		Changes at RIS update	
	Water levels largely stable	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 runoff is regulated naturally by bogs and forests. The site is important for groundwater recharge and discharge, water quality and for flood control.

The absolute amplitude of the water level fluctuations is 5.7 m.

4.4.5			

			$\overline{}$
Sediment	roaimo	unknown	

4.4.6 - Water pH

Acid (pH<5.5) ☑

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

Unknown 🗷

Please provide further information on pH (optional):

In raised bogs the pH is usually below 5,5.

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change

● Increase

O Decrease

O Unknown

O

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Dystrophic 🗹

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

Unknown

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

Please describe whether, and if so how, the landscape and ecological

characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar O ii) significantly different @

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density \Box

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

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	

Regulating Services

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

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Recreation and tourism	Picnics, outings, touring	High
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Long-term monitoring site	Medium
Scientific and educational	Educational activities and opportunities	High

Supporting Services

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

Other ecosystem service(s) not included above:

The runoff is regulated naturally by bogs and forests. The site is important for groundwater reharge and discharge, water quality and for flood control

Many archaeological findings are known from the area. Local features such as the extensive mires and regular flooding rivers have shaped a local lifestyle. Characteristic is the adaptation of local architecture to overflowing, building of suspension and temporary bridges, and the use of archaic, single tree boats - dugouts.

The location and the extensive floods have not favored intensive economic activities. Less than 70 permanent inhabitants. Land use consists of extensive forestry and small-scale agriculture allowed only in a quarter of the territory. In recent years nature tourism has become the main field of activity.

Within the site:	about 50
Outside the site:	about 100 000

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 $\ensuremath{\mathbb{Z}}$ use that maintain the ecological character of the wetland

Description if applicable

Soomaa has an active community. Although few people live inside the NP, the stakeholders around it have formed the NGO and are involved in sustainable tourism planning. There are three specific designations, that Soomaa NP stakeholders have achieved to gain:

1) PANPARC nomination which was given to national parks with especial wilderness and excellent tourism organisation and management in the park.

2)They have got nomination, EDEN nomination (in 2007 the European Commission started the

competition "European Destinations of Excellence" https://ec.europa.eu/growth/sectors/tourism/eden_en". Soomaa NP won the competition in 2009 in category "EDEN. Estonian uncovered treasuers. Tourism and protected areas".

in 2020 Soomaa is in process of applying for EUROPARC nomination for sustainable tourism destination.

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland	
iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples	
iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland	

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

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Category	Within the Ramsar Site	In the surrounding area
National/Federal		
government	SC.	SC.

Private ownership

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):

within the Ramsar site: about 90% of the site is state-owned land in the surrounding area: state and private land

5.1.2 - Management authority

agency or organization responsible for	Environmental Board, Western Region
managing the site:	
Provide the name and title of the person or people with responsibility for the wetland:	Mr. Sulev Vare, director of the Western Region of Environmental Board
Postal address:	Roheline 64, 80010, Pärnu
E-mail address:	sulev.vare@keskkonnaamet.ee
L-mail addiess.	Suicv.vaic@kcskkoiiiaaiiici.cc

5.2 - Ecological character threats and responses (Management)

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

Water regulation

affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Medium impact	Medium impact		No change	✓	No change
Biological resource use						
Factors adversely	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Logging and wood harvesting	Medium impact	High impact	2	increase	2	increase
Fishing and harvesting aquatic resources	Medium impact	Medium impact	2	No change	2	No change
Gathering terrestrial plants	Low impact	Medium impact	2	No change		No change
Hunting and collecting terrestrial animals	Low impact	Low impact	/	No change	2	No change

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Medium impact	High impact	\checkmark	increase		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	Medium impact	✓	No change		No change

Pollution

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

Please describe any other threats (optional):

within the Ramsar site: No big threats are posed to ecological character of the wetland due to the protection regime and appropriate management activities. Threat lies in the overgrowth of floodplain meadows with scrub, also 35% of the floodplains are managed. There is an increasing pressure to logging in limited management zones of the NP, as this is legally allowed activity. Growing intensity in natire tourism and recreational activities.

in the surrounding area: threats can arise from water pollution from agricultural fertilisers, forestry, and the drainage of agricultural and forested lands

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	Soomaa		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
national park	Soomaa		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area			

5.2.3 - IUCN protected areas categories (2008)

la Strict	Maturo	Resense	1

lb\	Milderness	Area: protected	area r	managed	mainly for	wilderness	V
						protection	

Il National Park: pro	otected area managed	mainly for ecosystem
	pro	staction and recreation

III Natural Monument: protected area managed mainly	for conservation	
of specific	natural features	

IV Habitat/Species	Management Area: protected area managed mainly	V
	for consenution through management interpretion	

VProtected Landscape/Seascape: protected area managed mainly	for	
lands canole age cano consonation and recreat	on '	_

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Hydrology management/restoration	Partially implemented
Habitat manipulation/enhancement	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Tiditidit / Cuvidos	
Measures	Status
Communication, education, and participation and awareness activities	Implemented
Regulation/management of recreational activities	Implemented
Research	Implemented

Other:

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

There are several mire restoration projects undertaken in various parts of Soomaa NP. Those are implemented, There are several projects in planning phase and being implemented during forthcoming years.

Soomaa NP visitor centre and 8 nature trails are regulating visitors. The community of Entrepreneurs and other stakeholders are working closely to develop sustainable and ecotourism in the NP and getting EUROPARC nomination.

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:

A visitors' centre was constructed in Kõrtsi-Tõramaa in 1998. There are 10 study and hiking trails, several of these are supplied with viewing towers or platforms and board walks in the wetland. A photo album, maps and several booklets have been prepared providing general and conservation information. A memorial museum to the composer Mart Saar is located at Hüpassaare (northeastern part) where a nature trail has also been established.

Local newsletter "Jőhvikas" (Cranberry) is published regularly by NGO "Friends of Soomaa". Since 2009 the visiting management is the responsibility of the State Forest Management Centre.

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
Plant community	Implemented
Birds	Implemented
Animal species (please specify)	Implemented
Animal community	Implemented
Water regime monitoring	Implemented

During the preparation of the management plan thorough inventories were carried out and 20 special reports were drafted. According the management plan scientific monitoring and research activities occur on a regular basis with an emphasis on monitoring of floodplain meadows to evaluate the management effectiveness of management: botanical research of rare pants, monitoring of spring and autumn migration of birds, counting of birds of floodplain meadows (especially Crex Crex and Gallinago media) and peatlands, also monitoring of mammals: elk, roe deer, bear, wolf, lynx and small predators.

The visitor's centre in Toramaa also acts as the research station for large carnivores (especially wolf and lynxes) and supporting activities of quest researchers in national park.

There is water table monitoring in restored sites with permanent electronic loggers by State Forest Centre.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Kalamees, A. (ed.) 2000. Important Bird Areas in Estonia. – Eesti Loodusfoto, Tartu, 114 pp. Kukk, T. (toim.) 1994. XVII eesti loodusuurijate päeva ettekannete kokkuvõtted. Tipu, 11.-12. Juuni 1994: Soomaa Rahvuspargi loodus. - Eesti Loodusuurijate Selts, Tartu, 99 lk. (in estonian) Lõhmus, A., Kalamees, A., Kuus, A., Kuresoo, A., Leito, A., Leivits, A., Luigujõe, L., Ojaste, I., Volke, V. 2001. Bird species of conservation concern in the Estonian protected areas and important bird areas. Hirundo Supplementum 4: 37-167.

Soomaa Rahvuspark. 1999. Special issue devoted to the Soomaa National Park. - Eesti Loodus, 10 (in estonian with english summaries). Valk, U. (ed.) 1988. Eesti sood. Estonian Peatlands. Tallinn, 344 pp. (in estonian, with english and russian summaries)

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

<1 file(s) uploaded>

vi. other published literature

<2 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Bog pool in Kuresoo, Soomaa NP (Aivar Ruukel, Estonian Wetland Society, 04072017)



Cranberries on Sphagnum carpet, near bog pool. Drosera flower sems in background. (Aivar Ruukel, Estonian Wetland Society, 13102019)



Morning mist on raised bog, with cottongrass and white beak-sedge. (Aivar Ruukel, Estonian Wetland Society, 28072019)



Raised bog margin with hollows and Sphagnum mosses (Aivar Ruukel, Estonian Wétland Society, 28102018)



Recreational use of Soomaa NP. Colors of raised bog. Bogshoeing. (Aivar Ruukel, Estonian Wetland Society, 06092013)



Riisa bog in Soomaa NP. Bog pool. (*Aivar Ruukel, Estonian Wetland Society,* 23062018)



Dugout canoe is a practical vessel during flood "fifth" season. (Aivar Ruukel, Estonian Wétland Society, 23042013)



The flood "fifth" season in Soomaa NP. You can canoe in the woods. (Aivar Ruukel, Estonian Wetland Society, 19042013)



The flood "fifth" season in Soomaa NP. Typical sight. (Aivar Ruukel, Estonian Wetland Society, 23042013)



The flood "fifth" season in Soomaa NP. Flooded road in Riisa village. (Aivar Ruukel, Estonian Wetland Society, 24042013)



The flood "fifth" season in Soomaa NP. Flooded road in the woods. (Aivar Ruukel, Estonian Wetland Society, 19042013)



The flood "fifth" season in Soomaa NP. Flooded meadow with oaks. Floods ocur also in autumn with heavy rains. (Aivar Ruukel, Estonian Wetland Society, 15102017)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 1997-06-05