Ramsar Information Sheet

Published on 13 July 2020
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Estonia

Luitemaa

Designation date	27 January 2010
Site number	1962
Coordinates	58°09'49"N 24°31'48"E
Area	11 240,00 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

Luitemaa (the name of the area means the Land of dunes) is a mosaic wetland complex with the diversity of coastal and inland habitats including shallow sea, the diverse coastline with small bays, capes and islands, coastal meadows and reed-beds. Remarkable ridges of dunes formed in various phases of the Baltic Sea, mires and dry and wet forest stands are characteristic. One of the two mires, Tolkuse Bog, has formed in the place of an ancient Littorina sea lagoon between the dunes.
The wetland, particularly the low sea and wide coastal meadows, has its specific significance for breeding and migratory birds. The coastal meadows form a 1000 ha border between shallow sea and dunes, they are under restoration and management with re-establishing grazing. Some massifs are 200-300 ha and are among largest of the habitat in Estonia and Europe. The area is very popular among birdwatchers due to high numbers of migratory birds both in spring and autumn. It is also popular for Communication, Education, Partnership and Awareness activities (CEPA): there are about 30 000 visitors each year in the area.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Kai Kimmel
Institution/agency	Estonian Wetland Society
Postal address	Pärnu mnt 40, Häädemeeste, 86001 Pärnumaa, Estonia
E-mail	kkimmel@hot.ee
Phone	+3727762418

Compiler 2

Name	Marika Kose
Institution/agency	Estonian Wetland Society
Postal address	Suurküla 21, Häädemeeste, Pärnumaa EE86001
E-mail	marika.kose@emu.ee
Phone	+37256561373

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

From year	2012
To year	2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Luitemaa

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 ○ 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?	Not evaluated

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 (Luitemaa Nature Conservation Area)

2.2.2 - General location

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

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): 11240

Area, in hectares (ha) as calculated from GIS boundaries: 11302.02

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	2. terrestrial area Sarmatic mixed forests freshwater area Southern Baltic Lowlands temperate floodplain rivers and wetlands
EU biogeographic regionalization	1. Boreal

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. – Bio Science 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

Other reasons: The site is a good representative of several types of coastal wetlands and a natural raised bog complex characteristic of the Boreal Biogeographical region. Wetland habitats occurring in Luitemaa Nature Conservation Area and listed in Annex I Habitat Directive are sandbanks which are slightly covered by seawater (1110), mudflats and sandflats not covered by seawater at low tide (1140), coastal lagoons (*1150), large shallow inlets and bays (1160), Boreal Baltic islets and small islands (1620), Boreal Baltic coastal meadows (*1630), active raised bogs (*7110), transition mires and quaking bogs (7140), bog woodland (*91D0), Fennoscandian deciduous swamp woods (*9080), rivers and streams (Water courses of plain to montane levels with the Ranunculion fluitans and Callitricho-Batrachion vegetation 3260), northern boreal alluvial meadows (6450), alluvial forests with Alnus glutinosa and Fraxinus excelsior (91E0) and riparian mixed forests of Quercus robur, Ulmus laevis, Fraxinus excelsior along the rivers (91F0).
The wetland complex plays a substantial hydrological, biological and ecological role in the region and it is identified both as an IBA and Natura 2000 site.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification: The site supports particular elements of biological diversity that are rare or particularly characteristic of the Boreal biogeographic region such as coastal grasslands (semi-natural meadows) and untouched naturally open raised bogs, which contain a significant proportion of species (e.g. Sphagnum mosses) adapted to special conditions of oligotrophic peatland environment.

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

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers: 64 500

Start year: 2000

Source of data: Estonian Ornithological Society Standard DAtabase

☑ Criterion 6 : >1% waterbird population

☑ Criterion 8 : Fish spawning grounds, etc.

Justification: It is an important spawning ground for the fish species: the Sea Trout Salmo trutta and River Lamprey Lampetra fluviatilis (Annex II of EU Habitats Directive).

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
Ostericum palustre	Swamp Angelica	☑	☐	☐		☐	Annex II of EU Habitats Directive	

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

Phylum	Scientific name	Common 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								
Birds																		
CHORDATA/ AVES	*Aegolius funereus*	Boreal Owl	☑	☑	☐	☐	☐	☐	☐	☐	3	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA/ AVES	*Alcedo atthis*	Common Kingfisher	☑	☑	☐	☐	☐	☐	☐	☐	4	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Anas acuta*	Northern Pintail	☐	☑	☐	☐	☐	☑	☐	☐	1900	2013-2017		LC	☐	☐		(<2000) breeding
CHORDATA/ AVES	*Anas clypeata*	Northern Shoveler	☐	☑	☐	☐	☐	☐	☐	☐	500	2013-2017			☐	☐		Criterion 4: Passage species.500 migrating, 5 pairs breeding
CHORDATA/ AVES	*Anas crecca*	Eurasian Teal; Green-winged Teal	☐	☐	☐	☐	☐	☑	☐	☐	4200	2013-2017		LC	☐	☐		(<10000). 4200 migratory, 20 pairs breeding
CHORDATA/ AVES	*Anas penelope*	Eurasian Wigeon	☐	☐	☐	☐	☐	☑	☐	☐	9600	2013-2017		LC	☐	☐		(>10000)
CHORDATA/ AVES	*Anser albifrons*	Greater White-fronted Goose	☐	☐	☐	☐	☐	☑	☐	☐	2700	2013-2017		LC	☐	☐		(>3000)
CHORDATA/ AVES	*Anser erythropus*	Lesser White-fronted Goose	☑	☐	☐	☐	☐	☐	☐	☐	200	2013-2017		VU	☐	☑	Annex I of Birds Directive (Council directive 2009/147/EEC)	Migratory
CHORDATA/ AVES	*Anser fabalis*	Bean Goose	☐	☐	☐	☐	☐	☑	☐	☐	1500	2013-2017		LC	☐	☐		(>1000) migratory
CHORDATA/ AVES	*Anthus campestris*	Tawny Pipit	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	
CHORDATA/ AVES	*Asio flammeus*	Short-eared Owl	☑	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Botaurus stellaris*	Eurasian Bittern	☑	☑	☐	☐	☐	☐	☐	☐	3	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Branta leucopsis*	Barnacle Goose	☑	☐	☐	☐	☐	☑	☐	☐	10000	2013-2017	0.8	LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	migratory
CHORDATA/ AVES	*Bubo bubo*	Eurasian Eagle-Owl	☑	☑	☐	☐	☐	☐	☐	☐	2	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA/ AVES	*Bucephala clangula*	Common Goldeneye	☐	☑	☐	☐	☐	☑	☐	☐	20000	2013-2017		LC	☐	☐		(>20000 in 2017) (>11000 census data from 2000-2009)) Criterion 4: Shallow-water sea is moulting place for Goldeneys
CHORDATA/ AVES	*Calidris alpina schinzii*	Dunlin	☑	☑	☐	☐	☐	☐	☐	☐	5	2013-2017			☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Caprimulgus europaeus*	European Nightjar	☑	☑	☐	☐	☐	☐	☐	☐	75	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: Breeding species
CHORDATA/ AVES	*Ciconia nigra*	Black Stork	☑	☑	☐	☐	☐	☐	☐	☐	1	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC); Highly endangered and strongly protected (I protection category)	breeding
CHORDATA/ AVES	*Circus aeruginosus*	Western Marsh Harrier	☑	☑	☐	☐	☐	☐	☐	☐	13	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Circus pygargus*	Montagu's Harrier	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	
CHORDATA/ AVES	*Crex crex*	Corn Crake	☑	☑	☐	☐	☐	☐	☐	☐	20	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: Breeding species
CHORDATA/ AVES	*Cygnus columbianus bewickii*	Bewick´s Swan	☑	☐	☑	☐	☐	☑	☐	☐	5000	2013-2017	22.7		☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	migratory
CHORDATA/ AVES	*Cygnus cygnus*	Whooper Swan	☑	☑	☐	☐	☐	☐	☐	☐	1500	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: Passage species.

Phylum	Scientific name	Common 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	*Cygnus olor*	Mute Swan	☐	☑	☐	☐	☐	☐	☐	☐	1700	2013-2017		LC	☐	☐		(>1000) Criterion 4: Shallow-water sea is moulting place for this species.Migratory 1700, breeding 30 p
CHORDATA/ AVES	*Dendrocopos leucotos*	White-backed Woodpecker	☑	☑	☐	☐	☐	☐	☐	☐	20	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA/ AVES	*Dryocopus martius*	Black Woodpecker	☑	☑	☐	☐	☐	☐	☐	☐	15	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA/ AVES	*Ficedula parva*	Red-breasted Flycatcher	☑	☑	☐	☐	☐	☐	☐	☐	20	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Gallinago media*	Great Snipe	☑	☑	☐	☐	☐	☐	☐	☐	3	2013-2017		NT	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Glaucidium passerinum*	Eurasian Pygmy Owl	☑	☑	☐	☐	☐	☐	☐	☐	3	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: Breeding species
CHORDATA/ AVES	*Grus grus*	Common Crane	☑	☑	☐	☐	☐	☐	☐	☐	5	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Haliaeetus albicilla*	White-tailed Eagle	☑	☑	☐	☐	☐	☐	☐	☐	3	2013-2017		LC	☑	☑	Annex I of Birds Directive (Council directive 2009/147/EEC); Highly endangered and strongly protected (I protection category)	Criterion 4: Breeding species
CHORDATA/ AVES	*Lanius collurio*	Red-backed Shrike	☑	☑	☐	☐	☐	☐	☐	☐	30	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Lullula arborea*	Woodlark	☑	☑	☐	☐	☐	☐	☐	☐	30	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: Breeding species
CHORDATA/ AVES	*Luscinia svecica*	Bluethroat	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	
CHORDATA/ AVES	*Lyrurus tetrix*	Eurasian Black Grouse; Black Grouse	☑	☑	☐	☐	☐	☐	☐	☐	50	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Mergellus albellus*	Smew	☑	☑	☐	☐	☐	☐	☐	☐	650	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: Passage species.
CHORDATA/ AVES	*Phalacrocorax carbo*	Great Cormorant	☐	☑	☐	☐	☐	☐	☐	☐	4700	2013-2017			☐	☐		Criterion 4: Passage & breeding species. 1000 breeding pairs
CHORDATA/ AVES	*Philomachus pugnax*	Ruff	☑	☑	☐	☐	☐	☐	☐	☐	400	2013-2017			☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC); Highly endangered and strongly protected (I protection category)	400 migratory, 3 breeding pairs
CHORDATA/ AVES	*Picoides tridactylus*	Three-toed Woodpecker	☑	☑	☐	☐	☐	☐	☐	☐	15	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA/ AVES	*Picus canus*	Grey-headed Woodpecker	☑	☑	☐	☐	☐	☐	☐	☐	10	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA/ AVES	*Pluvialis apricaria*	European Golden Plover; European Golden-Plover	☑	☑	☐	☐	☐	☐	☐	☐	35	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Podiceps auritus*	Horned Grebe	☑	☑	☐	☐	☐	☐	☐	☐	5	2013-2017		VU	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Porzana parva*	Little Crake	☑	☑	☐	☐	☐	☐	☐	☐	1	2013-2017			☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Porzana porzana*	Spotted Crake	☑	☑	☐	☐	☐	☐	☐	☐	2	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Sterna hirundo*	Common Tern	☑	☑	☐	☐	☐	☐	☐	☐	170	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Sterna paradisaea*	Arctic Tern	☑	☑	☐	☐	☐	☐	☐	☐	50	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding
CHORDATA/ AVES	*Sternula albifrons*	Little Tern	☑	☑	☐	☐	☐	☐	☐	☐	14	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	breeding

Phylum	Scientific name	Common 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	*Strix uralensis*	Ural Owl	☑	☑	☐	☐	☐	☐	☐	☐	4	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA / AVES	*Tetrao urogallus*	Western Capercaillie	☑	☑	☐	☐	☐	☐	☐	☐	40	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	Criterion 4: The forests are important breeding and wintering areas for this species.
CHORDATA / AVES	*Tetrastes bonasia*	Hazel Grouse	☑	☐	☐	☐	☐	☐	☐	☐					☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	
CHORDATA / AVES	*Tringa glareola*	Wood Sandpiper	☑	☑	☐	☐	☐	☐	☐	☐	340	2013-2017		LC	☐	☐	Annex I of Birds Directive (Council directive 2009/147/EEC)	10 breeding
Fish, Mollusc and Crustacea																		
CHORDATA / CEPHALASPIDOMORPHI	*Lampetra fluviatilis*	Lampern; Lampern	☑	☑	☐	☐	☑	☐	☐	☑				LC	☐	☐	Annex II of EU Habitats Directive	Criterion 8: It is an important spawning ground for this fish species
CHORDATA / ACTINOPTERYGII	*Salmo trutta*	Herling	☐	☑	☐	☐	☐	☐	☐	☑				LC	☐	☐		Criterion 8: It is an important spawning ground for this fish species
Others																		
CHORDATA / AMPHIBIA	*Epidalea calamita*	Natterjack Toad	☑	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Annex IV of EU Habitats Directive	Criterion 4: it only breeds on coastal meadows, here in sandpit, refugium.10-20 calling males,
CHORDATA / REPTILIA	*Lacerta agilis*	Sand Lizard	☑	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Annex IV of EU Habitats Directive	Criterion 4: It only lives on sandy habitat, here in dunes and sandpits. Difficult to estimate numbers. Data collected for management plan in 2017.
CHORDATA / MAMMALIA	*Lutra lutra*	European Otter	☑	☑	☐	☐	☑	☐	☐	☐				NT	☑	☐	Annexes II and IV of EU Habitats Directive	It inhabits rivers, 2-3 pairs. Data collected for management plan in 2017.
CHORDATA / MAMMALIA	*Myotis dasycneme*	pond bat; Pond Myotis	☑	☑	☐	☐	☑	☐	☐	☐				NT	☐	☐	Annexes II and IV of EU Habitats Directive	Criterion 4: It has specific conditions for overnight and feeding together. It breeds in dune forests.Data collected for management plan in 2017.
CHORDATA / MAMMALIA	*Ursus arctos*	Grizzly Bear; Brown Bear	☑	☐	☐	☐	☐	☐	☐	☐				LC	☑	☐		Lives only in the marginal parts of the area.

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
Fennoscandian deciduous swamp woods (9080)	☑		EU Habitats Directive Annex I priority habitat
Bog woodland (91D0)	☑		EU Habitat Directive Annex I priority habitat
Northern boreal alluvial meadows (6450)	☑		EU Habitats Directive Annex I habitat
Active raised bogs (7110)	☑	Tolkuse and Soometsa bogs	EU Habitat Directive Annex I priority habitat
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (91E0)	☑		EU Habitat Directive Annex I priority habitat
Fennoscandian mineral- rich springs and springfens (7160)	☑		EU Habitats Directive Annex I habitat
Baltic Boreal coastal meadows (1630)	☑		EU Habitats Directive Annex I priority habitat
Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior along the great rivers (91F0)	☑	some remnants	EU Habitats Directive Annex I habitat
Coastal lagoons (1150)	☑		EU Habitats Directive Annex I priority habitat
Natural dystrophic lakes and ponds (3160)	☑	Bog pools	EU Habitats Directive Annex I habitat
Humid dunes slacks (2190)	☑	between coastal sand dunes	EU Habitats Directive Annex I habitat
Baltic Boreal islets and small islands (1620)	☑		EU Habitats Directive Annex I habitat
Large shallow inlets and bays (1160)	☑		EU Habitats Directive Annex I habitat
Mudflats and sandflats not covered by seawater by low tide (1140)	☑	Waterlevel depends on winds, not tides	EU Habitats Directive Annex I habitat
Sandbanks, slightly covered by seawater (1110)	☑	on the shallow coast, sand originated from rivers and travels with storms	EU Habitats Directive Annex I habitat
Transition mires and quaking bogs (7140)	☑		EU Habitats Directive Annex I habitat

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

4.1 - Ecological character

The site includes large shallow sea areas, where extensive sandy and muddy areas with stone fields appear while the water level is low. Reeds, club-rushes and bulrushes spread widely. Large areas are covered by coastal grasslands, which are generally richer in species than it is common in West Estonia: more than 250 plant species have been noted. Historically grazed coastal grasslands have covered nearly 1000 ha, nowadays over 800 ha are managed.
The unique complex where the growing conditions for plants vary greatly is formed due to the interchanging of dunes and peatlands. The dunes are covered by light-filled dry boreal pine forest. The Tolkuse Mire (5500 ha) has unique character due to the peculiarities in water movement and rapid peat increment in an old sea lagoon between Littorina sea and Ancylus lake dune systems.

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		2	2406	Representative
D: Rocky marine shores		0	2	
E: Sand, shingle or pebble shores		0		
G: Intertidal mud, sand or salt flats		0		
H: Intertidal marshes		3	1051	Representative
J: Coastal brackish / saline lagoons		0	20	Representative

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				
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		0	8	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		0		
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		1	2567	Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		2	2401	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
1: Aquaculture ponds		0	42	
2: Ponds		0	12	
7: Excavations		0	83	
9: Canals and drainage channels or ditches		0	13	

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
forest	
fields and pastures	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Allium ursinum	Ramsons	
Dactylorhiza fuchsii	Spotted Orchid	
Dactylorhiza incarnata	March Orchid	
Diphasiastrum complanatum	Club-moss	
Epipactis palustris	Marsh Helleborine	
Gladiolus imbricatus	Wild Meadow Gladiolus	population of which is one of the largest in Europe
Lunaria rediviva	Perennial Honesty	
Nymphaea candida	White Water-lily	
Petasites spurius	Butterbur	
Platanthera bifolia	Lesser Butterfly Orchid	
Thalictrum lucidum	Shining Meadow Rue	

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/MAMMALIA	*Canis lupus*	Wolf				live mainly in marginal parts of the area
CHORDATA/MAMMALIA	*Castor fiber*	Eurasian Beaver				live mainly in marginal parts of the area
CHORDATA/MAMMALIA	*Lynx lynx*	Eurasian Lynx				live mainly in marginal parts of the area

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	*Canis aureus*	Golden Jackal;Eurasian Golden Jackal	Actual (major impacts)	increase

Optional text box to provide further information

Golden Jackal has naturally introduced itself in coastal areas of Estonia. However, it does great disturbances to cattle and coastal semi-natural grassland management and needs to be controlled.

4.4 - Physical components

4.4.1 - Climate

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

The climate in the region is a transition from maritime to continental. The Baltic Sea has the strongest impact on the climate. The yearly average temperature is up from +5 to +6 degree. The average precipitation is 600 - 650 mm (mainly from April to October). The duration of snow cover can change considerably, the average being about 90 days.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 0

a) Maximum elevation above sea level (in metres): 34

- 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.

Baltic Sea, Rannametsa river (Timmkanal) river basin.

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)

Moist mineral soils and forests dominate.

In between the dune formations, in place of an ancient lagoon the Tolkuse Mire (with max peat layer of 5 m) has developed.

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 rainfall / snowfall	☑	No change
Water inputs from surface water	☐	No change
Water inputs from groundwater	☑	No change
Marine water	☐	No change

Water destination

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

Mires are important as stabilizing and controlling the water regime of the surrounding areas.

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 ○

Mixohaline (brackish)/Mixosaline (0.5-30 g/l) ☑

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

Unknown ☑

4.4.8 - Dissolved or suspended nutrients in water

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 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 ☐

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)	High
Wetland non-food products	Timber	Medium
Wetland non-food products	Livestock fodder	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Erosion protection	Soil, sediment and nutrient retention	Medium
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	High
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Water sports and activities	Low
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Long-term monitoring site	Medium
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Major scientific study site	Medium

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
Soil formation	Sediment retention	Medium
Nutrient cycling	Carbon storage/sequestration	High
Pollination	Support for pollinators	High

Other ecosystem service(s) not included above:

Mires are important as stabilizing and controlling the water regime of the surrounding areas.

The area is important for traditional berry and mushroom picking.

There is a simple bird ringing site for studying and monitoring bird migration in Pulgoja reed-bed since 1979. The closest well-equipped field-station is located in Nigula Ramsar site, 20 km from Luitemaa.

Luitemaa Nature reserve is an important attraction for ecotourism, especially for bird-watching. Nature trail located in Tolkuse Bog close to Via Baltica is one of the most visited nature trails in Estonia.

Within the site: 800

Outside the site: 50 000

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 ☑

Description if applicable

Life Nature project revived and adjusted old management history to nowadays possibilities and needs. The system of grazing and animal-breeding in common pastures was re-established where relevant (eg Häädemeeste village common pasture). Old mixed cattle principle cannot be used because of the lack of breeds and breeders, but in some places milk cows or beef cattle is mixed with horses or sheep.

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 ☑

Description if applicable

Coastal meadow management and maintenance depends on local farmers. Only farmers can keep the open primary coastal grasslands as open landscapes, by implementing grazing or mowing activities. If not done so, the natural succession (reed encroachment or overgrowing by other types of vegetation) would take place. So this cooperation between local people and conservation is essential for maintenance of the specific biodiversity or status quo of the coastal grasslands.

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	☑	☑

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 70 % of the reserve area is owned by State, the rest is private land.

in the surrounding area: Surrounding agricultural areas are owned mainly by private owners, but surrounding forest areas is owned mainly by State.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Estonian Environmental Board, Lääne Region

Provide the name and title of the person or people with responsibility for the wetland: Kadri Hänni, Senior Nature Conservation Specialist

Postal address: Roheline 64, Pärnu, EE80010, Estonia

E-mail address: kadri.hanni@keskkonnaamet.ee

5.2 - Ecological character threats and responses (Management)

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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Housing and urban areas	Low impact	Medium impact	☑	No change	☑	increase
Tourism and recreation areas	Low impact	Medium impact	☑	increase	☑	increase

Water regulation

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

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	Low impact	High impact	☑	No change	☑	increase

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	☑	increase	☑	increase

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	High impact	High 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	High impact	☑	increase	☑	increase

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Storms and flooding	Low impact	Medium impact	☑	increase	☑	increase

Please describe any other threats (optional):

within the Ramsar site: The peatland area has a great number of ditches that endanger the water balance of the mire complex and worsen living conditions of plants and animals. For the coastal meadows the spread of reed and shrub, inconsistent mowing and grazing and using wrong management methods are the most important threats. As the area is popular for tourism activities also disturbance is important threat for wildlife.

in the surrounding area: Digging new ditches in the surrounding can influence the water balance of the wetland site. Forestry activities (logging and drainage).

The planned Rail Baltic railroad will pass the Ramsar site in close vicinity. If there will be fenced corridor, it will influence the free movement of the species.

Golden jackal has introduced itself in coastal areas of Estonia, especialy in protected wetlands. It is additional threat to breeding birds but also disturbs management of semi-natural grasslands by cattle and sheep.

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	Luitemaa		whole

National legal designations

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

Non-statutory designations

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

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	Implemented

Habitat

Measures	Status
Hydrology management/restoration	Implemented
Habitat manipulation/enhancement	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented
Control of invasive alien plants	Implemented
Control of invasive alien animals	Proposed

Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Partially implemented
Communication, education, and participation and awareness activities	Implemented
Research	Implemented

Other:

In 2001-2005 EU LIFE-Nature project “Restoration and management of the Häädemeeste wetland complex” was carried out. Several habitat restoration activities (on coastal meadows and mire sites affected by drainage and peat cutting) were carried out. Important part of the project was development of the infrastructure and opportunities for the awareness-raising and dissemination of the project results.
There is Tolkuse nature trail, wich is among three most visited nature trails in Estonia.

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:

In the frame of the LIFE-Nature project, several infrastructures and opportunities for the CEPA activities have been created: bird-watching towers, information boards, posters, coastal info house and nature trail in Tolkuse Bog.
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
Birds	Implemented
Plant species	Proposed

There is a simple bird ringing site for studying and monitoring bird migration in Pulgoja reed-bed since 1979. The closest well-equipped field-station is located in Nigula Ramsar site, 20 km from Luitemaa. Area is part of national coastal and mire bird monitoring program.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Kose, M. 1988. Ülevaade Tolkuse raba haudelinnustikust ja selle muutustest. - Loodusevaatlusi 1988 (1): 54-64.
Kose, M. , Kose, M., Klein, A. 2003. The conservation history of the Rannametsa Dunes. - Metsanduslikud uurimused XXXIX: 93-99.
Kose, M. & Kose, M., Klein, A. 2004. Managing meadows or managing people? Coastal meadow restoration and management in the Häädemeeste region. - In: Coastal meadow management. Best Practice Guidelines. The experiences of LIFE-Nature project “Boreal Baltic Coastal Meadow Preservation in Estonia”. Ministry of Environment. Tallinn. Pp. 76-85.
Kose M., Klein A., Tammekänd I., Leivits A., Leivits M. 2008. Effect of the Natura 2000 habitat restoration on bird population in coastal meadows: experiences and management implications from
the EU Life project in Estonia. - In: 6th European Conference on Ecological Restoration: Towards a sustainable future for European Ecosystems - Providing restoration guidelines for Natura2000 habitats and species, Ghent, Belgium, 8-12 September 2008.
Kose, M., Moora, M. 2004. Monitoring the Wild gladiolus (Gladiolus impricatus) population under different meadow management regime. – In: Coastal meadow management. Best Practice Guidelines. The experiences of LIFE-Nature project “Boreal Baltic Coastal Meadow Preservation in Estonia”. Ministry of Environment. Tallinn. Pp. 70-71.
Moora, M., Kose, M., Jõgar, Ü. 2007. Optimal management of the rare Gladiolus imbricatus in Estonian coastal meadows indicated by its population structure. - Applied Vegetation Science 10: 161- 168.
Restoration and management of the Häädemeeste wetland complex 2001-2005. EU LIFE- Nature project (LIFE00NAT/EE/7082) URL: http://www.luitemaa.eoy.ee/

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>

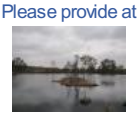
iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<1 file(s) uploaded>

vi. other published literature
<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Tolkuse Bog (*Hardis Fridolin, 09-12-2011*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation	2010-01-27