



# Ramsar Information Sheet

Published on 31 January 2025

Update version, previously published on : 1 January 2006

## Latvia

### Lake Kanieris and Kemeris bog



Designation date	25 July 1995
Site number	739
Coordinates	56°55'33"N 23°27'14"E
Area	36 180,00 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

Lake Kanieris and Kemeris bog (National Park) includes 51% forests (deciduous, coniferous, mixed), 24% mires, 10% water bodies, 12% agriculture land and shrubs, 3% human settlement etc. The largest and most valuable alluvial forest massif with *Alnus glutinosa* in Latvia is located in the area. There are three active raised bogs with total area 5270 ha characterised by large amount of bog pools and lakes. The largest is Kemeris Smarde Mire (5762 ha). There are alluvial meadows and fens near water bodies. Sulphurous springs near Dunu Lake and in Raganu Mire are surrounded by rich fen vegetation (Nature 2000 code: 7210, 7230). Geologically interesting are Kracu Hills and Zala Dune, which are banks of the ancient Littorina Sea. Lake Kanieris is a shallow coastal freshwater lagoon, partly covered with reed stands and other aquatic plants (e.g. *Cladium mariscus*). The territory includes the Slocene River delta with alluvial and swamp forests, coniferous and mixed forests, several islets, calcareous fens and meadows, and vast reed beds.

## 2 - Data & location

### 2.1 - Formal data

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

##### Responsible compiler

Institution/agency

Postal address

##### National Ramsar Administrative Authority

Institution/agency

Postal address

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

From year

To year

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Unofficial name (optional)

#### 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) The boundary has been delineated more accurately

(Update) The boundary has been extended

(Update) The boundary has been restricted

(Update) B. Changes to Site area the area has increased

(Update) The Site area has been calculated more accurately

(Update) The Site has been delineated more accurately

(Update) The Site area has increased because of a boundary extension

(Update) The Site area has decreased because of a boundary restriction

(Update) For secretariat only: This update is an extension

#### 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?

## 2.2 - Site location

### 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<1 file(s) uploaded>

Former maps

#### Boundaries description

### 2.2.2 - General location

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

b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes  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
Udvardy's Biogeographical Provinces	boreo-nemoral
EU biogeographic regionalization	Boreal

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	The site is important for regulation of floods and water purification. The site is crucial for groundwater recharge and formation of sulphurous waters/springs.
Other ecosystem services provided	The site supports a large diversity of species by providing suitable feeding and nesting habitats, especially for birds. The site (Lake Kanieris) provides habitat for the diversity of fish species. Kemeris bog is important for carbon storage and sequestration. The site provide tourism and cultural services such as birdwatching, fishing and hiking, provide scenic beauty that enhances quality of life.
Other reasons	Lake Kanieris site represents typical shallow coastal lagoon freshwater lake with vast reed beds, emergent vegetation and surrounding nearly untouched alluvial and swamp forests. Some parts of the lake and surrounding calcareous fens are a unique habitat for Latvia with dolomite ground coming to the very surface of earth with sulphurous spring discharges on the lake bottom.

- 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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
<b>Plantae</b>								
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Agrimonia pilosa</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	VU	EU habitat directive (Annex II)
TRACHEOPHYTA / LILIOPSIDA	<i>Cypripedium calceolus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	LC	<input type="checkbox"/>	EN	EU habitat directive (Annex II), 2408 individuals
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Dianthus arenarius arenarius</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	EN	EU habitat directive (Annex II)
BRYOPHYTA / BRYOPSIDA	<i>Dicranum viride</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	EN	EU habitat directive (Annex II), 0-1 sq m area
TRACHEOPHYTA / LILIOPSIDA	<i>Liparis loeselii</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	EN	EU habitat directive (Annex II)
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Pulsatilla patens</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	EN	EU habitat directive (Annex II), 92-101 individuals
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Saussurea esthonica</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	EN	EU habitat directive (Annex II), 65 - 80 individuals
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Saxifraga hirculus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	LC	<input type="checkbox"/>	EN	EU habitat directive (Annex II)

The site, especially the alkaline fens, support many nationally protected plant species:

a) In the lake:

*Cladium mariscus* (large stands);

*Najas marina* (one of the few freshwater lakes in Latvia supporting this species);

*Ceratophyllum submersum* (casual in the lake),

*Zannichellia palustris* (rarely, one of few localities in Latvia),

*Lemna gibba* (in the Slocene River delta).

b) In surrounding fens, meadows and swampy forests:

*Carex buxbaumii* (in calcareous fens),

*Carex demissa* (in calcareous fens),

*Carex scandinavica* (in calcareous fens),

*Centaurium littorale* (on bare dolomite grounds with sparse vegetation),

*Dactylorhiza baltica* (in calcareous fens),

*Dactylorhiza cruenta* (in calcareous fens),

*Dactylorhiza fuchsii* (in forests),

*Dactylorhiza incarnata* (in calcareous fens),

*Dactylorhiza ochroleuca* (in calcareous fens),

*Euphorbia palustris* (in alluvial and swampy forests),

*Juncus balticus* (in calcareous fens),

*Liparis loeselii* (in calcareous fens),

*Lonicera caerulea* var. *pallasii* (in calcareous fens and lakeshore forests),

*Myrica gale* (in calcareous fens),

*Orchis mascula* (in Molinion meadow),

*Pinguicula vulgaris* (in calcareous fens),

*Platanthera bifolia* (in different forests),

*Platanthera chlorantha* (in different forests),

*Primula farinosa* (in calcareous fens and on artificial islets),

*Schoenus ferrugineus* (in calcareous fens),

*Taraxacum palustre* (in calcareous fens).

### 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								
<b>Birds</b>																	
CHORDATA/AVES	<i>Anser albifrons</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"/>	2000			LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds directive Annex II	concentration
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"/>	1000			LC	<input type="checkbox"/>	<input type="checkbox"/>	EU Birds directive Annex II	concentration 450-2000 individuals
CHORDATA/AVES	<i>Aythya ferina</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"/>	EU Birds directive Annex II	wintering 7-13 individuals
CHORDATA/AVES	<i>Botaurus stellaris</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	reproducing 15-20 pairs
CHORDATA/AVES	<i>Bucephala clangula</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	wintering 70-690 individuals
CHORDATA/AVES	<i>Chlidonias niger</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	reproducing 20-30 pairs
CHORDATA/AVES	<i>Ciconia ciconia</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	reproducing 6-10 pairs
CHORDATA/AVES	<i>Ciconia nigra</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	reproducing 3-5 pairs
CHORDATA/AVES	<i>Circus aeruginosus</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	reproducing 20-25 pairs
CHORDATA/AVES	<i>Cygnus columbianus bewickii</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"/>					<input type="checkbox"/>	<input type="checkbox"/>	EU Birds directive	concentration 30 individuals
CHORDATA/AVES	<i>Cygnus cygnus</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	concentration 50 individuals, wintering 2-7 individuals
CHORDATA/AVES	<i>Cygnus olor</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	wintering 650-1001 individuals
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	concentration
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	reproducing 45-170 pairs, concentration 500-1000 individuals
CHORDATA/AVES	<i>Haliaeetus albicilla</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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EU Birds directive	reproducing 3-4 pairs, wintering 0-2 individuals
CHORDATA/AVES	<i>Ixobrychus minutus</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	reproducing 0-1 pairs
CHORDATA/AVES	<i>Pandion haliaetus</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	reproducing 3-4 pairs
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"/>	EU Birds directive Annex II	reproducing 0-2 pairs
CHORDATA/AVES	<i>Porzana parva</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"/>					<input type="checkbox"/>	<input type="checkbox"/>	EU Birds directive	reproducing 25-30 pairs
CHORDATA/AVES	<i>Porzana porzana</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	reproducing 10-15 pairs
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	reproducing 45-50 pairs, concentration 50-100 individuals
CHORDATA/AVES	<i>Sterna paradisaea</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	concentration
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	reproducing 60-90 pairs

1) Percentage of the total biogeographic population at the site

Several bird species threatened throughout Europe have permanently settled in Kemeris National park, e.g. White-tailed Eagle (4-5 breeding pairs), Lesser Spotted Eagle (3-5 pairs), Eagle Owl (4-5 pairs) and Black Stork (3-5 pairs). Lynxes and wolfs dwell in the vast forests, while pond bat, a particularly rare bat species, can be found in old buildings.

Lake Kanieris site is an important as a nesting or feeding ground for many water birds (grebes, bitterns and herons, ducks, swans, rails and crakes, terns, gulls etc., also for raptors as *Circus aeruginosus*, *Pandion haliaetus*, *Haliaeetus albicilla* and for many Passerines such as (*Acrocephalus*, *Locustella*), *Panurus biarmicus* etc.). The lake is important as a resting and/or feeding place for migratory birds (especially *Grus grus* and geese, also ducks - *Bucephala clangula*, *Anas penelope* etc.) as well as moulting site for various duck species. It is important as a feeding site for *Haliaeetus albicilla* both in breeding and wintering periods.

### 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
3140 Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	<input checked="" type="checkbox"/>		EU Habitats Directive
7140 Transition mires and quaking bogs	<input checked="" type="checkbox"/>		EU Habitats Directive
6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> )	<input checked="" type="checkbox"/>		EU Habitats Directive
5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands	<input checked="" type="checkbox"/>		EU Habitats Directive
7110* Active raised bogs	<input checked="" type="checkbox"/>		EU Habitats Directive
7210* Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	<input checked="" type="checkbox"/>		EU Habitats Directive
7230 Alkaline fens	<input checked="" type="checkbox"/>		EU Habitats Directive
9010* Western taiga	<input checked="" type="checkbox"/>		EU Habitats Directive
91E0* Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> )	<input checked="" type="checkbox"/>		EU Habitats Directive
9080* Fennoscandian deciduous swamp woods	<input checked="" type="checkbox"/>		EU Habitats Directive
2130* Fixed coastal dunes with herbaceous vegetation ('grey dunes')	<input checked="" type="checkbox"/>		EU Habitats Directive
2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	<input checked="" type="checkbox"/>		EU Habitats Directive
1210 Annual vegetation of drift lines	<input checked="" type="checkbox"/>		EU Habitats Directive
2110 Embryonic shifting dunes	<input checked="" type="checkbox"/>		EU Habitats Directive
1220 Perennial vegetation of stony banks	<input checked="" type="checkbox"/>		EU Habitats Directive
3160 Natural dystrophic lakes and ponds	<input checked="" type="checkbox"/>		EU Habitats Directive

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
2180 Wooded dunes of the Atlantic, Continental and Boreal region	<input checked="" type="checkbox"/>		EU Habitats Directive
2320 Dry sand heaths with <i>Calluna</i> and <i>Empetrum nigrum</i>	<input checked="" type="checkbox"/>		EU Habitats Directive
1310 <i>Salicornia</i> and other annuals colonizing mud and sand	<input checked="" type="checkbox"/>		EU Habitats Directive
6120* Xeric sand calcareous grasslands	<input checked="" type="checkbox"/>		EU Habitats Directive
6230* Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	<input checked="" type="checkbox"/>		EU Habitats Directive
6450 Northern boreal alluvial meadows	<input checked="" type="checkbox"/>		EU Habitats Directive
6530* Fennoscandian wooded meadows	<input checked="" type="checkbox"/>		EU Habitats Directive
7120 Degraded raised bogs still capable of natural regeneration	<input checked="" type="checkbox"/>		EU Habitats Directive
7220* Petrifying springs with tufa formation (Cratoneurion)	<input checked="" type="checkbox"/>		EU Habitats Directive
9050 Fennoscandian herb-rich forests with <i>Picea abies</i>	<input checked="" type="checkbox"/>		EU Habitats Directive
1640 Boreal Baltic sandy beaches with perennial vegetation	<input checked="" type="checkbox"/>		EU Habitats Directive
2140* Decalcified fixed dunes with <i>Empetrum nigrum</i>	<input checked="" type="checkbox"/>		EU Habitats Directive
3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition — type vegetation	<input checked="" type="checkbox"/>		EU Habitats Directive
3260 Water courses of plain to montane levels with the <i>Ranunculus fluitans</i> and <i>Callitriche-Batrachion</i> vegetation	<input checked="" type="checkbox"/>		EU Habitats Directive
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites)	<input checked="" type="checkbox"/>		EU Habitats Directive
6270* Fennoscandian lowland species-rich dry to mesic grasslands	<input checked="" type="checkbox"/>		EU Habitats Directive
6510 Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> )	<input checked="" type="checkbox"/>		EU Habitats Directive
7150 Depressions on peat substrates of the Rhynchosporion	<input checked="" type="checkbox"/>		EU Habitats Directive

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
7160 Fennoscandian mineral-rich springs and springfens	<input checked="" type="checkbox"/>		EU Habitats Directive
9020* Fennoscandian hemiboreal natural old broad-leaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus) rich in epiphytes	<input checked="" type="checkbox"/>		EU Habitats Directive
9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	<input checked="" type="checkbox"/>		EU Habitats Directive
9180* Tilio-Acerion forests of slopes, screes and ravines	<input checked="" type="checkbox"/>		EU Habitats Directive
91D0* Bog woodland	<input checked="" type="checkbox"/>		EU Habitats Directive

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

### 4.1 - Ecological character

In the present area of the Lake Kanieris and Kemeris bog, wetlands began to form after withdrawal of the last ice cover. The Baltic Sea coast changed its configuration several times, the sea level dropped down and rose up, flooding the coastal lowland. The coastal lakes – Kanieris, Lake Slokas and Dunieris – are remains of the sea. The formation of bogs began after the withdrawal of the sea, when the peat started to accumulate in wet depressions. Over thousands of years, some wetland types have transformed into other ones, e.g. some lakes have overgrown and turned into bogs and fens. The overgrowing is a still ongoing process, though so slow that the changes usually cannot be observed within a single human life.

Currently Lake Kanieris and Kemeris bog represents the second largest mire complex in Latvia including raised bogs, transitional mires and fens that cover about one forth of the national park.

The swamp forests along the Slocene, Versupīte and Lielupe Rivers and the Sloka Lake are rich in rare plant and animal species. Site encompasses the largest, the least fragmented and thus very significant areas of black alder swamps in Latvia, the priority habitat of European Union.

Some of the wetlands in site – raised bogs, the Lake Kanieris and moist forests, are of international importance for nesting and migratory birds. Despite the establishment of the protected area the wetlands are being continuously damaged by the past impacts and the still functioning drainage systems. The swamp forests, floodplains and bogs are criss-crossed by drainage ditches. They drain the naturally wet areas, therefore the wetland ecosystems suffer and undergo human-caused changes, e.g. the peat layer accumulated in thousands of years gets decomposed, the deteriorated raised bogs overgrow with trees, the moist forests transform into drier, less diverse types.

The evidence of drainage systems established over the 20th century can be well seen in the Zalais Mire with its peat extraction ponds and ditches.

### 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
E: Sand, shingle or pebble shores		3	42	Representative
J: Coastal brackish / saline lagoons		4	3	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 >> L: Permanent inland deltas		4		Representative
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	4	165	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Natural eutrophic lakes with Magnopotamion or Hydro	3	1190	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools	Alkaline fens, Calcareous fens	4	138	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils	Northern Boreal alluvial meadows	4	330	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Active raised bogs	1	5270	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		4		Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Transitional mires	4	150	Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands	Bog woodland	2	2963	Representative

#### Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
9: Canals and drainage channels or ditches			

#### Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
91E0* Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> )	290
9180* Tilio-Acerion forests of slopes, screes and ravines	11
9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the <i>Carpinion betuli</i>	46
9080 Fennoscandian deciduous swamp woods	1467
9050 Fennoscandian herb-rich forests with <i>Picea abies</i>	413
9020* Fennoscandian hemiboreal natural old broad-leaved deciduous forests ( <i>Quercus</i> , <i>Tilia</i> , <i>Acer</i> , <i>Fraxinus</i> or <i>Ulmus</i> ) rich in epiphytes	606
9010* Western Taiga	2570
6530* Fennoscandian wooded meadows	3
6510 Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> )	72
6270* Fennoscandian lowland species-rich dry to mesic grasslands	115
6230* Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	105
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites)	36
6120* Xeric sand calcareous grasslands	11
5130 <i>Juniperus communis</i> formations on heaths or calcareous grasslands	9

## 4.3 - Biological components

### 4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	<i>Allium ursinum</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Atriplex calotheca</i>	
TRACHEOPHYTA/POLYPODIOPSIDA	<i>Botrypus virginianus virginianus</i>	
BRYOPHYTA/JUNGERMANNIOPSIDA	<i>Calypogeia sphagnicola</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Carex buxbaumii</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Carex viridula oedocarpa</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Carex viridula viridula</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Centaurium littorale</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ceratophyllum submersum</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Cladium mariscus</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Corallorrhiza trifida</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Cyperus fuscus</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza baltica</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza fuchsii</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza incarnata</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza incarnata cruenta</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza incarnata ochroleuca</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza maculata</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Dactylorhiza russowii</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Euphorbia palustris</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Gentiana cruciata</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Gentianella amarella amarella</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Gladiolus imbricatus</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Gymnadenia conopsea</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Hammarbya paludosa</i>	
TRACHEOPHYTA/LYCOPODIOPSIDA	<i>Huperzia selago</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Hypericum hirsutum</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Iris sibirica</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Juncus balticus</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Juncus gerardii</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Lemna gibba</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Lonicera caerulea</i>	
TRACHEOPHYTA/LYCOPODIOPSIDA	<i>Lycopodium clavatum</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Malaxis monophyllos</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Myrica gale</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Najas marina</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Neottia cordata</i>	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	<i>Odontoschisma sphagni</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Onobrychis arenaria</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Orchis mascula</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Orchis militaris</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Pedicularis sceptrum-carolinum</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Pinguicula vulgaris</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Platanthera bifolia</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Platanthera chlorantha</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Primula farinosa</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Primula laurentiana</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Pulsatilla pratensis</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Pyrola media</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ranunculus lanuginosus</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Schoenus ferrugineus</i>	
TRACHEOPHYTA/LYCOPODIOPSIDA	<i>Spinulum annotinum annotinum</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Taraxacum palustre</i>	
TRACHEOPHYTA/PINOPSIDA	<i>Taxus baccata</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Thinopyrum junceiforme</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Zannichellia palustris</i>	

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Acer negundo</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Amelanchier spicata</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Aster salignus</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Bunias orientalis</i>	Potential	No change
BRYOPHYTA/BRYOPSIDA	<i>Campylopus introflexus</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Cotoneaster lucidus</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Echinocystis lobata</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Elaeagnus commutata</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Helianthus tuberosus</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Heracleum sosnowskyi</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Hippophae rhamnoides</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Impatiens glandulifera</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Impatiens parviflora</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Lactuca tatarica</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Lupinus polyphyllus</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Parthenocissus quinquefolia</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Reynoutria japonica</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Reynoutria sachalinensis</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Robinia pseudoacacia</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Rosa rugosa</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Rumex confertus</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Sambucus racemosa</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Solidago canadensis</i>	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Sorbaria sorbifolia</i>	Potential	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Syringa vulgaris</i>	Potential	No change

#### 4.3.2 - Animal species

##### Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	<i>Anax imperator</i>				
MOLLUSCA/GASTROPODA	<i>Ancylus fluviatilis</i>				
ARTHROPODA/ARACHNIDA	<i>Arctosa cinerea</i>				
CHORDATA/MAMMALIA	<i>Canis lupus</i>				3-6 individuals
CHORDATA/MAMMALIA	<i>Castor fiber</i>	150			
ARTHROPODA/INSECTA	<i>Catocala sponsa</i>				
ARTHROPODA/INSECTA	<i>Chalcophora mariana</i>				
MOLLUSCA/GASTROPODA	<i>Clausilia dubia</i>				
MOLLUSCA/GASTROPODA	<i>Clausilia pumila</i>				
CHORDATA/ACTINOPTERYGII	<i>Cobitis taenia</i>				permanent
MOLLUSCA/GASTROPODA	<i>Cochlicopa nitens</i>				
MOLLUSCA/GASTROPODA	<i>Cochlodina orthostoma</i>				

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	<i>Coenonympha hero</i>				120-180 individuals
CHORDATA/REPTILIA	<i>Coronella austriaca</i>				300-600 individuals
ARTHROPODA/INSECTA	<i>Dorcus parallelipipedus</i>				
ARTHROPODA/INSECTA	<i>Dytiscus latissimus</i>				permanent 140-280 individuals
CHORDATA/MAMMALIA	<i>Eptesicus nilssonii</i>				
ARTHROPODA/INSECTA	<i>Euphydryas aurinia</i>				permanent 0-20 individuals
ARTHROPODA/INSECTA	<i>Euphydryas maturna</i>				permanent 20-40 individuals
ARTHROPODA/INSECTA	<i>Graphoderus bilineatus</i>				permanent 600-1200 individuals
CHORDATA/REPTILIA	<i>Lacerta agilis</i>				
CHORDATA/CEPHALASPIDOMORPHI	<i>Lampetra fluviatilis</i>				concentration
CHORDATA/CEPHALASPIDOMORPHI	<i>Lampetra planeri</i>				permanent
ARTHROPODA/INSECTA	<i>Lestes virens</i>				
ARTHROPODA/INSECTA	<i>Leucorrhinia pectoralis</i>				permanent 13 1x1km grids
ARTHROPODA/INSECTA	<i>Libellula fulva</i>				
ARTHROPODA/INSECTA	<i>Lopinga achine</i>				150-400 individuals
CHORDATA/MAMMALIA	<i>Lutra lutra</i>				permanent 45-88 individuals
CHORDATA/MAMMALIA	<i>Lynx lynx</i>				0-2 individuals
CHORDATA/ACTINOPTERYGII	<i>Misgurnus fossilis</i>				permanent
CHORDATA/MAMMALIA	<i>Myotis dasycneme</i>				reproducing 26-150 individuals
CHORDATA/MAMMALIA	<i>Myotis daubentonii</i>				
CHORDATA/MAMMALIA	<i>Nyctalus noctula</i>				
ARTHROPODA/INSECTA	<i>Osmoderma eremita</i>				permanent 1 1x1km grids
CHORDATA/MAMMALIA	<i>Pipistrellus nathusii</i>				
CHORDATA/MAMMALIA	<i>Pipistrellus pipistrellus</i>				
CHORDATA/MAMMALIA	<i>Pipistrellus pygmaeus</i>				
MOLLUSCA/GASTROPODA	<i>Platyla polita</i>				
CHORDATA/MAMMALIA	<i>Plecotus auritus</i>				
CHORDATA/ACTINOPTERYGII	<i>Rhodeus amarus</i>				permanent
MOLLUSCA/GASTROPODA	<i>Ruthenica filograna</i>				
MOLLUSCA/GASTROPODA	<i>Spermodea lamellata</i>				
MOLLUSCA/GASTROPODA	<i>Theodoxus fluviatilis</i>				
CHORDATA/AMPHIBIA	<i>Triturus cristatus</i>				permanent
MOLLUSCA/BIVALVIA	<i>Unio crassus</i>				permanent 250-2300 individuals
MOLLUSCA/GASTROPODA	<i>Vertigo angustior</i>				permanent
MOLLUSCA/GASTROPODA	<i>Vertigo geyeri</i>				permanent
CHORDATA/MAMMALIA	<i>Vespertilio murinus</i>				
CHORDATA/AVES	<i>Aegolius funereus</i>				reproducing 3-5 pairs

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Alcedo atthis</i>				reproducing 3-5 pairs
CHORDATA/AVES	<i>Anas crecca</i>				wintering 0-1 individuals
CHORDATA/AVES	<i>Anas platyrhynchos</i>				wintering 110-148 individuals
CHORDATA/AVES	<i>Aquila pomarina</i>				reproducing 4-5 pairs
CHORDATA/AVES	<i>Ardea alba</i>				reproducing 70 pairs, concentration 15 individuals
CHORDATA/AVES	<i>Ardea cinerea</i>				wintering 1-2 individuals
CHORDATA/AVES	<i>Aythya fuligula</i>				wintering 37-60 individuals
CHORDATA/AVES	<i>Branta leucopsis</i>				concentration
CHORDATA/AVES	<i>Bubo bubo</i>				reproducing 3-4 pairs
CHORDATA/AVES	<i>Caprimulgus europaeus</i>				reproducing 30-65 pairs
CHORDATA/AVES	<i>Chroicocephalus ridibundus</i>				
CHORDATA/AVES	<i>Cinclus cinclus</i>				wintering 0-2 individuals
CHORDATA/AVES	<i>Circaetus gallicus</i>				reproducing 0-1 pairs
CHORDATA/AVES	<i>Circus cyaneus</i>				reproducing
CHORDATA/AVES	<i>Circus pygargus</i>				reproducing 1-2 pairs
CHORDATA/AVES	<i>Columba oenas</i>				10-20 pairs
CHORDATA/AVES	<i>Coturnix coturnix</i>				
CHORDATA/AVES	<i>Crex crex</i>				reproducing 112-118 pairs
CHORDATA/AVES	<i>Dendrocopos leucotos</i>				permanent 20-30 pairs
CHORDATA/AVES	<i>Dendrocopos medius</i>				permanent 15-25 pairs
CHORDATA/AVES	<i>Dryocopus martius</i>				permanent 40-60 pairs
CHORDATA/AVES	<i>Emberiza hortulana</i>				reproducing
CHORDATA/AVES	<i>Falco columbarius</i>				reproducing 0-1 pairs
CHORDATA/AVES	<i>Falco peregrinus</i>				concentration
CHORDATA/AVES	<i>Ficedula parva</i>				reproducing 200-400 pairs
CHORDATA/AVES	<i>Fulica atra</i>				wintering 50-340 individuals
CHORDATA/AVES	<i>Gavia stellata</i>				concentration
CHORDATA/AVES	<i>Glaucidium passerinum</i>				permanent 30-80 pairs
CHORDATA/AVES	<i>Hydroprogne caspia</i>				reproducing 30-50 pairs
CHORDATA/AVES	<i>Lanius collurio</i>				reproducing 80-120 pairs
CHORDATA/AVES	<i>Larus argentatus</i>				wintering 0-31 individuals
CHORDATA/AVES	<i>Larus minutus</i>				reproducing 0-10 pairs
CHORDATA/AVES	<i>Limosa limosa</i>				
CHORDATA/AVES	<i>Lullula arborea</i>				reproducing 10-30 pairs
CHORDATA/AVES	<i>Lyrurus tetrix tetrix</i>				permanent 8-12 cmales
CHORDATA/AVES	<i>Mergellus albellus</i>				wintering 0-7 individuals
CHORDATA/AVES	<i>Mergus merganser</i>				wintering 0-81 individuals
CHORDATA/AVES	<i>Milvus migrans</i>				concentration

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Numenius arquata</i>				5-10 pairs
CHORDATA/AVES	<i>Perdix perdix</i>				
CHORDATA/AVES	<i>Pernis apivorus</i>				reproducing 10-14 pairs
CHORDATA/AVES	<i>Philomachus pugnax</i>				reproducing 0-5 pairs
CHORDATA/AVES	<i>Picoides tridactylus</i>				permanent 25-35 pairs
CHORDATA/AVES	<i>Picus canus</i>				permanent 20-30 pairs
CHORDATA/AVES	<i>Pluvialis apricaria</i>				reproducing 30-40 pairs
CHORDATA/AVES	<i>Sternula albifrons</i>				reproducing 0-5 pairs
CHORDATA/AVES	<i>Sylvia nisoria</i>				reproducing 5-10 pairs
CHORDATA/AVES	<i>Tetrao urogallus</i>				permanent 0-1 cmales
CHORDATA/AVES	<i>Tetrastes bonasia</i>				permanent 30-50 pairs
CHORDATA/AVES	<i>Thalasseus sandvicensis</i>				concentration
CHORDATA/AVES	<i>Tringa totanus</i>				0-5 pairs

Invasive alien animal species

Phylum	Scientific name	Impacts	Changes at RIS update
MOLLUSCA/GASTROPODA	<i>Krynickillus melanocephalus</i>	Potential	No change
CHORDATA/MAMMALIA	<i>Nyctereutes procyonoides</i>	Potential	No change
CHORDATA/MAMMALIA	<i>Ondatra zibethicus</i>	Potential	No change

## 4.4 - Physical components

### 4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season, warm 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.

Slocene  
Baltic Sea

### 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

#### 4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change

Source of water that maintains character of the site

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

Water destination

Presence?	Changes at RIS update
Marine	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	No change

#### 4.4.5 - Sediment regime

Sediment regime unknown

<no data available>

#### 4.4.6 - Water pH

Circumneutral (pH: 5.5-7.4)

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

Alkaline (pH>7.4)

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

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

Eutrophic

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

Mesotrophic

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

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
Wetland non-food products	Other	
Genetic materials	Ornamental species (live and dead)	

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	
Recreation and tourism	Recreational hunting and fishing	
Recreation and tourism	Picnics, outings, touring	
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	
Scientific and educational	Educational activities and opportunities	

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	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling	Carbon storage/sequestration	High
Pollination	Support for pollinators	Medium

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
- 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

<no data available>

4.6 - Ecological processes

<no data available>

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

### 5.1 - Land tenure and responsibilities (Managers)

#### 5.1.1 - Land tenure/ownership

##### Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local authority, municipality, (sub)district, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

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

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

~ 77 % of the territory is owned by state, other 23% are owned by local municipalities or private owners.

#### 5.1.2 - Management authority

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

Nature Conservation Agency

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

Meldra Priedena, Director of the Pieriga Regional Administration

Postal address:

Baznicas Street 7,  
Sigulda, Latvia, LV-2150

E-mail address:

pasts@daba.gov.lv

## 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			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Tourism and recreation areas	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<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
Hunting and collecting terrestrial animals	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	increase
Gathering terrestrial plants	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Fishing and harvesting aquatic resources	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	Low impact	Low impact	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fire and fire suppression	Low impact	Low impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	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	<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	unknown
Problematic native species	Medium impact	Medium impact	<input checked="" type="checkbox"/>	No change	<input type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Household sewage, urban waste water	Medium impact	Medium impact	<input checked="" type="checkbox"/>	decrease	<input checked="" type="checkbox"/>	No change

Climate change and severe weather

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

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	Kemeris National Park	<a href="https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=L.V0200200">https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=L.V0200200</a>	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National park	Kemeris National park	<a href="https://www.daba.gov.lv/kemeris-nacionalais-parks">https://www.daba.gov.lv/kemeris-nacionalais-parks</a>	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Kemeris National Park	<a href="http://www.kemerisnacionalaisparks.lv">www.kemerisnacionalaisparks.lv</a>	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
Habitat manipulation/enhancement	Partially implemented
Re-vegetation	Partially implemented

Species

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

Human Activities

Measures	Status
Regulation/management of wastes	Partially implemented
Fisheries management/regulation	Implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	Partially implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

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:

Visitor centre of Kemeris National Park in Kemeris (Jurmala City), different educational activities, e.g. Nature School (informal education), different educational campaigns and events mostly related to wetlands.

URL of site-related webpage (if relevant): <https://www.daba.gov.lv/lv/kemeru-nacionalais-parks>

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, the site has already been restored

Further information

Restoration of hydrology of EU importance wetland habitats was carried out from 2011 until 2019 in Kemeris National Park. LIFE+ project "Restoring the hydrological regime of Kemeris National Park" carried out detailed hydrological research to restore natural or semi-natural hydrological regime of: raised bog in the surroundings of the former peat quarry in Zaļais Bog, bog woodland and swamp forests along the western margin of Kemeris Raised Bog, floodplain meadows by re-meandering straightened Skudrupīte River (<https://hydroplan.daba.gov.lv/public/eng/introduction/>).

In Project "Sustainable and responsible management and re-use of degraded peatlands in Latvia" (LIFE REstore, LIFE 14 CCM/LV/001103) In the LIFE REstore pilot area on the eastern edge of the Kemeris Raised Bog, where peat was once developed, but the natural vegetation of the bog has not been restored for more than 30 years, in 2018 degraded peatland was renaturalized as a form of degraded peatland reclamation. The aim was to stabilize the water level and reintroduce sphagnum moss, restoring the natural bog vegetation. Reintroduction of sphagnum moss and other bog plants, a method used in many parts of the world to restore bogs, took place in this experimental area (<https://restore.daba.gov.lv/public/lat/sakums/>).

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Implemented
Plant community	Implemented
Plant species	Implemented
Birds	Implemented
Animal community	Implemented

Monitoring of restoration effectiveness (vegetation), monitoring of species and habitats within Natura 2000 sites (national monitoring programme), water quality monitoring (Lake Kanieris) - within national monitoring programme, threatened plants (*Liparis loeselii* and other orchids), irregularly surveys of nesting birds in Lake Kanieris.

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Vīksne J. 2013. Kaņiera ezera putni, to skaita dinamika un ietekmējošie faktori 1999.-2013.g.  
Kemeru Nacionālā parka dabas aizsardzības plāns (2024-2036) <https://www.daba.gov.lv/lv/kemeru-nacionalais-parks>

#### 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:



Cladium mariscus stands, view from road dam ( *Agnese Priede, 05-07-2012* )



Riekstu peninsula, view from bird watching tower ( *Agnese Priede, 10-07-2009* )



Eastern shore of Lake Kanieris, Cladium mariscus fen ( *Agnese Priede, 16-09-2014* )



Raised bog ( *Inga Belasova, 27-07-2024* )



Lake Kanieris ( *Janis Zilvers, 12-10-2021* )



Kemeru bog ( *Inga Belasova, 27-07-2024* )



Sulphurous water springs ( *Andris Sorms, 19-05-2021* )



Grassland management, Lake Kanieris shore ( *Gita Strode, 09-07-2023* )

#### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 1995-07-25