Ramsar Information Sheet

Published on 31 January 2025
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Latvia

Teici and Pelecare bogs

Designation date	25 July 1995
Site number	740
Coordinates	00°00'N 00°00'E
Area	25 469,00 ha

https://rsis.ramsar.org/ris/740
Created by RSIS V.1.6 on - 31 January 2025

Color codes

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

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

1 - Summary

Summary

The Site consists of two natural and unchanged raised and transitional bogs, interconnected and enclosed by forests. The Teici bog is one of the largest bogs in Baltic Region. The site is important for the maintenance of bog specific and rare bird species, as well as for the maintenance of wetland characteristic plant species and communities; it is a significant feeding and resting site for migrating waterfowl.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency: Nature Conservation Agency

Postal address: Baznicas Street 7,
Sigulda, Latvia, LV-2150

National Ramsar Administrative Authority

Institution/agency: Ministry of Environmental Protection and Regional Development

Postal address: Peldu Street 25,
Riga, Latvia, LV-1494

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

From year: 2009

To year: 2019

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Teici and Pelecare bogs

Unofficial name (optional): Teiču un Pelēčāres purvs

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

(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? No

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Former maps: 0

Boundaries description

Two Natura 2000 sites (Teicu dabas rezervats un Lielais Pelecares purvs) covering all of the Ramsar Site.

2.2.2 - General location

a) In which large administrative region does the site lie? The area is located in Madona, Krustpils, Varaklani, Riebini and Livani Municipalities.

b) What is the nearest town or population centre? Madona and Jekabpils regional towns ~ 25 kilometers from the Ramsar site border

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): 25469

Area, in hectares (ha) as calculated from GIS boundaries 25474.845

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	Boreal biogeographical region
EU biogeographic regionalization	

Other biogeographic regionalisation scheme

EEA

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	Dystrophic lakes, bog-pools, ditches and upper reach of small rivers and streams form the hydrological network in the area. There are 19 lakes, bigger than 2 hectares (the largest lake covers 74 ha), with total area of 439 ha. Small streams discharging from the bog pools gather water from ditches and belong to the catchments of River Daugava and River Aiviekste.
Other ecosystem services provided	Teici is the largest mire complex in Baltic providing groundwater in natural quality and amounts for most of the Eastern Latvia lowland. The wetland stabilizes the regional climatic features and water discharge in rivers, preventing seasonal floods and decreasing groundwater levels during the dry season. The raised bog communities comprise hummock-hollow and ridge-pool complexes, secondary lakes and mineral islands, which dominate in Teici Strict Nature Reserve. Fens and transitional mires occur on overgrowing lakes and bog margins. The raised bog habitats are partly covered by pines or are open. In the first case, the dominant species are Ledum palustre, Vaccinium uliginosum, Chamaedaphne calyculata, Sphagnum magellanicum, Sphagnum angustifolium. In open bogs, predominant species on hummocks are Calluna vulgaris, Eriophorum vaginatum, Sphagnum fuscum, Sphagnum magellanicum, Sphagnum rubellum, in bog pools Scheuchzeria palustris, Carex limosa, Rhynchospora alba, Sphagnum cuspidatum. Transition mires can be divided into three groups: mires with Sphagnum flexuosum, bogs with Sphagnum fallax and bogs with Sphagnum angustifolium. Chamaedaphne calyculata and Oxycoccus palustris are common in the transitional bogs. From rare species the Salix myrtilloides is found in there. In transitional mires and patches of fens Carex lasiocarpa, Menyanthes trifoliata, Peucedanum palustre, Comarum palustre predominate. Some rare and protected species are found there, e.g. Hammarbya paludosa, Liparis loeselii, Utricularia ochroleuca, Carex heleonastes, Cinclidium stygium, Scorpidium scorpioides, Scapania irrigua.
Other reasons	Teici bog Natura 2000 site main qualifyng features are Active raised bogs (7110*), Transitional mires and quaking bogs (7140), Bog woodland (91D0*), Natural dystrophic lakes (3160). Qualifying species are Leucorhinia pectoralis, Graphoderus bilineatus, Euphydryas aurinia, Lycaena dispar, Lutra lutra, Cinna latifolia, Cypripedium calceolus, Liparis loeselii, Pulsatilla patens, Agrimonia pilosa, Thesium ebracteatum, Hamatocaulis vernicosus. Teicu Mire is the largest mire in the Baltic States. Pelecares bog Natura 2000 site main qualifying features are Active raised bogs (7110*), Transitional mires and quaking bogs (7140) and Bog woodland (91D0*). Qualifying species is Lycaena dispar. Apart from the vast area of open peatland (raised bog and transitional mire) that is important for breeding waders etc, surrounding forests also important for woodpeckers and owls.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification	The diversity of species is comparatively high and represent a substantially high proportion of species recorded in Latvia. 43 species of mammals (76 % of the total number of mammals recorded in Latvia), 195 birds species (61 %), 11 fish species (17 %), 2847 invertebrate species (16 %), 688 vascular plant species (40 %), and 206 moss species (41 %) are recorded in the site.

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

Optional text box to provide further information: Important area for migratory birds

☑ Criterion 6 : >1% waterbird population

Optional text box to provide further information: Important site for waterbirds

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
Plantae								
TRACHEOPHYTA / MAGNOLIOPSIDA	*Agrimonia pilosa*	☑	☐	☐		☐	EU Habitats Directive VU	EU Habitats Directive
TRACHEOPHYTA / LILIOPSIDA	*Cinna latifolia*	☑	☐	☐		☐	EU Habitats Directive VU	EU Habitats Directive
TRACHEOPHYTA / LILIOPSIDA	*Cypripedium calceolus*	☑	☐	☐	LC	☐	EU Habitats Directive EN	EU Habitats Directive
BRYOPHYTA / BRYOPSIDA	*Hamatocaulis vernicosus*	☑	☐	☐		☐	EU Habitats Directive EN	EU Habitats Directive
TRACHEOPHYTA / LILIOPSIDA	*Liparis loeselii loeselii*	☑	☐	☐		☐	EU Habitats Directive EN	EU Habitats Directive
TRACHEOPHYTA / MAGNOLIOPSIDA	*Pulsatilla patens*	☑	☐	☐		☐	EU Habitats Directive EN	EU Habitats Directive
TRACHEOPHYTA / MAGNOLIOPSIDA	*Thesium ebracteatum*	☑	☐	☐		☐	EU Habitats Directive EN	EU habitats directive

Detailed information on flora has been collected only for Teiči Bog.
688 vascular plant species are recorded in the Teiči Nature Reserve, including six species included in the EU Habitats Directive: Agrimonia pilosa (common near roads), Cinna latifolia (1 locality), Cypripedium calceolus (2 localities), Liparis loeselii (very rare, in the mineratrophic mires), Pulsatilla patens, Thesium ebracteatum (rare, on the dry mineral pine forest belt near bog). 37 National Red list species are recorded in the site. 212 bryophyte species are recorded in the Teici Nature Reserve, including Hamatocaulis vernicosus listed in the EU Habitats Directive. Very rare bryophyte species are Sphagnum molle, Splachnum sphaericum (each of them has only 1 locality in Latvia), Andreaea rupestris (a few localities in Latvia). 16 National Red list moss species are recorded in the site.
Information of flora for Pelecares bog has been collected in the development of a nature management plan. In the Pelecares bog - 6 National Red list species are recorded in the site (Hypericum hirsutum, Huperzia selago, Diphasiastrum complanatum, Euonymus verrucosa, Lycopodium annotinum, Lycopodium clavatum).

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								
Others																	
CHORDATA / MAMMALIA	*Canis lupus*	☑	☐	☐	☐	☑	☐	☐	☐	12			LC	☑	☐	VU	EU Habitats directive (Annex V)
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☐	☐	☐	☑	☐	☐	☐	6			NT	☑	☐	EN	EU Habitats directive (Annex II)
CHORDATA / MAMMALIA	*Lynx lynx*	☑	☐	☐	☐	☑	☐	☐	☐	5			LC	☐	☐	EN	EU Habitats directive (Annex IV)
CHORDATA / MAMMALIA	*Ursus arctos*	☑	☐	☐	☐	☑	☐	☐	☐	2			LC	☑	☐	EN	EU Habitats directive (Annex II)
Birds																	
CHORDATA / AVES	*Anser albifrons*	☐	☑	☐	☐	☑	☐	☐	☐	5000			LC	☐	☐	EN	EU Birds Directive (Annex II)
CHORDATA / AVES	*Anser fabalis*	☐	☑	☑	☐	☑	☐	☐	☐	5000		1	LC	☐	☐	EN	EU Birds Directive (Annex II)
CHORDATA / AVES	*Aquila chrysaetos*	☑	☐	☐	☐	☑	☐	☐	☐	2			LC	☐	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Aquila pomarina*	☑	☐	☐	☐	☑	☐	☐	☐	8			LC	☐	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Circaetus gallicus*	☑	☐	☐	☐	☑	☐	☐	☐	2			LC	☐	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Falco columbarius*	☑	☐	☐	☐	☑	☐	☐	☐	2			LC	☐	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Falco peregrinus*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☑	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Gavia arctica*	☑	☐	☐	☐	☑	☐	☐	☐	5			LC	☐	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Grus grus*	☐	☑	☑	☐	☑	☐	☐	☐	5000		3.3	LC	☐	☐	EN	EU Birds Directive (Annex I)
CHORDATA / AVES	*Lagopus lagopus*	☑	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	EN	National Red list
CHORDATA / AVES	*Pluvialis apricaria*	☑	☐	☐	☐	☑	☐	☐	☐	90			LC	☐	☐	EN	EU Birds Directive (Annex I)

1) Percentage of the total biogeographic population at the site

Birds
20 bird species from totally 31 listed species are breeding in wetland habitats. Among the most significant ones the following species can be mentioned: black-throated diver Gavia arctica (0-2 p. in Teiči Bog, 1 p. in Pelečāre Bog, 5-12 p. in Latvia in total), short-toed eagle Circaetus gallicus (0-1 p. in the Teiči Bog, 5-12 p. in Latvia in total), golden eagle Aquila chrysaetos (1 p. in teiči Bog from 5 nestling pairs known in Latvia), merlin Falco columbarius, peregrine Falco peregrinus, willow grouse Lagopus lagopus (Teiči is one of few sites where this species is observed in Latvia lately). The significant breeding density for some species is known in Teiči Bog: crane Grus grus (15-32 p.), golden plover Pluvialis apricaria (21-90 p., 350-450 p. in Latvia in total).

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
91E0* Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	☑		EU Habitats Directive
91D0* Bog woodland	☑		EU Habitats Directive
9080* Fennoscandian deciduous swamp woods	☑		EU Habitats Directive
9010* Western Taïga	☑		EU Habitats Directive
7110* Active raised bogs	☑		EU Habitats Directive
9050 Fennoscandian herb-rich forests with Picea abies	☑		EU Habitats Directive
7120 Degraded raised bogs still capable of natural regeneration	☑		EU Habitats Directive
6450 Northern boreal alluvial meadows	☑		EU Habitats Directive
3160 Natural dystrophic lakes and ponds	☑		EU Habitats Directive
9020* Fennoscandian hemiboreal natural old broad-leaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus) rich in epiphytes	☑		EU Habitats Directive
6270* Fennoscandian lowland species-rich dry to mesic grasslands	☑		EU Habitats Directive
9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	☑		EU Habitats Directive
7140 Transition mires and quaking bogs	☑		EU Habitats Directive
6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	☑		EU Habitats Directive
6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	☑		EU Habitats Directive
3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	☑		EU Habitats Directive

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

4.1 - Ecological character

Mires
Teiči Strict Nature Reserve is mire complex predominated by raised bog communities with hummock-hollow and ridge-pool complexes, secondary lakes and mineral islands. Fens and transitional mires occur on overgrowing lakes and bog margins.
The raised bogs are covered by pines or are open. At first case the dominant species in there are Ledum palustre, Vaccinium uliginosum, Chamaedaphne calyculata, Sphagnum magellanicum, S. angustifolium. In open bogs predominant species on hummocks are Calluna vulgaris, Eriophorum vaginatum, Sphagnum fuscum, S. magellanicum, S. rubellum, in bog pools □ Scheuchzeria palustris, Carex limosa, Rhynchospora alba, Sphagnum cuspidatum. Transition mires can be divided into three groups: mires with Sphagnum flexuosum, bogs with S. fallax and bogs with S. angustifolium. Chamaedaphne calyculata and Oxycoccus palustris are common in the transitional bogs. From rare species the Salix myrtilloides is found in there.
In transitional mires and patches of fens Carex lasiocarpa, Menyanthes trifoliata, Peucedanum palustre, Comarum palustre predominate. Some rare and protected species are found there, e.g. Hammarbya paludosa, Liparis loeselii, Utricularia ochroleuca, Carex heleonastes, Cinclidium stygium, Scorpidium scorpioides, Scapania irrigua.

Forests
Forests cover about 3895 ha of the Teiči Strict Nature reserve (about 20 % of total area). Forests surround the mire as narrow belts, and small forest areas are around lakes and on the mineral islands. Main forest types are swampy pine forests on peat soils (Sphagnosa, Caricoso-Phragmitosa). Some forest sites represent nemoral forests on mineral soils with Tilia cordata, Fraxinus excelsior and swamps with Alnus glutinosa. The other forests are secondary Betula pendula and Populus tremula thickets in which the replacement with Picea abies occurs.

Grasslands
Grasslands occur as small patches among forests, few larger grassland areas occur on bog islands and peninsulas. Most of them are mesophilous grasslands dominated by Alopecurus pratensis and Deschampsia cespitosa. Plant communities with tall sedges (Carex disticha, C. vesicaria and C. acutiformis) and low sedges (Carex nigra, C.panicea) occur in the relief depressions.
The largest part of the grasslands are well managed, therefore the grassland habitats listed on EU Habitats directive occur widely in area. In some parts still vegetation is dominated by Calamagrostis epigeios or Deschampsia cespitosa.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	Dystrophic lakes	3	466	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Active raised bogs	1	17705	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Transitional mires	4	78	Rare
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands	Bog woodland	2	3015	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		4	40

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Grasslands (EU habitats)	155
Fennoscandian herb-rich forests with Picea abies	86
Sub-Atlantic and medio-European oak or oakhornbeam forests of the Carpinion betuli	24
Western taiga	628
Fennoscandian hemiboreal natural old broadleaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus) rich in epi	23
Fennoscandian decidous swamp forests	83
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-padion, Alnion incanae, Salicion albae)	28

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
ASCOMYCOTA/EUROTIOMYCETES	*Acrocordia gemmata*	
BRYOPHYTA/ANDREAEOPSIDA	*Andreaea rupestris*	
ASCOMYCOTA/ARTHONIOMYCETES	*Arthonia spadicea*	
ASCOMYCOTA/LECANOROMYCETES	*Bacidia rubella*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Bazzania trilobata*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Betula nana*	
TRACHEOPHYTA/POLYPODIOPSIDA	*Botrypus virginianus virginianus*	
ASCOMYCOTA/LECANOROMYCETES	*Calicium quercinum*	
TRACHEOPHYTA/LILIOPSIDA	*Carex aquatilis*	
TRACHEOPHYTA/LILIOPSIDA	*Carex disperma*	
TRACHEOPHYTA/LILIOPSIDA	*Carex heleonastes*	
TRACHEOPHYTA/LILIOPSIDA	*Carex magellanica irrigua*	
ASCOMYCOTA/NOT ASSIGNED	*Chaenotheca phaeocephala*	
BRYOPHYTA/BRYOPSIDA	*Cinclidium stygium*	
ASCOMYCOTA/LECANOROMYCETES	*Cladonia arbuscula*	
ASCOMYCOTA/LECANOROMYCETES	*Cladonia parasitica*	
ASCOMYCOTA/LECANOROMYCETES	*Cladonia rangiferina*	
ASCOMYCOTA/LECANOROMYCETES	*Cladonia stellaris*	
TRACHEOPHYTA/LILIOPSIDA	*Corallorrhiza trifida*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Crossocalyx hellerianus*	
TRACHEOPHYTA/LYCOPODIOPSIDA	*Diphasiastrum zeilleri*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Euonymus verrucosus*	
ASCOMYCOTA/LECANOROMYCETES	*Evernia divaricata*	
BRYOPHYTA/BRYOPSIDA	*Fontinalis hypnoides*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Fossombronia wondraczekii*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Galium trifidum*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Geocalyx graveolens*	
ASCOMYCOTA/LECANOROMYCETES	*Graphis scripta*	
TRACHEOPHYTA/LILIOPSIDA	*Gymnadenia conopsea*	
BRYOPHYTA/BRYOPSIDA	*Homalia trichomanoides*	
TRACHEOPHYTA/LYCOPODIOPSIDA	*Huperzia selago*	
BRYOPHYTA/BRYOPSIDA	*Hylocomiastrum umbratum*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Hypericum caprifolium*	
BRYOPHYTA/BRYOPSIDA	*Hypnum pratense*	
ASCOMYCOTA/ARTHONIOMYCETES	*Inoderma byssaceum*	
TRACHEOPHYTA/LILIOPSIDA	*Iris sibirica*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Jungermannia leiantha*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Lejeunea cavifolia*	
TRACHEOPHYTA/LYCOPODIOPSIDA	*Lycopodium clavatum*	
BRYOPHYTA/BRYOPSIDA	*Neckera pennata*	
TRACHEOPHYTA/LILIOPSIDA	*Neottia cordata*	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	*Odontoschisma denudatum denudatum*	
BRYOPHYTA/BRYOPSIDA	*Philonotis tomentella*	
BRYOPHYTA/BRYOPSIDA	*Pseudocalliergon trifarium*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pulsatilla vulgaris*	
BRYOPHYTA/BRYOPSIDA	*Racomitrium lanuginosum*	
MARCHANTIOPHYTA/MARCHANTIOPSIDA	*Riccia ciliata*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Salix myrtilloides*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Seseli libanotis*	
BRYOPHYTA/SPHAGNOPSIDA	*Sphagnum molle*	
TRACHEOPHYTA/LYCOPODIOPSIDA	*Spinulum annotinum annotinum*	
BRYOPHYTA/BRYOPSIDA	*Splachnum rubrum*	
BRYOPHYTA/BRYOPSIDA	*Tayloria tenuis*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Utricularia ochroleuca*	
BASIDIOMYCOTA/AGARICOMYCETES	*Xylobolus frustulatus*	

Invasive alien plant species

Phylum	Scientific name	Impacts	Changes at RIS update
TRACHEOPHYTA/MAGNOLIOPSIDA	*Heracleum sosnowskyi*	Actual (minor impacts)	No change
TRACHEOPHYTA/MAGNOLIOPSIDA	*Lupinus polyphyllus*	Actual (minor impacts)	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	*Boros schneideri*				
ARTHROPODA/INSECTA	*Carabus menetriesi*				
ARTHROPODA/INSECTA	*Carabus nitens*				
MOLLUSCA/GASTROPODA	*Clausilia cruciata*				
ARTHROPODA/INSECTA	*Clossiana frigga*				
ARTHROPODA/INSECTA	*Coenonympha hero*				Pop. size 0-10 i
ARTHROPODA/INSECTA	*Euphydryas aurinia*				Pop. size 0-5 i
ARTHROPODA/INSECTA	*Graphoderus bilineatus*				Pop. size 450-950 i
MOLLUSCA/GASTROPODA	*Helix pomatia*				
ARTHROPODA/INSECTA	*Laphria gibbosus*				
ARTHROPODA/INSECTA	*Lasius fuliginosus*				
ARTHROPODA/INSECTA	*Leucorrhinia albifrons*				
ARTHROPODA/INSECTA	*Leucorrhinia pectoralis*				Pop. size 600-3100 i.
ARTHROPODA/INSECTA	*Libellula fulva*				
CHORDATA/MAMMALIA	*Mustela erminea*				
CHORDATA/MAMMALIA	*Myotis dasycneme*				
ARTHROPODA/INSECTA	*Necydalis major*				
ARTHROPODA/INSECTA	*Oxyporus mannerheimii*				
ARTHROPODA/INSECTA	*Protaetia acuminata*				
ARTHROPODA/INSECTA	*Silpha grossa*				
MOLLUSCA/GASTROPODA	*Strigillaria cana*				
CHORDATA/AVES	*Aegolius funereus*				Pop. size 1-2 p, (Pelecare bog).
CHORDATA/AVES	*Branta leucopsis*				
CHORDATA/AVES	*Calidris alpina schinzii*				
CHORDATA/AVES	*Caprimulgus europaeus europaeus*				Pop. size 30-100 p, (Pelecare bog).
CHORDATA/AVES	*Chlidonias niger*				Pop. size 0-50 p, (Teici bog).
CHORDATA/AVES	*Chroicocephalus ridibundus*				
CHORDATA/AVES	*Ciconia ciconia*				
CHORDATA/AVES	*Ciconia nigra*				Pop. size 0-1 p, (Pelecare bog).
CHORDATA/AVES	*Circus aeruginosus*				
CHORDATA/AVES	*Circus cyaneus*				
CHORDATA/AVES	*Circus pygargus*				

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	*Crex crex*				
CHORDATA/AVES	*Cygnus columbianus*				
CHORDATA/AVES	*Cygnus cygnus*				Pop.size 250-500 i
CHORDATA/AVES	*Dendrocopos leucotos*				Pop. size 0-3 p, (Pelecare bog).
CHORDATA/AVES	*Dendrocopos medius*				Pop. size 3-5 p, (Pelecare bog).
CHORDATA/AVES	*Dendrocopos minor*				
CHORDATA/AVES	*Dryocopus martius*				Pop. size 3-5 p, (Pelecare bog).
CHORDATA/AVES	*Ficedula parva*				Pop. size 2-5 p, (Pelecare bog).
CHORDATA/AVES	*Glaucidium passerinum*				Pop. size 1-2 p, (Pelecare bog).
CHORDATA/AVES	*Haliaeetus albicilla*				Pop size 1 i
CHORDATA/AVES	*Lanius collurio*				Pop. size 2-5 p, (Pelecare bog).
CHORDATA/AVES	*Larus minutus*				Pop. size 0-80 p
CHORDATA/AVES	*Limosa lapponica*				
CHORDATA/AVES	*Lullula arborea*				
CHORDATA/AVES	*Lyrurus tetrix tetrix*				Pop. size 10-20 i. (Pelecare bog).
CHORDATA/AVES	*Mergellus albellus*				
CHORDATA/AVES	*Pandion haliaetus*				Pop. size 1 p
CHORDATA/AVES	*Pernis apivorus*				
CHORDATA/AVES	*Philomachus pugnax*				Pop. size 5-7 males
CHORDATA/AVES	*Picoides tridactylus*				Pop. size 2-3 p, (Pelecare bog).
CHORDATA/AVES	*Picus canus*				Pop. size 2-3 p, (Pelecare bog).
CHORDATA/AVES	*Podiceps auritus*				Pop. size 0-1 p.
CHORDATA/AVES	*Porzana porzana*				
CHORDATA/AVES	*Sterna hirundo*				Pop. size 8 p.
CHORDATA/AVES	*Strix uralensis*				Pop. size 1-3 p, (Pelecare bog).
CHORDATA/AVES	*Sylvia nisoria*				
CHORDATA/AVES	*Tetrao urogallus*				Pop. size 7-21 i. (Pelecare bog).
CHORDATA/AVES	*Tetrastes bonasia bonasia*				Pop. size 5-20 p, (Pelecare bog).
CHORDATA/AVES	*Tringa glareola*				Pop. size 6-30 p, (Pelecare bog).

Optional text box to provide further information

Lycaena dispar Pop.size 0-5 individuals

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)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres) 97

a) Maximum elevation above sea level (in metres) 114

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.

Daugava and Aiviekste river basins

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)

Dolomite, sandstone and clay deposits outcrop at the bedrock (prequaternary) surface. Quaternary sediments consist of sand and gravel deposits, overlaid by glacigene till loam with gravel and boulders. Bog depressions (bogs and fens) overlay with sapropel sediments. Soil types found at the area are predominantly turf podzol, turf gley and acidic peat soils.

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	☐	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change

Stability of water regime

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

(ECD) Connectivity of surface waters and of groundwater: Groundwater quality and abundance of huge region depend from surface water ballance in Teici mire system

4.4.5 - Sediment regime

Sediment regime unknown ☐

Please provide further information on sediment (optional):

Not relevant

4.4.6 - Water pH

Acid (pH<5.5) ☑

(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

Dystrophic ☑

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

Unknown ☐

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

The results of a survey of 12 lakes done between 1992 and 1999 divided the lakes present in the site into two groups: dystrophic and dyseuthrophic lakes. Both lake groups are characterized by specific water chemistry and species, depending on their location (in central part or periphery) in the bogs.
Dystrophic lakes are characteristic with relatively low pH, low conductivity, low nutrient levels and comparatively little variability of these parameters. Dystrophic lakes are situated in the central part of the bog.
Dyseuthrophic lakes are formed on mineral deposits. In comparison to dystrophic lakes, they are characteristic with higher concentrations and larger variability of the major water parameters.
The mineralization rate in both lake groups is low (<100 mg L-1) and the waters are very soft (total hardness < 1 mg-eqL-1). Water in all studied lakes contains high concentrations of humic substances: 23.7 to 150.2 mg L-1. Averagely, the amount of humic substances reaches 54.7 mg L-1

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

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

Surrounding area has greater urbanisation or development ☐

Surrounding area has higher human population density ☐

Surrounding area has more intensive agricultural use ☑

Surrounding area has significantly different land cover or habitat types ☑

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

The Teici and Pelecare bogs surrounded by forest belt varying in width, are bordering agricultural landscape mainly. As far as protected raised bog part lies higher in landscape, the run-off waters flows mainly out from the mire ecosystems, therefore influence from pesticides and fertilizers widely used in surrounding areas, haven`t direct threat to the RAMSAR site.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

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

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Climate regulation	Local climate regulation/buffering of change	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	
Scientific and educational	Major scientific study site	High

Supporting Services

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

Within the site: 10

Outside the site: 10 000

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

Unique methods of management and use that maintain the ecological character are elaborated. The 17 years of mire restoration (blocking drainage ditches, 1997-2011) experiences gathered and described. Excellent results reached. Highly evaluated by Nature conservation institutions and professionals in Latvia and abroad. Published and presented by U. Bergmanis, A. Namateva, J. Jatnieks
Management of semi-natural grasslands (231 hectares) occurs regularly since 1998.

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

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland ☐

4.6 - Ecological processes

<no data available>

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

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

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)	☐	☑

Other

Category	Within the Ramsar Site	In the surrounding area
Unspecified mixed ownership	☐	☑

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

98 % of land within the Ramsar site are State owned.

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: Anda Zeize, Director of the Latgale 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
Tourism and recreation areas	Low impact	Low 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	☑	decrease	☑	increase

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Livestock farming and ranching	Low impact	Low impact	☐	No change	☑	increase

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	Low impact	☐	No change	☑	increase

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	☑	decrease	☑	increase
Logging and wood harvesting		Medium impact	☐	No change	☑	increase
Fishing and harvesting aquatic resources		Low impact	☐	No change	☑	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	☑	No change	☑	No change

Natural system modifications

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

Pollution

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

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Temperature extremes		Low impact	☑	increase	☑	increase

Please describe any other threats (optional):

The lands in the surrounding area used in agriculture are mainly private.
Land use types and intensity of land use differ in Teiči Bog and Pelečāre Bog. Gathering of berries and mushrooms, fishing, grazing, hay making, timber harvesting, hunting and tourism is limited in Teiči Bog as it is a strict nature reserve. Similar activities (e.g. gathering of non-wood forest resources such as berries, mushrooms) are not limited in Pelečāre Bog, including leisure fishing and angling. Forestry operations are limited also in Pelečāre Bog as it is a nature reserve, though with a softer protection regime than in Teiči Bog.
b) in the surroundings/catchment:
Cultivation of crops with related use of pesticides and fertilisers, hay making, grazing, general forestry management (cutting and replanting), leisure fishing, hunting, drainage and other activities common in rural regions of Latvia is taking place in the surrounding areas

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	Lielais Pelecares purvs		whole
EU Natura 2000	Teici Nature reserve		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
strict nature reserve			partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Lielais Pelecares purvs		whole
Important Bird Area	Teici Nature reserve		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
Hydrology management/restoration	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented
Control of invasive alien plants	Implemented

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Implemented
Regulation/management of recreational activities	Implemented
Communication, education, and participation and awareness activities	Implemented
Research	Implemented

5.2.5 - Management planning

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

Has a management effectiveness assessment been undertaken for the site? Yes ◉ 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 ◉

URL of site-related webpage (if relevant): https://www.daba.gov.lv/lv/teicu-dabas-rezervats https://www.daba.gov.lv/lv/lielais-pelecares-purvs

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Plant community	Implemented
Plant species	Implemented
Birds	Implemented
Animal species (please specify)	Implemented

The first study of fauna and flora in Teiči Bog was carried out in 1982, when the strict nature reserve was established. Systematic research was undertaken from the end of the 1980s to approximately 2010 when the Administration of the Teiči Strict Nature Reserve was closed and merged into Nature Conservation Agency. Currently, only some fragmentary studies including surveys within the national biodiversity monitoring programm are irregularly done in the area. The research in the territory of the reserve was organized by the Department of the Research of Teiči Administration when the Administration exists. Joint projects with different institutes and organizations of research both in Latvia and abroad were implemented until 2010. The main subjects of research were the following:
ú The monitoring of birds of prey and owls, ecology and breeding support,
ú The monitoring of the bog and forest birds in Teiči and Krustkalni reserves,
ú The monitoring and ecology of mammals,
ú Monitoring in entomology,
ú Research of flora and vegetation,
ú The hydro-geological and hydro-biological investigation on Teiči Bog.

Zoological and botanical surveys were carried out in Pelečāre Bog (2015-2016). The results are included in the site protection plan approved in 2017.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Avotiņš A. 1993. Breeding birds census in Teichi Bog. Ring (Wroclaw) 15,1-2: 333 – 339
Avotiņš A. 1996. Changes of number and structure in population of Tawny Owl (Strix aluco) in sample plots at Eastern Latvia (1990-1994). Populationsokologie Greifvogel- und Eulenarten: 377–386.
Bambe B. 1994. Meža un purva fitocenožu attiecības Teiču rezervātā. Doktora disertācijas kopsavilkums. Latvijas Universitāte, Rīga (in Latvian, with summary in English)
Bergmanis U. 1996. The Teici Reserve, Latvia. In: Hails, A. J. (eds.). Wetlands, Biodiversity and the Ramsar Convention. Ramsar Convention Bureau. Ministry of Environment and Forests, India, 99–98.
Bergmanis U. 1999. Taxonomy, distribution, number and ecology of the lesser spotted eagle Aquila pomarina C. L. Brehm in Latvia. Summary of a doctoral thesis. University of Latvia, Riga, 52 p.
Bergmanis U. 2000. Return of the golden eagle Aquila chrysaetos to Teici bog. Putni dabā 10 (4): 6–11 (in Latvian, with English summary)
Bergmanis U., Avotiņš A. 1990. Avifauna of the Reserve Teici and its surroundings. Putni dabā 3: 71–87 (in Latvian, summary in English)
Bergmanis U., Kreilis M., Kemlers A., Lipsbergs J., Petrins A. 1990. First Results of Raptor Monitoring in Latvia. Putni dabā 3: 148–153 (in Latvian, with English summary)
Bergmanis U., Petriņš A., Kemlers A. 1993. Density and breeding success of some diurnal raptors in Latvia. In: Baltic Birds VI. Proceedings of the Sixth Conference on the Study and Conservation of Migratory Birds of the Baltic Basin. Sonderausgabe von Bucephala: 56 – 60 (in German, with English summary)
Bergmanis U., Brehm K., Matthes J. 2002. Dabiskā hidroloģiskā režīma atjaunošana augstajos un pārejas purvos. In: Opermanis, O. (red.). 2002. Aktuāli savvaļas sugu un biotopu apsaimniekošanas piemēri Latvijā. Rīga, 49-56. (in Latvian)
Dambenieks G., Bergmanis U. 1996. Population dynamics of the elk (Alces alces) and wild boar (Sus scrofa) in „Teici“ nature reserve and neighbouring regions – principles of game population density regulation through hunting. Beitraege zur Jagd- und Wildforschung, Bd. 21: 171–178 (in German, with English summary)
Druvietis I., Springe G., Parele E., Urtane L. 1998, Hydrobiological monitoring of water quality of Ramsar site Teici Bog Reserve, Latvia. Proc. of International Conference on Water Quality Management in National Parks and other protected areas, Primosten, Croatia
Druvietis I., Springe G., Urtane L. 1998. Evaluation of Plankton communities in small highly hu

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)
<1 file(s) uploaded>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<3 file(s) uploaded>

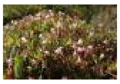
6.1.3 - Photograph(s) of the Site

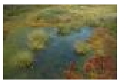
Please provide at least one photograph of the site:


Open part with bog pool labyrinths of Teici mire system. Unchanged, virgin state of ecosystem. (*Juris Jatnieks , 25-05-2008*)


One of hundred bog pools and small lakes occurring near margin of Teici mire close to forest belt. (*Juris Jatnieks , 12-09-2012*)


Cranberries - abundant within the nature reserve of Teici (*Juris Jatnieks , 12-09-2012*)


Cranberries - abundant within the nature reserve of Teici (*Juris Jatnieks, 22-09-2014*)


Vegetation of bog hollow - Teici Mire. (*Juris Jatnieks, 22-09-2014*)


Small mineral ice-lands occurring within huge wetland complex increase biodiversity and provide shelter for birds and animals. (*Juris Jatnieks, 12-08-2012*)


Teici bog (*Andris Soms, 16-05-2017*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 1995-07-25