

# Information Sheet on Ramsar Wetlands (RIS) – 2006 version

Available for download from [http://www.ramsar.org/ris/key\\_ris\\_index.htm](http://www.ramsar.org/ris/key_ris_index.htm).

*Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8<sup>th</sup> Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9<sup>th</sup> Conference of the Contracting Parties (2005).*

## Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2<sup>nd</sup> edition, as amended by COP9 Resolution IX.1 Annex B). A 3<sup>rd</sup> edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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### 1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

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### 2. Date this sheet was completed/updated:

November 2007

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### 3. Country:

Latvia

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### 4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Teici and Pelecare bogs

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### 5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

a) Designation of a new Ramsar site ; or

b) Updated information on an existing Ramsar site

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### 6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- i) the boundary has been extended ; or
- iii) the boundary has been restricted\*\*

and/or

**If the site area has changed:**

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced\*\*

\*\* Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

**b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:**

There are no significant ecological changes have taken place in Teici and Pelecare bogs in previous ten years.

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**7. Map of site:**

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

**a) A map of the site, with clearly delineated boundaries, is included as:**

- i) a hard copy (required for inclusion of site in the Ramsar List): ;
- ii) an electronic format (e.g. a JPEG or ArcView image) ;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables ;

**b) Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

Ramsar site consist form two nature protected territories: Teici strict nature reserve and Pelecare bog nature reserve. The Ramsar site is located in eastern part of Latvia.

**( there was a mistake in the old data. The size area and boundaries have been calculated better)**

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**8. Geographical coordinates** (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

Teici bog 56<sup>0</sup>37'20"N, 26<sup>0</sup>27'33"E

Pelecure bog 56<sup>0</sup>29'47"N, 26<sup>0</sup>32'30"E

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**9. General location:**

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The area is situated in three administrative districts - Madona, Jekabpils and Preili and in six municipalities of these regions. The nearest largest towns are Madona, Jekabpils and Preili.

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**10. Elevation:** (in metres: average and/or maximum & minimum)

Teici bog - minimum 97; maximum 113; average 105

Pelecure bog - minimum 106; maximum 114; average 110

**11. Area:** (in hectares)

Total Ramsar site area is **23 560 ha** (Teici bog ha 19046 ha and Pelecure bog 4514 ha).

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**12. General overview of the site:**

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

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 maintenance of bog specific and rare bird species, as well as for maintenance of wetland characteristic plant species and communities; it is significant feeding and resting site for migrating waterfowl.

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**13. Ramsar Criteria:**

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

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**14. Justification for the application of each Criterion listed in 13 above:**

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

**Criterion 1.** The most prevalent wetland types in the area are raised and transitional bogs with dystrophic lakes and wet peat forests and insignificant areas of wet mineral forests, too.

Table 1. Wetland Type in Teici and Pelecure bogs (according to Ramsar classification system)

Wetland Type	Area (ha)	% of total site area
Non-forested peatlands	19,130	81
Forested peatlands	2,745	12
Permanent freshwater lakes	403	2
Freshwater, tree-dominated wetlands	106	0.5
<b>TOTAL Inland Wetlands</b>		<b>95</b>

**Criterion 2.** There is a significant number of vulnerable and endangered species in this area. For some species the site is the largest or only registered locality in Latvia. There are 44 bird species, 6 mammal species, 37 invertebrate species, 37 vascular plant species and 16 species of Bryophyta registered in site that are included in the Red Data Book of Latvia (53 species from List of Europe endangered species 1-3 SPEC categories). For more information see 21 and 22 chapter below. (see Annex I, Annex 4 flora, Annex 6 mammals, annex 7 invertebrata)

That includes 6 species from EU Habitats Directive: *Agrimonia pilosa*, *Cinna latifolia*, *Cypripedium calceolus*, *Liparis loeselii*, *Pulsatilla patens* and *Thesium ebracteatum* as well as the moss species *Hamatocaulis vernicosus*. Furthermore it supports the following mammals listed in Annex II of the Habitats Directive: Beaver (*Castor fiber*), Otter (*Lutra lutra*) and Brown Bear (*Ursus arctos*).

**Criterion 3.** The diversity of species corresponds to inland habitats and it is comparatively high. The 43 species of mammals (76% from total number of mammals notified in Latvia), 195 - of birds (61%), 11 - of fish (17%), 2847 - of invertebrates (16%), 675 - of vascular plants (40%) and 206 - of moss (41%) are known in the site.

**Criterion 4**

20 species from 31 listed are breeding in wetland habitats. Very rear is Black-throated Diver (0-2 pairs in the Teici bog, 1 pair in the Pelecare bog, 5-12 pairs in Latvia in total), Short-toed Eagle (0-1 pair in the Teici bog, 5-12 pairs in Latvia in total), Golden Eagle (1 pair in Teici bog from 5 nestling pairs known in Latvia at all), Merlin, Peregrine, Willow Grouse (Teici is one of few sites where this species is observed in Latvia lately). The significant breeding density for some species is known in Teici bog: Crane (15-32 pairs), Golden Plover (21-90 pairs, 350-450 pairs in Latvia in total).

(see Annex I)

**Criterion 6.** The migrating individuals of three species are observed in number which exceed 1% of the world population.

**Table 2. Observed migrating species of waterfowl, which meet Criterion 6**

	Together observed number of individuals in the period of migrations	1% (migrating individuals)	Flyway	Population
White-fronted Goose <i>A. albifrons</i>	4000	250		

**15. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

**a) biogeographic region:**

Area is belonging to the Boreo-nemoral vegetation zone, i.e. North European mixed forest region (*Udvardy, 1975.*).

Boreal (Council Directive 92/43/EEC)

**b) biogeographic regionalisation scheme** (include reference citation):

Area is belonging to the Boreo-nemoral vegetation zone (*Udvardy, 1975.*). The original boreo-nemoral vegetation comprises a mixture of coniferous and deciduous trees, although conifers have probably always predominated. This zone is wide in Baltic States and together with Sweden and western Russia contains a comparatively large proportion of Europe's boreo-nemoral regions.

Council Directive 92/43/EEC

**16. Physical features of the site:**

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Geology and Geomorphology. The detailed research about geological structure and formation was carried out only for Teici bog. So as both bogs are situated alongside, it is considered that the formation and structure of both is similar. Glacigene morain line, ca. 3-10m high, laying in SW-NE direction separates both bogs.

Hydrology. The dystrophic lakes, bog-pools, ditches and upper reach of insignificant rivers and streams form the hydrographical net of bogs. There are 19 lakes, over 2 ha (maximum 74 ha), with total area of 439 ha. Small rivers, starting from bog lakes gather water from ditches and flow into basins of Daugava and Aiviekste rivers. The melioration of Teici and Pelecare bogs began in the 20-30ties of the 20<sup>th</sup> century by digging ditches, straightening and deepening rivers as well as by making dense net of ditches in surrounding forests and agricultural lands. Melioration became more intensive in the 50-80ties of the 20<sup>th</sup> century. Actually no new melioration measures were taken in the 90ties, only maintenance of existing ditches was carried out.

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

Water quality, depth, fluctuations. In a survey of 12 lakes done between 1992 and 1999, lakes were divided into two groups. They are characterized by specific composition of water chemistry and species, depending on their location (in central part or periphery) of the bog. Relatively low concentration of pH, conductivity, colour, nutrients and comparatively little variability of these parameters characterize the lakes situated in the central part of raised bog. COD of water is 18-90 mg L<sup>-1</sup>. These lakes belong to dystrophic lake systems.

For the lakes with mineral soils in comparison with lakes of the first group, higher concentrations and larger variability of main water parameters is typical. COD values are in the limits of 33 -120 mg L<sup>-1</sup>. The water mineralization of both groups is low (<100 mg L<sup>-1</sup>) and it is very soft (total hardness <1mg-eqL<sup>-1</sup>). Water of all studied lakes contains high concentrations of humic substances: 23.7 to 150.2 mg L<sup>-1</sup>. On average amount of humic substances reaches 54.7 mg L<sup>-1</sup> in dystrophic lakes and 89.9 mg L<sup>-1</sup> in diseutrophic ones.

During summer stratification water temperature in the depth of 4-5m usually are two times lower than at the uppermost layer. In the deepest lakes distinct stratification in temperature and oxygen concentrations have been observed. A stable stratification indicates that mixing of waters masses is rather slow, which is recorded also by a stratification of oxygen.

Climate. Climate is moderately continental, medium humid and warm. The average temperature of the year is 5.5-6.0°C; the average temperature in January is -6.5 to 7.0°C, in June from 17.0 to 18.0°C. Frostless period is 130-141, and the period of active vegetation is 133-140 days long. Precipitation is 580 - 620mm in year. Stable winter is up to 112 days with 25-35 cm cover of snow, the lowest temperature is from -26 to -27°C.

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#### **17. Physical features of the catchment area:**

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

Features are similar to those described in Chapter 16.

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#### **18. Hydrological values:**

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

No information available.

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## 19. Wetland Types

### a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp • Ts • U • Va •  
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

### b) dominance: U; Xp; O; Xf

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

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## 20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

### Mires

Teici Nature Reserve comprises 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*.

Transitional bogs can be divided into 3 groups: bogs with *Sphagnum flexuosum*, bogs with *S. fallax* and bogs with *S. angustifolium*. The *Chamaedaphne calyculata* and *Oxycoccus palustris* exceed their ecological optimum in the transitional bogs. From rare species the *Salix myrtilloides* is found in there.

In flat bogs *Carex lasiocarpa*, *Menyanthes trifoliata*, *Peucedanum palustre*, *Comarum palustre* dominate. The most of rare and protected species are found in here - *Hammarbya paludosa*, *Liparis loeselii*, *Utricularia ochroleuca*, *Carex heleonastes*, *Cinclidium stygium*, *Scorpidium scorpioides*, *Scapania irrigua*.

### Forests

Forests cover 3895 ha of the Teici 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 and few larger grassland areas 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 depressions of relief.

The largest part of the grasslands is abandoned now, therefore vegetation is dominated by *Calamagrostis epigeios* or *Deschampsia cespitosa* depending on moisture conditions, also shrubs (*Salix* spp.) and trees (*Betula pendula*, *Populus tremula* etc.) are invading.

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### 21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

688 vascular plant species are recorded in the Teici Nature Reserve, including 6 species from EU Habitats Directive: *Agrimonia pilosa* (common near roads), *Cinna latifolia* (1 locality), *Cypripedium calceolus* (2 localities), *Liparis loeselii* (very rare, in the minerotrophic 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* from EU Habitats Directive. Very rare bryophyte species are *Sphagnum molle*, *Splachnum sphaericum* (only 1 locality in Latvia), *Andreaea rupestris* (a few localities in Latvia). 16 National Red list species are recorded in the site.

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### 22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Detailed information of fauna is collected only for Teici bog. Information about Pelecare bog was gathered only in occasional expeditions and it characterises mainly the qualitative content of bird fauna. The information of significant **bird species** please see in Annex 1.

Only rare species or those protected species depending on Teici bog has a significant breeding or resting site are included in the Annex 1. 20 species from 31 listed are breeding in wetland habitats. Very rare is Black-throated Diver (0-2 pairs in the Teici bog, 1 pair in the Pelecare bog, 5-12 pairs in Latvia in total), Short-toed Eagle (0-1 pair in the Teici bog, 5-12 pairs in Latvia in total), Golden Eagle (1 pair in Teici bog from 5 nestling pairs known in Latvia at all), Merlin, Peregrine, Willow Grouse (Teici is one of few sites where this species is observed in Latvia lately). The significant breeding density for some species is known in Teici bog: Crane (15-32 pairs), Golden Plover (21-90 pairs, 350-450 pairs in Latvia in total).

12 species of **mammals** are regarded particularly important in the site, namely:

Watershrew (*Neomys fodiens*)  
Water Bat (*Myotis daubentoni*)  
Brandt's Bat (*Myotis brandti*)  
Noctule Bat (*Nyctalus noctula*)  
Longeared auritus (*Plecotus auritus*)  
Beaver (*Castor fiber*)

Northern Birch Mouse (*Sicista betulina*)

Wolf (*Canis lupus*)

Brown Bear (*Ursus arctos*)

Lynx (*Lynx lynx*)

Otter (*Lutra lutra*)

Elk (*Alces alces*)\*

The beaver has an important role for maintenance of hydrological regime in the bog. The high diversity of large carnivores is registered here - there are stable populations of lynx and wolves and this is one of few places in Latvia where brown bear resides. The elk is a characteristic element of fauna in the site and it has an important role in maintenance of surrounding meadows and preventing overgrowing of site.

There are 40 protected and threatened species of **invertebrates** registered in the site. The existence of 6 species from all listed is depending on wetland habitats. For example *Pimpla arctica* has the only known locality in Latvia in here.

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### 23. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box  and describe this importance under one or more of the following categories:

- i) sites which provide 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) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where 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:

There are no populated areas in the Pelecare bog. There are only two households located in Teiči bog on two mineral-land islands. Both of them have an outstanding cultural, historical and scenic value; they are also of importance in preserving of the open habitat - the meadows.

Please see the description of historical value of these 2 islands in Annex 2.

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### 24. Land tenure/ownership:

a) within the Ramsar site:

state property

b) in the surrounding area:

the land used in agriculture is mainly private, forests - ca. 50% state property, ca. 50% - private

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### 25. Current land (including water) use:

a) within the Ramsar site:

Land use types and intensity of land use differ in Teici and Pelecares bogs. The gathering of berries and mushrooms, fishing, grazing, mowing, cutting of timber, hunting, scientific research and tourism has been limited in Teici bog (Nature Reserve). Unlimited use of all types of forest resources is taking place in Pelecare bog. Also non-commercial fishing and angling is allowed.

b) in the surroundings/catchment:

Cultivation, mowing, grazing, use of pesticides and fertilisers, general forestry management (cutting and replanting), leisure fishing, hunting and drainage is taking place.

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**26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:**

a) within the Ramsar site:

**Drainage** of bogs and forests took place before Nature Reserve and Protected Nature Area were established. Due to melioration the growing conditions and type of forests has changed – previously prevailing forests on wet mineral lands and wet peat lands have given place to forests on drained mineral and peat lands. Initial forest types have remained in very small areas. The water outlet from bogs has increased due to melioration. As a result the water level in some lakes of the bog has significantly decreased, the bogs have become drier in some areas. The strong invasion of trees and the development of plant communities not characteristic for bog occur in there.

**Forest cutting.** The breeding conditions for some rare and endangered birds have worsened in Pelecare bog as some peninsulas of old forests were cut down. Large-scale forest cutting was stopped in the 1997 in Pelecare bog, when nature protection plan was worked out.

**Illegal fishing and gathering of berries.** Due to these activities breeding vulnerable bird species are disturbed continuously (such occasions happened when Golden Eagle and Black-throated Diver left their nests because of disturbance).

**Legal hunting on water birds.** The ducks and geese are hunted in the bog-pools and in lake during the migrations. There is no information about intensity of hunting.

b) in the surrounding area:

Melioration of forests and agricultural lands is taking place around the site. The dense net of ditches made around Teici and Pelecares bogs influences these sites. The ditches were dug in the 60-80ties of the 20<sup>th</sup> century, in some places digging of new ditches is done also today (mainly in the forests) and the existing systems are maintained. The deep ditches along the border have significant negative influence on the ecosystems of bogs and wet forests, especially in areas where the wet forest zone between ditch and the bog is very narrow.

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**27. Conservation measures taken:**

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

The Strict Nature Reserve was established in the Teici bog in the 26 May, 1982.

Nature reserve Pelecare bog is a protected site since 1977 with total area 4514 ha (all this area is included in the territory of Ramsar site). Site was designated as nature reserve in 21 October, 1997.

c) Does an officially approved management plan exist; and is it being implemented?:

The nature protection plan for Strict nature reserve Teici is officially approved on 15 July, 1999.

Renewal of plan is carried out once in four years, to achieve main goals of the site:

- 1) the visiting of territory on purpose of ecological education; gathering of cranberries (the permissions has issued to inhabitants);
- 2) the protection for preventing illegal use of nature resources and fire in the forests and bog;
- 3) scientific research;
- 4) the maintenance of characteristic vegetation (mowing and cutting of meadows);
- 5) the rehabilitation of natural hydrological water level (building of dams on ditches);
- 6) the management of forests;

the regulation of animal quantity (limited hunting with purpose to prevent damage of forests and agricultural lands of surrounding areas).

The nature protection plan for nature reserve Pelecare bog was officially approved in 1997.

d) Describe any other current management practices:

In the Teici bog - the conservation measures included in approved nature protection plan are currently implemented.

In the Pelecare bog - all the measures to be taken to maintain this area are envisaged by the nature protection plan.

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## **28. Conservation measures proposed but not yet implemented:**

e.g. management plan in preparation; official proposal as a legally protected area, etc.

The additional zone – bufferzone with ecologically important territories should be created around the Teici bog strict nature reserve.

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## **29. Current scientific research and facilities:**

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

The first study of fauna and flora in **Teici bog** was carried out in 1982, when reserve was established. Systematic and methodical research is undertaken since the end of 80ties. The research in the territory of reserve is organised by the Department of the Research of Teici Administration. Joint projects with different institutes and organisations of research both in Latvia and abroad have been implemented. The main subjects of research are following:

- The monitoring of birds of prey and owls, ecology and breeding support
- The monitoring of the bog and forest birds in Teici and Krustkalni reserves
- The monitoring and ecology of mammals
- Monitoring in entomology
- Research of Flora and Vegetation
- The hydrogeological and hydrobiological investigation on Teici bog

Zoological and botanical expeditions have been carried out in **Pelecare bog** – their findings are included in the Protected Nature Area nature protection plan.

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**30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

There is a visitor centre in the administration centre of Teici Nature Reserve. Information about the most significant nature values and management in area as well as popular booklets are available there. Interactive environmental education program with printed, visual and audio materials is elaborated to train various groups of society to understand the role of wetlands in their life.

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**31. Current recreation and tourism:**

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

The infrastructure for visitors is developed under LIFE project "Measures to ensure Nature conservation management of Teici Area" including 1.92 km long wooden boardwalk through the marginal part of Teici mire with bog pools and wet forests. 30 m high visitor tower, visitor platforms near bog pools and 2 information spots are open for eco-tourists. Also certified guidance of visitors is available in 3 languages. The visitor house with car park is available, too. The highest numbers of tourists visit the Teici bog in spring, summer and early autumn - ca. 1800 visitors per year.

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**32. Jurisdiction:**

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

The administration of Teici Strict Nature Reserve has been established for managing reserve. The administration of Teici Nature reserve is a state organisation, subordinated to Ministry of Environment. The administration is financed by the state budget.

The administration of Protected Nature Area of Pelecare bog is formally (on the ground of rule of LR "About especially protected nature areas") managed by municipalities of Atasiene, Rudzati and Silukalns. Coordination of management is done by Nature Protection Board.

The Teici and Pelecare bogs have no joint administration as Ramsar site.

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**33. Management authority:**

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Jātnieks Juris, Director  
Teici Strict Nature Reserve  
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**34. Bibliographical references:**

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

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