

Ramsar Information Sheet

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Latvia Lubana wetland complex



Designation date 27 March 2003 Site number 1384 Coordinates Area 51 351,00 ha

https://rsis.ramsar.org/ris/1384 Created by RSIS v.2.0 on - 24 June 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 area maintains the largest of all wetlands in Latvia. It includes a shallow freshwater lake, seven raised and transition bogs and fens, a large area of alluvial grasslands, fish-ponds and wet forests. The wetland complex with its habitat diversity is highly important for ecologically specific and rare bog bird species. The site supports large numbers of migratory waterfowl and maintains numerous wetland plant species and communities.

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, LV-2150, Latvia
National Ramsar Administrati	ve 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	d 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)	Lubana wetland complex
Unofficial name (optional)	Lubāna mitrājs
2.1.4 - Changes to the boundaries an	d area of the Site since its designation or earlier update
(Update) A.	Changes to Site boundary Yes O No 🖲
(Updat	e) B. Changes to Site area No change to area
^(Update) For secretariat only: T	nis update is an extension
2.1.5 - Changes to the ecological cha	racter of the Site
^(Update) 6b i. Has the ecological character of t	
applicable Criteria) change	In 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	0
Boundaries description	
The border of Lubana Wetland Com site).	plex is adjusted taking into account the approved border of Nature Reserve "Lubana Wetland" (Natura 2000
2.2.2 - General location	
a) In which large administrative region does the site lie?	The area is located in Madona, Viļāņi, Varakļāni, Rēzekne, Balvi, Rugāji Gulbene and Lubāna municipalities.
b) What is the nearest town or population centre?	Lubāna, Varakļāni, Balvi
2.2.3 - For wetlands on national bound	daries only
a) Does the wetland extend onto the ter	rritory of one or more other countries?

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

Official area, in hectares (ha): 51351

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

2.2.5 - Biogeography

Biogeographic regions	
Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	Boreal biogeographical region
Udvardy's Biogeographical Provinces	boreo-nemoral

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	According to the boreo-temperate zone of Palearctic biogeographic region the most prevalent wetland types are raised and transition bogs with dystrophic lakes, alluvial grasslands, bog woodlands and small areas of wet forests on mineral soils.
Other ecosystem services provided	LWC is one of the key areas in Latvia for maintaining habitats and species of national and international importance. In total, 22 protected habitat types listed in the Habitats Directive 91/43/EEC Annex I are found in LWC. The site is particularly important for preservation of hydrophilous tall herb communities of plains and alluvial meadows of river valleys, comprising the largest homogenous areas of these habitats in Latvia. Gallinago media, a globally threatened species, depends on these meadow habitats. In comparison to other parts of Latvia, LWC has also significant areas of active raised bogs, Fennoscandian hemiboreal natural old broad-leaved deciduous forests, bog woodlands and riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia along the great rivers. The forest habitats have a particular importance for breeding and feeding of rare birds of prey and several species of woodpeckers. The largest fish-pond areas in Latvia, which have a significant importance for protection of waterfowls, are located in LWC.

Criterion 2 : Rare species and threatened ecological communities

1	Criterion	3	į	Biological	diversity	
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The diversity of species is relatively high. Sufficient and objective species information is available only on bird fauna and fish fauna. 224 bird species are found in LWC, from them 186 are breeding (85 % of the total number of breeding bird species in Latvia). 24 fish species are registered in LWC. The number of the recorded mammal species is 23, although it may be similar to the neighbouring Teiči Bog area, where 47 mamma; species are known. Beavers play an important role in the territory since they contribute to stabilisation of the hydrological regime. The area of LWC maintains comparatively large numbers of otters and wolves for the East Latvia.

1	Criterion	5 :	>20	,000	waterbirds
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Overall waterbird numbers	26000
Start year	2019
End year	2021
Source of data:	Management plan 2024 - 2036, monitoring data

Criterion 6 : >1% waterbird population

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	EU Habitats Directive Annex II
TRACHEOPHYTA/ LILIOPSIDA	Cinna latifolia	V					EU Habitats Directive	EU Habitats Directive Annex II
BRYOPHYTA/ BRYOPSIDA	Dicranum viride	V					EU Habitats Directive	EU Habitats Directive Annex II
BRYOPHYTA/ BRYOPSIDA	Hamatocaulis vernicosus	V					EU Habitats Directive	EU Habitats Directive Annex II
TRACHEOPHYTA/ LILIOPSIDA	Liparis loeselii	×					EU Habitats Directive	EU Habitats Directive Annex II
TRACHEOPHYTA/ MAGNOLIOPSIDA	Pulsatilla patens	×					EU Habitats Directive	EU Habitats Directive Annex II
TRACHEOPHYTA/ MAGNOLIOPSIDA	Saxifraga hirculus	×			LC		EU Habitats Directive	EU Habitats Directive Annex II
TRACHEOPHYTA/ MAGNOLIOPSIDA	Thesium ebracteatum	×					EU Habitats Directive	EU Habitats Directive Annex II

supports rare/endangered species. Cinna latifolia 70-200 ind,., Agrimonia pilosa 35330-38860 ind., Pulsatilla patens 80-90 tufs, Dicranum viride 0-1 sq m area.

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

Phylum	Scientific name	Species qualifies under criterion Species contributes under criterio 2 4 6 9 3 5 7 8	on Size	Period of pop. Est.		IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds										
CHORDATA/ AVES			3527		4.77	LC				Criterion 6: North-west Europe
	Aquila chrysaetos		1			LC			EU Bird directive (Annex I)	
CHORDATA/ AVES			1			VU				World List of Threatened Birds
CHORDATA/ AVES	Asio flammeus					LC			EU Bird directive (Annex I)	
CHORDATA/ AVES	Chlidonias hybrida		6			LC			National red list	reproducing 1-5 pairs
CHORDATA/ AVES	leucopterus					LC			National red list	
CHORDATA/ AVES	Chlidonias niger		200			LC			EU Bird directive (Annex I)	
CHORDATA/ AVES	Crex crex		300			LC			EU Bird directive (Annex I)	World List of Threatened Birds
CHORDATA/ AVES	Cygnus columbianus		900		4.09	LC				Criterion 6: bewickii, Western Siberia & NE Europe/North-west Europe
CHORDATA/ AVES	Cygnus cygnus		2200		1.57	LC				Criterion 6: North-west Mainland Europe
CHORDATA/ AVES	medius	MODOMOOC	100						EU Bird directive (Annex I)	reproducing 25-75 pairs
CHORDATA/ AVES	Gallinago media		150			NT			EN	World List of Threatened Birds
CHORDATA/ AVES	albicilla	MODOMMO	10			LC		V	EU Bird directive (Annex I)	reproducing 4-6 pairs. Wintering
CHORDATA/ AVES	Lagopus lagopus					LC				
CHORDATA/						LC			National red list	
CHORDATA/ AVES	Podiceps nigricollis	ROOORROO				LC			National red list	
CHORDATA/ AVES	Tringa stagnatilis	ROOORROO				LC			National red list	
CHORDATA/ AVES	Xenus cinereus					LC			EU Bird directive (Annex I)	

1) Percentage of the total biogeographic population at the site

From the 187 bird species, breeding in the area, 51 are included in the Red Book of Latvia, which makes 27 % of the bird species found in Latvia. 48 species are threatened in Europe (Category 1-3 SPEC). 46 species or 25 % of all the breeders of LWC are listed in the Birds Directive 2009/147/EC.

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
3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation	×		EU Habitats Directive

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
3160 Natural dystrophic lakes and ponds	×		EU Habitats Directive
5130 Juniperus communis formations on heaths or calcareous grasslands	Ø		EU Habitats Directive
6120* Xeric sand calcareous grasslands			EU Habitats Directive
6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)	Ø		EU Habitats Directive
6230* Species-rich Nardus grasslands, on silicious substrates in mountain areas			EU Habitats Directive
6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)			EU Habitats Directive
6270* Fennoscandian lowland species-rich dry to mesic grasslands	V		EU Habitats Directive
6450 Northern boreal alluvial meadows	V		EU Habitats Directive
6510 Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	Ø		EU Habitats Directive
6530* Fennoscandian wooded meadows	Ø		EU Habitats Directive
7110* Active raised bogs	V		EU Habitats Directive
7120 Degraded raised bogs still capable of natural regeneration	Ø		EU Habitats Directive
7140 Transition mires and quaking bogs	Ø		EU Habitats Directive
7150 Depressions on peat substrates of the Rhynchosporion	Ø		EU Habitats Directive
9010* Western taiga	Ø		EU Habitats Directive
9160 Sub-Atlantic and medio-European oak or oak-hombeam forests of the Carpinion betuli	Ø		EU Habitats Directive
9020* Fennoscandian hemiboreal natural old broad-leaved deciduous forests rich	Ø		EU Habitats Directive
9080* Fennoscandian deciduous swamp woods	Ø		EU Habitats Directive
91D0* Bog woodland	×		EU Habitats Directive
91E0* Alluvial forests with Alnus glutinosa and Fraxinus excelsior	×		EU Habitats Directive

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
91F0 Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia	Ø		EU Habitats Directive
9070 Fennoscandian wooded pastures	×.		EU Habitats Directive
9050 Fennoscandian herb-rich forests with Picea abies	Ø		EU Habitats Directive
3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	Ø		EU Habitats Directive
6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	Ø		EU Habitats Directive

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

4.1 - Ecological character

According to the geobotanical classification, Lubana Plain is one of the four sub-regions of the East Latvian geobotanical regions containing 14 micro-regions. The Site contains the highest habitat diversity among the inland wetland areas in Latvia.

Forests in Lubana wetland complex belong to Eurosiberian alder woods (Alnetea glutinosae), European broad-leaved forests (Querco-Fagetea) and boreal coniferous forests (Vaccinio-Picetea). Boreal coniferous forests cover the largest areas. Although Eurosiberian alder woods and broad-leaved forests cover comparatively smaller areas, these are areas of national significance. Forests occur mainly on waterlogged peat soils, drained peat and drained mineral soils. Forests on wet mineral soils are considered of the highest importance for maintaining biological diversity.

There are 14 bogs in Lubana wetland complex, being one of the largest bog complexes of Latvia. Ombrogenous bogs with some transitional bog and fen areas prevail. Lubana wetland complex supports one of the largest fens of Latvia.

Alluvial grasslands in the LWC are the largest non-fragmented habitat areas of this type in Latvia. It is the only habitat of the LWC where detailed vegetation research has been carried out. 279 species of vascular plants have been registered here.

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

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	4	173	Representative
Fresh water > Lakes and pools >> O: Permanent freshwater lakes	Eutrophic lakes	1	8300	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils	Northern Boreal alluvial meadows	3	3144	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands	Active raised bogs	1	6300	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands	Alluvial forests	4	327	Representative
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands	Transition mires	4	1034	Rare
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands	Bog woodland	2	4102	Representative

Human-made wetlands			
Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
1: Aquaculture ponds	ldenas, Kvapanu, Zvejsalas-Lodanu, Orenisu-Drabaku ponds	3	2345
4: Seasonally flooded agricultural land		2	
9: Canals and drainage channels or ditches		4	

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
9010* Western Taïga	588
6530* Fennoscandian wooded meadows	199
9070 Fennoscandian wooded pastures	37
Grasslands (EU habitats)	509
91F0 Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmenion minoris)	143
91E0* Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	272
9080* Fennoscandian deciduous swamp woods	318
9020* Fennoscandian hemiboreal natural old broad-leaved deciduous forests (Quercus, Tilia, Acer, Fraxinus or Ulmus) rich in epiphytes	117
9160 Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	34
5130 Juniperus communis formations on heaths or calcareous grasslands	3
9050 Fennoscandian herb-rich forests with Picea abies	76
7120 Degraded raised bogs still capable of natural regeneration	580

4.3 - Biological components

4.3.1 - Plant species

Other	notew	orthy p	lants	specie

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	Allium ursinum	
BRYOPHYTAJUNGERMANNIOPSIDA	Calypogeia sphagnicola	
TRACHEOPHYTA/LILIOPSIDA	Carex aquatilis	
MARCHANTIOPHYTA/JUNGERMANNIOPSIDA	Cephaloziella spinigera	
TRACHEOPHYTA/MAGNOLIOPSIDA	Cnidium dubium	
TRACHEOPHYTA/LILIOPSIDA	Dactylorhiza incarnata	
TRACHEOPHYTA/LILIOPSIDA	Dactylorhiza maculata	
TRACHEOPHYTA/LILIOPSIDA	Dactylorhiza majalis baltica	
TRACHEOPHYTA/LYCOPODIOPSIDA	Diphasiastrum complanatum	
TRACHEOPHYTA/EQUISETOPSIDA	Equisetum scirpoides	
TRACHEOPHYTA/MAGNOLIOPSIDA	Galium intermedium	
TRACHEOPHYTA/LILIOPSIDA	Gladiolus imbricatus	
TRACHEOPHYTA/LILIOPSIDA	Glyceria lithuanica	
TRACHEOPHYTA/LILIOPSIDA	Hammarb ya paludosa	
TRACHEOPHYTA/LILIOPSIDA	lris sibirica	
TRACHEOPHYTA/LILIOPSIDA	Juncus stygius	
TRACHEOPHYTA/LILIOPSIDA	Malaxis monophyllos	
BRYOPHYTA/BRYOPSIDA	Neckera pennata	
TRACHEOPHYTA/MAGNOLIOPSIDA	Nuphar microphylla	
TRACHEOPHYTA/MAGNOLIOPSIDA	Onobrychis arenaria	
TRACHEOPHYTA/LILIOPSIDA	Orchis mascula	
TRACHEOPHYTA/LILIOPSIDA	Platanthera bifolia	
TRACHEOPHYTA/MAGNOLIOPSIDA	Salix myrtilloides	
TRACHEOPHYTA/MAGNOLIOPSIDA	Salix phylicifolia	
TRACHEOPHYTA/LILIOPSIDA	Scirpus radicans	
TRACHEOPHYTA/LILIOPSIDA	Scolochloa festucacea	
BRYOPHYTA/SPHAGNOPSIDA	Sphagnum lindbergii	
TRACHEOPHYTA/LYCOPODIOPSIDA	Spinulum annotinum annotinum	
TRACHEOPHYTA/MAGNOLIOPSIDA	Viola persicifolia	

Invasive alien plant species Phylum Scientific name Changes at RIS update Impacts Potential No change TRACHEOPHYTA/MAGNOLIOPSIDA Gypsophila paniculata Actual (minor impacts) No change TRACHEOPHYTA/MAGNOLIOPSIDA Heracleum sosnowskyi Potential No change TRACHEOPHYTA/MAGNOLIOPSIDA Solidago canadensis

4.3.2 - Animal species

Other noteworthy animal species

her noteworthy animal species			1		
Phylum	Scientific name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	Anoplodera sexguttata				
ARTHROPODA/ARACHNIDA	Anthrenochernes stellae				
ARTHROPODA/INSECTA	Bembix rostrata				
ARTHROPODA/INSECTA	Boros schneideri				Pop.size8 1x1 km grids
ARTHROPODA/INSECTA	Callimorpha dominula				
CHORDATA/MAMMALIA	Canis lupus				
CHORDATA/MAMMALIA	Castor fiber				
ARTHROPODA/INSECTA	Ceruchus chrysomelinus				
ARTHROPODA/INSECTA	Coenonympha hero	150			Pop. size 100-200 ind.
ARTHROPODA/INSECTA	Denticollis rubens				
ARTHROPODA/INSECTA	Dorcus parallelipipedus				
CHORDATA/MAMMALIA	Eptesicus nilssonii				
ARTHROPODA/INSECTA	Graphoderus bilineatus	300			Pop. size 200-450 ind.
CHORDATA/REPTILIA	Lacerta agilis				
CHORDATA/MAMMALIA	Lepus timidus				
ARTHROPODA/INSECTA	Lestes virens				
ARTHROPODA/INSECTA	Leucorrhinia caudalis				
ARTHROPODA/INSECTA	Leucorrhinia pectoralis	2500			Pop. size 1000-5000 ind
ARTHROPODA/INSECTA	Lopinga achine	40			Pop. size 30-50 ind.
CHORDATA/MAMMALIA	Lutra lutra	120			Pop. size 97-191 individuals
CHORDATA/MAMMALIA	Lynx lynx				
CHORDATA/MAMMALIA	Martes martes				
CHORDATA/MAMMALIA	Mustela erminea				
CHORDATA/MAMMALIA	Mustela nivalis				
CHORDATA/MAMMALIA	Myotis dasycneme				
CHORDATA/MAMMALIA	Myotis daubentonii				
ARTHROPODA/INSECTA	Necydalis major				
CHORDATA/MAMMALIA	Nyctalus noctula				
ARTHROPODA/INSECTA	Ophiogomphus cecilia	250			Pop. size 100-500 ind.
ARTHROPODA/INSECTA	Osmoderma eremita				Pop.size 13 1x1 km grids
ARTHROPODA/INSECTA	Oxyporus mannerheimii				
ARTHROPODA/INSECTA	Pelophila borealis				
CHORDATA/MAMMALIA	Pipistrellus nathusii				
CHORDATA/MAMMALIA	Pipistrellus pipistrellus				
ARTHROPODA/INSECTA	Protaetia acuminata				
CHORDATA/AMPHIBIA	Rana temporaria				
CHORDATA/AMPHIBIA	Triturus cristatus				1 localities

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	Ursus arctos				
CHORDATA/MAMMALIA	Vespertilio murinus				
MOLLUSCA/GASTROPODA	Clausilia cruciata				
CHORDATA/ACTINOPTERYGII	Cobitis taenia				
CHORDATA/ACTINOPTERYGII	Cottus gobio				
HORDATA/CEPHALASPIDOMORPHI	Lampetra planeri				
CHORDATA/ACTINOPTERYGII	Leuciscus aspius				
MOLLUSCA/GASTROPODA	Limax cinereoniger				
CHORDATA/ACTINOPTERYGII	Misgurnus fossilis				
MOLLUSCA/BIVALVIA	Unio crassus	4000			Pop. size 100-4300 ind.
MOLLUSCA/GASTROPODA	Vertigo geyeri				
CHORDATA/AVES	Alcedo atthis				reproducing 3-15 pairs
CHORDATA/AVES	Anser albifrons				
CHORDATA/AVES	Anser fabalis				
CHORDATA/AVES	Aquila pomarina				reproducing 0-1 pairs
CHORDATA/AVES	Botaurus stellaris				reproducing 25-35 pairs
CHORDATA/AVES	Bubo bubo				permanent 1-2 pairs
CHORDATA/AVES	Caprimulgus europaeus				reproducing 30-150 pairs
CHORDATA/AVES	Chroicocephalus ridibundus				
CHORDATA/AVES	Ciconia ciconia				reproducing 3-15 pairs
CHORDATA/AVES	Ciconia nigra				reproducing 5-12 pairs
CHORDATA/AVES	Circaetus gallicus				reproducing 0-1 pairs
CHORDATA/AVES	Circus aeruginosus				reproducing 2-6 pairs
CHORDATA/AVES	Circus cyaneus				reproducing 0-3 pairs
CHORDATAAVES	Circus pygargus				reproducing 15-35 pairs
CHORDATAAVES	Dendrocopos leucotos				reproducing 25-100pairs
CHORDATAAVES	Dryocopus martius				reproducing 15-35 pairs
	Ficedula parva				reproducing 60-200 pairs
CHORDATA/AVES	Glaucidium passerinum				permanent 5-30 pairs
CHORDATA/A/ES	Grus grus				reproducing 20-60 pairs
CHORDATA/AVES	Ixobrychus minutus				reproducing 2-5 pairs
CHORDATA/AVES	Lanius collurio				reproducing 50-250 pairs
CHORDATA/AVES	Lanius excubitor				
CHORDATA/AVES	Larus minutus				reproducing 35-500 pairs
CHORDATA/AVES	Limosa limosa				
CHORDATA/AVES	Lullula arborea				reproducing 10-30 pairs
CHORDATA/AVES	Luscinia svecica				reproducing 0-10 pairs
CHORDATA/AVES	Lyrurus tetrix tetrix				permanent 55-150 pairs
CHORDATA/AVES	Mergellus albellus				concentration 350 ind.
CHORDATA/AVES	- genere and on do				

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	Pandion haliaetus				reproducing 15-18 pairs
CHORDATA/AVES	Pernis apivorus				reproducing 4-13 pairs
CHORDATA/AVES	Philomachus pugnax				reproducing 10-50 pairs
CHORDATA/AVES	Picoides tridactylus				reproducing 10-20 pairs
CHORDATA/AVES	Picus canus				reproducing 10-30 pairs
CHORDATA/AVES	Pluvialis apricaria				reproducing 20-30 pairs
CHORDATA/AVES	Podiceps auritus				reproducing 2-10 pairs
CHORDATA/AVES	Porzana parva				reproducing 10-30 pairs
CHORDATA/AVES	Porzana porzana				reproducing 1-15 pairs
CHORDATA/AVES	Sterna hirundo				reproducing 100-200 pairs
CHORDATA/AVES	Strix uralensis				permanent 20-40 pairs
CHORDATA/AVES	Sylvia nisoria				reproducing 1-20 pairs
CHORDATA/AVES	Tachybaptus ruficollis				
CHORDATA/AVES	Tetrao urogallus				permanent 20-50 pairs
CHORDATA/AVES	Tetrastes bonasia				permanent 100-300 pairs
CHORDATA/AVES	Tringa glareola				reproducing 22-70 pairs

Invasive alien animal species	\$		
Phylum	Scientific name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	Neovison vison	Potential	No change
CHORDATA/MAMMALIA	Nyctereutes procyonoides	Potential	No change
CHORDATA/MAMMALIA	Ondatra zibethicus	Potential	No change
MOLLUSCA/BIVALVIA	Dreissena polymorpha	Potential	No change

Optional text box to provide further information

Monitoring of invertebrates Natura 2000 (2016-2018)

4.4 - Physical components

4.4.1 - Climate

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

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres) 80
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 \Box
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 Rive basin, Pededze sub-basin.

4.4.3 - Soil

Organic 🗹

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

No available information \Box

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes O No (

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site		
Presence?	Predominant water source	Changes at RIS update
Water inputs from precipitation		No change
Water inputs from groundwater		No change
Water inputs from surface water	×	No change

Water destination	
Presence?	Changes at RIS update
To downstream catchment	No change

Stability of water regime	
Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

4.4.5 - Sediment regime

Sediment regime unknown 🗹

4.4.6 - Water pH

Unknown 🗹

4.4.7 - Water salinity

Fresh (<0.5 g/l) 🗹

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

Unknown 🗷

4.4.8 - Dissolved or suspended nutrients in water

Mesotrophic 🗹	
^(Update) Changes at RIS update No change ^O Increase ^O Decrease ^O Unknown ^O	
Dystrophic 🗹	
^(Update) Changes at RIS update No change ^O Increase ^O Decrease ^O Unknown ^O	

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

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar O ii) significantly different 💿 site itself: Surrounding area has greater urbanisation or development \Box

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types \blacksquare

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Wetland non-food products	Other	
Wetland non-food products	Timber	

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

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

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: 6000 res,30000 visit

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes O No O 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 D 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

Pub	lic ownership		
	Category	Within the Ramsar Site	In the surrounding area
	National/Federal government	×	×
m	Local authority, unicipality, (sub)district, etc.	×	

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Commercial (company)	s and a second s	×
Other types of private/individual owner(s)	×	×

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

Most of lands are owned by the state. All lake areas and most of wetlands (bogs, fens, forests) are state owned, while most of agricultural lands (including alluvial grasslands and arable lands) are private. The fish-ponds are mainly private, partly owned by local municipalities. Small proportion of all lands are property of local municipalities.

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, LV-2150, Latvia
E-mail address:	daba@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

Water	rogui	lation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage			×		×	
Canalisation and river regulation	High impact		V	No change		No change

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Roads and railroads	Low impact	Low impact	×	No change	×	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	×	No change	×.	No change
Logging and wood harvesting	Medium impact	Medium impact	×	No change	×	No change
Fishing and harvesting aquatic resources	Medium impact	Medium 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	Low impact	×	No change		No change
Unspecified/others			s.			

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Dams and water management/use			×			
Vegetation clearance/ land conversion			×			
Unspecified/others			×			

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Problematic native 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					×		

Please describe any other threats (optional):

The largest fish-pond areas in Latvia, which have a significant importance for protection of waterfowls

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	Lubana mitrajs	www.daba.gov.lv	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Reserve	Lubana mitrajs	www.daba.gov.lv	partly

Non-statutory designations

	Designation type	Name of area	Online information url	Overlap with Ramsar Site
Im	portant Bird Area	Lubana mitrajs		whole

5.2.3 - IUCN protected areas categories (2008)

- la Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
 - Il 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

<no data available>

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Communication, education, and participation and awareness activities	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 O No ()

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No processes with another Contracting Party?

URL of site-related webpage (if relevant): https://www.daba.gov.lv/lv/lubana-mitrajs

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

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

The monitoring of birds (Natura 2000 site monitoring) The monitoring of mammals (Natura 2000 site monitoring) Monitoring in entomology (Natura 2000 site monitoring) Research of flora and vegetation Mapping of habitat

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

• Anon. 1999. The study on environmental management plan for Lubana wetland complex. Progress report (1). Nippon Koei co., LTD., Kokusai Koavo co., LTD.

 Anon. 2000. The study on environmental management plan for Lubana wetland complex. Final report. Vol. I. Executive summary. Nippon Koei co., LTD., Kokusai Kogyo co., LTD

• Anon. 2000. The study on environmental management plan for Lubana wetland complex. Final report. Vol. II. Main report. Nippon Koei co., LTD., Kokusai Kogyo co., LTD

 Anon. 2000. The study on environmental management plan for Lubana wetland complex. Final report. Vol. III. Supporting report. Nippon Koei co., LTD., Kokusai Kogyo co., LTD

• Anon. 2000. The study on environmental management plan for Lubana wetland complex. Final report. Vol. V. Data book. Nippon Koei co., LTD., Kokusai Kogyo co., LTD

 Anon. 2000. The study on environmental management plan for Lubana wetland complex. Interim report. Nippon Koei co., LTD., Kokusai Kogyo co., LTD.

• Bermanis U., Sluckis A., Apsite J., Āriņa D., Tučs D. 2007. LIFE-NATURE project "Management of Lubāns Wetland Complex, Latvia", LIFE03NAT/LV/000083, Laymans's Report, year 2003–2007. Madona Regional Council, Madona.

 Bergmanis U. 2004. Lubāna mitrāja kompleksa augsto un pārejas purvu dabiskā hidroloģiskā režīma atjaunošanas plāns. Madonas rajona padome, Laudona, 41.

• Bergmanis U. 2008. Klānu pļavu hidroloģijas un veģetācijas atjaunošanas pieredze Lubāna mitrājā. In: Auniņš A. (ed.) Aktuālā savvaļas sugu un biotopu apsaimniekošanas problemātika Latvijā. Latvijas Dabas fonds, Rīga.

 Bergmanis U. 2013. Augsto un pārejas purvu hidroloģijas atjaunošanas pieredze Austrumlatvijas mitrājos. In: Pakalne M., Strazdiņa L. (eds.) Augsto purvu atjaunošana bioloģiskās daudzveidības saglabāšanai Latvijā. Latvijas Universitāte, Rīga, 158-170.

• Kalninš, R. 1968. The bird fauna of the valley of the lake Lubāna (in Latvian, with English summary). Zooloģijas muzeja raksti 2: 21-53.

 Udvardy M.D.F. 1975. Classification of the biogeographical provinces of the world. IUCN occasional paper No. 18. International Union for Conservation of Nature and Natural Resources. Morges, Switzerland.

 Vasks, A. 1994. The Brikuli Fortified Settlements as a Component of the Economy and Population of the Lubana Lowlands, and the Daugava Basin. (in Latvian, with English summary). Preses nams. Rīga, 121 pp.

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)

iii. a description of the site in a national or regional wetland inventory

iv. relevant Article 3.2 reports

v. site management plan

vi. other published literature

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Archive of Teiči natur

2008

nistration

Archive of Teiči nat

2008)

6.1.4 - Designation letter and related data

Designation letter

e administration

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Date of Designation 2003-03-27