

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th 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 and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd 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.

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

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Designation date

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Site Reference Number

Dalius Sungaila
Ministry of Environment
Protected areas and Landscape department
Jakšto g. 4/9, LT-01105, Vilnius, Lithuania
Tel. +37052663566; email: d.sungaila@am.lt

2. Date this sheet was completed/updated:

12 September 2011

3. Country:

Lithuania

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.

Adutiskis-Svyła-Birveta wetland complex (Adučiškio-Svylos-Birvėtos šlapžemių kompleksas)

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

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
ii) 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:

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.

The boundaries are delineated following several approaches:

A. the boundaries of the existing protected areas (Adutiskis-Guntauninkai forest Biosphere Polygon, the Svyla River valley Biosphere Polygon and Birveta wetland complex Biosphere Polygon) have been taken into consideration as the core area of a new Ramsar site;

B. the eastern border of the protected areas overlapping with State Border between Lithuania and Belarus;

C. the valley of river Birveta which is outside area of the protected areas, but has protection status as river's protection zone, are connective segments and cover part of the Birveta River catchment.

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.

55°15'15" N; 26°41'28" E

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.

Located on the border of Lithuania and Belarus in the eastern part of the country, the site is part of Ignalina district as well as Svencionys district. It is about 30 km east of Ignalina town (Ignalina district) and north-east of Svencionys town (Svencionys district), close to Didziasalis (border) and Adutiskis (5 km north) settlements. The Western edge of the site borders with a road of regional importance: Adutiskis – Tverecius. Only small villages and farmsteads (with the total population of up to 800 persons) are located within the site.

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

Average: 130-140 m.

11. Area: (in hectares)

6881 ha

12. General overview of the site:

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

The biggest part of the area (more than 5,000 ha) includes wet forests dominated by aspen, birch, black alder and spruce stands. Forests cover approximately 80% of the site (among them forested peatlands – about 30% of the site). The pine stands are growing mostly on two forested peatlands, one of which is quite natural with some small draining ditches only. Waterlogged tree stands still cover large areas of the forest in the eastern part of the site. Open habitats of the site include a functioning system of fishponds (located in the northern part of the site along the Dysna and Birveta Rivers) with an area of more than 800 ha (the largest fishpond exceeds 100 ha in area), two clay-pits (about 50 ha), valleys of permanent rivers (the Dysna, Birveta, Svyla), several rivulets with seasonally flooded agricultural land (pastures, meadows and arable land) and ditches. In the hydrographical respect, the territory is located between the Svyla, Kamoja, Birveta and Dysna Rivers (in the Western Dvina (Daugava) basin). Dysna River and Birveta River are slow-flowing, overgrown with aquatic vegetation, and have flat wet valleys that are periodically flooded in spring. The Kamoja,

Svyla and Juodupis River stretches over the major part of the site. The surface of the valley to the east of the Kamoja River is poorly drained and with several temporal oxbow pools.

This mosaic complex of open habitats is one of the key staging grounds for migratory waterbirds and important site for rare and endangered breeding bird species and in eastern Lithuania

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

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 site contains unique natural flooded meadows of the rivers floodplains, which are rare in the region due to country wide drainage system implemented in the 1960s – 1970s. The Birveta fish-ponds area represents typical aquaculture ponds system, which been established in the area of the former natural wetlands. Semi-natural fishponds areas are unique for the Central Europe and are important for waterbirds. Alluvial forests are rare in the region. They compose unique habitats for the plant and animal species, directly related with wet forest complexes.

Five types of habitats rare in Europe and protected according to the EU Habitats Directive are characteristic of the wetland complex:

7140 Transition mires and quaking bogs;

9010 Western taiga;

*9050 Fennoscandian herb-rich forests with *Picea abies*;*

9080 Fennoscandian deciduous swamp woods;

91D0 Bog woodland;

The most valuable habitats of the site are natural or moderately changed.

Criterion 2. The wetland complex hosts several rare plant and animal species (mammals, birds, amphibians, molluscs, insects) protected in Lithuania (Red Data Book of Lithuania) and in the European Union (EU Habitats Directive 92/43/EEC). Please see points 21 and 22 for details.

Criterion 3. Fauna and flora species registered in the area are characteristic for wetlands of different types in the region. The site is important for maintenance of the biological diversity of the natural wetland complexes and for conservation of rare species of mammals, birds, fishes and invertebrates characteristic of this biogeographic region. A very high diversity of habitats, including various types of forests, bogs, natural meadows, agricultural land and fishponds, determine e.g. diverse species composition of birds.

Criterion 4. A wetland complex supports populations of rare waterbird species of the region during their breeding and migration seasons (see point 22 for details). It is especially important in dry periods. Birveta fishponds are also the key feeding site of several vulnerable bird species, nesting in the adjacent forests of the site (Black Stork, White-tailed Eagle, Osprey, Eagle Owl, etc.).

Criterion 6. Staging flocks of White-fronted Goose *Anser albifrons* (10,000) and of the Taiga Bean Goose subspecies *Anser fabalis fabalis* (1,100) in the site exceed the 1% Ramsar threshold (according to Waterbird Population Estimates, 4th edition, Wetlands International).

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:

Boreal (Council Directive 92/43/EEC)

b) biogeographic regionalisation scheme (include reference citation):

Map of Biogeographical Regions of Europe serving the Habitats Directive of the European Community (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.

Geologically the wetland complex was formed during the glacial period. It represents a flat depression bordering the moraine formations. Waters from the melted glacier have formed a rather large water body, which was drained after the formation of a river network. Specific geological deposits, especially clay, are characteristic of the site. They alternate with fluvio-glacial deposits, loam and sandy soils of the moraine plain. A thin layer of loam overlies limno-glacial clay and aleurite deposits. Heavily or moderately waterlogged soils dominate in this territory. A flat or slightly wavy plain is the dominant type of relief in the site.

The wetland complex also includes vast Guntauninkai and Adutiskis forest area complex with Adutiskis forested peatland inside the area. Most of the old stands are heavily waterlogged. Shallow and deep upper, and shallow lower paludal soils dominate in the Adutiskis mire with thick lay of the peat. The length of the Dysna River is 173 km (58 km in Lithuania), area of the basin – 8,180 km². The Dysna River is 20 m wide and 1,7 m deep. Its flow speed is 0.1 m/s, mean run-off – 39,9 m³/s. The length of the Birveta River - 36,4 km (area of the basin – 1,607 km²) and its mean run-off – about 4 m³/s. The Birveta River is 18–25 m wide and 1,5–2,5 m deep.

The area to the west of the Kamoja River is more sloping with small canalised tributaries draining their water into the river.

The average July temperature is 17.5 ° C, January – minus 6.8 ° C. Frost-free period lasts about 145 days, the first frost is observed in early October. The vegetation season - 185 days. Average annual rainfall is 585 mm. The snow cover reaches 35 cm.

17. Physical features of the catchment area:

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

Similar to the features described in Chapter 16.

18. Hydrological values:

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

In the hydrographical respect, the territory is located between the Svyla, Kamoja, Birveta and Dysna Rivers (in the Western Dvina (Daugava) basin). The length of the Dysna River is 173 km (58 km in Lithuania), area of the basin – 8,180 km². The Dysna River is 20 m wide and 1,7 m deep. Its flow speed is 0.1 m/s, mean run-off – 39,9 m³/s. The length of the Birveta River - 36,4 km (area of the basin – 1,607 km²) and its mean run-off – about 4 m³/s. The Birveta River is 18–25 m wide and 1,5–2,5 m deep. Both rivers are slow-flowing, overgrown with aquatic vegetation, and have flat wet valleys that are periodically flooded in spring. The Kamoja, Svyla and Juodupis River stretches over the major part of the site. The surface of the valley to the east of the Kamoja River is poorly drained and with several temporal oxbow pools.

The site is a particularly valuable example of a natural or moderately changed hydrological network with seasonally flooded land for a period up to 40 days per year. It is also important for groundwater recharge in the region, particularly in raised bogs of the site.

The Dysna and Birveta Rivers are regularly used for the filling of the ponds of the Birveta fishponds complex.

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:

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.

Xf – 1 – Xp – 4 – Ts – M – U – 7 – Tp – 9

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.

Adutiskis raised bog (area – over 500 ha) stretches in the western part of the territory. Pine forests of *Ledo-Pinetum* association predominate there. Relatively small open area is located in the eastern part of the bog. Plant communities of *Oxycocco-Sphagnetea* class occur in the open area. However, these communities are degrading due to the decreasing water level. The decrease in the water level has resulted in the establishment of *Salix cinerea* thickets, and the accelerated growth of *Pinus sylvestris*, *Betula pubescens*, *B. pendula* and *Picea abies* along the edges of the open area. Rare in Lithuania *Salix myrtilloides* is abundant in open sites of the raised bog, while *Dactylorhiza maculata*, also listed in the Red Data Book of Lithuania, occur along the edges of the bog.

Communities of *Scheuchzerio-Caricetea nigrae* class occur in wetter patches of the open area. The open area of the marsh is adjoined by a stretch of rather natural wet forest of *Carici elongatae-Alnetum* association with characteristic species composition. These

communities also border stretches of mineral soil traversing the bog. Spruce stands with the admixture of asp and lime trees grow on these stretches of mineral soil. Rather rare in Lithuania *Carex globularis* is abundant in certain areas. A rather wide belt of forests surrounds the raised bog from all sides. These forests have been drained, which is particularly evident in the southern part. There are many drainage ditches in the forests. Drainage reduced the water level in the forest, which, in turn, altered the plant communities. Formerly widespread wet forest stands (*Carici elongatae-Alnetum*) now are degrading. Old forests are being cut down and replaced with spruce. Therefore, young (40–60-year-old) spruce stands with no grass layer predominate in the forest. Degraded communities of wet spruce stands (as. *Sphagno girgensohnii-Piceetum*) occur in the southern part of the forest. Guntauninkai forest has been especially affected by drainage – natural communities are almost absent, young forests and clear-cutting areas predominate.

The Dysna flooded meadows, which been created in the area of the former Dysna marshes (area - 549 ha) are located in the floodplain of the Dysna River. Its major part has been drained and converted into flood meadows and pastures. Some of them are used for haymaking and cattle grazing. Patches of natural meadows with *Pastinaca sativa*, *Polygonum amphibium*, *Lathyrus palustris*, *Bromus inermis*, *Heracleum sisbircicum*, *Thalictrum lucidum*, *Valeriana officinalis*, *Phalaroides arundinacea* occur in certain sites along the Birveta River. Part of the former natural meadows have been transformed into the pastures during the 1970s.

The Kamoja, Birveta and Dysna Rivers stretch in the site. These rivers are slow-flowing, overgrown with aquatic vegetation, and have flat wet valleys that are periodically flooded. However, Svyla River is still natural, this is why natural meadows and fens cover floodplain area. The major part of the Svyla River valley is not used for agricultural activities anymore (at least during last 10 years), this is why overgrowing of the meadows with bushes, reed and dense and tall grass vegetation is characteristic of the site.

The Dysna River in the boundaries of the site is canalised and overgrown with *Potamogeton* spp. and *Lemna* spp. communities. Banks of the Birveta River are mostly marshy; the larger part of this territory has been converted into fishponds. Mosaic vegetation communities with *Phalaridetum arundinaceae*, *Calthion palustris*, *Alopecurion pratensis*, *Trifolium montanum*, *Galium boreale* are characteristic of the Birveta River floodplain. The seasonally flooded meadows are used for extensive haymaking.

A large part of the Birveta floodplain has been converted into aquaculture ponds. The Birveta aquaculture pond complex includes man-made and natural wetlands – a large network of functioning fishponds and adjacent valley of the Birveta Rivers with wide seasonally flooded meadows. Some ponds have small islands, and abundant mudflats form on the partly drained ponds. Fishponds are the only type of inland wetlands in the region with such habitats. Aquatic vegetation characteristic of eutrophic water bodies covers most parts of the ponds. Large areas of ponds are overgrown with *Typha angustifolia*. Dikes of ponds are overgrown with *Dauco-Melilotion* communities.

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.*

More than 500 species of higher vascular plants were registered in the wetland complex in 2001-2008. Certain plant communities of the site are intact or only slightly affected by

human activities. The wetland complex hosts several rare plant species protected in Lithuania and in the European Union (EU Habitats Directive 92/43/EEC).

Species	Red Data Book of Lithuania	Rare in Europe
<i>Agrimonia pilos</i>		An. II
<i>Dactylorhiza majalis</i>	+	
<i>Dactylorhiza maculata</i>	+	
<i>Dactylorhiza fuchsii</i>	+	
<i>Dactylorhiza incarnata</i>	+	
<i>Dactylorhiza baltica</i>	+	
<i>Gladiolus imbricatus</i>	+	
<i>Huperzia selago</i>	+	An. II
<i>Iris sibirica</i>	+	
<i>Polemonium caeruleum</i>	+	
<i>Gentiana pneumonanthe</i>	+	
<i>Salix myrtilloides</i>	+	

Other valuable species registered in the wetland complex: *Aquilegia vulgaris*, *Campanula persicifolia*, *Epipactis helleborine*, *E. palustris*, *Digitalis grandiflora*, *Platanthera bifolia*, *Thalictrum aquilegifolium*.

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.*

The fauna of the wetland complex is specific in many aspects due to the vast heavily waterlogged forests, open areas of raised bogs, natural and semi-natural rivers, a network of drainage canals, seasonally flooded meadows, agricultural land and large aquaculture pond area.

Mammals:

The site is inhabited by several species of mammals, protected in Lithuania and in the European Union.

A female lynx *Lynx lynx* with young was observed on the Adutiskis forest in 2001. This rare species is included into the Red Data Books of Belarus and Lithuania, and listed in the Annex II of the EU Habitats Directive. In recent years lynx has been regularly observed also in the Lithuanian part of the site.

The territory supports several species protected in Lithuania: birch mouse *Sicista betulina**, mountain hare *Lepus timidus**, ermine *Mustela erminea* and otter *Lutra lutra**. Birch mouse was recorded in old stands of the Adutiskis forest. Mountain hares were regularly observed along the edges of raised bogs, while ermine – in the central part of the site. Otter inhabits certain rivers and drainage canals of the wetland complex as well as aquaculture ponds area with extremely high density there. Species marked with an * are listed in the Annex II of the EU Habitats Directive.

Abundant population of beaver *Castor fiber* is characteristic of the site. Numerous families of beavers and their dams were registered in most drainage canals of the wetland complex. Beaver's activities have caused marked changes of the hydrological regime of the territory: silting of a riverbed, reduction of a run-off rate, local flooding of forest, formation of numerous temporary pools and reed stands.

Small-leaved young forests provide suitable feeding conditions for moose *Alces alces* in winter, supporting a considerable part of the regional population of the species.

Birds: The wetland complex is particularly important as the nesting and staging area of numerous rare and vulnerable bird species. Birds of more than 150 species have been recorded in the site. The site supports numerous species of terrestrial birds and waterbirds, protected in Lithuania and in the EU. 50 species included into the Red Data Book of Lithuania, and 42 species listed in the Annex I of the EU Birds Directive were recorded in the site during breeding season in 1998–2010.

Species	Red Data Book of Lithuania	EU Birds Directive Annex I
<i>Podiceps grisegena</i>	+	
<i>Podiceps nigricollis</i>	+	
<i>Botaurus stellaris</i>	+	+
<i>Ciconia nigra</i>	+	+
<i>Ciconia ciconia</i>		+
<i>Cygnus cygnus</i>	+	+
<i>Anser anser</i>	+	
<i>Anas strepera</i>	+	
<i>Anas clypeata</i>	+	
<i>Anas acuta</i> *	+	
<i>Aythya nyroca</i> *	+	+
<i>Mergus merganser</i>	+	
<i>Haliaeetus albicilla</i>	+	+
<i>Pandion haliaetus</i>	+	+
<i>Pernis apivorus</i>	+	+
<i>Aquila pomarina</i>	+	+
<i>Aquila clanga</i> *	+	+
<i>Accipiter gentilis</i>	+	
<i>Circus aeruginosus</i>		+
<i>Circus pygargus</i>		
<i>Falco columbarius</i> *	+	+
<i>Coturnix coturnix</i>	+	
<i>Tetrao tetrix</i>	+	+
<i>Bonasa bonasia</i>		+
<i>Grus grus</i>	+	+
<i>Crex crex</i>	+	+
<i>Porzana porzana</i>	+	+
<i>Porzana parva</i>	+	+
<i>Haematopus ostralegus</i>	+	
<i>Tringa totanus</i>	+	
<i>Philomachus pugnax</i>	+	+
<i>Limosa limosa</i>	+	
<i>Numenius arquata</i>	+	
<i>Gallinago media</i>	+	+
<i>Larus minutus</i>	+	+
<i>Sterna albifrons</i>	+	+
<i>Sterna hirundo</i>		+

<i>Chlidonias niger</i>	+	+
<i>Columba oenas</i>	+	
<i>Bubo bubo</i> *	+	+
<i>Strix uralensis</i>	+	+
<i>Glaucidium passerinum</i>	+	+
<i>Aegolius funereus</i>	+	+
<i>Asio flammeus</i>	+	+
<i>Caprimulgus europaeus</i>		+
<i>Upupa epops</i>	+	
<i>Alcedo atthis</i> *	+	+
<i>Picoides tridactylus</i>	+	+
<i>Dryocopus martius</i>		+
<i>Picus viridis</i>	+	
<i>Picus canus</i>	+	+
<i>Dendrocopos leucotos</i>	+	+
<i>Dendrocopos medius</i>		+
<i>Lullula arborea</i>		+
<i>Anthus campestris</i>	+	+
<i>Motacilla citreola</i>	+	
<i>Luscinia svecica</i>	+	+
<i>Sylvia nisoria</i>		+
<i>Panurus biarmicus</i>	+	
<i>Ficedula parva</i>		+
<i>Lanius collurio</i>		+
<i>Lanius excubitor</i>	+	

* – possible breeder; breeding of the species was not confirmed

Adutiskis forest is the key nesting site of several vulnerable species of birds. It is one of very few sites in Lithuania, which supports 2–3 breeding pairs of Ospreys *Pandion haliaetus* and the breeding population of Ural Owls *Strix uralensis*. The local breeding population of Black Grouse *Tetrao tetrix* and of rare species of woodpeckers in this forest complex is also quite numerous. Adutiskis-Guntauninkai forests hold up to four pairs of Black Stork *Ciconia nigra*, at least 4 pairs of Lesser Spotted Eagle *Aquila pomarina*, 6–8 pairs of Honey Buzzard *Pernis apivorus*, two pairs of White-tailed Eagle *Haliaeetus albicilla*, up to 50 individuals of Black Grouse, at least one pair of Eagle Owl *Bubo bubo*, 3–4 pairs of Ural Owl, 3–5 pairs of Tengmalm's Owl *Aegolius funereus*, 3–5 pairs of Pigmy Owl *Glaucidium passerinum*, 10–12 pairs of Grey-headed Woodpecker *Picus canus*, 6–8 pairs of Three-toed Woodpecker *Picoides tridactylus*, 10–15 pairs of White-backed Woodpecker *Dendrocopos leucotos*, etc.

The globally threatened Greater Spotted Eagle *Aquila clanga* was regularly observed in the site during the last years, though its breeding was not confirmed. There are two confirmed lekking sites of the threatened Great Snipe *Gallinago media* with up to 30 males counted and possible breeding habitats of the threatened Aquatic Warbler *Acrocephalus paludicola* in the site (single birds have been recently recorded in the site, but their breeding was not confirmed).

The Adutiskis forest complex is a Special Protection Area (SPA) for Black Stork, Honey Buzzard, Black Grouse, Ural Owl, Three-toed Woodpecker and Grey-headed Woodpecker.

The Birveta fishpond complex with adjacent seasonally flooded meadows is the principal nesting site of rare species of waterbirds. Fishponds and the adjacent Dysna and Birveta rivers floodplains support up to 8 pairs of Bittern *Botaurus stellaris*, 5–7 pairs of Whooper Swan *Cygnus cygnus*, 30–40 pairs of the globally threatened Corncrake *Crex crex*,

up to 15 pairs of Spotted Crake *Porzana porzana*, up to 5-10 pairs of Ruff *Philomachus pugnax*, up to 40 pairs of Common Tern *Sterna hirundo*, 1–2 pairs of Little Tern *Sterna albifrons*, 2–4 pairs of Bluethroath *Luscinia svecica*, etc.

The complex of Birveta fishponds with adjacent meadows is a SPA for the breeding Whooper Swan, Corncrake, Ruff and for migratory population of White-fronted Goose.

The floodplain of the Dysna River and the ponds are the principal staging grounds of wildfowl and waders in eastern Lithuania, with up to 10,000 White-fronted Geese *Anser albifrons*, 1,100 Bean Geese *Anser fabalis*, 2,100 Mallards *Anas platyrhynchos*, 2,000 Coots *Fulica atra*, 1,200 Lapwings *Vanellus vanellus*, 500 Ruffs, 400 Golden Plovers *Pluvialis apricaria* and large flocks of other waterbirds counted during one census.

The Svyla River valley is a SPA for the breeding threatened bird species: Corncrake and Great Snipe. The population of the Great Snipe is one of the most numerous in the eastern Lithuania and holds up to 20 lekking males there.

Amphibians and reptiles:

Eight species of amphibians and five species of reptiles were recorded in the site.

Birveta fishponds support abundant fire-bellied toads *Bombina bombina*, included into the Red Data Book of Lithuania. This rare species is also listed in the Annex II of the EU Habitats Directive and in the Annex II of the Bern Convention.

Fish:

Weather Loach *Misgurnus fossilis* (Annex II, Habitats Directive) has been recorded in the site.

Insects:

The site is particularly important for rare insect species. According to the diversity of rare insect species it meets the criteria of the territories of the EU “Natura 2000” network.

Adutiskis-Guntauninkai forests complex with neighbouring meadows supports *Euphydryas maturna* (Lepidoptera, Nymphalidae) and *Lycaena dispar* (Lepidoptera, Lycaenidae), included into the Red Data Book of Lithuania and listed in the Annex II of the EU Habitats Directive.

Several other insect species protected in Lithuania were recorded in the site: *Peltis grossa* (Coleoptera), *Papilio machaon* (Lepidoptera), *Oeneis jutta* (Lepidoptera), *Coenonympha hero* (Lepidoptera) and *Melitaea diamina* (Lepidoptera).

One new for Lithuania species of insects – *Barichneumon anator* (Hymenoptera, Ichneumonidae) was found in the site in 2001.

Other rare species of insects recorded in the site:

Hymenoptera: *Thymaritis tenex*, *Opheltetes glaucopterus*, *Misetus oculatus*, *Linyctus exhortatory*, *Scambus arudinator*, *Orthocentrus attenuatus* and *Orthocentrus petiolaris*;

Coleoptera: *Harminius undulates*, *Neomidia haemorroidalis*, *Leptura mimica* and *Cassida murrea*;

Lepidoptera: *Lopinga achine*, *Apatura ilia*, *Limenitis populi*, *Aricia eumedon*, *Heteropterus morpheus*, *Stauropus fagi*, *Meliana flammea* and *Ebulea crocealis*.

Molluscs:

Rare in Europe molluscs *Vertigo angustior* (Gastropoda), listed in the Annex II of the EU Habitats Directive, were recorded in the site. Part of the Adutiskis forest area has been designated as Natura 2000 site for the protection of the species.

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:

The aquaculture pond area is important for aquaculture production – mainly carp production. The local aquaculture enterprise is among the leading companies in the region.

Adutiskis-Guntauninkai forests area is very important for the commercial timber production. Svencioneliai State Forest Enterprise, which manages the forest area, produces up to 40% of the total production there.

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:

24. Land tenure/ownership:

a) within the Ramsar site:

The forested area (including forested peatland) is mainly the property of the State (>80% of the forest area). Streams of all rivers are also of the State ownership. The area of the aquaculture ponds belongs to private owners. The agricultural land is mainly privately owned as well as flooded meadows and fens. Clay pits are of the State ownership.

b) in the surrounding area:

Private land predominates in the surrounding area of the site. The streams are completely stated owned, while marshes are of the mixed ownership. Lakes Erzvetas, Lazdineliu and Svirku are of State ownership.

25. Current land (including water) use:

a) within the Ramsar site:

Aquaculture ponds are used for aquaculture only (mainly carp production). Forested areas are used for the commercial forestry, while agricultural land and meadows – for the agricultural activities. Farmers use agricultural land for the hay-making, grazing as well as for ecological agriculture. Clay ponds are used for recreation, while Dysna River is as protection zone of the State Border. Local people use forest area for picking of the berries and mushrooms.

b) in the surroundings/catchment:

Surrounding forest areas are used for the commercial forestry, while meadows and agricultural land – for various agricultural activities.

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 activities are the most prominent ecological threat for the ecosystems of the wetland complex. A marked decline in the ground water level in the site was caused by drainage activities implemented in the 1960s–1980s. A large number of the drainage channels and ditches were made in the Adutiskis forest as well as flooded meadows along the Dysna River. Changes of the natural hydrological system have resulted in a degradation of certain marshes, local drying of forest stands and changes in plant communities. Secondary birch associations occur in the sites, which were earlier covered by native wet forests. Numerous small streams of the site were straightened and canalised.

Large-scale fires threaten the site. A large fire broke out in the forest area (over 150 ha) in Lithuanian part of the site in summer 2002. The fire has affected even heavily waterlogged sites and raised bogs.

Forest cutting is a permanent threat to this mire complex. The ongoing clear-cutting of old native forests in certain parts of the site leads to a decrease of biological diversity, loss of rare forest species and succession of the most valuable natural communities.

Unwise use of floodplains for agricultural purposes (including tillage, premature grass-cutting, too intensive grazing) results in degradation of floodplain associations and in increased loads of pollutants in the rivers of the site.

b) in the surrounding area:

Similar as within the Ramsar site.

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.

The Adutiskis Botanical Reserve (area – 764 ha) was established in Adutiskis raised bog in 1974 . It was reorganised into the Adutiskis Telmatological (Bog) Nature Reserve in 1997. The Antanai Pedological (Soil) Nature Reserve (area – 136 ha) was established in Adutiskis forest in 1988. The aim of both Reserves is to protect the raised bogs, their valuable habitats, soils and rare species of fauna and flora. Many human activities (forestry, agriculture, recreation, various developments, etc.) are regulated in territories of both Reserves.

In 2004 several EU “Natura 2000” sites were designated in the site: the Birveta wetland complex SPA, the Svyla River valley SPA, Adutiskis-Guntauninkai forests SPA and Adutiskis bog SPA.

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

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

Birveta wetland complex has approved nature management plan. Svyla River valley nature management plan is in preparation.

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

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

It would be useful to prepare a joint Belarusian–Lithuanian management plan for the whole Adutiskis/Vileity natural complex.

Within the management and conservation plan on the Lithuanian side it is recommended to:

- establish protected areas for certain rare species of the site;
- appropriately regulate all forestry activities within the Lithuanian part of the natural complex and to limit clear-cuttings in the whole site;
- establish an information system for visitors about the biological diversity and significance of the Adutiskis-Svyla-Birveta wetland complex;
- prepare the recommendations for implementation of special compensation schemes for owners of the most valuable territories, implementing extensive agriculture, fisheries and other environmentally-friendly activities.

29. Current scientific research and facilities:

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

The biodiversity of Adutiskis-Svyla-Birveta wetland complex was investigated during the international project “Important transboundary Belarusian-Lithuanian and Lithuanian-Russian wetlands” implemented in 2001-2002 and funded by the International Association “Migratory Birds of Western Palearctic” and from the Ramsar Convention Small Grants Fund (Svazas *et al.* 2003). Additional surveys of rare species of flora and fauna were implemented in certain areas not covered by that project (in the Svyla River valley, in wet meadows of the Dysna River, in Guntauninkai wet forest, etc.) in 2010. A detailed cartographic data with all records of rare species plotted on maps was also performed in 2010. This project was funded by the International Association “Migratory Birds of Western Palearctic” and the French Ministry of Ecology. Detailed surveys of breeding habitats of the threatened Great Snipe *Gallinago media* in this wetlands complex was implemented in 2010. It was funded by the Government of Norway. Detailed investigation of waterbirds in Birveta fishponds complex was implemented in 2009-2010 and sponsored from the national funds.

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.

Information stands are installed in the territory.

31. Current recreation and tourism:

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

The site is not popular neither for tourism, nor for other recreational activities, partly due to restricted public access valid in the State border zone. Only certain clay ponds are used for recreation by local people

32. Jurisdiction:

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

The site is managed by Sirveta Regional Park Directorate, which is supervised by the State Service for Protected Areas under the Ministry of Environment of the Republic of Lithuania.

Contact details:

State Service for Protected Areas under the Ministry of Environment

A. Juozapavičiaus g. 9, LT-09311 Vilnius, Lithuania

Tel. +370-5-272 3284, fax. +370-5-272 2572, e-mail vsst@vsst.lt,

www.vsst.lt

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.

Sirveta Regional park Directorate

Lentupio 3, Svencionys, LT-18126, Lithuania

Tel./Fax. +370 387 51955

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E-mail: info@sirveta.lt

Director: Romualda Baranauskiene

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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