

# **Ramsar Information Sheet**

Published on 15 January 2016

# **Belarus** Servech



Designation date Site number

29 May 2014 2250 Coordinates 54°58'2"N 27°29'36"E Area 9 068,00 ha

https://rsis.ramsar.org/ris/2250 Created by RSIS V.1.6 on - 5 October 2016

# Color codes

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

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

# 1 - Summary

# Summary

The site is a complex of fen mires, transitional marshes and raised bogs, situated in the floodplain of river Servech. Forested raised bogs are the dominant wetland type. The most important protected bird species are: Aquatic Warbler Acrocephalus paludicola and Great Snipe Gallinago media, breeding on the fen mires. Lake Servech and adjacent marshes are the places of waterfowl concentration during spring migrations.

The site is of great importance for stabilization of hydrological regime of lake Servech, river Servech and its tributaries. Servech river is a tributary of Vilia river and thus plays a significant role in water balance of Vileiskoe Water Reservoir and Vileisko-Minskaya Water System.

# 2 - Data & location

- 2.1 Formal data
- 2.1.1 Name and address of the compiler of this RIS

# Compiler 1

Name	Maximenkov Michail Viktorovich, Kozulin Alexander Vasilievich, Gulka Vitaliy Demianovich
Institution/agency	The State Research and Production Association "The Scientific and Practical Centre of the National Academy of Belarus for Bioresources"
Postal address	Akademicheskaya 27 Minsk 220072 Belarus
E-mail	maksimenkovm@gmail.com
Phone	+375 172 949069
Fax	+375 172 949069

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

From year	2004
To year	2013

# 2.1.3 - Name of the Ramsar Site

Official name (in English, French or	Servech
Spanish	
Unofficial name (optional)	Сервечь

# 2.2 - Site location

# 2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Boundaries description (optional)

Boundaries of the Ramsar Site coincide with borders of Hydrological Reserve of Republican Importance "Servech".

# 2.2.2 - General location

a) In which large administrative region does	
	Glupokoe and Doksnitsv administrative districts of Vitepsk region
the site lie?	,

b) What is the nearest town or population centre? Glubokoe

# 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?
b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

2.2.4 - Area of the Site

Official area, in hectares (ha):	9068

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

# 2.2.5 - Biogeography

Biogeographic regions								
Regionalisation scheme(s)	Biogeographic region							
EU biogeographic regionalization	Boreal							

Other biogeographic regionalisation scheme

National: Vitebsk Poozerie - Dementiev V.A., 1959. System of physiographic regions of Belarus/«Physical and economic geography of Byelorussia» Minsk, 150 p. (In Russian).

# 3 - Why is the Site important?

# 3.1 - Ramsar Criteria and their justification

# Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided	The site is an example of wetland types representative of the boreal bio-geographical region (complex of raised bogs and fen mires), preserved in natural state. It is an example of unique natural-vegetation marsh complexes of south-western edge of the bio-geographical region. The Site is located at the watershed of river basins Neman, West Dvina (Baltic Sea basin), and Dnieper (Black Sea basin) and belongs to river Vilia basin (Baltic Sea basin). The following rivers and water bodies are within the territory of the site: river Servech and its tributaries, large lake Servech, 2 small dystrophic lakes without outflow amidst the transition mire at the western part of the wetland. The Ramsar Site Servech presents the whole range of ecosystem services provided by such wetlands to humans. Considering physico-geographical and administrative location of this natural site, the Ramsar Site plays an important role for the water supply of Vileisko-Minskaia water system. The hydrological value of the site is defined by the following functions and services: stabilization of the hydrological regime of the lake Servech and river Servech; maintenance of the ground waters level; keeping the water quality in the neighboring villages and in Vileisko-Minskaia water system; maintenance of water reserves and providing water supply for water objects in dry seasons; takes part in formation of underground hydrological value of the Ramsar Site Servech will increase taking into account that water deficit could appear already in the nearest future while solving all the tasks assigned to the Vileisko-Minskaia water system.
Other ecosystem services provided	The Site has special value for maintenance of fens and transition mires adjacent to river Servech which are habitats for numerous rare and globally threatened plant and animal species. It supports the existence of rare, vanishing or globally threatened species. The wetland is a habitat for 9 species of Vertebrates and 8 species of plants listed in the Red List of the Republic of Belarus. Globally threatened bird species breed here annually - Aquatic Warbler (30 males) and Great Snipe (20-30 males). The processes of peat accumulation are still ongoing in the site: the depth of the peat deposits here is about 3.5 m, thus contributing to carbon dioxide absorption and air purification.
Other reasons	The Ramsar Site has special value for maintenance of fens and transition mires adjacent to river Servech which are habitats for numerous rare and globally threatened plant and animal species. Lake Servech and adjacent marshes are the places of waterfowl concentration during spring migrations.

☑ Criterion 2 : Rare species and threatened ecological communities

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

3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Betula nana		V					National Red List - EN	
Carex heleonastes		×					National Red List - CR	
Cinclidium stygium		V					National Red List - EN	
Dactylorhiza viridis		V					National Red List - VU	
Eriophorum gracile		V					National Red List - VU	
Liparis Ioeselii		V					National Red List - EN	
Trichophorum alpinum		V					National Red List - VU	

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

Phylum	Scientific name	Common name	Sp qua cri 2 4	alifie Inder Inder Iteric 4 6	es r on ð 9	S cor c 3	peci ntrib unde riter 5	ies utes er ion 7 8	Pop. Size	Period of pop. Est.	% occurrence	IUCN Red /	CITES Appendix I	CMS Appendix I	Other Status	Justification
CHORDATA/ AVES	Acrocephalus paludicola	Aquatic Warbler		20	כו				35	2006-2010				V	National Red List - EN	The site is the most nothern point of the species' breeding distribution in Belarus
CHORDATA/ AVES	Ardea alba	Great Egret	Ø	סכ	סכ							LC Strainer Strainer			National Red List - VU	
CHORDATA/ AVES	Asio flammeus	Short-eared Owl	Ø	סכ	סכ				10	2002		LC Strainer Strainer			National Red List - CR	
CHORDATA/ AVES	Botaurus stellaris	Eurasian Bittern	Ø	סך	סכ							LC			National Red List - VU	
CHORDATA/ AVES	Crex crex	Corn Crake	Ø	כ	כ										National Red List - VU	
ARTHROPODA / ARACHNIDA	Dolomedes plantarius		ØC	סכ		100						VU •** •**			National Red List - VU	
CHORDATA/ AVES	Gallinago media 🕌 🛄 🔌	Great Snipe		20	סכ				55	2007		NT Strain			National Red List - EN	breeding
CHORDATA/ AVES	Grus grus	Common Crane	Ø	סכ	כו							LC			National Red List - VU	
ARTHROPODA / INSECTA	Hypodryas maturna		ØC	סכ	כ										National Red List - VU, Annex II of Bern Convention	
CHORDATA/ MAMMALIA	Meles meles	European Badger	Ø	סכ											National Red List - VU	
CHORDATA/ AVES	Numenius arquata 🛃 💁 🔌	Eurasian Curlew	ØC	כ	כו							NT ©®			National Red List - VU	

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
3160 Natural dystrophic lakes and ponds	V		Annex I of the EU Habitats Directive
6450 Northern boreal alluvial meadows	V		Annex I of the EU Habitats Directive
9050 Fennoscandian herb-rich forests with picea abies	V		Annex I of the EU Habitats Directive
3150 Natural eutrophic lakes with magnopotamion or hydrocharition types of vegetation	V		Annex I of the EU Habitats Directive
7140 Transition mires and quaking bogs	Ø		Annex I of the EU Habitats Directive
9010 Western taiga	Ø	priority habitat type	Annex I of the EU Habitats Directive
9080 Fennoscandian deciduous swamp woods	Ø	priority habitat type	Annex I of the EU Habitats Directive
91D0 Bog woodland	V	priority habitat type	Annex I of the EU Habitats Directive
7120 Degraded raised bogs (still capable of natural regeneration)	V		Annex I of the EU Habitats Directive
91T0 Central european lichen pine forests	V		Annex I of the EU Habitats Directive
7110 Active raised bogs		priority habitat type	Annex I of the EU Habitats Directive
7150 Depressions on peat substrates of the rhynchosporion vegetation	V		Annex I of the EU Habitats Directive

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

# 4.1 - Ecological character

The site is a complex of fen mires, transitional marshes and raised bogs, situated in the floodplain of river Servech. In the northern part of the site in the floodplain of river Servech and lake Servech fen mesotrophic mires are situated. Sedge communities Carex lasiocarpa and mosses Bryidae are dominating here by area. In the central part of the wetland fen mires change into raised bogs. The most part of raised bogs are Sphagnum-pine forests. Elevated parts of the floodplain are occupied by meadows. Forests within the wetland are situated along marshes' perimeter and are mostly swampy.

The most important protected bird species are: Aquatic Warbler Acrocephalus paludicola and Great Snipe Gallinago media, breeding on the fen mires. Lake Servech and adjacent marshes are the places of waterfowl concentration during spring migrations.

The site is of great importance for stabilization of hydrological regime of lake Servech, river Servech and its tributaries. Servech river is a tributary of Vilia river and thus plays a significant role in water balance of Vileiskoe Water Reservoir and Vileisko-Minskaya Water System. Hydrological value of the Ramsar Site Servech will increase taking into account that water deficit could appear already in the nearest future while solving all the tasks assigned to the Vileisko-Minskaia water system. Of course, to solve all the tasks it is necessary to take required measures timely, aiming the protection and wise use of the catchment and the wetland.

# 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		0	91	
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		0	362	
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands		2	2448	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands		4	907	
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3	2085	
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		1	3174	Representative

# 4.3 - Biological components

# 4.3.1 - Plant species

Other noteworthy plant species		
Scientific name	Common name	Position in range / endemism / other
Betula humilis		Rare marsh species
Drosera obovata		Insectivorous plant
Drosera rotundifolia		Insectivorous plant
Iris sibirica		Boreal species

4.3.2 - Animal species Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATAACTINOPTERYGII	Abramis brama					
CHORDATAACTINOPTERYGII	Alburnus alburnus					
CHORDATAMAMMALIA	Alces alces	moose				
CHORDATA/ACTINOPTERYGII	Blicca bjoerkna					
CHORDATA/MAMMALIA	Canis lupus	gray wolf;Wolf				
CHORDATA/ACTINOPTERYGII	Esoxlucius					
CHORDATA/ACTINOPTERYGII	Gymnocephalus cernua					
CHORDATA/ACTINOPTERYGII	Leuciscus idus					
CHORDATAACTINOPTERYGII	Leuciscus leuciscus					
CHORDATA/AVES	Lyrurus tetrix	Eurasian Black Grouse;Black Grouse				
CHORDATAACTINOPTERYGII	Perca fluviatilis					
CHORDATAACTINOPTERYGII	Rutilus rutilus					
CHORDATAACTINOPTERYGII	Scardinius erythrophthalmus					
CHORDATAACTINOPTERYGII	Squalius cephalus					
CHORDATA/MAMMALIA	Sus scrofa	wild boar				
CHORDATA/ACTINOPTERYGI	Tinca tinca					

# 4.4 - Physical components

## 4.4.1 - Climate

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

## 4.4.2 - Geomorphic setting

a) Mnimum elevation above sea level (in metres)	176
a) Maximum elevation above sea level (in metres)	182
	Upper part of river basin 🗵
	Middle part of river basin 🗵

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.

The wetland is situated in the river Servech floodplain. River Servech is a right tributary of river Vilia, which flows further to the territory of Lithuania (its name here is Neris) and flows into the Neman (Baltic Sea).

The Site is located at the watershed of rivers' basins Neman, West Dvina (Baltic Sea basin), and Dnieper (Black Sea basin) and belongs to river Vilia basin (Baltic Sea basin).

#### 4.4.3 - Soil

Mneral 🗹

Organic 🗹

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

# Please provide further information on the soil (optional)

Soils are mostly peat-swamp here. Sod-podzolic, swamp sod-podzolic and soils are less presented. The following soil types, determined by mechanical analysis, are represented here: peat soil, sandy-loam, loam, sandy soils. Surface erosion is insignificant.

#### 4.4.4 - Water regime

Water permanence	
Presence?	
Usually permanent water	
present	

Source of water that maintains character of the site Presence? Predominant water source Water inputs from rainfall Water inputs from surface 1

water

Presence?	
To downstream catchment	
Stability of water regime	
<b>D</b>	

Presence? Water levels fluctuating (including tidal)

#### 4.4.5 - Sediment regime

<no data available>

4.4.6 - Water pH

Alkaline (pH>7.4) 4.4.7 - Water salinity Fresh (<0.5 g/l) 4.4.8 - Dissolved or suspended nutrients in water

> Eutrophic 🗹 Mesotrophic 🗹

- . \_
- Oligotrophic 🗹

site itself

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 O

Surrounding area has greater urbanisation or development 🖉

Surrounding area has higher human population density 📝

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

# 4.5 - Ecosystem services

# 4.5.1 - Ecosystem services/benefits

#### **Provisioning Services**

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Fresh water	Drinking water for humans and/or livestock	High
Wetland non-food products	Timber	Low

#### Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Hazard reduction	Flood control, flood storage	High

#### Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Recreation and tourism	Picnics, outings, touring	High
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium

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

#### Other ecosystem service(s) not included above:

Forestry activities (Begomlsky and Gluboksky Forestry Enterprises) are focused on protection and sustainable use of forests and other forest resources; Agricultural industries of cooperative and state ownership manage about 6000 ha of meadow and marsh lands. Reserve's land land are mainly used for grazing and mowing, however the scale of these activities is insignificant. So, these activities could not maintain open structure of floodplain meadows and fen mires; Lake Servech is used for amateur and trade fishing. Besides fishing, the leaser also enrich the lake with natural fish species practically every year.

There are remains of homestead of Kijakovky family from the end of XIX – beginning of XX century located in the vicinity of the Reserve, in village Kijakovo. The chapel - sepulture of Kijakovsky family (1907) - is preserved at the local cemetery. Historical monuments are related to World War II. These are monumentalized places of burned out villages.

Within the site: 100s

Outside the site: 15000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site?

# 4.5.2 - Social and cultural values

<no data available>

# 4.6 - Ecological processes

(ECD) Carbon cycling	The peat deposit at the depth of 3.5 m is located within the wetland.
(ECD) Vegetational productivity, pollination,	Cessation of mowing and grazing lead to overgrowing of open fens with reeds, shrubs and trees. Spring
regeneration processes, succession, role of	burning of vegetation at floodplain meadows and fen mires is harmful to the biodiversity, especially under
fire, etc.	dry conditions.
(ECD) Notable aspects concerning migration	Lake Servech and adjacent marshes are the places of waterfowl concentration during spring migrations.
(ECD) Pressures and trends concerning any	Absence of mowing leads to accumulation of thick layer of dry grass which prevents growing of new
of the above, and/or concerning ecosystem	vegetation and decreases the biodiversity.
integrity	

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

# 5.1 - Land tenure and responsibilities (Managers)

# 5.1.1 - Land tenure/ownership

Public ownership			
Category	Within the Ramsar Site	In the surrounding area	
National/Federal government	V	Ø	

# 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:	Gluboksky and Dokshitsky Regional Executive Committees manage the territory of the Reserve "Servech". Gluboksky and Dokshitsky Regional Inspections of Natural Resources and Environmental Protection execute the state control of the nature protection and rational use of natural resources at the territory of the Reserve.
Provide the name and title of the person or people with responsibility for the wetland:	Kmito Michail Petrovich, the Head of the Gluboksky Regional Inspections of Natural Resources and Environmental Protection
Postal address:	Gluboksky Regional Inspections of Natural Resources and Environmental Protection: 211800, Glubokoe, Lenina str. 59, Belarus
E-mail address:	glubeco@vitebsk.by

# 5.2 - Ecological character threats and responses (Management)

# 5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Water regulation				
Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact	High impact	×	

Energy production and mining				
Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Mining and quarrying		Medium impact	1	

#### Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	High impact	High impact	×	
Dams and water management/use	High impact	High impact	×	V
Unspecified/others	High impact	High impact	×	

# Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Agricultural and forestry effluents	Medium impact	Medium impact	×	V

#### Please describe any other threats (optional):

Unstable use of fen mires, i.e. termination of mowing and grazing, leads to unwanted successions - overgrowing of open fens with reeds, shrubs and trees, as well as to accumulation of dry vegetation. These processes caused the shrinking of the area of Aquatic Warbler's and Great Snipe's habitats, and thus, the decrease in numbers of these globally threatened species.

Spring burning of vegetation at floodplain meadows and fen mires has negative impact on the state of Wetland's biodiversity. This effect is especially harmful for Reserve's flora and fauna in dry conditions and in absence of floods when ground waters level falls below the soil surface. In such cases the grass burning leads to large scaled fires, which proceed on forests and bogs. The upper soil layer get burned together with vegetation, plants roots and almost all insects die. The most bird species could not breed at such burned marshes.

The possibility of peat extraction within the Site is of certain concern. At present the mining in the Reserve is prohibited, but due to State's politics of lowering of energy dependence from other countries, the question of internal resources use is still actual.

The largest problem in the surrounding area is the disruptions of Wetland's hydrological regime as a result of exploitation of melioration systems adjacent to the territory's borders. Construction and functioning of melioration systems in the catchment area lead to considerable changes of natural hydrological regime (water table lowering, absence or raised flood), accelerated overgrowing of open sedge mires with reeds and shrubs, flooding of nests with summer floods, fires as a result of water table decline.

River Servech and lake Servech are the recipients of waters from hydro-melioration systems and separate drainage canals. So, there is inflow of suspended organics from the fields and insufficiently cleared wastewater from stock-raising farms into the river and the lake. As a result, siltation, euthrophication and overgrowing of these water bodies accelerate.

# 5.2.2 - Legal conservation status

#### National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Hydrological Reserve of Republican Importance	Servech	http://vitebskbiker.info/guide/p rotected_areas/servech	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Servač	http://iba.ptushki.org/en/iba/43	whole

# 5.2.3 - IUCN protected areas categories (2008)

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention

#### 5.2.4 - Key conservation measures

Legal protection			
Measures	Status		
Legal protection	Implemented		
Habitat			
Measures	Status		

mousures	otatus
Habitat manipulation/enhancement	Proposed
Hydrology management/restoration	Proposed
·	

#### Species

Proposed

#### Human Activities

Measures	Status
Research	Partially implemented

#### Other:

The regime of use of the Hydrological Reserve "Servech" is defined, prohibiting or limiting economic activities on its territory according to the Law. The Regime should be taken into account when developing and correcting of land planning schemes of Glubokoe and Dokshitsy districts, in projects of organization and development of Gluboksky and Begomlsky forestries, as well as in town constructions projects.

## 5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the site? Yes O No O

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?

#### Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

Activities aiming education in nature conservation and raising of public awareness in the Reserve are focused on local population of Glubokoe and Dokshitsy districts, employees and executives of agricultural and forestry enterprises acting on this territory. Informational and promotional materials are being produced and posted in regional and national press, on radio and television, in Internet on pages of Glubokoe and Dokshitsy districts, Vitebsk Regional internet page, and pages of local inspections of the Ministry of Nature Resources and Nature Conservation. Landowners and land-users whose lands are at the Reserve's territory, are provided with Information about the Reserve, its natural value and importance for biodiversity conservation. But, considering the importance of this territory for biodiversity conservation and its high recreation potential, the question of creation of modern information centre in Reserve is actual.

URL of site-related webpage (if relevant): http://vitebskbiker.info/guide/protected\_areas/servech

## 5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Please select a value

#### 5.2.7 - Monitoring implemented or proposed

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

Initial scientific investigations of Wetland's fauna and flora were conducted during preparation of scientific justification for designation of the protected area Servech. During the same period hydro-biological and hydro-ecological studies of Servech Lake were carried out, the main vegetation types of this territory were described. The considerable part of scientific investigations in the area of Aquatic Warbler's biology and ecology was conducted in period from 2004 till 2013 in the frameworks of study and monitoring of this species. Experts from non-governmental organization BirdLife Belarus worked on this territory in 2010-2012. They studied the Reserve's ornithofauna, revealed bird species from the Belarussian Red List, the Aquatic Warbler monitoring is still ongoing.

# 6 - Additional material

# 6.1 - Additional reports and documents

# 6.1.1 - Bibliographical references

1. The Red List Of the Republic of Belarus: rare and threatened plant species / L.I. Choruzik, L.M. Suschena, V.I. Parfenov and others. – 2nd edition – Minsk: BelEn, 2006. – 456 p. (In Russian).

2. Committee on land resources, geodesy and cartography at the Council of Ministers of the Republic of Belarus. National Atlas of Belarus. Minsk: RUP "Belkartographia", 2002. – 292 p. (In Belarussian).

3. National Statistical Committee of the Republic of Belarus. Statistical bulletin "Population numbers on 1 January 2013 and average yearly population number for 2012 in the Republic of Belarus by regions, districts, towns, settlements of town type". Minsk, 2013. 17 p. http://belstat.gov.by/homep/ru/publications/population/2013/bulletin2013.php

4. National legislative Internet – page of the Republic of Belarus 11.12.2012, 9/54001. Resolution of Glubokoe Regional Executive Committee, 6 of August 2012 № 921. «On the declaration of reserves and nature monuments of local importance». http://www.pravo.by/main.aspx? guid=3871&p0=R912v0054001&p1=1

5. V.N. Pluznikov, R.A. Stankevich, M.I. Malizonok, D.F. Zukov. Vileisko-Minskaya Water System/V.N. Pluznikov, R.A. Stankevich, M.I. Malizonok, D.F. Zukov.— Mn.: publ. house «Universitetskoe», 1987. — 63 p. http://minchanin.esmasoft.com/books/vmws/

6. Jurgenson, N., Shushkova, E., Shliahtich, E., Ustin, V. Protected Areas. Handbook. – Minsk: State Research and Production Association "Bioresources Research Center of the Belarusian National Academy of Sciences", 2012. – 204 p. (in Russian).

7. Yakushko, O., Marjina, L., Emelianov, Ju. Geo-morphology of Belarus: tutorial for students of geographical and geological departments. – Mn.: BSU, 1999. – 173 p. elib.bsu.by/bitstream/123456789/.../4/Геоморфология%20Беларуси.DOC

8. Institute of experimental botany and Institute of natural resources usage problems and ecology of National Academy of Sciences of Belarus. Scientific Justification for establishment of the Republican Hydrological Reserve "Servech".

9. Passport of Republican Hydrological Reserve "Servech".

10. Council of Ministers of the Republic of Belarus. Resolution N 981 from 29.07.1997. «On the establishment of the Republican Hydrological Reserve "Servech".

11. Dementiev V.A., 1959. System of physiographic regions of Belarus/«Physical and economic geography of Byelorussia» Minsk, 150 p. (In Russian)

12. http://iba.ptushki.org/en/iba/43

# 6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3) sno file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

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

iv. relevant Article 3.2 reports

- v. site management plan
- <no file available>

vi. other published literature <no file available>

<no data available>

# 6.1.3 - Photograph(s) of the Site

# Please provide at least one photograph of the site:



The absence of mowing leads to accumulation of the thick layer of the dry vegetation which prevents the growing of new grass. ( Sidorovich V., 2002)

# 6.1.4 - Designation letter and related data

Designation letter

Date of Designation 2014-05-29