



# Ramsar Information Sheet

Published on 11 February 2020

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## Poland

### Karaś Lake Nature Reserve



Designation date	3 January 1984
Site number	284
Coordinates	53°33'31"N 19°28'42"E
Area	815,00 ha

## 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

Karaś Lake Nature Reserve is located in north-east Poland in Warmińsko-Mazurskie Voievodeship. The Site embraces a vast complex of mires, swamps and a lake at a late phase of its evolution. The wetland is a shallow eutrophic lake of a surface of about 360 ha and the surrounding area of ca 440 ha consisting of transition mires colonized densely by reeds (*Ass. Phragmitetum australis*) with grey willow shrub communities (*Ass. Salicetum pentandro-cinereae*), and swampy forests. The lake is connected with Osa river via Gać river flowing through the lake. The water surface of the lake is fringed with a 100 m wide belt of reedbeds. The natural succession process resulted in dividing the lake into two separate water bodies. The southern basin contains numerous small islands covered with reeds, willows, birches and alders. The Site neighbours with pastures and tilled land separated by a strip of swampy alder forest to the north and west and by alder carrs to the south and east. Shallow water and rich riparian vegetation provide favourable conditions for animal communities especially for nesting and breeding waterfowl.

## 2 - Data & location

### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

##### Compiler 1

Name	Marek Jobda, Rafał Rzepkowski, Paweł Szałański
Institution/agency	Pracownia Przyrodnicza
Postal address	ul. Bohaterów Powstania Styczniowego 4, 05-480 Karczew, Poland
E-mail	pracownia@przyrodnicza.eu
Phone	+48 509-029-647

##### Compiler 2

Name	General Director for Environmental Protection
Institution/agency	The General Directorate for Environmental Protection (GDEP)
Postal address	ul. Wawelska 52/54, 00-922 Warszawa, Poland
E-mail	kancelaria@gdos.gov.pl
Phone	+48 223 692 900

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

From year	2007
To year	2015

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Karaś Lake Nature Reserve
Unofficial name (optional)	Rezerwat przyrody Jezioro Karaś

#### 2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary Yes  No

(Update) B. Changes to Site area No change to area

#### 2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS? Not evaluated

## 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 boundary follows the one of the existing Karaś Lake Reserve, running along the ditch separating the State owned and private grounds to the east, south and west of the reserve. The forest to the north is not separated by ditch.

### 2.2.2 - General location

a) In which large administrative region does the site lie? Warmińsko-Mazurskie

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

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes  No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes  No

2.2.4 - Area of the Site

Official area, in hectares (ha):

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

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Continental
Udvardy's Biogeographical Provinces	11. Middle European Forest
Bailey's Ecoregions	220 Hot Continental Division
WWF Terrestrial Ecoregions	Temperate broadleaf and mixed forest

### 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 Karaś lake is a shallow reservoir fed by groundwater and the Gać river. The Site has an important water purification function.

Other ecosystem services provided

The major type of economic activity in the area is fishing. The site constitutes a tourist attraction – mainly for walking excursions and birdwatching. At the Reserve, floristic and zoological studies are conducted by the Warmińsko-Mazurski University in Olsztyn and University of Gdańsk.

Other reasons

The origins of the area date back to the activity of glacier during the Pomeranian phase of the Northern Polish Glaciation. The lake is of moraine origin and its catchment belongs to the Osa river basin. The site embraces a vast complex of mires, swamps and a lake at a late phase of its evolution. The wetland is a shallow eutrophic lake of a surface of about 360 ha and the surrounding area of ca 440 ha consisting of transition mires colonized densely by reeds (Ass. Phragmitetum australis), grey willow shrub (Ass. Salicetum pentandro-cinereae) and swampy forest.  
The Site is an unique peat-bog complex in the region, where the landing process runs relatively quickly on a relatively large area, and as result peatbog vegetation includes a wide range of phytocoenoses diverse.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The wetland contributes to the maintenance of regional biodiversity since it supports important populations of waterfowl species such as spotted crane *Porzana porzana* and little crane *P. parva* which regularly breed within the site (Polish Red Data Book of Animals PRDBA and in Annex I to Birds Directive BD). The wetland is one of the three sites in Poland where *Chara polyacantha* was found to occur and create submerged meadows.  
More than 175 bird species were found in the reserve including 80 species of breeding birds. Most of them are subject to protection under the Polish law and are also listed as endangered in Annex I to Birds Directive.

- 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
<i>Botrychium multifidum</i>	Northern Grapefern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	Polish Red Data Book of Plants (CR)	

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

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
<b>Birds</b>																		
CHORDATA/AVES	<i>Anas penelope</i>	Eurasian Wigeon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1991-2000			<input type="checkbox"/>	<input type="checkbox"/>	Polish Red Data Book of Animals (CR)	pop. size: 200-2000
CHORDATA/AVES	<i>Anas platyrhynchos</i>	Mallard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>		important moulting site in the summer
CHORDATA/AVES	<i>Anser anser</i>	Greylag Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1991-2000		LC	<input type="checkbox"/>	<input type="checkbox"/>		pop. size: 300-660 ind., important moulting site in the summer
CHORDATA/AVES	<i>Luscinia svecica</i>	Bluethroat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1995-2006			<input type="checkbox"/>	<input type="checkbox"/>	Annex I Birds Directive (Directive 2009/147/EC), Polish Red Data Book of Animals (VU)	pop. size: 60-90 pairs
CHORDATA/AVES	<i>Porzana parva</i>	Little Crake	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2005-2006			<input type="checkbox"/>	<input type="checkbox"/>	Annex I Birds Directive (Directive 2009/147/EC), Polish Red Data Book of Animals (NT)	pop. size: 10-15 pairs
CHORDATA/AVES	<i>Porzana porzana</i>	Spotted Crake	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1991-2000		LC	<input type="checkbox"/>	<input type="checkbox"/>	Annex I Birds Directive (Directive 2009/147/EC)	pop. size: 0-6 males
<b>Others</b>																		
CHORDATA/MAMMALIA	<i>Lutra lutra</i>	European Otter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			NT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Annex II Habitats Directive	
ARTHROPODA / INSECTA	<i>Lycaena dispar</i>	Large Copper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	Annex II Habitats Directive	
CHORDATA/AMPHIBIA	<i>Triturus cristatus</i>	Great Crested Newt	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			LC	<input type="checkbox"/>	<input type="checkbox"/>	Annex II, IV Habitats Directive	

1) Percentage of the total biogeographic population at the site

### 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
3140 Hard oligo-mesotrophic waters with benthic vegetation of Chara	<input checked="" type="checkbox"/>		Annex I of the Habitat Directive (Council Directive 92/43/EEC)
7140 Transition mires and quaking bogs	<input checked="" type="checkbox"/>		Annex I of the Habitat Directive (Council Directive 92/43/EEC)
91D0 Bog woodland (Vaccinio uliginosi, Betuletum pubescentis, Vaccinio uliginosi, Pinetum, Pino mugo, Sphagnetum, Sphagn	<input checked="" type="checkbox"/>		Annex I of the Habitat Directive (Council Directive 92/43/EEC)

Optional text box to provide further information

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

### 4.1 - Ecological character

The site embraces a vast complex of mires, swamps and a lake at a late phase of its evolution. The wetland is shallow eutrophic lake of a surface of about 360 ha and the surrounding area of ca 440 ha of transition mires colonized densely by reeds (*Ass. Phragmitetum australis*), grey willow shrub (*Ass. Salicetum pentandro-cinereae*) and bog woodland. The lake is connected with Osa river via Gać river flowing through the lake. The water surface of the lake is fringed with a 100 m wide belt of reedbeds. Overgrowth of the central part of the lake caused a shallowing of the bed and formation of two separate bodies of water. A number of islands in the southern basin are covered with vegetation composed of reeds, sedges, ferns, willows, birches and alders. The northern basin contains three islands. The Site neighbours with pastures and tilled land separated by bog woodlands to the north and west and alder forests to the south and east. Shallow water and rich riparian vegetation provide favourable conditions for animal communities especially for nesting and breeding waterfowl.

The reserve lies in southern part of Iławskie Lakeland, at the transition zone between the Masurian Lakeland and Western Pomerania region. The origins of the area date back to the activity of glacier during the Pomeranian phase of the Northern Polish Glaciation. The lake is in the phase of advanced ecological succession. At present its two parts: southern and northern are separated by a natural shallowing built of accumulated organic material, covered with reed and willow shrub vegetation. The lake is eutrophic, shallow, with average depth of ca. 0,5 m and max. depth of ca. 2 m. Mineral soils have been developed from sands and sandy clays as podsols, gley podsols and rusty and brown soils. In local depressions there dominate peat soils showing various degree of decomposition. Mud and fen peat soils are encountered on Gać river terraces. Agricultural activity in the catchment is of low intensity thus there is little risk of water contamination due to plant production means, but intensification of agricultural production may become a source of new threats in the future. The regional climate is characteristic of the north-eastern part of the country (Lakeland climate type) with boreal traits, short vegetation season, early and late frosts, and annual precipitation sum about 700 mm.

Main habitats of the wetland represent a gradient from open water with immersed and emerged vegetation to reedbeds on lake shores, to willow shrub and to swampy forests. A transition mire neighbours the lake on the west. The lake bottom is covered with beds of immersed vegetation creating meadows composed of diverse species of stoneworts *Nitella* spp, *Chara* spp. and pondweeds *Potamogeton* spp. Among the plants with floating leaves the most valuable is "red listed": *Potamogeton filiformis*. The reedbeds are composed of *Phragmites australis*, *Schoenoplectus lacustris*, *Typha latifolia*. Transition mires support sedge moss grasslands or shrublands with groups of intermingling Grey Willow communities (*Ass. Salicetum pentandro-cinereae*) and bog woodlands.

More than 175 bird species were found in the reserve including 80 species of breeding birds. Most of them are subject to protection under the Polish law and are also listed as endangered in Annex I to Birds Directive. Within the Reserve, the Bluethroat *Luscinia svecica cyanecula* was found.

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

#### Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		0		
Fresh water > Lakes and pools >> C: Permanent freshwater lakes		1	360	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		2		Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		3		Representative
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		3		Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		3		Representative

### 4.3 - Biological components

#### 4.3.1 - Plant species

##### Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Dactylorhiza incarnata</i>	Early Marsh Orchid	Species partially protected in Poland
<i>Dactylorhiza majalis</i>	broad-leaved marsh-orchid	Species partially protected in Poland
<i>Drosera anglica</i>	Great Sundew	Species protected in Poland
<i>Drosera rotundifolia</i>	Common Sundew	Species protected in Poland
<i>Epipactis helleborine</i>	Broad-leaved Helleborine	Species partially protected in Poland
<i>Epipactis palustris</i>	Marsh Helleborine	Species protected in Poland
<i>Menyanthes trifoliata</i>	Bogbean	Species partially protected in Poland
<i>Neottia ovata</i>	common twayblade	Species partially protected in Poland
<i>Nymphaea alba</i>	European White Waterlily	Species partially protected in Poland
<i>Nymphaea candida</i>		Species partially protected in Poland
<i>Platanthera bifolia</i>	Lesser Butterfly-orchid	Species partially protected in Poland
<i>Rhododendron tomentosum</i>	Marsh Labrador tea	Species partially protected in Poland

Optional text box to provide further information

Other noteworthy plant species:  
Chara polyacantha - Species protected in Poland

#### 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
CHORDATA/AVES	<i>Anas strepera</i>	Gadwall		1991-2000		pop. size: 95-400 ind.
CHORDATA/AVES	<i>Aythya fuligula</i>	Tufted Duck		1991-2000		pop. size: 30-230 ind
CHORDATA/AVES	<i>Cygnus olor</i>	Mute Swan		1991-2000		pop. size: 365-600
CHORDATA/AVES	<i>Fulica atra</i>	Eurasian Coot		1991-2000		pop. size: 300-1799 ind.

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	Changes at RIS update
CHORDATA/MAMMALIA	<i>Neovison vison</i>	American Mink	Actually (major impacts)	No change

### 4.4 - Physical components

#### 4.4.1 - Climate

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

The climate is cool, typical of Lakeland Region with boreal influences. The annual sum of precipitation exceeds 700 mm, and is higher than in central Poland (600 mm). The vegetation season is short, of a duration of less than 200 days.

#### 4.4.2 - Geomorphic setting

a) Minimum 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
- 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.

Osa river  
The catchment area has typical young glacial landscape of lakeland. Its main formations are moraine hills, depressions and no-outflow hollows. In the close vicinity of Karaś lake there are 108 water eyelets that originate from the post glacial period.

#### 4.4.3 - Soil



Mineral

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

No available information

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

Please provide further information on the soil (optional)

Mineral soils are prevalent in the area – marl, loam, silt and loamy sand, as well as lacustrine silt, loam and sand of the Pomeranian phase of Vistulan glaciation. Boulder clay occurs in the southern part. Only the western edge of the reserve is situated on organic soil (peat).

#### 4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	unknown

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	<input type="checkbox"/>	unknown
Water inputs from rainfall	<input type="checkbox"/>	unknown

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change
To downstream catchment	No change

Stability of water regime

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

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The Karaś lake is a shallow reservoir fed by surface water (channels and the Gać river).  
The lake functions as a sediment trap and water reservoir.

#### 4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site

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

Sediment regime unknown

Please provide further information on sediment (optional):

Bottom sediments accumulated as a thick gytja layer.

#### 4.4.6 - Water pH

Unknown

#### 4.4.7 - Water salinity

Unknown

#### 4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

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

Mesotrophic

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

Unknown

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

Water is mesotrophic to eutrophic.

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

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

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

### 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)	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	High
Pollution control and detoxification	Water purification/waste treatment or dilution	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Low
Recreation and tourism	Nature observation and nature-based tourism	Low
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	Medium

Supporting Services

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

Within the site:

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

4.5.2 - Social and cultural values

- i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland
- 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

##### Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local authority, municipality, (sub)district, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

##### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Entire reserve area belongs to the National Treasury, managed by Forest District of Iława. Fisheries are managed by the Regional Water Management Authority of Warsaw.

#### 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

Regional Directorate for Environmental Protection in Olsztyn

Provide the name and title of the person or people with responsibility for the wetland:

Agata Moździerz, Regional Director for Environmental Protection

Postal address: ul. Dworcowa 60, 10-437 Olsztyn, Poland

E-mail address: sekretariat.olsztyn@rdos.gov.pl

## 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	Changes	In the surrounding area	Changes
Drainage		unknown impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown
Dredging			<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	increase
Canalisation and river regulation			<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	increase

#### Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Livestock farming and ranching	unknown impact		<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	unknown
Annual and perennial non-timber crops			<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	unknown

#### 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	unknown impact		<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change
Fishing and harvesting aquatic resources	unknown impact		<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change
Gathering terrestrial plants	unknown impact		<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change

#### 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		unknown impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	increase
Vegetation clearance/ land conversion	unknown impact		<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Invasive non-native/ alien species	unknown impact		<input checked="" type="checkbox"/>	increase	<input type="checkbox"/>	No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	unknown impact		<input checked="" type="checkbox"/>	No change	<input checked="" type="checkbox"/>	No change
Garbage and solid waste		unknown impact	<input type="checkbox"/>	No change	<input checked="" type="checkbox"/>	unknown

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Droughts		unknown impact	<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change

Please describe any other threats (optional):

Changes in plant communities, actual threat, increasing within the site.

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	Karaś Lake PLH 280003		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Nature Reserve	Karaś Lake		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	PL149 Jezioro Karaś		whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Human Activities

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

### 5.2.5 - Management planning

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

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

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

### 5.2.6 - Planning for restoration

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

Further information

The need to develop a plan was not identified. The protection plan, which is in force for the reserve, basically assumes strict protection without interfering with existing habitats and water relations.

### 5.2.7 - Monitoring implemented or proposed

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

1. Research carried out for the purposes of developing a protection plan:
  - Avifauna, herpetofauna, teriofauna and lepidopterofauna of the "Karaś Lake" reserve (2000)
  - Flora and land vegetation of the part of the "Karas Lake" reserve (2000)
  - The vegetation of the lake and the coast of the "Karaś Lake" nature reserve (2000)
  - Hydrological relations of the "Karaś Lake" reserve (2000)
  - Operation of forest and peat ecosystems of the "Karaś Lake" reserve (2000)
2. Groups of birds of terrestrial habitats in the "Karaś Lake" nature reserve (1999)
3. Detailed ornithological research on selected species:
  - Biology of reproduction traveler *Luscinia svecica cyaneacula* in the "Karaś Lake" nature reserve (2001)
  - Breeding biology of *Phylloscopus trochilus* in the "Karaś Lake" nature reserve (2004)
  - The population of the traveler *Luscinia svecica* in the reserve Lake Karaś (2017)
4. Monitoring studies of the State Environmental Monitoring in the field of habitats 3140 and 3150 (2014-2017)

## 6 - Additional material

### 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Ankieta dotycząca aktualizacji Karty Informacyjnej (RIS) dla obszaru objętego Konwencją Ramsarską. 2013. Justyna Rogowska Regional Directorate of Environment Protection in Olsztyn.

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<http://www.cites.org>

<http://www.iop.krakow.pl/ias> (data base - invasive species in Poland)

<http://www.natura2000.gdos.gov.pl> (official Polish side about Natura 2000)

<http://www.ramsar.org/>

Mackowicz R. 2000. Plan ochrony rezerwatu „Jezioro Karaś”. Olsztyn. Msc.

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Pawlaczyk P., Jermaczek A. 2004. Natura 2000 - Narzędzie Ochrony Przyrody. Planowanie ochrony obszarów Natura 2000. WWF, Warszawa

Directive 306 of Voivode of Warmińsko-Mazurskie Voivodship from October 10, 2001, concerning the establishment of conservation plan for nature reserves (Journal of Warmińsko-Mazurskie Voivodship Office no. 104, item 1482, as amended)

Polska Czerwona Księga Roślin. 2001. Instytut Ochrony Przyrody im W. Szafera. Kraków 2001.

Dziedzic J. Ramienice w rezerwacie „Jezioro Karaś” na Pojezierzu Łławskim. Botanika w dobie biologii molekularnej.

Rąkowski G., Wójcik J., Walczak M., Smogorzewska M., Brodowska M. 2005. Rezerwaty przyrody w Polsce północnej. Monografia pod redakcją G. Rąkowskiego. Instytut Ochrony Środowiska, Warszawa.

Standard Data Form for Natura 2000 area Jezioro Karaś PLH280003

Dziedzic J. 2000. Szata roślinna rezerwatu „Jezioro Karaś”. Roślinność wodna rezerwatu – jeziora i pobrażę. Analysis for the Faculty of Environmental Management and Agriculture of Univeristy of Warmia and Mazury in Olsztyn. In the records of Regional Directorate of Environment Protection in Olsztyn.

Wilk T., Jujka M., Krogulec J., Chylarecki P. 2010 Ostoje ptaków o znaczeniu międzynarodowym OTOP Marki

#### 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)

<no file available>

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

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<1 file(s) uploaded>

vi. other published literature

<no file available>

### 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Karaś Lake ( *M Rodziewicz*  
15-11-2016 )

### 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation