Information Sheet on Ramsar Wetlands (RIS)

- 2006-2008 version

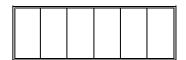
Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

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).

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

Małgorzata Walczak & Jadwiga Sienkiewicz, Institute of Environmental Protection, Krucza 5/11D 00-548 Warsaw OR OFFICE USE ONLY.





Designation date

Site Reference Number

2. Date this sheet was completed/updated: 21.03.2007

3. Country: Poland

Poland

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.

Słowiński National Park (Słowiński Park Narodowy)

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 \Box ; or

b) Updated information on an existing Ramsar site \boxtimes

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 \Box ; or

ii) the boundary has been extended \boxtimes ; or

iii) the boundary has been restricted** \Box

and/or

If the site area has changed:

- i) the area has been measured more accurately \Box ; or
- ii) the area has been extended \boxtimes ; or

iii) the area has been reduced** \Box

** **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:

No major changes in the general ecological character of the site were found over the period since the previous RIS was prepared, however, current estimates suggest that the integrity of local peatland ecosystems will be threatened if water management at local scale is not improved. With the addition, in 2004, of a 2 mile wide stretch of Baltic coastal waters along around 33 km long beach line, the Park has acquired a new dimension as its water resources more than doubled, and its biodiversity was enriched by that of the marine ecosystems.

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 **Q**.

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 site has the same boundary as the existing Słowiński National Park (SNP). It follows the shoreline together with a 2 mile stretch of water, between mouths of Łupawa river in the west and Łeba in the east. The rivers constitute, respectively, western and eastern border of the Park, while southern border runs along the peripheries of Gardno and Łebsko lakes and embraces forest tracts on southern shores of Łebsko lake, but excludes the area of the village of Smołdzino.

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.

54° 38' - 54° 47' N, 17° 04' - 17° 32' E approx. centre 54° 43' N -17° 18' 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. Northern Poland, Pomorskie Voivodeship, nearest town - Słupsk.

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

0 - 56.5 m above sea level

11. Area: (in hectares) 32 744 with the onshore area of 21 573 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 SNP has oblong shape and embraces about 33 km long stretch of the Baltic coast with 2 mile wide belt of shallow coastal waters. A unique combination of landscape features of the site embraces diverse sand formations – wind blown, stable and shifting encountered on the spit separating lakes from the sea, brackish coastal lakes as well as mires, meadows and woodland. All these elements create a rare environment supporting rich biodiversity. Of special importance are raised bogs of Baltic type which, despite former exploitation, have preserved typical traits of rare and endangered wetland habitats. They stretch along with

heathlands and meadows in the vicinity of lakes: Łebsko and Gardno. To those lakes discharge, respectively Łeba and Łupawa rivers on their way to the Baltic.

Characteristic elements of local vegetation are coastal pine forests with *Empetrum nigrum* and swamp conifer forests with *Erica tetralix* and *Myrica gale*. Another important asset of the site is rich avifauna of the lakes. Shallow lake water is densely overgrown with reedbeds and dotted with numerous islands, providing safe nesting and resting places for birds. Of great value for science, and at the same time, an attraction for tourists are highest in Europe moving sand dunes at the shoreline where wind activity reveals fossil soils and traces of ancient forests. The wetland lies on the migration route of many birds – geese, swans, ducks, waders and plovers along the southern coast of the Baltic Sea.

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.

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

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

1. The site should be considered internationally important since it supports diverse natural habitats such as: annual vegetation of drift lines, initial stages of maritime white dunes, maritime white and grey dunes, coastal pine forest with *Empetrum nigrum* as well as Baltic type raised mires and sedge-moss communities which are rare and endangered in the continental region. All the above constitute habitats of European interest (Habitat Directive 92/43/EEC Annex I) and are rare examples of natural and near natural habitat types found in continental region.

3. The site supports populations of plant species important for maintaining the regional biodiversity including *Luronium natans, Linaria odora, Liparis loeselii* – species of European importance (Habitat Directive Annex II). It also supports important populations of glacial (boreal) relics such as *Rubus chamaemorus, Viola epipsila* and *Linnea borealis* on raised bogs and transitory mires, plants nationally scarce and endangered elsewhere due to general decline of natural hydrogenic biotopes in the continental region. In SNP, species of the Polish Red Data Book of Plants (2001) – *Littorella uniflora, Carex limosa, Rhynchospora fusca* and *Isoetes lacustris* have also their noteworthy populations. The wetland also harbours rare species of algae such as - *Hildenbrandtia rivularis* in Łupawa river, and a sponge *Spongilla lacustris* in Smołdzino lake - unique and vulnerable to extinction at continental scale.

The site harbours at least 25 species of European importance, listed in Birds Directive Annex I, among others: Tengmalm's owl *Aegolius funereus*, short-eared owl *Asio flammeus*, bittern *Botaurus stellaris* and ruff *Philomachus pugnax*, in addition to 15 species of endangered birds listed by the Polish Red Data Book of Animals.

4. In SNP, natural processes are protected of plant succession on white dunes and grey dunes which provide unique habitats for highly specialized plant and animal species. The Park plays important role in the preservation of these habitats of EU interest which, among others, embrace (in brackets – code of Natura 2000): (2120) Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes") and (2130 *) Fixed coastal dunes with herbaceous vegetation ("grey dunes"). The latter habitat constitutes a priority site as highly endangered at continental scale (Habitat Directive 92/43/EEC).

73 species are wintering regularly in the Park. The wetland has been one of the most important national breeding sites for dunlin Calidris alpina and provides refuge for many migrating birds. In spring and autumn the lakes of SNP are very important foraging and resting sites for waterfowl species forming flocks of several thousand individuals with most numerous geese white-fronted goose Anser albifrons and bean goose Anser fabalis. The site is also important refuge for migrating cranes - Grus grus. In winter, the unfrozen mouths of Leba and Lupawa rivers provide favourable conditions for survival of flocks of whooper swan *Cygnus cygnus*, mute swan *C. olor*, mallard *Anas platyrhynchos*, goldeneye *Bucephala clangula*, tufted duck *Aythya fuligula* and common heron *Ardea cinerea*.

5. The wetland regularly supports more than 20 000 waterbirds. Maximal numbers of individuals that regularly gather there are as follows (data for 1995-2003) – mallard *Anas platyrhynchos* – 6 500; wigeon A. *penelope* – 3 000; bean goose *Anser fabalis* – 4 500; white-fronted goose *Anser albifrons* – 6 200; crane *Grus grus* – 5000; pochard *Aythya ferina* – 1 500 and smew *Mergus albellus* – 1 700 (IBAs of EU importance in Poland 2004).

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:

continental - according to EEA,

geobotanical region of deciduous forests - according to Kondracki,

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

Geobotanical region of deciduous forests of Central Europe at the edge of the East-European region of mixed forests (boreal) – according to the Polish regionalisation by Jerzy Kondracki, 2001: Regional geography of Poland. The region embraces eastern part of Denmark, southernmost Sweden, central and north-eastern Germany and most of the territory of Poland except for its two mountain ranges (Alpine region) and the north-eastern edge of the country, belonging to sub-boreal or East-European mixed forest biogeographic region.

According to EEA – the region is identified as "continental" (EEA publication 2002: Europe's biodiversity – biogeographical regions and seas).

Eastern Europe - Waterbird Population Estimates, Wetland International, 2002.

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.

The present landform of the site has been shaped during the last glaciation (Baltic Glacial Period) and later in Holocoene under the impact of coastal processes of the Baltic Sea. Wave and wind activities led to the formation of Gardeńsko-Łebska Spit which closed original marine bays with a sand bar to form large coastal estuaries the remnants of which are now Łebsko and Gardno lakes. Intensification of dune formation process on the sand spit contributed to development of the highest in Europe (up to 65 m) mobile dune system.

Tidal variation at the Baltic coast is almost invisible. The degree of water salinity is low: 3 - 4 promille. Since both lakes at the site are connected to sea through rivers, fluctuations in lake water level occur frequently during storms when sea water pushes upstream.

In the Preboreal period (ca 10 thous years ago), peat forming processes were initiated at the watershed area between lakes, and former lakes were later filled in with organic sediments. As a result vast peatlands of the depth to around 6 m were formed in areas adjacent to existing lakes, what, in turn, led to lake overgrowing and shallowing. The processes are still in place. Peatlands were partially drained in 19th and 20th centuries. Lakes are shallow and eutrophic, their depth not exceeding 6 m (Łebsko lake). The hydrographical network of the onshore portion of the Park is varied and consists of coastal lakes Gardno, Łebsko, Smołdzino, Dołgie Małe and Dołgie Wielkie, rivers Łeba and Łupawa, artificial canals, ditches and swamps. The largest lake Łebsko has a surface of 7 140 ha and is fed by rivers Łeba, Pustynka and Stara Łeba as well as by canals: Żarnowski, Gardno-Łebsko and Kanał Łupawa-Łebsko, in addition to numerous ditches. Joint surface of canals in the Park is 48 ha, their network has joint length of 58 km and average width from 6 to 10 m. The lake Gardno (surface 2 468 ha, max. depth. 2.6 m) is fed by Łupawa river as well as by streams and numerous drainage ditches (Bagiennica, Grabownica, Brodniczka and Brodna).

The more or less degraded peatlands take about 17% of Park area. Their surface in the park constitutes only a small portion of large peatlands which are still exploited outside the SNP (Krakulice peat mine). In the Park, after the abandonment of regular agricultural activities about 15 - 20 years ago, most of ditches become clogged with vegetation debris what reversed the aridization trend and resulted in the rise of groundwater level.

The present soils are either gley podsols developed from sands of marine and alluvial origin or peat soils displaying various degree of degradation. Transition-mire soils dominate in the Park. The climate is of

maritime character with mild winters, moderately warm summers, high degree of air moisture and little annual precipitation (annual average 655 mm).

17. Physical features of the catchment area:

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

The wetland catchment area is part of the Koszalin Coastal Zone. Two larger rivers and lakes, peatlands, channels and ditches create here one hydrological system.

The dominant landscape types include coastal water, coastal dunes, river delta, lake-swamps, inland dunes and uplands (coastal cliffs). In the central part of the site, the landscape has a character of moraine lowland of the height above the sea level not exceeding 100 m. The moraine level is indented with river valleys and dotted with several hills. Soils are mostly podsols and rusty podsols, peats and muds. General climate conditions are as the above described – mild, maritime with mild winters and long and cool summers; strong winds in late autumn and winter, ground frosts – rare in spring; the average annual temperature – 6.5 - +7.5°C; average annual precipitation: 550 - 700 mm.

18. Hydrological values:

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

The SNP abounds in water with lakes, rivers and canals of a joint surface of about 10000 ha and the coastal water belt of Baltic sea covering more than 11000 ha and maximal depth of 20 m. Water surface takes now about 64% of the Park area.

Due to a very low elevation of water table in the lakes (Łebsko – only 9 cm a.s.l.) the phenomenon of back flow occurs or pouring of seawater via rivers to the lakes during stormy weather. This results in salinisation of lakes and fluctuations in their water table (up to 18 cm in the Gardno lake). Smaller lakes are silted and do not have connection to the sea.

The waters provide opportunity for fishing and are used by local inhabitants and visitors to the Park. The Lebsko lake is also used for tourist navigation and watersports.

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*.

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Inland:						-		p∙ Ss•	Tp• Ts	s• <u>U</u> • Va•
	Vt •	W •	Xf•	Xp•	Y •	Zg∙	Zk(b)			
<u>Human-m</u>	<u>ade</u> : 1	• 2	• 3	• 4	• 5	• 6	• 7 •	8 • <u>9</u>	• Zk (c))

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

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.

A - above 21 000 ha; E, J - around 10 000 ha; M, O, U - about 200 ha; 9 (canals and ditches 48 ha).

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.

The site has a rich variety of strikingly diverse habitats arranged in zones from littoral, to sand beach, moving dunes, lakes, mires, meadows and forests providing for the diversity of ecotones and dynamic spatial relationships. This results in the zonal vegetation pattern reflecting local relief features. Most of the habitats are well developed and preserved on large surfaces, and are of the European Community importance Annex I to Habitat Directive. Important types of habitats within the Park include (code corresponds to the NATURA

2000 code): (11) open sea and tidal areas with some restricted stands of *Zostera marina*; (1210) annual vegetation of drift lines; (2110) embryonic shifting dunes; (2120 and 2130) white and grey dunes already mentioned under Par.14; (2190) wet depressions in dunes with *Empetrum nigrum*; (2310) dry sand heaths with *Calluna*; (2320) dry sand heaths with *Calluna* and *Empetrum nigrum*; (2330) inland dunes with open *Corynephorus* and *Agrostis grasslands*; (3140) hard mesotrophic waters with benthic vegetation of *Chara* spp.; (7120) degraded raised bogs still capable of natural regeneration; (7140) transition mires; (7150) depressions on peat substrates, sedge-moss and moss communities of *Rhynchosporion* Alliance; (3130) oligotrophic to mesotrophic standing waters with vegetation of the Class *Littorelletea uniflorae*; (2180) coastal pine forest with *Empetrum nigrum* (*Empetro nigri-Pinetum typicum* and *E. nigri-Pinetum cladonietosum*).

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.*

In addition to species of EU interest mentioned under par 14, the site supports numerous other plant species important for maintenance of biodiversity in the continental region. Of special interest is the group of species dwelling in oligotrophic lakes. The Dołgie Wielkie Lake harbours rare examples of plants typical of oligotrophic aquatic habitats, such as: *Lobelia dortmanna, Litorella uniflora* and Isoetes lacustris colonizing the littoral of the lake. All of them are critically endangered and red listed in Poland. The lake is also known to support phytocoenoses of *Myriophyllum alternifolium* with such rare and protected species of algae as *Chara delicatula* and *Nitella flexilis*. Another red listed in Poland aquatic species - *Nymphaea candida* grows both in Dołgie Wielkie and Dołgie Małe lakes.

Another group of species for which the site is important as regards their survival, are plants growing on oligotrophic substrate of *Sphagnum* peats including: *Drosera anglica*, *D. intermedia*, *D. rotundifolia*, *Erica tetralix*, *Eriophorum gracile*, *Ledum palustre* and *Rubus chamaemorus*.

The flora of the SNP contains 35 species embraced with strict protection in Poland which have narrow ecological amplitude. To such group of species which still preserved significant population resources in the Park belong: orchids - *Corallorhiza trifida, Dactylorhiza incarnata, D. maculata, D. majalis, Linnea borealis, Epipactis atrorubens, E. palustris, Listera cordata* and *L. ovata* as well as *Dianthus areanarius, Lepidotis inundata* (Lycopodiella inundata) and Osmunda regalis.

22. Noteworthy fauna:

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., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS*.

The wetland is an European Important Bird Area (25 species qualifying). In addition to species mentioned in Par 14, numerous other awifauna listed in Annex I to Birds Directive 79/409/EEC have important populations within the site, including: bittern *Botaurus stellaris*, black stork *Ciconia nigra*, white stork *C. ciconia*, red kite *Milvus milvus*, white-tailed eagle *Haliaeetus albicilla*, marsh harrier *Circus aeruginosus*, Montague's harrier *C.pygargus*, lesser spotted eagle *Aquila pomarina*, golden eagle *A.chrysaetos*, common tern *Sterna hirundo*, little tern *S. albifrons*, black tern *Chlidonias niger*, eagle owl *Bubo bubo*, nightjar *Caprimulgus europaeus*, kingfisher *Alcedo atthis*, black woodpecker *Dryocopus martius*, middle spotted woodpecker *Dendrocopos medius*, wood lark *Lullula arborea*, tawny pipit *Anthus campestris*, barred warbler *Sylvia nisoria*, red-breasted flycatcher *Ficedula parva* and red-backed shrike *Lanius collurio*.

The wetland is also internationally important as a site providing habitats for 8 fish and lamprey species from Annex II of Habitat Directive, including *Petromyzon marinus, Lampetra planeri, Lampetra fluviatilis, Alosa fallax, Salmo salar, Rhodeus sericeus amarus, Misgurnus fossilis* and *Cobitis taenia*.

The fauna of invertebrates is less recognized in SNP, however, so far one species of this group - a snail *Anisus vorticulus*, listed by Annex II of Habitat Directive 92/43/EEC, was found in the site.

From among other invertebrates, rare species of leeches *Hirudinae* were found in the lakes of SNP, including: *Haementria costata, Haemopsis sanguisuga, Piscicola geometra* as well as rare taxa of arachnids *Arachnidae: Arctosa* sp. and *Dolomedes fimbriatus*.

23. Social and cultural values:

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

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

If Yes, tick the box **D** 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 State Treasury owns 21 245 ha onshore, including 20 674 ha managed by the Słowiński National Park and 571 ha managed by other agencies.

Private ownership - 105 ha.

b) in the surrounding area:

Land ownership – State Treasury and private land owners.

25. Current land (including water) use:

a) within the Ramsar site:

The Park area is intensively used for tourism and extensively for agriculture. Main activities involve cattle grazing and hay making.

b) in the surroundings/catchment:

The surrounding area is managed mainly for non intensive agriculture & tourism, and forest areas are managed by the State Forest Service (both state owned and private).

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:

In the past and at present the factors adversely affecting the ecological character of the Park include:

- River pollution by communal sewage resulting in eutrophication of lakes,
- Peat mining and draining in the vicinity of the site,
- Withdrawal of meadow management cattle grazing and hay making, what results in meadow overgrowing by tall herbs and shrubs and leads to the deterioration of site quality for breeding *Charadridae* population,
- Too intensive recreational pressure, dune trampling, habitat destruction, noise, littering, fires, disturbance to birds, brood damage, construction of biking routes and tourist trails.

b) in the surrounding area:

As above and still more intensive recreational pressure on the sea coast and lake shores, the presence of large tourist resorts.

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 site has been subject to protection as:

- Słowiński National Park since 1967 (extended in 2004 to an area of 32 744 ha, and buffer zone was added),
- Biosphere Reserve "Słowiński National Park" since 1977,
- "Słowiński National Park" Ramsar Site since 1995,
- Natura 2000 Site "Ostoja Słowińska" PLB220003 since 2005; (19 326.7 ha).

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

Ia \Box ; Ib \Box ; II \boxtimes ; III \Box ; IV \Box ; V \Box ; VI \Box

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

No, though the plan was prepared but has not been implemented.

d) Describe any other current management practices:

Currently the Park is managed according to the so called "Annual Tasks of the National Park" regulated yearly by the Minister of Environment.

A portion of the Park – the Gardna Polder is currently revitalised by pumping water from the lake to improve conditions for waterbirds.

28. Conservation measures proposed but not yet implemented:

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

In 2005 the Park committed the "Evaluation and conservation programme of selected mires in the Słowiński National Park", made by Robert Stańko and Barbara Utracka–Minko, in order to assess the needs and extent of work to halt processes of mire degradation. The "Evaluation…" identified activities necessary to maintain and regenerate local mire ecosystems and recommended immediate slow down of water outflow from the Park and rising of the water table with the use of the existing drainage system and local infrastructure. To support restoration of favourable hydrological regime it was also suggested to halt the forest expansion on mires by removing woodland which appeared in the course of succession. Another recommendation was to restore the traditional meadow management methods in order to prevent tree and shrub encroachment.

29. Current scientific research and facilities:

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

Research on the various aspects of nature at the site is carried out by scientific workers representing universities and agencies in Poland and abroad as well as by the Park staff. The main institutions which conduct study in the SNP involve Gdańsk University, University of Warsaw, Forest Research Institute and University of Poznań, studying terrestrial and aquatic biodiversity of flora and fauna, dune processes and dynamics of plant communities. The regular monitoring of air and water is being conducted and the monitoring of elements of forest ecosystems (the monitoring of nature).

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.

Słowiński National Park provides ecological training for school youth with the use of five educational trails, educating in plant sociology, ecology and culture and ornithology. The interpretation service is provided by the Park staff with the aim to raise awareness on natural phenomena presented against the background of historical and present economical activity of local society.

The offer for students embraces:

- One day field study on a selected educational trail;
- Several-day long training workshop;
- Interpretation on nature on selected excursion paths;
- Interpretation with a slide show;
- Presentation of a movie about the Park nature.

A museum of nature has been build in Smoldzino at the Park Management Headquarters.

31. Current recreation and tourism:

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

The site is visited annually by about 328 thous visitors. In the SNP the following marked tourist trails exist:

- 14 marked walking trails of a total length of 140 km, also available for bikers; trails are equipped with parking sites, information boards, foot bridges, platforms and viewing towers;
- 5 educational trails of a total length of 30 km equipped with foot bridges and viewing towers;
- Tourist navigation track crossing the Łebsko lake.

Navigation and windsurfing may be practiced on waters of Łebsko and Gardno lakes. Boat and shore angling is also allowed in a part of the Park aquatic bodies, on purchasing a special license.

The most attractive sites in the Park include:

- Moving dunes on Łebska Spit near Łeba with the highest elevation of Góra Łącka,
- Former rocket launching site at Rąbka along with an exhibition of military objects,
- Slovine people traditional cottages in Kluki,
- Museum of Nature of SNP At Smołdzino,
- Viewing tower at the Rowokół hill,
- Lighthouse in Czołpino.

The Park has no own accommodation for tourists but in the buffer zone there are several agrotourist facilities, and numerous facilities providing tourist services may be found in tourist resorts of Łeba and Rowy at the Park outskirts.

32. Jurisdiction:

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

The Park is situated in the Pomorskie Voivodeship. The SNP is subject to the Minister of Environment.

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.

The Park is managed by the Director of the Słowiński National Park.

Słowiński National Park

ul. Bohaterów Warszawy 1A, 76-214 Smołdzino, Poland.

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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