# Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

#### Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form: Małgorzata Walczak and Jadwiga Sienkiewicz Institute of Environmental Protection Krucza 5/11 Street, 00-548 Warsaw



**2. Date this sheet was completed/updated:** 1st October, 2005

**3. Country:** Poland

**4. Name of the Ramsar site:** Poleski National Park

# 5. Map of site included:

Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps.

a) hard copy (required for inclusion of site in the Ramsar List): yes  $X\square$  -or- no  $\square$ 

# b) digital (electronic) format (optional): yes X -or- no

Enclosed please find the attached map of the West Polesie Biosphere Reserve.

# **6. Geographical coordinates** (latitude/longitude): 51°17' N; 23°27' E

# 7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town. The wetland embraces the Poleski National Park (PNP), a part of the Łęczyńsko-Włodawskie Lakeland, and is located at the watershed between the basins of Bug and Wieprz rivers. PNP is situated in the southeastern Poland bordering with Ukraine and its area belongs to the European Ecological Corridor of the Bug River. The area is administered by the Voievode of the Lubelskie Voievodeship and the nearest large town is Lublin. In the future the enlargement of ramsar site as the transboundary Polish-Ukrainian ramsar site -West Polesie Biosphere Reserve will be possible.

8. Elevation: (average and/or max. & min.)	9. Area: (in hectares)
150 - 200  m asl	9 762

#### 10. Overview:

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

PNP protects a unique at the European scale natural complex of shallow lakes and mires (raised bogs, transitional mires and, predominantly, fens) with vegetation indicating some features of tundra and woodland tundra in its most westernmost location. Major natural values include alkaline fens with species representing Atlantic type vegetation and diverse wetland fauna. The Park is located at the watershed between the basins of Bug and Wieprz rivers. The area embraces open wetlands and wooded lots. Forest communities vary from pine woods on mineral soils to alder swamps with a typical hollow-and-mound structure on organic substrates. Calcareous mires, rare at the country scale, are quite common in the Park. The site shelters more than 1% of the country population of aquatic warbler

Acrocephalus paludicola, in addition to 146 species of breeding birds including very rare species such as: raptors - white tailed eagle, lesser spotted eagle, hen harrier and Montagu's harrier. During migration osprey, short-toed eagle and red-footed falcon are frequently observed.

#### 11. Ramsar Criteria:

Circle or underline 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).

# $\sqrt{1}$ $\sqrt{2}$ $\sqrt{3}$ $\sqrt{4}$ $\sqrt{5}$ $\sqrt{6}$ $\sqrt{7}$ $\sqrt{8}$

# 12. Justification for the application of each Criterion listed in 11. above:

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

Criterion 1. The site is considered important for conserving biodiversity of the biogeographical region (geobotanical region of deciduous forests of Central Europe – according to Jerzy Kondracki, 2001: "Regional geography of Poland" ed. by Panstwowe Wydawnictwa Naukowe, Warsaw) as it supports alkaline marshes – unique and threatened aquatic ecosystems in the lowlands. The Poleski NP contains sites of the type of tundra and forest tundra – at their southernmost outposts. According to the classification of Natura 2000 areas it contains the following natural habitat types: 3150 natural eutrophic lakes, 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils, 6510 lowlands hay meadows, 7110 active raised bogs, 7120 degraded raised bogs, 7140 transition mires, 7150 depressions on peat substrates of waters with benthic vegetation, 7210 calcareous fens, 7230 alkaline fens, 91E0 alluvial forests and 91D0 bog woodland.

Criterion 2. The site shelters unique vegetation of alkaline mires, tundra-like bogs and special flora of raised and transitional bogs including rare species of sedges (Carex chordorrhiza, C. heleonastes and C. limosa) and other endangered plants such as: Charle's sceptre - Pedicularis sceptrum-carolinum, sundews (Drosera spp.), lesser aldrovand - Aldrovanda vesiculosa. Boreal species, relicts of glacial period are represented by e.g. dwarfed birch Betula humilis and willows: Salix myrtilloides and S. lapponum. Other rarity is a species of diatome - Centronella rostafinskii - endemic species found only within the Łęczyńsko-Włodawskie Lakeland. The site shelters unique species of flora placed on National Red Book: Waterbug trap Aldrovanda vesiculosa, bog angelica Angelica palustris, peatbog birch Betula humilis, cord-rooted sedge Carex chordorrhiza, mud sedge Carex limosa, red helleborine Cephalanthera rubra, lady's slipper orchid Cypripedium calceolus, early marsh orchid Dactylorhiza incarnata sp. ochroleuca, grceful cotton grass Eriophorum gracile, Loesel twayblade Liparis loeselii, alternate water-milfoil Myriophyllum alterniflorum, small water lilly Nymphaea candida, bicolored butterwort Pinguicula vulgaris ssp. bicolor Lapland willow Salix lapponum and blueberry willow Salix myrtilloides. The site shelters unique species of fauna (IUCN): Ferruginous duck Aythya nyroca (EN), European pond turtle Emys orbicularis (EN), lake minnow Eupallasella percnurus (EN), black grouse Tetrao tetrix (EN), aquatic warbler Acrocephalus paludicola (VU), smooth snake (VU), double snipe or great snipe Gallinago media (VU), short-eared owl Asio flammeus (VU), hen harrier Cirus cyaneus (VU), Eagle owl Bubo bubo (NT), white-backed woodpecker Dendrocopos leucotos (NT), thunder-fish Misgurnus fossilis (NT), Luscinia svecica (NT), Chlidonias leucopterus white-winged black tern. The site supports tow orchids: lady's slipper Cypripedium calceolus and fen orchid Liparis loeselli which are both included in the EU Habitat Directive Annex II as well as the meadow species Adenophora liliifolia.

Criterion 3. The area contributes significantly to the preservation of regional genetic, species and ecosystem biodiversity since it gives shelter to a great variety of habitats with 208 plant associations identified, in addition to the peculiarities of rich flora (1000 vascular plants) and fauna. List of boreal flora contains about 140 species and 170 species are rare and endangered.

Criterion 4. The site shelters 146 species of breeding birds and at least 20 species are frequently observed during migration. They are listed below: Philomachus pugnax- Ruff, Ixobrychus minutus-Little bittern, Botaurus stellaris- Bittern, Oenanthe oenanthe- Wheatear, Calidris alpina- Dunlin, Haliaeetus albicilla- White-tailed eagle, Circus pygargus- Montagu s harrier, Circus aeruginosus- Marsh harrier, Circus cyaneus- Hen harrier, Ciconia ciconia- White stork, Ciconia nigra- Black stork, Tringa erythropus- Spotted redshank, Parus maior- Greater titmause, Riparia riparia- Sand martin, Locustella luscinioides- Savis warbler, Sylvia communis- Whitehriat, Tetrao tetrix- Black grouse, Anas crecca- Teal, Anas querquedula - Garganey, Vanellus vanellus- Lampwing, Ergretta alba- Great white egret, Ergretta garzetta - Little egret, Ardea cinerea - Common heron, Aythya fuligula- Tufted duck, Carduelis spinus -

Siskin , Crex crex- Corncrake , Turdus iliacus- Redwing , Falco columbarius- Merlin , Gallinago media-Great snipe, Upupa epops- Hoopoe, Hirundo rustica- Swallow, Dendrocopos leucotos- White-backed woodpecker, Dryocopus martius- Black woodpecker, Dendrocopos medius - Middlle spotted woodpecker, Picus canus- Grey-headed woodpecker, Picus viridis- Green woodpecker, Dendrocopos minor- Lesser woodpecker, Carpodacus erythrinus- Scarlet grosbeak, Carduelis chloris- Greenfinch, Circaetus gallicus- Short- toed eagle, Sylvia borin- Warbel, Bucephala clangula- Goldeneye, Lanius collurio-Red-backed shrike, Anser anser- Greylag goose, Anser fabalis- Bean goose, Pyrrhula pyrrhula- Bullfinch, Redbird, Aythya ferina- Pochard, Accipiter gentilis- Goshawk, Coccothraustes coccothraustes- Hawfinch, Columba palumbus- Wood-pigeon, Bonasa bonasia- Hazel hen, Sylvia nisoria- Barred warbler, Bombycilla garrulus- Waxwing, Fringilla montifringilla- Brambling, Apus apus-Swift, Arenaria interpres- Turscone, Milvus migrans- Black kite, Milvus milvus- Kite, Sylvia atricapilla-Blackcap, Saxicola torquata- Stonechat, Falco vespertinus- Red-footed falcon, Falco subbuteo- Hobby, Gallinula chlorops- Moorhen, Phoenicurus ochropus- Black redstart, Phalacrocorax carbo sinensis -Cormorant, Turdus merula- Blackbird, Anas strepera- Gadwall, Coracias garrulus- Roller, Jynx torquilla- Wryneck, Accipiter nisus- Sparrowhawk, Porzana porzana- Spotted crake, Tringa totanus-Redshank, Anas platyrhynchos - Mallard, Gallinago gallinago- Snipe, Cuculus canorus- Cuckoo, Numenius arqata - Curlew, Turdus pilaris - Fieldfare, Caprimulgus europaeus- Nightjar, Lullula arborea -Woodlark, Cygnus olor- Mute swan, Acrocephalus palustris- Marsh warbler, Fulica atra- Coot, Carduelis cannabina- Linnet, Larus minutus - Little gull, Larus canus- Common gull, Larus fuscus- Lesser blackbacked gull, Parus caeruleus- Large blue butterfly, Muscicapa striata- Spotted flycatcher, Ficedula hypoleuca- Pied flycatcher, Ficedula albicollis- Callared flycatcher, Ficedula parva- Red- breasted flycatcher, Regulus regulus- Goldcrest, Buteo buteo- Buzzard, Buteo lagopus- Rouglegged buzzard, Tadorna tadorna- Shelduck, Delichon urbica- Housemartin, Aquila clanga- Spotted eagle, Aquila pomarina - Lesser spotted eagle, Emberiza hortylana- Ortolan bunting, Aquila chrysateus- Golden eagle, Turdus viscivorus - Mistle thrush, Certhia familiaris -Treecreeper, Podiceps cristatus- Great crested grebe, Podiceps grisegena- Red-necked grebe, Tachybaptus ruficollis- Little grebe, Phylloscopus trochillus- Willow warbler, Sylvia curruca- Lesser whitethroat, Phylloscopus collybita- Chiffchaff, Phoenicurus phoenicurus - Redstart, Motacilla alba- White wagtail, Moticilla flava- Yellow wagtail, Anas clypeata - Shoveler, Tyto alba- Barn owl, Aythya nyroca - Ferruginous duck, Luscinia svecica-Bluethroat, Saxicola rubetra - Whinchat, Prunella modularis- Dunnock, Emberiza schoeniclus- Reed bunting, Coturnix coturnix- Quail, Falco numanni- Lesser kestrel, Falco tinnunculus -Kestrel, Remiz pendulinus- Penduline tit, Acrocephalus schoenobaenus- Sedge warbler, Anas acuta- Pintail, Erihacus rubecula - Robin, Chlidonias leucopterus- White- winged tern, Chlidonias hybridus - Whiskered tern, Chlidonias niger- Black tern, Sterna caspia - Caspian tern, Pandion haliaetus- Osprey, Limosa limosa-Black-tailed godwit, Plviaris squatarola- Grey plover, Columba oenas - Stock dove, Alauda arvensis -Skylark, Scolopax rusticola- Woodcock, Luscinia megarhynchos- Nightingale, Luscinia luscinia-Thrush nightingle, Parus ater- Coal tit, Lanius excubitor- Butcher-bird, Lacustella fluviatilis- River warbler, Carduelis carduelis- Goldfinch, Turdus philomelos- Songster, Anthus trivialis- Tree pipit, Anthus pratensis- Meadow pipit, Anthus campestris - Trawny pipit, Anthus cervinus- Red-throated pipit, Locustella naevia Grasshopper warbler, Anas penelope- Wigeon, Phylloscopus sibilatrix - Wood warbler, Acrocephalus arundinaceus- Great reed warbler, Acrocephalus scirpaceus-Reed warbler , Pernis apivorius - Honey buzzard, Streptopelia turtur - Turtle dove, Asio otus Long-eared owl, Asio flammeus- Short-eaeared owl, Panurus biarmicus - Bearded tit (mouse), Oriolus oriolus - Golden oriole, Acrocephalus paludicola - Aquatic warbler, Rallus aquaticus- Water rail, Hippolais icterina - Icterine warbler, Porzana parva- Little crake, Fringilla coelebs - Chaffinch, Alcedo atthis - Kingfisher, Merops apiaster- Bee-eater, Grus grus- Crane. The site also shelters 146 species of breeding birds including very rare species such as: raptors - white tailed eagle, lesser spotted eagle, hen harrier and Montagu's harrier (species listed in the EU bird directive, Annex I). During migration osprey, short-toed eagle and redfooted falcon are frequently observed.

Criterion 6. The site shelters more than 1% of European and World population of aquatic warbler *Acrocephalus paludicola*, about 400 pairs (10 % of the country population).

(Birdlife International 2004, Birds in Europe: "Population estimates, trends and conservation status" Birdlife International, Cambridge, UK;

Population 12,000 – 20,000 pairs, 1% = 120 – 200 pairs; 400 pairs at R.S. = 2.0 – 3.3% of population)

**13.** 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.

Geobotanical region of deciduous forests of Central Europe – according to Jerzy Kondracki, 2001: "Regional geography of Poland" ed. by Panstwowe Wydawnictwa Naukowe, Warsaw 2001

#### a) biogeographic region:

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 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).

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

As provided above under a)

According to the Habitat Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora this site is located in the continental biogeographical region.

# 14. 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 site is located in the flat plains which emerged as a result of organic accumulation at the bottom of a large lake created in the post-glacial period after the withdrawal of the middle-Poland glaciation. Relative elevations in the field do not exceed 10 m. Recent land cover is made up of Quaternary deposits such as sands, clays and organic formations – peat and mud. More than half surface of the Park cover is swampy or open water (15% of the area is covered with shallow lakes). Lake waters vary in their trophic conditions from eutrophic to mesotrophic and dystrophic.

Most of organic soils have been developed from fen peat on the site of drying out and overgrown lakes. The majority of mires are fens, but some are transitional- and a few are raised bogs. The climate is transitional with influences of both the Atlantic and continental climates. The latter one are to be seen in the low annual precipitation i.e. 550 mm (40% of that falling in summer) and high insolation – averaging about 4.5 h/day.

# 15. Physical features of the catchment area:

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

The area is mostly flat and interspersed with lakes, carst hollows, ponds, natural and artificial creeks. The Quaternary surface layer of sands and peats is underlain by voluminous cretaceous deposits which raise to the surface in southern portion of the site and form an elevation of 185 m a.s.l. Soils are either mineral podzols or rusty brown soils developed under forest covers or organic formations of sedge, moss, reed peat, mud, muck or mursch soils. Most of the mires in the region have been drained and turned to meadows. Major land use is agriculture while other land uses of lesser importance are forestry and fishery. The climate is transitional with influences of both the Atlantic and continental climates. Length of vegetation period fluctuates between 205 and 215 days and the annual average wind speed is less than 4 m/sec.

# 16. Hydrological values:

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

The Park is located at the watershed of between the basins of Bug and Wieprz rivers. The local water regime depends much on precipitation, since underground feeding is scarce and ground water level is close to the ground surface (at the depth of 2-10 m). The ground water creates a complex system of waters originating in different levels (Quaternary, Cretaceous, Jurassic and Carbonic) while the first two levels join to form one water level. Despite of the conspicuous richness of surface water the hydrological regime of the site is quite vulnerable, depending on the balance between annual precipitation which is low, and high evapotranspiration. The lakes and mires of the PNP constitute a major resource of the region and are very important in the ground water recharge.

#### 17. Wetland Types

#### a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/c	oastal: A	•	В	•	С	•	D	•	Ε	•	F	•	G	•	Η	•	Ι•	J•	K	•	Zk(a)	)
Inland:	L • •Va•	Μ	•	N	•	√(	<b>)</b> •	Р	•		Q a	lka	line	•	√R	•	√sp•	√Ss•	V	Тр•	√Ts	√U
	Vt •	√\	W	•	<b>√</b> Σ	<b>{f</b> ∙	<b>√</b> Σ	٢p	۰Y	•	Zş	g•	Zł	c(b	)							
Human-n	nade: 1	•	√2	2•	3	•	4	•	5	•	6	•	7	•	8	•	√9•	Zk(c	:)			

#### b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area. O, Q, R, Sp, Ss, Tp, Ts, U, W, Xf, Xp

2,9

#### 18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

PNP is one of but a few national parks in Poland which protects a unique at the European scale complex of non-woody communities of raised bogs, transitional mires and, predominantly, fens with vegetation indicating some features of tundra and woodland tundra. Fens provide habitat for the development of characteristic tall sedge communities including Phalaridetum arundinaceae, Caricetum paniculatae and Caricetum rostratae and the alkaline fens - of a rare Caricetum buxbaumi. On the transitional mires surrounding dystrophic lakes such rare communities are found as Caricetum limosae, Rhynchosporetum albae, Caricetum chordorhizae and C. heleonastes. Fairly large areas are taken by raised bogs overgrown with bushy pine, birch and dwarf shrub species - Ledum palustre, Oxycoccus quadripetalus and Vaccinium uliginosum. More waterlogged bog sites are taken by Eriophoro-Sphagnetum, and drier sites by Ledo-Sphagnetum magellanici. Forest communities are diverse, from spruce woods (fresh and mixed spruce, pine-oak woods (Querco-Piceetum and Querco roboris-Pinetum) and oak-linden deciduous woods to wet pine woods (Molinio - Pinetum) and dry pine woods (Cladonio - Pinetum), to floodplain forests and alder swamps with typical hollow and mound structure on organic substrates. Calcareous mires with Cladium mariscus, rare at the country scale, are common in the Park. Altogether 208 plant associations have been identified in addition to rich flora (about 1000 vascular plants). Aquatic vegetation range from submerged Potamogeteon sp. and Chara sp. communities to emerged vegetation consisting of water lilies Nymphaea alba and N. candida.

# 19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.* 

Poleski NP shelters unique flora including rare species of sedges including *Carex buxbaumi*, *Carex chordorrhiza*, *C. heleonastes* and *C. limosa*. Other very rare and protected plants include aldrovand *Aldrovanda vesiculosa*, sundews (*Drosera rotundifolia*, *D. anglica* and *D. intermedia*), orchids such as: lady's slipper *Cypripedium calceolus*, red phantom orchid *Cephalanthera rubra*, fen orchid *Liparis loeselli* and bird's nest orchid *Neottia nidus-avis*. Tundra like wetland shelters boreal species such as dwarf willows: whortle-berry willow *Salix myrtilloides*, Lapland willow *S. lapponum* and low shrubby birch *Betula humilis*. Other rare and protected species represent the Atlantic element - *Myriophyllum alternifolium* and *Hydrocotyle vulgaris*. Protected species of meadows include *Gladiolus imbricatus*, *Iris sibirica*, *Gentiana pneumonanth*, *Pinguicula vulgaris* and *Adenophora liliifolia*.

#### 20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplied as supplementary information to the RIS*.

The site provides shelter for rich avian fauna with Acrocephalus paludicola as the greatest rarity (400 pairs), in addition to 146 species of breeding birds including rare birds of prey such as: white tailed eagle Haliaeetus albicilla, lesser spotted eagle Aquila pomarina and hen harrier Circus cyaneus and montagu's harrier Circus pygargus. In the time of migration osprey Pandion haliaeetus, short-toed eagle Circaetus gallicus and red-footed falcon Falco vespertinus are to be observed. Other rare and endangered bird species include: - eagle owl Bubo bubo, short-eared owl Asio flammeus, little grebe Tachybaptus ruficollis, bluethroat Luscinia svecica, black stork Ciconia nigra, goldeneye Bucephala clangula, ferruginous duck Aythya nyroca, bittern Botaurus stellaris, kingfisher Alcedo althis, crane Grus grus, great snipe Gallinago media, cornrake Crex crex, white heron Egretta alba, little egret E. garzetta, purple heron Ardea purpurea, black grouse Tetrao tetrix.. Black and red throated divers Gavia arctica and G. stellata and black cormorant Phalacrocorax carbo belong to frequently observed visiting waterfowl.

To the more important mammal species recorded within the site belong: beaver *Castor fiber*, otter *Lutra lutra*, muskrat *Ondathra zibethica*, elk *Alces alces* and wolf *Canis lupus*. Rare species of bats include *Pipistrellus nathusi* and *Plecotus austriacus*. Among reptile species the most interesting species is rare pond turtle *Emys orbicularis* which breeds regularly in the Park. Small peat-bog pools are inhabited by a rare fish lake minnow *Phoxinus percnurus*.

## 21. Social and cultural values:

e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

The site is very sparsely populated and land is used extensively for agriculture, fishing and forestry. Cultural monuments are limited to wooden traditional cottages in local villages. In the vicinity of the Park there are old mansion parks, orthodox churches and wooden windmills. The Park surroundings are used for recreation, sports, the Park area is used for tourist purposes.

#### 22. Land tenure/ownership:

(a) within the Ramsar site:A great majority 8 379 ha belongs to the State Treasury and 1 383 ha is privately owned.(b) in the surrounding area:Private ownership.

# 23. Current land (including water) use:

(a) within the Ramsar site:

Mostly for tourism, though no permanent tourist facilities are allowed in the Park. Hiking and biking is admitted along marked trails. Forests are managed by the Park Service, in addition some fishing and agriculture – cattle grazing and haymaking are allowed within the Park

(b) in the surroundings/catchment:

In the surroundings there is heavy pressure for recreation, water sports, kayaking, hiking and biking, numerous camping grounds, recreation centres, hotels, water sport facilities etc. are situated along lake borders.

# 24. 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:

Major threatening factor is water pollution from agricultural facilities in the surrounding area. The pollution easily migrates into the waters of the Park due to local hydrological system of joint vessels that connects lakes and streams of the protected area with those located outside.

(b) in the surrounding area:

As described above – pressure of tourism and recreation. Intensive tourist management poses a threat already, but more tourist developments are to be expected in the near future and road modernisation is planned in the vicinity.

#### 25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

The site is protected under the highest form of nature conservation in Poland – as a national park and until the time of its designation as such it was protected within five nature reserves. Under strict protection there is jointly 116 ha. In 1994 the Poleski NP was enlarged to its present surface and the buffer zone was established around the Park of a surface of 14 042 ha. The Park has the management plan emphasising the strategy for protecting both natural and cultural values of the site. Since 30 April 2002 the site is protected as West Polesie Biosphere Reserve on the surface of about 139 000 ha. The Poleski NP constitutes the core of this Biosphere Reserve. At the same time on the Ukrainian side of the Polish border the "Shatski" Biosphere Reserve was created with an area of 55 000 ha. Since 21 July 2004 southeastern part of this site creates NATURA 2000 network area as SPA area (Special Protection Area "Bagno Bubnów" – PL 060001).

#### 26. Conservation measures proposed but not yet implemented:

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

The all area of the Poleski National Park is proposed as NATURA 2000 network area: SAC (Special Area of Conservation "Ostoja Poleska" – PLH 060013). Polish-Belorussian-Ukrainian Transboundary Biosphere Reserve is planned as a local network of protected areas of Polesie.

# 27. Current scientific research and facilities:

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

No field stations are currently located within the Park, though numerous studies and various research programmes are being carried out in the PNP site.

# 28. Current conservation education:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc. Within the PNP area there is a natural museum and educational centre for visitors. The tourists have access to the Park by eight marked trails, in addition to four viewing towers, one observation hide and five educational paths of a length of 15,5 km.

#### 29. Current recreation and tourism:

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

The site is visited by about 12 thousand tourists a year what gives an index of 1,2 person/ha/year. The most frequent forms of tourism is hiking.

#### 30. Jurisdiction:

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

The Poleski NP is subject to the authority of the Minister of the Environment.

#### 31. 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 Poleski National Park. It's address is: Poleski National Park Lubelska 3a street 22-234 Urszulin, Poland E-mail: poleskipn@poleskipn.pl tel. +48 082 571 30 71 fax + 48 082 571 30 03

#### 32. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

Buczyński P., Martysiuk B., Piotrowski W., Różycki A., Sołtys M. 1998: Poleski Park Narodowy. Historia – przyroda – turystyka. Przewodnik turystyczno - przyrodniczy. Wyd. Promotor. Lublin.

Chmielewski T. J. et al. 1989: Poleski Park Narodowy. Dokumentacja naukowa. IGPiK Warszawa – Lublin Kondracki J. 2001: "Regional geography of Poland" ed. by Państwowe Wydawnictwa Naukowe, Warsaw

Poleski Rezerwat Biosfery: 1998 - materiały z konferencji naukowej na temat możliwości utworzenia Międzynarodowego Rezerwatu Biosfery Polesie. Ekologiczny Klub UNESCO

Radwan S. (red.) 2002: Poleski Park Narodowy. Monografia przyrodnicza. Morpol. Lublin.

Rąkowski G., Walczak M., Smogorzewska M. 1997: Tourism development in protected areas in Poland (Koncepcja rozwoju turystyki na obszarach chronionych w Polsce Institute of Environmental Protection, Warszawa.

Różycki A., Piotrowski W., Iwaniuk A. 2002: Poleski Park Narodowy. Spotkania z przyrodą. Multico. Warszawa.

Rybczyński W. z zespołem 1986: Dokumentacja naukowa do utworzenia Zachodnio-Poleskiego Parku Narodowego", IGPiK w Lublinie.

Sołtys M. 1992: W krainie jezior, moczarów i bagien – Poleski Park Narodowy. Lublin – Urszulin.

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