UNION INTERNATIONALE POUR LA CONSERVATION DE LA NATURE ET DE SES RESSOURCES INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES

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#### IUCN REVIEW

# World Heritage Nomination

1. NAME:

Bialowieza National Park, Poland

2. LOCATION:

North east of Warsaw on frontier between Poland and Byelorussian SSR

3. NOMINATED BY:

Dr. Krzysztof Pawlowski Director of Board of Museums and Monuments 2 May 1978

#### 4. DOCUMENTATION:

- i) Nomination form dated 2 May 1978
- ii) Map attached to nomination form

The documentation received was inadequate to form a decision. Supplementary documentation consulted by IUCN included the following:

- a) Okolow, Czlaw, Bibliografia Puszczy. Biatowieskiej (Part II) 1967-1972; Bialowieza 1976. pp. 164.

  This reference refers to 1148 reports or articles about the area.
- b) Wiesko, Edward, Wostepach Puszczy Bialiowieskiej. 205 pp. with illustrations, maps, english summary.
- c) Pamphlet "National Parks in Poland".
- d) Wiecko, Edward. In the Bialowieza Forest 1972.
- e) Sokolowski, A. Pamphlet, Bialowieza, 23 pp. 1976.
- f) Czubinski, et al. Nature Reserves in Poland, 528 pp. Cracow, 1977.
- g) Pachlewski, R. The Bialowieza National Park. State Council for Conservation of Nature, 25 pp. 1960.
- h) Karpinski, J. Puszcza Bialowieska i Park Narodowy w Bialowiezy (1930).

### 5. BACKGROUND and SUMMARY DESCRIPTION:

Bialowieza National Park (protected since 1919), 5,069 ha., is Poland's most famous park, with a rich fauna of larger mammals exceptional for including the European bison. The "Bialowieski Park Narodowy" protects a unique virgin forest, the last of its kind in Central Europe, which runs across the Polish-Soviet border, the two countries protecting the forests and the free-roaming bison.

Geology - different kinds of soil explain the variety of the forests: a mosaic of mineral soil, sand, clay, peat, marshy-peat, and marshy-mud. Peat bogs are the raised continental type. A substratum of glacial sediments covers a Cretaceous bedrock.

Topography - Two rivers, Narewka and Hwozna, enclose the park, an undulating lowland plain (elevation: 170-202 m.) Several marshes.

Flora - deciduous trees dominate with 12 distinct plant communities: hornbeam, ash, alder, oak, lime, maple, birch, aspen, elm, wild apple, pine, and spruse. Most remarkable are the limes, like long-handled brooms with small crowns and no branches on their tall trunks. Hornbeam (35 percent) dominates the primeval forest, a replica of the ancient forest of eastern Europe. Area also includes mixed forests, pure coniferous forests, and marshes.

Mammals - the European bison formerly ranged the deciduous forest of Europe widely. No doubt this enormous fleshy creature was much coveted, perhaps also feared. This, with reduction of the forests, led to its extermination.

By the Middle Ages the bison had disappeared from most of Europe and by the beginning of the 20th Century was found only in the Bialowieza Forest and in the Caucasus (about 1,700 by World War I). These animals — one of a plains forest, the other of a mountain forest — belonged to different races. The last were shot in Bialowieza in 1921.

Luckily some specimens existed in zoological gardens. In 1929 the Polish Government brought two cows in Sweden and a bull in Germany. In 1952 a few animals were set free in the forest, and by 1969, a number of bison were roaming the forest. At least 154 of them were born free.

Attempts to "restore" the extinct tarpan horse are going forward.

Other mammals living in this national park: red deer, roe deer, lynx, wolf, and beaver.

Birds - Many species of which capercaillie, black stork, and eagle owl should be especially mentioned.

Lindahl/Harroy
Vol. l National Parks of the World

#### **EVALUATION AND JUSTIFICATION:**

The area has been evaluated against the operational guidelines for the implementation of the World Heritage Convention as amended by the World Heritage Committee at its 2nd Meeting.

#### INTRODUCTION

The Bialowieza National Park is the remnant core of an extensive "cold deciduous broad-leafed forest with evergreen coniferous trees"\* which once prevailed throughout central Europe. It has been subject to man's machinations since Neolithic time. According to Bourlière\*\* it was after 1050 A.D. that "the work of European deforestation proceeded on a truly heroic scale" - farming, industrialization and urban growth were root causes - "it is only in the last 100 years that uncontrolled deforestation has been halted in Europe."

The Bialowieza Forest 125,000 ha. escaped the devastation of Western Europe and today consists of a managed forest of approximately 58,000 ha. in Poland (5,069 ha. in the National Park) and 67,000 ha. in the Byelorussian SSR. These 67,000 ha. are incorporated in the Belovezhskaya Puscha which is a nature reserve of 88,000 ha. established in 1939.

\*\*\* "The object of the Bialowieza National Park is - in the first place - to fulfil a scientific, educational and cultural purpose. It plays an important part in the protection of natural sites in Poland and abroad. Its organization is meant to assist scientific research." p. 23

"There is no denying that the Bialowieza Forest is of important and permanent value to Science. In recognition of this fact, a vast natural laboratory - the Bialowieza National Park - has been separated from the Primeval Forest. The Bialowieza National Park is the most important among numerous Polish National Parks and reservations. It is of far-reaching scientific and economic importance." p. 11

"Even now Bialowieza reigns supreme among all European lowland forests, as a unique example of almost primeval environment and scarcely touched silvan biotopes." p. 4

- \* Schmithusen, Atlas zur Biogeographic (1976)
- \*\* Bourlière, The Land and Wildlife of Eurasia, Life Nature Library, 1964
- \*\*\* All following quotations are from Pachlewski (1960)

"The area covered by the Park is the best preserved part of the Primeval Forest". p. 5

#### EVALUATION:

Outstanding universal value will be recognized when a natural heritage area meets one or more of the following:

Criteria No. 10 c (ii)

Outstanding example - biological evolution and man's interaction with his natural environment.

"The results collected from climatic, hydrologic and soil-research have enabled scientists to elaborate a system of ecological factors in various forest biotopes of the National Park, taking into consideration the dynamic powers of these processes and their influence on biocenotic conditions of the Primeval Forest. These materials, still useful, have been an incentive to a series of valuable publications and new scientific conceptions. Thanks to them, silvicultures have acquired new knowledge of the Primeval Forest, and introduced new elements into forestry tuition in all its aspects." p. 16

"Many original works, of great scientific, theoretical, and practical importance in forestry have been published drawing attention to the first rate importance of biological war in forest husbandry." p. 18

"A knowledge of the most essential and fundamental laws governing the biocenotic life of the forest enables Poland to apply them in her silvan economy, in a conscious and deliberate way. It also contributes to the development of many branches of biology". p. 2

In 1949 Prof. J.J. Karpinski published his book, Materials for the Bioecology of the Bialowieza Primeval Forest. This work opens new vistas in the study of forest biocenose, explains the system of inter-dependence of forest components and discusses in detail the part they play in biocenose." p. 16

"We also have the works of S. Kulczynski (1930-39) on peat-bogs, suggesting new conceptions of their genesis. These works are well known in world literature and show the importance and value of the Primeval Forest, and the Bialowieza National Park for universal scientific research and the natural sciences". p. 14

## COMMENT:

The extensive and thorough research going on in this area is closely linked to the concept of the Biosphere Reserve (the Bialowieza National Park was established as a biosphere reserve in 1976). The biosphere reserve does not include the surrounding forest or the forest in the Byalorussian SSR.

There is no doubt that the scientific research meets the criteria insofar as the Primeval Forest is concerned. It is difficult to attribute the results only to the Bialowieza National Park.

Criteria No. C.10 (iv)

- habitats where populations of rare or endangered species of plants or animals survive.

"In spite of these changes, the Bialowieza Primeval Forest is still the world's only shelter of the European bison living in freedom, and again lynx, wolves, boars and stags are hiding in its deep recesses." p. 10

The European bison (Bison bonasus) was exterminated in the wild with the last animal killed in the Bialowieza Forest in 1921. A captive breeding programme based on specimens in Swedish and German zoos has resulted in a successful re-introduction of the European bison to Bialowieza. The European bison is not now considered threatened or endangered. In a natural environment it must be considered rare, there are approximately 230 specimens in the total area of the Bialowieza Forest.

Among the 56 mammal species found in the area is the European lynx which must also be considered rare.

The floral composition of the area is represented by 700 species of vascular plants (i.e. about 32% of the species found in Poland).

# COMMENT:

The Bialowieza National Park has undoubtedly played a key role in the preservation of species and as a part of the larger primeval forest it no doubt continues to do so.

#### INTEGRITY:

"The Bialowieza National Park woods have an almost primeval character. In spite of man's noxious interference in the past, they have preserved the essential characteristics of aboriginal forests - i.e. their dynamic power of self-development". p. 9

# COMMENT:

The integrity of the Bialowieza National Park (5,069 ha.) is intricately bound up in the Bialowieza Primeval Forest 58,000 ha. of which it forms a core part. The forest has historically been its buffer and for most of the fauna it continues to serve as such. In addition there is the 67,000 ha. Beloveghskaya Puscha Reserve in the Byalorussian SSR.

## ADDITIONAL CONSIDERATIONS

# Biosphere Reserve

The Bialowieza National Park (5,069 ha.) was established as a Biosphere Reserve in September 1976. The conceptual structure of biosphere reserves has since that time changed to incorporate core areas (which the Bialowieza National Park is) as well as areas in which manipulative management and research can take place.

The research and education activities taking place in the Bialowieza Primeval Forest is illustrative of an ideal biosphere reserve. It is strongly urged that the present biosphere reserve be expanded to incorporate the total area of the Bialowieza Primeval Forest.

In brief, it is the view of IUCN that the Bialowieza National Park and the Bialowieza Primeval Forest combined would be an exceptional biosphere reserve.

#### SUPPORTING COMMENTS FOR BIOSPHERE RESERVES

Scientific research work of a forestal character in the Bialowieza National Park, is not only of theoretic value but is also very important for elaborating scientific bases for forest economy. In connection with this, the Institute of Forestry Research is planning extensive research work, based on experiments in the cultivated part of the Primeval Forest, as a complementary work to the research carried out in the National Park. This conception of treating the whole territory of the Forest as a simple scientific field of research, proves how important this territory is considered by scientists, and promises in the near future to transform the whole Primeval Forest into a broad Natural Reserve, as a phenomenon unique of its kind and of immeasurable value to science and culture. p. 22

The Primeval Forest constitutes a priceless area for Natural Sciences and Forest Research. It is now the only lowland forest of a primitive character in Europe. Its numerous and various plant associations in an almost intact environment, the forest structure of its biocenoses, rich in strong dynamic activity have preserved the best system of productive powers in biotopes. p. 11

The Bialowieza National Park has particularly favourable conditions for research, as a reservation from which all human interference is excluded. This is extremely important in long-term ecological investigations. It can be assumed that in surroundings where economic activity has been prohibited, all changes occurring can be ascribed to processes peculiar to a given type of biocenoses. This enables us correctly to analyse the influence of biotic and abiotic factors in a given biocenotic system in the natural course of observed phenomena. It shows that National Park and Reservations are the ideal places for ecological research, which is the trend of all scientific work carried out in the Bialowieza Park. p. 12

The scientific value of the Park is increased by the fact that research can be conducted simultaneously in strictly natural conditions, and in the cultivated parts of the Forest, in artificial conditions of human economy. In this way it becomes possible to analyze the influence of man on the trend and character of the changes occurring in the productive forces system on the biotope, and of the forest biocenose, as a result of economic activity. It also makes it possible to devise scientific principles for a cultivation plan of the valuable territory of the Primeval Forest. p. 13

### **RECOMMENDATIONS:**

It is not recommended that the Bialowieza National Park be listed on the World Heritage List as presently proposed (5,069 ha.). Three alternate courses of action are suggested:

# 1. World Heritage List

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An expanded area preferably to include the Byelorussian section of the Bialowieza Primeval Forest as a joint nomination of Poland and the Byelorussian SSR be formulated. This would undoubtedly create a World Heritage site within the concept "outstanding universal value".

Option 2

2. The Bialowieza Primitive Forest (58,000 ha.) be placed on the List with the understanding that should the Byelorussian SSR area (67,000 ha.) be put forward both the Polish and the BSSR unit would form a single World Heritage Site.

Option 2 is not recommended by IUCN on the basis of the integrity of the natural qualities. Much of the area of the World Heritage site would be subject to commercial exploitation even recognizing that this exploitation would be exceptionally carefully and scientifically managed it cannot be recommended.

3. Not list as a World Heritage site but expand the biosphere reserve thereby creating a biosphere reserve of outstanding quality.

## CONCLUSION:

The great scientific, educational and cultural value of Bialowieza National Park to the Polish people and to the European community are recognized to be of outstanding significance by IUCN.

As a World Heritage site along with the Galapagos National Park, Yellowstone National Park, the Nahanni National Park and proposed sites such as the Grand Canyon, Virunga National Park and the Ngorongoro Conservation area, the Bialowieza National Park would be of secondary rank. IUCN does not believe that the site warrants such possible treatment. We therefore propose the expansion of the present biosphere reserve

to incorporate the Primeval Forest. With such an action the Bialowieza National Park and the Bialowieza Primeval Forest would be recognized as one of the outstanding biosphere reserves in the world and such recognition would be totally warranted on the basis of the research and educational functions performed.



International Union for Conservation of Nature and Natural Resources

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