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STEERING COMMITTEE FOR THE CONSERVATION AND MANAGEMENT
OF THE ENVIRONMENT AND NATURAL HABITATS

Group of Specialists - "Protected areas"
(PE-S-ZP)

23 - 25 March 1994

Berezinsky State
Biosphere Reserve

Application for the European Diploma

presented by:

the Belarus Government

Principal Department of
Production-Economic Services
and Reserves of the
Council of Ministers
House of Government
Independence Square
220010 MINSK

Application for the European Diploma

Country: Republic of Belarus

Name of the area: Berezinsky State Biosphere Reserve

Body responsible for its management: Principal Department of Production-Economic Services and Reserves of the Council of Ministers of the Republic of Belarus.

Address: 220010 the House of Government, Independence Square,
Minsk

1. Type of area: reserve

2. Description of geographical location:

The Berezinsky Biosphere Reserve is located in the northern part of the Republic of Belarus on the territory of Minsk and Vitebsk administrative regions. In latitudinal direction it is located along the Berezina river course (the Dnieper's affluent) for 80 km, in longitudinal - for 27 km. The geographical location is determined by the following coordinates: 54°28' - 54°50' latitude N and 28°03' - 28°29' longitude E. The total area is 120,000 ha.

3. Characteristics and scientific, aesthetic, cultural or recreational value justifying conservation:

The reserve is located in European-Siberian region of Palearctic (province 2.10.05 - Boreonemoral) and covers the territory of 1,200 square km. The reserve - the only one among protected areas - is located in the marginal zone of the last Viurmsk Glacier and is characterized by a young glacier relief with rare combination of moraine heights, lake-glacier plains and abundant deep hollows. The stages of the present surface natural evolution are observed in the reserve. The uniqueness of the reserve's territory is also determined by

the fact, that it is situated on the plane watershed between the Black and the Baltic Seas and occupies a vast limno- and fluvioglacial plain. Across this territory lay the ancient commercial way of vikings to Bezantium.

The reserve is an entire forest-bog complex. Forests cover 81.9% of the territory. About 40 ths ha are occupied by bog ecosystems (wooded and open). The forests are those of East-european taiga and its south variants, which make part of the broad-leaved forests zone. They form four genetic groups: boreal coniferous (pine -45.3%; spruce - 10.9%), broad-leaved - 0.9%, deciduous marshy (pubescent-birch - 16.8; black-alder - 16.4 and willow-beds - 0.2%), secondary deciduous - 9.5%. The forests are characterized by presence of nemoral and boreal plant and animal species.

The vegetation is characterized by a high degree of naturalness. Of special scientific, aesthetic and recreational value are aboriginal pristine pubescent-birch marshy, black-alder and pine communities. They are characterized by a considerable phytodiversity and structural heterogeneity. The area of some wooded bog tracts reaches 10 ths ha. The vegetation complex comprises about 70 forest types which are represented by over 400 plant associations. In the reserve one can find not only natural ecosystems but some communities (12%), exposed in the past (during World War II) to anthropogenic factors, as well. As a result, the reserve is a pattern both of natural communities and theirs modified analogues characteristic of the region of location.

The flora of the reserve comprises 780 species of vascular plants, mossy ones - 216, lichens -198. It is represented by a considerable systematic diversity and comprises 29

rare and strictly protected plants for European Continent.

The animal world consists of 50 species of mammals, 219 - birds, 5 - reptiles, 9 - amphibia, 34 - pisces and over 1,800 species of insects. Availability of stable populations of many rare for Central and Western Europe species of animals (bear, lynx, wolf, beaver, black stork, osprey and other), listed in the Annex 1 and 2 to the Convention on conservation of wildlife and natural habitats in Europe (Bern, 1974), is characteristic of the reserve. The wetlands of the reserve are unique for breeding and migratory birds and are included into the list of territories of international interest (Ramsar Convention). In the reserve there are many water bodies the total area of which exceeds 2 ths ha.

There is a number of historical monuments on the territory of the reserve. Among them are the burial places and remnants of settlements dated back to the 1-4th centuries A.D., hydrotechnic construction of the XVIIIth century of the water way from the Baltic to the Black Sea (commercial way of Scandinavian peoples to Bezantium), monuments dedicated to participants of the liberation wars.

Special attention is paid in the reserve to the problem of environmental education. To solve them the Museum of Nature, open-air cages with wild animals in them, the House of Ecological Education, scientific-cognitive trails, hotel were created. Annually the reserve publishes a lot of popular scientific books, booklets and leaflets. Scientific workers of the reserve give lectures at schools, on the radio and television.

For many years the reserve has been base for holding republican and international scientific conferences on nature conservation, environmental education and research in many

fields of biological science on the MAB Programme. Here they held the First International Congress on Biosphere Reserves.

Outstanding is the reserve's contribution to the personnel forming. Here training of scientists of natural sciences, probation of home and foreign scientists, students' practice take place.

4. European interest justifying the application:

The reserve represents a unique and rare in Europe complex of ecosystems preserved in natural condition. It is characterized by a considerable diversity of phyto- and zoobiota. Combination of various types of ecosystems (forest, bog and aquatic), theirs vast area, variety of soils (5 genetic types) attach it European importance as being a genetic reserve and standard object for scientific study of wild nature.

As the territory of the reserve is heavily wooded and swamped, it provides stable ways for migratory streams of fauna and flora, is a natural filter for pollutants and creates vast potential of resources for reconstruction and renewal of damaged and disappeared structural elements of nature in Europe.

The reserve has performed great services in studying the biology of rare and valuable species of animals and plants in order to restore the flora and fauna of adjoining territories. In the Berezinsky Reserve they have worked out methods of aboriginal populations preservation, obtained unique results on augmentation and captive breeding of valuable hunting species. The scientists of the reserve have established criteria of hunting-grounds bounding, methods of approach to estimation of the optimum number of many animal species. For rare plants natural features of seasonal growth, fruiting, phenology have

been cleared out that made it possible to propose methods of their preservation and reproduction in artificial conditions.

One of the outstanding merits of the reserve is providing of stable functioning of the unique in Europe nature complexes and plant associations. Existing permanent plots, geobotanic profiles, monitoring stations enabled identification of peculiarities of accumulation and transformation of polluting matters in natural habitats, estimation of bioproductive methods of back-ground estimate of forests state.

The results of environmental study in the reserve were summarized almost in 1,000 scientific works including 16 monographs.

The Berezinsky Biosphere Reserve is a unique site of pristine nature in Europe and it contributes greatly to its study, protection and reproduction.

5. Ownership title:

The land of the reserve is excluded from economic use and belongs to the State.

6. Protection scheme:

To preserve nature complexes in the reserve the core area of 219 square km was established. Most typical of the area and best preserved landscapes, where human interference into natural processes is prohibited, are represented in it. In the buffer zone, the area of which is 591 square km, scientific research, study of impact of economic activities on nature complexes state and measures on their restoration take place. Around the reserve the transitional area 1-2 km wide, where controlled by the reserve economic activities take place, was established.

Maintenance of the established in the reserve conditions

is provided by a forest guard of 120 people. To make protection more effective they use mobile motorized groups of 3-4 people, equipped with the means of radio communication.

Legal regime of the reserve is steered by the Regulations on the Berezinsky State Biosphere Reserve adopted by the Council of Ministers of the Republic of Belarus on 22 May 1992.

Protection of the territory has been carried out since 1925. The complete text of the regulations is available at the Secretariat

7. Planning and management plan:

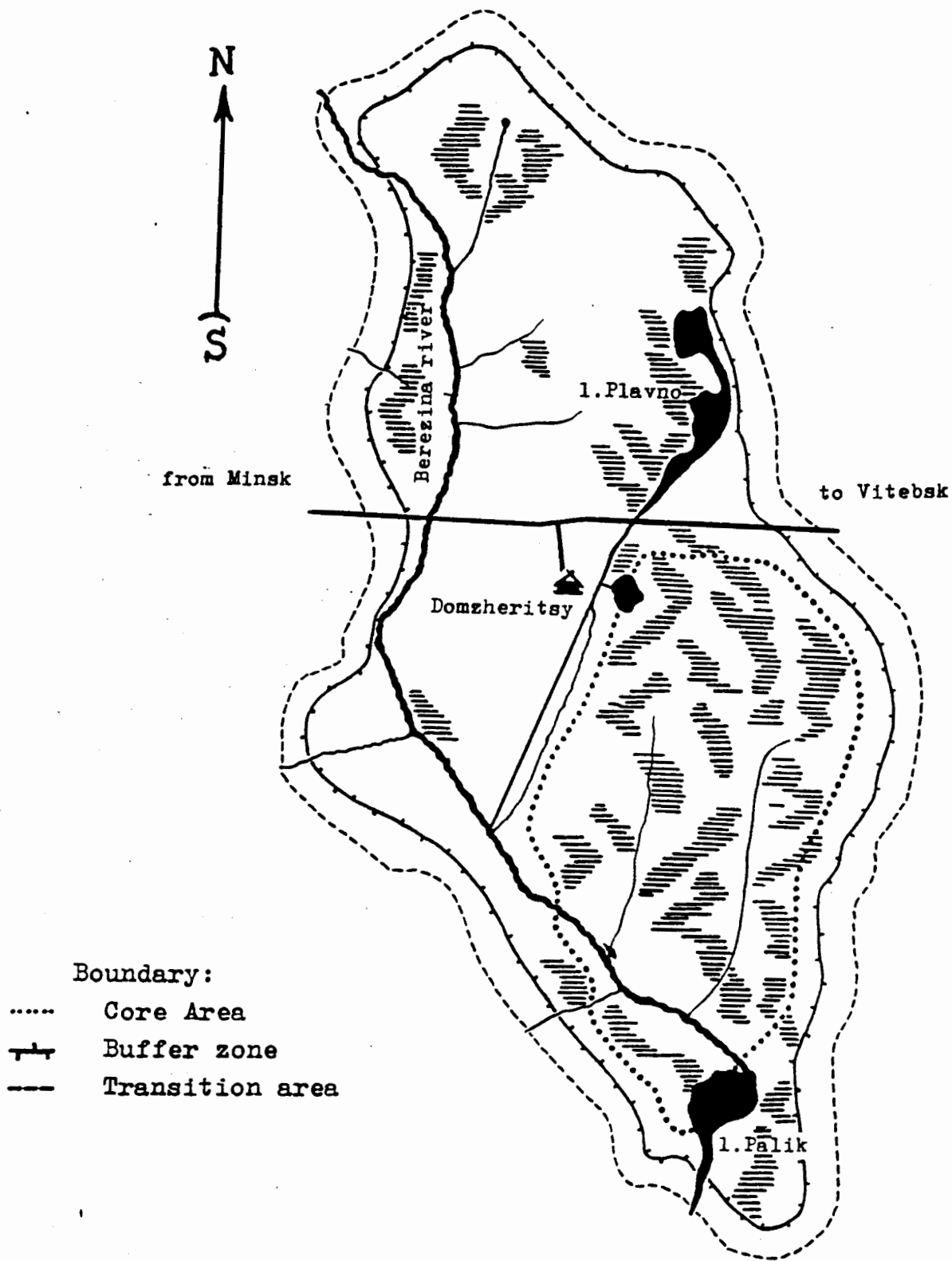
The reserve is headed by director. There are four main departments: scientific, protection, environmental educational and auxiliary (economic). Research, protection and other activities in the reserve are put into practice according to annual plans approved by the Academic Council which consists of the leading specialists of the reserve and of the Republic. Access to the reserve's territory is regulated by an admission system. At present time the number of visitors to the Museum of Nature and to the open-air cages with wild animals in them totals about 10-15 thousand people per year. To meet touristic requirements there is excursion plot in the buffer zone with the area of about 100 ha. All information is received by local people through the workers of the forest guard, as well as during periodical meetings in villages of the managers and specialists of the reserve with the public. About 800 people live on the territory of the reserve.

8. References to published descriptions: available at Secretariat

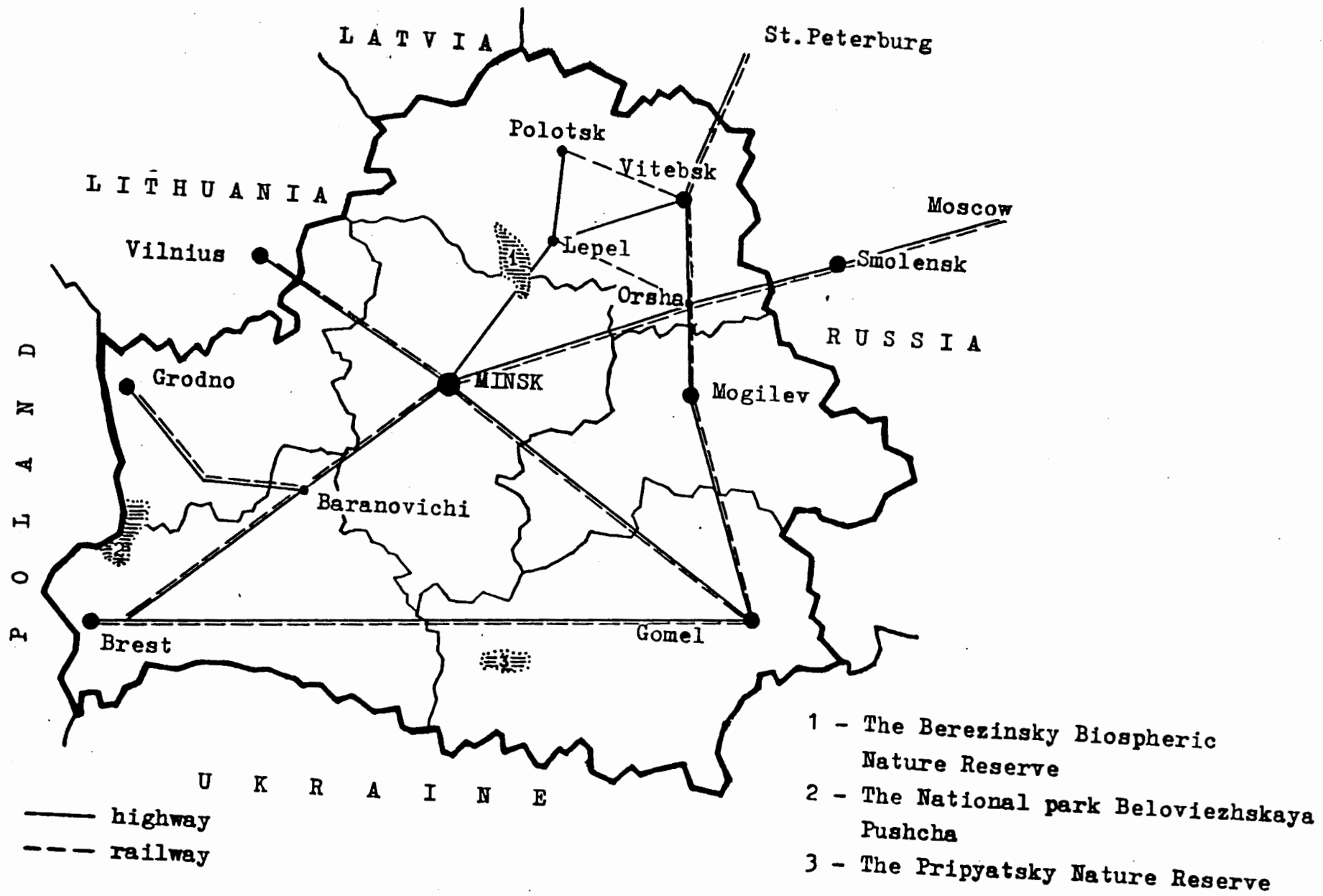
1. The Berezinsky Biosphere Reserve of the Bielorussian SSR. Minsk, "Uradzhay" Publishers, 1983. 256 p.p. (In Russian).
2. Biosphere Reserve on the Berezina. Minsk, "Nauka i Technika" Publishers, 1993. 250 p.p. (In Russian, summary in English).

3. Berezinsky Forest Reserve. Minsk, Polymya Publishers, 1987.
233 p.p. (In English).
4. The Scientific Activities of the Berezinsky Biosphere Reserve. Minsk, 1993. 16 p.p. (In Russian/English).
9. Photographs illustrating typical aspects of the area
(available from the Secretariat)
 1. The estate of the reserve
 2. The hotel
 3. The Berezina River in winter
 4. Flood of the Berezina in spring
 5. The Serguch Canal
 6. Lake Postrezhskoye
 7. Pine forest
 8. Spruce forest
 9. A permanent plot
 10. The "Savsky Mokh" bog in winter
 11. The capercaillie's mating-place on the bog
 12. An ursine onion
 13. A Venus's sock in blossom
 14. An arnica
 15. A beaver's hut
 16. Gnawings of the beaver
 17. A pair of aurochs
 18. A female of the aurochs with a little one
 19. An elk in the Berezina river flood-land
 20. Wolves
 21. Young of the wolf
 22. A badger
 23. An otter
 24. An American mink
 25. A forest dormouse
 26. Cranes above the bog
 27. A nest of common cranes
 28. A black stork
 29. An osprey
 30. A hobby near the nest with the young
 31. A goshawk destroys a nest of the great grey shrike
 32. A short-toed eagle in the eyrie with a fledgeling
 33. A wood sandpiper
 34. A capercaillie
 35. An Ural owl
 36. A kingfisher

- 39. A three-toed woodpecker
- 38. Youngs of the wryneck
- 39. A citrine wagtail
- 40. An adder
- 41. A stag-beetle



THE MAP OF THE BEREZINSKY BIOSPHERE RESERVE



NATURE RESERVES ON THE TERRITORY OF THE REPUBLIC OF BELARUS