Preservation of Unique Natural Territories of the North of Russia: from the History of the Creation of the Natural Heritage Site “The Virgin Forests of the Komi Republic”

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Abstract. Based on a wide range of archival sources, the article considers the history of the creation of the UNESCO World Natural Heritage Site “The Virgin Forests of the Komi Republic” located in the Komi Republic on the western slopes of the Northern and Subpolar Urals. It includes the territories of two protected areas of the Pechora-Ilych Reserve and the National Park “Yugyd Va”, which make up the largest of the primary forests remaining in Europe. The level of the industrial development of the USSR and environmental transformation in the first half of the 20th century determined the wide involvement of academic knowledge in solving the problems of conservation of unique natural resources. The article considers the main directions and results of scientific work in the formulation and successful solution of the problems of nature conservation and the rational use of the resources of the northern region. Thanks to the scientists of the USSR Academy of Sciences more than two hundred objects were declared natural monuments on the territory of the Komi ASSR from the 1940s to the 1980s. The organization of the National Park “Yugyd Va” on the territory of the republic became one of the major scientific projects.

1. Introduction
Preservation of the nature of the Arctic and the North is an urgent task of the present time. The annually increasing anthropogenic impact on the environment is one of the urgent problems of the Arctic and the Arctic regions of Russia, inevitably leading to the growth of the environmental problems, which are likely to develop into global ones due to the natural and geographical features of these territorial zones. In this regard, it is necessary to study the experience of the Soviet scientists who laid down the basic scientific principles of environmental protection and actively participated in the creation of specially protected natural areas.

“The Virgin Forests of the Komi Republic” is the first natural site in Russia inscribed on the UNESCO World Heritage List in 1995. The total area of the state biosphere reserve is 3.28 million hectares. It is located on the western slopes of the Northern and Subpolar Urals in the Komi Republic and includes the territories of two protected areas of the Pechora-Ilych Reserve and the National Park “Yugyd Va”. Together they make up the largest primary forest remaining in Europe almost unchanged by anthropogenic impact. There are more than 40 species of mammals, 204 species of birds, and 16 species of fish. The Russian scientists played the major role in creating this recreational territory and contributed to the creation of the reserve for many years.
Based on the analysis of diverse documentary sources (scientific reports, memoranda, government decisions, official correspondence, etc.) preserved in the archives of the Komi Republic (State Institution of the Komi Republic “The National Archive of the Komi Republic” and the Scientific Archive of the Komi Science Center, the Ural Branch of the Russian Academy of Sciences), the article identifies and analyzes the main areas of activity and the results of the work of the Russian scientists in the creation of the natural site “The Virgin Forests of the Komi Republic”. Although the researchers paid attention to some aspects of the history of nature conservation in the region [1–4], this topic has been poorly studied.

2. Development of the North in the 1930s – 1950s and the problem of nature conservation

The problem of using natural resources and nature conservation in Russia gained global significance only in the 20th century. The Revolution of 1917 in Russia led to fundamental transformations in all spheres of the socio-economic and political life of the society. In particular, new principles of environmental protection and the use of the rich natural resources of the country were introduced. The decrees of the new Soviet Government “The Basic Law on Forests of the Russian Federal Socialist Republic” (1918), “On the Time Limits of Hunting and the Right to Hunting Weapons” (1919), “On the Regulation of Fishing” (1919), “On the Protection of Natural Monuments, Gardens and Parks” (1921), “On Protection of Fisheries and Animal Lands in the Arctic Ocean and the White Sea” (1921) were the first attempts to lay down these principles. In 1919, the State Committee for Nature Protection under the Main Directorate of Scientific, Science-Artistic and Museum Institutions began to deal with issues of nature conservation and the organization of nature reserves. In 1924 the All-Russian Society for the Conservation of Nature was organized. The main task of the Society was the promotion of the ideas of nature conservation and the propagation of knowledge about the environment. The process of creating the first state reserves began in the USSR in the 1920s-1930s. 19 reserves were organized from 1917 to 1925, and by 1935 there were more than 50 reserves. The USSR Academy of Sciences made a significant contribution to the formation and development of the system of nature conservation. In 1950, the Society for the Conservation of Nature was created at the Academy. Since 1951, the Academy started scientific and methodological supervision of the work of state reserves, and later – the supervision of the scientific work for the protection of the environment [5].

The European Northeast of the USSR was one of the promising industrial areas of the country, with valuable deposits of minerals (coal, oil) found there at that time. The European Northeast of Russia occupies a vast area on the map of the country – from the right bank of the Northern Dvina River in the west to the Ural Mountain Range in the east, from the Northern Uvaly Ridge in the south to the coast of the Barents Sea in the north.

The Komi Republic (the Komi (Zyryan) Autonomous Region since 1921, the Komi Autonomous Soviet Socialist Republic since 1936, the Komi Republic since 1993) is a large industrial region in Russia. The wide use of the natural resources of this territory prioritized the problem of pollution and rational use of the nature.

The Pechora-Ilych expedition of the All-Russian Society for the Conservation of Nature worked on the territory of the Komi Autonomous Region under the leadership of biologist F.F. Schillinger (1874–1943) in 1929. Organized with funds from the General Directorate of Scientific, Science-Artistic and Museum Institutions of the People’s commissariat for education, the expedition became the first major scientific event to study the nature of the northern region. The main result of the expedition was the proposal to create a reserve on the territory under study. The project was actively supported by a lot of famous Russian scientists who studied this territory (V.A. Varsanofieva, A.A. Chernov, S.A. Buturlin, G.A. Kozhevnikov, and others). In their numerous appeals, they warmly supported the idea of creating the park, emphasizing the importance and timeliness of this issue. From the address of A.A. Chernov: “I heartily support the project of organizing the State National Park in the Komi Region within the borders outlined in the report of F.F. Schillinger. The territory of the reserve, which covers a separate part of the basins of the Malaya Pechora and Ilych rivers […] has been selected successfully due to its
The reserve will be the only one in the Northern (Polar) Urals, and in terms of size it will be outstanding not only in the Urals, but also around the world, competing in this regard with the National Park of the USA” [State institution of the Komi Republic “The National Archive of the Komi Republic”. Fund. 139. Inv. 1. File. 259. P. 22].

The decision to create a new reserve, which was called the Pechora-Ilych Reserve, was made in 1930. The Decision of the Council of People’s Commissars of the RSFSR “On the Organization of the Pechora-Ilych Reserve” defined its boundaries (the interfluve of the rivers Pechora and Ilych from the west and south, up to the river Kozhim in the north, and along the administrative border between the Komi Autonomous Region and the Ural region (now the Komi Republic and the Tyumen region) in the east). The area of the reserve was 1,135 thousand hectares [6]. All types of fishing activities were prohibited on the territory of the reserve [State institution of the Komi Republic “The National Archive of the Komi Republic”. Fund. 139. Inv. 1. File. 259. Pp. 240–261; Fund. 139. Inv. 1. File. 159, P. 27]. In 1932, the Pechora-Ilych Reserve was given the status of a research institution of the RSFSR. Preservation of plant and animal natural fund and restoration of the natural resources of the territory were the main objectives of the reserve [State institution of the Komi Republic “The National Archive of the Komi Republic”. Fund. 3. Inv. 1. File. 1891. P. 40]. In 1985, at a meeting of the Bureau of the International Coordinating Council of the Program “Man and the Biosphere”, it was decided to give the Pechora-Ilych Reserve the status of a UNESCO biosphere reserve. The Pechora-Ilych State Nature Biosphere Reserve is still operating today.

In 1944, the staff of the Base of the USSR Academy of Sciences, organized in the city of Syktyvkar, the capital of the Komi ASSR, actively engaged in the work on conservation of the unique nature of the Komi ASSR. Even during the Great Patriotic War, the first researchers of the academic institution studied the natural resources of the North, aiming at their early integration into the industrial development of the country. The colossal exploitation of the natural resources during the war intensified the problem of nature conservation. However, the environmental activity was not among the priority state tasks at that time, but was initiated by scientists and the public. The studies conducted by the scientists have shown that the rich nature of the European Northeast was under threat.

In the 1940s – 1950s, the researchers of the biological departments – ichthyologists, hydrobiologists, forestry specialists – raised the questions about the necessity to take measures to protect and rationally use the natural resources of the region. In their memoranda, the scientists addressed the leaders of the republic with the aim to take measures to limit the impact of industrial activity on nature, including the problems of deforestation and reforestation in the forests of the Komi ASSR (N.A. Lazarev, A.N. Modyanov, K.A. Moiseev, A.N. Laschenkova, V.M. Bolotova and others), fishery in the water bodies of the Komi ASSR (O.S. Zvereva), and the impact of timber rafting on the river fish industry of the republic (N.A. Ostroumov) [Scientific Archive of the Komi Science Centre, Ural Branch of the Russian Academy of Sciences. Fund. 1. Inv. 1. Inv. 5. File. 81–82].

The scientists worked closely with the All-Russian Society for the Conservation of Nature and the All-Union Geographical Society. Since 1944, the Komi branch of the All-Union Geographical Society of the USSR started its work at the academic institution. It became a platform for the specialists to discuss pressing issues in the sphere of investigation and preservation of the natural resources of the Komi ASSR. The results of the work were published in the serial edition of “Izvestia of the Komi Branch of the All-Union Geographical Society”. In addition, the scientists regularly appeared in periodicals and on the radio, where they began to consider the issues of environmental protection for the first time. This was the first stage in the development of research and in the formation of scientific trends in nature conservation. The scientists showed the importance and relevance of work on nature conservation in their research and popularization activities.

In matters of nature conservation, the scientists worked in close cooperation with the leaders of the republic. In the 1940-1950s, the Council of Ministers of the Komi ASSR issued a number of resolutions governing the conservation of natural resources (on the improvement of the use of forests,
on the restriction of salmon fishing, and others) on the basis of the memoranda of the scientists of the Komi Branch of the USSR Academy of Sciences.

By the end of the 1950s, the industry of the Komi ASSR began to develop rapidly. The number of industrial enterprises grew, and the population of industrial cities increased. In this regard, the anthropogenic impact on nature grew. At the initiative of the government of the republic, the discussion of environmental protection issues reached the state level. The problem of environmental pollution by industrial waste was posed for the first time, and the priority areas in the issue of rational use of the natural resources of the Komi ASSR were identified. The leading role in these areas was given to scientists of the USSR Academy of Sciences, who were recommended to begin the development of a new scientific field of research related to the conservation of natural resources. Systematic scientific and organisational work on the development of integrated methods started. The coordination of work in different scientific fields to address environmental issues was carried out.

3. National Natural Park “Yugyd Va”

In 1959, the Commission for the Conservation of Nature of the Komi ASSR was organized under the Presidium of the Komi Branch of the USSR Academy of Sciences. It included experienced scientists and specialists studying the natural resources of the North. The Commission was engaged in the identification and description of national monuments, the issues of the protection of natural landscapes, and the development of topical issues in the field of nature management. The Commission worked in close connection with other divisions of the institution – the Department of Economics, the Department of Power Engineering and Water Management, and biological laboratories. By this time period, a rather large amount of scientific information on the nature of the republic had already been accumulated. There was an opportunity for the researchers to scientifically substantiate the creation of new reserves and natural monuments. Since the creation of the Commission in the Komi ASSR, systematic scientific work to preserve the unique natural resources of the region was launched. The Candidate of geographical sciences A.P. Bratsev and V.P. Gladkov started scientific inventory of the objects of nature requiring protection. On their initiative more than two hundred objects on the territory of the Komi ASSR had been declared natural monuments by the end of the 1980s.

The organization of a national park on the territory of the Komi ASSR to preserve the unique landscapes of the western slope of the Northern and Subpolar Urals (the basins of the rivers Kozhim, Kosyu, B.Syn, Schugor, and Podcherm) was one of the major scientific projects.

Since 1971, the Commission for the Protection of Nature under the leadership of A.P. Brattsev began to develop the topic “Scientific basis for the use of natural resources of the Northern and Subpolar Urals for recreational purposes.” The result of the research was a detailed description of the physical and geographical conditions of the areas located within the boundaries of the natural park. The problems of functional zoning of the territory were solved. The goals of creating the national park, i.e. preservation of the unique landscapes of the western slope of the Northern and Subpolar Urals in a natural state and the development of tourism in this area, were substantiated.

The scientists actively promoted the idea of creating the park among the public, speaking in the press and on television, and receiving the support for this initiative. From the article by V.P. Gladkov “The Model of Northern Nature. Let Us Create a National Park on the Komi Territory”: “It is difficult to list all the beauties that nature has created on a relatively small area. Evergreen spruce forests rich in large and small animals, rivers and lakes rich in fish. […] Currently, all these scientifically valuable objects of nature are not protected, many of them are dying.” [7]. This work of the scientists had a positive public reaction.

In 1971 the Bureau of the Komi Regional Committee of the CPSU and the Council of Ministers of the Komi ASSR supported the proposal of the scientists by a joint resolution “On the organization of a natural park in the Komi ASSR”. Any industrial and economic use of the land, water, and forests that violated the state of the natural complex were prohibited. However, this initiative was not supported at the level of the Government of the RSFSR. The scientists continued the research and regularly appealed to the authorities of the country and the republic with a request to resume work on the
creation of the park. The Decision of the Government of the Komi ASSR “On the organization of the State Natural National Park in the Komi ASSR” was published only on September 28, 1990. The Decision of the Government of the Russian Federation of 1994 became a turning point in the creation of the National Park “Yugyd Va” (Light Water). Today, “Yugyd Va” is the largest national park in Russia, with the area of 1.894 million hectares. In December 1995, the National Park “Yugyd Va”, together with the Pechora-Ilych Reserve, was given the status of the UNESCO World Heritage Site (“The Virgin Forests of the Komi Republic”). The special status of this territory opened a new page in the environmental protection in Russia.

In the 1970-1980s the scientists continued the work to preserve the unique nature of the North. By 1988, there were more than 202 specially protected natural sites in the Komi ASSR (stone remains on Manpupuner mountain (Pillars of weathering), Medvezhya and Kaninskaya caves, “Sablya”, etc.) [8]. All fishing activities that violate the natural regime were prohibited on these territories. Thanks to the intensive work of the Commission for the Protection of Nature, principles and approaches to protection of the territories in the republic (the preservation of complexes in their original form, the development of organized tourism) were developed and began to be implemented [9].

The Commission paid much attention to the work with the population of the republic. The scientists actively promoted the ideas of environmental protection speaking on radio and television, and conducting lectures and conferences. The First Republican Conference on Conservation of the Nature of the Komi ASSR was organized in 1961 by the Commission. Presentations were made by scientists of the academic institution and social activists, for the first time outlining the range of problems in preserving the natural resources of the northern region.

Intensive activity of modern academic institutions of the Komi Republic has great importance for the preservation of the unique nature of the European Northeast of Russia. In 2000–2014, the Institute of Geology and the Institute of Biology of the Komi Science Center of the Ural Branch of the Russian Academy of Sciences together with the Government of the Komi Republic worked actively on the conservation and development of specially protected natural territories. During this period, the borders and the location of the natural reserve fund of the republic were clarified, its state was assessed, and new natural sites that needed protection were proposed [9, 10]. As of the beginning of 2020, there are 3 specially protected natural territories of federal significance in the republic (the National Park “Yugyd Va”, the Pechora-Ilych Reserve, the National Park “Koigorodsky”), as well as 229 objects of regional significance (nature reserves, natural monuments). This important work is continued by the scientists today [11].

4. Conclusions

Thanks to the scientific community, the problems of nature conservation and the rational use of the resources of the North of Russia were raised and successfully solved in the 20th century. One example of such intensive work were the studies in the European Northeast of Russia. The development of the Komi Republic in the 20th century as a region with a high concentration of industry made important the solution of environmental problems. In the 1940s – 1980s the environmental movement began in the region, with both public organizations and scientific institutions taking part in it. A significant role in the conservation of nature was played by the activities of scientists of the USSR Academy of Sciences. Thanks to the efforts of the scientists, clear principles for the protection of natural objects were identified. As a result of the scientific work, more than two hundred objects were declared natural monuments, with the unique territory of the Pechora-Ilych Reserve and the large National Park “Yugyd Va”, which became a UNESCO World Heritage Site, among them. The intensive work of the scientists has become a solid foundation in preserving the natural resources of the North and creating a friendly environment for people to live on this territory.

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