### Nature and Forest Conservation Management in Poland: Origins, Practices, Law and Importance on the Example of the Tatra National Park \*

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#### Abstract:

**Purpose:** This study investigates the origins of nature conservation, particularly focusing on the evolution of forestry management practices. It aims to identify the historical context, the emergence of conservation ideas, and the key figures and policies that shaped the field. The research also explores the socio-economic and legal factors influencing the management and protection of natural resources like forests.

**Design/Methodology/Approach:** The research employs a qualitative approach, utilizing case studies, including an in-depth analysis of the Tatra National Park. Methods such as descriptive analysis and deduction are applied to examine historical documents, forestry practices, and the role of foresters in nature conservation.

Findings: Forests, as renewable natural resources, play a crucial role in supporting biodiversity, human well-being, and ecological balance. The study highlights the dual role of forests as economic assets and conservation spaces. Key outcomes include a timeline of conservation efforts, the identification of pivotal legislation and individuals, and the role of foresters in maintaining forest health and biodiversity. It underscores the evolving dynamics of conservation shaped by economic and legal frameworks.

**Practical Implications:** Understanding the history and practices of forest conservation provides insights into sustainable resource management and informs current policy-making. The findings support integrating socio-economic considerations with ecological goals in forestry management.

Originality/Value: This work contributes to the broader discourse on environmental protection by focusing on forestry as a critical component of conservation. By examining the

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historical underpinnings and modern implications, it adds value to discussions on sustainable resource utilization and policy development.

**Keywords:** Conservation, biodiversity, forestry management, environmental protection, policy evolution, sustainable resources.

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### 1. Introduction

Nature conservation is human activity aimed at preserving biodiversity at the genetic, species and ecosystem levels, maintaining the proper course of ecological processes and the stability of natural ecosystems. It is a set of human activities undertaken for the preservation, sustainable use and renewal (restitution) of components of the natural environment, mainly wild species of plants, animals and fungi, as well as complex natural systems and landscapes. Nature conservation includes forest protection.

For some, the forest is a place of rest and trips, for others a place to pick berries or mushrooms, for foresters it is a place of work, for plants and animals a place of life. Forests, thanks to carbon fixation in the process of photosynthesis, renew oxygen reserves in the atmosphere and mitigate the greenhouse effect, protect biodiversity, enabling the existence of many species of plants and animals, and provide wood. In the Tatra forests, sustainable forest management was initiated, based mainly on the implementation of one of the functions of forests: ecological (environmental).

The specific objectives are (2) to analyse documents guaranteeing activities for the protection of nature, to determine the role and significance of the forester's work and to recall the names of people who have contributed to the protection of nature, including in forests; (3) management indication of historical and legal conditions of tourism in the natural environment.

Such a goal requires the adoption of adequate research methods, which are a case study of the Tatra National Park, descriptive analysis and the method of deduction. For the purpose, it is qualitative research. The research problem was formulated in the research questions formula.

# 2. Research Procedure and Justification of the Method of Conducting the Research

The main aim of the article is to attempt to answer the question about the beginning of the idea of nature conservation, including forest protection (time, place, activities). The specific objectives are to analyse documents guaranteeing activities for nature conservation, to determine the role and significance of the forester's work and to recall the names of people who have contributed to nature conservation in Poland, including forests. In addition, the authors attempted to determine activities in the field of tourism in the natural environment in the vicinity of the Tatra National Park and analysed the legal basis for the operation of the national park.

Such a goal requires the adoption of adequate research methods, which are a case study of the Tatra National Park, descriptive analysis and the method of deduction, as well as the dogmatic-exegetical method, which required an analysis of the views of the doctrine and the wording of legal acts. Qualitative research was also used for this purpose. The research problem is defined in the formula of research questions:

- What were the beginnings of the idea of conservation of nature in forests?
- ➤ What were the first documents that guaranteed activities for the protection of nature in forests?
- ➤ How is the role of a forester's work perceived historically and contemporarily?
- ➤ Who contributed to the promotion of the idea of sustainable nature and forest management? To whom do we owe environmental protection, including forest protection?
- ➤ Is it possible to distinguish historical and legal activities in the field of tourism in the surroundings of the Tatra National Park? What achievements can be noted in this regard?

Due to the research problem, theoretical and basic idiographic research will be used. The analytical work was divided into four stages:

➤ a critical analysis of the literature was made, including secondary sources,

- ➤ the website of the Tatra National Park (Tatrzański Park Narodowy) was analysed,
- ➤ the website of the Tatra Guide (Licencjonowany Przewodnik tatrzański) was analysed,
- ➤ an analysis of archival materials obtained in 2015 at an exhibition in the Tatra National Park devoted to the people of the mountains was carried out.

This study aims to better understand the origins of the idea of conservation of nature in forests, conservation of biodiversity and activities of environmental tourism. Analysis of secondary sources – literature research through the analysis and criticism of literature allowed to determine the current state of the studied phenomena.

Qualitative methods (observation, analysis of documents, interview with TPN employees allowed to learn about the actual state, attitudes and opinions of individuals. In addition, field research (observation) fulfilled an inspiring function and became the basis for conclusions. The research was conducted in 2022.

#### 3. Research Results and Discussion

## 3.1 The Zakopane Estate Forest Farm - The Beginnings of the Idea of Nature Conservation in the Tatra Mountains

The economic use of the Tatra Mountains began in the 15th century. Initially, it covered small areas, but with time the use of the area caused more and more changes and destruction in the natural environment. In the nineteenth century, travellers, scientists and researchers increasingly wrote about the destruction of nature caused by the overexploitation of natural resources (Sadowska, 2020, pp. 225-240).

In 1851, in his work entitled "Podhale and the northern inclination of the Tatra Mountains, or the Polish Tatras", geologist Ludwik Zejszner extensively described the ways of hunting wild goats (chamois), as well as marmots dug up by the local population to obtain fat.

In January 1865, Maksymilian Nowicki presented in Vienna the need to protect chamois and marmots. At that time, a document was published entitled "Admonition of Zakopane and all residents of Podhale not to exterminate marmots and goats" (Table 1). To reduce poaching, a hunting guard was established.

In 1866, Jędrzej Wala and Maciej Sieczka were sworn in as chamois and marmot guards. The Guard was supported by voluntary contributions (Węgrzyn (ed.), 2011; Hoesick, 1922, p. 7; Rąpalski, 2024; Podmokły, 2015).

Soon, the defenders of the Tatra chamois and marmots came to the aid of the law. On 5 October 1868, the High Galician Sejm in Lviv passed a law "regarding the prohibition of catching, exterminating, and selling alpine animals, proper to the

Tatra Mountains, marmots, and wild goats", which was signed on 19 July 1869 by Emperor Franz Joseph I. It was one of the first laws in the world on the protection of animal species, which came into force on 21 August 1869. The maintenance of which was still financed by professors Janota and Nowicki. The content of the Act is presented in Table 2.

**Table 1.** The content of the admonition of the inhabitants of Zakopane and all Podhale residents not to exterminate marmots and goats

## Admonishing the people of Zakopane and all residents of Podhale not to exterminate marmots and goats

These are recent years, when the distinguished people who came from distant lands began to visit your pastures in increasing numbers, often living among you for the whole summer. Among them were many learnt people, doctors, professors, priests and painters. They walked with you through the pastures and crags: some collected plants, others enquired about fish and birds, others collected insects; still others wrote down your songs, measured the peaks, parted the waters, as happened with Jaszczurówka, drew, painted, described your mountains and encouraged you to visit them.

It was beautiful to read these descriptions about goats and marmots and about the fact that you are intelligent, hospitable, hard-working people, that you like science and books.

But for some time now there have been other speeches about you, not at all pretty, but very ugly, saying that you have almost completely exterminated the poor marmots and not many goats anymore.

**Source:** Materials obtained from the exhibition organized by the Tatra National Park in 2015.

**Table 2.** Act of 19 July 1869 regarding the prohibition of catching, exterminating, and selling alpine animals, specific to the Tatra Mountains, marmots, and wild goats

# Journal of National Laws and Regulations for the Kingdom of Galicia and Lodomeria together with the Grand Duchy of Kraków

The year 1869. Published and distributed on 21 August 1869.

No. 26

Act of 19 July 1869.

# regarding the prohibition of catching, exterminating, and selling alpine animals, specific to the Tatra Mountains, marmot, and wild goats

In accordance with the resolution of the National Sejm of My Kingdom of Galicia and Lodomery, together with the Grand Duchy of Krakow, I hereby dispose of the following.

- § 1: It is forbidden to hunt alpine animals, marmots, and wild goats, specific to the Tatras, or catch them. The sale of these animals is also prohibited, as well as marmot fat.
- § 2: Exceeding this ban is to be punished with a fine of PLN 5. Up to 100 zlotys of Austrian currency, and in the event of inability to pay the fine, arrest from one to twenty days. Scavenged animals, whether alive or killed, are to be taken away and the living ones released into the wild.
- § 3: Investigation and punishment of this transgression will be the responsibility of the County Governors, and in the second and last instance of the Governorship.
- § 4: Fines will be transferred to the national culture fund.

**Source:** Materials obtained from the exhibition organised by the Tatra National Park in 2015.

The origins of the idea of protecting nature in the Tatra Mountains can only be partially traced back to the privileges granted to the highlanders by the kings. Highlanders had the right to graze sheep on pastures, but also in designated forest areas (cerkla). The servicemen imposed restrictions on afforestation and the sheep hindered the natural renewal of the forest.

Professor Marian Sokołowski draws attention to the transformation of the upper forest border in the Tatra Mountains, almost 2/3 of the length of the upper forest border is artificial, shaped as a result of human activities, i.e. cutting down dwarf pine and forest in order to enlarge pastures.

In the excerpt from the servitute for the Lesser Meadow pasture church, we read: "The pasture church is to be herded in 1/5 part, and after the approval of the economic plan, it is to give the right to herd 1/3 of the pasture church. Flats, i.e. halizn located in servile forests, can also be herded and cultivated, but only when a new felling or felling is established in this area".

The idea of nature conservation in the Tatra Mountains is noticeable in the project to save the Tatra forests, especially the Zakopane forests, from the threat of destruction, as Gustaw Lettner (1885) wrote: "The commission, which in 1881 examined the condition of the forest farm of the Zakopane estate, calculated the highest possible forest use at the intersection of 15,000 cubic metres [...] however, the annual felling carried out in the last two years by the previous owner of the Zakopane estate, Mr. Peltz [...] amounted to more than twice as much due to the wood mass alone, and probably at least four times more due to the quality than it would have been allowed to cut down according to proper management".

By the Regulation of the Ministry of Forestry of 11. June 1948 Spr.:OP 243 – a strict reserve for game was created in the upper part of the Kościeliska Valley. The boundaries of the reserve have been marked in the area with boards. In the announcement published by the Krakow District Directorate of State Forests, it was written that in the reserve it is forbidden to grazing cattle and sheep and bringing in other animals, admission for persons except:

- > persons performing official activities in the reserve,
- > using a written permit from the Management of the Tatra National Park,
- > summer tourist traffic on the path from Hala Smytnia to the Smreczyński Pond.
- > ski tourist traffic on the trail between Hala Smytnia and Hala Pyszna.

On the routes allowed for traffic, it is forbidden to: litter, disturb the silence, kill and frighten animals, collect plants, destroy paths, paths and any devices. Within the Kościeliska Valley, the movement of any motor vehicles is prohibited, horse-drawn vehicles are allowed to Hala Pisana.

Those guilty of violating the above provisions were to be held criminally liable, in accordance with the Act on Forest and Field Damage of 14.4.1937 Journal of Laws No. 30, item 224. It should be emphasised that the first years of the Tatra National Park's activity were dominated by problems related to the regulation of ownership issues, the organisation of tourism and shepherding. It is also a period of adaptation to changing legal and political conditions, and it should be remembered that Tatra National Park was established to protect nature.

Currently, the area of the park is 21,197 hectares and in this sense it is one of the largest national parks in Poland. About 70 percent of the park's area is covered by forests and dwarf pine thickets, and the remaining 30 percent are high-mountain grasslands, rocks and waters. Almost 11.5 thousand hectares of area are under strict protection, including the entire level of mountain pastures and crags, dwarf mountain pine and partly also forests of the upper and lower montane zone. Strict protection consists of protecting the processes occurring in the natural environment (Tatrzański Park Narodowy; S. Drabarczyk, 1976).

Nature conservation in the Tatra Mountains is very important due to the occurrence of unique plants and animals. Examples of vegetation in the Tatra Mountains are presented in Table 3.

**Table 3.** Examples of vegetation in the Tatra Mountains

Example of	Specification						
vegetation							
Common	Yew is currently one of the rarest tree species growing in the Polish Tatras.						
yew	The total number is estimated to be 54 individuals that occur at 33 s						
	The shortages of yew wood on the market and in forests appeared as ea						
	as the 15th century. From this period (1423) comes the statute issued by						
	King Władysław Jagiełło ordering the protection of the yew. It is one of the						
	first documents to refer to the protection of not only yew, but also the						
	protection of plant species in a broad sense.						
	The factor that had a major impact on the number of yews in the Ta						
	Mountains was the changes in forests that followed the development						
	mining and metallurgy, especially in the 19th century, and intensive shee						
	grazing. Improper forest management in this period consisted of the use of						
	clearing, during which all trees were removed from the surface.						
Tatra orchids	In the Tatra National Park, 27 species have been found. There are 47						
	species in Poland, most of which only in a few localities.						
Plants of	From the foot of the Tatra Mountains to an altitude of approximately 1250						
pastures and	m above sea level, forests and mixed forests of the lower montane zone						
crags	have developed (currently significantly transformed as a result of several						
	centuries of human activity). Above them, up to about 1550 m above sea						
	level, there is the kingdom of spruce, which creates almost single-species						
	tree stands. Above the upper border of the forest, there are thickets of dwarf						
	mountain pine.						
	There are: Tatra larkspur, Tatra saxifrage, little primrose, edelweiss, alpine						
	bellflower, veined willow, early carnation.						

Arolla pine	The pine is a species of pine that occurs in Europe only in high mountain							
	locations. In Poland, it grows in natural habitats only in the Tatra							
	Mountains. The reason for the smaller occurrence of the pine tree in the							
	Western Tatras is probably its destruction caused in the past by much more							
	intensive pastoral, forestry and mining in this part of the Tatras. The modest							
	population of the pine tree in the Tatra Mountains worried the nineteenth-							
	century foresters, which is why attempts were made to increase its number							
	from 1865. Later, the introduction of the pine tree was under the patronage							
	of the Tatra Society, and the coordinator of the action was Walery El							
	himself.							
Forests and	The lowest level in the Tatra Mountains is the lower subalpine zone, where							
coniferous	high mixed forests and coniferous forests find good conditions for							
forests of the	development. The habitats of mixed beech, fir, and spruce forests dominate							
lower	here. In the Tatra National Park, spruce monocultures currently comprise							
montane	nearly 80% of the lower montane forest area. Beeches and firs were cut							
zone	down for the needs of the mining, metallurgical and wood industries							
	developing in the Tatra Mountains.							
Mountain	The population of Tatra dwarf mountain pine consists mainly of a low							
pine	shrub subspecies. Next to the typical blackberry in the Tatra National Park,							
	there is a hybrid of it with Scots pine. The need to obtain fuel and pasture							
	areas resulted in the fact that vast areas of blackberries were burnt and							
	grubbed. After the cessation of sheep and cattle grazing, dwarf mountain							
	pine began to return to the areas from which it was removed in the							
	secondary succession process.							
L	I F STORY							

Source: Own study based on Tatrzański Park Narodowy.

The most intensive mining and metallurgical activity and therefore the exploitation of forests was carried out in the years 1830–1850. Almost simultaneously with mining and metallurgy, pastoralism developed in the Tatra Mountains. The mixed natural forests of beech, fir, and spruce are dominated by beech. In these forests there are also: fir and sycamore. Examples of animals, birds, reptiles, and other individuals that occur and are protected in the Tatra Mountains are presented in Table 4.

**Table 4.** Examples of animals, birds, reptiles and other individuals found and protected in the Tatra Mountains

Example	Specification						
Spruce bark	Status of the spruce bark beetle in the Tatra National Park:						
beetle	Strict protection area. The primary goal of strict protection is to observe the						
	natural processes that occur in ecosystems. This also applies to spruce						
	ecosystems affected by the spruce bark beetle, which is their natural						
	component. Such gradation, as a natural process, is a source of extremely						
	valuable information on the dynamics of forest communities, despite the						
	negative aesthetic impressions associated with the view of a dying or dead						
	forest. Detailed research carried out in such stands allows us to understand						
	the complex natural processes related to the functioning of forest						
	ecosystems						
Bear	In our part of the Carpathians, there are five bear refuges: Beskid Żywiecki,						

	T D. 1:1 C. 1. 1: -'-'. C. D. 1:1 N'. 1: 1. D' 1. E'C						
	Tatry, Beskid Sądecki with Gorce, Beskid Niski and Bieszczady. Fifty						
	years ago, there were a dozen or so bears in the Polish part of the						
D: 1	Carpathians, today their number exceeds 100 individuals						
Birds	In general, 65 species of birds nest in the lower montane zone, i.e. mo						
	the 101 species whose breeding has been found in the Tatra Mountains in						
	the last 30 years. There are: – blue and great, blackbird, song thrush,						
	warbler, pied flycatcher, collared thrush and three-toed woodpecker.						
	Interesting birds also include: black stork, capercaillie, hazel grouse, black						
	woodpecker, eagle owl and Ural owl, hawk, sparrowhawk and buzzard, and						
	among passerine birds: bullfinch, siskin, spruce crossbill, snitch and red-						
	breasted flycatcher. At night, in the forests of the lower Tatra National Park,						
	the loud call of the tawny owl and long-eared owl can often be heard.						
	Among the Tatra regla bird community, up to 12 species are on the Red List						
	of endangered and endangered animals in Poland. These are: hazel grouse,						
	capercaillie, black grouse, quail, corncrake, woodcock, eagle owl, pygmy						
	owl, Ural owl, boreal owl, three-toed woodpecker and wallcreeper.						
Predatory	The full list of predatory mammals found in the Polish Tatras includes 12						
and	species. These are: bear, fox, wolf, wildcat, European lynx, pine and						
insectivorous	domestic marten, polecat, ermine, weasel, otter, badger, raccoon dog.						
mammals	Insectivorous mammals include: eastern hedgehog, European mole, shrews						
Fishes	Trout, grayling, bullhead.						
Deer	Of several species of deer found in Poland, only two are still present in the						
	Tatra Mountains – red deer and roe deer.						
Tatra	Among the burrowing birds naturally found in Poland, only three species						
grouses	belonging to the capercaillie family, commonly called forest grouse,						
	(capercaillie, black grouse, hazel grouse) are constantly occurring and						
	reproducing in the Tatra Mountains. Partridges, belonging to the family of						
	hens, also known as pheasants, were also occasionally seen in the Tatra						
	Mountains.						
Owls	So far, 12 species of owls have been observed in the Tatra Mountains and						
	their immediate vicinity: tawny owl, long-eared owl, boreal owl, barred owl						
	and snowy owl.						
Other	Marmots.						
	Chamois.						
	Amphibians: tailed amphibians: spotted salamander and newts: Carpathian,						
	mountain and common and frog-like frog-like frogless amphibians:						
	mountain toad, common toad and common frog. There are other species in						
	Podhale: crested newt, green toad, pond frog, water frog, moor frog.						

Source: Own work based on Tatrzański Park Narodowy.

The existence of many civilizations ended as a result of environmental degradation caused by the overexploitation of forests. The decline of biodiversity, the steppe landscape, the disappearance of water and soil protection functions destabilise the environment, reduce the quality of life today and the development opportunities of future generations.

The most valuable fragments of nature should be permanently protected (Chmielewski, 2014, pp. 83-110). And the introduction of new methods of forest management, better reconciling the needs of environmental protection, rest and recreation and wood production is the domain of man. It is the "people of the forest" who determine the sustainable management of nature and forestry.

### 3.2 People of the Tatra Forest – The Role and Importance of the Forester

3.2.1 Forester – woodworker, bodyguard, ecologist – role, meaning, work, service Forestry is forest and people. People who have an impact on the state of the natural environment are expected to be responsible and able to weigh various options and arguments (Jaszczak and Wajchman, 2014, pp. 231-240; Michalak, 2004).

The work and service of a forester is based, among other things, on activities aimed at ensuring universal protection of forests, i.e. to shape the balance in forest ecosystems, increase the natural resistance of forest stands, and in particular to (R. Ignatowski, B. Sadowska, and M. Wójcik-Jurkiewicz, 2020, p. 162):

- perform preventive and protective treatments to prevent the occurrence and spread of fires,
- > preventing, detecting and combating excessively appearing or spreading harmful organisms,
- protection of soil and forest waters.

Each forest, at each place, performs different functions in a natural way, and the man who manages the forest objectsifies its multifunctionality. Forests are managed by foresters, who more and more often, in addition to being hosts and managers of a given area, also become educators and teachers.

As a result, foresters actively participate in the processes of creating history about forests, in activities that increase the level of public knowledge about sustainable forest management (Krakowska-Paluszak *et al.*, 2017, pp. 105-113; Chrzanowski, 2009; Szczypa and Wojewoda, 2017, pp. 286-293; Adamowicz and Szczypa, 2015, pp. 7-16).

Historically, the forester's profession was associated with the maximum use of the forest by the individual owner with minimal expenditure on its reproduction. At the same time, empirical knowledge of nature and forestry technology was sufficient from the point of view of implementing the principle of maximum profit.

With the increase in the productive forces and the intensification of forest management, the problem of optimising the ratio of inputs to the size of effects in a forest farm arose. New challenges were faced by foresters. In this profession, there was a growing need to supplement the natural and technical knowledge of forests, organisational skills, and knowledge of modern economics, and then to expand knowledge in the field of other scientific disciplines, such as (Molenda, 1969, p. 9):

- sociology,
- > psychology,
- > management.

What distinguishes a forester? Continuous improvement of qualifications, acquisition of new skills and competences. These are people who care about the proper professional level, shaping economic and legal awareness. Foresters take care of the development of young staff, while supporting the transformations of ownership in forestry. They popularise knowledge and modern technologies to perform work in forestry (Kusiak, 2015, pp. 40-51).

As Piszczek *et al.* (2008, pp. 36-46) emphasise, nowadays foresters and their work are not often the object of interest of the media and society. From this it can be concluded that the nature of their work is poorly known.

According to forest stakeholders, the activities undertaken by a forester in their work are those related to the current actual work of a forester, caring for animals and caring for order and cleanliness in the forest. It is also an activity related to the production of raw wood or forest fire protection. The professionalism of foresters, their effort and commitment to nature conservation are highly appreciated.

By exploring source materials, on the example of Tatra forests, referring to history, and analysing contemporary documents on the employment of foresters, it should be stated that the role and importance of a forester, a woodworker, a security guard, an ecologist is determined, among others, by employment relationships, i.e.:

- > payroll costs,
- remuneration structure,
- > financial benefits and other salary and non-wage incentive systems.

It is also about designing work, i.e. task planning, SWOT analyses, personnel plans. The assessment of a forester's work and the importance of this work in the social environment are also influenced by the examination of attitudes, the inventory of competence changes, and the planning of career paths.

The forest service was already defined in the 15th century, and the family of the Zamoyski counts was a continuation of forestry work and activities for the protection of the natural environment by the people of the Tatra forest.

### 3.2.2 People of the Tatra Mountains and highlanders

Many excellent people were associated with the Tatra Mountains and highlander culture. Particularly noteworthy and remembered are the representatives of the

Zamoyski family: Władysław, his mother Jadwiga and sister Maria. In 1880, he inherited the Kórnik estate located in Greater Poland from his uncle, and in 1889 he purchased the "Zakopane-Kościelisko" estate. In this area, which covered a significant part of the High and Western Tatras, he rebuilt forests, devastated by the overexploitation of the previous owners.

In the 1920s, Zamoyski began preparations to establish the "Kórnik Works" Foundation, which bequeathed all the Zakopane and Greater Poland estates. *for the purposes of science, education and culture*", which was the basis for the creation of the Tatra National Park. According to Zamoyski's will, the income from the property was to be allocated by the Kórnik Foundation to:

- ➤ maintenance of the Women's Home Work School (founded by his mother Jadwiga in 1882),
- > supporting the education of male youth in the Polish and Catholic spirit,
- > scholarships for exceptionally talented students,
- running a museum and library in Kórnik, as a souvenir of the martyrdom of the nation and to preserve the memory of foreigners who helped Poland,
- > establishment of the dendrology department in Kórnik,
- > promoting professional knowledge and the spirit of cooperatives in the Foundation's goods.

His most important achievements include the fact that he put an end to the devastation of the Tatra forests and introduced rational forest management on the purchased land. He supported activities leading to the modernisation of Zakopane, financially supported local social activities (Jarząbek-Giewont, 2016).

Another important figure in the history of the Tatra Mountains and highlander culture was Tytus Chałubiński (1820-1889). Mountaineer, famous Warsaw doctor of the second half of the nineteenth century. He was also passionate about botany, chemistry and mineralogy (he donated his collections to the Tatra Museum). He was called the "king of the Tatra Mountains", he promoted Zakopane in the circles of people of art and science. He significantly contributed to the popularization of the Tatra Mountains in Polish society. He was one of the founders of the Tatra Society (Jarząbek-Giewont, 2016).

Eugeniusz Janota (1823-1878) - priest; pastor, philologist, ethnographer, naturalist, sightseeing expert, gymnasium teacher-German in Kraków, then professor at the University of Lviv, pedagogue, publicist, naturalist-zoologist (dissertations on domestic and forest animals), member of the Physiographic Commission of the Kraków Scientific Society, founder and president of the Galician Society for the Protection of Animals from 1867.

A nature lover and supporter of the protection of chamois and marmots in the Tatra Mountains (he contributed to the issuance of a law on the protection of these animals

by the Galician parliament in 1869). Together with Maksymilian Nowicki, he coauthored the draft law on the protection of chamois and marmots (Jarząbek-Giewont, 2016).

The figure of Jan Gwalbert Pawlikowski (1860-1939) is also noteworthy. An avid lover and defender of the primeval nature of the Tatra Mountains and a sympathiser of the highlanders, a spokesman for the creation of the Tatra National Park, the first chairman of the Tatra Protection Section at the Tatra Society (1912), the vice-chairman of the State Council for Nature Conservation from the moment of its establishment (1920-1935) and one of the authors of the draught of the first Polish act on nature conservation (1934).).

Ludwik Zejszner (1805-1871) was a researcher of the Tatra Mountains, dealing with geological and glaciological (glacial) issues, mining and metallurgy in the Tatra Mountains, measurements of the height of peaks, temperature of springs, study of the mountain climate, life and customs of highlanders; One of the leading researchers of the Tatra Mountains and the Carpathians in general, advocate of the protection of Tatra nature. Creator of the first overview geological map of the Tatra Mountains (1844), (Jarząbek-Giewont, 2016).

### 3.2.3 Directors of the Tatra National Park

After the establishment of the Tatra National Park, in 1954, for the first 16 years it was managed by Marceli Marchlewski, M.Sc. Eng. (forester) (from 1 January 1955 to 31 December 1970). Its main task was to organise the park as an institution, start ownership regulations, introduce the principles of pastoralism, and the rules for making the park available.

It also started cooperation with the Slovak Tatra National Park (TANAP). From January 1, 1971 to December 31, 1971, the director of the park was Czesław Madeyski (forester). He ran seed plantations, mainly libs and larches, and continued to work on the reconstruction of tree stands.

The next director of the park, from April 1, 1972 to February 28, 1990, was Leon Niedzielski, M.Sc. Eng. (forester). During his term of office, a scientific and research laboratory of the Tatra National Park was established, there was a significant reduction in car traffic in the park, the ban on pastoralism was consistently implemented, and then its introduction in the form of cultural grazing. He also built a new park seat and created the Natural History Museum of the Tatra National Park. Since March 1, 1990. until September 10, 2001, the position of the director of the park was held by Wojciech Gąsienica Byrcyn, Ph.D. in forest sciences.

During his term of office, the basis for financing the park's tasks was developed, ensuring its financial stability. The importance of the Tatra National Park in the international arena has also increased – the park has entered the network of World

Biosphere Reserves MAB. At that time, extensive publishing activities began and there were strong and effective protests against the organisation of the Winter Olympic Games in the Tatra Mountains in 2006. He was one of the toughest defenders of the Tatra Mountains against the attempts of potential investors.

The next director of the Tatra National Park in the period from 13 September 2001 to 31 March 2014 was Paweł Skawiński, Ph.D. of forest sciences. During his term of office, a new "Regulation on the establishment of the Tatra National Park" came into force – preserving its existing boundaries and area, a buffer zone of the park was created and the manor and park complex in Kuźnice was revitalised. The renovated manor house housed the management of the park, the coach house and the granary turned into exhibition pavilions.

Publishing and educational activities were also developed. His term of office was distinguished by good cooperation with the local community, which resulted in an increase in acceptance for the park's protective activities. These achievements showed that the management of the Tatra National Park cares not only about nature, but also about tradition.

Appointed as the park director on 1 April 2014, Szymon Ziobrowski is a graduate of the Faculty of Mining Geodesy and Environmental Engineering at the AGH University of Science and Technology in Krakow and the Faculty of Law and Administration of the Jagiellonian University. He developed the mission and vision of the Tatra National Park, which is presented in Figure 1.

Figure 1. Mission and vision of TPN

**Mission:** We protect and help understand the nature and culture of the Tatra Mountains, enabling current and future generations to experience them.

**Vision:** Nature close to its natural state while preserving valuable cultural elements. TPN as a model for other similar organizations.

Source: Tatrzański Park Narodowy.

His achievements to date include: initiating and developing volunteering – the first programme of this type in Poland in a national park; creation of a coherent visual identification system of the Tatra National Park – the first in Poland for a national park, which was applied in the following years in all Polish parks; education of people professionally working in the mountains through the Tatra Academy programme.

Since 2016, he has been implementing management based on goals and values in his organisation. He focusses on creating an organisational culture from scratch, and he has carried out a number of long-term initiatives in the field of improving organisational processes, changing attitudes among employees, and improving the quality of communication (Open Eyes Economy Summit).

### 5. Tourism in the Natural Environment – Legal Aspects of Tourism in the Tatra Forests

The Tatra National Park with its registered office in Zakopane is a state legal entity and operates on the basis of the Act of 16 April 2004 on nature conservation and the statute granted by the Regulation of the Minister of the Environment of 18 February 2013. on granting the statute to the Tatra National Park with its registered office in Zakopane. The latter legal act defines, among others, the internal organisation of the Tatra National Park, including the organisational units that make up it.

The director of the Tatra National Park manages its activities with the help of the deputy or deputy director of the Park, the chief accountant, and the managers of organisational units indicated in the statute. In the absence of the director of the Tatra National Park or temporary inability to perform his duties, the activity of the Tatra National Park is managed and represented outside by his deputy appointed by the director.

The director grants the appropriate powers of attorney to take legal actions in writing. The head may also establish consultative and advisory committees and permanent or temporary teams, specifying their name, composition, scope of tasks, mode of work and the manner in which they are handled. Among the protection districts of the Tatra National Park, which are the result of historical conditions, the following are mentioned in the statute:

- Łysa polana,
- Morskie Oko,
- Zazadnia,
- Kośne Hamry,
- Brzeziny,
- Gasienicowa,
- Strażyska,
- Kuźnice,
- Kościeliska,
- Chochołowska.

It is worth remembering that in accordance with the provisions of the Act of 16 April 2004 on nature conservation in national parks and nature reserves, it is prohibited, for m.in, to organise recreational and sports events - in a national park

without the consent of the director of the national park, and in a nature reserve without the consent of the regional director of environmental protection.

The Director of the Tatra National Park is a nature conservation authority, the indicated Act of 16 April 2004 on Nature Conservation in Article 6 paragraph 1 contains a catalogue of forms of nature conservation. According to the provision of this article, the legislator recognised national parks, including the Tatra National Park, as forms of nature protection.

This is how the basic historical and legal conditions of tourism in the Tatra National Park are shaped. When considering the issues of tourist attractiveness of the Tatra Mountains, it should be remembered that the director issues orders concerning the functioning of the national park, including the methods of making the areas of the national park available.

According to Ordinance No. 36/2019 of the Director of the Tatra National Park of 20 December 2019 on the obligation to provide the care of a Tatra mountain guide in the Tatra National Park, the obligation to provide the care of a Tatra mountain guide has been introduced during all organised hiking trips in which young people study in primary and secondary school (high school, technical secondary school, trade school).

The Act of 29 August 1997 on hotel services and the services of tour leaders and tourist guides indicates that the performance of the tasks of a mountain guide for a specific mountain area requires the qualifications specified in the Act.

Furthermore, the Regulation of the Minister of Sport and Tourism of 26 June 2014 on the acquisition of mountain guide qualifications indicated that the area of qualifications of a Tatra mountain guide is limited:

- ➤ from the north: along the valley of the Orava River the line connecting the Spytkowicka Pass, Chabówka and the Sieniawska Pass through the valley of the Lepietnica River to its confluence with the Czarny Dunajec River and further to the Dunajec through the valley of the Dunajec River the Krośnicka Pass the Krośnica River to its confluence with the Dunajec River the Dunajec River to the mouth of the Grajcarek River the Grajcarek River the Biała Woda stream the Splits Pass;
- ➤ from the east, south and west: the border of the Republic of Poland.

The above regulations clearly indicate that the legal aspects of tourism in the Tatra forests are inextricably linked to their historical conditions. These elements are crucial in further stages of considerations about the beginnings of nature conservation and tourism in the natural environment on the example of Tatra forests.

### 6. Knowledge about the Tatra Forests and the Beginnings of Nature Conservation and Tourism in the Natural Environment in the Opinion of the Respondents – Results of Own Research

The Tatra Mountains are an endangered mountain range in Poland; It has long been protected by both naturalists and nature lovers. Their unique landscape values, diversity of fauna and flora and harsh climate make them one of the most important places in Poland in terms of nature conservation. The history of conservation of nature in the Tatra Mountains is influenced inextricably and constantly by the environment for which the ecosystem is important. The study tried to check the level of knowledge about the detailed conditions for the protection of this ecosystem.

The aim of the survey is to check the level of knowledge of the respondents about the Tatra forests and the beginnings of conservation of nature and protection of the natural environment. The research was conducted through expert interviews in the academic community. The interviews were attended by students of Tourism and Recreation and lecturers in the fields of Economics, Management and Tourism and Recreation. The interviews were conducted between May 2024 and October 2024. 20 people participated in the research. The distribution of groups participating in expert interviews is presented in the chart below (Figure 2).

14
12
10
8
8
6
4
2
0
Students

Educators (Academic environment)

Figure 2. Number of participants in expert interviews

Source: Own research.

Questions for expert interviews can be grouped into three thematic groups:

What are the characteristics of the Tatra forests in terms of biodiversity and species composition?

In summary, the respondents agreed that they have little knowledge about the characteristics of the Tatra forests in terms of biodiversity. The responses in interviews with the academic community were consistent with the fact that Tatra forests are characterised by the occurrence of many species of endemic plants and the richness of vascular flora and bryophytes. Fauna was also mentioned, including rare and protected species such as the brown bear, lynx or Tatra chamois, which

come from rich natural resources and habitats. Unfortunately, this knowledge was at a high level of generality.

What were the most important moments in the history of nature conservation in the Tatra Mountains?

The interview participants (both academic communities, lecturers and students) admitted that they have little knowledge on this subject. The knowledge of the facts on this subject is presented in the table below. It was recognised that the establishment of the Tatra National Park in 1954 was important for the preservation of the unique ecosystem of this region, which was a formal sanction for the protection of the natural values of the Tatra Mountains.

**Table 4.** The level of knowledge about the protection of the TPR ecosystem in the self-assessment of the interviewees

Knowledge of facts about the history of nature conservation in the Tatra Mountains		Little knowledge	Deep knowledge	Accurate knowledge
Students	6	2	0	0
Educators	1	13	6	0

Source: Own research.

How can the needs of users be balanced with the need to preserve natural ecosystems?

Unfortunately, the participants in the interviews (both groups participating in the expert interview) decided that this is a very broad and extensive issue. Yes, you have to strive to balance the needs of tourists with the preservation of natural ecosystems in the Tatras. Balancing the needs of users with the need to protect natural ecosystems requires a holistic application that includes social and ecological benefits.

One of the strategies indicated by the survey participants was the creation of a strategy for sustainable management of natural resources. Creating a holistic strategy will allow a group of e.g. tourists to naturally draw on existing resources and, at the same time, a conscious policy that allows for their reuse by future generations.

### 7. Conclusions and Summary

Forests cover 31% of the total land area on Earth, of which 36% are primary forests. Forests are home to 70-80% of the world's terrestrial species biodiversity. Forests provide shelter for 300 million people around the world (Grzywacz, 2011).

Using the case study of Tatra National Park, descriptive analysis, and the method of deduction, the basic objective of the study was achieved. This goal was an attempt to answer the question about the beginning of the idea of nature conservation, including forest protection (time, place, activities).

The specific objectives were to analyse documents guaranteeing activities for nature conservation, to determine the role and significance of the forester's work, and to recall the names of people who contributed to nature conservation, including forest protection. Literature studies and our own research allowed us to formulate the following conclusions:

- the economic use of the Tatra Mountains began in the fifteenth century,
- ➤ the beginning of the idea of nature conservation, including the protection of forests in Poland, dates back to the nineteenth century. In January 1865, Maksymilian Nowicki presented in Vienna the need to protect chamois and marmots,
- ➤ in 1866, Jędrzej Wala and Maciej Sieczka were sworn in as chamois and marmot guards,
- ➤ The beginnings of nature conservation, including forest protection:
  - the time of the nineteenth century,
  - place: Podhale,
  - activities: protection of marmots and goats, protection of vegetation and pastures.
  - documents guaranteeing activities for the protection of nature:
    - 1851, work entitled "Podhale and the northern inclination of the Tatra Mountains, or the Polish Tatras",
    - 1865, document "Admonishment of Zakopane and all Podhale residents not to exterminate marmots and goats",
    - 1868, the High Galician Parliament in Lviv passed a law "regarding the prohibition of catching, exterminating and selling alpine animals, specific to the Tatra Mountains, marmot and wild goats" Act of 19 July 1869,
    - 1948, by the Regulation of the Ministry of Forestry of 11. June 1948 Spr. OP 243 a strict reserve for game was created in the upper part of the Kościeliska Valley.
  - historically, the profession of a forester was associated with the maximum use of the forest by an individual owner with minimal expenditure on its reproduction,
  - the work and service of a forester is based, among others, on activities aimed at ensuring universal protection of forests, i.e. shaping the balance in forest ecosystems,

A forester is defined by the work he or she performs, mainly:

- > caring for animals and taking care of order and cleanliness in the forest,
- > activities related to the production of wood raw material,
- > nature protection and forest fire protection.

The professionalism of foresters, their effort and commitment to nature and biodiversity protection are highly appreciated.

People who have contributed to nature conservation, including forest protection, include:

- people of the Tatra Mountains and highlanders: the family of the Zamoyski counts: Władysław, his mother Jadwiga and sister Maria; Tytus Chałubiński, Eugeniusz Janota, Jan Gwalbert Pawlikowski, Ludwik Zejszner,
- directors of the Tatra National Park: Marceli Marchlewski, Czesław Madeyski, Leon Niedzielski, Wojciech Gąsienica Byrcyn, Paweł Skawiński, Szymon Ziobrowski.
- ➤ The Tatra National Park is subject to special legal regulations, in the context of tourism, the director of the Tatra National Park has key powers that serve to improve the quality of services provided in the Tatra forests.
- ➤ The unique biodiversity of the Tatra National Park is obvious to each participant in the study. However, this is knowledge at a high level of generality.
- ➤ The fact that it is one of the most valuable natural areas in Poland, characterised by the diversity of fauna and flora, is without doubt in the opinion of the participants in the interviews.
- > Detailed information on the diversity of climatic and geological conditions and vegetation levels is no longer available to study participants.
- Furthermore, the survey participants point to the need to create and expand existing regulations on natural resource management strategies but are unable to indicate detailed ideas on this subject.

Research on Tatra forests with the beginnings of nature conservation, including forest protection, can be considered as research with great potential due to the still valid perspective of sustainable development, including the protection of the natural environment.

Research covering the history of nature conservation, including the historical approach to forest protection in Poland, should be continued both in the professional group of foresters, ecologists, educators, as well as in the area of economics and finance, including accounting, including the outlays and costs of nature conservation and forest protection, or attempts to evaluate the nonproductive effects of forest functions.

#### **References:**

- Adamowicz, K., Szczypa, P. 2015. Forest as a controlling object of the project. Economic Studies, 245, 7-16.
- Chmielewski, J. 2014. Protective forests. A contribution to the administrative and legal considerations the issue of particularly protected forests. Environmental Law Review, (4), 83-110.
- Chrzanowski T. 2009. Education in nature and forestry education in the State Forests. In: Dąbrowski, T.J. 2013. The role of the media in shaping the image. Marketing and the market. Warsaw, No. 9.
- Drabarczyk, S. 1976. From the press. Joint protection of the Tatra Mountains. Silvanus, 120(05).
- Grzywacz, A. 2011. Healthy forests healthy society. Studies and Materials of the Education Center Nature and Forestry, 13 (3[28]).
- Hoesick, F. 1992. L e g e n d o w e Zakopane characters. National Printing House in Krakow.
- Jarząbek-Giewont, M. 2016. Znane postacie dawnego Zakopanego. In: Licencjonowany Przewodnik tatrzański. https://www.tatry-przewodnik.com.pl/blog/?postaciezakopanego.
- Jaszczak, R., Wajchman, S. 2014. The participation and role of the social factor in the creation of plans forest management in Poland. Silvanus. 158(3), pp. 231-240.
- Krokowska-Paluszak, M., Opalińska, P., Łukowski, A., Błasiak, A., Wierzbicka, A., Skorupski, M., Sagan, J., Gruchała, A., Tomusiak, R. 2017. The forest and the role of the modern forester seen through the eyes of the Society. Studies and materials of the CELP in Rogów, R. 19, Issue 50/1/2017.
- Kusiak, W. 2015. Organization of forestry in Poland. In: Propaedeutics of Forestry, W. Kusiak, R. Jaszczak. Publishing House of the Poznań University of Life Sciences. Poznan.
- Lettner, G. 1885. "Pam.TT" 10, also Sylvanus 3, 1885.
- Licencjonowany Przewodnik tatrzański. https://www.tatry-przewodnik.com.pl/.
- Michalak, R 2004. Usefulness and use of information contained in forest management plans. In: Stępień E (red.). Multifunctional forest management. Opinions, views, proposals. Publishing House Development Foundation SGGW, Warsaw, pp. 269-285.
- Molenda, T. 1969. Forest economics as a component of forest sciences. In: Issues of economics Forestry. Ed. W. Krajski. State Agricultural and Forest Publishing House. Warsaw.
- Open Eyes Economy Summit. https://oees.pl.
- Podmokły, M. 2015. Od górala do taternika. Tatrzańscy przewodnicy dawniej i dziś In: Wyborcza.pl Kraków. https://krakow.wyborcza.pl/krakow/7,44425,18911859,odgorala-do-taternika-tatrzanscy-przewodnicy-dawniej-i-dzis.html.
- Rąpalski, P. 2024. Gąsienicowie, Bachledowie, Krzeptowscy, Stochowie oto największe góralskie rody In: Gazeta Krakowska. https://gazetakrakowska.pl/gasienicowie-bachledowie-krzeptowscy-stochowie-oto-najwieksze-goralskie-rody/ar/c1-14447107.
- Sadowska, B. 2020. History of the State Forests in Poland. In: S. Sojak, Abacus from the Cash Register of 1819 to the accounting of the State Forests. Scientific Publishing House of the Nicolaus Copernicus University, Toruń.
- Szczypa, P., Voivode, M. 2017. Assumptions of the concept of nature and forestry education in the Primary School Captain Witold Pilecki in Będargów. Studies and Materials of the Center for Nature and Environmental Education Forest, 19(1[50]), pp. 286-293.

Tatrzański Park Narodowy. https://tpn.pl/. Węgrzyn T. 2011. Newsletter. Polish Tatra Society. Bielsko-Biała.