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REINTRODUCTIONS OF FOREST FAUNA IN THE SECOND POLISH REPUBLIC

Abstract: The article presents the action of the reintroduction of forest fauna conducted in the interwar period in Poland. The activities that led to the rescue of bison were discussed. The success of saving the last beaver populations in this part of Europe was recalled and analyzed. The activities, pioneering in Europe, carried out by the State Forests, for the protection of moose, were also presented. The article draws attention to the modernity of the ecological policy in Poland during the period of 1918–1939, as well as to the importance of the policy implemented by the State Forests in this period. Despite the Soviet-German occupation of Poland, some of the activities of interwar Poland managed to survive and to this day constitute an important part of the ecological policy of the EU.

Keywords: forest policy, the Second Polish Republic, saving the bison, protection of the beaver, history of ecology, consequences of the Soviet and German occupation

<https://doi.org/10.14746/sho.2024.42.1.007>

INTRODUCTION

World War I wreaked significant havoc on Poland's forests. The plundering of forests by the occupying authorities as well as the dire material situation of the population led to enormous losses (Szafer, 1919). These also affected the forest fauna. Hunger and relatively easy access to weapons resulted in mass poaching. Only then did the nascent administration of the Republic, organizing forest policy, find itself in a very difficult situation. Often the most basic working tools such as e.g. forest maps were lacking (Pączewski, 1924: 44).

One of the most important tasks was the restoration of the animal population of Polish forests. The positive results of the bison rescue campaign are undoubtedly one of the greatest successes of Polish forest policy. However, it is worth remembering other successes of this policy as well. The reintroduction of bears, the world's first reintroduction of a carnivore, in the Białowieża Forest as well as the beaver rescue campaign have been, after all, achievements on a global scale.

BISON RESCUE AND REINTRODUCTION CAMPAIGN

After World War I when the Białowieża Forest became part of the Second Republic of Poland, one of the most important questions asked was whether the bison had managed to survive the period of German occupation and revolutionary chaos. Even though as early as 1919, a government mission, headed by Herman Knothe (Daszkiewicz et al., 2020b), had reported that the free-living population of the species in Białowieża Forest were becoming extinct, rumours continued to circulate about a single bison or perhaps a small herd that were thought to have been seen in or near Białowieża Forest. The Polish Hunting Association even set a reward and printed placards in order to obtain information about any surviving bison (Daszkiewicz et al., 2020b). As late as the December 1919 issue of *Ziemia*, Stanisław Miklaszewski wrote in a report on his August visit to the Forest about the bison, "And the bison? The reader will undoubtedly ask; - A few of these last Mohicans are still wandering around today in the remotest backwoods of the Forest (their number is said to vary from 4-6)" (Miklaszewski, 1919).

The report prepared by Janusz Domaniewski, a delegate of the P.R. O.P. (State Council for Nature Protection [Państwowa Rada Ochrony Przyrody]), contained information confirming the earlier findings of the commission headed by Władysław Szafer (1919), that bison were no longer present in the forest and that the only bison that have survived on Polish lands were 16 animals in the Pszczyna forests in Upper Silesia (Anonim, 1921a). As early as 1920, the P.R. O.P. prepared a *Draft Law on the Protection of Particularly Rare Species of Animals and Plants* (Anonim, 1921b), in which the species is mentioned in numerous paragraphs, threatening imprisonment and a fine, not less than 200,000 Polish marks, for killing a bison (for comparison, it can be recalled that a labourer's salary at that time was

100 marks or slightly less than \$1, and a teacher's salary was 800 marks). The act testifies not only to the very rapid measures taken to protect animal and plant species in the reborn Poland but also to the fact that in 1920 there was still hope that perhaps at least part of the bison population had survived.

Faced with the extinction of the Białowieża bison, very soon Jan Sztolcman proposed to rebuild the population on the basis of specimens scattered in various zoos and parks and to reintroduce the species into the Białowieża Forest. Since most of the bison were outside Poland, it was necessary to internationalize this action. Jan Sztolcman included, in *Nature Protection*, a report on the First Congress of the International Society for the Protection of Bison in Berlin (September 27 and 28, 1925), in which he took part as an official delegate of the Republic of Poland. He recalled that he was the first to propose the establishment of a similar society at the Paris Congress:

Let me remind you that in May 1923, at the International Conservation Congress in Paris, I was the first to raise the idea of founding a similar Society on the model of the American Bison Society, thanks to which the remnants of American bison, which numbered only 885 heads in January 1899, were saved from extinction with their number reaching 15 or perhaps 16 thousand today. The idea of founding a similar society was apparently timely, because at the same time as I did, a group of German scholars also took it up, and when the chairman of the zoological section of the Paris Congress, P. Delacour, during his stay in London, proposed to the Zoological Society there that it should take the initiative in founding a League for the Protection of Bison, he was told that the Germans had already begun efforts in this matter. Thus, on August 25 and 26, 1923, a group of people met in Berlin and founded the International Association for the Protection of Bison (Internationale Gesellschaft zur Erhaltung des Wisents) (Sztolcman, 1926).

RECOVERY OF THE BISON POPULATION AND THEIR RETURN TO THE BIAŁOWIEŻA FOREST

The first stage of the campaign to save the bison was, of course, to find and inventory them. Particular attention was paid to the Pszczyna bison, several of which survived the wartime catastrophe. In 1923, a note published in *Nature Protection*, titled *Bison in Pszczyna*, reported that of the 100 animals living there in 1911, only five remained, 70 had been killed by German Grenzschutz soldiers, and 32 bison fell victim to poachers during the fighting of the Third Silesian Uprising (S., 1923). It was also

hoped that the Pszczyna bison would contribute to the restoration of the Białowieża population, the report of the P.R.O.P. convention in 1925, reported that:

On the issue of bison protection, a broader discussion had developed. J. Sztolcman was urged to communicate personally with the Rev. of Pszczyna on reducing the area of the Pszczyna game reserve for easier supervision. Prof. Dr. Grochmalicki notified that the bison in Poznań were doing well and a new one's arrival was expected. Negotiations were also undertaken to bring in cows (Szafer, 1926).

There was also a search for bison in other places. In 1924, it was reported that, in response to an inquiry about bison from Jaworzyna Spiska, the management of the Duke of Hohenloe's estate replied in a letter dated June 19, 1923, that "the bison became extinct during the great snowfall. Only one three-year-old cow remains" (Z., 1923). It is also interesting to note that there were attempts to acclimatize Caucasian bison in the Tatra Mountains on the same estate.

In addition to Białowieża bison, hybrids, with bison from the Caucasus bison and domestic cattle, were also found in captivity. So the question arose whether and how to use these hybrids in the campaign to save the species. Although the obvious goal was to rebuild a "genetically pure" Białowieża population, however, the small number of individuals and the recent memory of the war catastrophe made each, even a hybrid, very valuable. There was also a search for an "emergency exit" in case the restitution of the Białowieża line failed (Grochmalicki, 1932). The second major issue was the question of ownership. After all, most of the bison were in private hands, and putting them at the disposal of an international organization or selling them depended on their owner's decision. Postulates, such as the one formulated by Konrad Wróblewski, that the bison, as a "general human good," should not be allowed to be privately owned, and that, by international agreement, "all pure-blooded bison should be gathered in different places, in several groups similar in age, and consisting of a few cows and a herdsman, and subjected to careful care" (Grochmalicki, 1932) remained, unfortunately, in the realm of wishful thinking. Polish authorities acquired bison and their hybrids whenever possible. Białowieża was to be a breeding ground and then a refuge for Białowieża bison. The bison hybrids were a major problem in the program to rebuild the free-ranging bison population, which was exacerbated when the Germans began to promote the breeding of these hybrids and their subsequent cross-breeding with pure-bred bison.

As early as 1928, it was pointed out at the Congress of the International League for Nature Conservation that the policy of crossing the European bison with the American one and increasing the number of hybrids could lead to the extinction of the pure Białowieża line (K., 1928). This threat was discussed several times in the pages of *Nature Protection* (Grochmalicki, 1930), and Konrad Wróblewski postulated that the use of female bison for the "creation of bastards" should be banned, and any crossbreeding of European bison, whether with American bison or domestic cattle, should be allowed only for scientific purposes (Grochmalicki, 1932). In the pages of *Nature Conservancy*, different views were presented on the issue of the importance of subspecies status in restoration actions. Wróblewski believed that the Białowieża, Caucasus, and Pszczyna lines should not be separated because they are the same, "European bison", species. This view was strongly opposed by Roman Kuntze, who, in his excellent article *Nature Protection and Subspecies Systematics*, was clearly relieved by the decision to keep only the pure Białowieża lineage in the Forest (Kuntze, 1935).

In 1929, the convention of the Society for the Protection of Bison took place from September 1-3 in Poznan. The General National Exhibition and the decade of independence gave it a special significance. It was chaired by Kurt Priemel. The memory of Jan Sztolcman was honored. As if in the background of this solemn convention, a Polish-German dispute was developing, both over the distribution of finances and the primacy of the bison rescue campaign. In this first period of the restoration of the species, a particularly important role was played by the Poznan Zoo, which purchased two bison. At the national exhibition, they could be seen by perhaps as many as a million visitors. It was in Poznan that the idea of conservation (ex-situ) of the bison was put into practice. Władysław Janta-Półczyński sat on the board of the Society for the Protection of Bison on behalf of Poland. It was thanks to his efforts and the involvement of the director of the bank in Poznan – Sylwester Urbański – president of the Supervisory Board of the Poznan Zoo, that the first pair of bison was acquired in 1924. For the not inconsiderable sum of 12.5 thousand marks, German breeder Heinrich von Beyme – a landowner from Scharbow in Mecklenburg, who also owned several estates in Greater Poland – sold the first pair of bison: F 96 GATCZYNA and M 101 HAGEN. The animals were placed in the Poznan Zoological Garden on April 5, 1924. The first recorded offspring was a bullock M 114 SCHARLATAN and a heifer calf F 171 SCHATULLE. On June 28, 1928, the pair of Poznan bison was trans-

ferred to Białowieża. The Ministry of Agriculture intended to establish a herd there in 1929 for the restoration of the species. Unfortunately, the cow died in 1932, and the bull in 1933.

Due to its natural, but also political, importance, efforts were made to institutionalize the campaign to save the bison. A special commission was set up with the participation of scientists, representatives of the ministries of education, foreign affairs, and the P.R. O.P. (Szafer, 1929). In 1930, the Society's convention took place in Leipzig (Grochmalicki, 1930). It was reported there that:

The current number of pure-blooded bison is admittedly small, as at the end of 1929 there were 59 specimens, including 32 females and 27 males, as many as were at the end of 1928. It should, however, be noted what is most important for the horoscopes of the bison reproduction and what is the main concern of the International League for its protection, that this animal, as a species, does not show any degeneration in breeding, can be bred easily, and the young are born healthy. Such that even though last year was marked by a very significant loss of specimens, both due to old age and injury as a result of accidents, the arrival of newborns has completely compensated for these exceptional losses, and adding to the previous year's number of specimens born until the spring of this year, today we have 62 pure bison in zoos and game parks. This number of animals is broken down by country as follows: England has 19 animals, Germany 18, Poland 13, Sweden 5, Russia 3, Austria 2, the Netherlands and Denmark 1 each. In Poland, the largest number of bison (8) is in the Prince of Pszczyna's petting zoo in Upper Silesia, 2 each have Zoological Gardens in Poznan and Warsaw. In addition, 1 pure breed is in Białowieża (Grochmalicki, 1930).

Following Tomasz Sobalak, it should be emphasized that

Władysław Janta-Polczyński, as a man deeply involved in the protection of the bison, at the same time a great erudite person with an excellent command of the German language, in April 1926 in Berlin at the International Congress on the rescue of the bison, delivered an extensive paper entitled *Der Wisent in der Bialowies-Heide von Prof. Wróblewski*, received not only with appreciation but also with a resolution to apply the tips and advice recommended in the work by Prof. Dr. Wróblewski.

This initiative and skilful propaganda of the idea of bison revival in Poland led to the establishment of a branch of the International Society for the Protection of the Bison, which in 1930 had 300 members and became the most numerous foreign branch. On September 1-3, 1929, the Fifth Congress of the ICZM was held in Poznan, attended by many distinguished guests, including those from abroad. At the ceremonial meeting, the Society's President Dr. K. Primel decorated Drs. Kazimierz Szczerkowski, Sylwester Urbański, and Grand Hunter Władysław Janta-Polczyński, then President of the Polish Branch, with the Society's badges of honor - Golden Pins. This was a token of international recognition for their exceptional services in the field of bison rescue (Sobalak, 2013: 32).

The transition to the second stage of the bison rescue campaign, that is, the release of the animals into the wild, was followed with great attention. An important question was whether the bison should immediately return to the Białowieża Forest or whether another place should be found for them. In the case of Białowieża, the threat of *Fasciola hepatica* and poaching was emphasized (Szafer, 1929). The memory of the Bolshevik invasion and subsequent occupation of Białowieża was close at hand. It was also realized that the bison had better conditions in Puszczyna (Grochmalicki, 1932). Opponents of the return of bison to Białowieża included Janusz Domaniewski. Konrad Wróblewski proposed the establishment of a special breeding farm as the next stage of the campaign:

As for specifically breeding bison with us, according to the desk officer, it is completely suitable for the purpose of placing them in Białowieża, although the present park area of 22 hectares is unconditionally too small. In order to provide them with normal breeding conditions, it would also be necessary to arrange separate plots with pens for each cow, standing as a matriarchy in the herds. The same plots with pens should be arranged for young and lonely cows, but young males should be eliminated from the herds early, and unnecessary boars and bastards should be given to zoos (Grochmalicki, 1932).

The decision to choose the Białowieża Forest also had its political aspect. The action to save the species was a kind of a field for Polish-German competition. In a very unfair way, Poland was repeatedly attributed responsibility for the extinction of the species in the Forest (Ejsmond, 1929). Therefore, the authorities of the Second Republic of Poland were anxious about the success of the action and the triumphant return of the bison to Białowieża. The import and release to the reserve in Zwierzyniec, on September 19, 1929, was rightly regarded as a major success of Polish conservation policy. The return of the bison, along with its history, was described by Jan Karpinski, and *Nature Conservancy* also published photographs illustrating the release (K., 1929). In the last pre-war issue of *Nature Conservancy*, a report from 1937 reported the birth of 2 bison: "The bison females Biserta (by Borus) and Biskaja (by Plisch) have produced an offspring: a bullock 'Pulchny' and a heifer 'Polka.' The number of bison has reached 13, exclusively purebred" (Doubrawski, 1937).

BEARS, BEAVERS, MOOSE, POLISH HORSES

A reading of *Nature Conservancy* yearbooks and forestry and hunting journals leads to the belief that the goal of the policy of reintroduction and “strengthening” the population was to restore the mammalian fauna inhabiting the forest areas of the former Republic of Poland. Not only bison but also other large mammals were dealt with. The bear reintroduction experiment shows a change in thinking in conservation and forest policy. A species that became extinct in the 19th century, exterminated as a “pest” by the actions of the tsarist administration, was now set to return to the Forest. This example, the world’s first reintroduction of a large carnivore, shows that the ecological role of carnivores was understood in Poland in the period between the wars. Not only were they not treated as “pests to be exterminated,” but they even wanted to restore them to nature where only a few decades earlier they had been exterminated. The release of the bears was preceded by years of preparation and discussion about the origin of the individuals, their selection (Kuntze, 1935) as well as the method of reintroduction (Daszkiewicz et al., 2020a). The history of introduction was described by Karpiński (1949). In 1938 PZŁ (Polish Hunting Association [Polski Związek Łowiecki]) released several one-and-a-half-year-olds in the Białowieża Forest and a cage with a pair of adults was established. Two cubs were born. The adults were taken from the forest, and 1 older and two cage-born survived. After 1945, a female Małgosia with two cubs was encountered in the Forest. In 1946, two bears set up dens in Białowieża National Park. This action should be considered a great success and was the first such experiment in the world (Samojlik et al., 2018).

The Nature Conservancy of 1936 reported:

The eastern lowland form of the bear, on the other hand, is not represented at all in the state forests, except perhaps for the transient specimens found in the Łuniniec Forest District and coming from Russia, or from the estate of Prince Ogarkow, which adjoins this forest district. The project, which had been discussed for several years, to introduce the bear into the Białowieża Forest, where the animal was exterminated in 1880, was put on the real ground in 1936. Under a treaty between the State Forest Headquarters and the Warsaw Zoological Garden, the State Forest Administration received 3 bear cubs (2+1) of Western Russian origin in the summer of 1937 in exchange for a hybrid bison given to the Garden in November 1936. The bear cubs will be placed in a special center on the outskirts of the National Park, where they will be kept in closed breeding for an initial period, and then gradually accustomed to freedom. In this way, in 1937 we will celebrate the return to the Forest of the third animal species [besides the bison and the beaver] that has been exterminated by man (Kostyrko, 1936).

The next yearbook included a photo of the famous Lola and report on the progress of the reintroduction:

An iron cage and a watchtower have been built in the depths of the National Park (temporal edifice). At both compartments of the cage, wooden dark cages are built to provide pits. The cage contains a female bear in one compartment, expecting cubs in early 1938, and in the other compartment, bear cubs imported from Russia. The bear cubs, acquired or born in the cage, will have the ability to leave the cage. As they grow, they will lose more and more contact with the cage and artificial feeding, assimilating permanently into the wilderness. Then both the female bear and erected structures will be removed (Doubrawski, 1937).

Young 1.5–2.5-year-old bears, which unfortunately did not adapt, were also released. Of the 7, only 1 survived. During the occupation, the Nazis released tame bears into the Forest. After 1945, adult bears and females with offspring were observed in the Polish part of the Forest. After 1947, there were no longer observations of their presence.

The reintroduction of beavers was also regularly reported. When Poland regained its independence, the beaver was a species almost exterminated. Thanks to the action of foresters, as well as the very important involvement of Julian Ejsmond, not only were the last populations protected but also a beaver reintroduction campaign was prepared while withdrawing from the program of releasing Canadian beavers bred in Poland (Daszkiewicz et al, 2021b). When discussing the issue of beaver reintroduction, the Directorate of State Forests used the work and expertise of Otto Hedemann, who identified the former position of beavers on the Narewka River. Similarly, an inventory of the beavers in the Białowieża Forest was compiled in cooperation with this prominent historian (Kostyrko, 1936). This is a rare historical example of a forest management administration referring to the work of historians in order to conduct a current conservation campaign (Daszkiewicz et al, 2021b). It is worth recalling that at the conferences in Gołuchów at which the Forest Culture Center appeals, for many years, not only to the competence and knowledge of foresters, but also to historians.

In the Second Republic of Poland, efforts were also made over the years to increase the number of elk in the Forest. Beginning in 1937, elk were brought into the Forest, to a special “game reserve”, from the estate of Karol Radziwiłł in Dawidgródek (Doubrawski, 1937). *The Nature Conservancy* also reported on the progress of Polish horse breeding conducted by Tadeusz Vetulani. This scientist wanted to obtain a horse as

close as possible to the tarpan and restore the wild horses of the Białowieża Forest. By finding them near Biłgoraj and skilfully breeding them, the professor succeeded in achieving this goal. In his research, Vetulani conducted craniometric measurements, cytological studies, and comparative studies with other horse species. In addition to the steppe tarpan (mainly the skulls identified by Prof. Adametz of Vienna), he included the Przewalski's horse and other breeds of domesticated horse (including other horses from the Biłgoraj area, cold-blooded horses, and the Croatian poney from the Krk Island, the so-called Veglia poney, considered close to tarpans). In addition, he extensively analysed historiographical sources. He not only described the new subspecies of forest tarpan but also established its origin, habitat, and circumstances of extinction. In his work, he also concluded that the last place of existence of a wild population of forest tarpans was the Białowieża Forest. That's why in 1933, at a meeting of the Polish section of the International Society for the Protection of the European Bison, this scientist proposed introducing typical gray-mouse-colored Polish horses from the vicinity of Biłgoraj into the Białowieża Forest and creating a reserve of horses. In 1936, the first ponies were brought to the Forest, *Nature Protection* described the experiment (Kostyrko, 1936), and a year later a 22-hectare horseracing reserve was established near the Hajnówka road in 1937 (Doubrawski, 1937).

CONCLUSION

Looking back over the years at the action of reintroducing forest fauna in the Second Republic of Poland, its effectiveness should be emphasized, even if, as a result of the defeat of the war and the partition of Poland by the Germans and Soviets, part of this action was lost. All of the much-protected beaver stands after World War II found themselves in parts of the Republic occupied by the Soviets. Although the Białowieża bears survived the division of the Białowieża Forest and the loss of Poland's part of it, the reintroduction experiment did not survive the occupation and the immediate post-war period. The Germans, under the leadership of Lutz Heck, director of the Berlin Zoo, a high-ranking Third Reich dignitary, also co-responsible for the displacement and murder of civilians near Białowieża and in Ukraine near Askania Nova, stole the herd of Polish horses and the results of Prof. Tadeusz Vetulani's experiment. Despite a special re-vindication mission, Professor Vetulani did not manage to recover any of

the Białowieża horses. However, the pioneering and so historically important experiments conducted by Polish scientists and foresters survived. It is also important to emphasize the role of the State Forests, which was the only similar institution in the interwar period to organize and support such activities.

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REFERENCES

- Anonim (1921a) 'Ostatnie żubry w Polsce', *Ochrona Przyrody*, 2, p. 100.
- Anonim (1921b) 'Projekt Ustawy o ochronie szczególnie rzadkich gatunków zwierząt i roślin, wygotowany przez Państwową Komisję Ochrony Przyrody, przystosowany do uwag Prokuratorji Generalnej Rzpltej', *Ochrona Przyrody*, 2, pp. 95–96.
- Daszkiewicz, P., Iwan, D., Samojlik, T., Rickiene, A. and Fedotowa, A. (2020a) 'Nieznane świadectwo początków reintrodukcji niedźwiedzia w Puszczy Białowieskiej', *Parki narodowe i Rezerваты Przyrody*, 39(2), pp. 89–98.
- Daszkiewicz, P., Iwan, D., Samojlik, T., Rickiene, A. and Fedotowa, A. (2021a) 'Sprawozdanie Janusza Domaniewskiego z misji w Puszczy Białowieskiej z 1921 roku', *Parki narodowe i Rezerваты Przyrody*, 40(3), pp. 79–88.
- Daszkiewicz, P., Samojlik, T., Rickiene, A. and Fedotowa, A. (2020b) 'Odnaleźć i ocalić ostatnie żubry – co wiadomo o misji Hermana Knothego w Puszczy Białowieskiej w 1919 roku', *Parki narodowe i Rezerваты Przyrody*, 39(3), pp. 93–98.
- Daszkiewicz, P., Samojlik, T., Rickiene, A. and Fedotowa, A. (2021b) 'Reintrodukcja i ochrona bobrów w II Rzeczypospolitej w świetle artykułów z prasy przyrodniczej i łowieckiej', *Parki narodowe i Rezerваты Przyrody*, 40(1), pp. 79–89.
- Doubrawski, M. (1937) 'Dyrekcja Lasów Państwowych w Białowieży', *Ochrona Przyrody*, 17, pp. 306–309.
- Ejsmond, J. (1929) 'Powrót żubrów do Białowieży', *Łowiec Polski*, 40, pp. 693–694.
- Grochmalicki, J. (1930) 'Zjazd Międzynarodowego Towarzystwa Ochrony Żubra w 1930 roku', *Ochrona Przyrody*, 10, pp. 103–104.
- Grochmalicki, J. (1932) 'Sprawozdanie z Walnego Zebrania Polskiego Oddziału Międzynarodowego Oddziału Ochrony Żubra w dniu 10 czerwca 1932 roku', *Ochrona Przyrody*, 12, pp. 110–112.
- Karpiński, J.J. (1949) 'La régénération de l'ours dans la Forêt de Białowieża', *Bijdragen tot de Dierkunde*, 28, pp. 218–236.

- K., J.J. [Karpiński, J.J.] (1929) 'Z Parku Narodowego w Białowieży', *Ochrona Przyrody*, 13, p. 186.
- K., W. [probably Kobylański, W.] (1928) 'Z międzynarodowej Ligi ochrony żubra', *Ochrona Przyrody*, 8, pp. 76-77.
- Kostyrko, J. (1936) 'Działalność Administracji Lasów Państwowych na polu ochrony przyrody w r. 1936', *Ochrona Przyrody*, 16, pp. 218-260.
- Kuntze, R. (1935) 'Ochrona Przyrody, a systematyka podgatunkowa', *Ochrona Przyrody*, 15, pp. 142-155.
- Miklaszewski, S. (1919) 'Z Puszczy Białowieskiej', *Ziemia*, 44, pp. 617-618.
- Pączewski, L. (1924) *Lasy przemysł i handel drzewny w Polsce*. Warszawa: Instytut Wydawniczy „Biblioteka Polska”.
- S., W. [probably Szafer, W.] (1923) 'Żubry w Pszczynie', *Ochrona Przyrody*, 3, pp. 95.
- Samojlik, T., Selva, N., Daszkiewicz, P. and Fedotowa, A. (2018) 'Lessons from Białowieża Forest on the history and the world's first reintroduction of a large carnivore', *Conservation Biology*, 32(4), pp. 808-816.
- Sobalak, T. (2013). Władysław Janta-Pończyński z Redgoszcy: twórca wielkopolskiego łowiectwa. Piła: Przedsiębiorstwo Produkcyjno-Handlowo-Usługowe. Grandel.
- Szafer, W. (1919) 'Z Puszczy Białowieskiej. Wrażenie z wycieczki odbytej w kwietniu b.r. Sylwan', *Czasopismo miesięczne dla leśników i właścicieli ziemskich. Organ Małopolskiego Towarzystwa Leśnego*, 37(4/6), pp. 125-139.
- Szafer, W. (1926) 'Sprawozdanie z VII Zjazdu Państwowej Rady Ochrony Przyrody odbytego w Warszawie w dniu 14 grudnia 1925 roku', *Ochrona Przyrody*, 6, pp. 115-118.
- Szafer, W. (1929) 'Sprawozdanie z XLV-go Posiedzenia Wydziału Ścisłego P.R.O.P. odbytego w Warszawie, w dniu 11 X 1929, w lokalu biura Rady (Lubicz 46)', *Ochrona Przyrody*, 9, pp. 120-122.
- Sztolcman, J. (1926) 'Żubr jego historia, obyczaje i przyszłość. Ostatnie żubry w Białowieży', *Łowiec Polski*, 18(368), pp. 360-362.
- Z., J. [probably Zborowski, J.] (1923) 'Stan kozic i żubrów w Jaworzynie Spiskiej', *Ochrona Przyrody*, 4, pp. 114-129.