



ANNEX 6

CATALOGUE OF PROTECTIVE MEASURES IN INDIVIDUAL ZONES OF THE SITE

The principles and detailed description of the division of the Białowieża Forest World Heritage Site into zones, the purpose of which is to protect its Outstanding Universal Value, along with a complete list of acceptable activities are presented in Chapter 6.4 of the *Management Plan for the Białowieża Forest Heritage Site (Polish part)*. This chapter also contains a description of the methodology for developing zoning corrections and the characteristics of the areas included in each zone. The internal division into zones ensures effective management of the Site. Therefore, the greatest care should be taken to allow the actions taken in each zone to guarantee the preservation of the integrity of the Property.

This catalogue of conservation measures was developed in accordance with the recommendations contained in the *Report from the joint reactive monitoring mission of the International Union for the Conservation of Nature (IUCN) to the Białowieża Forest World Heritage Site (Belarus, Poland) from 18 to 27 March 2024*, where it was recommended to formulate a catalogue of active protection measures that may be accepted in the active protection zone and the conditions under which they should be applied. In developing this catalogue, the provisions contained in, among others, the following documents: *Renomination Application submitted to UNESCO for the inclusion in the World Heritage List (2014)*, the *Forest Fire Protection and Extinguishment Plan for the Polish part of the Białowieża Forest Transboundary World Heritage Site (2024)* and the *Draft conservation plan for the Natura 2000 Białowieża Forest area (PLC200004) excluding the area of the Białowieża National Park were taken into account*.

Despite the division of the Białowieża Forest World Heritage Site into zones and the related breakdown of permitted conservation activities, it should be reminded that some of the recommendations made can refer to several zones or to the entire area of the Site. It is also important that the Białowieża Forest Site, together with a significant part of its buffer zone, is located within the Natura 2000 area. This is a special bird protection area and a special habitat protection area. All activities planned within the Site should comply with the provisions contained in the conservation task plans for Natura 2000 areas introduced:

- By way of the Order of the Regional Director for Environmental Protection in Białystok of 6 November 2015 on the establishment of a plan of protective tasks for the Natura 2000 Puszcza Białowieska area PLC200004 (Journal of Laws of the Podlaskie Province of 2015, item 3600),
- By way of the Order of the Regional Director for Environmental Protection in Białystok of 18 June 2014 on the establishment of a plan of protective tasks for the Natura 2000 Ostoja in the Upper Narew Valley PLH200010 area (Journal of Laws of the Podlaskie Province of 2014, item 2339),
- By way of the Order of the Regional Director for Environmental Protection in Białystok of 18 June 2014 on the establishment of a plan of protective tasks for the Natura 2000 Upper Narew Valley area PLB200007 (Journal of Laws of the Podlaskie Province of 2014 item 2338).

Moreover, activities related to the active protection of the Site should be consistent with the provisions of the Protection Plan of the Białowieża National Park, established pursuant to the Regulation of the Minister of the Environment of 7 November 2014 on the establishment of the protection plan for the Białowieża National Park (Journal of Laws of 2014, item 1735). Furthermore,

in zone 2, protective measures for species and their habitats should be consistent with the protection plans or plans of protective tasks for nature reserves located within the boundaries of the Site.

One of the documents defining the scope of necessary conservation measures within the Site is the above-mentioned *Fire protection and forest fire extinguishing plan for the Polish part of the Białowieża Forest Transboundary World Heritage Site 2024*). In order to minimize the risk of fires and their spread, as well as the loss of precious natural values of the Białowieża Forest, it is recommended to take the following actions:

In the field of prevention and fire protection:

- 1) conducting long-term monitoring of the fire hazard in the Białowieża Forest, taking into account the ongoing climate changes and their impact on the effect of the decay of spruce stands (dead wood, grass cover) enabling adequate response within the framework of the functioning fire protection system of the Forest;
- 2) in order to ensure safety for rescue forces on fire access roads, felling dead trees (and leaving them on the ground) in a 50 m strip along the fire access roads, in accordance with the recommendations of the UNESCO mission from 2018;
- 3) in order to ensure safety and maintain the accessibility of the Forest area for rescue forces, mowing the grass in a 2 m strip along the fire access roads;
- 4) due to the fire hazard generated by dead trees in the close vicinity of power lines, it is recommended to cut them down / fell them (and leave them on the ground) in zones 2 and 3, whereas in zone 4¹, depending on the needs, the trees should be cut down / felled and left on the ground or the biomass generated should be utilized , and it is recommended to run power transmission lines underground;
- 5) In a strip up to 50 m wide along public roads, forest roads open to public traffic, tourist trails and elements of tourist infrastructure, in accordance with the risk assessment procedure applied by the Facility Administrators, it is permissible to fell dead trees (and leave them on the ground) in zones II-III, and in zone IV², depending on the needs dictated by safety considerations, as well as to utilize the biomass generated;
- 6) compliance with applicable regulations and instructions regarding management of the movement of people in situations of increased fire risk, during periods of increased forest fire risk;
- 7) Consideration of the possibility of extending the monitoring of anthropogenic pressure on the Białowieża Forest, especially in places that are attractive to tourists and areas most at risk in terms of fire, would allow for traffic control, while also being a preventive measure;
- 8) Taking into account local conditions in terms of low water retention, which may to some extent locally reduce the fire hazard;

¹ In accordance with the adopted zoning criteria, power lines were classified into zone 4a, therefore it is possible to utilize the generated biomass in this zone

² Due to the division of zone 4 into subzones a-c, it should be clarified that tree removal is only possible in zones 4a and 4b

- 9) As part of the *Management Plan for the Białowieża Forest World Heritage Site (Polish part)*, to agree, to the extent possible, with Belarus on the principles of observing and detecting fires in the Polish part of the Forest, especially in the border zone, alerting about them and exchanging information on cross-border threat;
- 10) Gradual adjustment of the condition of fire access roads in the forest districts and the Białowieża National Park to the applicable regulations;

In the field of fire extinguishing:

- 11) Consideration of the possibility of establishing a regional alarm and dispatch point for the Polish part of the Białowieża Forest, whose task would be to coordinate the functioning of the fire protection system;
- 12) Adjustment of the rules for dispatching firefighting aircraft depending on meteorological conditions and the fire origin;
- 13) Striving to improve the functioning and unification of the radio communications network for fire protection purposes in the forest districts and Białowieża National Park;
- 14) Organizing exercises of rescue services, forestry services and the national park and other entities in the field of extinguishing forest fires in the Białowieża Forest;
- 15) using, particularly in reserves and within the national park, to a greater extent, handheld equipment to extinguish soil fires in areas where ground cover plants are subject to protection measures;
- 16) The use of chemical extinguishing agents should be limited only to agents which are biodegradable and necessary to eliminate fires that are difficult to extinguish with water, e.g. subsurface fires (rot, peat), lying logs.
- 17) Preparation of "strategic water draw-off points" discussed in Chapter 2.6. of the *Fire protection and forest fire extinguishing plan for the Polish part of the Białowieża Forest Transboundary World Heritage Site* (2024) for simultaneous water draw-off by more than one firefighting vehicle.

CATALOGUE OF CONSERVATION MEASURES IN ZONE 1

Area of the Zone 1, the strict protection zone, encompasses the entire area within Białowieża National Park (BPN), which is therefore responsible for implementing conservation measures in this area. These are largely limited and must be conducted in accordance with the park's conservation plan

Within the territory of the zone 1 the following actions are acceptable:

- 1) monitoring the condition of biotic and abiotic components of ecosystems;
- 2) identifying the condition and threats to resources and components of ecosystems;
- 3) collecting reproductive material for ex-situ breeding programs and reintroduction of species with special needs;
- 4) fire protection consisting of prevention – ban on entry to forest areas and patrols during periods of high fire risk, setting up information boards;

- 5) maintaining the passability of main roads and trails in order to ensure fire safety and the safety of people remaining in the Park;
- 6) protection against unauthorized human penetration and harmful activities;
- 7) minimizing the negative effects of making the area available to the public.

CATALOGUE OF CONSERVATION MEASURES IN ZONE 2

Area of the Zone 2, i.e. partial protection zone I³, is the area of nature reserves administered by the State Forests National Forest Holding and managed by BNP with the exception of the strict protection zone (zone 1) and the European Bison Show and Breeding Reserve (zone 4a).

Actions acceptable in zone 2:

- 1) monitoring the condition of biotic and abiotic components of ecosystems;
- 2) identifying the condition of and threats to resources and components of ecosystems;
- 3) fire protection activities;
- 4) maintaining the passability of main roads and communication routes in order to ensure fire safety and human safety; road renovation works
- 5) minimizing the negative effects of public access to the area; and if necessary, stopping succession by removing bushes;
- 6) removing alien species;
- 7) maintaining open non-forest habitats through mowing and if needed, stopping succession by removing bushes;
- 8) carrying out activities to increase local surface water retention by limiting surface water runoff using only natural local material (e.g. lying tree trunks).

CATALOGUE OF CONSERVATION MEASURES IN ZONE 3

Area of the Zone 3, or partial protection area II, encompasses forest ecosystems managed by the State Forests National Forest Holding, where no active forest management is conducted. This zone includes stands over 100 years old, pioneer stands dominated by birch and aspen, and protected zones for selected species designated by the Regional Director for Environmental Protection in Białystok.

Within the territory of the zone 3 the following actions are acceptable:

- 1) monitoring the condition of biotic and abiotic components of ecosystems;
- 2) identifying the condition of and threats to resources and components of ecosystems;
- 3) collecting generative and vegetative reproductive material for ex-situ breeding programs and reintroduction of species with special needs;
- 4) fire protection activities;

³ In accordance with the nomenclature adopted in the Renomination Application

- 5) maintaining the passability of main roads and communication routes in order to ensure fire safety and human safety;
- 6) protection against unauthorized human penetration and harmful activities;
- 7) removal of alien species;
- 8) ; conducting hunts and countermeasures against invasive alien species;
- 9) maintaining open non-forest habitats through mowing;
- 10) carrying out activities to increase local surface water retention by limiting surface water runoff using only natural local material (e.g. lying tree trunks);
- 11) gradual removal of existing fences around forest plantations.
- 12) In addition, for the habitats of thermophilic oak forests (including oak forests), the following protective measures are allowed:
 - a. Removal of hornbeams, hazels, maples, and limes with a diameter at breast height of <20 cm, along with removal of the harvested biomass from the habitat. Fruit trees and shrubs– apples, pears, etc., oak saplings, and junipers should be kept. This procedure should be repeated every 5 years. Outside the breeding season, preferably in autumn.
 - b. Removal of dead biomass – logs and branches – from the habitat. A one-time procedure. Perform the procedure as needed to eliminate dead biomass from patches of the habitat.
 - c. Mowing (grazing) the ground cover with the removal of the obtained biomass outside the habitat on dates specified in the protection plan;
- 13) Removal of the invasive non-native species *Impatiens parviflora*. Removal and/or mowing of specimens before seed release. The procedures should be repeated 2-3 times during the growing season and in subsequent years until the species is completely eradicated.
- 14) Due to the fact that the sites of the flowerless ground beetle and of the common pasqueflower are very small and difficult to include in a 1 ha grid, the following protective measures are also allowed:
 - 1) For the site of the flowerless bedstraw:
 - i. Mowing the undergrowth. Mowing height approximately 5 cm. Biomass from the swath should be carefully collected and removed (it is prohibited to leave chopped biomass behind it). This process should be carried out from July 15th on. This species bears fruit at the turn of May and June. By mid-July, the seeds have already been sown and mowing is not harmful to it. Annually.
 - ii. Cutting down trees and shrubs (to prevent succession). Remove the resulting biomass away from the species' habitat. This activity should be carried out between October and November.
 - 2) For the site of the open pasque flower:
 - i. i. Mowing the herbaceous undergrowth. The biomass generated this way should be removed away from the species' habitat. This activity should be carried out between October and November. Annually.
 - ii. ii. Cutting down trees and shrubs (preventing succession). The biomass generated this way should be removed away from the species' habitat. This activity should be carried out between October and November.

CATALOGUE OF CONSERVATION MEASURES IN ZONE 4

Zone 4, divided into three sub-zones, that is:

- 4a: sub-zone of active protection of species and habitats;
- 4b: sub-zone of active reconstruction of stands;
- 4c: sub-zone of passive reconstruction of natural regeneration of stands.

These are areas managed by the State Forests National Forest Holding (cultural areas not classified as zone 2, areas under active protection according to the Natura 2000 Conservation Plan, and stands whose condition does not currently qualify for classification as zone 3) and the Białowieża National Park (the European Bison Show and Breeding Reserve). Zone 4 also includes the border strip within which, due to the current geopolitical situation, the Border Guard and the Polish Army are conducting activities aimed at ensuring the country's security.

Within the territory of the sub-zone 4a the following actions are acceptable:

- 1) activities for the protection of species and habitats:
 - a. meadows, pastures, timber yards, hunting grounds – maintaining them in appropriate condition by removing bushes, mowing and other necessary treatments,
 - b. flowerless bedweed stands:
 - i. Mowing the undergrowth. Mowing height approximately 5 cm. Biomass from the swath should be carefully collected and removed (leaving chopped biomass behind is prohibited). This process should be carried out from July 15th. This species bears fruit at the turn of May and June. By mid-July, the seeds have already been sown and mowing is not harmful to it. Annually.
 - ii. Cutting down trees and shrubs (preventing succession). Remove the resulting biomass away from the species' habitat. This activity should be performed between October and November.
 - c. Sites of the common pasque flower:
 - i. Mowing the herbaceous undergrowth. The biomass generated this way should be removed away from the species' habitat. This activity should be performed between October and November. Annually
 - ii. Tree and shrub removal (to prevent succession). The biomass generated this way should be removed away from the species' habitat. This activity should be carried out between October and November.
- 2) activities within other technical areas: border strip, parking lots, roads, tourist facilities, Christmas tree plantations, built-up areas, water facilities, power lines and other areas
 - a. activities related to the maintenance and ensuring the functionality of the facilities located there, in accordance with their intended purpose.
- 3) environmental monitoring, including monitoring threats caused by factors likely to disrupt the course of natural processes or threaten the sustainability of ecosystems;
- 4) creating seed banks and ex-situ gene banks and pure cultures of fungi species;

- 5) protection against damage caused by external factors and limiting their effects;
- 6) supporting non-forest plant communities through mowing or grazing adapted to the type of plant communities and biological properties of species subject to protection;
- 7) removal of invasive and alien species which threaten protected objects;
- 8) conducting hunting and remedial actions against invasive alien species;
- 9) maintenance of passability of roads and communication routes; road renovation works;
- 10) protection of former agricultural land by maintaining traditional and extensive use;
- 11) active protection of animals, fungi and plants;
- 12) carrying out activities to increase local surface water retention by limiting surface runoff based to the greatest possible extent on the use of natural local material (e.g. lying tree trunks);
- 13) collecting generative and vegetative reproductive material for ex-situ breeding programmes and reintroduction of species with special needs
- 14) In addition, for the habitats of thermophilic oak forests (including the oak forest), the following protective measures are permitted:
 - a. fungi removal, Hazel, maples, and lime trees with a diameter at breast height of <20 cm, along with the removal of the harvested biomass outside the habitat. Fruit trees and shrubs should be left – apple, pear, etc., oak saplings, and junipers. The procedure should be repeated every 5 years. Outside the breeding season, preferably in autumn.
 - b. Removal of dead biomass – logs and branches – from the habitat. A one-time procedure. Perform the procedure as needed to eliminate dead biomass from patches of the habitat.
 - c. Mowing (grazing) the ground cover with the removal of the harvested biomass outside the habitat.
 - d. Removal of the invasive non-native species *Impatiens parviflora*. Remove and/or mow specimens before seed release. Repeat 2-3 times during the growing season and in subsequent years until the species is completely eradicated.

Conservation activities cannot be carried out in the area of trees over a hundred years old (individual trees over a hundred years old may be located in each zone).

Within the territory of the sub-zone 4b the following actions are acceptable:

- 1) thinning of coniferous monocultures planted in deciduous forest habitats - selective removal of coniferous trees;
- 2) measures acceptable within the areas with tree stands aged 0-20 years:
 - a. for crop areas: mowing excessively developing herbaceous vegetation, early cleaning consisting in breaking shrubs and other trees that choke out desired species,
 - b. for young stands - early and late cleaning activities. Activities aimed at regulating species composition (promoting broadleaf species) and shaping the resistance and stability of the respective stands by maintaining the appropriate density (density) of

trees. Activities aimed at shaping the most diversified species composition possible, diversified spatial structure. This range of activities can be carried out outside the bird breeding season (in the period from the beginning of September to the end of February);

- 3) activities permitted on areas with artificial trees aged 21 or more (depending on the development phase of the forest, carried out outside the bird nesting season, i.e. from 1 September to the end of February):
 - a. for younger stands, the stage of late cleaning and early thinning (up to about 40-50 years of age): removal of individual trees in order to improve lighting conditions, shape the resistance and stability of the forest and regulate the species composition (elimination of species that are ecologically inappropriate for the habitat, regulation of the share of individual species). Particularly in fresh forest and fresh mixed forest habitats, limiting the share of coniferous trees. Shaping the most diverse spatial structure possible. (During the treatments, dead trees, hollow trees, biocenotic admixtures, those with fungal fruiting bodies, are not removed, provided that they do not pose a threat)
 - b. in older stands, treatments in the form of late and transformation thinnings in forest habitats – limiting the share of coniferous species, shaping a diverse structure in uniform stands, including shaping a complex vertical structure, initiating natural regeneration, gradual uncovering of emerging seedlings and undergrowth and previously established nests.

During treatments, dead trees, trees with holes, biocenotic admixtures, trees with fungal fruiting bodies (if they do not generate a threat), and trees older than 100 years old are not removed.

- 4) active measures to support the younger generation appropriate for the habitat include artificially regenerated areas, particularly afforestation on former agricultural land. Promoting species appropriate for the habitat, with the possibility of artificially supplementing natural regeneration with missing species;
- 5) maintenance to regulate the species composition appropriate for the habitat, with an emphasis on preserving biocenotic species;
- 6) environmental monitoring, including monitoring threats posed by factors that may disrupt natural processes or threaten the sustainability of ecosystems;
- 7) creating ex-situ seed banks and gene banks, as well as pure cultures of fungal species;
- 8) protection from damage caused by external factors and mitigating their effects;9);
- 9) protecting and restoring the biological and genetic diversity of ecosystems, including maintaining populations of species requiring special active conservation measures;
- 10) removing invasive and alien species that threaten protected areas;
- 11) conducting hunting and remedial measures against invasive alien species;
- 12) maintaining the passability of roads and communication routes, and carrying out road repairs;

- 13) actively protecting animals, fungi, and plants;
- 14) conducting activities to increase local surface water retention by reducing surface runoff, relying to the greatest extent possible on the use of natural, local materials (e.g., fallen tree trunks).

Conservation activities cannot be carried out in the area of trees over a hundred years old (individual trees over a hundred years old may be located in each zone).

In sub-zone 4c the following actions are accepted:

- 1) environmental monitoring, including monitoring of threats caused by factors that may disrupt natural processes or threaten the sustainability of ecosystems;
- 2) maintaining the passability of roads and communication routes, and road repairs;
- 3) creating ex-situ seed banks and gene banks, as well as pure cultures of fungal species;
- 4) removing invasive and alien species that threaten protected areas;
- 5) conducting hunting and remedial measures against invasive alien species;
- 6) conducting activities to increase local surface water retention by reducing surface runoff, relying on the use of natural, local materials (e.g., fallen tree trunks) to the greatest extent possible;
- 7) gradually removing existing forest plantation fences.

BUFFER ZONE

In the buffer zone covering forest habitats (regarding the Białowieża Forest complex not included in the World Heritage Site, located in the vicinity of Hajnówka and managed by the Hajnówka Forest District) the following conservation measures are acceptable:

- 1) environmental monitoring, including monitoring threats caused by factors likely to disrupt the course of natural processes or threaten the sustainability of ecosystems;
- 2) creating seed banks and ex-situ gene banks and pure cultures of fungi species;
- 3) protection against damage caused by external factors and limiting their effects;
- 4) slowing down and stopping the outflow of surface waters in order to increase the retention capacity of ecosystems;
- 5) protecting and restoring the biological and genetic diversity of ecosystems, including maintaining populations of species requiring special active protection treatments;
- 6) supporting non-forest plant communities through mowing or grazing adapted to the type of plant communities and the biological properties of species subject to protection;
- 7) removal of invasive and foreign species that threaten protected objects;
- 8) maintenance of passability of roads and communication routes; road renovation works;
- 9) protection of former agricultural land by maintaining traditional and extensive use;
- 10) active protection of animals, fungi and plants;
- 11) sanitary felling of trees and thinnings;
- 12) hunting management;

- 13) carrying out activities to increase local surface water retention (development of natural retention).

The ways of functioning and management of the buffer zone outside the forest is determined by municipal spatial development plans, the development of which was guided by the principle of sustainable development of the region. This document does not introduce any additional restrictions in this regard.