



# PAŃSTWOWA RADA OCHRONY PRZYRODY (PROP)

**THE STATE COUNCIL FOR NATURE CONSERVATION**

Ministry of Environment, ul. Wawelska 52/54, 00-922 Warsaw

TEL.: (+48) 22 57 92 017, FAX: (+ 48) 22 57 92 730, SEKRETARIAT@PROP.MOS.GOV.PL

---

PROP/2015-13

Warsaw, 18 November 2015

## PROP'S OPINION

### **regarding the draft annex to the Forest development plan in Białowieża forest district**

The State Council for Nature Conservation expresses decisively negative opinion regarding the proposal to increase wood acquisition in the area of the Białowieska Forest and increase the level of interference of forest management in the structure and degree of preservation of forest communities of this area, contained in the draft annex to the Forest development plan of Białowieża forest district.

The State Council for Nature Conservation specifically:

- 1) upholds its position clearly expressed in the opinion from 2008 regarding the rationale for undertaking the actions aimed at fighting the European spruce bark beetle in the nature reserves and the national park in the Białowieska Forest (enclosed) - many of the statements contained therein refer also to the entire Forest constituting Nature 2000 area;
- 2) stresses that in the light of scientific studies (including: Łoziński 2002; Gutowski et al. 2002; Starzyk et al. 2005; Grodzki et al. 2006) the removal of the affected trees, supposedly serving the purpose of fighting the European spruce bark beetle, does not have material impact on the course of its gradation and the rate of production of snags, and causes material damage to nature, including damage to the species which are a subject of protection in the Białowieska Forest Natura 2000 Area (inter alia Gutowski et al. 2004), and also infringes the natural dynamics of the regeneration processes taking place in forest ecosystems following the disturbances caused by the gradation. The gradation of the European spruce bark beetle, responsible for the periodical excessive production of dead trees and for their later decomposition being the effect of saproxylic organisms, are natural processes, while the processes infringing these processes may cause the effects different than assumed - e.g. extend the duration of the gradation and increase the total number of trees separating as a result of being overtaken by the European spruce bark beetle. Fahse and Heurich (2011), based on mathematical modelling of the development of the gradation of the European spruce bark beetle, argue that its course may change only when over 80% of the affected trees are removed from the wood stand within the entire forest complex and the mortality rate of the European spruce bark beetle on such removed trees is close to 100%. Such effectiveness is impossible to achieve under the Białowieska Forest conditions, where over 30% of the area of its Polish part is protected in the form of nature reserves and national park, and nearly 40% of the Belarussian part is subject to strict protection. Anyway such effectiveness could only be achieved in the forest of plantation type. This means that the only premise supporting the proposed increase of wood acquisition within the scope of the cutting "improving the sanitary state of the wood stands" (and deteriorating their health condition - inter alia: Bałazy 1966, 1968; Karpiński 1935; Okołów 1982, 1987) concerns economical reasons related to wood acquisition;

- 3) points at contradictions between the planned increased level of clearance and the provisions of the regulation of the Regional Environmental Protection Director in Białystok, setting out the plan of protective tasks for the Białowieża Forest Natura 2000 Area, published on 12 November 2015 in the Official Journal of Podlaskie Voivodeship, which states inter alia that the removal of the dying trees, including the spruce populated by the European spruce bark beetle, constitutes a potential threat to some objects protected under Natura 2000 - the adoption of the annex to the Plan in its proposed wording would constitute a gross infringement of the law in the light of that regulation;
- 4) indicates that increased wood acquisition planned in Białowieża Forest District infringes both the provisions of national law (contained in the act on nature conservation) and international law (the Bird and the Habitat Directive) and is in conflict with the rules of nature conservation resulting from the international agreements ratified by Poland (on protection of biological diversity and protection of European flora and fauna and nature habitats); in addition in 2014 the entire Białowieża Forest on both sides of the border was entered by UNESCO on the World Heritage Sites List (before that, as of 1979, only Białowieża National Park was entered on this list), which is the obligation of our country to protect the entire biological diversity and natural processes in the Forest - the compliance with this obligation is the issue of Poland's credibility to Polish and international community;
- 5) postulates to ensure the durable protected status of the Białowieża Forest as the unique site on international level in order to avoid in the future the pressure of both local and sector groups of interest to increase wood acquisition.

Nature is one of the most valuable Poland's resources, which should be appreciated and used for promotion of our country. This applies specifically to the Białowieża Forest - unique nature area with 600 year long tradition of protection, which is recognised all over the world. The Białowieża Forest is the best preserved fragment of natural forest on European plains, one of the key links contributing to preservation of high level of biological diversity of our continent. Its unique nature is determined by high share of communities of natural character, high biological diversity and complex structure, and the degree of preservation and continuity of ecological processes in the vast majority of its area.

The area of the Białowieża Forest accounting for approx. 0.5% of Poland's forests and the level of wood acquisition in this Forest, not exceeding 0.2% of the volume of that raw material acquired in our country, results in situation where the potential reduction of revenues related to its operation does not have material economical importance both on national level or at the level of PGL Lasy Państwowe (State Forest Resources Enterprise). On the other hand the values resulting from the protection of the Forest are enormous both from the perspective of the unique nature of this area, its significance for the science (including forest science), tourism development and the image of our country in Europe and in the world. Poland cannot afford to irrevocably lose what nearly no other European nation has anymore - the remains of the primary natural forest.

The priority of the protection and management of Forest resources should concern the preservation of its unique nature and continuity of ecological and evolutionary processes, uninterrupted as much as possible, meaning the reduction or adaptation to these needs of the rules of forest management in the vast majority of the Forest territory. Therefore the interventional wood acquisition in the area of the Forest should not be allowed, including specifically the interference with 100-year old and older wood stands and forest communities from Appendix no I to the Habitat Directive (riparian forest and mixed deciduous forests).

The current method and limited scope of conducting forest management in the area of the Białowieża Forest, which has started along with the approval of the binding forest development plans in 2012 results from its Natura 2000 status and being the UNESCO World Heritage Site. The intensity of forest use defined in the valid forest development plans is a compromise between the protection of natural processes and the needs of local communities.

The dying of spruce in some wood stands of the Białowieża Forest is the result of gradation of the European spruce bark beetle, which is the symptom of natural dynamics of population of this insect and leads to gradual restructuring of the composition and structure of these wood stands and their adaptation to the changing climate and water conditions. Pointing at spruce dying as a threat to the durability of the Białowieża Forest and the use of this fact to multiply the quantity of the acquired wood material is the result of the lack of understanding of the impact of natural factors on the development of the dynamics and structure of natural forest communities or results from ignoring this knowledge for the purposes of particular interests.

Considering the above, the State Council for Nature Conservation believes that the proposed changes to the provisions of the forest development plans of Białowieża Forest District contained in the proposed annex submitted for local consultations by RDLP in Białystok are unacceptable.



Andrzej Kepel, PhD., Eng. Chairman of  
the State Council for Nature Conservation

#### Literature quoted:

- Balazy S. 1966. Organizmy żywe jako regulatory liczebności populacji korników w drzewostanach świerkowych ze szczególnym uwzględnieniem owadobójczych grzybów. I. PTPN. Wydż. Nauk Roln. i Leśnych. Prace Komisji Nauk Roln. i Kom. Nauk Leśn., 21, 1: 3-50.
- Balazy S. 1968. Analysis of bark beetle mortality in spruce forests in Poland. *Ekol. Pol.*, A, 16, 33: 657-687.
- Fahse L., Heurich M. 2011. Simulation and analysis of outbreaks of bark beetle infestations and their management at the stand level. *Ecological Modelling*, 222: 1833-1846.
- Grodzki W., Jakuš R., Lajzová E., Sitková Z., Maczka T., Škvarenina J. 2006. Effects of intensive versus no management strategies during an outbreak of the bark beetle *Ips typographus* (L.) (Col.: Curculionidae, Scolytinae) in the Tatra Mts. in Poland and Slovakia. *Ann. For. Sci.*, 63: 55-61.
- Gutowski J.M., Buchholz L., Szwalko P., Rossa R., Szafranec S. 2002. Wpływ gospodarki rezerwatowej na zagrożenia ze strony kambio- i ksylofagów dla sąsiednich drzewostanów gospodarczych. Białowieża, 39 pp. + 8 ryc. + 17 tab. [maszynopis w Europejskim Centrum Lasów Naturalnych IBL w Białowieży].
- Gutowski J.M. (red.), Bobiec A., Pawlaczyk P., Zub K. 2004. Drugie życie drzewa. WWF Polska, Warszawa – Hajnówka, 245 pp.
- Karpiński J.J. 1935. Przyczyny ograniczające rozmnażanie się korników drukarzy (*Ips typographus* L. i *Ips duplicatus* SAHLB.) w lesie pierwotnym. *Rozpr. Spraw. Inst. Bad. Lasów Państw.*, A, 15: 86 pp.+8 tablic.
- Loziński J. 2002. Zmiany drzewostanów świerkowych objętych ochroną ścisłą w Wigierskim Parku Narodowym. *Prace Inst. Bad. Leśn.*, A, 1(929): 53-74.
- Okolów Cz. 1982. Naturalne czynniki ograniczające liczebność populacji kornika drukarza (*Ips typographus* L.) w warunkach lasu pierwotnego i lasów zagospodarowanych Puszczy Białowieżskiej (założenia i metodyka badań). *Zesz. Probl. Post. Nauk Roln.*, 251: 115-120.
- Okolów Cz. 1987. Influence of forest management on effectiveness of natural factors limiting the number of the great spruce bark-beetle (*Ips typographus* L.) – preliminary communication. IVth Symp. Protect. Forest Ecosyst., 191-195 pp.
- Starzyk J.R., Grodzki W., Capecki Z. 2005. Występowanie kornika drukarza *Ips typographus* (L.) w lasach zagospodarowanych i objętych statusem ochronnym w Górcach. *Leśne Prace Bad.*, 1: 7-30.

cc:

- Director of the Regional State Forest Commission in Białystok
- General Director of State Forests
- Chief Nature Conservator
- General Director of Environmental Protection
- The Regional Director for Environmental Protection (RDOŚ) in Białystok,
- Director of the Forestry and Nature Protection Department in the Ministry of Environment
- a/a

## APPENDIX (TEXT OF PROP OPINION FROM 2008)

### OPINION

regarding the rationale for undertaking the actions aimed at fighting the European spruce bark beetle in the nature reserves and the national park in the Białowieska Forest  
in light of seminar "The rules of operation in the economic and protected wood stands of the Białowieska Forest" held by RDLP in Białystok on 18 June 2008.

- PROP's opinion regarding *the general operating rules regarding the sanitary cutting, removal of dead and dying trees, fighting harmful insects and fungi in forest ecosystems in protected nature areas* is presented in PROP's recommendation dated 23 July 2007. Pursuant to the announcement contained in the recommendation, PROP is following its general recommendation when issuing the opinions on detailed issues.
- According to the aforementioned recommendation: *"in forest ecosystems of nature reserves and national parks:*
  - *leaving all dying and dead trees, not fighting "harmful organisms" should be a standard;*
  - *the exception (though sometimes necessary - but in each such case requiring a detailed justification) - should concern the removal of the snags and fighting "harmful organisms" (...).*

*The exception concerning the removal of dead and dying trees, windfallen and broken trees etc. and undertaking the actions to fight "harmful organisms" can also take place when it is necessary to avoid a material significant and documented threat in order to achieve the protection objectives. However it is necessary to meet jointly the following premises:*

- *the occurring threat should be concrete, highly probable and well documented (e.g. should be associated with a specific species of "harmful organism", should be documented that it has inclinations for mass reproduction and that its material negative impact on ecosystem is probable);*
- *the threat should be really material (e.g. a material threat can be regarded as a threat of total and sudden degradation of wood stand on large area - while the threat of death of oak trees in mixed deciduous forests, when linden and hornbeam develops underneath, would not be probably material ...);*
- *it should be absolutely clear that the performance of the treatment or removal of the snags will contribute to the elimination or mitigation of the threat (e.g. in order to start the eradication of the European spruce bark beetle in the reserve it should be absolutely clear that the damage caused by the treatment itself will not be higher than the damage caused by the gradation).*

The doubts regarding the compliance with these premises should speak in favour of abstaining from acting".

- In the case of the Białowieska Forest the data presented both during the seminar and originating from other sources confirms that **most likely it concerns another increasing gradation of the European spruce bark beetle covering the entire forest complex**. The threat therefore has a concrete character in this case, is highly probable and well documented.

- The thesis that this gradation might cause significant damage to Forest ecosystems, including the accelerated degradation of spruce wood stands, is justified as well. In forest ecosystems with spruce dominated wood stand, one can expect the initiation of the degeneration/regeneration processes, strongly affecting the structure of the ecosystem, and in mixed deciduous forest ecosystems with spruce share in the wood stand - the initiation of processes showing the signs of deep fluctuations.
- Some experts argue that these changes will have negative impact on biological diversity and that they pose a risk to valuable species of fauna associated with the spruce. During the seminar „*The rules of operation in economic and protected wood stands of the Białowieska Forest*”, no material and specific evidence was presented to support this thesis and all arguments supporting it had the character of just non-specific speculations. Moreover the material evidence was presented during the seminar demonstrating this thesis to be false. A large area has been present in the Białowieska Forest for over 80 years (strict reserve of BPN - Białowieski National Park), on which the European spruce bark beetle is not eradicated and the gradations of these species, which occurred a few times already, take place in natural manner, and it has not led to any material deterioration of biological diversity or any deterioration of the status of protection of species associated with the spruce, both among birds and insects. Moreover the biological diversity status and the status of protection of key species in the strict reserve of BPN seems to be better than outside this area.  
As a result in light of the materials presented at the seminar there is **no evidence that the gradation of the European spruce bark beetle poses a threat to biological diversity** either at the level of the entire Forest or at the level of individual protected nature sites. There is also no evidence that such gradation is a threat to any of "valuable species" present in the Forest.
- A thesis is raised that the gradation of the European spruce bark beetle is a threat to the objective of the protection of nature reserves - especially when this objective concerns "*maintenance of natural forest communities*" and specifically "*the maintenance of marsh spruce*".  
It is true that the gradation of the European spruce bark beetle and the resulting dying of the spruce may cause significant changes to the composition and structure of wood stands in the protected nature sites, including a local degradation of wood stand, where the spruce is a dominating element thereof.  
However it should be stressed that the objective of protection of reserves should be never understood as a requirement to maintain and preserve the current status of respective forest ecosystems as this is generally impossible. The objective of creation of the reserve should be perceived not literally, but in line with ecological knowledge. The current state and structure of the ecosystem not just in the Białowieska Forest, but everywhere and always, is the result of ecological processes determining this state. **Therefore always when the objective of reserve protection is defined as „maintenance of the ecosystem...”, it should be understood as „maintenance of the ecosystem including the natural processes of its dynamics”.** "The protection of the state" and "the protection of processes" cannot be put opposite each other. Even the protective actions undertaken within

the scope of active protection should be actually understood as a correction of the course of ecological processes and affecting their direction in order to achieve a determined state.

The following should be taken into account in the case of the Białowieska Forest reserves:

- Many studies indicate at strong fluctuations of the share of spruce in the natural dynamics of forest ecosystems of the Białowieska Forest, specifically in coniferous forests (pine-spruce coniferous forests) and peatbog forest ecosystems. The fires or actually the gradations of the European spruce bark beetle were indicated as the factor causing these fluctuations. Until recently it seemed that we are observing the spruce expansion in these ecosystems, which is common in the Forest, and thus today's reduction of its share may just be a continuation of a strong fluctuation.
- The similar results of the studies concern the share of spruce in the mixed deciduous forests of the Białowieska Forest, however in this case the phenomenon of reducing share of spruce has been observed for a few dozen years already (though the expansion of this share was still suggested e.g. in Paczowski's studies).
- The raised issue of degradation of the wood stand of marsh spruce, which occurred in Wysokie Bagno reserve, also can be defined as the example of the natural dynamics of this ecosystem, with large-area disturbances being a part of this process. This site - despite being planned - was not presented during the seminar and thus there is no data for own assessment of the status, but presented information does not point out that the situation in this reserve should be assessed negatively from the perspective of nature protection.

As a result, in light of materials presented at the seminar it should be concluded that **it was not proven that the processes initiated by the gradation of the European spruce bark beetle go beyond the scale of natural dynamics of respective forest ecosystems** (though this scale may of course be significant and be associated even with the occurrence of large-area disturbances).

- A thesis is raised that potential departure from fighting the European spruce bark beetle in nature reserves and the national park will result in these sites becoming the "breeding grounds of the bark beetle" threatening the neighbouring economic wood stands. The general arguments referring to bark beetle biology were presented in favour of this argument.

The results of the studies conducted in the Białowieska Forest were presented against this argument, where these results suggest that the wood stands, in which the bark beetle is not eradicated, seem to attract to higher degree the bark beetles from neighbouring wood stands rather than be a source of the threat, and that such wood stands are the source of the species antagonistic to the bark beetle.

The results of the studies indicating the lack of relation between the occurrence of the bark beetle populated trees in the economic wood stand and the distance from a strict reserve were also quoted against the aforementioned thesis.

The presented results of the studies do not enable yet drawing the unambiguous general conclusions, as they were obtained in a specific place and time - it is unknown as to what degree the results depend on the stage of gradation development and a specific terrain situation. However **it definitely was not**

**proven that the reserves and national park constitute a potential "source of the bark beetle" threatening the economic wood stands.**

- In light of all presented information the possibility of effective prevention of disturbances in the ecosystems caused by the gradation of the bark beetle meets with significant doubts.

As stressed above it is clear that the gradation of the bark beetle will be a reason of significant disturbances in the ecosystems.

The significant disturbances would be however also caused by the actions fighting the bark beetle (removal of populated trees), should such actions be initiated.

In light of general knowledge on gradations of the bark beetle it can be assumed that the potential initiation of eradication actions will not result in stopping or shortening the gradation, but at most will result in the other course of the retrogradation stage and some delay in the degradation of the spruce wood stands. However the price to be paid will concern the anthropogenic disturbances in the ecosystems associated with the removal of populated trees.

**Therefore the concerns regarding the effectiveness of initiating the bark beetle eradication actions in the nature protected areas (national park and reserves) are justified.**

- In addition in the case of the Białowieska Forest the constraints resulting from the Forest status as Natura 2000 area should be taken into account. This issue is however omitted in the discussions held to date. However in this case:
  - there are significant premises that the bark beetle eradication actions may have negative impact on the state of some protected sites within Natura 2000 area;
  - there is no evidence that the gradation itself (not eradicated) would have negative impact on the state of species which are the subject of the protection (see above)
  - both the gradation of the European spruce bark beetle and the potential bark beetle eradication actions will have obvious impact on the protection status of forest nature habitats with spruce participation (see the considerations above).

The analysis of this issues was conducted already within scope of the works on the draft plan of protection of Natura 2000 area within the scope of Phare project in 2004. This analysis has led to following conclusions:

*The experiences of the current strict reserve of Białowieski National Park indicate that in the conditions of the Białowieska Forest the consistent passive protection favours the maintenance of all forest nature habitats and species found in the Białowieski National Park in the appropriate protection state. In the protection system of Natura 2000 area the Białowieski National Park and the forest nature reserves have entirely been attributed the function of "the refuge of Forest species", meaning the adoption of passive maintenance protection as the basic form of protection also in this zone of the Park. The removal of dying and dead trees, including the dying trees as a result of the feeding bark beetle should not take place, specially in the forest ecosystems of BPN or forest ecosystems of the reserves. This action was identified as harmful to few insect species listed in Appendix II to the Habitat Directive and to few bird species listed in Appendix I to the Bird Directive. The cutting and wood barking of spruce trees, even if they are left on the ground, is also harmful from the perspective of the protected objects of Natura 2000, because either the standing trees or subbark microbiotopes are*



*the biotopes of these protected objects. The following situations are exceptions from the aforementioned general rule:*

- *"Lipiny" reserve, whose specific protection objective concerns the maintenance of local population of sessile oak. This local objective should be regarded as superior in this case. Its execution may require the active protection actions to protect the population of sessile oak. The program of such actions will be defined in the reserve protection plan.*
- *The non-forest ecosystems in Gnilec, Dolina Waliczówki, Olszanka Myśliszcze and Przewłoka reserves, in which the protection actions are also necessary from the perspective of the protected objects of Natura 2000 (see block D).*
- *Rezerwat Przyszosowy im W. Szafera (W.Szafer Roadside Reserve), in which for the sake of road traffic safety the necessary actions may be necessary, concerning the cutting of dead and dying trees in the distance of one height of the wood stand from the road and the removal of the dying branches of the trees above the road; the cut trees however should be left on the ground.*
- *Evidently the artificial single-species pine and spruce thickets in mixed deciduous forest habitats in the Natural Forests reserves of the Białowieska Forest, incorporated into the reserve exclusively because of their location.*

*The principle of minimisation of interference in the forests of nature reserves is consistent with the rules adopted for the Białowieska Forest Biosphere Reserve, in which it was adopted that the entire Białowieski National Park and the Forest nature reserves constitute the passively protected "core zone" of the biosphere reserve.*

The analysis carried out within the scope of the Phare Project remains today the best available scientific assessment of the issue of "the gradation of the European spruce bark beetle and the objectives of Natura 2000 area protection" and - at least until the new assessments and arguments emerge - should be adopted as the binding guidelines regarding the protection of the Białowieska Forest as Natura 2000 area.

- Irrespective of aforementioned objective assessments, it is undisputable that the seminar held by RDLP proved the lack of consensus regarding the assessment of the threat and the envisaged consequences of gradation of the bark beetle in the Białowieska Forest. In the case of nature reserves and the national park, PROP generally recommends „*that the doubts should speak in favour of abstaining from action*”.

In light of aforementioned premises considering information presented at seminar "The operating rules in economic and protected wood stands of the Białowieska Forest" in our opinion there are no justified grounds to allow the removal of bark beetle populated trees from nature reserves in the Białowieska Forest or to plan such actions within the scope of the protective actions for the national park.