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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

34<sup>th</sup> meeting  
Strasbourg, 2-5 December 2014

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**Possible File:**

**Hydro power development within the territory of  
Mavrovo National Park  
("the former Yugoslav Republic of Macedonia")**

**REPORT BY THE COMPLAINANT**

*Document prepared by  
the Center for Environmental Research and Information "Eko-svest"*

**- UPDATE SUBMITTED IN NOVEMBER 2014 -**

To

**Standing committee of the Convention for the Conservation of European Wildlife and Natural Habitats**

Skopje, 20.11.2014

**Subject: Additional information for the case 2013/01 “Development of hydro power plant projects in Mavrovo National Park in Macedonia”**

Dear Madam/Sir,

With this note we would like to update you with information regarding the case of Mavrovo national park and its current and future destruction and to urge you to open the case file in order to prevent any future detriment of the richest protected area in our country.

The new developments with this case give all the reasons to open the case at this meeting.

**1. State of play hydropower projects in Mavrovo NP**

***Boskov Most HPP***

The lawsuit against the decision of the Ministry of environment and physical planning of Macedonia to approve the Environmental Impact Assessment (EIA) report for this project was submitted by civil association Front 21/42 on 11<sup>th</sup> of May 2014. The main claim in the lawsuit is that the Ministry decided to approve the EIA study for the Boskov Most HPP and to issue a permit for the works based on insufficient data. This claim was also supported by the findings from the independent expert of the EBRD, in his Compliance Review Report for the Boskov Most HPP project<sup>1</sup>. There has been no progress with this case in the Court as a result of the slow administrative court procedure and lack of capacities to process all court cases.

In the meantime, the environmental permit for the project expired on 13 October 2014, and as of this date the ELEM (Macedonian power plants company- the Investor of the project) has not submitted a request for the extension of the permit. According to Macedonian legislation, in order to obtain a new permit, the whole environmental impact assessment process needs to be carried out from the start.

***Lukovo pole HPP***

The EIA study for this project has not been finalized yet. The Letter of intent for the project was issued on 18 August 2014. A decision for the need to conduct an environmental impact assessment study was issued by the Ministry on 6 November 2014. On 20 November 2014 the civil society organization Front 21/42 submitted a complaint to the decision alleging that the project itself is in contradiction with the Law of Nature protection in Macedonia as well as international conventions: Bern Convention (under the article 4, 7, 8 and 9), Bonn Convention on the Conservation of Migratory Species of Wild Animals and the Rio Convention on the Biodiversity.

***16 Small HPPs planned***

The National Park Mavrovo is also threatened by 16 other small HPPs planned<sup>2</sup> on its territory. A few of them have already been constructed without implementation of good

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<sup>1</sup> Link [http://www.ebrd.com/downloads/integrity/Boskov\\_CRR.pdf](http://www.ebrd.com/downloads/integrity/Boskov_CRR.pdf)

<sup>2</sup> A map of all planned hydro project is provided as annex to this letter.

construction practices and mitigation measures. At the same time, the cumulative impact of all projects on the national park's values has not been assessed neither addressed.

## **2. There is an complete neglect of environmental protection principles in Macedonia**

Most recently, the Prime Minister of Macedonia stated in public that the construction of the Boskov Most HPP project will begin as early as March 2015. At the same time, the tendering procedure has already been finalized and a number of offers for the construction of the project have been received<sup>3</sup>.

The European Bank for Reconstruction and Development, who is the financial supporter of this project, stated that due to insufficient data the bank will conduct additional analysis of the project impact (biodiversity, hydrology and hydromorphology and etc.) in order to complete the environmental justification of the project impact on nature and finalize economic feasibility assessment for the project.

Unfortunately, at the same time the Macedonian Government is eager to sign a contract with the construction company very soon, without actually knowing the real impact of the project on nature values and completely ignoring all relevant processes and issues- re-proclamation of Mavrovo as national park, no Management plan for the park, no valid permit for the project and without a proper environmental impact assessment study.

With this said, we would like to emphasise the importance and urgency to open a case file for this particular problem.

Sincerely,

Ana Colovic Lesoska

Eko-svest, Center for environmental research and information

Skopje, Macedonia

### **Annexes:**

1. Fact sheet Mavrovo National Park
2. Overview of species found in Mavrovo National Park included in the Appendices of the Bern Convention

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<sup>3</sup>[http://www.ebrd.com/pages/workingwithus/procurement/project/awards/41979\\_HPP\\_Boskov\\_Most\\_Construction\\_Lot\\_1.pdf](http://www.ebrd.com/pages/workingwithus/procurement/project/awards/41979_HPP_Boskov_Most_Construction_Lot_1.pdf)





## The Mavrovo National Park, Macedonia

### Dam construction plans put national park at risk!



Location of Mavrovo National Park in Macedonia  
(Kerstin Sauer)

The Mavrovo National Park in Macedonia is one of Europe's oldest national parks. It is famous for its extensive beech forests, alpine meadows, pristine rivers and streams. A huge variety of species, such as rare trout species, wolves, bears, and otters, live in the park. One species is outstanding though: the Balkan Lynx (*Lynx lynx balcanicus*). The Mavrovo National Park is the centre of the remaining population of this critically endangered subspecies of the Eurasian Lynx.

The park hosts more than 1,000 different plant species. It is part of the southernmost section of the European Green Belt - an outstanding ecological network that has developed undisturbed along the former iron curtain.

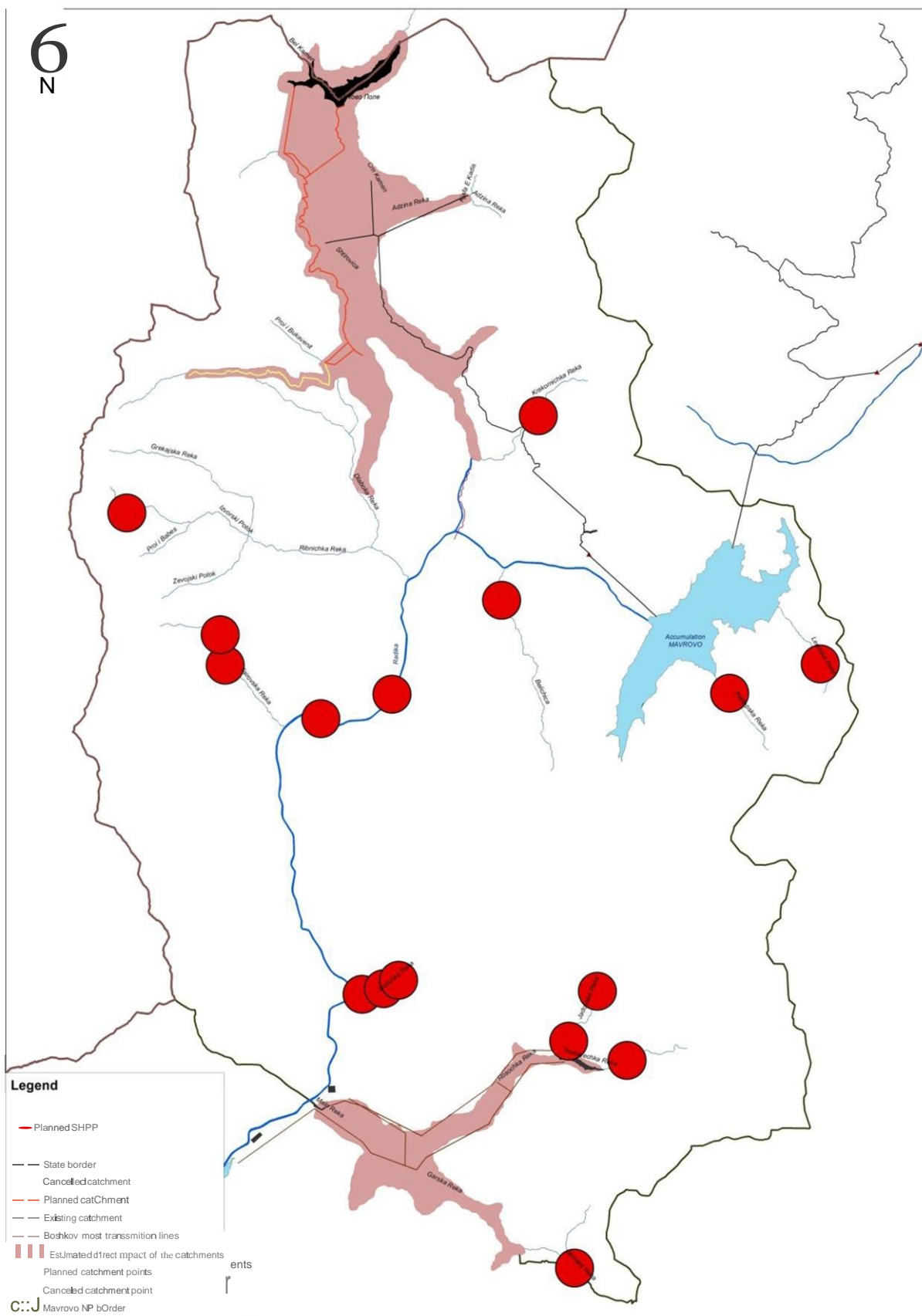
### The threats

The Mavrovo National Park has first been compromised in the 50s, when a medium scale hydro-power project (HPP Vrben) was built inside the park's boundaries. Another two plants (Raven and Vrutok) were constructed just outside the park so they can be powered with diverted water from the national park. Even if not located inside the park, the abstraction of water as well as the construction of necessary infrastructure had - and still has - an impact on downstream habitats.

Adding to HPP Vrben, two large scale hydro-power projects (HPPs) are now planned inside Mavrovo NP - "HPP Boskov Most" and "HPP Lukovo Pole" - putting even more strain on its ecosystems. Both projects depend on funds from international financial institutions and are undermining the very idea of a national park. If these two projects - or even one of them - will be implemented as foreseen, severe negative impacts on the biodiversity of Mavrovo National Park will be the consequence. Moreover, these projects risk the revocation of the national park status.

In addition to these two foreseen large scale projects, there are plans for 16 smaller projects to be constructed inside the park's boundaries. In fact, two have already been completed and are in operation. Another one is under construction, while the remaining 13 projects are to be built in the next few years. The cumulative effects of these projects and necessary infrastructure will have major consequences for the existing flora and fauna of the park. This is particularly the case since, according to Macedonian law, no environmental impact assessment is required prior to the issuing of water licences for HPPs up to a capacity of 5 MW.

Map of planed,projected and implemented HPPs in Mavrovo NationalPark





## HPP Boskov Most



HPP Boskov Most: two rivers that would be affected by drainage and daily flush, the Mala River (left) and Radika River (right) (Romy Durst).

The dam project Boskov Most is located in the upper Mala Reka valley in the southernmost part of the national park. The main source of funding for this dam project is the EBRD - the European Bank for Reconstruction and Development. The HPP is designed to produce peak energy. For that purpose the discharge of Mala River as well as its two major tributaries and several smaller streams in the area will be diverted into a reservoir via pipes and canals. On demand, the water will be released once a day. This will mean daily flushes, which have enormous negative impacts on biodiversity and species populations in the river sections below the power-house - and all this in a national park. Furthermore, riverine ecology of the entire valley will severely suffer from the diversion of the majority of its natural water supplies.

### Facts & Figures

Dam hight:	33 m
Output:	68 MW
Max daily flush:	22 m <sup>3</sup> /s in 5h per day (average discharge of Mala Reka: 5.75 m <sup>3</sup> /s)
Construction/widening of new roads:	16.4 km
New supply channels:	19.70 km
Directly affected area inside Mavrovo NP:	935 ha
Investment:	84 Mio EUR, 65 Mio. EUR provided by a EBRD loan

The final evaluation of HPP Boskov Most's compliance with the funding criteria of the EBRD is not yet finished.



In contrast to the official conclusion of the “Biodiversity Survey” elaborated under the leadership of the Macedonian Energy Group ELEM, the HPP Boskov Most would result in severe destruction of biodiversity and in population decline of endangered species. Internationally renowned experts analysed the biodiversity survey and came to the following conclusions:



The European Otter (*Lutra lutra*) is an internationally protected species.  
(Wolfgang A. Bajohr)

*“The proposed drainage of the streams, detailed in this report, will have an immediate negative impact on the fish habitats and fish populations in these watersheds.*

*In our opinion this biological diversity survey remains superficial, incomplete and misleading with regards to the otter, clearly not taking the risks to this threatened species seriously.”*

Dr. Nicole Duplaix, Chair of the IUCN-SSC Otter Special Group

*“The proposed actions in the National Park will have strong negative effects on the native trout populations which will largely vanish from the reservoir area as well as from the downstream sections of the dam...”*

Dr. Jörg Freyhof, Leibniz-Institute of Freshwater Ecology and Inland Fisheries Berlin  
and European Chair of IUCN SSC/WI Freshwater Fish Specialist Group



The endangered Balkan Lynx (*Lynx lynx balcanicus*).  
(MS Scopes)

*“Overall, there seems to be the view that ..., the negative effects can be easily mitigated. This is not a view that I can... share, and ...I strongly feel that it is in stark conflict with the primarily management goals of an IUCN Category II National Park.”*

Dr. Steven Weiss IUCN Salmonid Specialist Group (SSG) & Red List Authority (RLA) for Salmonid Fishes in Eurasia

*“Mavrovo hosts [...] the last source of population with reproduction of the Balkan lynx [...]. Putting any additional stress on this source population may lead to the extinction of one of the most threatened mammal populations in Europe.”*

Dr. Urs Breitenmoser, Co-Chair, IUCN-SSC Cat Specialist Group





## HPP Lukovo Pole



The dam construction site - this area is to be flooded.  
(Ulrich Eichelmann)

This project is planned to be constructed close to the Macedonian border with Kosovo. The main source of funding is the World Bank. The Lukovo Pole project shows many similarities with Boskov Most. The water will be diverted from several tributaries to the Radika River, which will be channelled to the reservoir through a pipe system.



*Fritillaria macedonica* on an official stamp (2008) as part of the Macedonian natural heritage.  
(Source: <http://www.wnsstamps.ch>)

Initially, the Dlaboka Reka valley, characterized by unique ancient beech forests would have been among the affected areas. Just recently it was identified as a potential World Heritage site by an international expert delegation and excluded from construction plans by the financiers - a first success. However, the reservoir is to be constructed in one of the richest and most beautiful parts of the national park in terms of plant biodiversity representing a niche for the specialists amongst Europe's plant species. According to PlantLife, the Lukovo Pole project would affect 17 threatened plant species like the endemic fritillary *Fritillaria macedonica* and *Narthecium scardicum*. Furthermore, the site hosts 13 threatened habitats, such as alpine and boreal heaths (listed in Annex 1 of the EU Habitats Directive) and Balkano-Pontic fir forests characterized by high endemism.

## Facts & Figures

Dam height:	71 m
Output:	6 MW, estimated at 159 GWh per year with respect to additional benefits from existing HPPs
Max daily flush:	6 m <sup>3</sup> /s
Construction/ widening of roads:	> 20 km road widening and bitumisation
New supply channels:	19.95 km
Directly affected area inside Mavrovo NP:	3,546 ha
Investment:	83 Mio EUR, 70 Mio EUR provided by a World Bank loan; the World Bank has not yet confirmed supplying the funds to start the construction of the project.

## Conclusions



Portal of entrance of Mavrovo National Park close to the Boskov Most project area: "Welcome to National Park Mavrovo". (Romy Durst)

- A total of over 4,400 ha of natural habitats would be directly affected only by the two dam projects.
- All dam projects are violating national park guidelines.
- EBRD and World Bank and other investors involved in the implementation of the 16 small HPPs are planning to fund the possible revocation of Mavrovo's status as a national park!



## We Demand:

- The Government of Macedonia must stop the devastation of the national park and abandon the projects!
- The EBRD and the World Bank must retract their funding of HPP Boskov Most and HPP Lukovo Pole!
- All national and international investors must retract their intention of implementing HPPs in the park!
- NATIONAL PARKS ARE FOR THE PRESERVATION OF NATURE, BIODIVERSITY AND RECREATION - NOT FOR DAMS!

## Save the Blue Heart of Europe Campaign

The rivers on the Balkan Peninsula are among the best preserved ones in entire Europe. More than 60 % of all rivers in the region are in good or very good hydromorphological condition. Additionally, these rivers are major biodiversity hotspots. 69 fish species are endemic and more than 50 % of all European freshwater-mollusc species live on the Balkans.

However, this “Blue Heart of Europe” is threatened by hydropower development: more than 570 new dams (> 1 MW) are projected from Slovenia to Albania.

Therefore, the international NGOs Riverwatch and EuroNatur have launched the campaign “Save the Blue Heart of Europe” in cooperation with several national partner organizations, aiming to protect the most valuable rivers and river stretches in South Eastern Europe from destruction through uncontrolled hydropower development.

# Overview of species found in Mavrovo National Park, included in the Appendices of the Bern Convention

## Plantae

Ramonda serbica, Appendix I  
Campanula abietina, Appendix I

## Insecta

Austropotamobius torrentium Appendix II  
Lindenia tetraphylla, Appendix II  
Lucanus (Lucanus) cervus Appendix II  
Parnassius apollo, Appendix II  
Parnassius mnemosyne, Appendix II  
Zerynthia polyxena, Appendix II Euphydryas aurinia, Appendix II  
Pachychilon macedonicum, Appendix III (listed under Rutilus macedonicus)  
Euphydryas maturna, Appendix II (listed under Hypodryas maturna)  
Euphydryas aurinia, Appendix II (listed under Euphydryas (Eurodryas) aurinia)  
Phengaris arion, Appendix II (listed under Maculinea arion)

## Amphibia

Triturus macedonicus (before considered as subspecies of Triturus carnifex listed under Appendix II)  
Bombina variegata scabra listed as Bombina variegata Appendix II  
Pseudepidalea viridis listed as Bufo viridis Appendix II  
Hyla arborea, Appendix II  
Rana dalmatina, Appendix II

## Reptilia

Eurotestudo hermanni boettgeri Appendix II  
Emys orbicularis, Appendix II  
Ablepharus kitaibelii, Appendix II  
Mediodactylus kotschyi Appendix II  
Algyroides nigropunctatus, Appendix II  
Lacerta viridis, Appendix II  
Lacerta trilineata, Appendix II  
Lacerta agilis, Appendix II Podarcis muralis, Appendix II Podarcis tauricus, Appendix II Podarcis erhardii, Appendix II Dolichophis caspius Appendix II Platycephalus najadum dahlia Appendix II Zamenis longissimus Appendix II Natrix tessellate, Appendix II Coronella austriaca, Appendix II Vipera ammodytes, Appendix II

*Vipera ursinii macrops*, Appendix II

## **Aves**

*Acanthis canabina*, Appendix II  
*Alauda arvensis*, Appendix III  
*Alcedo atthis*, Appendix II  
*Alectoris graeca*, Appendix III  
*Anas querquedula*, Appendix III  
*Aquila chrysaetos*, Appendix II  
*Aythya ferina*, Appendix III  
*Aythya nyroca*, Appendix III  
*Bubo bubo*, Appendix II  
*Caprimulgus europaeus*, Appendix II  
*Carduelis chloris*, Appendix II  
*Carduelis spinus*, Appendix II  
*Certhia brachydactyla*, Appendix II  
*Cicaetus gallicus*, Appendix II  
*Columba oenas*, Appendix III  
*Coturnix coturnix*, Appendix III  
*Crex crex*, Appendix II  
*Dendrocopos medius*, Appendix II  
*Emberiza calandra*, Appendix III  
*Emberiza cia*, Appendix II  
*Emberiza cirrus*, Appendix II  
*Emberiza citronella*, Appendix II  
*Emberiza hortulana*, Appendix III  
*Erithacus rubecula*, Appendix II  
*Falco peregrinus*, Appendix II  
*Falco tinnunculus*, Appendix II  
*Ficedula albicollis*, Appendix II  
*Ficedula hypoleuca*, Appendix II  
*Fringilla coelebs*, Appendix III  
*Gyps fulvus*, Appendix II  
*Hirundo rustica*, Appendix II  
*Jynx torquilla*, Appendix II  
*Lanius collurio*, Appendix II  
*Lyrurus tetrix*, Appendix III  
*Lullula arborea*, Appendix III  
*Luscinia megarhynchos*, Appendix II  
*Monticola saxatilis*, Appendix II  
*Monticola solitarius*, Appendix II  
*Muscicapa striata*, Appendix II  
*Otus scops*, Appendix II  
*Parus caeruleus*, Appendix II  
*Parus lugubris*, Appendix II  
*Perdix perdix*, Appendix III  
*Pernis apivorus*, Appendix II  
*Phoenicurus phoenicurus*, Appendix II  
*Phylloscopus sibilatrix*, Appendix II  
*Picus canus*, Appendix II

Picus viridis, Appendix II  
Prunella modularis, Appendix II  
Regulus ignicapillus, Appendix II  
II Regulus regulus, Appendix II  
Saxicola rubetra, Appendix II  
Saxicola torquata, Appendix II  
Scolopax rusticola, Appendix III  
Serinus serinus, Appendix II  
Streptopelia turtur, Appendix III  
Strix aluco, Appendix II  
Sylvia atricapilla, Appendix II  
Sylvia communis, Appendix II  
Sylvia nisoria, Appendix II  
Turdus merula, Appendix III  
Turdus philomelos, Appendix III  
Turdus pilaris, Appendix III  
Turdus viscivorus, Appendix III  
Tetrao tetrix Appendix III

## **Mammalia**

Hypsugo savii, Appendix II  
Pipistrellus kuhlii, Appendix II  
Eptesicus serotinus, Appendix II  
Miniopterus schreibersii, Appendix II  
II Myotis mystacinus, Appendix II  
Crocidura suaveolens, Appendix II  
Canis lupus, Appendix II  
Lutra lutra, Appendix II  
Ursus arctos, Appendix II  
Felis silvestris, Appendix II  
Lynx lynx, Appendix II  
Rupicapra rupicapra balcanica, Appendix III  
III Rhinolophus ferrumequinum Appendix II  
Rhinolophus hipposideros Appendix II

## **Fungi**

Phylloporus pelletieri (Short-listed for inclusion in the Bern Convention)



**- UPDATE SUBMITTED IN JULY 2014 -**



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To  
Secretariat of the Bern Convention  
Democratic Governance Directorate  
Agora Building, A4.53V, 1 quai Jacoutot  
F-67075 Strasbourg Cedex, France

Skopje, 21.07.2014

Dear Ms. De Cussac,

Even though information has not been requested from our side as complainant with your last letter, we do believe we have valuable information that we would like to share with you.

We have several updates we think you will find it useful before the next session of the Committee.

First of all, we would like to inform you that the lawsuit against the decision of the Ministry of environment of Macedonia has been submitted by civil association Front 21/42 on 11<sup>th</sup> of May 2014. The main claim in the lawsuit is that the Ministry decided to approve the EIA study for the Boskov most and to issue a permit for the works based on insufficient data. This claim was supported by the findings from the independent expert of the EBRD, in his Compliance Review Report for the Boskov Most HPP project (report available at: [http://www.ebrd.com/downloads/integrity/Boskov\\_CRR.pdf](http://www.ebrd.com/downloads/integrity/Boskov_CRR.pdf)).

The lawsuit has been submitted in Macedonian. If you do wish to have a copy of it, I will ask Front 21/42 to make it available for you. The work of the court in Macedonia on such cases is rather slow and we have not received any update since the submission of the lawsuit. However, we will keep you posted on the matter. There is also a pending lawsuit on the denied access to the expert reports for Mavrovo NP. The national CSOs working on environment are considering filing a complaint about these problems to the Aarhus Convention Secretariat.

Another information we wanted to share with you is linked to the protection of the Mavrovo NP. Namely, during this year, a number of actions have been organised to support the preserving of the Park's beauty and value. One of them is the open letter of 119 world renowned scientists calling to the EBRD and WB to give up on the projects. The letter is available at: [http://www.euronatur.org/fileadmin/docs/projekte/Balkan\\_Rivers\\_Blaues\\_Herz\\_Europa/Offener\\_Brief\\_Weltbank\\_und\\_EBRD.pdf](http://www.euronatur.org/fileadmin/docs/projekte/Balkan_Rivers_Blaues_Herz_Europa/Offener_Brief_Weltbank_und_EBRD.pdf).

At the same time, the IUCN issued a statement claiming that national parks category II are no place for hydro power plants. This statement was written by Dr. Andrej Sovinc, Regional Vice- Chair of the IUCN World Commission on Protected Areas. The file has been attached to this message.

And finally, the national expert M. Sc. Dime Melovski has written his statement about the possible consequences of these projects in the National Park on the survival of the Balkan Lynx. This statement is also attached to the message.

Regarding the questions you have asked Mr. Nastov, I will take the liberty and respond by providing more information about the status. After the bio-monitoring for the Boskov Most project finalised, no changes have been made to the EIA study from 2011. The biodiversity survey report prepared as a result of the 12 month biomonitoring, was supposed to be prepared with the participation of interested CSOs and stakeholders. However, after numerous comments and proposals were

submitted by the CSOs and experts, the final version of this report did not take into account any of the comments and was accepted by the Investor (Power plant company of Macedonia- ELEM) without any changes. (You can see a full list of comments to this study attached to this message).

The EBRD on its annual meeting in May 2014 has informed us that there will be a new biological monitoring process stated and that the Bank will now closely take a look into the economic feasibility of the project. We are waiting for a written confirmation from the Bank on this matter.

I sincerely hope you will find this information useful. I am at your disposal should you need any additional information or clarifications to the ones I have provided.

Regards,

Ana Colovic Lesoska  
Executive Director  
Eko-svest  
Macedonia

## Annex

### THE BALKAN LYNX: BIG CHANCE STANDING CHANCE

In the south-west of the Balkan Peninsula, in the mountains forming the border between Albania and Macedonia and spreading north into Kosovo and Montenegro, a small and long-term isolated autochthonous population of Eurasian lynx has survived to the present. After suffering a severe bottleneck in the 1930's the Balkan lynx (*Lynx lynx balcanicus*) was officially protected by the authorities of Yugoslavia in 1949. Its population size gradually started to increase and reached its peak of 280 individuals leaving mainly in south- west Balkans. After the fall of Yugoslavia in 1991, the civil war in Albania in 1997 and the conflicts in Macedonia and Kosovo in the early 2001, the negative impact on wildlife in general increased. Overhunting of the lynx' main prey, destruction of the forests (especially relevant in Albania) and poaching, very much affected the habitat and specific-prey-dependent lynx. In relatively short period of time, this small population started to decline and almost reached its all-time minimum of about 40 mature individuals. According to the IUCN Red List criteria, the Balkan lynx population is Critically Endangered CR (C2a (i, ii) D).

The critical conservation status of this population was repeatedly recognised in the past, but the political situation in the range countries was not in favour of a conservation project. Only recently, a group of scientists and conservationists launched the Balkan Lynx Recovery Programme. This ongoing project started in 2006 as a partnership between NGOs supported by the environmental ministries from the range countries that are believed to share most of the Balkan lynx population – Macedonia and Albania and expanded its activities to Kosovo and Montenegro, while the expert guidance came from Switzerland, Germany and Norway.

The 8-year monitoring programme conducted in the project has shown that the only viable and reproductive core of the Balkan lynx population is the Mavrovo National Park. In this referenced area only, we have completed a total of 3 intensive camera-trapping sessions indicating that inside and in the close vicinity of the park there are around 10-12 mature individuals, occupying a space of around 700 km<sup>2</sup>. What is even of a greater importance is that in every completed session in the park, we were able to photograph a mother with juvenile/s, indicating a successful reproduction of the population. Our further research in other areas outside Mavrovo, not only that didn't reveal any juveniles, but also did not allow any statistical assumption of the size of the population, pointing out that all the individuals could have derived from one source. This makes Mavrovo the most important and the only core area of the Balkan lynx population.

The construction activities of Boshkov Most and its associate hydro-power plants will affect the capacities of the site to sustain a viable population of the lynx and on a broader scale affect the conservation potential prospective of National park in general. According to the Balkan lynx project findings, the southern part of the park is the most important area for the Balkan lynx' survival. It has well preserved forests, abundant ungulate populations and insignificant disturbance level, all relevant factors for the survival of the lynx. The only one male individual that we followed with the means of radio -telemetry showed that most of his time was spent exactly in the Boshkov Most area. A resident female, photographed in 2008, 2010, 2012 and 2013 also lives in the heart of the construction area where in the spring of 2013 she was photographed with a last- year kitten.

The cumulative effects of the long-term construction activities of Boshkov Most and its associate hydro-power plants will without any doubt cause intense disturbance and emigration of the ungulate population which eventually will be followed by the lynx. Outside the protected areas, the fate of the wildlife is in the hands of the hardly existing and badly implemented Law on Hunting in Macedonia and very weak hunting federation. Driving the resident animals (lynx) outside their home-ranges will affect their reproductive success and will cause negative turn-over rate of the population size. Moreover, accessible roads which will be built along the hydro-power plants will make the entrance to the so-far inaccessible areas open and assessable to poachers.

These hydro-power plants, along with other infrastructural plans of Macedonia (ex. the highway Kichevo-Ohrid) and the already recognized threats to the Balkan lynx (poaching, prey depletion and loss of habitats) will have a negative cumulative effect on the lynx population and will eventually cause it to go extinct. A strictly specialized predator such as the Eurasian lynx, with demands for relatively well preserved nature, stands little chance in an ever changing world. The high pressure that the modern society has brought in terms of energy demands, trade and luxury will have a high price on the natural values.

M.Sc. Dime Melovski  
Balkan Lynx Recovery Programme  
Macedonian Ecological Society

## **Explanation of the international standards and use of the IUCN categories to help regulate activities in the IUCN protected area category II – national park**

Seca, 24 January 2014

In applying the IUCN Protected Area categories system, the first step is to determine whether the site meets the IUCN definition of protected area. A protected area, according to the IUCN definition, is: *»A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve long-term conservation of nature with associated ecosystem services and cultural values«* (Dudley, 2008).

This definition should be applied with accompanying principles that are valid for every protected area, regardless of its management category. Those principles says that *»for IUCN, only those areas where the main objective is conserving nature can be considered protected areas«*, which implies that *»in case of conflict, nature conservation will be the priority«* (Dudley; 2008: 10). In addition, *»protected areas must prevent, or eliminate where necessary, any exploitation or management practice that will be harmful to the objectives of designation«*. For IUCN, it is also essential that *»protected areas should usually aim to maintain or, ideally, increase the degree of naturalness of the ecosystem being protected«* (Dudley, 2008: 10).

IUCN defined a set of objectives that should or can apply to all protected area categories; all protected areas should aim to *»conserve the composition, structure, function and evolutionary potential of biodiversity, maintain diversity or landscape or habitat and of associated species and ecosystems, be of sufficient size to ensure the integrity and long-term maintenance of the specified conservation targets and maintain the values for which it was assigned in perpetuity«* (Dudley, 2008: 12). For correct understanding of the other activities that could be undertaken within the borders of the protected area entity it is important to note that all protected areas should – where appropriate – to *»deliver benefits to resident and local communities«* but only when these are *»consistent with the other objectives of management«* (Dudley, 2008: 12).

IUCN protected area categories are described by their main objective, other objectives, distinguishing features, role in the landscape and actions that are compatible or incompatible. In practice, this means that other objectives can be implemented so far as they do not negatively affect the primary management objective of the protected area for which the site was assigned.

One of the specifics of the IUCN protected area system is that sites are assigned by their management objectives rather than only by their *»natural beauties«*. IUCN protected area category II – national park are usually large natural and near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystem characteristics of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities (Dudley, 2008). Primary objective for the IUCN protected area category II – national park is *»to protect natural biodiversity along with its underlying ecological structure and supporting environmental processes, and to promote education and recreation«* (Dudley, 2008: 16).

Any activity that is planned to be implemented within the borders of the IUCN category II – national park should be assessed through the objective of protection of the natural biodiversity, ecological structure and environmental processes in the area and how this activity would affect them. In the IUCN protected area guidelines (Dudley, 2008) there is no mentioning that any commercial activity, although considered *»sustainable«* can be implemented within the limits of the IUCN category II – national park, if it affects complete or almost complete complement of species native to the area and naturally functioning ecosystems. Activities that are not compatible with the primary management objective of the national park are not specifically listed in the IUCN protected area guidelines (Dudley, 2008) as it is considered that scientists and experts will be able to assess the impacts of such developments against retaining the functioning of the natural ecosystems, aimed at strict protection in the national parks. But there is a list of activities that are suitable to be implemented in the national park and which take account the needs of local communities, including subsistence (not industrial!) resource use, *»in so far these will not adversely affect the primary management objective«*

(Dudley, 2008: 16). These include “*management of visitor use for inspirational, educational, cultural and recreational purposes at a level which will not cause significant biological or ecological degradation to the natural resources*» (Dudley, 2008: 16).

IUCN protected areas category II sites – national parks can also contribute to local economies through tourism (if it will not adversely affect conservation of natural ecosystems, viable and functional populations and assemblages of native species at densities sufficient to conserve ecosystem integrity); all other non-subsistence use, commercial or large-scale industrial or similar developments are not mentioned to be applied in the IUCN category II protected areas.

IUCN also requires that the primary management objective of the protected area category should be applied on “*at least three-quarters of the protected area*” (Dudley, 2008:34). IUCN recognises and recommends that “*up to 25percent of land or water within protected area can be managed for other purposes so long as these are compatible with the primary objective of the protected area*» (Dudley, 2008: 35). This does not imply that any uses of natural resources, even if it is based on the reversible use of natural resources, can be applied, if proved or estimated that such use will affect primary management objective in the territory of the protected area. In case of the IUCN protected area category II – national park, any impacts that could affect protection and functioning of natural ecosystems should be avoided.

IUCN also recommends that IUCN category II areas are surrounded by landscapes with “*varying degrees of consumptive or non-consumptive uses but should ideally serve as buffers to the protected area*” (Dudley, 2008: 16). By assignment of the area to a certain IUCN category, the authority responsible for establishment of protected areas should read the IUCN definition of protected area in the way that protected areas are aimed at long-term conservation and that lowering of the degree of naturalness in protected area is against the commitment of designation.

More on the IUCN protected area categories can be found in: Dudley, N. (Editor) (2008): *Guidelines for Applying Protected Area Management Categories*, Gland, Switzerland: IUCN. X + 86 pp.

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**- UPDATE SUBMITTED IN JANUARY 2014 -**

Dear Ms. d' Alessandro,

First of all let me wish you a happy and prosperous year!

I have intended to write to you a long time ago, but did not manage to do so, however, I still do think the issue I am about to raise is a very relevant and important one for the case we have filed.

Last year we had a meeting with Mr. Aleksandar Nastov from the Ministry of environment, serving as a contact point with the Bern Convention secretariat. Namely, he informed us about the discussions he had and the letter he sent to the Council. However, he was not aware of one important fact- the HPP Boskov Most project Environmental Impact Assessment study was approved by the Ministry of environment but there is an ongoing lawsuit against this decision in the Administrative court of the Republic of Macedonia. The lawsuit states that the Ministry of environment made a decision to approve an incomplete EIA study. The compliance review report issued by the EBRD this month (as a result of a complaint raised regarding this particular project), also states that *"the assessment of the Project's potential impacts on biodiversity and living natural resources is not sufficiently comprehensive and conclusive to satisfy the requirements of Performance Requirement 6 of the 2008 ESP [Environmental and Social policy of the European Bank for Reconstruction and Development]"*.

There is also an ongoing lawsuit against the Ministry of economy who did not comply with national law and did not prepare a Strategic environmental assessment of the Strategy for renewable energy use in Macedonia which is obviously a relevant issue when it comes to the protection of areas such as the Mavrovo national park from adverse impacts of renewable energy projects, such as large hydro power plants.

These two lawsuits signify that the process around Boskov most is far from "clean and over" as Mr. Nastov stated. He was also not aware of these legal processes.

I am looking forward to receiving additional information from your side regarding the status of our case. If at some point more information from our side would be necessary, I am happy to provide it.

Best regards,

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**- UPDATE SUBMITTED IN SEPTEMBER 2013 -**

The Mavrovo National Park has been officially proclaimed as an Emerald Site in December 2012. It is expected that most of the area covered with the National park will become NATURA 2000 sites upon EU accession.

We are concerned that the massive infrastructure development within the territory of the Park (hydro power plants and supporting infrastructure) will cause irreversible damage to its flora and fauna.

We believe that “the former Yugoslav Republic of Macedonia” might violate Article 4, point 1 and 2, Article 5 and Article 6 of the Bern Convention.

Mavrovo National Park is located in “the former Yugoslav Republic of Macedonia”, latitude 41033'01" to 41052'39" and longitude 20031'02" to 20048'59", between the cities of Gostivar, Debar and Kicevo. Surface covered by this protected area is 72.417 ha.

The national park “Mavrovo” is one of the richest in biodiversity areas in the country. It is a home of 50 mammal species, including the wolf, brown bear, fox, wild cat and lynx, 129 bird species, 11 species of amphibians (out of total 15 species found on the territory of the entire country), 24 species of reptiles (out of 32 in the country) and 924 species of invertebrates as well as 1435 plant species.

Out of these, 11 mammal species, 45 bird species, 2 amphibian and 13 reptile species found in the national park are on the list of Appendix II of the Bern Convention, thus signifying the importance of the site for the biodiversity protection. 12 out of 1435 plant species are endemic, 29 are rare and 404 are registered as medicinal plants.

Moreover, the national park “Mavrovo” is an Emerald site and a future Natura 2000 site.

**Population assessment of certain species**

*Lynx lynx* - it is estimated that around 15-20 individuals permanently inhabit the National Park Mavrovo, which serves as a core area for its breeding.

*Canis lupus* - estimated population of 250 individuals.

*Ursus arctos* - estimated population of 80 individuals.

*Rupicapra rupicapra balcanica* - estimated population 1500 individuals.

A detailed overview of all species found in Mavrovo National Park, included in the Appendices of the Bern Convention is appended.

It is planned that within the territory of the Mavrovo National Park several hydro power projects (HPP) will be constructed: Large HPP Boskov Most, Small HPP with accumulation Lukovo Pole, 29 small hydro power plants. These projects will need the supporting infrastructure to be constructed such as roads, bridges and transmission lines. All these contribute to the fragmentation of habitats, which threatens the existence of large carnivores for example. Also, water sources such as streams and rivers as well as the wildlife living there and in the surrounding areas will be mostly affected as the water is intended to be canalized for the needs of the power plants and accumulations. In addition, the existing power plants and accumulations result in dry river beds in the summer period as biological minimum is not maintained.

Power plant and supporting infrastructure construction will result in a longer term (approximately 4 years for large hydro power plant construction) disturbance of the area. Boskov most area, where the large power plant is planned is the home of the Balkan Lynx. Machinery, blasting, and long term presence of humans in the area will result not only in direct destruction of forests and other habitats but will also bring nuisance to birds and mammals.

A complaint to the EBRD - Project complain mechanism- for the Boshkov Most HPP project was submitted by Eko-svest because the project area is known to be crucial for the existence of the *Lynx lynx balcanicus*, which IUCN has identified as critically endangered. According EBRD's

Environmental policy, the Bank is not allowed to invest in projects located in critical habitats (or areas necessary for the existence of critically endangered species). The process is still ongoing. The complaint was found eligible in March 2012.

A second complaint was lodged to question the decision of the Ministry of environment and physical planning of “the former Yugoslav Republic of Macedonia” for the adoption of the Environmental Impact Assessment study for the Boskov most HPP project. The complaint was submitted by Front 21/42 environmental NGO since the EIA study found deficiency in data and as a result a 12 month bio-monitoring process was designed and approved by the EBRD and project sponsor ELEM. Without waiting for the data to amend the EIA, the Ministry adopted the document. The process is still ongoing.

**Complementary information:**

- Environmental Impact Assessment study for the Boskov Most Hydro power plant are available at <http://www.moepp.gov.mk/WBStorage/Files/ESIA-BOSKOV%20MOST.pdf> only in Macedonian language.
- Study for valorisation of Mavrovo protected area, Oxfam Italy, are available upon request (we can provide Macedonian version of the document).
- Monitoring reports for the Boskov Most area, summer and autumn 2012, available upon request in English language (AD Elektrani na Makedonija, 2012; Environmental monitoring in the pre-construction phase over the area of HPP Boshkov Most – Report on summer and autumn periods; Empiria EMS, Skopje; Tehnolab, Skopje; Society for Study and Protection of Birds of Macedonia.)
- Project summary documents (of larger projects): Lukovo pole, <http://www.worldbank.org/projects/P112730/lukovo-pole-water-regulation-renewable-energy-project?lang=en>  
Boskov Most HPP, <http://www.ebrd.com/pages/project/eia/41979.shtml>
- IUCN letter from 2.2.2012, entitled Conservation assessment of the Balkan Lynx- Lynx lynx balcanicus, available in English language upon request, finds that “beyond any doubt, the Balkan lynx has to be considered as Critically Endangered according to IUCN criteria“.
- IUCN Motion for the protection of Mavrovo, <http://portals.iucn.org/docs/2012congress/motions/en/M-061-2012-EN.pdf>

## **Appendix 1**

### **Overview of species found in Mavrovo National Park, included in the Appendices of the Bern Convention**

#### **Plantae**

*Ramonda serbica*, Appendix I

*Campanula abietina*, Appendix I

#### **Insecta**

*Lindenia tetraphylla*, Appendix II

*Parnassius apollo*, Appendix II

*Parnassius mnemosyne*, Appendix II

*Zerynthia polyxena*, Appendix II

*Euphydryas aurinia*, Appendix II

*Pachychilon macedonicum*, Appendix III (listed under *Rutilus macedonicus*)

*Euphydryas maturna*, Appendix II (listed under *Hypodryas maturna*)

*Euphydryas aurinia*, Appendix II (listed under *Euphydryas (Eurodryas) aurinia*)

*Phengaris arion*, Appendix II (listed under *Maculinea arion*)

#### **Amphibia**

*Hyla arborea*, Appendix II

*Rana dalmatina*, Appendix II

#### **Reptilia**

*Emys orbicularis*, Appendix II

*Ablepharus kitaibelii*, Appendix II

*Algyroides nigropunctatus*, Appendix II

*Lacerta viridis*, Appendix II

*Lacerta trilineata*, Appendix II

*Lacerta agilis*, Appendix II

*Podarcis muralis*, Appendix II

*Podarcis tauricus*, Appendix II

*Podarcis erhardii*, Appendix II

*Natrix tessellate*, Appendix II

*Coronella austriaca*, Appendix II

*Vipera ammodytes*, Appendix II

*Vipera ursinii macrops*, Appendix II

#### **Aves**

*Acanthis canabina*, Appendix II

*Alauda arvensis*, Appendix III

Alcedo atthis, Appendix II  
Alektoris graeca, Appendix III  
Anas querquedula, Appendix III  
Aquila chrysaetos, Appendix II  
Aythya ferina, Appendix III  
Aythya nyroca, Appendix III  
Bubo bubo, Appendix II  
Caprimulgus europaeus, Appendix II  
Carduelis chloris, Appendix II  
Carduelis spinus, Appendix II  
Certhia brachydactyla, Appendix II  
Cicaetus gallicus, Appendix II  
Columba oenas, Appendix III  
Coturnix coturnix, Appendix III  
Crex crex, Appendix II  
Dendrocopos medius, Appendix II  
Emberiza calandra, Appendix III  
Emberiza cia, Appendix II  
Emberiza cirrus, Appendix II  
Emberiza citronella, Appendix II  
Emberiza hortulana, Appendix III  
Erithacus rubecula, Appendix II  
Falco peregrinus, Appendix II  
Falco tinnunculus, Appendix II  
Ficedula albicollis, Appendix II  
Ficedula hypoleuca, Appendix II  
Fringilla coelebs, Appendix III  
Gyps fulvus, Appendix II  
Hirundo rustica, Appendix II  
Jynx torquilla, Appendix II  
Lanius collurio, Appendix II  
Lyrurus tetrix, Appendix III  
Lullula arborea, Appendix III  
Luscinia megarhynchos, Appendix II  
Monticola saxatilis, Appendix II  
Monticola solitarius, Appendix II  
Muscicapa striata, Appendix II  
Otus scops, Appendix II

*Parus caeruleus*, Appendix II  
*Parus lugubris*, Appendix II  
*Perdix perdix*, Appendix III  
*Pernis apivorus*, Appendix II  
*Phoenicurus phoenicurus*, Appendix II  
*Phylloscopus sibilatrix*, Appendix II  
*Picus canus*, Appendix II  
*Picus viridis*, Appendix II  
*Prunella modularis*, Appendix II  
*Regulus ignicapillus*, Appendix II  
*Regulus regulus*, Appendix II  
*Saxicola rubetra*, Appendix II  
*Saxicola torquata*, Appendix II  
*Scolopax rusticola*, Appendix III  
*Serinus serinus*, Appendix II  
*Streptopelia turtur*, Appendix III  
*Strix aluco*, Appendix II  
*Sylvia atricapilla*, Appendix II  
*Sylvia communis*, Appendix II  
*Sylvia nisoria*, Appendix II  
*Turdus merula*, Appendix III  
*Turdus philomelos*, Appendix III  
*Turdus pilaris*, Appendix III  
*Turdus viscivorus*, Appendix III

**Mammalia**

*Hypsugo savii*, Appendix II  
*Pipistrellus kuhlii*, Appendix II  
*Eptesicus serotinus*, Appendix II  
*Miniopterus schreibersii*, Appendix II  
*Myotis mystacinus*, Appendix II  
*Crocidura suaveolens*, Appendix II  
*Canis lupus*, Appendix II  
*Lutra lutra*, Appendix II  
*Ursus arctos*, Appendix II  
*Felis silvestris*, Appendix II  
*Lynx lynx*, Appendix II  
*Rupicapra rupicapra balcanica*, Appendix III