

# Report

## On the importance of the territories excluded from “Svaneti 1” candidate Emerald site

commissioned by Association Green Alternative, Georgia  
prepared by BALKANI Wildlife Society, Bulgaria

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### *Introduction*

Balkani Wildlife Society were asked to support with biodiversity expertise Association Green Alternative, complainant of Complaint No. 2016/9 - Possible threat to “Svaneti 1” candidate Emerald site (GE0000012) from Nenskra Hydro Power Plant development (Georgia).

The area of the Nenskra Hydropower Project (Nenskra HPP) is included into the adopted Emerald site GE0000012 "Svaneti 1". The first compilation was done in November 2010, adoption as ASCI was done at the biogeographical seminar held in Tbilisi on 27- 29th of May 2015.

In January 2016 the Georgian Government amended borders of the site GE0000012 "Svaneti 1" and significantly reduced its area to 37 930 ha – more than 5 times less than its initial size. The whole project area was excluded from the site. The Resolution 4 habitats assessed with insufficient major (IN MAJ) and insufficient minor (IN MIN) are excluded and also key habitats of the 3 species of mammals already evaluated during the seminar are excluded. Such amendment of the site borders violates the procedures performed according to the document T-PVS/PA (2013) 13 of the Standing Committee of the Bern Convention and makes them meaningless.

Authors of the Environmental and Social Impact Assessment of Nenskra HPP and the Supplementary Package claim that "*habitats present in the area are not considered to be highly threatened or unique ecosystems*" and that "*habitats present had been subject to grazing and logging; leading to degraded habitats*".

The purpose of the current document is to give additional data on the importance of the Nenskra and Nakra valleys and to prove that the reduction of the Emerald site area was done without any scientific biological or environmental justification.

### *Methods:*

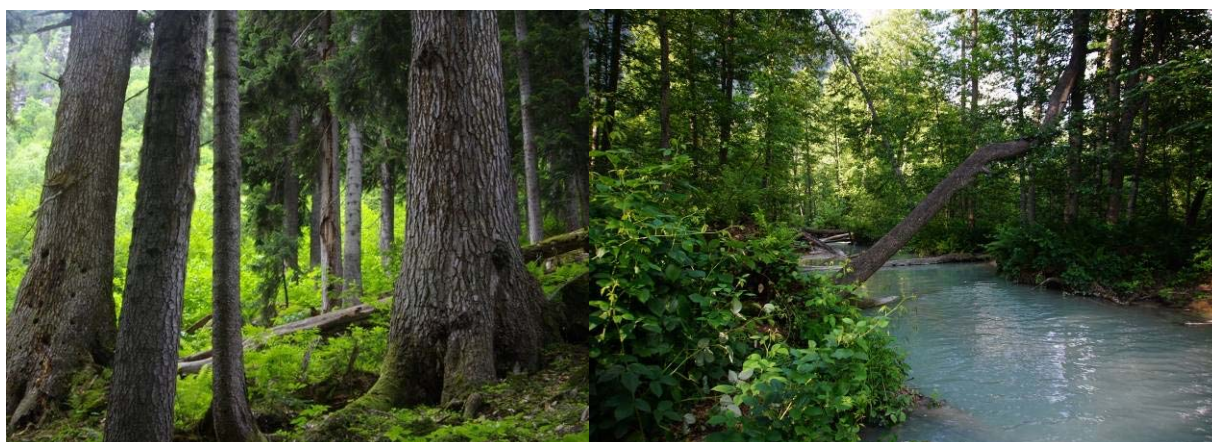
Experts of Balkani Wildlife Society carried on biodiversity surveys on bird species, mammal species and natural habitats in the areas of Nenskra and Nakra valleys, Upper Svaneti, Georgia in June 2016, October 2016, April 2017, July 2017. Field surveys were complemented with literature review and questionnaires with people who visit the natural habitats regularly for determining the relative number of mammals and fish and aquatic fauna in the most favorable habitats for them and for identifying threats to their conservation.

### *Results and conclusions:*

#### **Forest habitats:**

A total of 4 plots 30x30 meters were studied in the area of the Nenskra dam and 2 in the upper Nakra valley. The plots were selected randomly close to existing roads or paths as these are the areas where logging was possible in the past. In 5 of the plots there was no logging. In only 1 plot there was a single cut alder tree (64 years old). Big percentage of forests are old-growth or even pristine, especially in the Nenskra dam area.

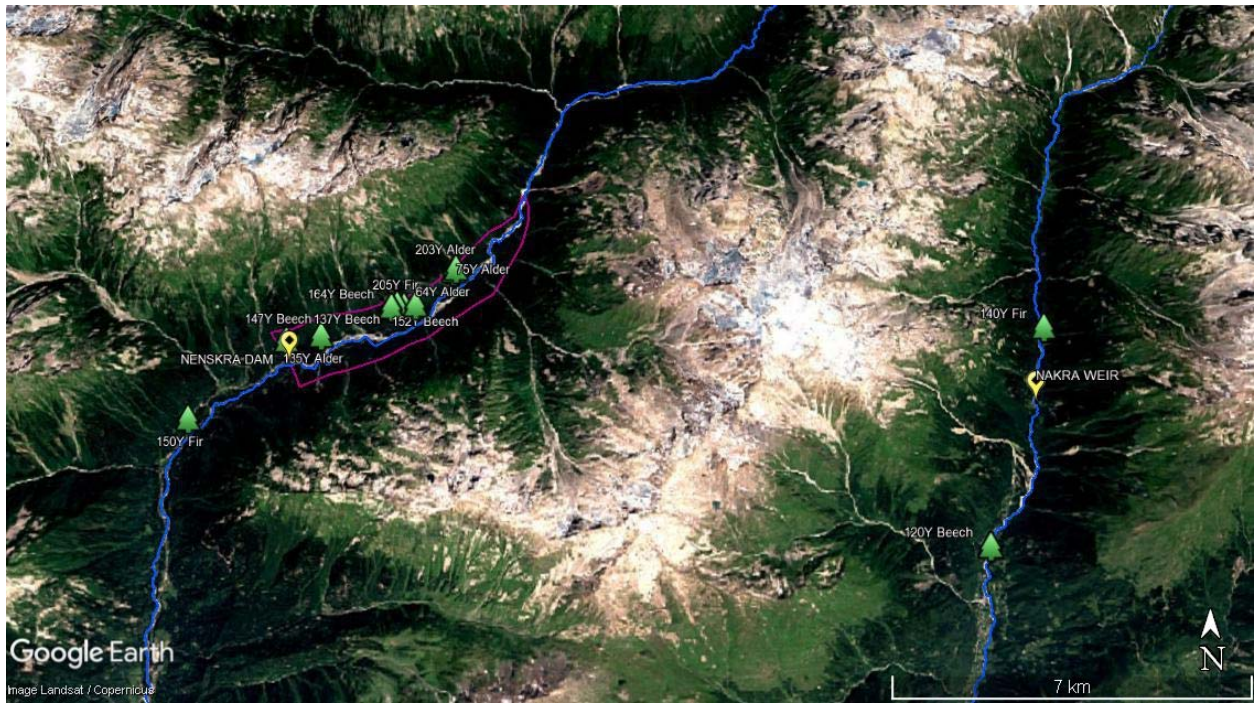
Plot №	Main tree species	Total trees	Cut trees	EUNIS Habitat
1	Alder, beech, fir	42	0	G1.127
2	Alder, birch	38	1	G1.127
3	Beech, fir	80	0	G1.6H
4	Beech, alder, maple	65	0	G1.6H
5	Beech, chestnut	32	0	G1.6H
6	Alder	45	0	G1.127





A total of 12 trees logged were examined. Most of them were cut in the last 2 years during construction of new roads for the Nenskra HPP.

Tree №	Area	Species	Age (years)
1	Nenskra bellow dam	Caucasian fir	150
2	Nenskra dam	Oriental beech	147
3	Nenskra dam	Caucasian alder	135
4	Nenskra dam	Oriental beech	152
5	Nenskra dam	Oriental beech	164
6	Nenskra dam	Oriental beech	137
7	Nenskra dam	Caucasian fir	205
8	Nenskra dam	Caucasian alder	64
9	Nenskra dam	Caucasian alder	203
10	Nenskra dam	Caucasian alder	75
11	Nakra bellow weir	Oriental beech	120
12	Nakra above weir	Caucasian fir	140
		<b>Average age:</b>	<b>141</b>



Most of the trees in the Nenskra dam site die because of natural causes leaving enough deadwood for wildlife (and firewood for local people). This is an unique ecosystem not found in Europe anymore.



#### Conclusion:

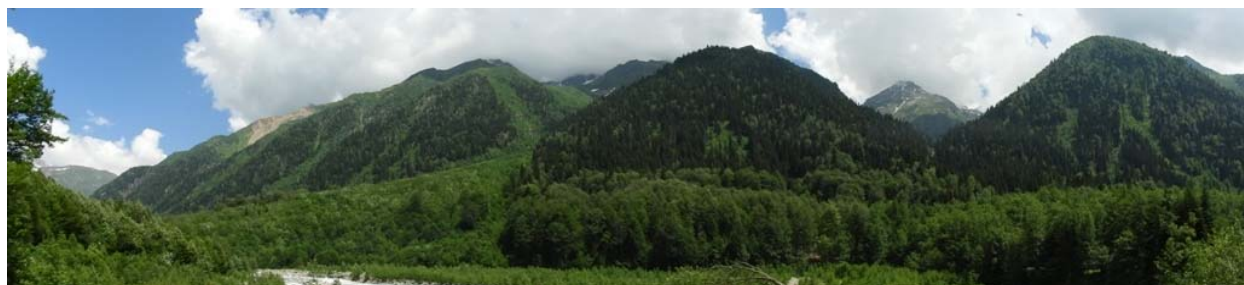
The Nenskra and Nakra valleys still hold some of the most representative forests in Svaneti and Georgia. Large areas are covered by pristine and old-growth forests inaccessible for logging. Access to the upper parts of the valleys is restricted by rivers, avalanches, landslides, rock crags and steep slopes not only for vehicles, but often even for horses. The road network is very limited and border areas have played an important conservation role during the centuries.

The only registered logging was close to the roads mainly for the need of local communities (fire wood, building). Even accessible forests are in favorable conservation status - there are no artificial plantations, clearcuts or large-area logging. Selective forestry has been carried on in a sustainable way - taking out individual trees and leaving a multi-age forest. This logging has not negatively impacted on the local, natural, diverse forest ecosystems.

Alluvial forests with *Alnus barbata* in the Nenskra Dam site and along the Nenskra and Nakra rivers and their tributaries are very well preserved with very limited logging. Grazing does not change the favorable conservation status of the habitat as it is extensive and comparably limited number of livestock is grazed.

The ecosystems along Nenskra and Nakra rivers represent unique ecosystems providing optimal conditions for many endangered species and habitats. Typical is very limited human impact –

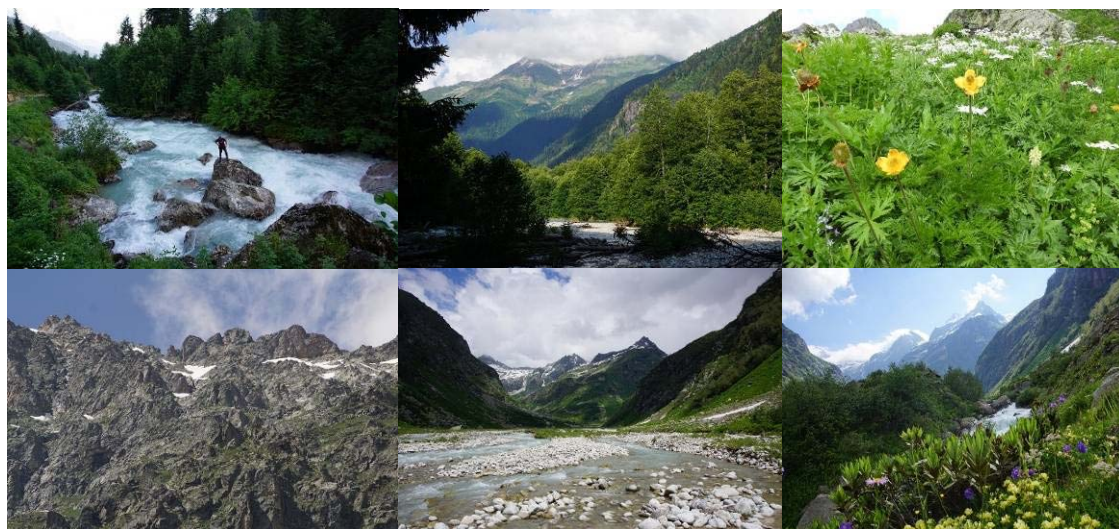
extensive livestock breeding which has probably lasted for thousands of years and has no significant negative impact. So all (forest) habitats in the Nenskra and Nakra valleys should be included in the "Svaneti 1" Emerald site.



**Non-forest habitats:**

Transects from 700 up to 2800 meters above sea level were carried on in the Nenskra and Nakra valleys to assess the variety and conservation status of habitats excluded from the "Svaneti 1" candidate Emerald site.

A great variety of riparian, scrub, grassland, wetland and rocky habitats are present in the two valleys (more than 25 habitats from Resolution 4 of the Bern Convention<sup>1</sup>). This is due to the different altitudes varying from 550 to 3996 meters (Shtavler Peak), different terrain, geological formations and rock base. The area is a biodiversity hotspot with many endemic species of plants and animals.



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<sup>1</sup> <https://wcd.coe.int/ViewDoc.jsp?p=&id=1475213&direct=true>

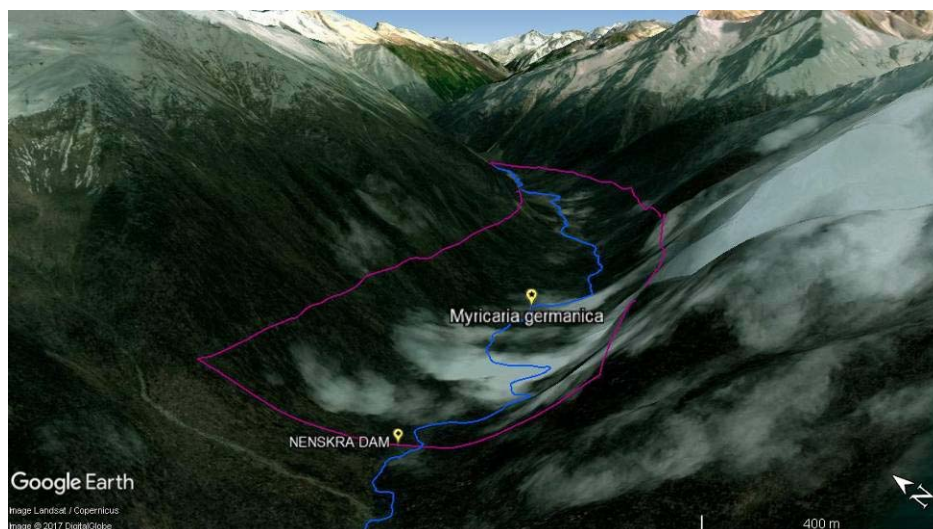


In the Nenskra dam area we discovered the EU Habitats Directive Annex 1 habitat **3230 Alpine rivers and their ligneous vegetation with *Myricaria germanica*** which is a specific subtype of EUNIS habitat F9.1 Riverine scrub<sup>2</sup>. Georgia has an important global role in protecting this habitat and no compensation for its loss is possible.



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<sup>2</sup> <http://eunis.eea.europa.eu/habitats/10074>



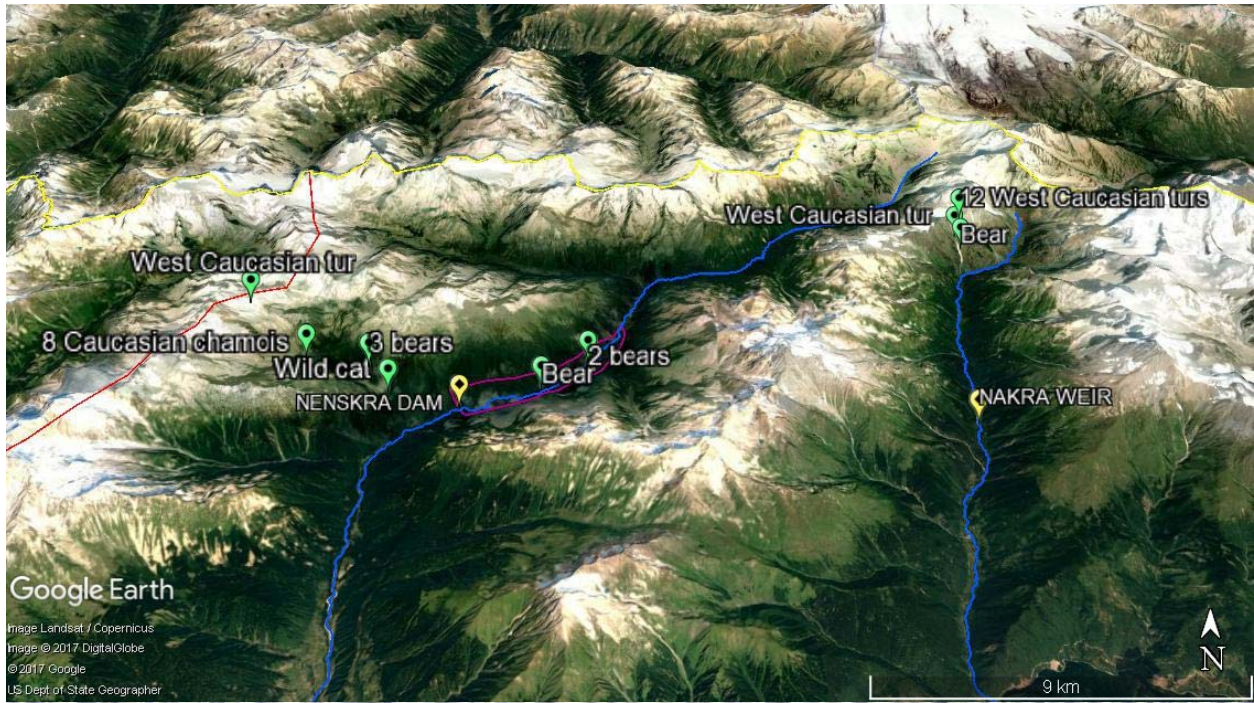
### Conclusions:

Non-forest habitats in the Nenskra and Nakra valleys are in favorable conservation status with many inaccessible areas or areas visited rarely by border guards and herders. The scale of non-fragmented habitats is huge. If these habitats are excluded the integrity of the Emerald site will be lost.

### Mammal species:

The following rare and protected species were registered in specialized surveys between 13<sup>th</sup> and 15<sup>th</sup> of 2017:

Date	Area	Species	Description
15-07-2017	Between Nenskra and Nakra	Brown bear ( <i>Ursus arctos</i> )	Scat
15-07-2017	Between Nenskra and Nakra	West Caucasian tur ( <i>Capra caucasica</i> )	Scat discovered in many areas
15-07-2017	Between Nenskra and Nakra	West Caucasian tur ( <i>Capra caucasica</i> )	A group of 12 observed
13-07-2017	Nenskra dam site	Brown bear ( <i>Ursus arctos</i> )	12 cm wide footprint, female
13-07-2017	Nenskra dam site	Brown bear ( <i>Ursus arctos</i> )	14 cm wide footprint, male
13-07-2017	Nenskra dam site	Brown bear ( <i>Ursus arctos</i> )	9 cm wide footprint, young
12-07-2017	West of Nenskra dam site	Brown bear ( <i>Ursus arctos</i> )	Herdsman
14-07-2017	West of Nenskra dam site	Wild cat ( <i>Felis silvestris</i> )	Footprint
14-07-2017	West of Nenskra dam site	Caucasian chamois ( <i>R. rupicapra caucasica</i> )	5 females and 3 young observed for 2 days
15-07-2017	West of Nenskra dam site	West Caucasian tur ( <i>Capra caucasica</i> )	1 female observed



A total of 13 questionnaires were made with local people that often visit the mountains. All knew there were bear, wolf, West Caucasian tur and chamois in the vicinity of their settlements. Only one person from Mestia was not sure of the presence of lynx. 6 people indicated there was no leopard in their area, 3 didn't know. 4 people had some information about the species. A school teacher said that there was information from more than 10 years of a leopard coming from Abkhazia. A farmer/hunter from Nakra and a herdsman from Chuberi knew of case or cases leopard was seen chasing tur at the Nenskra pass. Another person from Nakra saw huge feline footprints on snow in winter high in the mountains. These were not lynx footprints, as everybody is familiar with them. Specialized surveys with at least 20 camera-traps are needed in order to find proof of the presence of the Persian leopard in Svaneti.

№	Settlement	Date	Bear	Wolf	Lynx	Leopard	Tur	Chamois
1	Nakra	13.7.2017	YES	YES	YES	NO	YES	YES
2	Chuberi/Zgurishi	14.7.2017	YES	YES	YES	YES	YES	YES
3	Nakra	14.7.2017	YES	YES	YES	YES	YES	YES
4	Mestia	14.7.2017	YES	YES	?	?	YES	YES
5	Nakra	15.7.2017	YES	YES	YES	NO	YES	YES
6	Chuberi/Zgurishi	15.7.2017	YES	YES	YES	NO	YES	YES
7	Chuberi/Tita	15.7.2017	YES	YES	YES	NO	YES	YES
8	Nakra	17.7.2017	YES	YES	YES	YES	YES	YES
9	Nakra	17.7.2017	YES	YES	YES	NO	YES	YES
10	Chuberi/Letsperi	18.7.2017	YES	YES	YES	YES	YES	YES
11	Chuberi/Zemo Marghi	18.7.2017	YES	YES	YES	?	YES	YES
12	Khaishi/Lukhi	18.7.2017	YES	YES	YES	NO	YES	YES
13	Becho	18.7.2017	YES	YES	YES	?	YES	YES

The Nenskra dam site was shown by 3 persons as the best place for bears. Bears, bear scats and footprints could be observed an average of 11-30 times per year per person. The same observations for wolf and tur were on average 3-10 per year, lynx - once in 3 years, chamois - 11-30 per year. More than 30 Caucasian grouses could be seen per year.

The questionnaires also showed that attacks on livestock ranged between 1-2 in Mestia and more than 25 per year in the settlements of Nenskra and Nakra valleys. Bears created most of the problems.

#### Conclusions:

The habitats along Nenskra and Nakra rivers and surrounding slopes, cliffs and peaks are of high quality for the endemic West Caucasian tur, Caucasian chamois, Caucasian grouse and Caucasian snowcock and for the species preying on them. The registered density is lower than the carrying capacity of the habitats. The main reason for this, according to the interviewees is lack of protection. The low density of ungulates influences negatively also their predators, some of which are very rare and endangered such as Persian leopard.

Poaching by local people and border guards is a problem with estimated 40 to 60 percent of households having a hunting gun in a region where no legal hunting is allowed. Bear is killed for food, to protect livestock and for self-protection. Accidental shooting, leg-hold traps and pursuing of bears in their winter dens are common hunting practices. Illegal hunting carried out by non-local people coming from big cities such as Tbilisi, Zugdidi, etc. was also reported. Hunting for food of West Caucasian tur and chamois is common in the area. If effective anti-poaching measures are implemented, the populations will quickly recover as there are excellent sub-alpine and alpine habitats for both species which are also very important food base for endangered predator such as leopard, Bearded vulture, etc.

If the Nenskra HPP is built and the Nenskra and Nakra valleys are excluded from the Emerald site and the proposed national park, the large mammal populations will continue to decrease and could lead to the complete extinction in the area of the globally-threatened West Caucasian tur and Persian leopard. Building new roads (maintained year-round) and related facilities for the Nenskra HPP will facilitate the access and increase the poaching, especially by non-local people. Very limited effective management of populations and anti-poaching measures could be implemented in that case.

#### **Bird species:**

A great variety of endemic, protected and rare bird species were registered in June 2016, October 2016 and July 2017. On the 15th of July a bearded vulture (*Gypaetus barbatus*) was photographed between Nakra and Nenskra valley, north of Shtavler peak. We assume it nests nearby as the breeding season extends after the end of July. The species was assessed insufficient moderate (IN MOD) for Georgia during the Emerald biogeographical Seminar for bird species 1-2 December 2016 in Tbilisi. The territory of this pair should be included in the Emerald network.

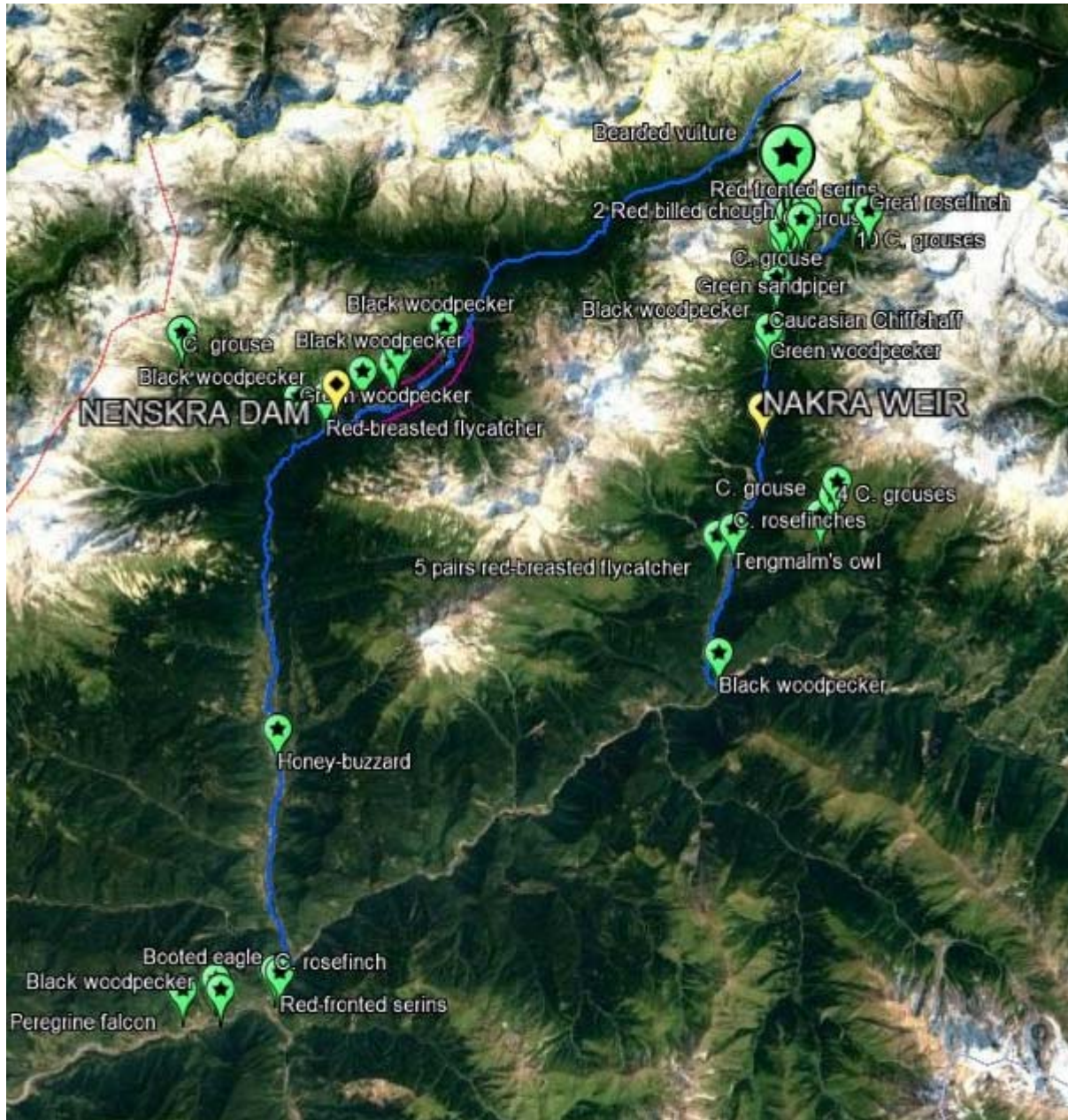


Other species with insufficient coverage in the Emerald network in Georgia<sup>3</sup> have important population in the territories excluded from "Svaneti 1" Emerald site: honey-buzzard (*Pernis apivorus*), black kite (*Milvus migrans*), griffon vulture (*Gyps fulvus*), golden eagle (*Aquila chrysaetos*), booted eagle (*Hieraaetus pennatus*), peregrine falcon (*Falco peregrinus*), black woodpecker (*Dryocopus martius*), red-breasted flycatcher (*Ficedula parva*), Krüper's nuthatch (*Sitta krueperi*). For the booted eagle (spotted by our experts in two locations) more forest sites should be added according to the seminar, taking into account that almost all forests from Svaneti 1 Emerald site were excluded without scientific proof.

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<sup>3</sup> <https://rm.coe.int/16806f40b0>





### Conclusions:

The Emerald network in Georgia is insufficient for protecting the bird species of European importance. For several species a bigger Emerald site in Svaneti is needed if favorable conservation status is to be ensured.

### Reptiles:

A single individual of Dinnik's viper was spotted on the 14th July 2017 at 1580 meter above sea level and only 1.6 km west of the planned Nenskra dam. The species is endemic to the Great

Caucasus and vulnerable according to IUCN<sup>4</sup>. It was not assessed in the Environmental and Social Impact Assessment of Nenskra HPP, even though the project could have important impacts.

### **Fish and aquatic fauna:**

Fishing for trout is an important food source for local people. More than 80 fishermen were counted by our experts in July 2017 at the Nenskra river, half of them in the Nenskra Dam site. People from all around Svaneti gather at this site, known for being the best in the region. All fishermen claim to catch more than 5 kg of trout in the best days. Fish from the rivers Nakra and Nenskra are important regular food (protein) supply for the local communities with survive in general with very low incomes and producing most of their food themselves (agriculture, livestock breeding, fishing). In another studies case, during the building of Shuakhevi HPP the fish has significantly decreased and even extinct to some part of the river. If that happens to the Nenskra area, this important food source will be lost here, too.

Otter is difficult to spot in a big fast-flowing river, but local people with fishponds in Chuberi have seen the species twice. We assume that the species is present in the area, but the population should be studied when water levels are low. Now most of the tracks (excrements) could not be observed due to the high level of the water.

Building of Nenskra HPP will exterminate the aquatic fauna below the dam, weir and tunnel like it happened with Shuakhevi HPP in Adjara, SW Georgia, during construction phase.



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<sup>4</sup> <http://maps.iucnredlist.org/map.html?id=23001>