COUNCIL OF EUROPE CONSEIL DE L'EUROPE

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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Large Carnivore in the Caucasus

18 May 2010
Tbilissi (Georgia)

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REPORT

Document
prepared by
and the Directorate of Culture and Cultural and Natural Heritage

CONTENTS

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The Workshop on Large Carnivores in the Caucasus was held in Tbilissi (Georgia) on 18th May, in the framework of an International Bear Association Conference.

The Standing Committee is invited to:

1. Take note of the report of the worshop;
2. Thank IBA, NACRES and IUCN Cats Specialist Groupfor their support in the organisation of the workshop;
3. Examine and, if appropriate, adopt the draft recommendation in appendix 5 to this report.

BIOGEOGRAPHICAL BACKGROUND OF THE CAUCASUS ECOREGION

The Caucasus ecological region – shared by Russian Federation, Georgia, Armenia, Azerbaijan, Turkey, and Iran – is recognised as a global hotspot for biodiversity conservation. Four of the countries are contracting parties of the Bern Convention: Armenia, Azerbaijan[1], Georgia, and Turkey. As a consequence of the political situation of the Caucasus countries and the imperative need for economic development in the whole region, biodiversity conservation faces considerable challenges in the entire ecoregion. A particular problem face species such as large carnivores, which require large areas to maintain viable populations and hence need a transboundary approach in conservation. Recent socio-economic transitions and changes in land use have partly increased the wildlife-human conflict. Large carnivores were special targets of this conflict, as they were suffering from decreasing availability of wild prey as a consequence of declining wild ungulate populations and from increased persecution when preying on (privatised) livestock herds. The Caucasus hosts four large carnivore species listed in the Bern Convention, namely brown bear *Ursus arctos*, wolf *Canis lupus*, leopard *Panthera pardus* (all listed in Appendix II), and Eurasian lynx *Lynx lynx* (Appendix III). As in western and central Europe, populations of these species are transboundary, and it is evident that only cooperation among the Caucasian country will allow conserving and sustainably managing viable population.

1. INTRODUCTION

The Secretariat welcomed participants (see appendix 2), introduced the programme (see appendix 1), thanked NACRES for its kindness to integrate this working session in the framework of the IBA Conference and informed participants that the Council of Europe, having carried out much work on conservation of large carnivores in Europe (in close partnership with the Large Carnivore Initiative for Europe, LCIE), was interested to enlarge its experience to the Caucasus.

The aim of the working session was to make proposals to the Standing Committee to the Bern Convention on priorities on large carnivore work in the region.

2. INTEGRATING LARGE CARNIVORES, THEIR PREY AND ECOLOGICAL CONNECTIVITY

Mr Urs Breitenmoser, co-organiser of the working session, noted that it was fundamental to conserve both large carnivores, their prey and their habitats, dealing also with potential conflict with livestock. An enhancement of habitat protection and the elaboration of Action Plans agreed with other interest groups could be ways to advance in large carnivores conservation. These species can co-exist with people if large areas are conserved and source population are well protected.

3. LINKING WITH OTHER REGIONAL CONSERVATION INITIATIVES

Representatives of IUCN, WWF and NACRES explained in detail a number of existing regional conservation activities on which the Council of Europe could count to build a solid partnership for large carnivores in the region. Much of the expertise, know-how and networks have been already developed by these three organisations. Some of the speakers noted that the Caucasus ecoregion is an important biodiversity hotspot, also for large carnivores. In addition to the three common European large carnivores (Eurasian lynx, brown bear and wolf) in the region, there are leopards, jackals, striped hyena and caracals). Many conservation proposals have been made by NGOs but implementation was a problem due to limited resources by governments and NGOs. Capacity needed to be also increased and sound conservation programmes needed more funds.

Nugzar Zazanashvili (WWF Caucasus Programme Coordinator, Georgia) reviewed the direct and underlying threats to wildlife and large carnivore in particular. He explained the Ecoregional Conservation Plan for the Caucasus and the potential benefit to large carnivore populations. The ECP geographical approach has identified 56 priority conservation areas, covering 24 % of the area of the ecoregion, and 60 wildlife corridors, adding another 10 % of land cover (Fig. 2). The Caucasus Biodiversity Council, consisting of members of governmental and private institutions of all range

[1] Azerbijan is accession state.

states, is the steering committee for the implementation of the plan. Among the large carnivores, the leopard is the outstanding flagship species for conservation. Based on a ecoregional Conservation Strategy, national Action Plans for the conservation of this large cat are now being developed and implemented. Further conservation actions are focussing on the striped hyena *Hyaena hyaena*, brown bear and Eurasian lynx.

4. STATUS AND MAIN CONSERVATION PROBLEMS OF LARGE CARNIVORES IN THE CAUCASUS

Scientists and government officials presented detailed information on the status of large carnivores in the region and pointed out some priorities. Leopards was seen as a Caucasus species of special concern. [Mr Breitenmoser, Chair of IUCN Cats Specialist Group, organised another working session, the conclusions of which are presented as appendix 3 to this report.]

For **Armenia**, *Hasmik Ghalachyan* (Ministry of Nature Protection, Armenia) reported on the status of large carnivores in Armenia, as it was assessed when the Red Data Book of Animals of Armenia was compiled. The bear is classified as VU B1 b(iii). It occurs in unknown numbers in Ararat, Vayots Dzor, Syunik, Tavush, Lori, Kotayq and Gegharqunik. Main threats are poaching, habitat deterioration, and disturbance through human activities. The leopards is the best studied of the large carnivores. It's area of occurrence is estimated to be 7,500 km², the occupancy = 2,857 km² in Khosrov and Khachadzor, Geghama, Zangezur, Vayots Dzor, Bargushat and Meghri. A maximum of 10 – 15 leopards live in Armenia. The species is CR C2a(i) classified, a consequence of threats such as fragmentation, poaching, development, forest fires, and unsustainable livestock grazing. Hyena are RE (regionally extinct). The species disappeared from the country around 1940. Lynx are widespread in Armenia, namely in Ararat, Alaverdi, Ijevan, Hrazdan, Ghapan, Meghri. Is is believed to feed mainly on hares and rodents. The wolf is considered a common species accross the country. Conservation activities for large carnivores have so far focussed on the leopard (see special report).

The priorities were clearly bear, which is thought to be vulnerable, and especially leopard (even if this species has a marginal distribution). Precise information on large carnivores is lacking. If two species were to receive special conservation attention, these would be bear and lynx (very poorly studied species, see more details in appendix 4).

For **Azerbaijan,** *Elshad Askerov* (Institute of Zoology, National Academy of Sciences, Azerbaijan) reported on the situation of large carnivores in Azerbaijan. A considerable threat to the predators is the fast decline of wild ungulates, especially of gazelles, which formed the staple prey e.g. for hyenas. The most important conservation measure in Azerbaijan is the creation of protected areas, which have increased from 4,780 km² in 2000 to a total area of almost 7,500 km² in 2008 (Fig. 3).

The clear priority was leopard as bears, wolf and Eurasian lynx have healthy, stable population. A priority could be to restore gazelle populations, that have dramatically collapsed, so that striped hyenas could recover.

For **Georgia**, *Irakli Shavgulidze* (NACRES) reported on the status of large carnivores. The country hosts presently five species of large carnivores (>17 kg), namely bear, wolf, lynx, leopard, and hyena, of which three (lynx, leopard, hyena) are considered Critically Endangered in the country, whereas the bear is listed as Endangered (Table 1). The wolf, however, is not legally protected.

Table 1. Status of large carnivores in Georgia. Status assessed according to IUCN Red List criteria.

	Area [km²]	Population size	Trend	Status	Threats
Bear	34,000	600-700	stable	EN	poaching
Wolf	whole country	1000-2000	expanding	-	prey declining, direct persecution
Lynx	?	?	?	CR	poaching, habitat deterioration
Leopard	SE Georgia	?	?	CR	prey declining, poaching, habitat deterioration
Hyena	SE Georgia	?	?	CR	prey declining, direct persecution, habitat deterioration

Thus, for Georgia, lynx was a clear priority, as it was most likely vulnerable (but no reliable data exist) while wolf and bear were abundant, even if bears are regularly poached. More and better monitoring was necessary. Striped hyenas were practically extinct and leopard presence, anecdotical (one individual is regularly seen and photographed in the Vashlovani State Reserve).

For **Turkey,** *Can Bilgin* (Middle East Technical University, Ankara, Turkey) presented the situation of the large carnivores in Turkey. Turkey, where once even tigers and lions roamed, has today five species of large carnivores left, of which four exist in the Caucasian part of the country. Brown bears number about 4,000 in Turkey and 1,000 in the Caucasus region. Bear is a protected species, but local trophy hunting is allowed every few years, and poaching and trapping is still common in areas with high conflicts. The METU started a radio-telemetry project, studied human-bear conflict and introduced electric fences to reduce damages to bee hives. The wolf occurs in most habitats, with a country population of some 6,000 and a regional population of 1,000 animals. It feeds mainly on wild boar and livestock, making it the most damaging species. Local retaliation killing and poisoning is common, though it is (nominally) protected. Leopards are sparsely distributed in the east, north-east, south and north-west of the country[2]. The total population may be 40–60, regionally 5–10. It was considered extinct, but there has been new evidence since the 1990s. It is practically unknown to local people, and there is little evidence of damage. Lynx are widely found in forested areas and even more open country. The national population may be 1,000, the regional 100 specimens. Main prey are hares. It is more widespread than believed, and, though there is little evidence for livestock depredation, lynx are poached and occasionally trapped. Conservation measures include protected areas, which sum up to about 10,000 km² or 1.3 % of the country. There has been little research on carnivores so far, but recently, studies on perception, local monitoring by means of camera trapping, and population and range modelling has been initiated.

5. POSSIBLE SOLUTIONS AND RECOMMENDATION

During the discussion, the participants concluded that though reliable numbers based on scientifically robust evidence for all large carnivores are lacking and capacity development both regarding research and survey concepts and conservation is needed throughout the region, there is a clear need for transboundary cooperation in large carnivore conservation and management. A promising first step towards improved cooperation might be to standardise and coordinate surveys and monitoring for the large carnivore populationsand their prey, involving scientists, state agencies and private conservation institutions. Capacity building remains also a priority. Dealing with the human dimension is also a priority, as attitudes towards large carnivores are presumed to be negative, to judge by how poaching of protected species is widespread and wolf seems to be most unwelcome everywhere.

Some recommendations made at the session are presented in the form of a draft recommendation addressed to Caucasus States (see Appendix 5).

6. DEALING WITH HUMAN DIMENSION ASPECTS IN LARGE CARNIVORE CONSERVATION

Mr Alistair Bath noted the importance for conservation of improving the acceptance by people of large carnivores, of better knowing what present attitudes are and of opening a dialogue with the different interest groups to achieve consensus on plans. Co-existence of large carnivores with humans in the Caucasus will not be necessarily easy but governments and NGOs cannot avoid those discussion if conservation plans want to have chance of success. The process has to be transparent.

[2] Reporter's remark: Turkey hosted two subspecies of leopards, *P. p. saxicolor* in the E and *P. p. tuliana* in the W and S. While – also considering the distribution in Iran – the persistence of *P. p. saxicolor* is likely, the long-lasting search for *P. p. tuliana* has so far not produced any hard evidence for its survival.

Appendix 1

Large Carnivores in the Caucasus

18 May 2010 afternoon
Tbilissi, Georgia

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AGENDA

1. **Introduction**
   By Mr Eladio Fernández-Galiano (Council of Europe)
2. **Integrating large carnivores, their prey and ecological connectivity**
   By Mr Urs Breitenmoser
3. **Linking with other regional conservation initiatives**
   a. Large carnivores in the IUCN programme for Southern Caucasus
      By Ms Anja Wittich
   b. Integrating LC in the Ecoregional conservation Plan for the Caucasus
      By Mr Nugzar Zazanashvili Conservation Director,WWF Caucasus Programme (tbc)
   c. Taking care of LC needs in the building of the Emeral Network in the Caucasus
      By M Levan Butkhusi (Coordinatior of NACRES Emeral Network team)
4. **Status and main conservation problems of large carnivores in the Caucasus**
   - Status of LC in Armenia by Ms Hasmik Ghalachyan, Head of Department. Ministry of Nature Protection of Armenia
   - Status of LC in Azerbaijan by Mr Elsahd Asgerov, Institute of Zoology, National Academy of Sciences of Azerbaijan
   - Status of LC in Georgia by Mr Irakli Shavgulidze…
   - Status of LC in Turkey by Prof Çan Bílgín, Middle East Technical Univesity, Ankara
5. **Possible solutions and Recommendations**

   Open discussion
6. **Dealing with Human dimension aspects in Large Carnivores conservation**
   By Mr Alistair Bath

Appendix 2

LIST OF PARTICIPANTS

Names	E-mail addresses
Eladio FERNANDEZ-GALIANO	Eladio.fernandez-galiano@coe.int
Maka TSERETELI	m.tsereteli@yahoo.com
Irine LOMASHVILI	irinaloma@yahoo.com
Gholam Hosein YUSEFI	gh.yusefi@gmail.com
Anja WITTICH	anja.wittich@iucn.org
Richard MORLEY	info@wolvesandhumans.org
Gareth GOLDTHORPE	gareth.goldthorpe@fauna-flora.org
Ali NAWAZ	nawazma@gmail.com
Claudio GROFF	claudio.groff@provincia.tn.it
Alberto FERNANDEZ-GIL	albertofgivo@uniovi;es
Anil SOYUMERT	soyumert@gmail.com
Alper ERTÜRK	alpert@hacettepe.edu.tr
Natia KOPALIANO	natia_kopaliani@iliauni.edu.ge
Richard BISCHOF	richard.bishof@umb.no
Renee PRIVE	rprive@wildlifegenetics.ca
Mike GIBEAU	mike.gibeau@pc.gc.ca
Arash GHODDOUSI	arash.ghoddousi@gmail.com
Hadi FAHIMI	ha-fahimi@yahoo.com
Cristian MONTALVO M.	crismancheno@yahoo.com
Miguel DE GABRIEL	mghernando@yahoo.es
Maia SHAGARASHVILI	shagarashvili@gmail.com
Eter BUCHUKURI	ebuchukuri@gmail.com
Irine SVANIDZE	irinesvanidze@yahoo.com
Etet ABULIDZE	etetabulidze@yahoo.com
Lexo GEVASHOHSHVILI	kajiri2000@yahoo.com
Khatuna TSIKLAURI	xatuna_ciklauri@yahoo.com
Robin RIGG	info@slovakwildlife.org
Eray CAĜLAYAN	eray.caglayan@gmail.com
Teona DAVAZE	teo-davadze@mail.ru
Natia EDISHERASHVILI	nati2009@mail.ru
Tamar LOLADZE	tako_lola@yahoo.com
Giorgi MAMADOSHVILI	gio212gio@yahoo.com
Iris MAZUREK	irismazurek@wspa-international.org
Hasmik GHALACHYAN	hasmikghalachyan@yahoo.com
Elshad ASKEROV	easkerov@wwfcaucasus.az
Igor KHORONYAN	leopard_am@yahoo.com; ikhoronyan@wwfcaucasus.am
Nugzar ZAZANSHVILI	nzasaneshvili@wwfcaucasus.ge
Alistair BATH	abath@mun.ca
Irakli SHAVGULIDZE	irakli.shavgulidze@nacres.org
Zurab GURIELIDZE	zgurielidze@zoo.ge
Urs BREITENMOSER	urs.breitenmoser@ivv.unibe.ch

Appendix 3

– CONCLUSIONS ON LEOPARD IN THE CAUCASUS -

MINUTES OF AN INFORMAL DISCUSSION ON TUESDAY 18 MAY

Urs Breitenmoser[1], Irakli Shavgulidze[2], Elshad Askerov[3], Igor Khorozyan[4], Mohammad Farhadinia[5], Emre Can[6], Can Bilgin[7], and Nugzar Zazanashvili[8]

[1]IUCN/SSC Cat Specialist Group, urs.breitenmoser@ivv.unibe.ch; [2]NACRES, Georgia, irakli.shavgulidze@nacres.org; [3]WWF Azerbaijan, easkerov@wwfcaucasus.az; [4]WWF Armenia, ikhorozyan@wwfcaucasus.am; [5]ICS, Iran, msfarhadinia@wildlife.ir; [6]Doga Dernegi, Turkey, emre.can@dogadernegi.org; [7]METU, Turkey, cbilgin@metu.edu.tr; [8]WWF Georgia, nzazanashvili@wwfcaucasus.ge

The leopard *Panthera pardus* is a Critically Endangered flagship species of the Caucasus. In 2007, conservation experts and institutions from all six Caucasian countries joined to develop a *Strategy for the Conservation of the Leopard in the Caucasus Ecoregion*[3], based on a review of the status of the leopard population and its prey (Cat News Special Issue 2, 2007). Now, three years later, the IUCN/SSC Cat Specialist Group, WWF and NACRES, organised a discussion group at the annual conference of the International Bear Association IBA in Tbilisi, Georgia. The meeting was part of the symposium "Large Carnivores in the Caucasus", organised and supported by the Secretariat of the *Convention on the Conservation of European Wildlife and Natural Habitats* (Bern Convention). The leopard is listed as a strictly protected species in Appendix II of the Bern Convention. The aim of the meeting was to discuss the status of the leopard, the implementation of the Strategy and next steps with wildlife conservationists from the Caucasian countries.

The *Strategy* has so far been endorsed by the relevant authorities of four countries, Georgia, Azerbaijan, Armenia, and Turkey. The Participants from the six counties presented a brief review of the situation of the leopard and leopard conservation activities:

Russia. No representative from Russia attended the Tbilisi meeting. Russia has both a National Strategy and a National Action Plan for the conservation of the Persian leopard (V. Krever, pers. comm.). According to recent information from Russian colleagues (V. Rozhnov, V. Lukarevski, V. Krever, pers. comm.), the breeding and rehabilitation facilities at the Sochi reintroduction site are ready, and four leopards (two males from Turkmenistan and two females from Iran) are at the site. However, the suitability of the specimens as founders for a captive bred population for future releases is questionable. More founder individuals either from the conservation breeding programme of EAZA or from the wild are needed. The participants of the Tbilisi meeting expressed the wish that Russian reintroduction programme should become a part of the common effort for the conservation of the leopard in the whole ecoregion. Without any doubt, the best source would be the population in NW Iran, which is at the same time the only source population for a natural recolonisation of the Caucasus.

In Daghestan, initial works by means of camera-trapping was conducted by colleagues from Daghestan Center of Russian Academy of Sciences (Yuri Yarovenko, pers. comm.). Obviously cross-border cooperation with Georgia could provide more precise information regarding leopard. Current political circumstances make cooperation on governmental level difficult, but technically coordinating the efforts of NGOs and scientists is realistic.

Georgia. Camera-trapping based monitoring started last year in Tusheti region of Georgia, Eastern Greater Caucasus – bordering to Daghestan, Russia Federation. This region (Tusheti, Khevsureti, Daghestan) was identified as an area of a leopard sub-population in the Caucasus (see Status Report). In Tusheti, NACRES conducts this work with support of WWF, the Agency of Protected Areas and Tusheti National Park staff. The male leopard "Noah", pictured regularly for several years in Vashlovani NP, was not discovered during the past six months.

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3 http://assets.panda.org/downloads/caucasus_leopard_conservation_strategy_1.pdf

In April 2009, the WWF Caucasus Programme Office and NACRES organised a workshop to develop a national action plan, the Leopard Conservation Action Plan for Georgia. The meeting hold in Tbilisi united 20 participants representing the Agency for Protected Areas, National Park Administrations, Institute of Zoology, Biodiversity Protection Service of the Ministry of Environment, several NGOs, Ilia State University, IUCN South Caucasus Office, and various interest groups. The National Action Plan was submitted to the national authorities, but is not yet officially endorsed.

Azerbaijan. Azerbaijan has started to do opportunistic surveys in various known or expected leopard areas in the south and northwest of the country. The efforts have confirmed the presence of leopards, but the exact distribution, the number of specimens and the travel routes are not know. The capacity for a systematic surveillance is lacking. Azerbaijan's ministry of environment has developed a National Action Plan for the conservation of the leopard (Ministerial Decree N 514/U from 14.09.2009). No scheme for compensation of livestock attacks by leopard has been established, because this task proved to be politically delicate. The most important advance has been made in establishing protected areas. Since 2000, the total area under protection has increased from 4780 km² to 8551 km².

Armenia. The National Action Plan for Leopard Conservation in Armenia, based on the ecoregional strategy, was developed in winter 2008 and endorsed by the Ministry of Nature Protection in spring 2009. One of the important issues is to improve the monitoring of leopards in Armenia, which is however hampered by methodological flaws and budget restrains (I. Khorozyan: A brief concept on how to bolster up the leopard monitoring in Armenia and adjacent countries of the Caucasus ecoregion, unpublished report 2010). As the survival of leopards in Armenia clearly depends on immigration of individuals from Iran, a close cooperation regarding monitoring and conservation between these two countries is ultimate.

Iran. Based on the IUCN Red List (www.iucnredlist.org), more than 65% of wild Persian leopards live in Iran. According to the last status assessment, at least 500 leopards exist in Iran, of which 10–20% in NW Iran. More than 10 areas are confirmed to hold leopards; most are officially conserved by the Iranian Department of Environment. Recent food habits surveys conducted by the Iranian Cheetah Society (ICS) in northern Iran revealed that predation on livestock leads to high conflict with local people and is the main cause of mortality for leopards even within protected areas. 75% of poached animals discovered are males, mainly young and old individuals, apparently occupying home ranges outside the area of the established population. Presently, genetic investigation is ongoing on the Persian leopards, and various research and educational efforts are aiming to conserve the species in Iran.

Turkey. The situation of the leopard in the Caucasian part of the country – or in all parts of the country that might have been part of the historic range of *P. p. saxicolor* – in Turkey is not known. Several published papers and reports over the past years indicated the presence of leopards, but indeed, hard evidence for its existence is still lacking. Considering the distribution of leopards in neighbouring Iran and the habitat on the Turkish side, the presence of leopard seems likely, and recent information suggest the reproducing nuclei remain in eastern Turkey, but again, scientific robust evidence is still lacking, and the number, extent and connectivity between these possible occurrences is not know. A joint survey effort involving scientists, GOs and NGOs and based on standardised and recognised methods would be urgently needed to gather baseline information on the status of the leopard in Turkey.

The presentation of the Range Countries reports revealed that the base of information on the leopard in the Caucasus since the compilation of the status report (Cat News Special Issue No. 2, 2007) has not improved. Very little field activities have been carried out since, and the scarce data available do not indicate an improvement of the situation of the leopard at all. All participants agreed that the implementation of conservation measures is urgent, that however generating reliable intelligence on the situation of the leopard is the most urgent requirement. The participants of the informal meeting recommend the following activities:

Caucasus Biodiversity Council. CBC Terms of Reference covers overseeing the implementation of the Ecoregional Conservation Plan (ECP) and all regional and/or transboundary programs/projects, including the regional program for leopard conservation. This informal meeting is important for the

opinion exchange for developing the leopard conservation program in the Caucasus, but more detailed discussion is still needed for the final coordination of concrete next steps. Main topic of up-coming CBC meeting is final revision and approval of new version of ECP, and it was proposed to then organize a one day special leopard conservation meeting. In addition to CBC members (one Governmental and one NGO representative from Armenia, Azerbaijan, Georgia and Turkey; full representation of Iran and Russia is not yet granted), CBC secretariat will invite relevant persons from Iran and Russia and the IUCN/SSC Cat Specialist Group to participate in the discussion on leopard conservation.

Implementation of the Strategy. The conservation strategy proposes actions that need to be implemented on the international, but above all on the national level. The latter needs to be done by means of National Action Plans. So far, Georgia, Azerbaijan, and Armenia have developed NAPs (see above). These plans now need to be implemented. The situation of the adjacent three countries, Russia, Turkey, and Iran, is very different. While Russia has a reintroduction programme, Iran is the only country with a vital leopard population, which however needs to be protected much better. In Turkey, the most important task is to advance the surveys of the potential leopard areas. So far, the situation of the species in Turkey remains completely obscure.

Baseline survey and monitoring. The assessment of the situation of the leopard in the Caucasus ecoregion is hampered by the scarcity of scientifically robust information, but also by the lack of a common and agreed standard regarding the interpretation of “soft” data. To gain scientifically robust data (“hard facts”) based on costly methods such as camera trapping or genetic analyses will always only be part of the monitoring of a rare and elusive species such as the leopard. Consequently, systematic expert observation (confirmed data) and opportunistic laymen information (unconfirmed data) must be integrated into a “stratified monitoring approach”. However, the interpretation of such data and the assessment of the status of the leopard need to be standardised and applied by all range countries and institutions involved.

Certain conservation measures such as awareness building, mitigation of conflicts, anti-poaching measures, and recovery of prey populations are obvious and can be implemented without more detailed knowledge on the status of the leopard. Other conservation actions however require better baseline data. We therefore suggest that an urgent common activity of the institutions involved in leopard conservation in the Caucasus is to perform a systematic baseline survey, which should then be transferred into a long-term standardised monitoring of the leopard population. To achieve this, we first need to build the capacities needed in each of the six range countries, involving colleagues from scientific institutions, state agencies, and non-governmental conservation organisations.

Appendix 4

– REPORT BY WWF-ARMENIA -

BROWN BEAR (*Ursus arctos*) AND EURASIAN LYNX (*Lynx lynx*) AS INDICATORS OF HABITAT QUALITY, LANDSCAPE CONNECTIVITY AND CLIMATE CHANGE IN ARMENIA

Draft proposal by Igor Khorozyan, WWF Armenia. E-mail: leopard_am@yahoo.com, cell phone: +374 (91) 19-97-46.

Background and Justification

The brown bear (*Ursus arctos*) and Eurasian lynx (*Lynx lynx*) are the top carnivores living in many areas of Armenia. The bear is listed in the 2010 Red Data Book of Armenia as Vulnerable and in the Appendix II of the Berne Convention. The lynx is not officially protected in Armenia, but listed in the Appendix II of the Berne Convention.

Bears live in broadleaf deciduous forests and arid sparse forests, in summer moving up to mountain grasslands, subalpine and alpine meadows. They are predominantly vegetarians, feeding on greenery, roots, fruits and berries, but also consume ants and animals (rodents and ungulates). In very rare cases, some individuals become addicted to taking cattle and other livestock.

Population size of the brown bear in Armenia is unknown (400-600 individuals would be a right guesstimate), but is likely stable. The principal threats are poaching upon encounters, habitat loss and human disturbance.

In summer and especially autumn, when bears batten before going to winter hibernation they frequently visit the orchards, beehives and crops fields and inflict quite serious damage to local households. Sometimes bears, especially juvenile individuals, come close to people and feed on garbage dumps. Surprisingly and quite illogically, in most cases it does not lead to public resentment or conflicts and villagers display quite tolerant attitude to bears. Possibly, this is because the bear-caused damage is modest in comparison with intensive and often surplus killing of livestock by gray wolves (*Canis lupus*). Whether bear feeding in human landscapes ensues from habitat loss or other factors is unknown.

Meantime, brown bears show strong fidelity to forests and meadows. Therefore, the **bear** can potentially serve a reliable **indicator of habitat quality** in relation to human factors (e.g., deforestation, road construction) and natural factors (forest productivity, climate change).

Lynx live in the same habitats as bears, but much away from human presence. They hunt mainly on European hares (*Lepus europaeus*) and rodents, but also take birds and ungulates. The cases of lynx predation on domestic animals in Armenia are unknown.

Like other felids, lynx are solitary throughout most of their life. Associations between individuals are possible as male-female courtship during the mating season and as maternal care for cubs before they grow up and disperse. Because of this, they are thinly distributed over vast areas and actively move across the habitats. So, the **lynx** is less associated with habitats but can be an efficient **indicator of landscape connectivity**. As human activities make natural landscapes more and more fragmented and patchy (including protected areas as “islands”), the issues of habitat connectivity represent an indispensable component of biodiversity conservation.

The numbers of lynx in Armenia are unknown, but apparently moderate. In some places, e.g. Khosrov Forest State Reserve, lynx are even numerous.

Ultimately, the **bear** and **lynx** can be the **indicators of climate change** in forests, grasslands and meadows of Armenia’s mountains.

Neither brown bear, nor Eurasian lynx has ever been studied in Armenia.

Goals

The ultimate goals of this project are two:

1. Assess the up-to-date status of the brown bear and Eurasian lynx in Armenia, with special emphasis on their distribution, ecology, interactions with humans and bear-lynx relationships in shared habitats
2. Estimate the utility of brown bear and Eurasian lynx as indicators of habitat quality, landscape connectivity and climate change

Methodology and capacities

This project will be implemented under the auspice of Armenia's Ministry of Nature Protection as the focal point of the Bern Convention, with active and full-time participation of specialists from national academic institutes (Scientific Centre for Zoology and Hydroecology, Armenian State Service of Hydrometeorology and Monitoring), non-governmental organizations (WWF Armenia and others), local authorities (municipalities) and local communities (guides, informants, hunters). The methods will include public surveys, large-scale on site field research (sign surveys, camera-trapping, DNA analysis), outreach information gathering and awareness raising among local communities, GIS mapping and centralized database maintenance.

Appendix 5

COUNCIL OF EUROPE CONSEIL DE L'EUROPE

Convention on the Conservation

of European Wildlife and Natural Habitats

Standing Committee

Draft Recommendation No. … (2010) of the Standing Committee, adopted on … December 2010, on conservation of large carnivores in the Caucasus

The Standing Committee of the Convention on the Conservation of European Wildlife and Natural Habitats, acting under the terms of Article 14 of the Convention;

Having regard to the aims of the Convention to conserve wild flora and fauna and its natural habitats;

Wishing to promote co-existence of viable populations of large carnivores with sustained development of rural areas in appropriate regions;

Noting the great interest of the Caucasus region for large carnivores;

Aware that the drafting and implementation of Action Plans may be a useful tool to redress the situation;

Recalling its following Recommendations:

Recommendation No. 115 (2005) on the conservation and management of transboundary populations of large carnivores,

Recommendation No. 137 (2009) on population level management of large carnivores poulation;

Recommends that Contracting Parties to the Convention in the Caucasus region:

1. Monitor populations of large carnivores and their prey in the region, co-operating and sharing information relating to the conservation and management of shared populations of large carnivores,
2. Consider elaboration of national action plans for all large carnivores species present in their territories, giving priority to those more threatened at the national level (ie. Armenia: lynx and ear; Azerbaijan: leopard and striped hyena; Georgia: lynx and bear; Turkey: leopard and bear),
3. Consider jointly drafting and implementing an action plan for leopard in the Caucasus,
4. Increase technical capacity in monitoring and conservation of large carnivores,
5. Start human-dimansion programmes aimed at knowing and improving attitudes to large carnivores. Develop measures for mitigation of conflicts with livestocks farmers,
6. Fight poaching of protected large carnivores,
7. Integrate lynx conservation objectives into forestry management;

Invites Observer states to implement, where appropriate, the recommendation above.