



Key actions for Large Carnivore populations in Europe

DRAFT

Prepared for DG Environment, European Commission, by Istituto Ecologia Applicata, Rome under contract no. 07.0307/2013/654446/SER/B3 "Support to the European Commission's policy on large carnivores under the Habitat Directive - Phase Two", with contributions from the Large Carnivore Initiative for Europe (SSC/IUCN)



Istituto di Ecologia Applicata
Via B. Eustachio 10 – IT 00161 Rome
March 2014

This document is the final product of:

Task 1 of contract ENV.B.3/SER/2013/003

Support to the European Commission's policy on Large Carnivores under the Habitats Directive – Phase 2

It is composed of 5 separate sections:

Section 1. Background and cross-cutting actions

Section 2. Key actions for bear populations in Europe

Section 3. Key actions for wolf populations in Europe

Section 4. Key actions for lynx populations in Europe

Section 5. Key actions for wolverine populations in Europe

Coordination: Luigi Boitani

Sections coordinated by: Henrik Andren (5), Luigi Boitani (3), Djuro Huber (2), John Linnell (1), Urs Breitenmoser and Manuela Von Arx (4).

Contributions by: Francisco Alvarez, Henrik Andren, Elisa Avanzinelli, Vaidas Balys, Juan Carlos Blanco, Luigi Boitani, Urs Breitenmoser, Guillaume Chapron, Paolo Ciucci, Aleksander Dutsov, Claudio Groff, Djuro Huber, Ovidiu Ionescu, Felix Knauer, Ilpo Kojola, Jakub Kubala, Miroslav Kutal, John Linnell, Aleksandra Majic, Peep Mannil, Ralph Manz, Francesca Marucco, Dime Melovski, Anja Molinari, Harri Norberg, Sabina Nowak, Janis Ozolins, Santiago Palazon, Hubert Potocnik, Pierre-Yves Quenette, Ilka Reinhardt, Robin Rigg, Nuria Selva, Agnieszka Sergiel, Maryna Shkvyrina, Jon Swenson, Aleksander Trajce, Manuela Von Arx, Manfred Wolf, Ulrich Wotschikowsky, Diana Zlatanova.

Suggested citation: Boitani, L., F. Alvarez, H. Andren, E. Avanzinelli, V. Balys, J. C. Blanco, U. Breitenmoser, G. Chapron, P. Ciucci, A. Dutsov, C. Groff, D. Huber, O. Ionescu, F. Knauer, I. Kojola, J. Kubala, M. Kutal, J. Linnell, A. Majic, P. Mannil, R. Manz, F. Marucco, D. Melovski, A. Molinari, H. Norberg, S. Nowak, J. Ozolins, S. Palazon, H. Potocnik, P.-Y. Quenette, I. Reinhardt, R. Rigg, N. Selva, A. Sergiel, M. Shkvyrina, J. Swenson, A. Trajce, M. Von Arx, M. Wolf, U. Wotschikowsky, D. Zlatanova, 2014. Key actions for Large Carnivore populations in Europe. Institute of Applied Ecology (Rome, Italy). Report to DG Environment, European Commission, contract no. 07.0307/2013/654446/SER/B3

SECTION 1. Background and cross-cutting actions

1. Background

Large carnivores (bears, wolves, lynx and wolverines) are among the most challenging group of species to reintegrate back into the European landscape. After centuries of persecution they are now recovering across many areas of Europe due to favourable legislation, although some small populations remain critically endangered. Accordingly, a wide range of conflicts have reappeared and intensified, including the economically costly depredation on livestock and pets. Hunters perceive carnivores as competitors for shared prey species and in some events, predation can sustainability influence traditional game harvests. There are also a wide range of other social clashes where carnivores become symbols for conflicts associated with urban-rural and traditional-modern interfaces. In some exceptional cases, large carnivores (mainly bears) can be a risk for human safety, and fear of both bears and wolves is often expressed by rural residents. These conflicts can escalate to very high levels and can dominate political discourses in some countries.

In many cases reintegrating large carnivores into the fabric of the European countryside requires making a number of adjustments to the practices of many sectors, including agriculture, forestry, hunting, transport, refuse treatment as well as dealing with the general concerns of many rural residents. There is a real need for the regional authorities to make the right adjustments, picking on the measures that have been proven to work. Many measures may be highly controversial and / or expensive, so it is crucial that their adoption can be justified and that as much experience can be transferred between areas to minimize the need to reinvent the wheel in different areas. From across Europe there is a wide range of experience from many different circumstances and situations. This experience ranges from knowledge of traditional animal husbandry and hunting practices, to the latest in hi-tech research and mitigation measures, and in large part stems from projects applied locally and co-funded by the European Commission under the LIFE programme.

Europe is a very diverse continent in terms of geographical, environmental and socio-economic factors and there are no solutions that work in all contexts. It is therefore necessary to identify the range of potential solutions and then pick the mix which work best in different local contexts. Building on this experience it is imperative that the EC plans in a strategic way how to coexist with large carnivores in a crowded and built in continent. In 2012 the Directorate General for the Environment of the European Commission (DG ENV) launched an initiative for the conservation and sustainable management of Large Carnivore species, based on dialogue with, and involvement of, relevant stakeholders, with a view to ensuring their commitment to the long-term conservation of large carnivores in coexistence with humans in Europe¹. The vision of the Directorate-General for the Environment of the

¹ http://ec.europa.eu/environment/nature/conservation/species/carnivores/index_en.htm

European Commission (DG ENV) is to manage the recovery of LC populations while the concerns of stakeholder such as hunters, farmers and livestock and reindeer producers, local communities as well as environmentalists are fully considered in the process. The key goal of the renewed effort by the Commission is to engage all stakeholders in finding solutions that are beneficial for LC conservation whilst ensuring coexistence with human populations. The work needs to be taken forward, with demonstrating actions and active and intense communication.

For this reason, DG ENV has contracted the Istituto di Ecologia Applicata for developing a set of supporting documents that will serve as the basis for improving the implementation of EU policy on large carnivore conservation under the Habitats Directive (43/92/EEC) through, amongst several tasks, the identification of key management actions. Members of the Large Carnivore Initiative for Europe contributed to this work.

2. EU-level LC species action plans with a population-based approach

The initial plan to produce four new action plans at EU level for the four large carnivore species (the single population of the highly threatened Iberian lynx is not part of this exercise), focused on populations, was modified in agreement with the Commission, and in consideration of the fact that population action plans need a participatory approach to be developed among the member States which share each population. After a first draft that included 330 actions for the four species, a decision was taken to modify the action plans into a list of up to 10 priority actions for each population of the four species, including a series of cross-cutting horizontal actions that could be relevant for all the four species and for most of their populations.

The process included the involvement of over 40 experts from 23 countries that contributed in different measures to the development of each action. Such list was preliminarily submitted to the Commission for comments, and then sent to the EU LC expert group and the stakeholders invited to attend the workshop held on the 5th of December 2013 in Brussels. Comments received revealed the lack of cross-cutting issues that could be grouped and the need to convert the actions into broad suggestions of initiatives to be taken at population level.

The IEA has supported the DG ENV in the organization of the stakeholder workshop held in Brussels on the 5th of December 2013. Over 90 participants took part to the workshop, coming from different countries and representing a number of interest groups. The workshop's main discussion topic was the establishment of an EU Platform on Large Carnivores and their eventual adhesion to it, and the comments to the draft priority actions for large carnivore populations.

The discussion, taken at geographical clusters, revealed that further work was needed on the priority actions that were found to be too focused on the biology of the species and requirement of further studies. There was a call for a stronger focus on the

management and socio-economic dimensions of large-carnivore conservation, including cultural aspects².

The following chapters and sections cover the cross-cutting actions and the key actions for each species and population.

3. Pan-European and cross-species priority actions

Despite the diversity of situation that brown bears, wolves, Eurasian lynx and wolverines occur in across Europe, it has been possible to identify a set of actions that are of general importance for large carnivore conservation in Europe. Although there may be some regional variation in priority and in the exact way in which these actions should be implemented, there is a clear value in identifying these broad areas where action will have a general effect. Because of their over-arching importance, these are almost automatically actions where there will be a need for pan-European and national level institutions to get involved. They also underline the need for cross-sectorial cooperation.

In Sections 2-5 of this document, the key priority actions for each carnivore species are presented in two separate lists: the first includes all actions applicable to the majority of European countries (not necessarily or equally to all), the second includes 2-3 specific priority action for each carnivore population.

4. Objectives of the lists of actions

- To identify the most critical (*i.e.* important and urgent) actions for the conservation and management of the populations of brown bears, wolves, Eurasian lynxes and wolverines in Europe, in coexistence with local stakeholders for the next 5 years;
- To provide the authorities responsible for the conservation and management of the LC species in the Member States of the EU a strategic planning tool for relevant future activities in the next 5 years;
- To improve collaboration and relationship amongst relevant stakeholders for large-carnivore conservation and management in Europe, by integrating them into the process of planning and implement Actions/activities; To raise awareness amongst authorities and the public for the most urgent needs for large-carnivore conservation and management in Europe.

2

http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/summary_2nd_LC_workshop.pdf

5. Cross cutting actions – across species and populations

Title:	Preventing fragmentation of habitat and reducing disturbance associated with infrastructure development
The issue:	There is a large degree of infrastructure construction across Europe, related to transport (road and rail), energy production (roads, windmills, hydropower schemes) and some types of recreational development (especially ski slopes). These linear features threaten to fragment habitat and reduce connectivity within and between large carnivore populations, increase mortality of carnivores, and increase human access to previously undisturbed habitats. The issue is especially important in eastern and southern Europe where development is rapid.
The need:	To improve the consideration for wildlife connectivity in development planning so as to minimise impacts, and where development is unavoidable there should be an increased focus on the need to mitigate negative impacts, for examples using crossing structures (green bridges, underpasses), and limitations on access to new road networks (e.g. those linked to energy development). Critical areas for population connectivity need to be identified and given special consideration in development planning.
Desired goal:	Higher standards of environmental impact assessments that specifically consider mobile wildlife species, explicitly deal with cumulative impacts and stronger requirements for the incorporation of mitigation measures into all development.

Title:	Reducing large carnivore depredation on livestock
The issue:	Wherever large carnivores occur in areas with livestock, especially small stock (sheep and goats) and domestic reindeer there is a constant risk of depredation, which is both a source of economic loss for producers and a threat to traditional rural lifestyles. The problem is especially acute in areas where large carnivores return after prolonged absence.
The need:	There is a great deal of technical knowledge and practical experience on ways to reduce depredation that needs to be communicated to livestock producers. There needs to be effective outreach by agricultural advisors about how to adapt husbandry as well as how to access the necessary economic assistance. Finally, there is a need for agricultural policy at all levels to recognise the potential presence of large carnivores and the constraints that they represent for livestock production.
Desired goal:	Widespread improvement in access to technical and economic assistance concerning depredation reduction methods for livestock producers across large carnivore range. There also needs to be a greater awareness of potential conflicts with large carnivores when planning the spatial distribution of agricultural subsidy and incentives to prevent an increase in conflicts.

Title:	Integrating large carnivore management needs into wildlife and forest management structures
The issue:	Large carnivores are directly and indirectly affected by, and in turn influence, the management of large herbivores and forests. Carnivores can influence hunting practices and the density of prey, as well as being influenced in turn by prey management. In some areas, carnivore presence may require a reduction in hunting quotas for ungulates, in other areas carnivore conservation may require the restoration of prey populations. Bears especially are dependent on forest management considering their nutritional needs.
The need:	There is a need to adopt ecosystem level management practices that simultaneously considers large carnivores, large herbivores, and forests.
Desired goal:	More coordinated management of predators, prey and habitat.

Title:	Evaluating social and economic impacts of large carnivores
The issue:	The impact of the conservation of large carnivores is controversial, with various stakeholders focusing on either the costs or the benefits of their presence. The extent of their impact is contested. It is a further challenge that both costs and benefits include both monetary and non-monetary elements, as issues like tradition, culture, ethics and intrinsic value are central values.
The need:	To clarify the full range of ecological, social and economic impacts and benefits associated with large carnivore conservation, as well as a mapping of attitudes among rural people towards these costs and benefits.
Desired goal:	Improved understanding of the impact of large carnivore conservation on ecosystems and human societies, as well as the extent of support among key stakeholders and the public for the various trade-offs that their conservation may imply. This should provide a better foundation for informed decision making that ensures the democratic process.

Title:	Improved transboundary coordination of large carnivore management
The issue:	Large carnivore conservation requires coordination across large areas – both within and between populations. There is a need to coordinate management between the different administrative units that share a population and ensure that connectivity between populations is enhanced. The need for this coordination has been identified within pan-European policy, but progress towards achieving it has been slow. It is also important that these structures include arenas for communication and dialogue with stakeholders.
The need:	(1) Population level management plans (2) Regional stakeholder dialogue forums (3) Coordination and information exchange between EU Member States and their non-EU neighbours.
Desired	Improved coordination of large carnivore management, enhanced

goal:	stakeholder dialogue, and better communication across borders.
-------	--

Title:	Standardisation of monitoring procedures
The issue:	Monitoring is central to large carnivore conservation, both as a foundation for robust adaptive management procedures and to address the widespread conflicts caused by disagreement of population status. Current monitoring practices are diverse, varying in methods used, transparency and quality. This creates much uncertainty about the current state and trend of populations.
The need:	To standardise methods for species within populations to the greatest extent possible (taking into account local conditions – such as presence of snow etc.). There should also be an increase in transparency in how data is acquired and interpreted as well as a greater involvement of stakeholders and the wider public in monitoring.
Desired goal:	Better data and less controversy about the state of large carnivore populations.

Title:	Managing free ranging and feral dogs to reduce hybridisation with wolves and other conflicts
The issue:	Free-ranging and feral dogs are widespread in southern and parts of eastern Europe. They threaten large carnivore conservation by hybridising with wolves and causing conflicts through their predation on livestock and game.
The need:	There needs to be a massive scale improvement in dog management in southern Europe, reducing populations of feral and free-ranging dogs and leading to an improvement in dog management.
Desired goal:	A reduction in the numbers of feral and free-ranging dogs.

Title:	Law enforcement with respect to illegal killing of large carnivores
The issue:	Illegal killing of large carnivores is widespread across Europe, significant resources are rarely invested in investigation, and very few cases are successfully prosecuted. Killing is both by shooting (where large carnivores are directly targeted) and poisoning (where large carnivores may not always be primary target). Motivation for illegal killing seems to be linked to low tolerance and social protest rather than for economic gain.
The need:	To raise awareness of the extent of the problem among law enforcement agencies, to encourage a greater investment of resources into investigation, and to exchange best practices in investigation techniques.
Desired goal:	A signal effect that illegal killing of large carnivores is a serious crime and that society expects its laws to be upheld such that political disagreements about large carnivore management and conservation are conducted through legal channels.

Title:	Genetic reinforcement of small populations of lynx and bears
The issue:	Some populations of Eurasian lynx and brown bears are very small (<200 individuals) in central and southern Europe. This is especially true for the reintroduced populations. Their conservation will depend on increasing their genetic diversity. Because these populations are too isolated to expect any contact in the short term, it is important to begin planning translocations.
The need:	To increase genetic diversity of isolated populations through carefully planned translocations of individuals from a suitable source population.
Desired goal:	Increased genetic diversity to foster population growth and provide a better genetic platform for long term viability.

Title:	Institutional capacity building in wildlife management agencies
The issue:	Many of the responsible authorities in parts of Europe lack the economic resources and human capacity to conduct all the tasks that are necessary for large carnivore management.
The need:	Increase resource availability and technical capacity for responsible authorities to conduct large carnivore related activities such as law enforcement, population monitoring, stakeholder dialogue and communication.
Desired goal:	More effective institutions that can work proactively to reduce conflicts and ensure the viability of species under their jurisdiction.

Title:	Developing best practice for large carnivore based ecotourism
The issue:	There is an increase in ecotourism operations that are based around large carnivores. It is important that these are conducted in a manner that minimises disturbance and prevents any form of food conditioning. These is special concern for operators that use bait to increase viewing chances. Currently there are no clear guidelines about how to best conduct large carnivore centric tourism operations.
The need:	Produce a set of guidelines on how to operate large-carnivore centric ecotourism
Desired goal:	Create opportunities for public viewing and economic use of large carnivores that do not interfere with their individual behaviour or population viability, and prevent the emergence of unwanted or conflictful situations.