

CELTIC

LYNX-MEETING, 24.-25.3.2007, VARIN

Host: State Nature Conservancy of Slovakia

1 Participants

see separate lop-file (lop=list of participants)

2 Status Reports

2.1 CZ - Agency for Nature Conservation and Landscape Protection

Monitoring Methods

- Winter snow tracking (every year)
- Questionnaires (every two years): In 2006 34 regional bodies were asked by State of Nature Conservation: hunters returned 78% of 5729; nature conservationists returned 54%;
- Hunting statistics – continuous data
- Radiotracking – Šumava mountains, planned in Beskydy Mountains

Population Status

Current data 2004/2005

Whole CZ: 100 (-150) lynx, going up slowly

Wolves in Šumava and Jeseníky (2003-2006, data from hunters questionnaires)

Beskydy Mountains:

Bears	2-3	(three isolated hints near Brno)
Wolves	5-10	(two packs with reproduction)
Lynx	~ 15	

Important tasks

- Public awareness campaign
- Improvement of legislation
- Habitat conservation
- Cooperation with neighbour countries
- Securing of migration corridors

Problems

Poaching is the biggest problem

Strict legal protection alone is un-effective

Future Steps:

Education of game managers and foresters, and of general public
Management Plan

2.2 Slovakia - State Nature Conservancy

Population Status

	Nature Conservancy	Hunter statistics	
Bears	800	1417	linked through Poland to the Carpathians
Wolves	500	1158	spreading into Hungary
Lynx	400	1052 (2004)	since end of 1999 completely protected; regular and irregular; numbers Societal value: 80.000 SK

Compensation of damages (by state)

- To humans (lives and health)
- Selected livestock
- Shepherd dogs
- Fish cultured
- Bees
- Not harvested crops
- Woods
- Ungulates in areas with a year round protection of bear and wolf (compensation for wolf and bear, not for lynx)

Future Steps:

- Identification of migrating corridors (in preparation)
- Planning and building of green-bridges (1 planned in Carpathian-Alpine corridor)
- Annual census (expert census versus hunters numbers; national-wide census planned)
- Radiotracking (home range sizes in different habitats)
- Genetic research
- Forest management (defragmentation)
- Support of livestock protection (electric fences, guarding dogs)

Preparation of management plans for large Carnivores (3rd version of draft)
Fall 2007: expert meeting about Brown Bear Management

2.3 Hungary

Life Nature Project from 2001-2006 for Lynx and Wolf
From 1995 to 2005 no evidence of lynx / since then regular presence of lynx
Long-term project on lynx

Proofed references along borders – not really controlled (stories) hints further south
Real experts controlled evidence found
Poaching the biggest problem – education of hunters and general public

Questions:
Are there European standards for trapping and radiotelemetry?
Diseases in the lynx population?

2.4 Austria

- Lynx in Northern Austria (Bohemian Forest Population - BFP) and in Alps (Alpine Population)
- Main problem is poaching and fragmentation
- Snow-tracking in NP Kalkalpen (Southern Upper Austria)

- Collecting lynx-references by hunters & nature conservancy – joining every year in Northern Austria trained hunters in identification of lynx references
- Northern Austria important for migrating between CZ/SK and Alps
- Corridor Bohemian Forest – Alps
- Underline/highlight the Bohemian Moravian Highland Corridor down to Danube and forward to the Alps
- perhaps 20 lynx in all Austria
- only single wolf-references: e. g. dead wolf near Bad Ischl in the last years
- bear: approx. 20 bears in Styria & southern Upper and Lower Austria (Mariazell & around) – also poaching is problem; bear-advocate;

3 Discussion

Objectives of monitoring:

- to detect presence
- to estimate numbers
- to detect population trends of increase or decrease

3.1 Monitoring Data

Standardization of monitoring data

For comparison and presentation of monitoring data in metapopulations a standardized interpretation of data is needed. This includes a common terminology and an agreement on how to classify data. The aim is to get qualified, reliable data sets over a large area.

There exist two approaches:

Approach 1: presence / absence, regular/irregular presence

Approach 2: (see www.kora.ch)

SCALP-Criteria: C1-C2 (verified, e.g. controlled and confirmed by a specialist: dead lynx, photos; killed livestock or wild prey, lynx tracks, scats, documented lynx calls), C3 (unverifiable or unverified: kills, tracks, excrements, calls); for details see KORA Report No. 33 Dec. 2006, S.15.

Discussed problems:

Presence/absence data give basic information about the presence of a species in a certain area. The focus of these data is to get to know the distribution of a species.

To detect a population trend (an index) in a given area it is necessary to record the frequency of direct or indirect signs (kills, tracks etc.).

Depending on the monitoring objective the degree of data accuracy needed is different. The presence/absence approach usually doesn't distinguish between the distribution of reproducing individuals and the total distribution. To differentiate between the total area occupied and the areas of reproduction or to monitor population trends it is necessary to come to a process of qualifying data.

Up to now there is no common agreement about what is the presence of an animal, i.e. how many observations have to be made in a defined area in a defined time to confirm regular/irregular presence. Furthermore observations made to detect presence are not always controlled by a specialist.

To compare data across countries in a reliable way we should come to a common data classification. The criteria proposed by the SCALP-Group is such a classification and could also be used for the Bohemian-Carpathian (CELTIC) lynx population. The most important and discussed issue is the control and verification of indirect signs by a trained specialist.

In any case it should be possible to include these three categories in a given data base - apart from each national approach and judgement.

Structure of data for common data pool should include the following key data fields:

- Date
- Location: GPS or UTM
- Kind of observation: track, kill, sighting, dead animal, photo ...
- Verification yes – no critical for core population (SCALP-criteria C1, C2, C3)
- Reproduction yes – no

Difficult to include: age and sex of the animal because most of the time it will be not possible to give a proper judgement.

3.2 Applied Methods

1. Snowtracking: different goals: absence/presence; estimation of numbers
2. Genetics: possibility for non-invasive approach
3. Questionnaires: index on trends, but not on numbers (correction factors)
4. Radiotracking

3.2.1 Snowtracking

- CZ snowtracking only in selected areas – the main areas where the regular snowtracking is made for a long time are Sumava and Beskydy mts. but since this year the regular monitoring should be done every year in these areas as well (until now it was done irregularly and according to the Jardas possibilities, not organised centrally):
wolf- CHKO Jeseníky, VÚ Libavá, NPR Králický Sněžník
lynx- CHKO Jeseníky, VÚ Libavá, NPR Králický Sněžník
bear- CHKO Český les, CHKO Blanský les, CHKO Jeseníky, VÚ Libavá, NPR Králický Sněžník
one weekend in winter – almost the same time
four days – cover the whole area
- D National Park Bavarian Forest coordinates with Sumava
goal: once a month during winter
- HU once a month on selected areas
- SK organized by administration of NP, in selected areas once a winter on one weekend defined routes to get estimation of population - number of lynx
aim: one weekend to cover the whole state
2500 people: hunters and conservationists to get results agreed from opposite parties

3.2.2 Genetics – Non invasive method

Ladislav Paule, Faculty of Forestry, Technical University, Zvolen:

Genetics as a tool for conservation purpose. Based on previous studies the lynx populations are genetically differentiated across Europe (species or subspecies). The Scandinavian, Baltic and Carpathian populations are well differentiated. Due to lack of data it was difficult to estimate the genetical position of the remnant Balkan population. The aim of the subproject is to compare west Carpathian populations with Eastern Carpathian one (Romania) and with the population established in Croatia and Romania with lynxes of Slovak origin. Similar subprojects are running on the investigation of genetic diversity and differentiation of populations of brown bear, chamois and red deer. In all cases there is a good cooperation with Romania, Slovenia and Bulgaria..

The aim of the conservation genetics as a tool is for:

- estimation of population size,
- estimation of paternity and relatedness,
- estimation of mating system and gene flow,
- answer the decision questions related to gene conservation

Problems of sampling, Procedure of secure sampling.

There is a possibility to include all samples for genotyping from the respected regions (Austria, Germany, Czech Republic, Hungary). So far the project is running this service could be free of charge, after the project (2009) end the cost of genotyping will be about 10 € (costs of chemicals).

3.2.3 Questionnaires

good to find out trends – if same methodology used

CZ: questionnaires by Nature Conservation Agency

SR: obligation for all game species to do annual census (Forest Research Institute in Zvolen is compiling a statistics)

also possible for Austria

3.2.4 Radiotracking

SK: Home range size -> funds

CZ: Home range sizes; individual movement patterns

Beskydy Mountains 5-year Research Project: Four animals (residents or dispersers) every year ; checking the winter counts (GPS collars for male lynx)

HU: Home Range and spent time across borders; habitat use; diet

Detailed Method of Catching/Radiotracking

- Objective of telemetry:
 - estimation of home range size -> extrapolate the population number (SR)
 - estimation of HR size (ecological characteristics of animals) (CZ)
 - possible dispersal (migration) animals (CZ)
 - habitat use, preferences (HU)
 - food, prey (search for kills)
- Types of telemetry:
 - Conventional VHF
 - GPS (GSM)

3.3 Corridors/Green Bridge

Until 2013 connection Bratislava-Bredav (barriers: highway, railway, large river)

Some hot spots of traffic accidents of bears (linked to resources of corn/oat)

Two tunnels are planned

Northwest of SK: hot spot for building (highways/factories) and LC migration

Southern route: different barriers towards HU

Planfeststellungsverfahren: Schedule is finished

Comments were possible -> but not included (pseudo-participation)

Next Friday (30th of March): Meeting with the traffic department concerning one planned green bridge (crucial meeting for the future) -> concept of nationwide concept

Common European project on connecting middle-Europe with bio-corridors and lobbying for Greenbridges at EU and Middle-East-European countries is necessary

3.4 Public awareness

Poaching is the main issue

→ Need of education of hunters and general public

Using common lynx information for PR (Movies – CZ Večerníček, Graphics, Books, ...)

CZ

Reward for reporting illegal killing: poachers are under new pressure

DUHA begins to cooperate with hunters
But hunting society doesn't communicate the consequences
Forest patrol: put pressure on hunters (guarding the animals in the forest)

SK

Wolves can be shot in hunting season

Bear can be shot by special permit

Lynx plays therefore a minor role

Media show cases in favour of the animals (Don't poach!)

Possible reasons for poaching: Trophy, competition, "protection" of other animals like chamois and marmots

Law enforcement

There is no single case in D, A, CZ and nearby SK where a lynx poacher was caught!

DUHA: Cooperate with hunters on common level (official minutes on agreements)

3.5 Diverse

For information on diseases of lynx and methods of catching and radiotracking lynx see www.kora.ch

3.6 Cooperation with other groups

Possibly with working group of Carpathian-Alpine Convention

3.7 CELTIC webpage

www.lynx-celtic.eu – provided by Germany (S. Woelfl)

content: minutes from meetings

photos from meetings

migration corridor maps

summaries of presentations

manual for DNA sampling

list of participants and organizations involved

links to other organizations

3.8 Next meeting

October 2007 – Germany

or September 2007 Beskydy Mountains

Will be communicated as soon as we know it!

Comments from Theresa Minarikova and Ladislav Paule included

10.04.2007

Thomas Engleder
Sybille Wölf
Manfred Wölf