

Large carnivore management in Norway: Lessons relevant for Latvia

John Linnell 22:02:2017 Riga



Who am I?





Scientist at Norwegian Institute for Nature Research (NINA). Have studied lynx & other large carnivores in Norway and beyond.



Who am I?



Large Carnivore Initiative for Europe



 Member of the Large Carnivore Initiative for Europe (LCIE).
 IUCN Specialist Group

Species Survival Commission



Contracts to support EC with policy development.







430 wolves (N: 60-90 vs S: 350) 1600 lynx (N: 310 vs S: 1300)



Monitoring is the crucial!

- Conflict over numbers is widespread
- For science
- For Article 17 reporting (if EU)
- For adaptive management
- Different purposes require different designs
 - Methods
 - Areas of coverage
 - Frequency



Properties of a monitoring program





Credible



How to monitor?

Different aspects need monitoring

Distribution

- > Trend (with or without numbers)
- Numbers
- > Habitat
- Health (diseases / genetics)

Different species need different approaches









> Huge investment since 2000

Coordinated approaches in Norway and Sweden

> Observations from many sources – hunters, public, wardens

Standardised and centralized interpretation and reporting



How to monitor? – All species

Dead carnivores should be collected and examined

- Hunters
- Vehicle collisions
- Other causes

Livestock depredation cases Examined in most countries



How to monitor? - Bears

DNA based estimates from faeces / hairs
 Estimate of all individuals
 Observations of females with cubs-of-the-year
 Count of reproductive events

Hunter observations

- Sweden = bears seen per hunting day = index
- Eastern Europe = feeding site counts





How to monitor? - Bears





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How to monitor? - Bears

Norway 2015

- 1293 scats for DNA analysis
- 128 individual bears







How to monitor? – Eurasian lynx

Observations of family groups

- Count of reproductive individuals
- Observations of tracks from multiple lynx in snow
- Follow for >2 km state wardens
- Increasingly using camera traps in areas with poor snow
- > Use distance rules to separate



How to monitor? – Eurasian lynx

Camera trapping

- Estimate of total population & family groups
- > Areas with less snow
- Now have almost 500 camera traps out.





How to monitor? – Wolves

Pack mapping

- Multiple data sources observations, tracks in sand or snow, DNA, telemetry, camera traps, howling
- Count based, number of reproductive units (plus some idea of pack size)

DNA analysis

- Scats
- Estimate of total population size



Who should monitor?

Very challenging – counting invisible phantoms
 Needs broad engagement

Public

Key stakeholders – hunters / environmentalists
 Networks of trained observers
 State game wardens / foresters
 Researchers



Who should monitor? – Data quality

Observations must be categorized
 Species identity must be confirmed by trained staff

 Preferably some form of record that can be reanalysed or verified (photograph, DNA)
 Nobody is beyond being questioned!

Transparency is essentialCurse of secret observations







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Who should monitor? – Data interpretation

Essential elements

Data interpretation must be at a centralized level

Avoid double counts in different units

- Standard methods
- Transparency

Efficiency of resource use (statistics / labs / IT)



Who should monitor? – Data interpretation

> Norway – Sweden

Shared database

- Standardised protocols in field and lab
- Joint reports
- Identify shared individuals / packs





Communication



- Monitoring and damage data
- > www.rovdata.no
- > www.rovbase.no
- > www.viltskadecenter.se

App for registering observations from publicwww.skandobs.no

Alternative facts and fake news



Transboundary cooperation



Essential for large carnivores in Europe

Strongly encouraged by EU and CoE

Much progress on technical level – especially monitoring and research

On political level still limited to dialogue – no binding agreements







Sometimes controversial

We view it as an essential component of the system

- Controlling population size and distribution limiting conflicts
- Empowering rural communities and increasing tolerance
- Giving value (recreational) to these species
- Normalising these species within wildlife management framework
- Quotas must adjust to population size monitoring









Increasingly important

Sweden has faced many challenges from EU over wolf management

Norway in middle of major debate over interpretation of Bern Convention for wolves

Many questions and gray areas remain!







Large carnivores move!

Home ranges 100s – 1000s of km²
 Dispersal 100s – 1000 km

Latvia is small!

While the local perspective is important it must be viewed within a national <u>and</u> Baltic framework







Norway: 5 million euro in 2016 for 18.000 sheep
Sweden: 200.000 euro in 2015 for 542 livestock

Plus huge transaction costs associated with verification and processing claims

> Uncertain benefits – at least in Norway
 > Takes away sense of responsibility
 > Constant conflict over numbers







#1 Encourage low conflict agricultural policies

#2 Invest subsidy in mitigation / prevention
 Electric fencing, livestock guarding dogs etc
 Both funds and technical assistance

#3 Consider (subsidised) insurance scheme

#4 If you really want it make compensation conditional on good agricultural practices



Research

- > Has been a massive investment in Scandinavia from 1995 to 2016.
- Joint / coordinated projects radio telemetry and social science
- > 1 million euros per year
- 500 + scientific papers ecology
- Many new insights into ecology and social issues
- Future is focused topics

Very limited use of results in policy!





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