Statistics of Damage Caused by Large Carnivores in Europe

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When, two years ago, the LCIE decided to launch the CDP*News*, it was suggested to include statistics on the damage caused by large carnivores in European countries. The idea was to have a yearly update of the tables as they were produced for the action plan for the five large carnivores of Europe. An example of such a statistic is given in Tab. 1 for the Eurasian lynx. If possible, illustrative maps showing the distribution of damages should accompany the statistics. Since then, the topic has been controversially debated within the core group of the LCIE at several occasions. On one hand, the wish to have these statistics reappeared, on the other hand, both the feasibility and the usefulness of such statistics were questioned. In this article, we want to (1) demonstrate an example of a possible way how to present carnivore damages, (2) make a proposal for such a system covering as many European countries as possible, and (3) start an inquiry on the value of such statistics.

As an example, we use the damages on livestock by lynx in Switzerland. Although they are relatively insignificant both, in regard to the number of sheep killed per year and the economic impact, attacks on free ranging sheep and goats are a constant matter of controversy in lynx areas. The *Swiss Lynx Concept* foresees that a lynx can be removed if 15 sheep are killed within a radius of 5 km per year. The number of losses is reduced to 12 if there were any lynx attacks within the same circle in the previous year. The order for a removal is given by the canton in charge, in consultation with the federal authorities and the neighbouring cantons sharing the same large carnivore management compartment. The wildlife services of the cantons are also responsible for the assessment of damages. Such a practice implies communication and public relation, as both, the (local) people and the interest groups take a great interest in the implementation of the new *Swiss Lynx Concept*. A constant matter of critics is that the cantons would not disclose the attacks attributed to lynx before taking any decision to remove an animal. Consequently, the federal and several cantonal authorities in charge have agreed with the KORA that an online database on recent damages should be published.

A relatively simple test version of such a database can be found now under www.kora.unibe.ch/en/proj/damage/damage.html. The information released include (1) a systematically updated list of the damages reported to the KORA for the current year, (2) a topical map (based on the list) showing the distribution of the attacks, (3) a weighted map of Switzerland presenting the total of damages caused by lynx in the previous year as a comparison, and (4) a histogram of the domestic stock killed by lynx since 1970 allowing to assess the long-term trend. The system is fed by a straight-forward Microsoft Access® database and can easily be updated even without an automatic link to the website. The idea of such an information system is to reach a maximum transparency in regard to damages and lynx management. One aspect of the controversy on large carnivores has always been the access to information. Public involvement will only work if sensitive data are available to everybody at the same time.

The European countries differ considerably in regard to assessment, management, compensation, and publication of damages. Consequently, each country has different needs and possibilities to produce comprehensive statistics on carnivore damage. If we reflect on producing a pan-European damage statistics for the CDP*News*, two things must be made clear ahead: First, it will be impossible to produce a standardised and synchronised system for all countries across Europe. The differences are too big, and the "least common denominator" would be close to nothing. Second, a flexible and easily accessible statistics cannot be published within the frame of the simple newsletter. The means to do this is the World Wide Web.

What we propose to do is to establish a flexible and open system of tables, figures, databases, and links on a website allowing for each country to present the best and most recent data available, without caring too much about completeness and synchronism. As an entrance, we could produce a political map of Europe, where it is possible to see from which countries and for which most recent year any data are available. When clicking on the map, the user would get a table and/or a map summarising the statistics on large carnivore damages for the desired country. Furthermore, links to websites presenting additional material would be incorporated. Such a system would allow to present specific and readily available information for whatever country wants to join, and still have one central place for large carnivore damages across Europe. To produce a pan-European statistics for a given year seems to be useless, as the amount of lacking data in Tab. 1 clearly demonstrates.

Figure 1: Distribution of livestock (141 sheep, 17 goats, 3 fallow deer) compensated as lynx kills in Switzerland in 2000. The size of the dot represents the number of animals killed per pasture. Smallest dot = 1 sheep; largest dot = 11 sheep. Boundaries = large carnivore management compartiments of Switzerland. In Switzerland, about 250,000 sheep are aestivated on mountain pastures.

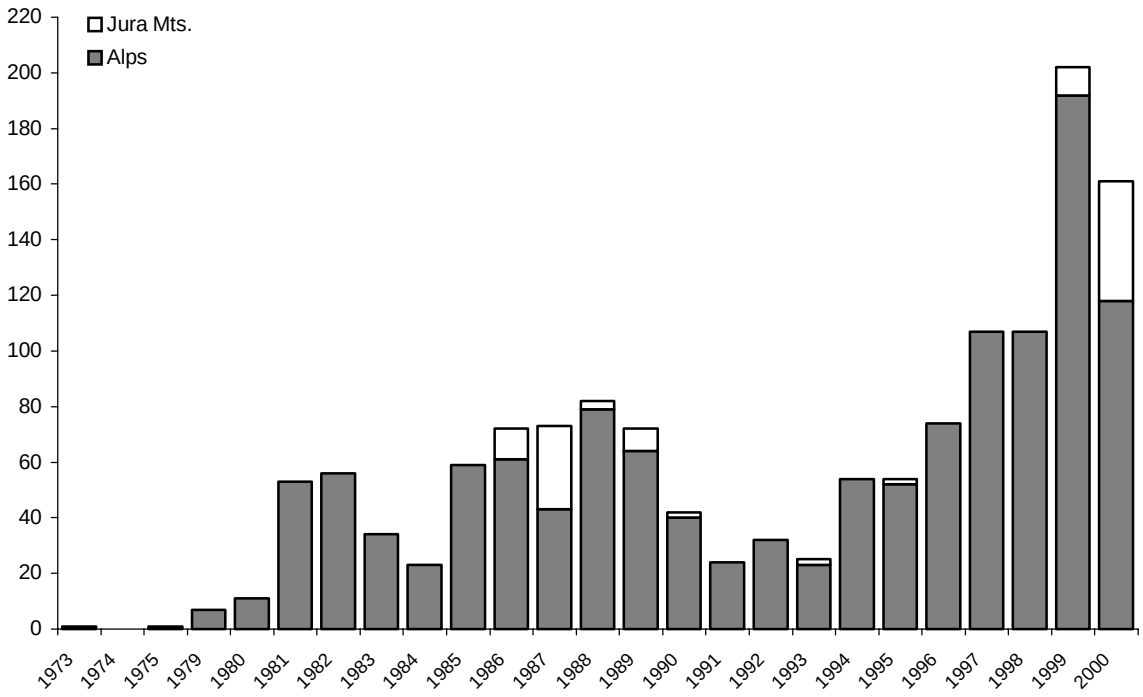

Figure 2: Livestock compensated as lynx kills in Switzerland from 1973 until 2000. The colors of the colums represent the two lynx population in the Alps and in the Jura Mts. respectively.

Nevertheless, even such a pragmatic approach implies a commitment from the folks producing the CDP*News* and from the contacts in the countries providing the information. And, of course, some funding will be needed to establish and maintain the service. Consequently, we should start this project only if we conclude that it will be useful and feasible and if a considerable number of people would be ready to contribute the data and information needed to maintain the service. We would like to inquire about these questions and ask you to answer the following questions:

Usefulness:

1. Do you think that a service as described ahead would be useful for your work?
2. To what kind of information would you like to have online access for (a) your own country, (b) for neighbouring/other countries, and (c) for the whole of Europe?

Feasibility:

1. What kind of data/information is available for your country and on what intervals?
2. Would you (or who else) be able to contribute on a regular base data and information that could be included into the carnivore damage information service?

We are grateful if you can send your reply and any other suggestion to: cdpnews@kora.ch.

Thank you!

Tab. 1. Compilation[a] of damages caused by Eurasian lynx in European countries in the mid-1990s. Countries were the species exists, but no data were available were left out. Population = population estimation for the year 1995 as published in the pan-European action plan.

Country	Period	Population	Animals killed	Compensation			
			Sheep	Goat	Reindeer	Others	(in Euro)
Albania	1991	37	17	-	-	-	0
Austria	90-95	3-5	36	-	-	-	586
Bulgaria	90-95	-	-	-	-	-	-
Croatia	1996	150-200	22	2	-	-	0
Czech Rep.	90-95	90-130	44	-	-	63	0
Estonia	90-95	500-800	-	-	-	-	-
Finland	1995	790	-	-	87	-	58,028
FR Yugoslavia	90-95	70	-	-	-	-	0
France	90-95	60-200	582	11	-	-	43,437
Germany	90-95	20-30	1	-	-	1	0
Greece	90-95	2	-	-	-	-	-
Hungary	90-95	10-20	-	-	-	-	-
Italy	1991	12	2	-	-	-	117
Latvia	90-95	703	-	-	-	-	-
Lithuania	90-95	120-150	-	-	-	-	-
Macedonia	90-95	?	-	-	-	-	-
Norway	92-95	>600	18,924	-	1,768	-	3,112,500
Poland		185	-	-	-	-	-
Romania	90-95	1500	-	-	-	-	-
Slovakia		400-500	-	-	-	-	-
Slovenia	90-95	75	75	-	-	-	8,625
Sweden	90-94	1,000	234	-	10,435	-	819,188
Switzerland	90-95	130	196	30	-	-	14,631
Ukraine	90-95	320	-	-	-	-	-

[a]Taken from Breitenmoser U, Breitenmoser-Würsten Ch, Okarma H, Kaphegyi T, Kaphegyi-Wallmann U, Müller UM. 2000. Action plan for the conservation of the Eurasian lynx in Europe. Nature and environment, No. 112. Council of Europe Publishing, Strasbourg.