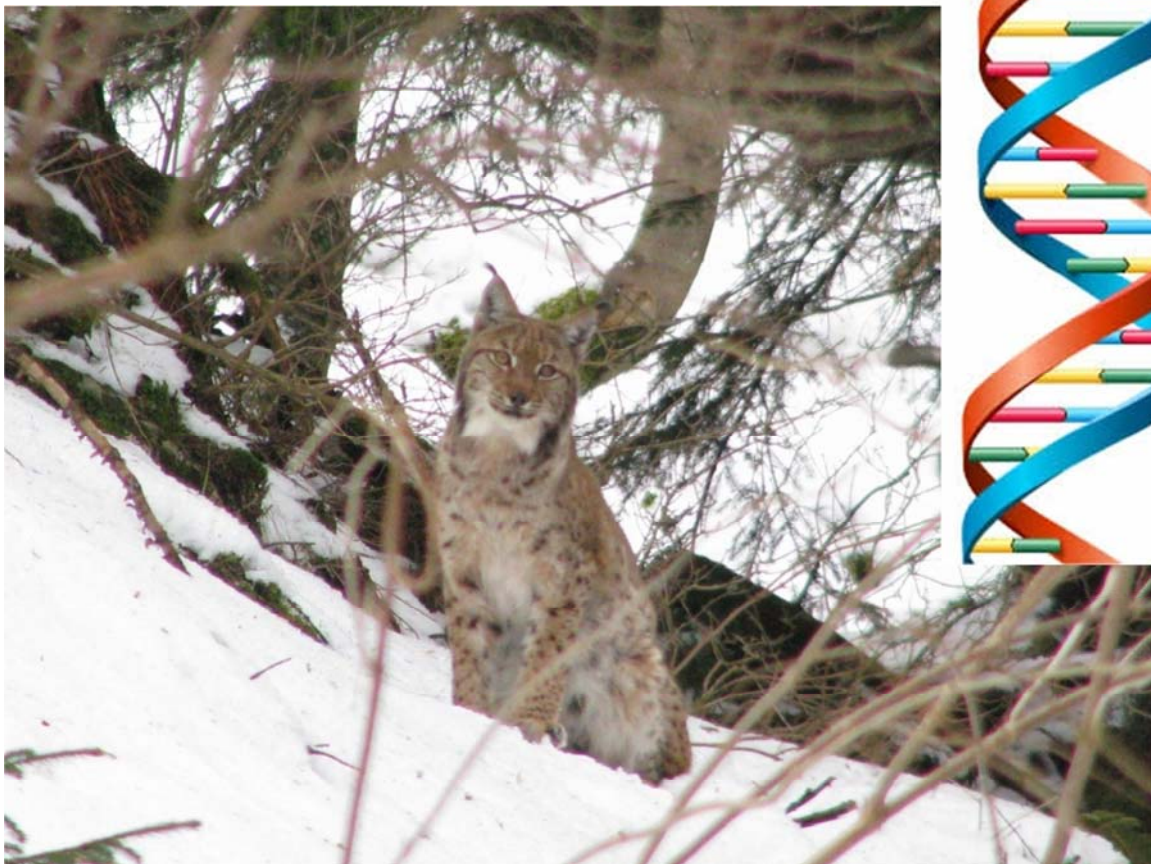


International Exploratory Workshop

“Genetic status and conservation management of reintroduced and small autochthonous Eurasian lynx *Lynx lynx* populations in Europe”

Hotel Solsana, Saanen, Switzerland, 24-27 October 2011



PROGRAMME

ABSTRACTS

PARTICIPANTS



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4.4. *Carpathicus* versus *balcanicus*: The challenge of conserving autochthonous and reintroduced lynx populations in the Dinaric range (T. Skrbinšek, Đ. Huber, A. Trajçe, S. Shumka, S. Hristovski, M. Sindičić & D. Melovski)

The Dinaric Mountain Range, stretching along the Adriatic Sea on the western edge of the Balkan Peninsula, is one of the largest remaining continuous forest areas of Central Europe. High biodiversity, coupled with low density of human settlements, gives this area a very high conservation value. The area has, however, been in a constant state of political turmoil for the last couple of centuries, and is currently shared by eight different countries. Nature conservation rarely makes it to the top of the agendas, and is practically never done in cooperation between the neighbours.

While the area is home to all three indigenous large carnivores, the wolf and the bear have never gone extinct and are still present in relatively large populations in most of the mountain range. The lynx on the other hand became extinct through most of the range in the beginning of the 20th century, with only a relict of the autochthonous population remaining in the southeast. Lynx were reintroduced to the north-western part of the range in 1973 using animals from the Carpathians, but so far the reintroduced Dinaric and the autochthonous Balkan populations seem to have remained separated.

The current situation doesn't look too promising. The reintroduced Dinaric population in the north-west showed extreme vigor during the first decades following the reintroduction, but now seems to be on decline with estimated 130 animals remaining. The reasons for the decline are not clear, with illegal killing and inbreeding depression being considered the most likely. Originating from six animals, of which two pairs are known to have been closely related, the population's genetic diversity is very low. However, the few animals that have been monitored with radio-telemetry do reproduce and seem to have normal litter sizes, and at least some of the young reach adulthood. Inbreeding depression may, on the other hand, occur at other levels that are more difficult to detect, since dead animals are difficult to find, and other data is limited. It will certainly have an important effect in the future if no action is taken.

The lynx in the southeast, the Balkan lynx population, are meeting the IUCN Red List criteria for Critically Endangered, with estimated less than 100 animals (and possibly less than 50) remaining in the wild. Although the taxonomy is not yet clear, these lynx should be considered an evolutionary significant unit for conservation purposes, especially since preliminary genetic data seems to support this. Given the low population size, high fragmentation, and isolation, inbreeding depression is a real possibility.

The available data indicate that the extinction risk should be taken into serious consideration in management of both populations. A population augmentation of the Dinaric population using animals from the Carpathians has already been proposed as a possible solution, and pros and cons of such action need to be debated. Should this be encouraged as a conservation tool to possibly save both populations, or avoided because of risks posed by outbreeding depression and "swamping" of the Balkan lynx with the Carpathian genes? The actions done in the near future, or lack of them, may well decide survival or extinction of both populations. When the "political fragmentation" and low level of cooperation among the countries of Western Balkans in nature conservation are added in the mix, the problem is very real, and very difficult to solve.