



Bear - Newsletter



N° 3/2004



Editorial



The year draws to a close. Winter struggles to displace autumn and for the bears it's time to move into their dens. For the bear-biologist who cannot act likewise it's time to retreat to his desk and to look back at the incidents of the year.

The trend of dispersion of the bears in the core area of Lower Austria and Styria that has been observed last year continued this year. Bears roamed from the Rax to Bad Ischl. Nevertheless dispersion does not have to reflect a population increase, one or two young males may have the same effect. There was no single evidence of offspring in 2004 although Mira who has reproduced regularly every second year since 1996 would have been on turn this year and was even proved to having met Djuro, the father of all of her cubs, in the mating season 2003. The genetic monitoring will show whether Mona was still alive this year and we can hope that she will have offspring next year.

We eagerly await the results of the DNA analysis of the hair and scat samples collected this year. We hope to finally determine the genetic profile of the cub born in 2003 and to clarify its position within the family tree. Furthermore we hope to prove the presence of all bears detected in 2003 and also of all known individuals missing in 2003. And we hope to detect some new bears that have escaped our sampling activities so far.

Merry Christmas and a successful and happy new year.

Dr. Georg Rauer
bear advocate

Bears and Hibernation

When it gets cold outside and food becomes scarce, brown bears retreat into their dens. The resting period of bears is called hibernation. During this time body functions are reduced and the animal lives on the fat it acquired during autumn. The duration of hibernation depends on the food supply.



Brown bear on the Koralm in Austria
(Foto: B.Gutleb)

The hibernation of brown bears is an adaptation to the period of the year when food is scarce. It is triggered by food scarcity and coldness, a reason why bears in zoos often do not hibernate. Despite low temperatures in the Chinese mountain ranges giant pandas do not hibernate as their food is available all year round. The duration of hibernation is dependent on the food supply. In the North its duration is longer as the period where food is rare is longer as well. Further in the South hibernation is sometimes interrupted and in mild winters bears



Brown bears use caves like this as dens for their hibernation. This cave is situated in the core area of brown bears between Lower Austria and Styria. (Foto: J.Rauer)



The Inside of a den is usually padded with twigs, moss, leaves or the like. (Foto: J.Rauer)

may leave their den shortly.

During hibernation the energy use of bears is dramatically reduced. This is achieved by a high amount of body fat, growing of a highly isolating winter fur, hibernating in a den and calm resting. Physiologically body temperature is reduced by 4-5° C, heart beat is lowered from 40-50 to 8-12 beats per minute, and the respiration is also decreased. During hibernation most of the blood is concentrated in heart, lungs, and brain. Another reason for the little amount of energy consumed is that it is relatively warm in the den. In an empty bear den covered with a 1m high layer of snow one could measure a temperature of 1.2° C while outside it was minus 40° C. Bear hibernation is characterised by a special physiological adaptation: A complicated mechanism prevents urine poisoning in the blood circulation when protein is catabolized. This prevents urine poisoning and allows the bear to sleep without interruption for urination. The small amount of water needed also comes from fat catabolizing. These physiological adaptations remain also when the bear wakes up and leaves its den for a short period.

This may be one reason why directly before and after hibernation bears go through an adaptation period during which they hardly eat or drink. Before this period, though, they eat a lot to gain weight and increase their body fat. North American bears are known to eat more than 20.000 kcal a day. In late summer and in autumn mostly food, rich in energy, like berries and seeds, are eaten in order to survive the decrease of body weight up to 35% during hibernation.

The dens where bears hibernate are usually cushioned with twigs, moss, leaves or similar things.

Although bears have individual preferences for their dens, common criteria for choosing the location may be the degree of being sheltered by the wind and the accessibility. ■

Switzerland Wants Downlisting of Wolf in Bern Convention

3-4 wolves living in Switzerland at the time occasionally cause damage to small livestock. Damage prevention measures could reduce the negative effects considerably. But such measures are put into question if the wolf is down listed in the Bern Convention.

According to Switzerland the wolf (*Canis lupus*) should be deleted from Appendix II (strictly protected species) and listed in Appendix III (protected species but exploitation possible) of the Bern Convention on the conservation of European wildlife and natural habitats.

The species listed in the different Appendices are



At the time Switzerland hosts 3-4 wolves that live in the border area to Italy. (Foto: WWF-Canon/ Chris Martin Bahr)

reviewed on a regular basis. Knowledge on population development, threats, and recovery has to be based on reliable data at population level. This is not the case for the wolf in Europe. The distribution of species should also represent suitable habitats and not depend on politically motivated actions.

Right now there are 3-4 wolves living in Switzerland in the border region to Italy. Damage to small livestock, which occasionally occurs, can be considerably reduced by damage prevention measures such as shepherds with guarding dogs and electrical fences. A downlisting of the wolf would question the success of this damage prevention and enhance the pressure on regional authorities to allow legal killing. Under Appendix III no reporting is asked for the species concerned, which would make international coordination even more difficult. Passing the wolf to Appendix III will be certainly perceived as a first step to abolish protection in general and therefore make investments in the prevention measures mentioned above redundant.

Generally wolf populations in Europe are increasing. But there are big variations between countries: there are only 2-5 individuals in Germany or Switzerland and some hundreds in Poland or Latvia. This makes it harder to find a common strategy for wolf protection all over Europe. Furthermore the available data on the wolf in Europe is not up to date and fragmentary and there are no common data collection methods. Information is still based on country level surveys and not on population level. Thus a scientific assessment of the European wolf population is urgently needed in order to discuss future wolf protection and management.

At the last conference of parties of the Bern Convention the Swiss proposal has been rejected. Switzerland has to provide better scientific facts about wolves in the Alps until the proposal will be discussed again.

That means at the time the status of protection is guaranteed. One can hope that it will last. ■

Dramatic Bear Shooting in the Pyrenees

A hunter shot a mother bear which was with her cub on November 1st, 2004 in fear for his dog. Cannelle, as the bear was known, was the last indigenous and also reproductively active female in the Pyrenees. This huge loss could have been easily prevented.

On Monday, November 1, 2004 something tragic happened in the French Pyrenees. The 15-year-old female bear Cannelle was shot by a hunter in the Aspe valley.

A group of six were hunting wild boars with their dogs in the region, although they knew of the presence of the bear. When the bear attacked and bit one of the dogs, one of the hunters fired in self-defence. The badly injured female fell into a ravine and died. Environmentalist groups accused the hunters of deliberately selecting an area where they knew they were likely to come across the bear. The situation was even worse as Cannelle was with her cub. The 10 months old bear cub escaped after the incident. To save it hunting and dog walking was



In the Pyrenees the last autochthonal female was killed by a hunting accident. At the time there are still 15 brown bears living in the Pyrenees mountains. Further 70 individuals live in the Cantabrian Mountains.

banned temporarily in the districts where the cub is believed to be roaming. The corpse of the dead female was taken to Toulouse for autopsy and ballistic tests.

There are believed to be around 15 bears surviving in the Pyrenees. Cannelle was the only reproductive female in a group of fewer than six bears in the western end of the range. Her death is even more significant because she was the last indigenous female in the Pyrenean stock. Two other male bears

are also indigenous, but the rest of the animals were imported from Slovenia in the late 1990s. The French Minister for environment described the death of Cannelle as an "ecological catastrophe" and said that "the chances of preserving a pure French stock are now almost totally gone". President Jacques Chirac told in a cabinet meeting that "the loss of a species is always a serious loss for biodiversity". The Association for the Protection of Wild Animals

(ASPAS) has said it plans to file complaints against the hunter who fired the shots and the president of the hunting group for killing and jeopardising a protected species. If found guilty, they face a maximum sentence of six months in prison and a EUR 9.000, - fine.

Positive side effect: Both in the Spanish and in the French part of the Pyrenees further reintroduction programs are now under discussion. ■

A Résumé of LIFE Projects for Brown Bears



At the end of their LIFE project "Project Ursus" the Natural Park Adamello Brenta organised an international meeting in Trentino which was designed to discuss the experiences gained by various LIFE-projects concerning the safeguard of brown bears in Europe.

The international participants from Italy, Austria, Slovenia, Greece, Croatia, Spain and Romania presented their projects with special emphasis on problems encountered during the implementation and possible solutions.

It seems obvious that many countries working on the same species face similar problems: e.g. the active involvement of hunters seems to be a crucial factor of success. But also other issues like damage pre-

vention, public awareness activities and monitoring of bear signs are the overlapping bonds that tie all the projects together.

But naturally there do also exist differences due to the size of populations in the various countries. Slovenia, Croatia, Greece and of course Romania have to deal with much larger brown bear populations and thus much higher damages than the small restocked populations of Spain, Italy, or Austria. On the other hand the Romanian people for example are used to living in coexistence with large carnivores since centuries, whereas Austrians or Northern Italians had to get used to this new situation again.

A common experience from all LIFE projects is the fact that LIFE projects can only be seen as the initial kick-off to start the conservation of large carnivores in each country. After the end of the projects a governmental organisation needs to take the conservation measures further in order to guarantee a long term survival of the species.

LIFE is a funding line of the EU towards projects aimed at conservation of natural habitats and the wild fauna and flora of European Union interest. ■

Imprint:

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 Text: Astrid Gall, Beate Striebel; Layout: Michael Proschek
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The LIFE-project is supported by the Ministry of Environment, the Federal Environmental Agency, and the Nature conservation and Hunting right authorities of Lower Austria, Styria and Carinthia.