



# Bear-Newsletter 1/03



## Editorial

This is the first international edition of our Bear-Newsletter. A German newsletter is published 4-times a year, providing information about the Austrian brown bear population and the latest news of the Austrian LIFE-project on bears. This international edition will give a short overview about the ongoing LIFE-projects on brown bears in the EU.

With the LIFE-programme the European Union has not only created a financial instrument for nature conservation projects but it should also serve as a possible platform to improve the cooperation and the network between different projects all over Europe.

At the moment there are 8 projects in Europe concerning the brown bear specifically. Next to these projects there are also several projects for habitat conservation, which do indirectly serve the conservation of brown bears.

For the Austrian brown bear project the cooperation between its neighbour countries Italy and Slovenia is very important. Because at least in theory the possibility exists, that the brown bear populations of Northern Italy, Slovenia and Austria will become a connected population in the future.

Bears do not know about borders, LIFE-projects should not either!

With European greetings,

Beate Striebel (Project assistant)



## What is LIFE?

LIFE is the financial instrument for nature conservation projects and thus one of the spearheads of the environmental policy of the European Union. It finances there different kinds of projects: **“LIFE-Nature”** supports nature conservation projects. **“LIFE-Environment”** supports new developments in environmental policy. **“LIFE-Third countries”** promotes sustainable development in third countries.

Started in 1992, the LIFE-programme is now in its third phase. In the period from 2000-2004 the European Union has a budget of 640 million Euro for the support of projects. About 300 million of this budget go into LIFE-Nature projects.

Through LIFE-Nature, projects are supported, that aim at the conservation of natural habitats and the wild fauna and flora of European Union interest. LIFE-Nature also supports implementation of the nature conservation policy and the Natura 2000 Network. The legal framework of the projects are the Bird and Habitat directives, for the conservation of natural habitat and threatened animal and plant species.

## LIFE-projects in Italy.

**In Italy there are two projects on brown bears at this moment. LIFE-project Ursus in the National Park Adamello Brenta and a LIFE-project in the Sirente-Velino Regional Park.**

The **LIFE-project Ursus**, is a project to conserve the brown bear population of the **National Park Adamello Brenta**. In a previous LIFE project 5 bears were captured in Slovenia and released into the Brenta Park, with positive results. This new project is continuing these actions and aims to help the brown bear population to reach a viable population. This population should consist of 40 to 60 individuals. To achieve this goal more bears have been released. So far a total of 10 bears have been released in the national park.

After releasing the bears, monitoring is a crucial factor in order to judge their dispersal. Each released bear had for this purpose a radio collar.



**Release of Danica in 2000**

Archivio Fotografico, Ufficio Stampa, Provincia Autonoma di Trento

However the last bear lost his collar in August 2003. Now the monitoring is carried out by the collection of tracks, scats and hair samples. With scat and hair samples it will be possible to do DNA analyses.

Other important objectives of the project are an awareness and education campaign for local people. Leaflets have been distributed, school lessons are given and numerous public meetings

are taking place. At the website of the project [www.parcoadamellobrenta.tn.it/Life%20English/indexenglish.htm](http://www.parcoadamellobrenta.tn.it/Life%20English/indexenglish.htm) a lot of information can be found about the project, including latest news. This will hopefully result in further acceptance by local people.

As in all large carnivore projects damage prevention in order to prevent conflicts between humans and bears, is also important. These measures include e.g. the installation of electric fences to protect livestock. When bears have, despite these measures, caused some damage, there will be compensation.

The second Italian brown bear project is the **conservation of the brown bear in the Sirente-Velino Regional Park in the Abruzzese mountains**. The project is carried out by the park itself. This project is also a follow up of another LIFE-project. The first offspring was one of the successes in this previous project. Other results were greater awareness of the local public towards the brown bear and a reduction of human induced disturbance in the areas of potential importance for the population of 50-80 Abruzzan bears. There was however a setback, for one of the bears was found dead, killed by poisoned bait used illegally by local farmers against stray dogs.

The running project will continue to reduce human disturbance in bear areas, which will be done by leading hikers onto new alternative paths. To improve the quality of bear habitat, 7000 fruit trees will be planted. To prevent conflict between cattle and bears, three water troughs for wildlife will be constructed. Furthermore electric fences will be distributed to the farmers. Also for the stray dogs has a solution been found. The park will organise a programme in which the dogs will be captured and sterilized.

Last but not least an awareness campaign will be targeted at the local population and in particular at local schools. Further Information about the project can be found on the Italian website <http://www.sirentevelino.org/>

## LIFE-projects in Spain

Spain has a project to conserve the Cantabrian brown bear and the Ancares project.



In the **Cordillera Cantábrica** in Northern Spain a population of brown bear survives, some 80 individuals divided in two

groups. But these populations are under threat because of their low reproduction rate and a high mortality rate among females. The causes of death are illegal hunting or the use of other illegal methods like steel traps for catching wild boar and the use of poison against predators.

A lot of different LIFE-projects are aimed at the conservation of the brown bear in this area. The actions in these projects include the acquisition of land in feeding and refuge areas, as well as rent of hunting and timber cutting rights to avoid disturbance and habitat degradation. Disturbance and illegal hunting are addressed by increasing surveillance staff. All legitimate claims for damages inflicted by bears receive compensation. Awareness raising activities are implemented by means of campaigns targeted at local population and children and by the creation of information centres.

The other project in Spain is the **Ancares project in the province of Galicia**. The objective of this project is to ensure coordinated management of two adjoining protected areas under different regional authorities. The biggest threat facing these bears is rejection by the local population. Next to this the bears are disturbed by growing tourism and hunting activities. Finally the intervention by the authorities in management and conservation of the site also poses a threat.

In particular, actions will be taken against the tourist pressure and hunting, by introducing a monitoring system and concluding agreements with hunting associations and the tourist industry. Attempts will also be made to promote expansion of the species throughout the Ancares and the creation of biological corridors with the aid of measures to restore forest habitats. Also an extensive awareness-raising campaign will attempt

to involve all sectors of society in conservation of the site.

## LIFE-project in Greece

Greece is running a project in the northern **Pindos National Park**

The **Northern Pindos national park** is one of the three areas in **Greece** that host a population of bears. The habitat is however threatened by timber extraction and accidental or criminal forest fires. The bears themselves are threatened by human-caused mortality, which has successfully been reduced in the last years, but is still presenting a threat.

The project will therefore focus on the brown bear itself and on two of the bear's priority habitat types, the Mediterranean pine forests with endemic black pines and Tilio-Acerion forests.

The project will be carried out by Arcturos, a Greek non-profit organisation, aiming at the protection and management of natural environment and wildlife. The activities started focusing on the brown bear, because the bear can be used as a measurement for the quality of environment.

This project aims to keep the human-caused bear mortality low and to maintain the size of the bear habitat. They hope to improve habitats and species monitoring systems. For the prevention of forest fires, Arcturos wants to improve detection mechanisms for criminal and accidental forest fires. Finally the number of people that visit the place, will be controlled.

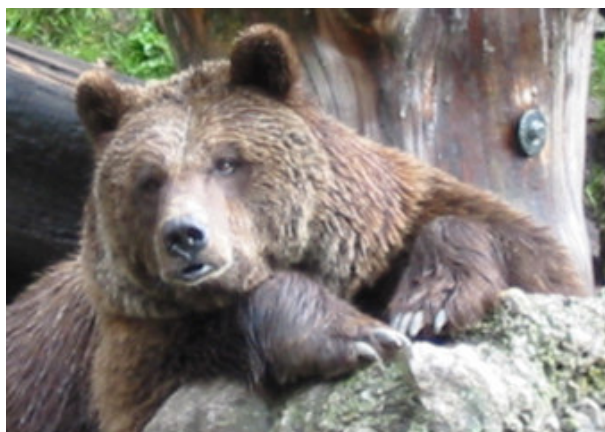
The public awareness program includes several booklets, a website, <http://www.arcturos.gr/enhome.htm>, education material for schools, consisting of videotapes, posters and a book with different sorts of activities.



## LIFE-project in Slovenia

**Slovenia has one of the largest bear populations in Europe. To conserve this population Slovenia has started a LIFE-project in 2002.**

Slovenia is among the few European countries with a well-preserved population of brown bear.. 54% of Slovenia consists of forests, therefore Slovenia is an ideal place for bears. The Slovenian bear population is very important for populations in neighbouring countries like Austria and Italy. This population offers an opportunity for the resettlement of an Alpine population. The size of the brown bear population is increasing increased in the last decades and consequently, there has been an increase in the number of bears along the main migration routes towards Italy and Austria.



**Slovenian bears: The future for the Alpine population**

This has however created situations of conflict, and consequent negative public attitudes. Another threat to the species is fragmentation of the habitat, which includes the Ljubljana-Trieste railway and parallel highway, where several bears are killed every year. The LIFE-project for the conservation of brown bears in Slovenia will deal with these threats

The main objective of the project is to promote measures which will improve public attitude towards the brown bear. So a considerable part of the budget will go towards the development of a communication strategy, the launch of a public awareness campaign, a new information center and compensation of damages. Measures to direct bears away from settlements, such as removal of garbage dumps which attract bears, installation of fences and other protective devices, will be tested in 2 pilot areas. Finally, equipment for a rapid

intervention group, to handle problem bears, will be purchased and training for such a group will be provided.

Further information:  
<http://www.sigov.si/zgs/medved/index.php>

## LIFE-projects for the brown bear in Austria

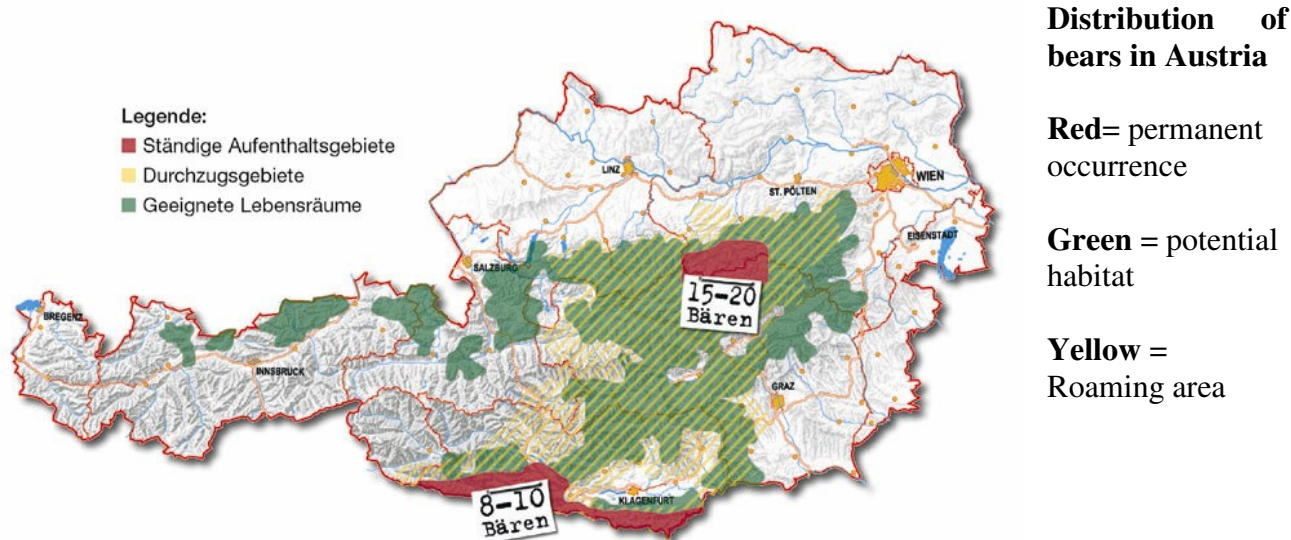
**Next to the LIFE-project of the WWF, Austria has a project in Schütt-Dobratsch.**

**Schütt-Dobratsch is an area in Carinthia, Austria** just a few kilometres away from the point where Austria borders on Italy and Slovenia. The Non-governmental Organisation ARGE-Naturschutz is carrying out the LIFE-project in the Schütt-Dobratsch area, where the main corridor for bear and lynx coming from Croatia and Slovenia is passing through. There is clear evidence that in the course of the last few decades brown bears (and lynx) have been wandering into the Austrian Alps from Croatia and Slovenia via this corridor. This LIFE-project aims to connect 2 parts of a Natura 2000 site which is divided through the highway A2.



The main objective is to construct a 95 metre wide greenbridge to overpass the highway A2 for fauna. Judging by the monitoring data of bears in the area so far, and from experience with a similar structure in Croatia, there is every reason to believe it will not be long before the brown bears start using the overpass. This way the overpass should help reinforce the Alpine population of the brown bear.  
[www.schuett.at](http://www.schuett.at)

## LIFE Project for the management and conservation of brown bears in Austria



Starting in 2002 WWF Austria is now running the second LIFE-project concerning brown bears in Austria. Austria hosts only a small population of 25 to 30 individuals.

One nucleus of the population lives in the middle of Austria in the 2 neighbouring provinces Styria and Lower Austria. In this area at least 26 cubs were born since the beginning of a reintroduction in 1989. An other nucleus is in the South of Carinthia, where migrating bears from Slovenia occur.

The acceptance of brown bear in Austria is quit high as long as damages are low. In the last years damages have been on an average level, about 5.000 € per year and only in new areas like the province of Salzburg, where bears haven't occurred in the last decades, bears are reason for uproar.



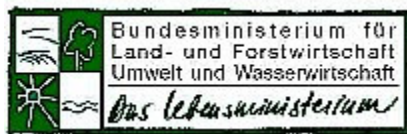
The objectives of the ongoing LIFE-project are: An analysis of the existing and future barriers on brown bear migration ways, a revision of the management plan for Austria and a genetical analysis of the population. The genetical monitoring of the population might help to identify a future threat that could occur because of inbreeding.

The public awareness work is done through leaflets, constant media work, a school program, conferences and seminars and a website in German and English.

International cooperation especially with the neighbouring countries Slovenia and Italy is an other important and crucial task. because in the long term the future of the Austrian bears is depending on migrating bears from Slovenia.

Further information: [www.wwf.at/bearlife](http://www.wwf.at/bearlife)

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.



Das Land  
Steiermark



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## Editorial



Dear readers!

*The second edition of the International Brown Bear Newsletter introduces new and long approved activities in large carnivore management across Europe.*

*The so called Large Carnivore Initiative for Europe, which recently became a Task Force within the World Conservation Union's (IUCN) Species Survival Commission, is an expert group dedicating its work to the protection of large carnivores and enhancing a coexistence with people where ever possible. The networking of 29 countries is a challenge but also a great opportunity to connect knowledge and experience about bears, wolves, lynx and wolverines in Europe.*

*Furthermore we would like to introduce another LIFE-project about wolves and lynx in Hungary, we inform you about the newest and most informative lynx-link on the Europe-wide-web and we are happy to show you some great photo-trap pictures of bears in Friaul (Italy).*

*Last but not least we have some encouraging news about bears in Trento (Italy) and in Upper Austria.*

*We hope to meet everybody's expectations.  
With best regards*



Beate Striebel

## Brown bears in Upper-Austria

The first fotos of a brown bear in "Nationalpark Kalkalpen"

Since May 2004 there is legitimate reason to cheer in "Nationalpark Kalkalpen". After a long time of rumours and speculations the existance of brown bears in the area of the national park is proofed. Although the mountainous region in the south of Upper Austria has been an area of passage for brown bears at all times there has not been any clear proof of presence in the last years.



The brownbear in Nationalpark Kalkalpen (Foto: Nationalpark Kalkalpen)

Even though the Austrian population of brown bears is stagnating for a while now it is obvious that especially the male individuals enlarge and shift their home ranges. Proofs of bear presence have so far been restrained to the areas between the Ötscher - Hochschwab region. Lately during the last two years the bears seem to expand to other areas, but there is no certain proof of an increase in the population.

In order to receive more information on the bears in the "Nationalpark Kalkalpen" 10 hairtraps will be installed, to recieve more samples for the genetic analysis. So it will be possible to compare the results with the analysis from the other brown bear regions. The objective is to verify, whether the bears in Upper Austria are "newcomers" from Slovenia or offsprings of the Ötscher - Hochschwab population. First results argue for the second alternative. ■

# The Piatra Craiului National Park in Rumania

## Intense research on large carnivore conflicts and improving management

The Carpathians are a unique place in Europe. This space full of traditions succeeded to preserve valuable populations of large carnivores. The biggest population of brown bears in Europe lives in Rumania. In its heart lies the National Park Piatra Craiului, the home of about 25 wolves, 15 lynxes and 40 brown bears, and site for one of Rumanians ongoing LIFE-Projects.



The Piatra Craiului National Park in the heart of Romania

Piatra Craiului has retained a semi-natural state up to the present time which has made it possible to maintain these species. But the changing situation in Romania could soon upset this balance. This is all the more likely given the ongoing conflicts developing between these species and those involved in their conservation (hunters and livestock breeders) who are interested in the same

resources. Up to this time the park has not had appropriate management mechanisms to tackle these problems. The European LIFE-Programme supports the development of a management plan ensuring a compatibility of the conservation of large carnivores with the exploitation of natural resources. The crucial step is to involve the local communities and achieve support and acceptance of local people for the conservation work.

Conflicts between users will be analysed and the purchase of 157 hectares of pasture land will make it possible to encourage natural prey in the area. An awareness campaign will be one of the major aspects of this project. All the socio-economic players of the park will be involved and an educational programme will be devised for local schools.

ICAS the Romanian Forest Research and Management Institute is implementing this LIFE project which started in 1999 and ended this year. 4 lynx were caught and provided with a radio collar in order to get better data about home ranges and distribution of the lynx population. Unfortunately no wolf was caught during the project period. To avoid a further increase of damages electric fences were distributed to farmers, as a result the fenced sheep herds were no longer attacked by large carnivores. Electric fences have proven their success as prevention methods also in many other projects around Europe. Many herds in Romania are still accompanied by shepherd dogs who do also provide a well working protection for sheep herds by keeping potential predators away. Generally the number of damages caused by wolves outnumber the damages of bears, leaving lynx damages far behind.

The research of this project also showed that 80% of large predators attack on livestock occurs inside or at the vicinity of the forest. Thus the project aimed to reduce livestock grazing in forests and at the same time supported the trophic capacity of open alpine meadows and enhanced flock protection by shepherds, fences and dogs.

## Forza Italia: Non ci basta mai!

### Abundant Offspring in Natural Park Adamello Brenta. Population increases up to 17 individuals.

Good news from our Italian partner project of the Natural Park Adamello Brenta: 5 cubs have been born this winter. With financial help of 2 LIFE projects the park Adamello Brenta reintroduced 10 bears into the Alpine region of Trentino where it was believed that at least 2 or 3 autochthonous bears have survived. The old autochthonous bears most probably died without leaving any offspring but the newly released bears, originally from Slovenia, seem to have adapted well to their new environment:



"Joze" is one of the reintroduced bears in the Natural Park of Adamello Brenta. He was released in 2000. (Foto: P. N. Adamello Brenta)



In 2002 two cubs survived, In 2003 one of the two born cubs was killed by an eagle but the other one survived luckily and this year one female has given birth to 3 cubs in the valley of Brenta the other gave birth to two young in the valley of Tovel.

This great success leaves the overall Trentino population at a number of 15-17 individuals (one adult died and one female is missing since she went on a visit to Austria). The ongoing genetical research will show who are the 2 mothers of this years' offspring. From the known geographic home ranges of the bears the researches so far suspect Jurka and Daniza to be the mothers of the year.

## Large Carnivore Initiative for Europe

For more than ten years the LCIE is one of the main networks for the conservation of bears, lynxes and wolves.



In June 1995, WWF together with partner organisations and experts in 17 European countries, launched a Large Carnivore Initiative for Europe (LCIE). The LCIE is a dynamic network of representatives from governments, international and national non-governmental organisations, scientists and other experts. With members from 29 countries, it works across Europe to promote the coexistence of brown bears, lynxes,

wolves and wolverines with human societies.

The LCIE builds on important activities throughout Europe, disseminating valuable experience and knowledge. The mission statement:

"To maintain and restore, in coexistence with people, viable populations of large carnivores as an integral part of ecosystems and landscapes across Europe."

This device is reflected in its work in 3 big issues:

- Human dimensions
- Monitoring of Populations
- Damage prevention

Since most countries with large carnivores deal with the same problems, important work is done by this initiative in coordinating large-carnivore work in various projects, developing common guidelines and manuals for damage prevention. An important focus is made on the human dimension in large carnivore management. The opinion of people remains the most endangering factor for bear, lynx and wolves in Europe.

For European policy issues as well as for the distribution of expertise knowledge the LCIE plays a crucial role and remains highly important.

More information can be found on the LCIE website:

[www.lcie.org](http://www.lcie.org)

## Wolves and Lynxes in Hungary

A LIFE project deals with questions of population distribution and conservation of these large carnivores.

Not much is known about the population of lynx and wolves in Hungary. A few cases have been observed, but is this enough to state that there is a stable population in Hungary? Or are there just occasional vagrants from the still thriving populations in the Carpathian mountains of Slovakia and Ukraine? A LIFE project with the telling title "Funding the base of a long term large carnivore conservation in Hungary" is being realized by the St. Stephens University of Gödöllő and follows these questions since May 2001.



The European lynx. The main occurrence of these Animals in Hungary is in the northern hill ranges. (Foto: WWF-A)

The main objective of the project is to establish the distribution of wolf and lynx in Hungary and to prepare the ground for long term conservation. In parallel to the field work which will involve questionnaires, radio-tracking of individual animals and training of field workers to detect the tracks and signs of wolf and lynx, a proposal for a Hungarian management plan and a system for damage compensation should be developed. Luckily the Ministry of Environment, as a partner of the project, has committed itself to apply the results of the management plan including a compensation scheme.

The main occurrence of lynxes and wolves are restricted to the large forested areas of the northern hill ranges (e.g. Aggtelek mountains) along the borders to Slovakia. The management of the forest in this area was recently handed over to large private companies. With the transformation of Hungary into a western market economy the touristic pressure in this areas is rising as well. These new developments and the ongoing construction of roads and highways (often with European financial support) bring new threats to the already fragile population of predators.

# Fototraps in Italy

A quite successful method for detecting large carnivores was realized in the Italian region of Friuli-Venetia

In the scope of an Italian-Slovenian Intereg-Project the University of Udine, Scientific Department of Animal Production, set up some photo-traps in the province of Friuli-Venetia close to the boarder to Slovenia. The set up was quiet succesful so far. The scientist managed to take 5 pictures of brown bears and 12 pictures of lynx in 12 weeks. Ursus arctos has always been present in the province of Friaul in varying numbers. From the Slovenian



A brown bear from Friuli-Venetia inspecting a hairtrap. The Foto was taken by a fototrap installed by the University of Udine. (Foto: University of Udine)

core area in the South bears expand to the North and sometimes arrive in the North-Western province of Friaul. The Italian side of the border is scarcely populated but at the Slovenian side farmers often have to face dammages caused by bears. Although Slovenian bears outside the core area can not be hunted regularly, it is possible to obtain a special culling permission for problematic bears. As a consequence these exceptional culls are limiting the number of bears arriving in Northern Italy or Southern

Austria. So far there there has not been a solution to this. Although the Slovenian Forest Service works hard to keep the conflicts between bears and humans low, every bear shot is a lost chance of a coloniser to Friaul. Since several years the University of Udine together with Forestry Service, hunters and students from other Italian universities is organising a monitoring network consisting of snow tracking, hair traps and direct reporting in order to find out more about the number of bears and their behaviour.

## ELOIS?

Ever heard of it?



The European Lynx Online Information System (ELOIS) went online a few weeks ago. Since then it provides a detailed picture about the current and historic situation of the lynx in Europe. For the conservation of a species, updating information on the status and distribution of the populations all over its range, is essential and should be done regularly, using standardised methods. ELOIS followed the "Action Plan for the Conservation of the Eurasian Lynx in Europe" (Breitenmoser et al. 2000) providing an online information tool freely accessible for everybody interested in the conservation of lynx.

Besides general biological descriptions about the lynx and its subspecies a great variety of maps can be found on the website either based on the distribution of a population or on the political country boundaries.

The great work was done by representatives of KORA an organisation for "Coordinated Research Projects for the Conservation and Management of Carnivores in Switzerland" and financially supported by WWF Switzerland. It will be a challenging task to keep this information up to date and expand the idea to the other European large carnivores like bears, wolves and wolverines.

Further Information on:

[www.kora.unibe.ch/en/proj/elois/online/index.html](http://www.kora.unibe.ch/en/proj/elois/online/index.html)

### Imprint:

WWF Austria, Ottakringer Straße 114-116, 1160 Vienna, Austria  
editorialstaff: Beate Striebel, Norbert Gerstl  
text and layout: Michael Proschek  
[www.wwf.at/bearlife](http://www.wwf.at/bearlife)



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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.



for a living planet





# 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.*

*Georg Rauer*

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 out side 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 co-ordination 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 Pyrenean 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. ■

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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.*





## Editorial



Dear Readers,

The first bear newsletter of 2005 follows the awakening of the bears in Austria last week. Normally Austrian bears tend to show first signs of presence from the end of February to early March, but due to the high amount of snow this year the first snow track was sighted only last Monday (march, 21.).

But finally snow is melting rapidly and all our hopes are concentrated on the females that could possibly soon leave their dens with their new cubs.

Already last year Mona, a reliable mother since 1996 and a direct daughter of the famous Ötscherbär, was expected to have cubs. But the fact that there was no reproduction in 2004 and -even worse- no signs of Mona either, is a reason for further concern.

In such small populations like the Austrian bear population every individual counts. Celebrating her 12th birthday this year Mona could still give birth to a number of cubs in the coming years, but if she doesn't appear in the DNA samples this year either, we have to fear for the worst.

Hoping for the best, we ask our dear readers to keep their fingers crossed for new offspring this year. We will most certainly keep you informed about the development.

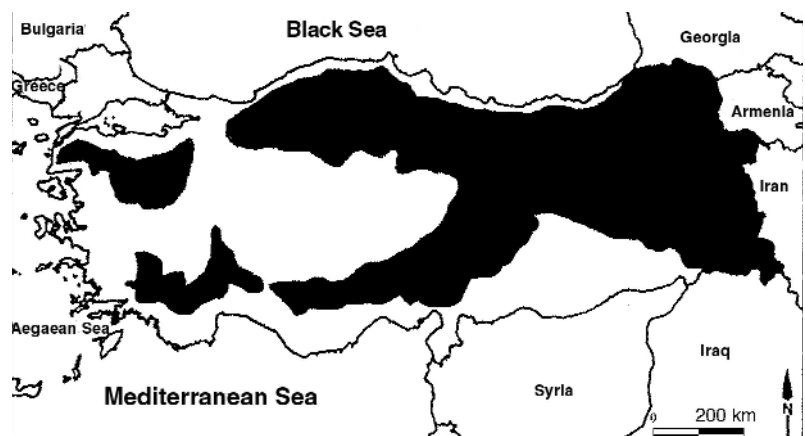
Beate Striebel

## The Turkish Brown Bear

### Forestry and oilpipeline endanger Turkish bear population - a status report from Turkey

The brown bear (*Ursus arctos*) is one of the several large carnivore species in Turkey including wolf (*Canis lupus*), hyena (*Hyaena hyaena*), Eurasian lynx (*Lynx lynx*), caracal (*Caracal caracal*) and the Anatolian leopard (*Panthera pardus tulliana*). The Turkish bear population is estimated to amount up to 3000 individuals. They are mainly concentrated in the Black Sea and Anatolian regions.

Due to habitat loss the population declined during the last 50 years and now consists of 3 to 5 subpopulations. Especially the Western populations were separated and now form distinct patches. Corridors disappeared because of human activities. Distribution of the brown bear is mostly correlating with natural forest areas in natural condition. Turkey's forests cover 20.7 million ha. 40% of these are heavily degraded; only about 2.5% of the total forest area remained entirely undisturbed. Especially areas in the Black Sea region with large continuous forests provide shelter for the largest bear population in Turkey.



Distribution of brown bear in Turkey, WWF Turkey

Due to Land Hunting Law of 1937, constituting the legal basis for all wildlife protection and conservation activities in Turkey, the bear is not listed as pest species, like the other large carnivores, but rather as a protected species. Only regulative hunting may be allowed for a fee. The hunting fee was set up to \$US 2000 in 2002, the fine for illegal hunting up to \$US 3000. According to the Turkish Ministry of Forestry hunting bears is necessary to control damage to grain fields and beehives.



A major threat is as well persecution by humans because of damage to livestock and beehives. Any kind of compensation system, like the Austrian one, is missing. In the Black Sea region bears are hunt for their fat which is believed to have medical affect. Occasionally bears are accidentally killed during the traditional wild boar hunt.

The projected Baku-Tbilisi-Ceyhan oil pipeline (an international pipeline from Azerbaijan through Georgia and Turkey) passes straight through intact remote mountainous brown bear habitats in the eastern provinces Kars, Erzurum and Erzincan and will mean a threat in future.



© H.Heimpel/4nature

nous brown bear habitats in the eastern provinces Kars, Erzurum and Erzincan and will mean a threat in future.

WWF and the World Society for the Protection of Animals (WSPA) are now working on an educational and awareness programs on brown bears in Turkey, which should strengthen the environmental conscience of the public.

Further more Turkey, as a European Union candidate country should take implementation of management and monitoring programs, according to EU-law, into consideration. Of urgent need for brown bear protection in Turkey are protection of natural forests, anit poaching action and survey of the population along the projected Baku-Tbilisi-Ceyhan oil pipeline to prevent further loss of undisturbed forest areas.



© WWF/Canon Michel Gunther

## Quarter of Norway's wolf population killed

Not beeing member of the EU doesn't release Norway from their obligation to protect the wolf

In January the Norwegian government decided to kill 5 wolves, a quarter of the already reduced, critically endangered population. According to a statement of Norwegian's minister for environment Knut Arild Hareide it was necessary to prevent the loss of domestic livestock, especially sheep. The presence of the wolves would mean constant threat to the animals. The Norwegian directorate for Nature granted licenses to hundreds of farmers to kill the wolves, even thousands of protest mails from WWF supporters couldn't prevent the action.

The wolf (*Canis lupus*) became a protected species in Norway in 1973 and is cited on the red list of endangered species as 'critically endangered'. Since then the Norwegian Government took responsibility for wolf protection.



© WWF/Canon Chris Martin Bahr

Only last May, the Norwegian government decided on a national goal to sustain at least 3 family packs. The shooting slashed them down to 2, a clear violation of the parliamentary directive. WWF is now bringing the case to court in order to test the legality of the hunt.

The wolf population in Southern Scandinavia counts maximum 120 animals, not enough for long-term conservations. Because of its small size, there is a serious risk of genetic degradation, which makes population more vulnerable to diseases and environmental impacts. For long time survival population should be up to 800 wolves. Sweden's Minister of environment Lena Summerstad severely criticized the hunt, accusing Norway of dodging its responsibility for safeguarding the South Scandinavian wolf population and claimed better co-operation in wolf conservation.

# International lynx congress Windischgarsten / Upper Austria

In order to develop strategies for lynx protection and prevent a second time extinction representatives from Austria and neighbouring countries met in the National Park Kalkalpen



© WWF-Canon / Roger LeGUEN

To develop strategies against a new extinction of the Eurasian Lynx in Austria about 150 representatives of hunting, science, nature conservation, met on March, 16th to 17th at the National Park Kalkalpen in Upper Austria. The conclusion was that Austrian lynx population steadily decreased through the past years and without action near extinct.

In the Austrian Alpine region only single animals occur. The number is estimated between 5 to 20 lynx and can not be considered a real population but only a few single individuals roaming in the Kalkalpen National Park Region, the Niedere Tauern, Upper Carinthia and the border region between Carinthia, Slovenia and Italy.

In the Bohemian Forest Region the situation is much better. Together with Bavaria and the Czech Republic, Austria hosts a part of a vital lynx population. All three countries actively support scientific research on population. This cross-border co-operation is a model for other transnational projects. Further reason for success is constructive co-operation of hunters, conservationists and foresters.

In the Austrian Alps only the Kalkalpen National Park so far established systematical monitoring of lynx population. In the remaining Austrian Alpine Region monitoring is still missing due to the EU Fauna-Flora-Habitat-Directive. Austria is obliged to monitor dispersal and trends of the lynx population. The EU also demands active action to protect the endangered cat.

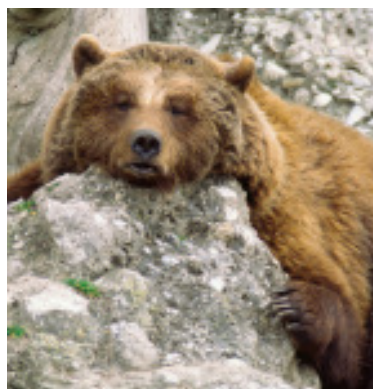
Positive examples were given by one hunter Matthäus Gelter from the Niedere Tauern Region. He referred to the positively changing attitude of hunters towards the lynx. Nevertheless, illegal hunting is still a major threat and especially hunters are demanded to take action to improve this situation.

Because of urgent need for action to save the lynx population future strategies were discussed during the second day's workshop. Despite the legal protection the acceptance through local lobbies especially hunters is crucial. Hunters, governmental authorities and conservation organizations must pull together and establish a system similar to the bear advocate. In Upper Austria the establishment of lynx consultants is considered. Conflicts between lynx and humans could so be minimized.

The conference was organized by the National Park Kalkalpen, WWF Austria, Institute of Wildlife Biology and Game Management (University of Natural Resources and Applied Life Sciences, Vienna), Upper Austrian Hunting Association, Austrian Federal Forestry Company and önj Haslach.

## Awakening of bears in Austria

After a long winter first signs of bear activities were finally found



© A. Zedrosser/4nature

This year the first signs of bears appeared in Upper Austria. A forester of the Austrian Federal Forestry Company found a bear track in the snow on March, 21. Because of this year long winter much snow and low temperatures bears woke up almost 3 weeks late. The WWF bear advocate assumed that it could possibly be bear "M", which was already seen last year in the Nationalpark Kalkalpen region.



After 5 months dormancy bears first need to get used to ingestion. Against the common opinion bears don't have ravenous appetite when they awake their alimetary system slowly needs to adapt to food.

25-30 bears presently live in Austria. The WWF bear advocates together with hunters, representatives of regional authorities and the ministry of environment aim to harmonise relationship between bears and humans.

Like every year Austria is anxious whether young bears were born or not. Hopes lie on two feamale bears, born in 2000 and 2002. WWF worries about Mona, daughter of the famous Ötscherbär. "We are concerned about missing offspring last year" said Norbert Gerstl

In the last year of the EU co-financed LIFE-bear project the focus lies on potential migration corridors between Alpine bear populations. Bears should be able to migrate without barriers from Slowenia to Austria. "Austria should provide enough space for living both humans and bears " said Gerstl.

WWF thanks Austrian Lotteries for supporting the bear project in Austria.

## Internal News:

On our homepage [www.wwf.at/bearlife](http://www.wwf.at/bearlife) you'll find a new section "publications", where you can download PDF versions of scientific artivels, master theses or other information material concerning Ursus arctos in Austria.

From the 15th to the 17th of April a seminar on the trans-boundary management of large carnivore populations will take place in Osilnica /Slovenia. The conference is organised in by the Council of Europe in co-operation with the Ministry of the Environment and Spatial Planning of Slovenia and the Large Carnivore Initiative for Europe (LCIE) in association with the Austrian LIFE project on bears.

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## Editorial



Dear Readers,

Bears make the headline these days in the Alpine area.

In Southern Austria, Carinthia, the first bear crossed a newly built green bridge, proving all skeptics wrong. It seems like a minor detail that the bear was moving from North towards South, thus towards the Slovenian border, whereas the bridge was built to enable bears to move from Slovenia towards Central Austria. But meanwhile the Trentino population seems to expand North. In South Tyrol bears arrived coming from the Trentino area, causing an uproar. Provincial authorities wanted the bear being shot immediately. The Trentino bear seems to be drawn by exploring new areas. Almost exactly 100 years after the last bear was shot in Switzerland, it crossed the Suisse border at the end of July. This bear receives a lot of attention in Switzerland and pictures have been taken of it.

These latest developments show the necessity of strong collaboration and information exchange between the Alpine countries. WWF Switzerland, WWF Austria and the Italian colleagues from Trentino cooperate in order to inform people in the "new bear areas" about adequate behavior towards bears. This development gives us hope, that the bear will become again part of the Alpine fauna. So enjoy reading that newsletter with these new exiting stories about the bears in the Alps.



Beate Striebel

## First bear since 100 years seen in Switzerland.

Probably the same bear, which caused uproar in the Val d'Ultimo in South Tyrol crossed the border to Switzerland.

At the end of April a gamekeeper spotted a bear track in the Val d'Ultimo. Bears are long distant migrants, no wonder that one of them found its way to South Tyrol. Especially adolescent bears often show less fear and are curious about trying out something new. While foraging

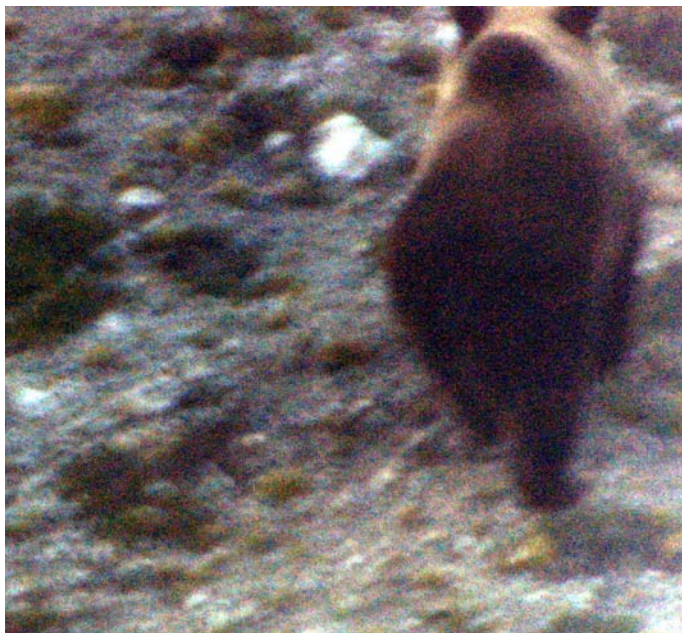


© Photo: Swiss National Park

he came alarmingly close to farmhouses surrounding the villages Völlan and Eppan where it killed some livestock. Shooting rubber bullets to teach the bear respect of humans did not show great results. To prevent further damage, it was even considered to shoot the bear. Fortunately the bear left to the South Tyrol part of Stelvio Park, where signs of bear presence were recorded. On the 25th of July it seemed that the bear reached Switzerland and is the first bear since more than 80 years touching Switzerland's grounds. 3 days later a young forestry student photographed the bear in a valley in the Ofenpass region.



It is believed to be the same bear that caused damages in South Tyrol an which was identified as one of the sons of Jurka. Jurka was released in 2001 in Adamello Brenta Natural Park and had two 2 male cubs in 2004.



© Photo: Swiss National Park

Adamello Brenta Natural Park in Trentino was place for the release of ten Slovenian brown bears. In the framework of two LIFE projects seven females and three males were set free between 1999 and 2002. At present Trentino is home for 18 to 20 brown bears. Because of their long distance migration the possibility of bear appearance in adjacent provinces Bolzano, Brescia and Sondrio occurs. For that reason these provinces as well declared to support the resettlement of brown bears.

For further informationen call Swiss National Park:

Prof. Dr. Heinrich Haller, director;  
Tel.: 0041 (0) 81 856 12 82

Hans Lozza, communication director;  
Tel.: 0041 (0) 81 856 12 82

[www.nationalpark.ch](http://www.nationalpark.ch)

## Brown Bear used new green bridge crossing A2 in Carinthia

Not even a year after finishing the green bridge in the Dobratsch / Schütt region a bear crossed from North to South

In the night between 6 th and 7 th of July 2005, less than one year after completion of the green bridge over the Austrian highway A2 (west of the town Villach in Carinthia,



Bernhard Gutleb with his father Adolf at bear track

Southern Austria) financed within an EU Life project, a brown bear has used this building for the first time. It's of course not the first green bridge in Austria, not even the first designated for bears, but the first one that was constructed on an already existing and heavily used highway. In the years 2003 and 2004 one could have the impression that a bear could not wait for the completion of his bridge, footprints could be found as close as 500 meters to the construction site. While everybody thought the bears would wait for the red deer to pass first and than follow their trail one bear left his footprints in the sand on the bridge while crossing from the north (mountain Dobratsch) to the south (triangle of Austria, Italy and Slovenia) before the red deer did. The picture of the track was taken by the Carinthian bear advocate Mag. Bernhard Gutleb. The bridge was already accepted by

martens, hares, foxes and roe deer in the months before. A small step for this one bear, but a big one for bearkind in Austria and the whole Alps.....  
Find more information about the LIFE project Dobratsch / Schütt under [www.schuett.at](http://www.schuett.at)

During 2004 seven brown bears were genetically detected by the monitoring project. Altogether 129 hair samples and 47 scat samples were analyzed. Hair is most frequently found at feeding places for roe deer and especially installed hair traps. Scat samples were mostly found on forest roads.

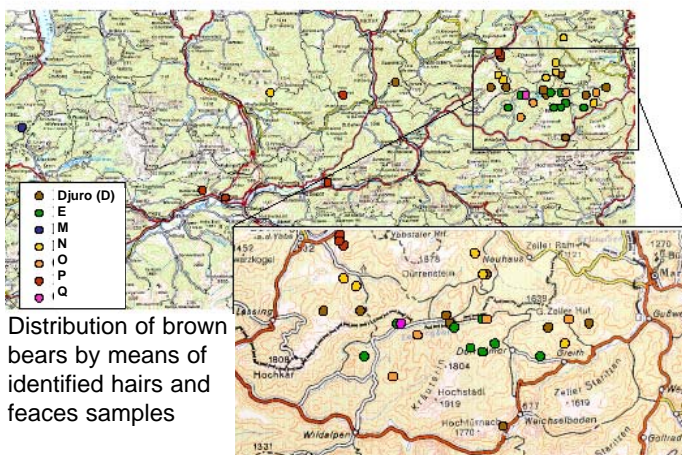
## Genetical News from Austria

Now it is confirmed, that a bear already seen 2003, has been genetically detected and found its place in the Austrian bear pedigree.

### Genetical footprint of famous Ötscher-bear

The analysis of hair samples in March/April this year confirmed the existence of a further brown bear. The male bear, now named Q, is with the utmost probability the cub of the female bear E, daughter of Mona and the 1993 released bear Djuro. Speculations about the existence of Q already occurred 2003, this sample now verified his existence.

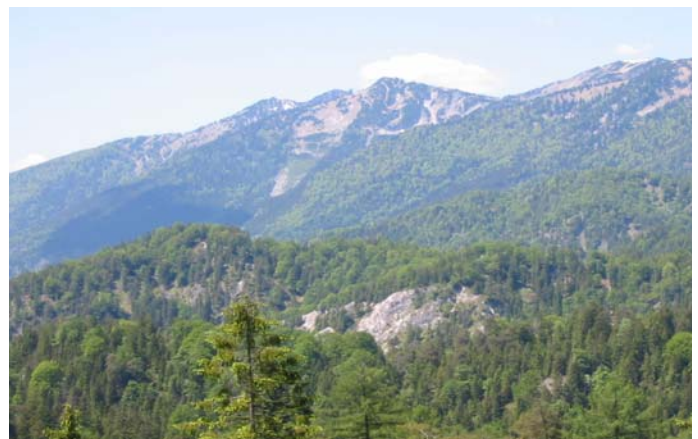
Another sensation was a sample of the legendary Ötscher-Bear, dating 16 years back. It proved possible to get a genetic footprint of the bear, who migrated 1972 into the Ötscher region of Lower Austria and was the reason for the start of the successful reintroduction program.



## Bear observed near Königsberg - Hochkar - Rothwald

### Bear interrupted lunch break of forest workers

In the area near Königsberg - Hochkar - Rothwald a juvenile brown bear is roaming around in high spirits. He was seen several times on roads, walking around the Kassahaus in the Mendling Valley and stole a suspended roe buck from a hunting lodge. He enjoyed climbing on a tractor and a cable crane parked in the forest and disturbed the lunch break of forest workers resting near their tractor. Curiosity is characteristic for young brown bears



Hochkar

© Photo: Jörg Rauer

and nothing particular to worry about. Although he seems a bit too bold at times, he flees immediately when approached by humans. At this stage it is crucial not to provide food to attract the bear in order to getting a closer look or shooting a photo. Has a bear been once conditioned on taking food from human sources, it is difficult to teach him otherwise again.



# Opening of bear exhibition in Wildalpen

The exhibition "Dem Bären auf der Spur" in Styria informs about the still endangered species



© Photo: Manuel Böck

A special brown bear exhibition from MA 49 (forestry office of Vienna) in cooperation with WWF was opened on July, 17th 2005 in Wildalpen in the local museum of Wildalpen. It provides an overview of the bear's ecology, the relationship between bears and men, the current situation of the bear population in the Lower Austrian and Styrian border region and the work done by WWF and MA 49. To further improve the habitat quality in the region the MA 49 also planted fruit trees to provide better food supply for bears and other wild animals.



© Photo: Manuel Böck

In the course of the opening a sculpture of a bear, made by chain saw, was revealed by DI Andreas Januskovecz (forestry office Vienna, MA 49) und Norbert Gerstl (WWF Austria).

Address and opening hours:

Wasserleitungsmuseum Wildalpen

8924 Wildalpen/Steiermark

Säusenbach 14

13.05.2005 - 26.10.2005

Monday to Friday: 10 to 12 am and 1 to 3 pm

Sunday and Holiday: 10 to 12 am

Imprint:

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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.



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## Editorial



Dear Readers,

After a six-month extension of the Austrian brown bear LIFE project, it finally ends at the end of December. The often stressed sentence "Life after LIFE" suddenly becomes reality. A long-time survival of brown bears without bear advocates is unimaginable in Austria, therefore the most important point was to assure their further financial support. The Austrian provinces Carinthia, Styria, Lower Austria and Upper Austria, the Federal ministry of Agriculture, Forestry, Environment and Water management, WWF Austria and the Austrian Federal Forestry Company share the costs of the three Austrian bear advocates. A new management plan, in which the Coordination Board for bear management defined rules for co-existence between brown bears and humans, was issued lately in German and English. In most provinces the compensation of damages is paid by the provincial hunters associations. Thus the Austrian bear management for the moment is well assured.

The current state of the Austrian bear population itself seems less promising, because the genetical monitoring showed, that less bears occur in Central Austria than assumed. Without genetical reinforcement it would be impossible to secure the population in the long-term.

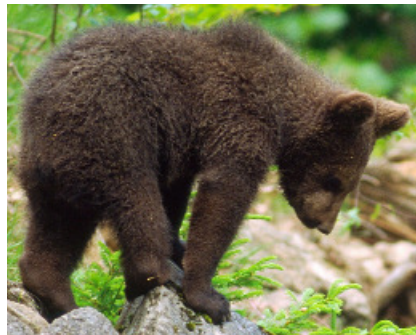
Although the LIFE project has come to an end the newsletter will continue twice a year.

Wishing you a merry christmas and a Happy new year in the name of the whole bear team,

Beate Striebel

## Final report of genetic monitoring 2005

2005 only 5 bears appeared in the genetic samples taken in the Lower Austrian and Styrian Limestone Alps, but again a new genotype was found



© J.Stefan/4nature

In total 139 samples of hair and 27 samples of faeces were analysed during the project year 2005. DNA was extracted from 134 hair samples, the rest had no root, in which the genetic material is found.

In the last newsletter we reported about the existence of a new bear Q, which was detected in 2004 for the first time. Unfortunately its presence could not be proven again in the samples taken in summer 2005. But also this year a new genotype was found within analysed samples of hair. The new bear called "R" is a male. Its mother could possibly be Mona, as well as E or N. According to the genetic profile the father could well be the bear P, but this bear is seen to be too young.

During the year 2005 only 5 bears were detected in the Northern Limestone Alps. D, E, N and R in the Styrian- Lower Austrian border region and M in Upper Austria in the region between Gröden and Bad Ischl. Furthermore a sample of hair was taken from the bear roaming around the Radurscheltal in Tyrol in summer. The analysis clearly showed the derivation from the Trentino population.



Location of brown bear genotypes in investigation area in 2005 (Jörg Rauer)





© J.Stefan/4nature

## The bear in Switzerland part 2

The Swiss bear caused an uproar in Tyrol as well

In the last Newsletter we reported about a bear, which was the first ever since 100 years in Switzerland. The bear, apparently descendant from the Italian Trentino-population, caused high interest of media and press. But not only media, private people as well wanted to catch sight of the bear, which led to intensive bear tourism in the Ofenpass region. The bear let people come close few meters. Some people took opportunity for a snapshot. The bear itself learned more and more that humans mean no particular danger and remained near them.



Pictures could be taken easily of JJ2 (the Italian name of the brown bear) from a short distance (Photo: Hettfleisch)

After several days the bear then appeared in Tyrol. Habituated to the close distance of humans in Switzerland, it showed no fear in Austria as well. Thus it followed the dog of a walker along a certain distance, a behaviour, which is seen critically by bear experts.

After conferring with the local Tyrolean government, the team tried to catch the bear with a box trap. The bear should have been caught for the purpose of radio-marking and following aversive conditioning. Unfortunately the bear was tricky enough to avoid being caught in the box trap. Even transferring the trap to different places wasn't successful.

Perhaps the bear got fed up with the chase by the bear emergency team, because after a while it reappeared in Samnaun and returned to Switzerland again. There the trace was lost.

The migration of this bear again is showing clearly the importance of securing the alpine migration corridors. Bears can cover distances of several hundred kilometres during one year. The possibility to cross barriers, like motorways and highways, therefore has high importance.

## Bears do not know borders

As bears do not know about border controls or different countries bear management has to go international as well!

In order to meet this need Slovenian and Austrian authorities met for the first time to exchange officially information about their respective bear management. The situation of the two countries couldn't be more different. Slovenian (twice the size of Carinthia) hosts 450- 550 bears and has to deal with a rising amount of damage respectively.

In Austria the number of bears is low and the biggest problem for the future is that the small population in Central Austria may not survive if no new bears will arrive. Austria's hopes have already been focusing on migrating females from the expanding bear population in Southern Slovenia.

But according to Slovenian officials this may still be a long way. It lies in the nature of brown bears that only young males migrate further away, females tend to settle close to their mother's habitat. The core area of bears in Slovenia is in the South of the country. Until female bears would eventually reach the Austrian border, Slovenia would have to support such an immense bear population that damages and conflicts with people could not be bearable any more. Translocation of female bears could possibly solve this matter.



# Connecting habitats for brown bears in Austria

Green bridges along motorways should not only save brown bears

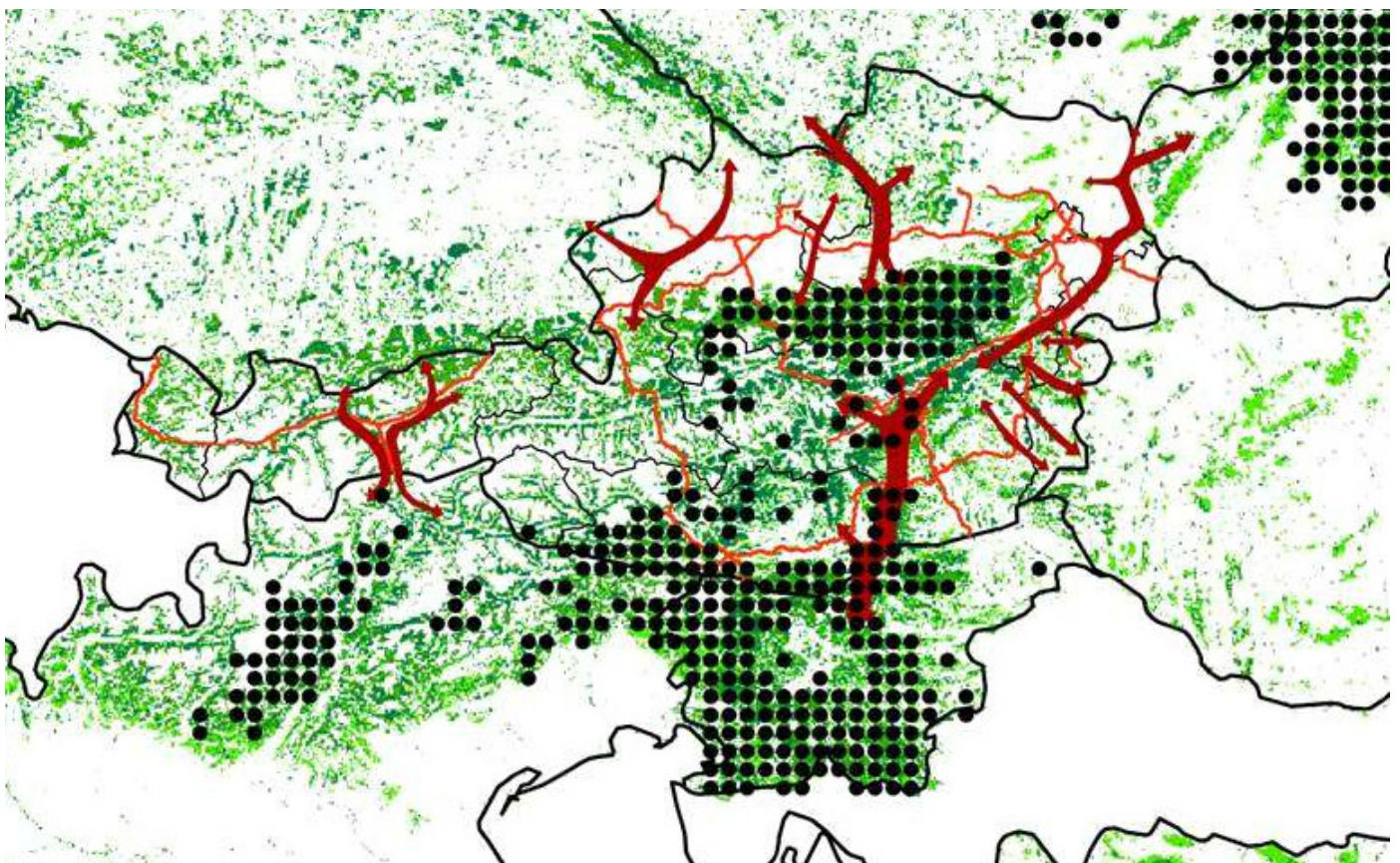
Supra-regional wildlife corridors in Austria, which are highly relevant for brown bears, are running from South to North. Austria's hopes for further bear colonisation still lie on Slovenia and the Dinaric Alps. Migration from the Italian Trentino will play a more important role in the future; this fact was demonstrated clearly by two bears, which crossed the Austrian border, one visiting the Tyrolean Radurscheltal in summer 2005.

The major corridors for brown bears in Austria are the Koralm corridor, ranging from Slovenia directly into the core habitats for brown bears in the border region of Styria and Lower Austria, as well as the Carnic Alp corridor between the Dinaric Alps and the Gailtaler Alps. This corridor is of major importance for the Carinthian part of the brown

bear population. In Western Austria three corridors are of high importance. The two Brenner- corridors, which are connecting Bavaria and Southern Tyrol, and the Arlberg corridor, will provide a connection to Switzerland.

Migrating mammals are confronted with both, natural barriers, like high mountain ranges, which are hardly ever crossed and man-made barriers, inner alpine valleys with extreme pressure on free areas for infrastructure and settlement. Crossing these dense settlements, industrial and traffic areas is today only possible at very few places. By constructing of green bridges crossing motorways and railway tracks the effect of these barriers can be mitigated.

But as long as the adjacent areas of the green bridges are not well protected, such bridges could possibly turn out to be a financial and ecological misdirected investment. On this account it is of particular importance to secure these wildlife corridors also in the land use regulation. Styria already set a good example. Due to the favourable conservation status of the habitat directive the Austrian provinces should take action, because brown bears in Austria will only have the chance to survive without secured wildlife corridors.



Evidence and main corridors for brown bears in Austria, more than two records within 15 years

Austria: WWF Austria - Rauer, Gutleb, Wagner; coll. data 1989-2004;  
Croatia: Dedjak, Frkovic, Grubisic et. al (2005): Brownbear Management Plan for the Republic of Croatia;  
Czech Republic: Cerveny, et al. (2003): Myslivosti, Encyklopedie;  
Zedrosser, Dahle, Swenson et. al. (2001): Status and Management of the Brown Bear in Europe. Ursus 12, p9-20;  
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# Brown bears: Reproduction with trick and perfidy

A FWF (Austrian Science Fund) study gives information about brown bears sexual behaviour



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During 20 years research in the context of an Austrian Science Fund project new data about the sexual behaviour of brown bears in Scandinavia was collected. When female bears mate with several partners it doesn't happen because of sheer lust but part of an ingenious strategy to assure their one offspring.

The aim of any individual is to transfer their own genetic material to the next generation. For this reason male brown bears often kill the other male's offspring to make females ready for conception again. A research team from the Department of Integrative Biology of the University of Natural Resources and Applied Life Sciences, Vienna now discovered an effective strategy against these killings. Females mate with several males, so that every sin-

gle one believes to be the father of the cubs. Project Leader Mag. Andreas Zedrosser: "54 percent of the observed mother bears used this strategy".

But that doesn't mean that the first mating partner has to be the offspring's father. Females are able to control their ovulation and are able to decide after fertilisation which sperm they take. There is still knowledge lacking about how the process is working, but the collected data shows clearly how females chose the potential father. Size and genetic variability are main criteria to be chosen. High genetic variability provides a higher chance of survival under variable conditions.

The original publication from November, 02.2005: The dilemma of female mate selection in the brown bear, a species with sexually selected infanticide. Proceedings of the Royal Society, - Biological Sciences. doi:10.1098/rspb.2005.3331

Contact:

Mag. Andreas Zedrosser, andreas.zedrosser@umb.no

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WWF Austria, Ottakringer Straße 114-116, A-1160 Wien

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