

Editorial

Why must pastoralism also choose cohabitation?

The pastoral world is on a slippery slope and the government is adding new restrictions by adding to the population of bears in the Pyrenees.

This story could stop right here, there could be a fight against the bears which would possibly disappear as a result. But what would really have changed? The market economy would continue to exhaust the last farms, villages would continue to be transformed into dormitory towns, nature would reassert its rights, making the mountain dangerous here or there, society would continue to move forwards...

However, by accepting and not opposing the development of society, the pastoral world would move outside the town-country split which some people claim to justify their intolerance and failure to act. Sheep farmers and others could finally improve their production and take into account consumers' new requirements. By adapting to the demands for conservation of the biodiversity, the entire pastoral world could find what it needs. With more shepherds, flocks would be better tended and monitored, helping to look after the mountain better at the same time. By rehabilitating the "Pyrenean Mountain dog" as a livestock guarding dog, part of the Pyrenean identity would be saved. From this series of consequences, an entire section of mountain socioeconomy could be maintained or even developed.

So taking up a stance on the side of cohabitation does not consist of favouring the bear, but of having a global vision of mountain life which, to move forward, must retain all its constituent parts.

■ The board of the "Association pour la Cohabitation Pastorale"
(Pyrénées - France).

Table of contents

- Estimation of population of large carnivores p.2
- Survey into the damage caused by large carnivores p.2
- Brief news on actions taken in 2005 p.2
- Ecovolunteers, report 2005 p.3
- Emergency intervention for bears in Croatia p.3
- Some future actions ... p.3
- Symposium in Portugal p.4
- Precious support for bears in the Pyrenees p.4
- File: livestock guarding dogs p.5 to 7
- To read / To see p.8



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Estimation of population of large carnivores

In 2005, we evaluated the presence and distribution of wolves and bears in the project countries. The methodology was standardized so that data collected would be homogeneous between countries. It included different types of actions: "snow tracking" (observing animal footprints in the snow), collecting other evidence and signs of presence, campaigns for listening to howling (wolves), bear scats analyses for DNA in Croatia and inventories in cases of mortality.

With its exceptional snowfall, the winter of 2004/2005 made "snow tracking" impossible. However, the other actions were successfully completed.

During the summer, howling sessions established a minimum number of wolf packs in the study areas of countries concerned by this action: this number is estimated at 25 in Italy

(1 pack in Umbria and 24 in the sector of the 3 national parks at Abruzzes – Gran Sasso-Laga, Majella and Abruzzo-Lazio-Molise), 20 in Portugal and 3 in Spain (in the regions of Avila and Soria).

As for the bears, their populations were evaluated in Croatia and Italy. 600 to 800 individuals were counted in Croatia where DNA analyses are currently in progress. 56 were identified in the region of Gorski Kotar and Lika, based on a sample of 73 excrement samples. In Italy, samples of bear hair were found only in the Abruzzo-Lazio-Molise national park, although hair traps had also been set in the two other national parks. A total of 503 samples were collected and 441 were analysed.

Survey into the damage caused by large carnivores



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In 2005, a survey was carried out about the distribution of farming zones and damage caused on livestock and other agricultural products by bears and wolves. This survey was based on questionnaires produced jointly by all the project partners. It did not concern France where this work is performed by the Government. For Croatia, the survey only concerned damage by bears – damage by wolves was studied within the context of another Life programme.

Although it was difficult to gather homogeneous data, because the available information depends closely on socio-economic conditions and regulations in each country, it was still possible to obtain an overview of the general situation from the results of the survey.

In all the Life COEX project zones, sheep rearing is the most widespread type of livestock farming. It is combined with goat rearing in Portugal and cattle rearing in other countries. In the study areas, predators (wolves, bears and dogs) caused the loss of 1.1% of livestock in Portugal, 1.47% in Italy and 0.08% in Spain. In Italy and Spain, sheep are most affected (92% and 77% of animals attacked respectively). In Portugal, goats are the main losses (52% of animals attacked, against 38% of

sheep). In Croatia, bears cause very little damage on livestock; their damage essentially concerns beehives. Generally speaking, most of the animals attacked are killed, very few are injured or disappear after the attack.



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Other actions taken in 2005

■ **Portugal...** A survey of 400 people showed that public opinion concerning wolves is either neutral or slightly negative. Interviews with 30 farmers revealed that most of them consider predation to be a nuisance and a source of financial loss, which requires compensation.

■ **Spain...** The report on damage caused by wolves and stray dogs, the methods of prevention used and the causes of flock vulnerability, has been finalised. The first preventive measures have been implemented. Dialogue and discussion with everyone involved in the project, particularly concerning the system of compensation instigated, is continuing.

■ **France...** A great deal of work has been done in informing and advising farmers about cohabitation and livestock protection. The promotion of farm products that enhance the image of the bear has been established. Also, a study has been undertaken about how to improve the systems of producing and marketing these products and on ways to extend the procedure.

■ **Italy...** A document about Life Coex is available to the public in all geographic areas concerned by the programme. In the Majella National Park, training session was organized for veterinary surgeons to help them evaluate the damage caused to flocks by carnivores. Furthermore, more than 100 electric fences have been installed to protect the flocks.

■ **Croatia...** Actions to inform the public have been undertaken in the form of 8 "Open Days" during which the Croatian plan for managing large carnivores, the Life Coex and Life Wolf programmes were presented.



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. Present actualities

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Ecovolunteers, report for 2005: "Unforgettable moments, but definitely not a holiday!" said the registration file...

The association Ferus works for the rehabilitation and conservation of large predators in France. It organises and supervises teams of ecovolunteers to assist farmers and shepherds in protecting their livestock in wolf areas.

The main job of ecovolunteers is to watch the flocks at night, with all the associated daily jobs involved: grouping the animals at the end of the day, moving the flocks, providing supplies etc. Protective operations range from passive dissuasion to loud scaring tactics. At day, ecovolunteers also reinforce the human presence around the flocks, monitor the livestock guarding dogs, and inform hiking tourists.

In 2005, the volunteers were mainly recruited via the Ferus website and WWF France. From May through October almost 60 ecovolunteers fulfilled 2-3 week missions with nearly 16 farmers, after completing a one-week training course, for a total of more than 900 days of presence (against 300 in 2003)! There were very few encounters with wolves. Only 5 flocks registered losses: 10 ewes in all out of a total of 15000 sheep and goats!

The ecovolunteers judged their action to be useful, particularly since they learned about all the difficulties of "living and working with wolves" during their mission! Human presence seemed to be a good way of dealing with the risk of predation and the encounters initiated by ecovolunteers important "to understand the situation and understand each other". As for the farmers, they said they were satisfied and even relieved to have the assistance of ecovolunteers.

Emergency intervention team for bears in Croatia: to prevent damage and protect the bears!

In Croatia, the occasional proximity of individuals, coming from numerous brown bear population (more than 600), to humans has made it necessary to set up an emergency intervention team. Indeed, some bears attracted by garbage get used to human presence. They are also victims of road accidents and sometimes poaching.

However, in spite of the high abundance of bears, humans are not threatened and nobody has been killed or injured.

The team, set up in the frame of the Life COEX programme, consists of 9 people representing the Ministry of Agriculture, Forestry and Water Management, the Zagreb Veterinary Faculty, Croatian forestry departments and Velebit Nature park.

It has two objectives: to go as fast as possible to anywhere a bear is in danger and provide emergency intervention when a bear poses a problem to human activities; it is important to show residents that they are not alone! Methods involve scaring the bear away from the site; if this doesn't work, the bears are marked and moved, if necessary, into captivity. The members of the team are also equipped and trained in using bear traps, tranquilizer guns, blowpipes and rubber bullets.

The bear emergency intervention team meets twice a year or more if necessary. It works in a similar fashion to the teams in Austria, Italy, Slovenia and France. Of the 18 interventions between March 2005 and January 2006, most cases concerned inspection at damage sites and traffic accidents. One of the interesting cases was when solutions had to be developed to prevent the bears from damaging trees in a certain area in spring. It has been decided to provide them with extra food, in the form of a special concentrate; finally, it is also envisaged to move some individuals from regions where they are too numerous.

Some future actions ...

■ **Portugal...** The emphasis will be on promoting the use of prevention measures and evaluating their performance. "Wolf" ecotourism actions are being prepared, as well as an action plan for managing stray dogs. Training sessions are planned for park wardens responsible for evaluating wolf damage.

■ **Spain...** By the autumn the size and distribution of wolf and stray dog populations will be studied again. The most farms most vulnerable to depredation will be identified and preventive tools (electric fencing and guard dogs) will be provided to the farmers as well as information documents for their use.

■ **France...** Campaigns to inform the public about large carnivores and cohabitation will be reinforced (brochures, information panels...). The "Pastoraleup" programme to help farmers and shepherds in the Alps will be restarted, with the assistance of volunteers.

■ **Italy...** Two further sessions are planned for training veterinary surgeons. More livestock guarding dogs and extra electric fencing material will be supplied to farmers. Educational material about bears, wolves and about coexistence with these carnivores is being produced.

■ **Croatia...** The implementation of the brown bear management plan will continue, including actions to prevent the animals from accessing to garbage and to promote local products favourable to bears. Ten beekeepers will be supplied with electric fences.



Electric fencing: another effective prevention tool.

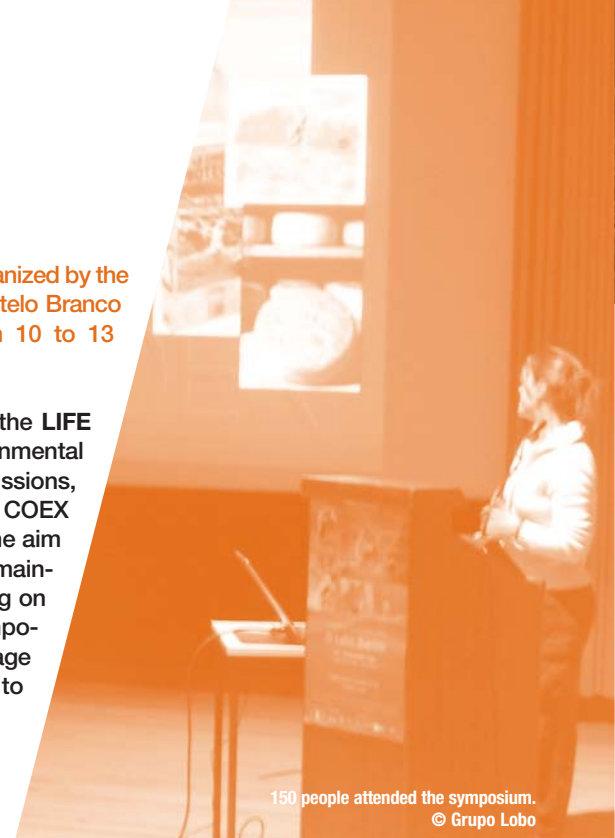
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Symposium in Portugal: discussions constructives sur la coexistence entre les loups et les troupeaux.

This symposium was held as part of the second conference on the Iberian wolf, organized by the "Grupo Lobo" (Wolf Group) that took place at the Escola Superior Agraria de Castelo Branco (Higher School of Agronomy), in association with Spanish organizations, from 10 to 13 November 2005 at Castelo Branco.

It brought together representatives of the entities taking part in and linked to the **LIFE COEX** project, farming associations, Environmental N.G.Os, government environmental and agricultural authorities and students. 150 participants took part in the discussions, mostly Portuguese and Spanish. Italian and Croatian representatives of the LIFE COEX project partners were also present and brought their views to the discussion. The aim of the conference was to tackle different aspects concerning wolf conservation, mainly sources and causes of conflict and the best way to solve them, concentrating on methods of prevention, particularly the use of livestock guarding dogs. The symposium included a presentation of the **LIFE COEX** project and of appropriate damage prevention methods, as profitable solutions to reduce damage on livestock and to reach a compromise between human activity and wolf conservation efforts.

The discussed themes led the Grupo Lobo and Spanish NGOs for wolf protection to instigate or reinforce their dialogue with governmental bodies responsible for wolf management in Spain and Portugal and with farming associations.



150 people attended the symposium.
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"Hors LIFE"

Precious support for bears in the Pyrenees.

In the Pyrenees, the population of brown bears had fallen to only 5 in 1995 compared with 150 to 200 one hundred years ago.

An initial reintroduction of 3 bears took place in 1996-97, as a result of which there are about fifteen bears today. This population is still highly inadequate to ensure the conservation of the population of bears in the Pyrenees. The French Government is therefore reinforcing the numbers again with the release of 5 bears (from Slovenia), to compensate for the 3 females shot over the past 10 years.

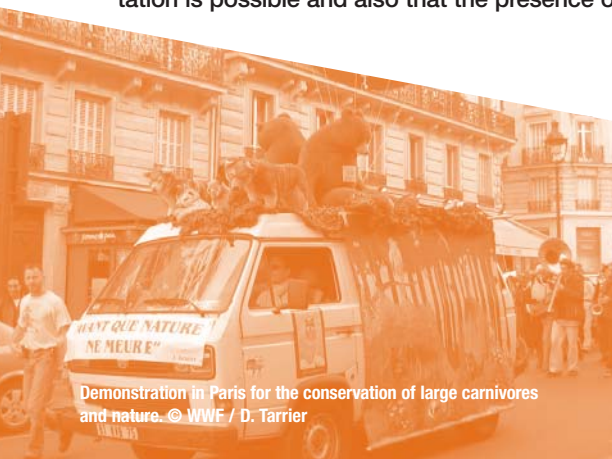
As the surveys show, most Pyreneans and French people in general are in favour of this reintroduction and of conservation of the bear population. Nearly 127000 signatures in favour of the bears were also collected in a petition.

Some people, opposed to the presence of bears in the Pyrenees, are employing all kinds of methods, including violence. The bears are presented as being dangerous to humans, incompatible with livestock etc. In short, the bear is a "scapegoat", unreasonably accused of everything that is wrong.

This context makes the actions of the **Life Coex** programme all the more precious. All the actors involved as well as other structures, local authorities, mountain professionals, tourist professionals and farmers, associations for the protection of nature etc. are working together in favour of the cohabitation of humans and bears. We know, and some people demonstrate this, that cohabitation is possible and also that the presence of the bears is an asset to the regions!



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Demonstration in Paris for the conservation of large carnivores and nature. © WWF / D. Tarrier



© Artus



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File Livestock guarding dogs

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For better coexistence between livestock and large carnivores

Cohabitation between farms and large carnivores implies the use of prevention techniques, including livestock guarding dogs, whose efficiency is reinforced by human presence and nocturnal grouping of the animals.

As part of the **Life COEX Project**, many actions concerning these dogs, valuable auxiliaries to human presence, are being implemented in four of the five countries concerned.

→ Socialization and training of livestock guarding dogs: instructions for use

The puppy is placed with the flock from the age of 7 to 8 weeks: this is the start of socialization which leads to the development of social relationships, impregnation and attachment to the flock. The ideal method is to put the pup into the middle of about fifteen half-grown lambs and avoid ewes with young.

From about 4 months old training can begin. For this stage to be a success, the dog must have a name and the farmer must be very motivated. The dog must respect his master's authority and recognise a few simple orders. It is important for the pen fold to be a place which is not stressful or boring. For this purpose, a small installation with many hiding places seems ideal. It is essential for the dog to stay with the flock at all times and the flock to constitute its social group and its main relationship: indeed, relations with the farmer must be limited to the daily provision of food, occasional petting (to ensure the dog will not be afraid of the farmer and any correction needed).

The dog is trained gently and must never show aggression towards the farmer. Undesirable behaviour towards other animals, such as playing or hunting wild species must be corrected. Other dogs are considered to be intruders and chased away; relations with sheepdogs must be handled with particular care.

→ Behaviour of livestock guarding dogs with respect to intruders

The livestock guarding dog is autonomous and capable of protecting the flock alone. He must show himself to be dissuasive, above all, so that its presence and interposition are enough to send any potential attacker running. If it is well trained and socialized, it will not be aggressive. He will only confront intruders if they attack the flock in spite of the signals and warnings it will have given them.

Its presence alone dissuades small wild animals and, with respect to other canines (wolves, stray dogs) he will demonstrate his hierarchical dominance through its behaviour. With respect to bears, it is preferable to envisage using two dogs so that they can annoy the bear in turn. In most cases, the bear will not insist because it can't take the risk of being injured.

Confronting an unknown man, some dogs will be inhibited and back off, others will consider him to be an intruder like any other and will demonstrate appropriate behaviour. It is therefore important to warn hikers by placing information panels at various points: villages, carparks, summer pasture entrances.

Some advice for hikers

meet a livestock guarding dog [source: WWF Switzerland]

- > keep calm when the dogs bark;
- > move around the flock, disturbing it as little as possible;
- > do not provoke the dogs with sticks or by making sudden movements;
- > keep your own dog on a leash;
- > do not stroke the dogs;
- > do not feed the dogs or play with them;
- > ignore the dogs if they follow you.

A well-balanced livestock guarding dog is dissuasive without being aggressive towards people. © Grupo Lobo

→ Measuring the efficiency of livestock guarding dogs: a challenge for the future

This efficiency is recognised by everyone, even if it is not 100% effective. Since there is no joint study protocol, it is not yet possible to summarize all the data available in the various countries. The implementation of an identical methodology is an important factor for the future: it will provide global data for improving the dogs' efficacy and to provide arguments to put forward to decision makers.

> A survey performed in the Pyrenees by the Association pour la Cohabitation Pastorale (Association for Pastoral Cohabitation) with 37 farmers using livestock guarding dogs, revealed a decrease in the number of "lost" ewes of more than 90%, in farms and on summer pastures. For an average farm with 320 ewes, the saving represented by the reduced predation is assessed at € 1 221 per year.

> A survey was also performed in Portugal, with the owners of 40 livestock guarding dogs. A reduction in damage was noted in more than 75% of cases, varying between 13 and 100% according to the situation. More than 90% of the dogs were also considered to be good or excellent guardians.

→ In the event of predation in spite of the presence of dogs, this is most often due to:

- > either dogs which are unsuitable, too young, inadequately socialized or poorly trained;
- > or a flock which is split or too widely spread;
- > or insufficient dogs;
- > or particular weather conditions.

→ The dogs' efficiency can therefore be optimized by:

- > improving the selection of dogs by establishing a file of dogs already placed and determining a reference (the "ideal dog");
- > expanding the presence of specialist technicians with the farmers;
- > increasing the number of dogs on certain summer pastures;
- > improving flock behaviour and nocturnal grouping.

Diversity of situations and actions in different countries



The relationship between dog and shepherd is an essential part of the animal's education.
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Portugal

Main breeds: "Cão de Castro Laboreiro" (Portuguese Cattle dog) and "Cão da Serra da Estrela" (Serra da Estrela Mountain Dog) Between 1996 and 2004, more than 80 livestock guarding dogs were placed and monitored in the North and Centre of the country by Grupo Lobo.

Recent actions:

- A symposium was organized at Vila Real in January 2005 on wolves and livestock guarding dogs. About 70 participants discussed the use and efficiency of dogs with respect to wolves. This subject was also discussed in Castelo Branco in November 2005 at a national symposium on improving cohabitation with wolves.
- On the fringes of the Life programme, a brochure was produced on the "Cão de Gado" (livestock guarding dog), discussing maintenance and health monitoring for livestock guarding dogs.
- Since October 2004, within the context of the programme, 30 dogs of different breeds have been placed with farmers. Pure breed dogs were vaccinated, identified and registered in a database. A leaflet on the use of dogs was distributed to farmers.



In the future:

20 to 30 extra dogs will be supplied to farmers.

The campaign for registering and vaccinating pure breed dogs will be continued.

An evaluation of the efficacy of the means of protection (dogs, electric fencing), will also be made.

Public distribution of leaflets particularly on means of protection will be increased.

Spain

Main breed: "Spanish mastiff"

Recent actions:

- 17 dogs were given to farmers in 2005.
- Verbal advice was given to farmers.

In the future:

Other dogs will be placed and documents presenting the idea of livestock guarding dogs will be distributed.

France

Main breed: the "Pyrenean Mountain dog" or "Patou"

Acquisition of dogs is subsidized by the Government. Between 1996 and 2005, 174 dogs have been placed in the Pyrenees. Farmers are supported by the Association pour la Cohabitation Pastorale (Association for Pastoral Cohabitation) (ACP), partly within the context of the Life programme.

Recent actions:

- National meetings at Herran-Labaderque on 12 and 13 May 2005 were organized by Pays de l'Ours-ADET and the ACP. Thirty people participated in the meetings and workshops devoted to livestock guarding dogs.
- A brochure on "La protection des troupeaux" (protection of flocks) was produced and distributed by the ACP and Pays de l'Ours-ADET.
- Dogs (21 in 2005) were placed with farmers and shepherds in the Pyrenees by ACP technicians.

This structure also provided many training courses (groups and individuals), information days, demonstrations and conferences.



In the future

Continuation and development of the actions undertaken: dog placement, training, information

Italy

Main breed: "Maremme Abruzzes" Maremmano-Abruzzese shepherd dog

Recent actions:

- 19 dogs have been donated to farmers since 2005.
- Information brochures about large predators have been distributed, explaining, among other things, the use of livestock guarding dogs.
- Dogs already present in Abruzzo, independently from the COEX Project, are being vaccinated and registered in a database.

In the future:

Two students will monitor the donated dogs, within the context of their diploma thesis.

30 extra dogs will be supplied to farmers.

Public distribution of brochures particularly on means of protection will be increased.



Some breeds of dogs are very efficient for the protection of goat flocks.
© Grupo Lobo / S. Ribeiro



Selection and education are important factors to have a good dog.
© FERUS / J-L. Borelli

To read / To see



■ Vivre avec l'Ours (Living with Bears)

WWF-France, Ferus and Editions Hesse have published this lovely book. The text by F. Benhammou with pictures by L. Nédélec and L.M. Préau will help you understand the history of bears in the Pyrenees and the local factors involved.



■ DVD Le Patou (Pyrenean mountain dog)

The Association for Pastoral Cohabitation has produced a DVD on the "Patou" (Pyrenean mountain dog), symbolic livestock guarding dog of the Pyrenees. Through a series of experiments, it shows the dog's effectiveness and the procedure required to implement this kind of protection.

For information: bergers.cep@infonie.fr

■ www.life-vuk.hr

Life VUK, a major programme for wolf conservation in Croatia, has just ended. One of Life COEX's Croatian partners, the Zagreb veterinary faculty, took part in it. You can find detailed information on the programme's website.

Practical informations:

→ A complete description of the LIFE COEX programme is available online in english under the address www.life-coex.net where all the progress of the activities will be reported.

Please don't hesitate to ask for a free email subscription to this newsletter.

→ Programme beneficiary:

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Put your adresse -

LIFE COEX: to improve coexistence between large carnivores and agriculture in Southern Europe

■ The damage caused to livestock is one of the reasons why large carnivores have been persecuted for centuries, leading to their disappearance from their area of distribution or, in best situations, reducing their numbers to small residual populations. In many places, traditional methods of preventing attacks – surveillance by shepherds accompanied by livestock guarding dogs, for instance – have disappeared. But today, bears and wolves are returning to certain regions of Europe, either naturally or through reintroduction campaigns (bears). Unprotected livestock is now vulnerable to attack from these predators. The result is the increase of damage to flocks and herds and a fall in acceptance of these species by rural populations, with an emotional aspect adding to the economic problems.

■ In this context, the European Life COEX project aims to introduce the legal and socioeconomic conditions needed to ensure the conservation of large carnivores through a participative procedure intended to reduce situations of conflict.

■ The programme was launched in october 2004 and will run until september 2008. It concerns 5 South European countries: Portugal, Spain, France, Italy and Croatia, and combines 17 operators

The LIFE COEX project

is implemented by:

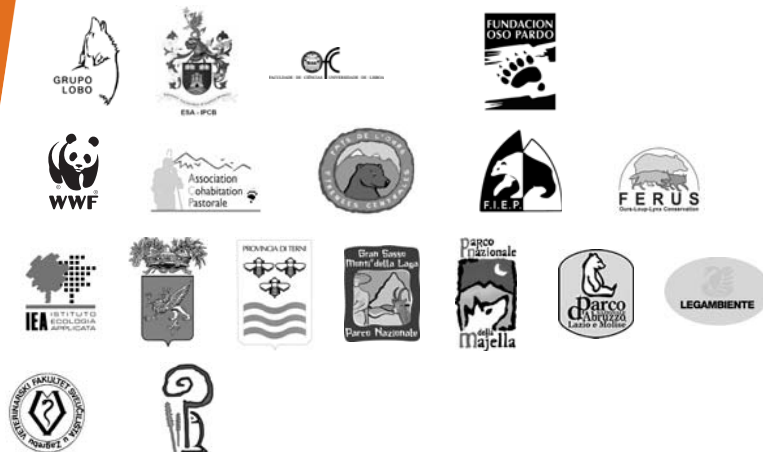
→ **In Portugal:** Grupo Lobo, Escola Superior Agraria de Castelo Branco et la Faculté des Sciences de l'Université de Lisbonne.

→ **In Spain:** Fundación Oso Pardo.

→ **In France:** WWF - France, ACP, Pays de l'ours-ADET, FIEP, FERUS,

→ **In Italy:** IEA, Les Administrations Provinciales de Perugia et Terni, Les Parcs Nationaux du Gran Sasso, de la Majella et des Abruzzes, Legambiente.

→ **In Croatia :** La Faculté Vétérinaire de Zagreb, Le Ministère de l'Agriculture et de la Forêt.



The LIFE COEX project

is cofinanced by:

- La Commission Européenne,
- Le Gouvernement de Castille et León,
- Le Ministère de l'Ecologie et du Développement Durable (France),
- et le WWF - France.



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