



Return to the Alps

Past, present and future
of alpine carnivores



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*Since we humans have the better brain,
isn't it our responsibility to protect our fellow creatures
from, oddly enough, ourselves?*

Joy Adamson

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The plight of Europe's large carnivores has become an issue of growing conservation concern. Wolves, bears and lynx continue to be persecuted by humans and in many cases their habitats are under considerable threat. While the precarious status of Asia's tigers is widely known, some of Europe's own top predators are in danger of quietly disappearing. Others face an upsurge in conflict with people as they try to reclaim parts of their former ranges.

Coming home...



WWF / KLEIN & HUBERT

The ongoing process of European integration is bringing about a partial disintegration of Europe's internal borders and a more unified legal framework. This entails new opportunities for managing large carnivore populations and makes it easier to find common and consistent solutions for the entire Alpine arc. This report highlights the status, threats and perspectives facing the large carnivores as they slowly return to claim their territory in the Alps and to share land with humans.

Reasons for the fall

What caused the demise of large alpine predators?

The decline of the “big three” is basically proportional to the expanding human population. Humans persecuted the large predators wherever they settled, because of the carnivores’ threat to livestock and their role as competitors for game species.

Every means was justified: mass hunts, traps or poison. Authorities paid good bounties for every predator killed. Human attitude was not equally negative towards the three predators: the **wolf** was the most hated and feared, deserving nothing more than complete annihilation. The **bear** was sometimes seen as heroic, if somewhat awkward. It was considered a relic of the past, whose inevitable extinction was a sad corollary of modernity. The **lynx** was the least known and least feared. It was not considered dangerous to humans, but was described as ferocious, cunning and daring. This image of the three predators varied locally, but was generally very much alike across all the Alps.



Persecution was not the only reason for the fall of the predators. Alteration of the ecosystem as a result of forest destruction played a major role in the disappearance of the large carnivores, as did the expansion of cultivated land. That is to say that it was a combination of factors, including reduction of natural prey, habitat transformation and persecution which led to the demise of large carnivores.

The clearing of forests in the Alps started very early. For example, by the beginning of the 13th century almost 40% of Swiss forests had been cut down. That spelled doom for the large carnivores, heavily dependent on the forest ecosystem for their survival. Fewer forests meant less game, forcing predators to prey on livestock, which was ever more abundant. This in turn started the cycle of persecution, which led to the final extermination of the carnivores. The big game species were almost completely obliterated in the course of the 19th century, when hunters equipped with firearms completed the job started by deforestation.

“All animals are equal but some animals are more equal than others.”

George Orwell,
British novelist
(1903-1950)

The brown bear, the Eurasian lynx and the grey wolf were widespread throughout Europe historically. Wolves roamed the whole continent, Sardinia and the British Isles included. The brown bear inhabited the whole temperate zones of the continent even pushing north of the Arctic Circle. The Eurasian lynx was restricted to continental Europe, with the exception of the Iberian Peninsula where the smaller Iberian lynx occurred.

By 1800 the wolf had been eradicated from the British Isles and the coastal lowlands of France, the Netherlands, Germany and Poland. Although a continuous wolf population never ceased to exist in the rest of the continent, it became more and more fragmented over the following 150 years, with the smaller, more vulnerable populations, dying out one by one.

By 1850 the wolf had disappeared completely from the Northern Alps and some fifty years later it had also disappeared from the Southern Alps. But thanks to the species' ability to migrate over long distances, a number of wolves have been spotted (and killed) since 1950 even in areas where they were thought to have completely died out, such as France, Switzerland and Austria. Small and isolated wolf populations continued to survive in Italy, former Yugoslavia, Greece and the Iberian peninsula. Larger populations only remained in the Carpathians and Eastern Europe. The wolf, however, never entirely vanished from either Spain or Italy. In the early 70's there were but a hundred wolves left in Italy but in the last twenty years, the wolf population has entered an expansion phase and now the population is some 500 strong and is slowly repopulating the Apennines and the Alps.

the vanishing
wolf

the missing
lynx

The most densely settled regions of Europe were the first to witness the disappearance of the lynx (Western and Central Europe, Italy, the plains of Hungary).



In some parts of Europe the bear's decline started very early. In Britain the species disappeared in the Middle Ages; in the lowlands of Germany it was extinct by 1600.

the brown
bear's
slow
decline

By the beginning of the 19th century only the major mountain ranges still sustained lynx populations in Europe (outside the vast boreal forests of Scandinavia and Russia). By the mid-20th century the lynx had been all but eradicated from Central, Western and Southern Europe. The species was able to survive only in the Carpathian mountains and on the Western Balkan. Scandinavian populations were also heavily reduced and in some cases came close to outright extinction, before enjoying some sort of recovery. In Western Europe the Alps constituted the lynx's last refuge. In the first half of the 19th century, however, the lynx disappeared from the Eastern Alps, surviving only in the westernmost areas of the Alps (Italian and French Alps), where it

The remaining populations were significantly reduced in the 19th and 20th centuries (Scandinavia, Poland, the Alps).

With the exception of the larger bear populations of Russia, the Carpathians, and Scandinavia, bears survived in a dozen small and isolated populations in Spain and France, in the Abruzzo mountains of Italy and in the Balkans. The bear continued to exist in the eastern Italian Alps but by 1999 the population was reduced to 3-4 individuals.



Name _____

Brown bear (*Ursus arctos*)

Family _____

Rather large, and scattered across the globe.

Weight _____

Depends on the time of year.
A bear can weigh twice as much in autumn as he does in spring, and during this season he will be putting on half a kilo a day!
Weight also depends on geographical location.
Alaskan Kodiak bears can weigh up to 390 kg whilst in the Alps on average the males weigh 180 kg and the females no more than 150 kg.
At birth a bear cub weighs just 400grams!

Height _____

Approximately two metres, when majestically standing on its hind legs.

Colour _____

Different hues of brown.

Age _____

Lives to be 20-25 years of age.

Distribution _____

In Europe they are found in Scandinavia, the Carpathian mountains, the Balkans, the Italian Apennines, the eastern Alps and the Pyrenees.



Habitat

In Europe, the brown bear is mostly found in mountain woodlands. The species' main requirements are areas with dense cover in which they can shelter by day.

Diet

Mostly vegetation such as grasses, bulbs, roots and berries, but also insects, fish, small mammals and the occasional hooved mammals such as deer, chamois or sheep, goats and pigs. Honeycombs are a welcome treat!

Behaviour

Bears are mostly solitary, except during the breeding season, when males and females will spend a couple of weeks together. Their home ranges may however overlap and communication occurs through territorial marking such as deep scratch marks visible on tree barks, this allows them to avoid direct confrontation. Occasionally, when resources are plenty (for example during salmon migration, or at open air rubbish dumps!) bears will congregate in groups. In these cases the dominance hierarchy is quickly established.

Hibernation

Although referred to as 'hibernation' this is not altogether correct since bears can and do occasionally forage and move outside their den during this period. Hibernation lasts from around October-December to March/May and bears choose a location such as a burrow on a sheltered slope under a large stone or among the roots of a tree.

Reproduction

Brown bears mate from May to July, and a gestation period of 180 to 266 days follows, with births occurring from January to March, usually while the female is still in hibernation. Litter size varies, two to three cubs is normally the average. They will spend the following 2 and half years with their mother, so she will normally breed only every 3 to 4 years.



Name _____

Eurasian lynx (*Lynx lynx*)

Family _____

Quite a small family, there are four species of lynx, but one, the iberian lynx, is close to extinction.

Weight _____

Adults weigh between 15-28 kg, and the body length ranges from 90 to 110 cm.

Height _____

Shoulder height is 60 cm.
Males are larger than females, and individuals from the species' northern and eastern geographical range are larger than those from southern and western areas.

Colours _____

The colour of the pelt varies according to the location of the species, but usually it is grey to reddish, and more or less spotted. It has a short body, long legs and large feet. The ears have a characteristic black tuft at the tip while the paws have sharp retractile claws.

Age _____

Lives to be approximately 17 years of age.

Distribution _____

Across Europe, central Asia, Siberia and East Asia. Most populations in Europe are relatively small, located in the few remaining areas of wilderness available. The remaining large populations are found in northern Europe, the Baltic, and notably along a broad strip of forest stretching through Russia from the Ural mountains to the Pacific (southern Siberia).



Habitat

Woods ('taiga') is the typical lynx habitat, but the species also occurs in semi-deserts, and in northern latitudes they can even survive in the tundra. A male needs up to 300 sq km of land, whilst a female is content with 'just' 200 sq km.

Diet

Feeds on small ungulates (hoofed mammals) such as roe deer, and smaller prey like hares. They adopt a 'surprise and attack' hunting strategy, quietly stalking their prey before springing a quick and lethal attack at the animal's throat. They are active both by day and night but their preferred hunting time is dusk.

Behaviour

Lynx are solitary animals. A male's territory will overlap with that of several females. Females tend to stay well within their home territory, whilst males patrol the borders much more frequently.

Reproduction

The mating period lasts from February to mid-April, and females give birth to 2-3 kittens some 67 to 74 days after mating, usually in late May. Kittens are weaned at the age of 4 months, and leave their mother at the age of 10 months. Whereas females reach sexual maturity one year after, males only begin mating at three years of age. In the wild, females may reproduce at least until 14 years of age and males until 16-17 years of age.

AHEAD OF THE PACK

Name _____

Grey wolf (*Canis lupus*)

Family _____

The grey wolf's closest cousins are the red wolf present in Mexico and the Ethiopian wolf. The latter is the most endangered member of the family.

Weight _____

An adult male wolf weighs between 20 and 80 kg; females are smaller, weighing between 15-55 kg. Larger animals are found at more northern latitudes; the average weight of Mediterranean wolves is 25-35 kg, rarely as much as 45 kg.

Height _____

Height at shoulder averages 50-70 cm. Total head and body length of an adult wolf is 110-148 cm.

Colours _____

Coat colour is extremely variable, from pure white in the arctic areas to brown, reddish, grey, pale grey and silver. Wolves walk on their toes and their tracks are similar to those of a large dog, showing four toes and their nails. The fifth toe is found only on the front legs and does not touch the ground.

Age _____

Lives to be approximately 10 years of age.

Distribution _____

The wolf had the largest distribution area of any terrestrial mammal in recent historical times. It occupied the whole Northern Hemisphere north of 20°N, including the entire North American continent, Eurasia and Japan. Today in Europe there are remnant populations in Portugal, Spain, Italy, Greece, and Finland, and more numerous populations in the east. In the last twenty years, the species has been recovering naturally in several parts of Europe: a positive, though uncertain trend of re-colonisation of France, Germany, Switzerland, Sweden and Norway.

Habitat

Wolves live in very diverse habitat types. In fact the wolf's habitat has been described as everywhere where humans do not kill it and where there is something to eat. So where wolves depend on wild ungulate prey, their habitat is that of their prey. In Europe this means that the most suitable habitat are large forest areas.

Diet

The wolf has a very diversified diet and is a true generalist that feeds opportunistically on what is most available in its habitat. The wolf diet may include large prey, such as moose, deer and wild boar, or small vertebrates, invertebrates, vegetables and carcasses. A wolf typically requires 3-5 kg of meat per day, although it can fast for several days when food is not readily available.

Behaviour

The Italian Wolf lives in packs that co-operate in hunting, reproducing and defending their territories. A pack is fundamentally a family unit that originates when a pair establishes a territory and reproduces. Strong social bonds between the pack members regulate internal stability and the dynamics of the pack.

A hierarchy among pack members is built and maintained through ritualised aggressive behaviour. Individuals at a higher dominance level take most of the initiative and have most of the privileges in feeding and reproducing.

Young animals stay in the pack up to the age of two years, when they face the alternative of dispersing in search of a new partner and new territory, or staying in the pack and attempting to reach higher dominance levels.

Prey densities, wolf density and availability of free territory play a role in determining their course of action.

Territory

The pack size for the Italian Wolf ranges from 2 to 8 wolves, the number depending on its productivity, the dispersion rate and prey density.

In Europe, pack size is mostly a function of human control, and large packs are extremely rare. Wolves are territorial and each pack actively defends its own territory from wolves of neighbouring packs.

Territory size varies greatly, depending on wolf and prey densities, geographical features, human disturbance, and human infrastructure. Whereas territory size in North America ranges from 80 to 2,500 sq km, in Europe it generally ranges from 100 to 500 sq km. Territories are actively advertised by wolves, through markings with urine and feces left in strategic sites within the territory and along the boundaries.

Reproduction

A wolf becomes sexually active when it is two years old. Oestrus lasts 5-7 days once a year, generally in January-March. Parturition occurs after 60-62 days and litter size varies from 1 to 11 pups. Generally only one litter is produced in each pack, generated by the dominant pair.



Why are they coming back?

Rise

Reasons for the



In recent years the large alpine predators have made somewhat of a comeback. There are a number of reasons behind this trend. The strong industrialization movement in the 20th century caused a decrease in livestock production in the Alps and a consequent recovery of the natural woodland and an increase of the ungulate population. Thus the ecological scenario for the return of the predators was ready.

However, it was not just habitat destruction that caused the early demise of the predators, direct persecution was also a major contributor. An important question hence remains: have attitudes towards the large predators changed? A number of international treaties, such as the Bern Convention, have encouraged single countries to promote laws for the protection of bears, lynx and wolves. Thus all countries across the Alpine range show some form of protection towards these species, although the level may vary considerably from one country to another. Wolves crossing the border from Italy to Switzerland, for example, may not be aware that whereas they enjoy complete protection in the former, there is a limit to the number of livestock killings they may carry out before meeting a sticky end in the latter.

However a country's laws do not necessarily reflect the general attitudes of the population and although some studies have been carried out to try to understand people's opinions, the answer to what people really think about bears wolves and lynx, remains elusive (The Usual Suspects).

With the ecological preconditions restored and at least some legal protection across the Alpine range, the return of the large predators soon followed, each species showing its peculiar pattern of return determined both by biological needs and the different human-led projects. So, for example, whereas the wolves needed little assistance to recolonize the Alps (The Natural Way), bears both in Italy and Austria (Bringing Back the Bears) were reintroduced from Slovenia, whilst lynx in Switzerland and France (Linking the Lynx) were reintroduced from different areas.

"It is a sobering thought that animals could do without man, yet man would find it almost impossible to do without animals."

Ruth Harrison

The wolf so far is the only one of the large carnivores who has been able to make a completely natural comeback to the Alps.

It is thought that the current population living in the Alps derives from a residual population of wolves living in the Italian Apennines. The wolf was never completely exterminated in Italy

Not far from Rome, in the Abruzzi mountains, a small but tenacious population was able to survive from the days of the founders of Rome (the twins Romulus and Remus were famously raised by a she-wolf) until the time was ripe to start re-colonizing old ground. From the Abruzzi mountains, the wolves slowly made their way north, following the so called 'spine of Italy' (the Apennines), until the first pioneers crossed into France in 1994.

Rumours that the wolf had been artificially reintroduced accompanied their first appearances wherever they went, first in the north of Italy, then in France and most recently in Switzerland. In Italy it was not unlikely to catch conversations in the local bar where someone knew someone else whose brother had seen wolves being dropped off into the middle of the woods by helicopter... obviously by conservation organizations!

Why is it so difficult for most people to accept the wolves' natural comeback?

The reasons may be many - starting from the fact that of the three large predators the wolf is the most disliked and feared and moving on to the often limited understanding of their biology and behaviour.

One of the wolves strongest characteristics is their so called 'dispersal urge'. Because in a wolf pack only the alpha couple can reproduce, to obtain reproductive success a wolf must start its own new pack. Thus most wolves will leave the pack they are born into and migrate in search of new territory and a mate. This urge, coupled with their opportunistic nature and high flexibility means they are capable of overcoming many obstacles, insurmountable to other species.

The wolves recolonization of France seems to have been so far successful, with between 40 and 50 wolves permanently present in 16 different areas across the Alpes Maritimes, Hautes-Alps and the Savoie, 5 of the packs being transboundary with Italy.

The recolonization of Switzerland occurred with wolves moving north from the historical stronghold in the Italian Apennines into the Italian and French Alps and finally crossing into Switzerland. Currently in the Ticino area there is confirmation of a single male wolf. However living in the Val d'Ossola region, just across the border from the Swiss Canton of Valais, there is a single female wolf. The day they meet could be the start of the first Swiss wolf pack!

the
natural
way
back



WWF / KLEIN & HUBERT



Between 1971 and 1980 14 lynx were introduced to the Swiss Alps, making Switzerland the first European country to endorse the reintroduction of this species. The very first introductions were kept rather quiet and an uncertain number of releases were carried out unofficially.

linking
the
lynx

It was only 10 years after the first reintroductions that the *Swiss Lynx Project* was officially born. The Project developed an important scientific monitoring program and started to tackle conflict resolution issues arising from the increasing livestock damage caused by the lynx. A compensation scheme, initially paid by the *Swiss League for the Protection of Nature* and later by local governments, was set up to reduce the animosity of local farmers towards the return of the lynx.

Yet despite this scheme and the legal protection afforded to the lynx by the Swiss government, illegal killings remain the predominant cause of lynx mortality.

Besides being illegally shot the other major problem faced by the lynx in the Alps is isolation. In normal circumstances when a population reaches maximum capacity for a given territory, certain individuals will migrate to new areas. But this is a costly task when, to find new, adequate habitat, a lynx has to cross highways and towns. Most lynx die in the process.



Accordingly a project was established in Switzerland, by the government and WWF to “link the lynx”. Since 2001, 9 lynx have been translocated from their original territories in the north-western Swiss Alps to new suitable areas in the eastern Swiss Alps where most of the individuals have established their new home. The ultimate goal of the Swiss project coordinated by KORA is to restore the lynx across the whole Alpine region. Similarly in France, there was a successful re-introduction program in the North-east of the country in the 80’s with a great involvement of WWF France.

bringing back the bears

The first 'natural immigrant' bear, most probably from Slovenia, was spotted in the Ötscher region of Austria in 1973. However it was only in 1990 that, with a certain amount of controversy, talks of reintroduction turned to facts. WWF took the initiative and released the first female bear named 'Mira', that was soon followed by Cilka and, in 1993, by the male Djuro. All the released bears were radiocollared and studied closely, and in 1991 Mira was seen wandering the Austrian Alps with three cubs trotting along beside her. The project came to a standstill a couple of years later when an overconfident bear caused more damage than the local people were prepared to take.



The result was that two bears were shot dead. Although the reintroductions stopped, conservationists and researchers realized that to guarantee a future for bears in Austria, the most important action was communication with all the interest groups, conflict resolution and attitude change in the local communities. Hence a new professional figure was born: "the bear attorney". The typical bear attorney is a researcher, usually a biologist, but also a communicator and a mediator. He or she acts as a link between bears and humans. When there is a problematic bear or even just a question about bears... the bear attorney must come up with answers and solutions which can help bears and humans live side by side.



The lynx has disappeared from much of its historical range, despite recent efforts made for reintroducing it to the Alps. The Trentino (Italy) bear population was restocked, but it is still fragile and isolated from the Austrian bear population.

Europe once provided a wide range of natural habitats for its large carnivore species. Today suitable habitat is greatly reduced. Large carnivores have been driven away completely from many areas by human encroachment and persecution. Where they survive, they occupy highly fragmented and human-dominated landscapes. The Alps, unfortunately, share the same plight as the rest of the continent.

Whilst the wolf is facing intense human pressure throughout most of its range and its return to the Alps is viewed with favour by some but with intense hostility by others.

Carnivores in the Alps face a catalogue of threats, particularly the larger species regarded as direct competitors with humans. These threats include habitat loss, reduction of natural prey species, unsustainable and illegal hunting, road traffic and, in some cases, pollution and dwindling genetic variation; and, last but not least, the stereotyped and often distorted cultural image which led to their disappearance in the first place.

It is not altogether simple to get an exact estimate of the number of large carnivores present across the Alpine region. Research and monitoring of these species is costly, both in terms of the equipment needed and the manpower necessary to obtain accurate estimates. Monitoring is mostly left to each country's initiative, and is thus wholly dependent on the interest demonstrated by governmental bodies, local organizations and academic institutions.

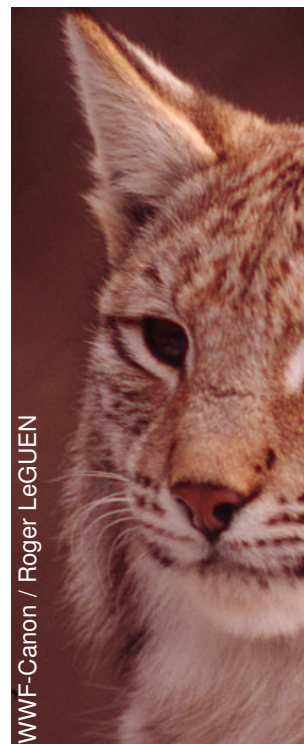
“The greatness of a nation and its moral progress can be judged by the way its animals are treated.”

Mahatma Gandhi
(1869-1948)

WWF Austria recognizing the importance of cross-border collaboration, is one of the partners in an important Life Coop Project, involving Austria, Slovenia and Italy, which sets out not only to monitor the movement and numerical flux of the brown bear population in the Alps, but also create the conditions to allow the bears' expansion across all the Alpine region.

A similar initiative which outlines a common Pan-Alpine Conservation Strategy for the Lynx (PACS) is specified in a Council of Europe publication (Nature and environment No.130).

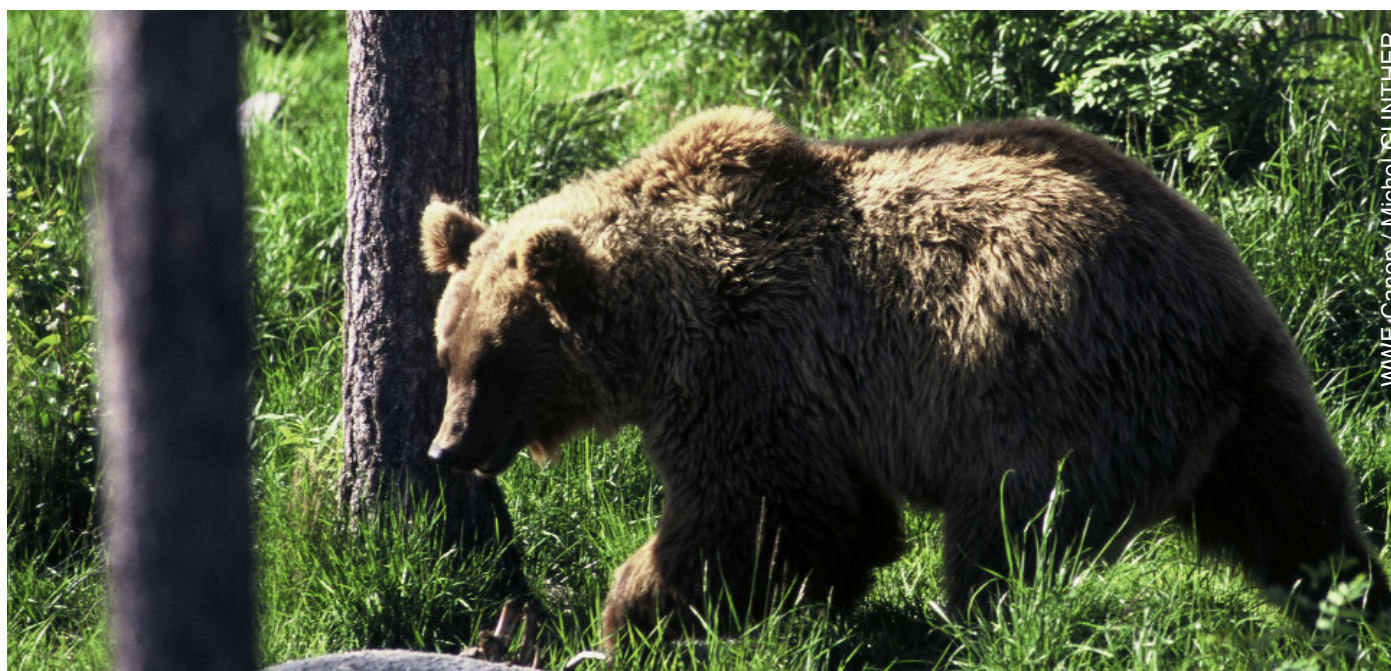
The table shows estimates of the large carnivore populations in the Alpine region, by country. Estimates should however be considered with caution since obtaining exact figures for the presence of large carnivores is heavily dependent on local interest and research capabilities.



WWF-Canon / Roger LeGUEN

	Italy	France	Switzerland	Austria	Slovenia	Alps
Wolves	30-40	40-50	2-3	-	40	110-130
Bears	18-20	-	-	25-30	400-500	440-550
Lynx	3-4	20-40	70	5-20	10	100-140

**data for this table were provided by the National WWF offices, and Kora for Slovenia and Switzerland.*



WWF-Canon / Michel GUNTHER



The usual suspects

Unfortunately only very few studies with true statistical validity have been carried out to investigate what people think and feel about large predators, and the results seem to be strongly linked to the local context, making it difficult to generalize across different countries and cultures. However a number of studies within an area of research developed specifically to explore the attitudes of people towards conservation issues (the so called “Human Dimensions of Conservation”) has shown that there are a number of very general points which seem to reappear time and again when exploring people’s attitudes towards large carnivores.



WWF - Canon/Bruno Pambour

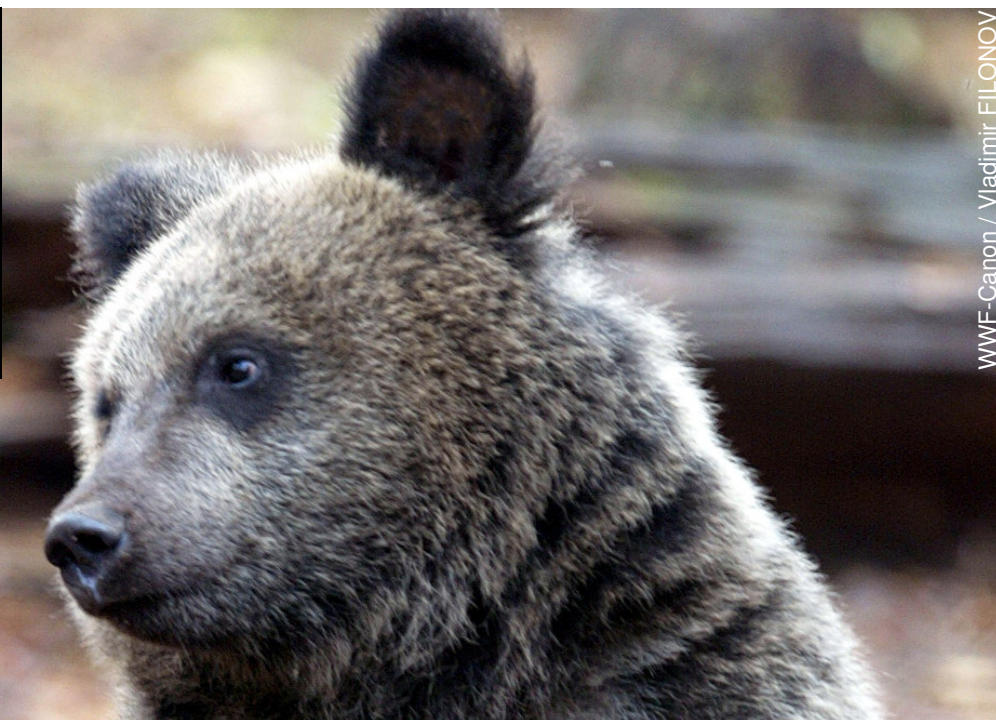
What do people think about the return of carnivores in the Alps? Not an easy question. Often the people who speak out at local community meetings, or write letters in newspapers are those who feel strongest both for and against the presence of these species. But they usually do not represent the opinions of the majority.

Of the three large predators, the wolf engenders the strongest feelings. The wolf is considered the most damaging of the three species, and in many cases the most dangerous to humans. The opinion on bears is somewhat more ambiguous, polarized in one of two extremes, either as a fierce, problematic species or as a noble symbol of wilderness. This polarization is common also to the wolf, although the bear appears to have benefited from its ‘cuddly-toy’ closeness to humans giving it, overall, a slightly softer, more positive image.

The lynx is the least considered of the three species. Although it is also viewed as capable of inflicting substantial damage to human property, it is not generally considered dangerous to humans, and, compared to the other two species, its presence is generally tolerated the most.

There are many variables which influence people’s attitudes towards the large predators. Generally speaking older people, women, people living in the countryside and from a lower socio-economic background tend to have more negative attitudes. Furthermore often attitudes appear positive towards the large carnivores if they are ‘Not in my backyard’... so that although ‘in theory’ a person may well express support for the return of the large carnivores, when confronted with the reality of their presence, their attitude may shift quite significantly.

Baby bear boom



WWF-Canon / Vladimir FILONOV

The Trentino region of Italy was the last natural stronghold of bears in the Alps. By 1997 the bear population had dwindled to 3-4 individuals, one of whom was almost blind.

The idea of reintroducing bears to the region was not new. A few attempts had been made in the 1970's but most were unsuccessful because the bears had been overly habituated to humans and dependent on them for food.

In 1999 the Project Life-Ursus, having obtained funding from the European Union and the go ahead and collaboration of the national institutions (INFS Istituto Nazionale per la Fauna Selvatica), started a re-stocking program which over the following 3 years released in the Adamello Brenta Natural Park a total of 10 bears captured in Slovenia.

The first very concrete evidence of the project's success, stumbled out of a den in 2002. Kirka had given birth to 3 cubs. The local press took the story to heart. A local name contest was launched and speculation on the cubs' paternity became the hottest topic in gossip columns. Most of the Trentino-people rooted for one of the 4 original local bears, but genetic analysis on the cubs' fur revealed that the father was in fact Joze, one of the Slovenian bears.

Since then, researchers know of at least eleven cubs born from the released females. The name craze has subsided although the local papers still enthusiastically report on the births and paternity matters, as well as reporting on the more problematic issues such as sheep killings and damage to beehives.

The reintroduced bears in Trentino are thought to be an extremely important population because of their geographical dispersal potential. From this area it is in fact quite possible for them to naturally recolonize suitable areas across the Alps. This was clearly demonstrated by 'Vida', a young female bear who became an international star when she moved to Austria, an more recently (in the summer of 2005) by 'Lumpz', a young male who crossed the border into Switzerland accompanied by the usual media attention!

Although, as always with large predators, news of their return is greeted with mixed feelings, the bear reintroduction project in Trentino seems to enjoy a good level of support from the local people, reflected in newspaper articles covering both the difficulties and the excitement of living with this species close by.

The many ways back



WWF / KLEIN & HUBERT

Bears were *restocked* in the Italian Alps but *reintroduced* to the Austrian Alps. Lynx however were ever only reintroduced. Members of both these species were *translocated* to the Alps, but the wolf *migrated spontaneous-ly*. None, however, were *introduced* to the area... Although it may seem like a lot of confusing jargon, the different concepts that lie at the heart of these distinctions are, in fact, very important for conservation. So here is a brief glossary.

Translocation

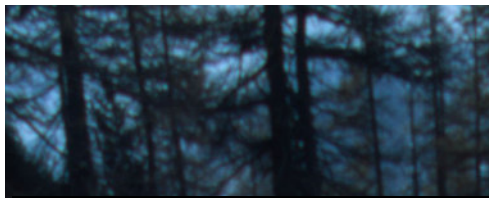
This is the general term which indicates that a number of members of a certain species are artificially moved from one area to another. Accordingly we can say that the bears were translocated from Slovenia to both Austria and Italy and the lynx from Slovakia to Switzerland.

Introduction

refers to an intentional or accidental release of members of a species in an area which was **not** historically its native range. Accordingly these are referred to as “alien species” and often cause substantial damage to the local ecosystem. An example is the grey squirrel introduced to Europe from America which is slowly supplanting the local red squirrel.

Reintroduction

This term refers to the intentional movement of an organism into a part of its native range from which it had disappeared in historic times as a result of human activities or natural catastrophe. The Lynx project in Switzerland falls under this category. The Lynx was historically present in the Swiss Alps and was exterminated in the 18th and 19th centuries, thus the release of a number of animals from Slovakia reintroduced the species to an area where it had been historically present.



Restocking



Migration



Wolves are particularly successful colonizers however different species have a higher or lower tendency to migrate depending on their behavioural patterns.



Re-stocking is the movement of a number of members of a species with the intention of building up the number of individuals of that species in their original habitat. So for example in Trentino (Italy) the number of bears was down to 3-4 individuals. The population was thus considered to be genetically doomed. The release of 10 bears from Slovenia was effectively a restocking project.

Migration: is the spontaneous return of a species to a geographical area. The return of the wolf to France is a spontaneous migration to an area where they were historically present but had been extirpated due to human intervention. For a spontaneous migration to occur a number of prerequisites have to be met. There has to be adequate habitat for that species to move into, and at least some continuity between the old and new habitat to allow a few individuals to cross into the new territory (areas linking suitable habitats are known as 'corridors'). Furthermore the number of members of that species has to have been sufficiently large in the 'old' territory to urge some pioneer individuals to search for new ground. Last but not least there has to be acceptance from the local population to coexist with the species.

Bears, although not as migratory as wolves, are also successfully crossing highways and returning to their old haunts. The "Ötscherbear" migrating from Slovenia to Austria in the 1970's and more recently the young female Vida, spontaneously crossing into Austria from Italy, are good examples of this trend. A study looking at the bear's habitat distribution in the Alpine region concluded that there are at least three 'corridors' between the Trentino area in Italy and Switzerland, fulfilling one of the prerequisites for the bears' spontaneous return to this country. The study seemed to be confirmed when, only a few months after its publication, a young male bear from the Trentino area crossed into Switzerland following one of the identified corridors.

However, the news is not so positive for the lynx. Recent research suggests that this species' solitary nature and low dispersal rate results in a rather conservative territorial strategy (homebound), making it much harder for it to re-colonize the Alpine range, despite the availability of suitable territory.

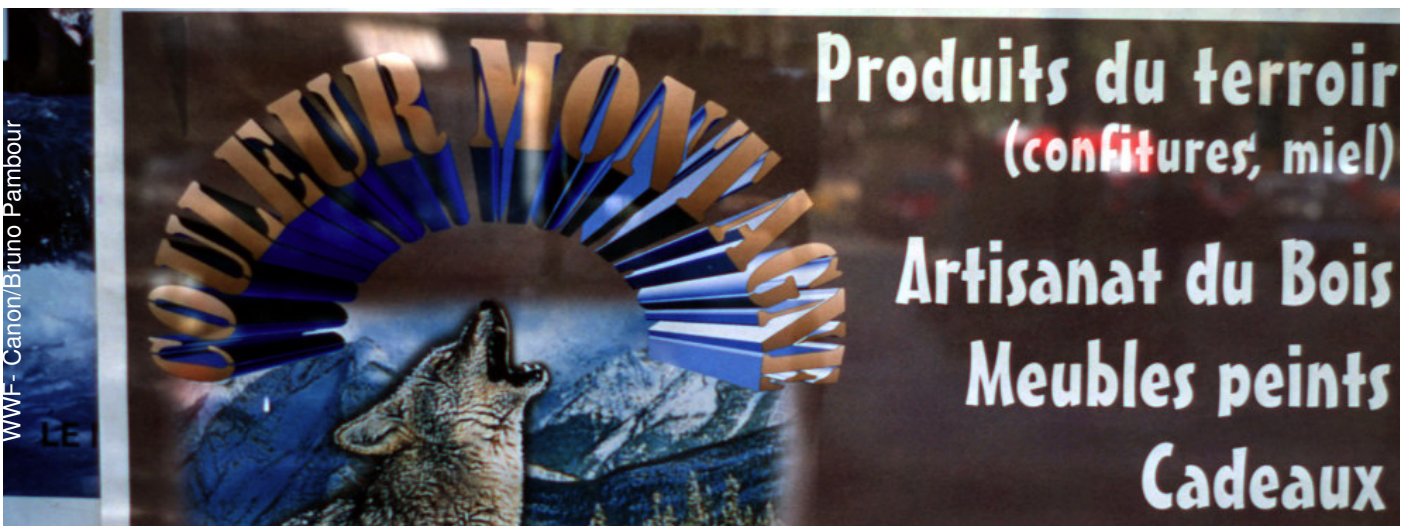
Predator spotting

WWF-Canon / Hartmut Jungius

Europe's carnivores are an important part of our culture. From Little Red Riding Hood to the mysterious tales of werewolves, they are present in our folklore and legends. They were celebrated in the past as prized hunting trophies, symbols of power and creatures of myth. Unfortunately, in some instances this fascination led to their downfall because they were demonized to death. Through responsible tourism we can harness this fascination and use it to further our conservation goals.

Large carnivores offer business opportunities to the tourism industry. In turn these opportunities could help ensure the

carnivores' survival in Europe. Images of carnivores can be used to communicate a real sense of remote wilderness: A single picture of a wolf, lynx or brown bear can speak louder than a thousand words. Though WWF recognizes the potential role that tourism can play in carnivore conservation, it must not go unsaid that mismanaged tourism can also damage the natural environment upon which the carnivores ultimately depend. **Sustainable tourism should be based on appreciation of nature and culture, and it should be informative and cause minimal damage, disturbance and pollution.**

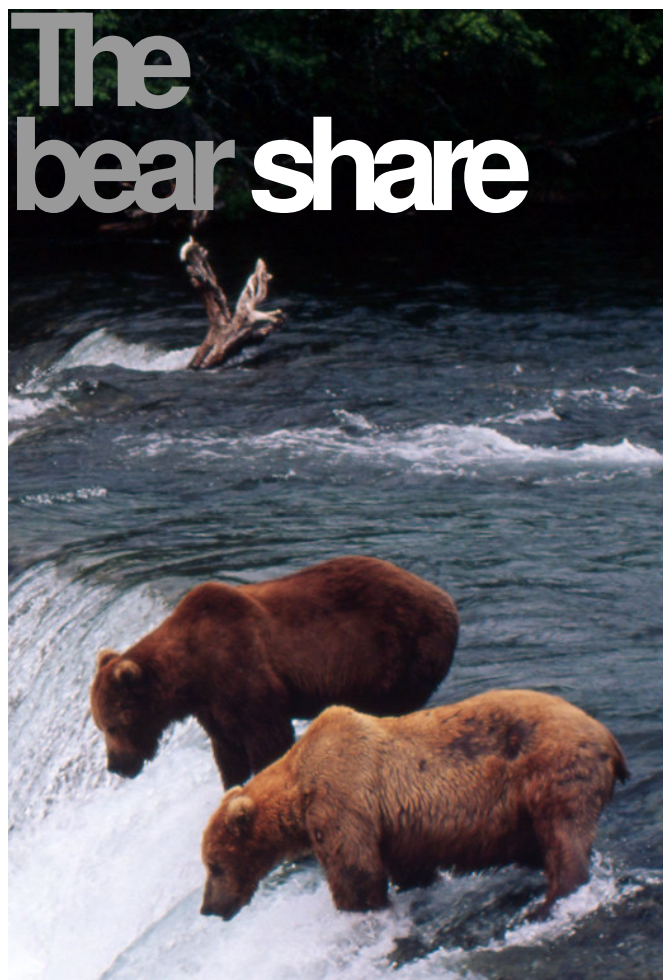


The release of bears from Slovenia into the Adamello Brenta Natural Park, was seen by the local community as a potentially risky business: “The bears will scare away the tourists... then what will we do?”.

The Project Life-Ursus took the question seriously being well aware of how much the small mountain communities around the park depend on tourism.

A national phone survey of just over a 1000 potential tourists was carried out in 2002, whilst at the same time, local park staff gave out 996 questionnaires to tourists on site. The results from the national survey showed that an overwhelming majority of potential tourists (78%) believed that the presence of bears in the Alps would increase their value as a tourist attraction, maintaining that they were themselves far more interested in this area now that they knew the bear was present.

The results from the survey of tourists on site were also positive. Although only 14% of tourists had been influenced by in their choice of holiday location by the knowledge of the presence of bears in the park, 93% of tourists was in favour of their return to the Alps and 74% hoped for a ‘close’ encounter with a bear during a walk in the park!



Cry wolf

In places like the Mercantour National Park (France, Alpes Maritimes) carnivore tourism is still embryonic. Most of the tourist industry in the area revolves around trekking, cultural attractions, skiing and other outdoor activities.

However, a number of people involved in tourism value the wolf as an important economic asset and local guides are offering conducted tours “on the tracks of the wolf”. These products have great economic potential, but so far have been limited to individual initiatives.

A wolf centre recently opened in the district of St Martin-Vésubie is already meeting with considerable success and is expected to attract as many as 100'000 visitors a year.

Unfortunately the capacity to develop large carnivore tourism is severely hampered by conflicts between local farmers and large carnivores. Without the support of local farming communities, large carnivore tourism will be difficult to sustain.



Do not mess with the shepherd

Over the centuries the wolf has been the main livestock predator in Europe. That's why long ago shepherds developed a special breed of dog to protect their sheep and goat herds. Teams of shepherds and guarding dogs accompanied their herds into the mountains until this tradition was disrupted by the very disappearance of the wolves. Now that wolves are back, the scene is set for the return of guarding dogs as well.

Guarding dogs should not be mistaken for herding dogs. Whereas the latter hold the animals together and guide their movements following instructions from the shepherd, livestock guarding dogs live in the midst of the herd and their presence does not disturb the sheep or goats. They slowly form social bonds and become a member of the herd.



WWF-Canon / Mark SCHULMAN



Guarding dogs need to be 'trained' between the ages of 8 and 14 weeks by being raised together with their livestock. Well-bred dogs are selected following strict criteria: they must be trusted by the livestock, attentive to their surroundings, and protect their charges whenever a predator shows up.

Livestock guarding dogs can be an important part of a livestock protection strategy and WWF has sustained and encouraged a number of initiatives at this level. WWF Switzerland in collaboration with local farmeres compiled a handbook on the different livestock guarding methods, amongst which dogs, and recently delivered pamphlets aimed at informing hikers on how best to behave in the presence of dogs. WWF France also recently included a project on guarding dogs within the framework of a European Union funded project coordinated by the Italian Institute of Ecology. WWF aims to support and encourage the revival of the use of livestock guarding dogs at a pan-Alpine level.

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P. Stazione 35,
CH-6501, Bellinzona
Switzerland

Scientific supervision
Doris Calegari WWF Switzerland
doris.calegari@wwf.ch

Content
and lay-out
Sarah Marshall, Sergio Savoia

Graphic design
Sergio Savoia
sergio.savoia@wwf.ch