

## Brown Bear (*Ursus arctos*) – Italy (ALP)



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Conservation status	IUCN EU25: Near Threatened IT (ALP): U1 (+)
Protection status	HD: Annex II (priority species) and Annex IV Bern Convention: Annex II
Population (2007-12)	EU27: 12,900-15,700 individuals IT (ALP): 43-50 individuals
MS with genuine improvement	ES (ATL), IT (ALP)
Other MS	AT, BG, CZ, EE, ES (ALP), FI, FR, GR, IT (MED), LV, PL, RO, SE, SI, SK

**Summary:** This case study presents an overview of a successful conservation effort that led to a genuine improvement in the conservation status of the Brown Bear (*Ursus arctos*) in the Italian Alpine region and more specifically the Adamello Brenta national park in the Trentino Province.

Brown Bears are habitat generalists and traditionally occurred in much of the European region. Most of the Brown Bear's former range has lost suitable habitat because of human alteration and presence. Today, Brown Bears mainly remain in mountainous and forested areas where they escaped widespread persecution that in many places only diminished from the 1950s onwards. Within the Alps, after a long history of habitat degradation and persecution, by 1950 the Adamello massif/Brenta group of mountains in the Trentino region of Italy had become the last refuge for Brown Bears in the entire region, and by the late 1990's the remaining population was approaching extinction.

As part of the EU LIFE URSUS project, ten bears from Slovenia were translocated to Adamello Brenta National Park between 1999 and 2002 to reinforce the Alpine bear population. In 2000, a first Action Plan for the conservation of the Brown Bear in Europe was published that provided a specific threat assessment, objectives and measures for the Italian southern Alps Brown Bear population that provided an important basis for further successful management measures and funding. However, with young adult bears dispersing into the Trentino region, the number of bear-human conflicts grew. Consequently, public support for a bear population in the region plummeted, and illegal culling increased. This undermined earlier reintroduction successes, in particular as the Italian Alpine bear population remained genetically isolated from the nearest viable bear population in the Dinaric Alps in Slovenia.

To address this, during the 2007-2013 reporting period, great strides were made to reduce human-bear conflicts, as well as bear mortality, and with support of the LIFE programme a wide range of conservation measures were implemented. Thanks to intensive monitoring and evaluation, the status of the bear population and effectiveness of measures were well-recorded and the bear population doubled during the reporting period. Other particular success factors were a strong legal framework, adequate EU national and regional funding, and a strong coordination across administrative boundaries, stakeholder groups and citizens. Despite the local successes, the co-existence challenge for the wider region remains significant, and continued effort and funding will be required. Only this will ensure a Brown Bear population large enough to restore genetic exchange with the Slovenian population, which remains the critical bottleneck for the species' long-term viability in the Italian Alps.

## Background

### Status and EU occurrence

The Brown Bear (*Ursus arctos*)<sup>1</sup> has a large global range, occurring in North America and much of Eurasia, albeit in low densities and with fragmented populations in some areas. Due to its large global population (estimated to be around 110,000 mature individuals) and stable population trend, its IUCN threat status is considered to be least concern (McLellan et al, 2018).

In Europe, the Brown Bear was formerly widespread and abundant, but driven to extinction in much of western and central Europe over the last few centuries. In the last IUCN Red List assessment for the species in the (then) EU-25 (Temple and Terry, 2007), the mature Brown Bear population in Europe was estimated as fewer than 10,000 individuals, spread over several partly tiny remnant sub-populations. Without ongoing conservation action, it was anticipated that the species would decline further and it was therefore assessed as *near threatened*. The Alpine Brown Bear population assessed in this case study was described as 'tiny' and qualified as *critically endangered* due to its population size of less than 50 individuals) (McLellan et al, 2018).

In the EU-28, the Brown Bear occurs in the Alpine (AT, BG, ES, FI, FR, IT, PL, RO, SE, SI, SK), Atlantic (ES), Boreal (EE, FI, LV, SE), Continental (BG, RO, SI, CZ) and Mediterranean (GR, IT) biogeographic regions. Its conservation status in 2007-2012 was assessed as favourable in the Alpine, Boreal and Continental regions, and unfavourable-inadequate in the Atlantic and Mediterranean regions (Annex 1).

Italy has two geographically separated Brown Bear populations, one of which is living in the central Apennine mountain range in central Italy,. This population, which has its basis in the Abruzzo National Park and surrounding area, has for centuries been isolated from other bear populations and recognised as a distinct subspecies – the Marsican Brown Bear (*Ursus arctos marsicanus*). As this population was reported as having an unfavourable-bad conservation status in the last reporting round, it is not further discussed in this case study.

The other current Italian bear population is in the Adamello Brenta National Park in the Trentino region of the Italian Alps. After a long history of habitat degradation and persecution in the Alps, the Adamello massif/Brenta group of mountains had become the last refuge for Brown Bears in the entire Alpine region by 1950. Despite conservation attempts, by the 1990s there were no more than four bears left, the last of which is thought to have died in 2000. As part of the LIFE URSUS project, ten bears from Slovenia were translocated to the park between 1999 and 2002, which since then developed a population of around 43 individuals today (Groff et al, 2018). The ETC-BD assessed the overall conservation status of the Brown Bear in the Alpine Biogeographical region as unfavourable-inadequate, compared to unfavourable-bad in 2001-2006 (Annex 1). Its range, population and future prospects were assessed as unfavourable-inadequate, while its habitat was assessed as favourable.

### Ecological requirements

The original wide distribution of the Brown Bear across Europe illustrates its adaptability to different environmental conditions. With little or no human interference, Brown Bears occupied not only deciduous and coniferous forests, but also steppes and northern and Alpine tundra. Brown bears originally occurred throughout Europe (except from the largest islands such as Ireland, Iceland, Gotland, Corsica and Sardinia). Today, most of its former range is unsuitable habitat due to human alteration and presence. Bears are today found in forested areas with generally low human density where they survived the persecution that, in most places, did not stop before the 1950's.

Components of suitable habitat can be grouped into three main requirements: food, escape cover, and den sites. Bear movements and habitat use, as well as reproduction and survival of bears, are strongly affected by the availability of food. Furthermore, population density is positively associated with food availability, and populations in the productive oak and beech forests in the Carpathian and Dinaric Mountains reach far higher densities than populations in the northern coniferous forests. Areas with a high availability of preferred foods, such as berries, fruits, hard mast, colonial Hymenoptera, and ungulates, are of special importance for Brown Bears.

The survival of Brown Bears in forests is not determined by food alone. Food availability may be quite good in more open habitats, but bears prefer to take refuge in nearby forests during the day. In areas where bears are subject to hunting and poaching and have a long history of being persecuted by man, protective shrub or forest

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<sup>1</sup> Natura 2000 species code: 1354

cover will likely be an indispensable part of the bears home area and crucial for their survival. Topography may also be important, as steep slopes are associated with low human activity. However, the need for forest and/or steep slopes might decline over time with reduced human persecution of bears.

Brown Bears are sensitive to disturbance, especially in the winter season. Den sites are often associated with remote areas with low human disturbance, and concentrations of dens are known from many areas, such as Norway and European Russia, Spain, the Caucasus Mountains, and Alaska. Disturbances in the denning period may drive bears to leave their den. This may be especially critical for pregnant females and females with cubs. In Sweden pregnant females that changed dens prior to giving birth, lost cubs in or near the den ten times more often than those that did not move.

Brown Bears have large home ranges, which stresses the need for large areas of suitable habitat to support a viable population. However, home range sizes vary greatly, apparently in relation to habitat productivity. If two or more populations are separated by a distance exceeding the distance of female dispersal, these populations must be treated as separate populations, and not as metapopulations when considering demographic viability. In a metapopulation, an extinction in one area can be counteracted by a recolonisation from a nearby area, the so-called 'rescue effect'. This stresses the importance of large continuous areas of suitable habitat, which is able to support an interconnected viable population. To summarise, bears need large continuous areas of habitat with a sufficient availability of preferred foods and escape cover. If poaching is a problem, these areas should be relatively inaccessible to humans (Swenson et al, 2000).

### **Pressures and threats**

The main reported pressures on the Brown Bear in the EU are trapping, poisoning and poaching, hunting, anthropogenic reduction of habitat connectivity, habitat fragmentation due to the construction of large infrastructures (highways), continuous urbanisation, antagonism with domestic animals, human intrusions and disturbances (outdoor sports, leisure and recreational activities, etc.), bad habitat management, diseases, reduced fecundity and genetic depression (ETC-BD, 2018).

Bears have a low reproductive rate and are vulnerable to human-related mortality. They require large habitats that make them vulnerable to changes in land use. The best bear habitat has already disappeared in Europe through logging and forest clearance, and the planting of exotic conifers has seriously altered local ecosystems in some places. Habitat fragmentation, particularly as a result of road construction, presents serious problems for a species requiring such large areas. Mortality caused by high-speed road and rail networks through bear habitat is a major threat in some areas. Poaching remains a threat to many, but not all populations, and takes place irrespective of population size. Five very small, isolated bear populations in southern and western Europe (in France, Spain and Italy), are highly threatened by their small population size. They could easily become extinct as a result of random fluctuations (McLellan et al, 2018). The Italian Alpine bear population is one of these five populations.

In the Alpine biogeographical region, damage done by Brown Bears has significantly reduced public acceptance of the species, and their unnaturally high mortality rate in the Alps points to an increase in illegal removals. The two pressures Italy reports for its bear population in the Alpine biogeographical region are reduced fecundity / genetic depression in animals (inbreeding) as well as trapping, poisoning, and poaching, both with a medium importance. Both pressures are also reported as the two threats, but both with high importance (ETC-BD, 2018).

## **Drivers of improvements: actors, actions and their implementation approaches**

### **Organisers, partners, supporters and other stakeholders**

The most instrumental organisations and initiatives for the successful Trentino reintroduction have been the following:

- The management authority of the **Adamello Brenta National Park (ABNP)** is the primary stakeholder in the conservation of the Brown Bear in the Italian Alps. The ABNP came into existence after the area had become the last known Alpine refuge of Italian Brown Bears and was the location where the 10 Slovenian bears were reintroduced between 1999 and 2002.
- The **Forestry and Wildlife Department of the Autonomous Province of Trento** is the other principal government body responsible for the management of the Brown Bear in the Italian Alps working together

with authorities of surrounding regions most notably Veneto, Lombardia and Friuli Venezia Giulia. The Province of Trentino publishes a yearly bear report in English.

- The **Ministry for the Environment and Protection of Land and Sea (MATTM)** and the **Italian Institute for Environmental Protection and Research (ISPRA)** play an important role in international coordination and research and monitoring. The former State Forest Service, now **command unit for forestry, environment and food protection** has played an important role in improving forest management practices and better preparing forest managers on the (future) presence of bears.
- A wide range of **local stakeholders** from various perspectives, most notably the Hunting Association of the Trento Province, Trento WWF, and sectoral organisations of economic professions particularly affected by bear presence such as livestock farmers and beekeepers.
- **International coordination and cooperation initiatives** such as the Large Carnivores Platform of the Alpine Convention, EU Platform on Coexistence between People and Large Carnivores and the IUCN bear specialist working group.

### Contributions / relevance of strategic plans

In 2000 an Action Plan for the conservation of the Brown Bear in Europe was prepared for the Large Carnivore Initiative for Europe (LCIE) and endorsed in the framework of the Council of Europe's Bern Convention (Swenson et al, 2000). The action plan indicated that the southern Alps bear population in Trentino had seen no reproduction for eight years and that a maximum of four individual bears were estimated to still be present in the area, which included two bears reintroduced in 1999. The Action Plan identified habitat fragmentation and isolation; human access to bear habitat; and management fragmentation as principal threats, and poaching, forestry and traffic kills as secondary threats. Most critically, the plan estimated that isolated bear populations such as the one in the southern Alps would probably vanish within the foreseeable future unless the populations receive additional bears from the wider Alps-Dinaric-Pindos population. In total, 18 management measures for the southern Alps population were proposed which are listed in the table below.

Between 2008 and 2010 an Interregional Action Plan for the conservation of the Brown Bear in the central-eastern Alps (called PACOBACE) was developed, operationalising the 2000 EU Action Plan (AA.VV., 2010). PACOBACE was drawn up by an interregional technical team with representatives of the Autonomous Province of Trento, the Autonomous Province of Bolzano, the Friuli Venezia Giulia Regions, the Lombardy Region, the Veneto Region, the Ministry for the Environment and ISPRA. The plan was also formally adopted by the local administrations involved, making it the first example in Italy of a concerted action plan, shared and formally approved by the local authorities involved. Following an increase in bear-human conflicts on the back of the growing Brown Bear population, in 2015 PACOBACE was updated mainly to clarify the situations in which 'problematic' bears could be captured and relocated or killed (Min. Ambiente, 2015).

### Proposed management measures for the Italian southern Alps Brown Bear population listed in the 2000 Action Plan for the conservation of the Brown Bear in Europe (Swenson et al, 2000)

	Description
4.1.1	Adoption of Action Plan by Bern Convention.
4.1.2	Establishment of national Brown Bear management groups and management plans (countries sharing populations produce management plans cooperatively).
4.2.1	Increase viability of small isolated populations through augmentation.
4.3.1	Classification of areas within present and possible bear range according to their suitability and importance as habitat for bear management.
4.3.2	Identification and maintenance or recreation of linkage zones in fragmented populations.
4.3.3	Evaluation of impact of existing and planned infrastructure on bear habitat and mitigation of negative impact.
4.4.1	Establishment of compensation systems.
4.4.2	Link of compensation system to individual farmer's use of preventive measures.
4.4.3	Inaccessibility of garbage dumps and human waste for Brown Bears.
4.4.4	Abandon artificial feeding that may create food- or human-habituated bears.
4.5.1	Minimise the creation of problem bears through actions 4.4.1-4.4.5 and 4.7.1.

4.5.2	Removal of problem bears in viable populations if preventive efforts have failed.
4.5.3	Evaluation of costs and benefits before removing problem bears in threatened populations.
4.6.1	Identification and involvement of public opinion leaders and stakeholders in Brown Bear management.
4.6.2	Establishment of permanent consultation protocol with locals about their needs and necessary management actions.
4.7.1	Initiate information campaigns designed for different target groups.
4.8.1	Co-ordinated scientific research on Brown Bears in Europe.
4.8.2	Co-ordination of gathering necessary data to monitor management and biological conditions of Brown Bears in European countries.
Additional	Assess the status of all recovering and small populations, including counting or monitoring of bear abundance, identifying bear habitat quality and quantity.
Additional	Identify the status of populations and establish a monitoring program including health status.

### Measures taken and their effectiveness

The table below provides an overview of the conservation measures listed in the Italian Article 17 report for 2007-2012 for the Brown Bear in the Alpine biogeographical region. Four measures were identified as being of high importance: 'other agriculture-related measures', 'legal protection of habitats and species', 'regulation / management of hunting and taking', and 'other measures' (unknown).

### Management measures taken by Italy to protect the Brown Bear in the Italian part of the Alpine biogeographic region over the 2007-2012 reporting period

Measure	Type	Ranking	Inside / outside N2k	Broad evaluation
2.0 - Other agriculture-related measures	Administrative Contractual Recurrent	High	Both	Maintain Long-term
3.0 - Other forestry-related measures	Contractual	Low	Inside	Maintain
6.1 - Establish protected areas/sites	Legal	Medium	Inside	Long-term
6.3 - Legal protection of habitats and species	Legal Administrative	High	Both	Maintain Long-term Not Evaluated
7.1 - Regulation/ Management of hunting and taking	Legal Contractual	High	Both	Maintain Not Evaluated
8.0 - Other measures	Legal	High	Both	Enhance Long-term
8.2 - Specific management of traffic and energy transport systems	Contractual	Low	Inside	Maintain

Source: Italy Article 17 report 2013 at <https://bd.eionet.europa.eu/article17/reports2012/>

The observed improvement in conservation status between 2007 and 2012 had been made possible in the first place by the successful reintroduction of Brown Bears in the Italian Alps between 1999 and 2002. With support of the LIFE URSUS Project (Annex 2, 1996-2000), a dedicated Brown Bear recovery plan was implemented which included the release of five genetically compatible Brown Bears taken from the wild in Slovenia. In 2002 the first reproduction was recorded. The project also included an important monitoring component (radio-tracking) and a wide range of stakeholder awareness and engagement actions. Another important outcome was the testing and development of a detailed protocol for future capture and release operations, which included guidance on the handling of bears, required sanitary checks, transportation, release methods and equipment. Following these successes, a LIFE project URSUS Brenta II (Annex 2) was undertaken, which aimed to help the new bears reach their minimum viable population (MVP) of between 40 and 60 individuals. This included the introduction of five additional Slovenian bears; and further improvements in monitoring and stakeholder engagement. The project also supported preventive measures, such as electric fences to protect livestock. Reproduction grew



further to five cubs in 2005, and the after-LIFE report recognised that local stakeholder support improved measurably; research supported through the project provided important new insights in Brown Bear habitat requirements, suitability and –use including movement; and that the return of the Brown Bear also resulted in wider socio-economic benefits through branding of local food products and tourism.

The period 2007-2012 primarily saw a continuation of management practices set in motion since the 1999-2002 introductions, which mainly consisted of monitoring, education and awareness-raising in new and existing bear areas, rolling out prevention and compensation measures and improving population-level management (De Barba et al, 2013), and from 2008 onwards the PACOBACE agreement and 2010 Action Plan formalised the strategy and measures.

With support of the 2010-2014 LIFE project ARCTOS (Annex 2), critical measures were taken to reduce human-bear conflicts in the Trento region, which included the establishment of ‘rapid-response teams’ aimed at managing problematic Brown Bears; the development of a web-GIS tool to allow a more efficient and coordinated tracking of Brown Bear presence in the Italian Alps; the improvement of monitoring methods, tools and staff; the placement of hundreds of bear-detering infrastructure such as fences and bear-proof waste bins; and the development and dissemination of a range of guidance documents and protocols on prevention and mitigation of conflicts. Through a preceding 2004-2009 LIFE project ‘Corpo Forestale’ (Annex 2) investments were made in the planting of local fruit varieties and maintenance of carcass feeding sites to improve bear food supply and Brown Bear monitoring in four Natura 2000 sites.

Based on the continuous further growth of the population during the reporting period, the overall management can be considered effective. As habitat quality was not a limiting factor, the legal protection in combination with increased awareness and prevention measures facilitated growth rates only seen in key Brown Bear areas in Europe.

### **Funding sources (current and long-term) and costs (one-off and ongoing)**

The key funding sources for the implementation of measures have been national funding for the environment as well as EU funding from the LIFE Programme and, to a lesser extent, through the European Agricultural Fund for Rural Development. As mentioned previously, LIFE funding enabled the reintroduction and following recovery of the Brown Bear in the southern Alps in the first place. Moreover, various LIFE projects continued support for Brown Bear conservation between 2007-2012. Annex 2 lists the LIFE projects that provided the most support for Brown Bear conservation in the Italian Alpine region.

### **Future actions**

Despite the successful efforts to reduce Brown Bear conflicts under the LIFE Arctos project in Trentino, a further decline in public acceptance of bear population recovery in the wider region was observed following a growing number of incidents with individual ‘problem bears’. Therefore experts evaluating the reintroduction called for additional measures to make it possible to remove such problem bears in order to reduce conflicts with local people and prevent further illegal killing of Bears (Tosi et al, 2015).

The LIFE Arctos after-LIFE plan from 2015 listed a large number of foreseen follow-up actions: ensuring the maintenance of sustainable farming practices with bear presence; conflict management between bear and human and other human activities; technical interventions to deter bears; population monitoring; local community involvement; interregional coordination and international coordination; monitoring problem bears and analysing the ecological connectivity between Italy and Slovenia. The plan also emphasised once more the importance of restoring population exchange between the Italian and Dinaric alpine Brown Bear population for a sustainable future for Brown Bears in the Italian Alps. The plan also mentioned the GESTIRE LIFE project and GESTIRE 2020 LIFE Integrated Project to implement Natura 2000 in the neighbouring Lombardy region. GESTIRE 2020 (LIFE14 IPE/IT/000018) started in 2015 and has a dedicated work stream of actions for Brown Bear and Wolf (*Canis lupus*) which build on the experiences from LIFE Arctos. Other LIFE projects that have built on the work of LIFE Arctos are the LIFE DINALP BEAR project (LIFE + 13NAT/SI/550) and WOLFALP project (LIFE + 12NAT/EN / 807 WOLFALPS).

The Prioritised Action Framework for Natura 2000 for the Region of Trento over 2014-2020 only specifically mentions for the Brown Bear a requirement for monitoring and surveying through the continuation of the work done under LIFE URSUS.

A recent evaluation by the Large Carnivore Initiative for Europe advised that, next to further addressing the challenges of monitoring, conflict management and improving genetic variability, additional efforts should be

made to 1) reduce geographical isolation and landscape fragmentation; and 2) strike a more formal agreement between international and interregional decision makers on the desirability of a viable Brown Bear population in the region and thereby ensure a more long-term commitment (LCIE, 2018).

## Achievements

### Impacts on the target species

The Brown Bear reintroduction in Trentino (Italian central Alps) has been a well-organised project, which has successfully achieved its initial goals and become an important reference in large carnivore conservation in Europe (LCIE, 2018). The 10 released bears adapted to the new area, and increased to 47 by 2017 (Groff et al, 2018). During the 2007-2013 reporting period the new bear population doubled in size, and in 2012 the area with a stable presence of females was estimated to cover around 1,250 km<sup>2</sup>, all of which located in the Province of Trento (minimum bear density of 3 bear/100 km<sup>2</sup>) and encompassing the sites where bears were first released. Moreover, the average annual growth rate of the species has been very high (20% just after the release, 15.6% in 2015). In recent years dispersing animals from the southern Alps and Dinaric populations have been overlapping suggesting an increased likelihood for a natural solution to the growing risks of inbreeding (Tosi et al, 2015).

### Other impacts (e.g. other habitats and species, ecosystem services, economic and social)

Next to the positive ecological impact of a continuous bear presence on the southern Alpine forest habitats, a sustainable bear population will also support tourism activities in the Adamello Brenta National Park and surroundings. A study on the monetary marketing value of the Brown Bear in the Italian Alps found that it largely exceeds the amount of reimbursements for damages (Tattoni et al, 2017). Moreover the conservation actions for the Brown Bear at landscape-scale level, through for example the designation of protected areas, habitat restoration and improvement, and the reduction of ecological fragmentation, will benefit a wide range of other habitats and species.

## Conclusions and lessons learnt

### The key targeted conservation measures that led to the improvements

- Reintroductions with LIFE funding provided the key boost for improvement (before the 2007-12 reporting period).
- A number of measures to facilitate awareness, understanding and support has since then allowed a further expansion. Key successful direct measures seem to have been: preventive and compensation measures, training of forest managers and other practitioners, more rapid and local response to incidents.

### Conservation measures that have not been sufficiently effective

- The need for awareness raising and support measures seems to have been initially underestimated, as the conflicts with dispersing bears partly undermined the past success of the earlier reintroduction. This has been addressed with targeted initiatives in Trento as well as surrounding regions.

### Factors that supported the conservation measures

- Factors that seemed to have played a critical role as well facilitating the direct measures included a strong legal framework, a good amount of financing, very intensive monitoring and evaluation that provided a strong basis for adaptive management and a strong coordination across administrative boundaries (both inter-regional as well as international), cooperation between experts, administration and key local stakeholders.

### Factors that constrained conservation measures

- The speed of the return of the bear to new areas outpaced that of public acceptance (see above).
- Although public opinion has been instrumental in bear conservation in Italy, calls by experts to deter/cull problem bears to reduce negative media and public attention on bears have been strongly countered by animal welfare organisations, limiting their political support. This seems to have (re-) polarised the debate between the 'urban' and 'rural' communities which is now hampering further progress.

### Quick wins that could be applied elsewhere for the species

- It seems that in large carnivore management seeking quick wins is generally inappropriate, considering the time required in most places to restore trust in coexistence. However, the reintroduction demonstrated that if habitat conditions are met, bears can quickly recolonise former ranges. Moreover, the compensation and prevention measures seemed generally effective and stayed within agreed budget lines.

### Examples of good practice, which could be applied to other species

- The reintroduction has been one of the most successful ones for large mammals in the EU and is now widely recognised as a ground-breaking case.
- Similarly, the extended and intensive genetic monitoring in populations at risk of inbreeding has informed similar initiatives both in neighbouring regions as well as internationally.
- The benefits of cross-departmental and local stakeholder cooperation and support, which were initially not evident, have in this case been clearly shown to result in more sustained conservation results in the long-term.

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### Websites

LIFE URSUS project: Brenta Brown Bear conservation plan. (LIFE96 NAT/IT/003152) [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=120](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=120)

LIFE URSUS II project: Ursus Brenta II - Project URSUS - protection of the brown bear population of Brenta (LIFE00 NAT/IT/007131) [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=1731](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=1731)

LIFE GESTIRE 2020 project: Nature Integrated Management to 2020 (LIFE14 IPE/IT/000018) [http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=5436](http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=5436) and <http://www.naturachevale.it/en/>

### Authorship

Prepared by Erik Gerritsen of IEEP, as part of the European Commission study on identifying the drivers of successful implementation of the Birds and Habitats Directives (under contract ENV.F.1/FRA/2014/0063), carried out by the Institute for European Environmental Policy, BirdLife International, Deloitte, Denkstatt, Ecologic Institute, ICF Consulting Services and PBL Netherlands Environmental Assessment Agency.

The information and views set out in this case study are those of the authors and do not necessarily represent the official views of the Commission.

## Annex 1. Status of the Brown Bear (*Ursus arctos*) at Member State and biogeographical levels

Favourable **FV**
Unknown **XX**
Unfavourable - inadequate **U1**
Unfavourable - bad **U2**

Qualifier (+) improving (-) deteriorating (=) stable (x) unknown (n/a) not reported

	2001-06	2007-12				
	Overall	Range	Population	Habitat for species	Future	Overall (with trend)
AT (ALP)	U2	U2	U2	FV	U2	U2 (-)
BG (ALP)	N/A	FV	FV	FV	FV	FV
ES (ALP)	FV	U1	U2	U1	U1	U2 (+)
FI (ALP)	FV	FV	FV	FV	FV	FV
FR (ALP)	U1	FV	U1	FV	U1	U1 (+)
IT (ALP)	U2 (+)	U1	U1	FV	U1	U1 (+)
PL (ALP)	U1	FV	FV	U1	U1	U1 (-)
RO (ALP)	N/A	FV	FV	FV	FV	FV
SE (ALP)	N/A	FV	FV	FV	FV	FV
SI (ALP)	FV	FV	FV	FV	FV	FV
SK (ALP)	FV	FV	FV	FV	FV	FV
<b>EU overall (ALP)</b>	FV	FV	FV	FV	FV	FV (n/a)
ES (ATL)	U1	U1	U1	FV	U1	U1 (+)
<b>EU overall (ATL)</b>	U1	U1	U1	FV	U1	U1 (+)
EE (BOR)	FV	FV	FV	FV	FV	FV
FI (BOR)	FV	FV	FV	FV	FV	FV
LV (BOR)	U2 (+)	FV	U2	FV	XX	U2 (+)
SE (BOR)	N/A	FV	FV	FV	FV	FV
<b>EU overall (BOR)</b>	FV	FV	FV	FV	FV	FV (n/a)
BG (CON)	N/A	FV	U1	U1	FV	U1
CZ (CON)	U2	U2	U2	U1	U1	U2 (=)
RO (CON)	N/A	FV	FV	FV	FV	FV (=)
SI (CON)	FV	FV	FV	FV	FV	FV
<b>EU overall (CON)</b>	U2	FV	FV	FV	FV	FV (n/a)
GR (MED)	U1 (+)	U1	U1	U1	FV	U1 (+)
IT (MED)	U2 (+)	U2	U2	FV	U2	U2 (-)
<b>EU overall (MED)</b>	U1	U1	U1	U1	FV	U1 (x)

Source: Member State Article 17 reports as compiled by ETC-BD on EIONET <https://bd.eionet.europa.eu/article17/reports2012/>

## Annex 2. LIFE Nature Projects in Italy that aimed to help conserve the Brown Bear (*Ursus arctos*) in the Italian Alpine region

Project Title	Project N°	MS	Type of Beneficiary
LIFE DINALP BEAR - Population level management and conservation of Brown Bears in northern Dinaric Mountains and the Alps	LIFE13 NAT/SI/000550	AT, HR, IT, SI	Lead: National authority (Slovenia's National Forest Service)
ARCTOS - Brown Bear Conservation: coordinated actions for the Alpine and the Apennines range (ARCTOS)	LIFE09 NAT/IT/000160	IT	Lead: National park authority (Ente Autonomo Parco Nazionale Abruzzo, Lazio e Molise)
Corpo Forestale - Conservation actions in NATURA 2000 sites managed by the State Forest Service	LIFE04 NAT/IT/000190	IT	National authority
Ursus Brenta II - Project URSUS - protection of the Brown Bear population of Brenta	LIFE00 NAT/IT/007131	IT	Park-Reserve authority
Tarvisiano - Integrated plan of action to protect two NATURA 2000 sites	LIFE98 NAT/IT/005112	IT	University
Grandi carnivori - Priority measures for the conservation of large carnivores in the Alps	LIFE97 NAT/IT/004097	IT	NGO-Foundation
Ursus/Brenta - URSUS Project : Brenta Brown Bear conservation plan.	LIFE96 NAT/IT/003152	IT	Park-Reserve authority
First phase of a coordinated action plan in favour of the mammals in the Alps and the Appennin ...	LIFE95 NAT/IT/004800	IT	Park-Reserve authority
Second phase of coordinated action plan in favour of the mammals in the Alps and the Apennines	LIFE95 NAT/IT/004801	IT	NGO-Foundation
First phase of a coordinated action plan in favour of the mammals in the Alps and the Apennine ...	LIFE95 NAT/IT/004802	IT	National authority
mammiferi - First phase of a coordinated action in favour of mammals in the Alps and the Apennines	LIFE95 NAT/IT/005907	IT	NGO-Foundation
Second phase of a coordinated action plan in favour of the mammals in the Alps and the Apennines	LIFE94 NAT/IT/000575	IT	NGO-Foundation
Second phase of conservation of the mammals of the Alps and Apennines	LIFE94 NAT/IT/000607	IT	Park-Reserve authority
Second phase of a coordinated action plan in favour of the mammals in the Alps and the Apennine ...	LIFE94 NAT/IT/001077	IT	National authority

Source: Life Programme database