

# NON-CONSUMPTIVE USE OF BROWN BEARS IN TOURISM: GUIDELINES FOR RESPONSIBLE PRACTICES

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## 1. Introduction

Conflicts between humans and brown bears (*Ursus arctos*) in Europe remain an on-going threat to the protection of the species and systematic efforts are necessary to tackle specific conservation challenges, such as the lack of understanding the socio-economic and ecological role of the bear or the inflated estimations of the risk of bear attacks. These challenges lead currently to a lower tolerance of the species and hinder the improvement of human – bear relationships. Therefore, in order to ensure the long-term survival of bears it is of paramount importance to increase local acceptance of the species.

Nowadays, the non-consumptive use of wildlife is changing the landscape of the tourism sector and provides ample opportunities for the effective conservation of endangered species and for the development of alternative sources of revenue for (rural) communities. This applies not only to the remote wilderness areas of Africa, Asia or North America, but also for densely-populated Europe, where growing numbers of people travel to rural areas to discover the last (or re-established) areas of wilderness on the continent. This trend presents an economic opportunity for local communities and potential conservation benefits for bears.

Although bears are hunted in many European countries, they are increasingly valued alive in the context of wildlife tourism, and for conservation and educational reasons. The non-consumptive use of bears in tourism takes advantage of the growing need of humans to experience “pure” wildlife and involves recreational activities that don’t “use” bears but value them for their role as a top predator and an integral part of a well-functioning ecosystem. Bear watching and photography are nowadays the most common forms of non-consumptive bear use.

The non-consumptive use of wildlife, and bears in particular has been practiced for a couple of decades already in North America but is relatively new in southern Europe, where several healthy bear populations still remain. These guidelines were prepared to introduce the concept of the non-consumptive use of bears in tourism in the northern Dinarics and to set specific recommendations for the development of different non-consumptive products.



Areas rich in biodiversity have higher tourism value (Photo: M. Masterl)

## 2. Tourism, biodiversity and sustainable development<sup>1</sup>

*“Tourism is a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes”* (Secretariat of the CBD 2015). One in eleven jobs and 9% of the world’s gross domestic product is nowadays linked to tourism. According to the United Nations World Tourism Organization an annual increase of 3.3% in international arrivals is expected in the coming years. Areas such as Africa, Asia, the Pacific and Latin America, which are tourism, but also biodiversity hotspots, are expected to develop faster. A trend observed in more mature source markets, especially in Europe and North America, has been towards soft adventure and authentic, transformative experiences, which often include an element of visiting natural areas and observing wildlife (Secretariat of the CBD 2015).

Biological diversity is defined as the variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. It is considered an essential and important part of our natural heritage and conservation actions have been designed and implemented in order to protect it. Tourism and biodiversity have a symbiotic relationship; tourism can affect biodiversity in both, a positive and negative way. Positive effects of tourism on biodiversity include among other the highlighting of the great importance of rich biodiversity to increasing the value of an area and opening up prospects for the development of ecosystem-based tourism, promoting environmental education and supporting livelihoods and cultural diversity. On the other hand, tourism can also have a negative impact on biodiversity, by increasing the pressure on habitats and individual species, by affecting other environmental conditions, which in turn may negatively impact biodiversity and by decreasing tourism flows due to the degraded state or loss of biodiversity.

Given the numerous effects of tourism on biodiversity it is important that tourism activities are monitored and developed in an operational framework that aims to minimize the negative effects to our natural heritage and maximize the positive effects to biodiversity and local human communities. A widely nowadays advocated approach to securing the viability of both, tourism and biodiversity is the “ecosystem approach”. This approach involves the integrated management of land, water and living resources that promotes conservation and equitable use in a sustainable way and recognizes that tourism is dependent on healthy, functioning ecosystems.

### 2.1 Wildlife tourism – Non-consumptive use of wildlife<sup>2</sup>

*One example of the advocated “ecosystem approach” that is gaining increasingly popularity and public acceptance is wildlife-related tourism. According to the UNEP/CMS »Wildlife watching tourism is a type of tourism that is organized and undertaken in order to watch or encounter wildlife. Wildlife watching tourism exclusively relates to non-consumptive forms of wildlife-based activities as observing and sometimes touching or feeding of animals, in contrast to consumptive forms like hunting and fishing.” Wildlife experiences may vary significantly in the intensity or emphasis of wildlife encounters: in some cases watching free roaming wildlife might form the basis and entirety of a wildlife tourism experience, in other cases however it might be just one component of a larger wildlife experience package. These variations in turn influence also the design and management of wildlife watching products, resulting in a wide variety of such products (Higginbottom & Buckley 2003). All these products and the resulting industry have been growing rapidly in the last two decades making wildlife tourism important on a global scale (Higginbottom & Buckley 2003): In 2001 more than 66 million tourists in the USA participated in a wildlife watching experience, generating more than 95.8 billion US\$ in total industry output, while in Africa wildlife watching represents 80% of the total annual sales of trips to the continent.*

<sup>1</sup>Suggested further reading: World Tourism Organization 2014.

<sup>2</sup>Suggested further reading: Valentine & Birtles 2004, World Tourism Organization 2014.

Conservation of wildlife is the key foundation for a long-lasting and successful wildlife tourism industry. Without this, it is merely a short-term mining of resources that has no place in a modern 21st century society. Being part of the global tourism industry, wildlife tourism should be able to self-reflect and accurately determine and evaluate its positive and negative effects. Positive effects of wildlife tourism on biodiversity include among other the monitoring and management of wildlife, the increase in public awareness and promotion of political action to support biodiversity conservation (Higginbottom & Tribe 2004). Negative effects on the other hand of wildlife tourism on biodiversity may include short-term changes to the physiology and behaviour of individual animals, habitat clearing and modification and the introduction of diseases (Green & Giese 2004). Given the wide range of effects of wildlife tourism on biodiversity it is of paramount importance to identify best-practice wildlife tourism examples and closely evaluate the operational framework and the circumstances in which they operate.

### 2.1.1 Large carnivores and wildlife tourism<sup>3</sup>

Large carnivores have been a part of human culture for eons. They have been heralded as symbols of power and potency and as proof of wilderness and good ecosystem function and because of their “ferocity, cunningness and intelligence” they have found their way into our legends: Little Red Riding Hood, Goldilocks and the Three Bears, and Peter and the Wolf are all testaments to our fascination for these animals. In some instances however this fascination has led to the downfall of carnivores, which have often been hunted or demonized to death. There is therefore an urgent need to support their conservation. Can we harness our fascination for these creatures and turn it into something positive, both, for these species and us humans?

One possible way is through responsible tourism: responsible tourism in this case takes advantage of the “wild image” of a large carnivore and uses it on the one hand to increase public awareness and promote the conservation of an endangered carnivore and on the other hand to generate an alternative income source for (mostly) local communities, who then become the guardians of these species. For conservation and carnivore tourism to be successful, local communities should feel that tourism and carnivores are part of their future and that they will benefit from both. If carefully planned, carnivore tourism can have multiple benefits for all parties involved (Table 1).

**Table 1** Potential benefits from carefully planned carnivore tourism

Benefits for tourism	Benefits for carnivores	Benefits for local communities
<b>Marketing:</b> Used as the core of a marketing strategy, carnivores can provide a strong marketing tool.	<b>Awareness:</b> Tourism can raise awareness, both on a local and an international level.	<b>Business:</b> Carnivore tourism can facilitate the development and/or diversify tourism opportunities.
<b>Education:</b> Carnivores offer an exciting educational opportunity and carnivore visitor centres can heighten tourism experience.	<b>Research:</b> Tourism can generate much-needed income for facilitating baseline research on poorly-understood aspects of carnivore biology.	<b>Culture:</b> Cultural heritage may be strengthened through the promotion of traditions such as traditional shepherding techniques.
<b>Added value:</b> Carnivores can add value to a tourism product by offering unique experiences.	<b>Finance:</b> Tourism can finance and promote conservation efforts.	<b>Partnerships:</b> The establishment of partnerships necessary for developing tourism enterprises may not only help reduce wildlife conflicts but also engage local communities in promoting carnivore conservation.

<sup>3</sup>Suggested further reading: Goodwin et al. 2000.

## 3. Non-consumptive use of bears in the northern Dinarics

### 3.1 Current status of non-consumptive use of bears in the northern Dinarics

The Dinara-Pindos brown bear population is one of the most important bear populations in Europe. A large proportion of these bears live in Slovenia and Croatia, in the northern Dinarics; both countries have been pioneers in many aspects of the management and conservation of the species in Europe, and were among first countries that have developed and implemented elaborate, science-based plans for the management of their bear populations.

The principles for the management of the brown bear in Slovenia are outlined in the “Brown bear management strategy in Slovenia” that was adopted by the Slovenian government in 2002. The overall aim of the management plan is the preservation of the species and its habitat and is based on two principles: a) brown bear – a living being and biological species, b) relation between bears and humans. On the basis of these principles, two, equally important goals have been set: a) the long-term preservation of the brown bear in Slovenia, including its habitat, and b) ensuring the co-existence of bears and humans. The overall aims and principles of the management strategy have also been embedded in the “Action Plan” for the species and have resulted in an elaborate, on-ground management scheme for the species, which includes the setting of an annual hunting quota for brown bears in Slovenia. Hunting quotas are set for the entire country, but only for the core and margin areas of the species (i.e., not including corridor and no presence areas). Management practices for brown bears in Croatia have been established on a more or less similar philosophy, with local adaptations.

Until now, bears in Slovenia and Croatia have been valued primarily for their trophy, as a game species. Nowadays, as a protected species, bears are often perceived by rural communities as pests that cause damages and as a species owned and protected by the government. Wildlife tourism is slowly developing into an important economic alternative for communities living in brown bear habitat and has as such, if properly organized, a high potential for enhancing public acceptance of the species. Given this fact, Slovenia and Croatia appear as the ideal place for the development of a commercial wildlife experience product based on the watching of free-roaming bears and other products related to bears and coexistence between humans and bears.

At the moment there are no specific guidelines developed on how to perform the non-consumptive use of bears in tourism. Bear watching activities are already taking place in Slovenia and Croatia, but are not supervised or organized in a systematic way. Therefore, they can cause negative impacts on the species. For this reason, guidelines for the responsible use of bears in tourism need to be developed and implemented. The following sections outline the legal framework and specific recommendations for different forms of bear-related tourism.

### 3.2 Legal aspects of bear conservation in Slovenia and Croatia

#### 3.2.1 Nature conservation

The brown bear (*Ursus arctos*) is protected in Slovenia by the “Decree on protected wildlife” (hereafter, the “Decree”). This Decree outlines the legal framework in which research, management and conservation efforts should take place in order to preserve the habitat and safeguard the future of brown bears in Slovenia.

According to the Decree, the deliberate disturbance of protected wildlife in Slovenia is generally prohibited and allowed only under very specific circumstances and with a special permit from the Slovenian Ministry



*Bears in North Dinarics – new opportunity for local communities? (Photo: S. Reljić)*

of Environment and Spatial Planning. In this sense, commercial bear watching and photography following the recommendations outlined in the present **Guidelines** should not be considered to constitute a disturbance to bears and may therefore be carried out without a special permit.

Various statutes of the Decree outline specific aspects of potential bear watching and photography products: for instance, according to Article 4 of the Decree bear dens are considered to be a “wildlife structure”, i.e. a structure that has been created by a wild animal and is essential to its reproduction and overall survival. Furthermore, Article 10 of the Decree dictates that “wildlife structures” should not be modified, unless specific circumstances apply (Article 11), for instance for the purpose of scientific research. Tourism activities do not fall under these specific circumstances, which practically means that recently-used bear dens or dens that might be used in the future may not be part of a commercial bear watching product. As an alternative, a cave or a structure that has the appearance of a bear den may be used to show an aspect of the winter habitat of a denning bear.

In Croatia brown bears are strictly protected. Managing the bear population is regulated by the “Ordinance on the strictly protected animals” (hereafter, the “Ordinance”). As in Slovenia, the Ordinance outlines the legal framework in which research, management and conservation efforts should take place in order to preserve the habitat and safeguard the future of brown bears in Croatia. According to the Ordinance commercial bear watching and photography following the recommendations outlined in the present **Guidelines** should not be considered to constitute a disturbance to bears and should be used as a tool to increase awareness and therefore reduce negative bear – human interactions.

### 3.2.2 Hunting

The Slovenian Act on Wildlife and Hunting regulates the management of wildlife, which includes the planning, conservation, sustainable management and monitoring of wildlife. According to Slovenian law the managers of the hunting grounds and state hunting reserves are responsible for the sustainable management of all game in their jurisdiction and for implementation of measures to improve the living conditions of all bird and

mammal species in accordance with nature conservation legislation. According to the Slovenian Act on Wildlife and Hunting feeding and baiting of game and bears is only allowed in locations defined in game management plans and other approved documents defining bear management. Therefore, anyone who intends to feed bears near hides for bear watching should get into contact and plan such activities in cooperation with the hunting ground managers. Animal by-products regulations also apply in case of bear feeding.

According to Article 35 of the Slovenian Act on Wildlife and Hunting it is illegal to disturb game in their resting, denning and feeding sites or to stalk game in bad weather conditions (i.e., floods, extreme cold, ice, deep snow). Exceptions to this law can be made for research and educational purposes, but these require a special permit from the Ministry of Agriculture, Forestry and Food. In addition, the uncontrolled off-road driving, the picking of wild fruits and mushrooms and excessive recreational activities, such as jogging and mountaineering may represent also in some cases an unnecessary disturbance to wildlife. Therefore, commercial, tourism-related bear products need to be spatially and temporally regulated and carried out in coordination with the managers of hunting grounds. If this requirement is fulfilled, no special permit by the Ministry is required.

Although bears are strictly protected in Croatia, they are also legally defined as a big game species (Article 3 of the Hunting Act). The Hunting Act refers to the Bear Management Plan for the Republic of Croatia as the legal framework for bear hunting in Croatia, but also dictates that bears may be used for educational purposes and for enriching wildlife experiences, which in turn, provides the legal background for the development of a commercial “Bear watching” product.

### 3.2.3 Tourism

The Slovenian Act on the Promotion of Tourism is the legal framework that defines the activities of public and private tourist institutions. It also outlines the conditions for performing tourism activities and the organization, management and sale of tourism products. Tourism products that include more than one activity (i.e., transport, accommodation, food supply, etc.) require a license issued by the Slovenian Chamber of Commerce. Tour operators should provide at all times qualified guidance at their tourism products; for tourist guides and escorts who wish to guide tourists in bear-related tourism products, participation in the educational seminar “Non-consumable use of bears”, organized by Department of Ecology and Environmental Protection, Biotechnical Faculty of the University of Ljubljana is recommended.

In Croatia, tourism activities are regulated by the Croatian Act on the Provision of Tourism Services. It is important to note that Chapter 12 of the Brown Bear Management Plan for the Republic of Croatia provides the legal framework for bear-related touristic activities, which include bear watching and non-consumptive uses of bears (i.e., bear-friendly products and handicrafts). This again, is a good starting point for the development of a successful bear-related wildlife product.

## 3.3 Different forms of non-consumptive use of bears

Different forms of non-consumptive use of bears can be developed. Preparatory surveys carried out in Slovenia and Croatia within the framework of the LIFE DINALP BEAR project indicated that some hunting organizations in Slovenia and Croatia already offer bear watching/photography services and many other are interested in initiating similar activities. The results of the survey show also that the highest interest in bear watching/photography is in the summer months, therefore there is no time overlap between these and hunting activities. This provides a good starting point for the development of a well-structured, commercial “Bear tourism” product. Potential tourists are interested in the development of complex, multi-day tourism products that would, besides wildlife experiences, offer also other outdoor activities, such as hiking, cycling and/or kayaking and an overnight stay in the forest.



"Bear friendly" forest honey from an apiary protected by electric fence (Photo: P. Draškovič Pelc)

Based on these results and considering the current social and cultural settings in Slovenia and Croatia we recommend the development of a nature- and bear-related "experience" in the northern Dinarics, consisting of three, distinct products:

»**Bear watching**«: The "Bear watching" product focuses primarily on the watching/photographing of bears from a hide specifically designed for this purpose.

»**Bear trail**«: The "Bear trail" product does not focus primarily on the watching of bears, but on experiencing bear habitat and the presence of wild bears in their natural environment. This is done by walking along bear trails, looking for bear signs (i.e., footprints, scat, dens etc.), witnessing bear behaviour (i.e., marking and rubbing on trees) and understanding the impact of the species to its environment (i.e., on other animals, the forest and humans). Specific details/ characteristics of the "Bear trail" will depend on the location, season, and focus of the trail (i.e., whether it focuses exclusively on bears or includes other wildlife species), but in general will evolve around the principle of a guided walking tour through the forest for 4 – 10 people, lasting 2 - 4 hours.

»**Coexistence**«: the "Coexistence" product is basically a "back to the nature" product, aimed at promoting the connection between humans and nature and improving coexistence with large carnivores. Bears are charismatic species but due to their large habitat requirements and opportunistic feeding behaviour, they cause damages to local communities. Livestock depredations often result in strong emotional reactions, leading to higher hunting quota demands. "Coexistence products" that would promote the efficient protection of livestock, through use of electric fences, shepherds and livestock guarding dogs could therefore help to rise the tolerance towards bears and other large carnivores and improve their long-term conservation. Assisting shepherds at the remote pastures in the form of a unique tourist offer could be one of the interesting products developed within the coexistence product.

Apart from the concrete tourist packages developed within each of the suggested products, additional offers, in the form of "bear friendly" local products are recommended in order to supplement the touristic offer and provide the visitors with souvenirs. Wildlife-friendly, eco-friendly and other labels are becoming increasingly important to consumers that are looking for products that are environmentally friendly and beneficial to the local economy. A bear-friendly label could be awarded to those who are applying bear friendly practices, such as the effective protection of livestock, using electric fences for protecting beehives or using bear-proof garbage bins. Honey, cheese, meat products and handicrafts equipped with the bear-friendly label would highlight the connection between bears and local human communities, which are deeply intertwined in the Northern Dinarics region. Such products could get an important position in the domestic and foreign market, give additional value and sense of recognition to the use of bear-friendly practices and improve the coexistence between humans and bears.

## 4. GUIDELINES for the non-consumptive use of bears in northern Dinarics

The following guidelines are a compilation and adaptation of best practices in responsible bear tourism from around the world<sup>4</sup> to the local reality in the northern Dinarics. They are designed so as to have as minimal an impact on bears as possible, while trying at the same time to offer a high quality natural experience to the paying customer.

### 4.1 General guidelines

#### 4.1.1 Guide Training

In order to get out the most of an encounter with one of nature's most charismatic and iconic species, but at the same time make sure that this unique wildlife experience does not negatively impact the individual bear and the species as a whole, it is of paramount importance that bear tourism/watching/photography is conducted under the guidance and supervision of a qualified guide (Curtin 2010). Local hunting clubs and other organizations from Slovenia and Croatia that intend to offer bear tourism services should make sure that these are always provided with an experienced guide, who accompanies guests throughout the course of the entire service. Guides should have received a formal training on basic aspects of bear biology, ecology and behaviour (see also Annex I), environmental awareness, human safety and appropriate response to accidents or emergencies (including training in first-aid), and safe, educational, and non-disruptive interactions with bears. A trained guide should also have excellent knowledge of the local area, a sensible approach to safety and good judgment and sufficient technical skills for operating in the field (i.e., off-road driving, group management on land, VHF operation etc.). Finally, it goes without saying that trained guides should also have sufficient customer-related communication and language skills and tourist guide licence.

In order to achieve the aforementioned level of competence it is recommended that prospective guides participate in an official guide training course. Ideally, organizations providing bear tourism/watching/photography services in the country should hire primarily guides that have completed this training. The safety training of guides should be updated regularly.

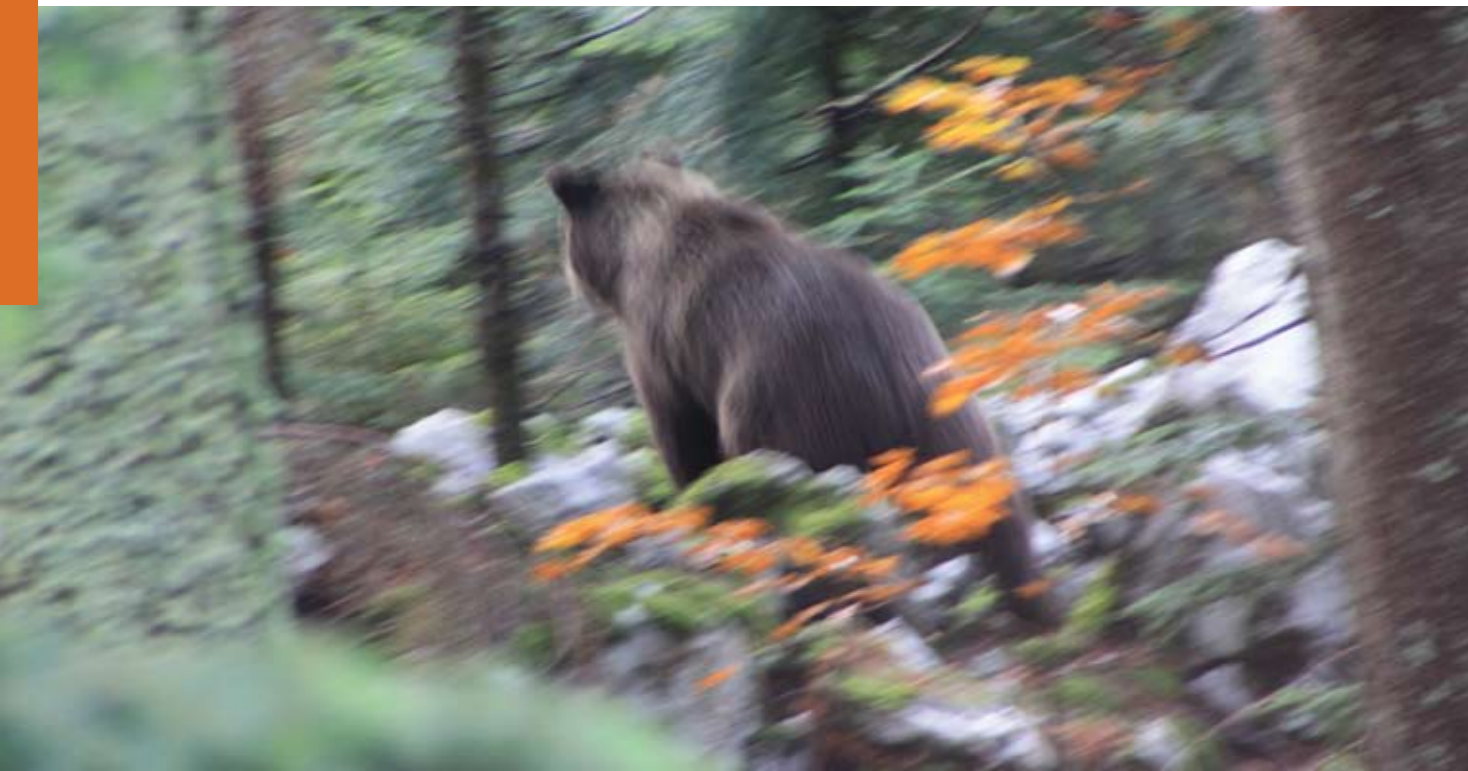
Ultimately the trained guides will not only guarantee the safety, of both, humans and bears, but also the success and enhanced visitor satisfaction of any bear tourism operation, by providing detailed and accurate information on the biology, ecology and behaviour of bears to their guests. Considering the complex relationship between humans and bears it is important that bear-tourism operators do the extra effort to add an interpretative value to their trips; trained guides should not only be knowledgeable in bear biology, ecology and behaviour but also possess the skills and experience to impart this knowledge to their guests.

#### 4.1.2 Security & Education Briefing

Wildlife watching and professional photography are carried out under the responsibility of each tour operator. Therefore a security and education briefing should be considered the mandatory starting point of any bear watching experience (and, in fact, of any wildlife experience). This should be held by the guide, who has been explicitly prepared for this during his training. The briefing should be carried out in a language that is easily understandable to all participants and emphasize the following points:

- Guests should be given in advance all the information material (i.e., leaflets, maps etc.) that is necessary for maximizing the wildlife experience and ensuring maximum safety.

<sup>4</sup>Suggested further reading: U.S. Fish & Wildlife Service 2013, Commercial Bear Viewing Association of British Columbia 2014; helpful information can be found also at the site of Finpro, an association funded by the Finnish government, at: [http://www.visitfinland.fi/wp-content/uploads/2015/07/OF\\_Wildlife\\_Turvallsuus-luonnon-tarkkailussa\\_eng.pdf](http://www.visitfinland.fi/wp-content/uploads/2015/07/OF_Wildlife_Turvallsuus-luonnon-tarkkailussa_eng.pdf)



Bears are avoiding people. Our activities should cause minimum disturbance to bears (Photo: S. Reljić)

- Before participating in a bear experience we recommend that customers sign a release of liability and waiver of claims form..
- Guests are required to stay always close to the guide and not stray off the established trails and pathways.
- Guests are advised to dress appropriately and beware of sudden weather changes.
- Tour operators must ensure that medical help can reach the site of operations at all times or they must prepare an alternative emergency plan. Also, local rescue services have to know where permanent bear watching sites are located.

#### 4.1.3 Interpretation

- An overview of local bear biology, ecology and behaviour (see also Annex I).
- What is human-habituation in a bear (see also Annex II).
- Some areas within the bear habitat are more important than others. This is particularly the case for feeding and denning areas. Therefore, it is often necessary to impose restrictions on movement to and within bear tracking/watching areas in cooperation with hunting ground managers.
- Bears are avoiding people and should not be disturbed during bear tracking/watching tours. Noise and movement while watching bears should be kept to a minimum and flash photography should be prohibited. Even more, guests should refrain from trying to interact with bears in any way. It is in our interest to maintain bears' natural shyness.
- Bears are curious animals with a strong sense of smell; guests should avoid using strong smelling perfumes or deodorants. For the same reason, smoking is not permitted while viewing bears.

#### 4.1.4 Business considerations

All organizations and enterprises offering bear tracking/watching/photography services must ensure that all necessary permits, notices, and other arrangements have been arranged well in advance of beginning operations. Businesses that intend to invest in the non-consumptive use of wildlife should be conducted responsibly, engaging not only in the conservation of wildlife but also taking local customs and culture into account. In this respect wildlife watching enterprises must also not endanger other livelihoods and business operations. Finally, wildlife operators should establish feedback systems in their tours that inform on the sustainability, quality and safety of the product.

#### 4.1.5 Risk management

All organizations and enterprises offering bear tracking/watching/photography services should hold themselves to the highest standards of care and safety for guests and bears. To do this a thorough emergency and contingency response plan, both, internally (i.e., within the tour) and externally (i.e., cooperation with local authorities, health services etc.) should be in place that will guide actions in case of an emergency event and guarantee the most favourable outcome. All guides participating in bear tourism services need to be adequately trained in this and are expected to be able to carry this out in full whenever required.

### 4.2 Specific guidelines for non-consumptive use of bears in tourism

While the previous recommendations/guidelines should be viewed merely as a preparation, the success of any bear experience will rely mostly on the following of the guidelines mentioned hereafter. We distinguish between general guidelines that are intended to set the overall framework of a bear experience and guidelines for bear watching from a hide, during land-based walking sessions (i.e., the "Bear trail") and during the "Coexistence" product, which is aimed at promoting responsible farming and improving the coexistence between large carnivores and agriculture. As mentioned previously all guidelines for bear watching in the northern Dinarics are established with the aim of providing a unique and safe wildlife experience of bears in a natural setting while minimizing at the same time the impacts on them.

#### 4.2.1 General guidelines for all forms of bear tourism

- All activities in bear habitat must be done in such a way as to minimize bear disturbance. Wherever possible critical bear habitat, such as important denning or feeding areas must be avoided. In the preparation of the trail a close cooperation with the hunting ground managers is necessary in order to define such critical habitat.
- In order to make human behaviour as predictable to bears as possible, guides should strive to organize bear tours and watching/photography sessions at the same location, at the same time of the day and for the same duration.
- Spatial and temporal restrictions on human activity may be necessary at specific areas to ensure that wary or less tolerant bears have access to important feeding sites.
- The importance of food-conditioning in bears should be thoroughly explained (see also Annex II) and why it is essential to make sure that all precautions are being taken during a bear watching experience in order to avoid it. For this, no human waste should be disposed of in the forest and food remains should be packed in air-tight or bear-proof containers and be kept with the guide at all times.
- The responsible and expected behaviour/actions of guests while traveling to and from and when at the bear tracking/watching areas is necessary.

- Probability of bear observation, types of possible bear encounters guests should expect, as well as the risks and behaviour during an unwanted or unplanned bear encounter, should be explained to guests. Guests should be fully aware of the risks involved in bear tracking/watching and have at least a basic understanding of the necessary procedures in case of an unfortunate event and injury by a bear (i.e., who to contact, where to go etc.).
- Alcohol should not be served at any point during bear tourism activities. Neither members of staff nor customers should be permitted to participate in the activities if under the influence of alcohol or other intoxicating substances. Participants must be clearly informed of the ban concerning intoxicating substances.

#### 4.2.2 Specific guidelines for watching bears from a hide – “Bear watching”

Due to the relative shyness and low population density of bears in Europe, one of the most obvious methods to help visitors have up-close experiences of bears is to use wildlife watching hides. Wildlife watching hides have the advantage that wildlife can be viewed without disturbing it, up-close, more comfortably and safer. It also enables wildlife managers to control, limit and channel tourist flow, thus guaranteeing the sustainable operation of the product. When planning the design and the operation of a “Bear watching” product using a hide careful considerations regarding the functionality of the hide and sensitivity to the environment, user profile, management and finance need to be made and potential approvals need to be obtained.

##### Basic considerations in the design and operation of wildlife watching hides<sup>5</sup>

Generally, using hides to view wildlife appears attractive to four different user groups. The first group is the general public, which is usually accommodated in hides that fit 10 – 20 people at a time. The wildlife experience offered is usually of low quality, for free and lasts rarely more than 30 min; this type of hide will rarely be associated with a bear watching product. Nature lovers are the second group that are likely to use a hide. This group of wildlife enthusiasts are willing to pay for the use of the hide and have in return higher standards regarding the comforts offered at the hide. Compared to the previous user group, hides for nature lovers are generally designed to accommodate up to 12 people while offering at the same time basic amenities. The main focus of these hides is the watching of wildlife and not wildlife photography, but see-through windows should be installed in order to enable the basic satisfaction of capturing on film impressive animals, such as bears. Hides for photography aficionados are highly specialized and complex. They are usually designed to fit up to five people, are at ground level not facing against the sun at dusk or dawn and offer an “interesting” background. Such hides usually offer the opportunity to shoot photographs from three different sides of the hide and are placed in locations where the chances for spotting a bear are relatively high (i.e., > 80%). Finally, another group that might be interested in the use of hides are high-end tourists; hides for this user group might combine one or more features of the previous types of hides (depending on the focus of the service provided) in combination with various types of additional amenities.

Not all types of hides are suitable for all types of wildlife watching experiences; each type of hide will have specific advantages and disadvantages that have to be taken in account when planning the wildlife watching product. Tent hides for instance are cheap, easy to transport and have a low impact on the environment and are therefore most suitable for spontaneous and short-planned wildlife experiences and for wildlife that does not frequent predefined locations. Permanent hides in contrast are built in many different models, materials and designs with varying levels of quality, comfort and cost and can be either non-movable or designed so as to be transported. All these factors, combined with the profile of the target group will define the final design of a permanent hide.

Wildlife hides should comply with existing nature conservation and safety regulations, be in accordance with good building practice and constructed to be durable, safe, accessible, and well suited to the surrounding environment and designated activity. The location and positioning of a hide will be instrumental in



Hide for bear photography (Photo: P. Draškovič Pelc)

the success of every wildlife watching product: in general, hides should be placed facing northward in order to benefit from side light in the early morning and late evening hours (**Note:** Exceptions to this recommendation should be considered, with caution and only if they maximize the wildlife experience offered). The background view is an important factor in wildlife photography and therefore an interesting, not-monotonous backdrop without man-made structures should be preferred. The same principles apply also to the foreground, which should also be free of man-made objects but also of objects obscuring the view from the hide, such as trees and bushes. As mentioned previously, hides should be placed in locations with the most chances of observing wildlife and therefore a good knowledge of the area and the behaviour of the species is a prerequisite for the success of the operation.

The exterior and interior design of the hide will be of utmost importance in the ultimate success of the wildlife experience. The exterior design should take into consideration the type of habitat and wildlife targeted and the user group that is ultimately going to use the hide. Hides should be preferably made of sustainably sourced local materials and in local construction styles where possible. The ultimate goal should be that the hide “fits” in its natural surrounding without “sticking out”, both to the hide user and the wildlife species targeted. Similarly, the interior design of the hide will heavily depend on the user group, with special considerations necessary for the amenities provided, the placement of the photographic equipment, the type and quality of the windows and ventilation. In particular relevance to hides for watching bears, animals with an elevated olfactory sense, is the existence of a high chimney that does not disperse human scent at ground level. Additional considerations will include the type of floor material that will silence movement in the hide, the presence of a connected, separate dry toilet facility, beds, GSM coverage, Wi-Fi connectivity and electricity.

Specifically for bear watching hides it is recommended that the material for the walls is 9 mm-thick hard board or an equivalent material. Finally, it is strongly recommended that the operator/entrepreneur of a bear watching hide is identified at the earliest stage possible and strongly involved in, or in charge of the planning and design process. In the case of Slovenia and Croatia, where the operation of the bear watching hides will be the responsibility of the hunting organizations, they should be also responsible for the maintenance, cleaning, and servicing of the hides.

<sup>5</sup>Suggested further reading: McLuckie et al. 2014.





Do not enter the vicinity of or crawl into a bear den (Photo: M. Krofel)

#### **Specific recommendations for watching bears in a hide:**

- Probability of bear observation and the procedure in case that bears are not observed, should be explained to guests.
- Access to the bear watching site by vehicle must be done in such a way as to minimize bear disturbance. Wherever possible critical bear habitat, such as important denning or feeding areas must be avoided, therefore close cooperation with the hunting ground managers is necessary in order to define such critical habitat.
- While approaching the hide the same recommendations apply as during the "Bear trail" (see also Section 4.2.3).
- Bear watching experiences from a hide should always be supervised by an experienced field guide.
- While in the hide, customers should refrain from using heavy-smelling perfumes.
- Smoking is not allowed in the hide.
- Loud noise should be avoided.
- Bringing food in the hides is allowed, but the same safety rules apply as for all bear-related tourism experiences in regard to food conditioning (see also the General guidelines described in section 4.2.1 and Appendix I).

#### **4.2.3 Specific guidelines for land-based bear experiences – "Bear Trail"**

The "Bear trail" product does not focus primarily on the watching of bears, but on experiencing bear habitat and the presence of wild bears in their natural environment. This is done by walking along bear trails, looking for bear signs (i.e., footprints, scat, dens etc.), witnessing bear behaviour (i.e., marking and rubbing on trees) and understanding the impact of the species to its environment (i.e., on other animals, the forest and humans).

#### **General recommendations for the "Bear trail" product<sup>6</sup>:**

- "Bear trails" should be established along or near existing human-created or natural environments rather than bisecting undisturbed areas.
- "Bear trails" and their zone of influence should avoid critical bear habitat, such as important feeding and winter denning sites.
- "Bear trails" should provide diverse experiences so that trail users are less inclined to wander off on their own. If possible, such a trail should provide the opportunity to observe a tree that is regularly being used by bears for marking and rubbing, footprints and scats of bears and signs of bears feeding.
- Generally, "Bear trails" should try to concentrate activity rather than disperse it.



We can look for bears' foot prints along the bear trail (Photo: S. Reljić).

- The impact of the construction of the "Bear trails" should be kept to the minimum.

#### **Specific recommendation for the "Bear trail" product:**

- It is suggested that the maximum size of a roving group on the "Bear trail" should be 12-15 guests.
- In both situations it is suggested that there be no more than 8 guests per guide.
- In many cases, the behaviour of the group can be more disruptive to bears and other wildlife than group size, so guides and their group will act appropriately if a bear is encountered at all times regardless of the group size.
- Members of a single viewing group will stay within a few arms' lengths of one another, since bears are apt to perceive a greater threat from two or more nearby groups than a single cohesive group.
- For safety reasons guides should try to minimize bear tracking in poor visibility conditions (i.e., including after dusk and before dawn and during fog and rain).
- We recommend to set the time limit for the "Bear trail" experience to a maximum of 2 hours to reduce anthropogenic disturbance.

#### **4.2.4 Specific guidelines for the "Coexistence" product**

The presence of a shepherd on the pasture is a traditional method of livestock protection that effectively prevents large carnivore attacks. However, the practice has been neglected in many areas where large carnivores used to live. Nowadays sheep and other livestock roam free, without shepherds to protect them and often herds are not confined into safe night enclosures, thus increasing the risk of predation by bears. Livestock depredation is therefore a common phenomenon in areas where large carnivores are present, making the coexistence between carnivores and people a complex and difficult issue.

The life of a shepherd and the daily tasks he performs could make up for an attractive tourism product that would actively contribute to the improvement of human – bear coexistence. Because the tradition of

<sup>6</sup>Suggested further reading: Cawood Hellmund 1998.



Shepherding as a unique experience for tourists (Photo: J. Suhadolnik)

shepherding is slowly fading away, it would be essential to set up this kind of tourism product in cooperation with an organization that could facilitate the cooperation with trained shepherds. In such a “coexistence” product, the trained shepherds would coordinate, educate and involve tourists in the life and daily work of a shepherd: tourists would participate in the daily shepherd routine, focusing on the work carried out to prevent depredations by large carnivores. It is recommended that other local activities, such as hiking, biking, producing cheese, herbalism etc. are also offered to the visitors. Products that are manufactured in a bear-friendly way and marketed with a “Bear friendly” label can also get an important position in the domestic and foreign market. However, the “Bear friendly” label is more than just a marketing tool: it is about tolerance and coexistence between bears and people.

#### **Specific recommendations for the “Coexistence” product**

- When advertising the “coexistence” product, the working and housing conditions should be clearly communicated, as well as the fact that the work that tourist-shepherds will perform is often physically demanding, and that the probability of encountering bears is small.
- The tasks of the tourist-shepherds should be clearly defined.
- Shepherd accommodations are usually small and simple and a single shepherd can successfully train a maximum of 4 people. Consequently, “coexistence” products are recommended for small tourist groups only.
- The “coexistence” product should provide basic information on bears, the local flora and fauna and basic information on survival techniques and could include also basic field work with photo traps.

## 5. Literature Cited

Cawood Hellmund P. 1998. Planning trails with wildlife in mind. A handbook for trail planners. Trails and Wildlife Task Force, Colorado State Parks, Hellmund Associates.

Commercial Bear Viewing Association of British Columbia. 2014. Best practices for bear viewing. <http://www.bearviewing.ca/best-practices.htm>

Curtin S. 2010. Managing the wildlife tourism experience: the importance of tour leaders. International Journal of Tourism Research, 12: 219-236.

Goodwin H., Johnston G., Warburton C. 2000. Tourism and Carnivores - The challenge ahead. WWF-UK.

Green R., Giese M. 2004. Negative effects of wildlife tourism on wildlife. In: Wildlife tourism: Impacts, Management and Planning. Higginbottom K. (ed.). Altona, Cooperative Research Centre for Sustainable Tourism, Common ground publishing: 81–98.

Higginbottom K., Buckley R. 2003. Viewing of free-ranging land-dwelling wildlife. CRC for Sustainable Tourism, Gold Coast, Queensland.

Higginbottom K., Tribe A. 2004. Contributions of wildlife tourism to conservation. In: Wildlife tourism: Impacts, Management and Planning, Higginbottom K. (ed.). Altona, Cooperative Research Centre for Sustainable Tourism, Common ground publishing: 99-124.

How to behave in bear areas:

<http://dinalpbear.eu/wp-content/uploads/2014/12/LEAFLET-How-to-behave-in-bear-areas-ENGLISH.pdf>

Kavčič I., Majič Skrbinšek A. 2015. Analysis of hunting organizations questionnaire Action C.6: Implementation and promotion of the non-consumptive use of brown bears. [http://dinalpbear.eu/wp-content/uploads/2015/09/20150903\\_Analysis-of-hunting-organizations-questionnaireFINAL.pdf](http://dinalpbear.eu/wp-content/uploads/2015/09/20150903_Analysis-of-hunting-organizations-questionnaireFINAL.pdf)

Linnell J.D.C., Ericson M. 2008. Coexisting with large carnivores - The challenge and the opportunity. Large Carnivore Initiative for Europe.

McLuckie M., Wildstrand S., Birnie N. 2014. Wildlife watching hides. Nijmegen, Rewilding Europe: 63 str.

Moscardo G., Woods B., Greenwood T. 2001. Understanding visitor perspectives on wildlife tourism. Cooperative Research Centre for Sustainable Tourism: 57 str.

Secretariat of the CBD 2015. Tourism supporting biodiversity - A manual on applying the CBD Guidelines on Biodiversity and Tourism Development. Montreal, Canada.

U.S. Fish & Wildlife Service 2013. Best practices for polar bear viewing. [http://www.adfg.alaska.gov/static/viewing/pdfs/polar\\_bear\\_viewing\\_best\\_practices\\_usfws.pdf](http://www.adfg.alaska.gov/static/viewing/pdfs/polar_bear_viewing_best_practices_usfws.pdf)

Valentine P., Birtles A. 2004. Wildlife watching. In: Wildlife tourism: Impacts, Management and Planning. Higginbottom K. (ed.). Altona, Cooperative Research Centre for Sustainable Tourism, Common ground publishing: 15–34.

World Tourism Organization 2014. Towards measuring the economic value of Wildlife Watching tourism in Africa. United Nations World Tourism Organization, Madrid, Spain

# Annex I

## Biology and status of brown bears in Europe

The brown bear (*Ursus arctos*) is the most widespread and one of the largest bears on Earth. In Europe, brown bears can be found in many habitats, ranging from the tundra in the North to the Mediterranean landscapes in the South. Adult male bears weigh often more than 200 kg, but females are usually smaller and weigh approximately 120 kg! Bears are usually solitary animals, having home ranges that overlap and that are not defended against other conspecifics. Gatherings of several individuals are not uncommon and occur usually in places of food abundance.

### Life cycle

Brown bears in Europe mate from April to June; following a gestation of 180 to 270 days, 1 to 3 cubs are born in January, while the female is denning. Brown bear cubs are very vulnerable as they are born blind, hairless and weigh only approximately 340 grams. Growth is however rapid and cubs can reach a body mass of approximately 25 kg by their first summer. Brown bear cubs continue to suckle for up to 18 months while gradually eating a variety of foods and may remain with their mother for up to 2 years. Brown bears mature sexually at the age of 4 and can live up to 20 years in the wild.

As an adaptation to the limited food sources available, brown bears in Europe go in winter into winter sleep. Depending on latitude denning may last 2-6 months. Brown bears either dig out their own den or find a natural cave or hollow tree in which to hibernate. During this phase of their life bears do not feed and rely entirely on their accumulated fat reserves; during hibernation females also give birth to their young.

### Diet

Brown bears are omnivorous, and their diet varies seasonally - from grass and shoots in the spring to fruits and insects in the summer, nuts and plums in autumn. All year round bears eat roots, insects, mammals, and honey.

### Brown bears in Europe

Although heavily persecuted in the past, brown bear populations on the European continent have made impressive comebacks in recent years; it is estimated that currently more than 100000 brown bears live in Eurasia, with about 70000 of those living in the former Soviet Union. Other important populations in Europe are found in Scandinavia (> 5000 individuals), the Carpathians (> 7000 individuals) and in the Alps-Dinara-Pindos Mountains (> 3000 individuals).

### Conservation threats and priorities

Affecting brown bears to different extents across their range, the main conservation threats for the species in Europe are habitat destruction, poaching and limited tolerance/acceptance of bears that may be expressed through illegal killings. With the growing demand for more connectivity, humans in Europe have been increasingly utilizing and fragmenting critical bear habitat. Large infrastructure in particular (i.e., major highways, railroads) has been impacting bear populations directly through increased mortality (i.e., vehicle collisions) and indirectly through population and genetic fragmentation.

Brown bears throughout Europe (as elsewhere) are known to attack livestock and engage in various other negative human-bear interactions (i.e., property damage, raiding trash, close proximity to human settlements). People are naturally scared of such interactions and often result to killing bears in their defence. There is a need to constantly invest in education, information and law enforcement. Furthermore there is a need to develop fair



A bear standing on its hind legs is a sign of curiosity. If you see a bear make yourself noticeable (Photo: M. Masterl)

and democratic institutions that take the concerns of rural people into accounts when management decisions about bears and large carnivores in general are being made (Linnell & Ericson).

### "Are brown bears aggressive?"

Brown bears rarely attack humans. When they do, it is often because of their poor eyesight which leads them to mistake a person for another bear or animal. If disturbed, brown bears usually retreat. Attacks on humans are rare and occur when an animal is injured or when a female is defending its cubs.

### "Why do we need bears in the wild?"

Far from being "simply" charismatic and impressive, bears play also an important ecological role. Bears are an indication for a healthy and productive forest environment. Forest environments that are capable of supporting numerous, diverse ecological processes and the species that sustain it, including herbs, mushrooms, forest fruits and wild animals. Within this environment the brown bear plays an important ecological role as a seed disseminator. As bears are mainly vegetarian and roam widely, they scatter undigested plant seeds throughout their large home ranges. Occasionally however, bears in Europe will feed also on meat: as hunters, bears cull the weak and sickly animals, thus contributing to natural selection. As scavengers, bears clean up dead animal carcasses, which would otherwise pollute the forest environment and spread disease.

Bears are often referred to as "umbrella" species: because of their need for large, undisturbed, natural areas, the protection of their habitat does not have a positive effect only for the species but also for all the other species they share their space with.



Bears feeding at the feeding site (Photo: M. Stergar)

## Annex II

### An important issue in wildlife tourism: Baiting wildlife

Baiting is a very useful practice in attracting wildlife but also the most common area of debate in wildlife tourism (Moscardo et al. 2001). Numerous studies have focused on the various problems associated with visitors or tour guides baiting wildlife and most frequently pointed out the changes in feeding and reproductive behaviour of specific species/individuals. Apart from potential changes in the biology and behaviour of a wildlife species, baiting wildlife has also an ethical/philosophical aspect. It has been often argued that baiting wildlife supports stereotypes of animals as objects or toys for visitors' entertainment and is incompatible with the advocated "ecosystem approach" of wildlife tourism. On the other hand, baiting wildlife might be necessary in order to achieve the visiting frequency that is necessary in order to set up a successful wildlife watching operation. Therefore baiting is something to be considered very carefully and is only to be used after a good assessment of the impact. In the case of feeding bears in the northern Dinarics, which is anyway a measure (i.e., supplemental feeding) carried out in the day-to-day management of the species, baiting for bear watching purposes should not be a major issue of concern. When used within the framework of bear watching services in the northern Dinarics, supplemental feeding should be used in a way that it provides for the visiting rates that are necessary for the successful operation of a bear watching enterprise, but at the same time guarantees that animals are not habituated or that their natural feeding behaviour is not altered substantially. The bait should be as close to the natural food of bears as possible and should not be placed along the routes customers use to transfer from one place to another. Only registered feeding stations should be used for the purpose of bear watching.



**Authors:** Alexandros Karamanlidis, Irena Kavčič, Aleksandra Majić Skrbinšek, Lidija Bernardić, Mateja Blažič, Đuro Huber, Slaven Reljić

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E-mail: [dinalpbear@gmail.com](mailto:dinalpbear@gmail.com)



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