Ministry of Agriculture and Forestry of Finland

Management Plan for the Bear Population in Finland

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Management Plan for the Bear Population in Finland

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Abstract

The main objectives of the Management Plan for the Bear Population in Finland are to preserve the favourable conservation status of the bear population, while taking into account economic, social and cultural requirements and impacts and special regional characteristics, and to make sure that bears do not lose their fear of humans.

Preserving the favourable conservation status of the bear population is concerned with safeguarding the viability of the bear population while taking into account the different needs and views of the people living in or close to bear habitats and social sustainability. The Management Plan for the Bear Population describes the key measures that aim to preserve a viable bear population as part of the Finnish natural environment and ecosystems, enable sustainable hunting of bears for population management purposes and address the economic and social challenges caused by bears, such as damages to reindeer and domestic animals. The plan also responds to international obligations concerning Finland.

In the management plan, 1,400 individuals is regarded as the reference value for the favourable conservation status of the Finnish bear population.

The bear population management area is divided into the reindeer herding area, and into the eastern, central, western and southern areas outside the reindeer herding area. The population management areas have objectives and measures that support both the wider, national management of the bear population and this management plan's main objectives.

Finland's third Management Plan for the Bear Population was drawn up in spring 2025 as part of official duties under the lead of the Ministry of Agriculture and Forestry and in cooperation with the Finnish Wildlife Agency. The Natural Resources Institute Finland also supported the preparation process. The new plan is based on the 2022 Management Plan for the Bear Population.

Keywords bear, game, carnivores, game management, large carnivores

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Suomen karhukannan hoitosuunnitelma

Maa- ja metsätalousministeriön julkaisuja 2025:28

Julkaisija	Maa- ja metsätalousministeriö		
Yhteisötekijä	Maa- ja metsätalousministeriö		
Kieli	englanti	**Sivumäärä**	120

Tiivistelmä

Suomen karhukannan hoitosuunnitelman päätavoitteina on säilyttää karhukanta suotuisalla suojelutasolla ja ottaa samalla karhukannan hoidossa huomioon taloudelliset, sosiaaliset ja kulttuuriset vaatimukset ja vaikutukset sekä alueelliset erityispiirteet. Tavoitteena on myös ylläpitää karhukannan ihmisarkuutta.

Karhukannan suotuisan suojelutason säilyttämisessä kyse on karhukannan elinvoimaisuuden turvaamisesta ja samalla siitä, että karhun elinalueilla asuvien kansalaisten eri tarpeet ja näkemykset ja sosiaalinen kestävyys huomioidaan. Karhukannan hoitosuunnitelmassa kuvataan keskeiset toimenpiteet, joiden tavoitteena on turvata elinvoimainen karhukanta osana suomalaista luontoa ja ekosysteemeitä, mahdollistaa karhukannan kestävä kannanhoidollinen metsästys sekä vastata karhun aiheuttamiin taloudellisiin ja sosiaalisiin haasteisiin kuten poro- ja kotieläinvahinkoihin. Suunnitelmalla vastataan myös Suomea koskeviin kansainvälisiin velvoitteisiin.

Suomen karhukannan suotuisan suojelutason viitearvoksi katsotaan hoitosuunnitelmassa 1 400 yksilöä.

Karhukannan kannanhoitoalueet ovat poronhoitoalue ja poronhoitoalueen ulkopuolella itäinen alue, keskinen alue, läntinen alue ja eteläinen alue. Kannanhoitoalueiden tavoitteet ja toimenpiteet tukevat laajemmin valtakunnan tason karhukannan hoitoa ja hoitosuunnitelman päätavoitteita.

Järjestyksessään kolmas karhukannan hoitosuunnitelma valmisteltiin alkuvuoden ja kevään 2025 aikana virkatyönä maa- ja metsätalousministeriön johdolla. Hoitosuunnitelman valmistelussa tehtiin yhteistyötä Suomen riistakeskuksen kanssa. Lisäksi Luonnonvarakeskus on tukenut valmistelua. Pohjana oli vuonna 2022 vahvistettu karhukannan hoitosuunnitelma.

Asiasanat	karhu, riista, petoeläimet, riistanhoito, suurpedot		
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Förvaltningsplan för björnstammen i Finland

Jord- och skogsbruksministeriets publikationer 2025:28

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Referat

De huvudsakliga målen för förvaltningsplanen för björnstammen i Finland är att bibehålla en gynnsam bevarandestatus för björn och samtidigt beakta ekonomiska, sociala och kulturella krav och konsekvenser samt regionala särdrag vid förvaltningen av björnstammen. Syftet är också att bevara björnens människoskygghet.

Bibehållandet av en gynnsam bevarandestatus för björnstammen handlar både om att trygga björnstammens livskraft och om att beakta behoven och synpunkterna hos de medborgare som bor i björnens levnadsområden och den sociala hållbarheten. I förvaltningsplanen för björnstammen beskrivs centrala åtgärder för att trygga en livskraftig björnstam som en del av den finländska naturen och ekosystemen, möjliggöra en hållbar stamvårdande jakt på björn och att svara mot de ekonomiska och sociala utmaningar som björnen orsakar, såsom ren- och husdjursskador. Med planen uppfylls även de internationella skyldigheter som gäller Finland.

Referensvärdet för en gynnsam bevarandestatus för björnstammen är enligt förvaltningsplanen 1 400 individer i Finland.

Förvaltningsområdena för björnstammen är renskötselområdet samt östra, mellersta, västra och södra området utanför renskötselområdet. Målen för och åtgärderna i förvaltningsområdena stöder den nationella förvaltningen av björnstammen som helhet och de huvudsakliga syftena med förvaltningsplanen.

Det här är den tredje förvaltningsplanen för björnstammen. Beredningen av planen inleddes i början av 2025 och pågick under våren som tjänsteuppdrag under ledning av jord- och skogsbruksministeriet. Förvaltningsplanen har beretts i samarbete med Finlands viltcentral. Naturresursinstitutet har också medverkat i arbetet. Planen baserar sig på förvaltningsplanen för björnstammen från år 2022.

Nyckelord	björn, vilt, rovdjur, viltvård, stora rovdjur		
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Contents

INTRODUCTION

The main objectives of the Management Plan for the Bear Population in Finland are to maintain the favourable conservation status of the brown bear (*Ursus arctos*) population, while taking into account economic, social and cultural requirements and impacts and special regional characteristics, and maintain the bear population's wariness of humans.

The management plan aims to reconcile the needs of the people living and working in or close to bear habitats and the needs related to the protection of the bear population. The sets of measures in the management plan are 1) profound and expanding knowledge on the bear population, 2) management-based measures, and 3) acceptability of the bear and its population management. These sets of measures seek to ensure the achievement of the main objectives of the management plan and to maintain the favourable conservation status of the bear population.

The management of the bear population, like that of other large carnivores and game species, must take into account the interaction of these wild animals with humans and, more broadly, human activities. That is why the Management Plan for the Bear Population describes the various effects and interdependencies between the bear population and human activities, and vice versa. One of the approaches introduced in the plan is the multi-species approach to population management, that is, interaction between different species in relation to each other.

Maintenance of the favourable conservation status of the bear refers to safeguarding the viability of the bear population while taking into account social sustainability and the different needs and views of citizens living in or close to bear habitats. Measures taken pursuant to the Habitats Directive (92/43/EEC) should take account of economic, social, cultural and educational requirements and regional and local special characteristics. In recent years, this has not been achieved in the sense that hunting for population management purposes, which has been identified as a key bear population management measure, has been prevented in part or fully outside the reindeer herding area. Stricter case law has resulted in no bears having been hunted under derogations based on population management outside of the reindeer herding area in 2024. A key objective identified for the

management of the bear population is to maintain the bear population's wariness of humans, which contributes towards ensuring that the public attitude towards bears remains positive. The Management Plan for the Bear Population describes the key measures that aim to preserve a viable bear population as part of the Finnish natural environment and ecosystems, enable sustainable hunting of bears for population management purposes and address the economic and social challenges caused by bears, such as damage to reindeer and livestock. The plan also responds to international obligations concerning Finland.

The plan considers a Favourable Reference Value (FRV) of 1,400 individuals to be sufficient to preserve the favourable conservation status of the Finnish bear population. This FRV represents the population size that would ensure a favourable conservation status in the long term.

From the perspective of population management, the Finnish bear population is divided into a total of five population management areas. These are the reindeer herding area and, outside of the reindeer herding area, the eastern, central, western and southern areas. The objectives and measures of the population management areas support more broadly the national-level management of the bear population and the main objectives of this management plan.

In general, it can be said that the bear, as a large carnivore, is a valued and respected animal as part of Finnish nature and a valued game species. This management plan aims to preserve this high regard. The brown bear is also Finland's most abundant large carnivore, along with the Eurasian lynx (*Lynx lynx*).

The bear is an omnivorous large carnivore. Its diet consists of berries, cereal grains, fish, insects, birds and mammals. The bear will eat cervids and will also feed on carrion. A bear is capable of killing an adult elk. (Largecarnivores.fi)

Update of the Management Plan for the Bear Population

The Management Plan for the Bear Population was updated in the first half of 2025 as part of official duties under the lead of the Ministry of Agriculture and Forestry. The update was based on the Management Plan for the Bear Population in Finland adopted in 2022. The Ministry cooperated with the Finnish Wildlife Agency in the process, which was also supported by the Natural Resources Institute Finland. The Natural Resources Institute Finland participated in the update particularly with regard to monitoring of the bear population, research and documentation relating to the biology of the bear population management areas and occurrence of bears. The update was kept concise and focused particularly on the determination and

further specification of the bear population management areas. In addition, the chapter on hunting for population management purposes was edited and the Favourable Reference Value (FRV) for the bear population was included in the management plan. The previous management plan (2022), on which this plan is based, is reasonably recent, whereby no need for a more extensive update was identified. The setting of the favourable reference population (FRP) took place as part of official duties at the Ministry of Agriculture and Forestry and in accordance with the Commission guidelines on the interpretation of Article 17 of the Habitats Directive. The Natural Resources Institute Finland and the Finnish Wildlife Agency did not participate in the setting of the FRV. The draft management plan for the bear population in Finland was circulated for comments from 9 April 2025 to 21 May 2025 and finalised as part of official duties at the Ministry of Agriculture and Forestry. The management plan for the bear population at hand is the third bear population management plan in Finland.

The need to update the plan with regard to the population management areas was identified in the measures proposed by the working group appointed by the Ministry of Agriculture and Forestry in 2024 to develop practices for granting derogations concerning the wolf and other large carnivores. In its report (2024), the working group stated that the hunting of large carnivores and bears for population management purposes has been prevented in Finland particularly for the reason that the objective required by the Habitats Directive for derogations from the protection of species has not been accepted at national courts of law. When assessing the acceptability of an objective, the special characteristics relating to the species concerned may be taken into account. For example, with regard to the brown bear, population management should relate to area-specific concrete impacts and problems caused by excessive growth of the bear population. Identified in the working group's discussions as a key need in the development of practices for granting derogations in accordance with subparagraph (e) is describing the objective and taking account of the area-specific aspects in, for example, population management plans specific to population management area. Based on the working group's proposals, the bear population management plan has been updated so that the population management areas and their objectives and measures are identified more clearly and precisely. This plays a part in supporting the Ministry of Agriculture and Forestry in planning the hunting of bears for population management purposes and in enabling the objective of licences being set by decree of the Ministry of Agriculture and Forestry specifically for each species and population management area following amendments to section 41 of the

Hunting Act.[1] The Management Plan for the Bear Population in Finland adopted in 2022 did not include a division into population management areas in areas of Finland outside of the reindeer herding area.

The update process focused particularly on chapters *1. Main objectives for the Management Plan for the Bear Population, 2.2.1 Population management areas* and *2.2.2. Hunting for population management purposes*. The other chapters of the management plan have been updated mainly to take account of up-to-date data on the topic and any changes in, for example, legislation. For example, since the adoption of the 2022 Management Plan for the Bear Population, hunting supervision has been developed by amending legislation with regard to the Act on the Supervision of Hunting, Fishing and Wilderness Areas and the Hunting Act. Measures under the other chapters have mainly remained unchanged. Some new measures have been included, and individual measures have been removed, where necessary. No new background document was produced for the new management plan. A background document for the Management Plan for the Bear Population adopted in 2022 was published in conjunction with the 2022 management plan (Management Plan for the Bear Population in Finland 2022 – Background document). The document still contains up-to-date information on topics including the status and trend of the bear population, the economic and social significance of the bear in Finland, and legislation.

One of the important themes still included in the bear population management plan is the multi-species approach to population management, which for large carnivores means taking account of the interactions between large carnivores and their prey in population management and its planning. The approach also emphasises the fact that issues pertaining to bear population management cannot be considered separately from other large carnivores.

Still included as a key theme in the management plan is the monitoring of the bear population, research, and the development of the network of large carnivore contact persons forming the basis of bear population monitoring. In recent years, steps forward have been made in bear population monitoring through the development of a supplementary method based on genetic identification of individuals. The management plan also examines issues related to maintaining the bear population's wariness of humans and artificial feeding of bears from the points of view of baiting for photography purposes and feeding sites maintained

1 The amendments to section 41, subsections 1 and 5 of the Hunting Act entered into force on 27 May 2025.

by private persons. Communication related to bears has been identified as a key measure in several sets of measures. It can therefore be said that the management of the bear population touches on many different issues and also on different sectors, and the coordination of the management must therefore take account of a number of different aspects.

Background to bear population management

The management plan adopted in 2022, on which this management plan is based, was updated in 2016 in cooperation between the Finnish Wildlife Agency and the Natural Resources Institute Finland and circulated for comments in 2017. At that point, the starting point for the preparation of the management plan was that the measures to be established must be capable of genuinely pursuing the ecologically, economically and socially sustainable management of the bear population. This starting point is still valid. However, when formulating the objectives and measures to be adopted, account must be taken of the fact that the legislative framework and international commitments limit the options for solutions. Citizens have divergent expectations and requirements regarding bear population management, so the preparation of a management plan also means reconciling different points of view. In addition, the resources available for the management of the bear population must be taken into account. The resources in Finland are scarcer than in many other countries, and they are not expected to change very much from the current situation.

The first Management Plan for the Bear Population in Finland was adopted in 2007, and since then the bear population has grown. In 2008, the Natural Resources Institute Finland estimated that there were 1,050–1,100 bears over the age of one year in Finland before the 2008 hunting season. According to the population estimate published by the Natural Resources Institute Finland in 2025, there were 1,816–2,375 bears (at 90% confidence interval) in autumn 2024 before the start of the hunting season. According to a forecast based on the Institute's population model, the number of bears before the 2025 hunting season is 2,062–2,745 (with 2,367 being most probable), of which 1,791–2,470 (2,100) outside of the reindeer herding area. (Mäntyniemi et al. 2025).

Structure of the management plan

The management plan presents the objectives and measures for the management of the bear population. The measures proposed include regional management of the bear population, bear population monitoring, prevention of damage, and hunting for population management purposes. The Management Plan for the

Bear Population describes the measures taken by the Ministry of Agriculture and Forestry and the members of the Finnish Wildlife Consortium to manage the bear population. The Finnish Wildlife Agency monitors the implementation of the Management Plan for the Bear Population and reports annually to the Ministry of Agriculture and Forestry on the implementation of the management plan. The accuracy of reporting is enhanced by annual assessments of the regional wildlife councils concerning the implementation of the objectives and measures of the management plan in their respective territories, and by the statement made by the National Wildlife Council to the Ministry of Agriculture and Forestry on the basis of these.

Chapter 1 of the management plan describes the main objectives of the management plan, the criteria for a favourable conservation status and the Favourable Reference Value (FRV) for the bear population.

Chapter 2 describes three key sets of measures (sections 2.1, 2.2 and 2.3) that support the main objectives of the management plan. Their subsections describe the sets of measures in more detail. For example, section 2.1 Profound and expanding knowledge on the bear population, consists of subsections 2.1.1 Safeguarding and developing the monitoring of the bear population and 2.1.2 Network of large carnivore contact persons. The individual measures can be found in a text box at the beginning of each subsection, and the text of the subsections describes the measures in more detail including their background, requirements and implementation.

Chapter 3 describes the management plan's 'Other measures', which support the objectives of the management plan and the other sets of measures. The other measures are 3.1 International cooperation, 3.2 Translocations of bears (NB: the measure states that no translocations will be carried out), 3.3 Diseases transmitted by bears and 3.4 Communication.

Chapter 4 describes the implementation of the management plan. The references used for the measures sections are listed at the end of the document. The list of references is followed by an appendix containing graphs and tables with data including damage to livestock, agriculture and reindeer caused by bears, number of cases of executive assistance in large game matters, number of assignments to put down or chase away bears issued by the police, bear observations near residential or production buildings, and protective materials supplied.

1 Main objectives of the Management Plan for the Bear Population

Main objectives:

The main objectives of the Management Plan for the Bear Population in Finland are to maintain the favourable conservation status of the bear population, while taking into account economic, social and cultural requirements and impacts and special regional characteristics, and to make sure that bears do not lose their wariness of humans.

Measures supporting the main objectives:

- The key sets of measures in the Management Plan for the Bear Population are 1) profound and expanding knowledge on the bear population, 2) management-based measures, and 3) acceptability of the bear and its population management. The sets of measures support the main objectives, that is, maintaining the favourable conservation status of the bear population, while taking into account economic, social and cultural requirements and impacts and special regional characteristics, and making sure that bears do not lose their wariness of humans.
- The measures described in the Management Plan for the Bear Population maintain the bear population's wariness of humans, support the minimisation and prevention of harm and damage caused by the bear population and support the acceptability of the bear. The measures more broadly support the coexistence of bears and humans and the preservation of the favourable conservation status of the bear in Finland.
- To support the management of the bear population, the bear population is examined by population management area, taking into account the special characteristics relating to the dispersal and abundance of the bear population as well as other area-specific special characteristics, such as the impacts of the bear population on human activities and prey animals (multi-species approach).
- The plan considers a Favourable Reference Value (FRV) of 1,400 individuals to be sufficient to preserve the favourable conservation status of the Finnish bear population.

Favourable Reference Value for the bear population

The brown bear is a species of Community interest in need of strict protection under Annex IV of the Habitats Directive. In this management plan, the favourable conservation status is examined based on the requirements of the EU Habitats Directive. 'Favourable conservation status' is the key concept of the Habitats Directive. Article 2(2) of the Directive lays down the objective for the conservation of species under the Directive. Under the Article, measures taken pursuant to the Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest. The concept of 'favourable conservation status' is also of significance when considering a derogation under Article 16 from strict protection under Article 12.

Article 1(i) of the Directive lays down content of the favourable conservation status. According to the Habitats Directive, the conservation status of a species is taken as 'favourable' when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The favourable conservation status of Annex IV species is assessed in a procedure in accordance with Article 17 of the Habitats Directive in conjunction with reporting taking place once every six years. Assessments of the achievement of the favourable conservation status can make use of the Favourable Reference Value (FRV) describing the population size ensuring the favourable conservation status over the long term. This requires that the other criteria set for the favourable conservation status are also met. It is not simple to set the FRV for population size (Favourable Reference Population, FRP), as there is no precise definition for this. FRVs can also be set for habitats and ranges. The conservation status of the brown bear has been assessed to be favourable with regard to both criteria. In this text, 'Favourable Reference Value' or 'FRV' always means Favourable Reference Population (FRP).

The European Commission has drawn up more specific guidelines for the determination of FRVs for species. The interpretation guidelines for the 2019–2024 reporting period (*Reporting under Article 17 of the Habitats Directive: Guidelines on concepts and definitions – Article 17 of Directive 92/43/EEC*) were published in 2023, in addition to which the Commission commissioned a separate report from two

key European large carnivore researchers. The report (Linnell, J. D. C. and Boitani, L. *Developing methodology for setting Favourable Reference Values for large carnivores in Europe*) was published in 2025.

According to the Commission guidelines on Article 17 (2023), FRVs can be determined by means of two different approaches that are not mutually exclusive. These approaches are 1) the reference-based approach and 2) the model-based approach.

Reference-based approach for setting FRVs

According to the interpretation guidelines, the reference-based approach must compare the current distribution and population size or surface area with those of a past favourable period and at the date of entry into force of the Directive and, based on this, set values or use percentage classes to qualify how far the current value is from the favourable situation.

Model-based approach for setting FRVs

For the model-based approach, the guidelines recommend using Population Viability Analysis (PVA) to identify the minimum viable population (MVP) and setting the FRV on the basis of these. According to the guidelines, the FRV must be bigger than the MVP.

Setting the FRV for the Finnish bear population

Since no PVA has been conducted for the bear population in Finland and the MVP has therefore not been determined, the model-based approach cannot be applied. The FRV for the Finnish bear population is therefore set using the reference-based approach, which is also an approach in accordance with the Commission's interpretation guidelines. The following available data on the Finnish bear population is used as a basis for the comparison and to set the FRP:

1. *Finnish bear population in 1995 when Finland joined the EU and when the Habitats Directive entered into force*
   When Finland joined the EU and the Habitats Directive entered into force, the Finnish bear population was estimated to be just over **700** individuals over the age of one year (Ministry of Agriculture and Forestry, 2007 Management Plan for the Bear Population in Finland).

2. *Finnish bear population in the 1860s*
   A scientific article published in 2015 estimates that, before the commencement of hunting in the late 1860s that resulted in a reduction in the bear population, the Finnish bear population was **655–1,352** individuals (Mykrä et al. 2015).
3. *Bear population in the first reporting period for the Habitats Directive in 2001–2006, when the conservation status of the bear population was already reported to be favourable*
   The first report under Article 17 of the Habitats Directive covered 2001–2006. The bear population was reported as having been in the range of **800–1,100** individuals over that period. The conservation status of the Finnish bear population was reported as being favourable.
4. *Reported FRV for the Swedish bear population*
   Sweden has set a FRV for the Swedish brown bear population, which Sweden has used in reporting under Article 17. The FRV for the Swedish bear population is based on a Population Viability Analysis (PVA). In addition, the bear population at the beginning of Sweden's EU membership, totalling 950–1,200 individuals, was taken into account when setting the FRV. A 2013 report prepared for the Riksdag, the Swedish parliament (Regeringens proposition 2012/13:191), presented the Favourable Reference Population (FRP) as ranging between 1,100 and 1,400 individuals. In Sweden, decisions on FRPs are made by the Swedish Environmental Protection Agency under section 5 of the Ordinance on Management of Large Carnivores (SFS 2009:1263). According to the most recent decision in force, the FRP for the bear population used in reporting under Article 17 is **1,400 individuals**.

Favourable Reference Value for the Finnish bear population

Based on the above, the starting point for the Management Plan for the Bear Population in Finland is that the Favourable Reference Value (FRV, specifically the Favourable Reference Population, FRP) for the Finnish bear population is **1,400 individuals**. The FRV refers to a time before the commencing hunting season. The Natural Resources Institute Finland uses the population model to produce a forecast of the population size before the commencing hunting season. This enables the planning of hunting for population management purposes to estimate the impact of the harvesting rate in relation to the FRV.

The FRV (1,400 individuals) is significantly larger than the size of the bear population when Finland joined the EU and the Habitats Directive entered into force and larger than the size of the bear population at 800–1,100 individuals

reported in the first reporting under Article 17. The FRV of 1,400 bears corresponds to the level that according to research equals the population at its highest in the 1860s and the level set by Sweden as the FRP for the Swedish bear population.

The assessment of the conservation status has been carried out three times: for the periods 2001–2006, 2007–2012 and 2013–2018. Each time, the bear was assessed as having a favourable conservation status in both the boreal and the alpine zones. The bear has flexible habitat requirements.

Habitats suitable for the bear can be found everywhere, with the exception of extensive farming areas and denser human settlements, so it is not threatened by habitat loss. The bear population has been developing favourably for a long time. In addition, our bear population is highly productive and has a strong connection with the bear population living in Russia (see the 2022 background document sections 2.2, 2.4 and 2.8), so the Finnish bear population is viable. There are few threats to the favourable conservation status of the bear in Finland. Hunting as a threat to its conservation status has been assessed as being of low significance. Mortality through hunting is managed by continuous monitoring of the population, annual planning based on information gathered on the impact of the harvesting rate, a decree of the Ministry of Agriculture and Forestry on the maximum allowable bag limit for bears (quota), and derogations issued based on decisions of the relevant authorities. Continuous population monitoring will also ensure that up-to-date data is always available on the bear population to underpin decision-making. The actual trend of the population shows that the changes in the bear population have been successfully addressed, both when the population has declined and when it has increased.

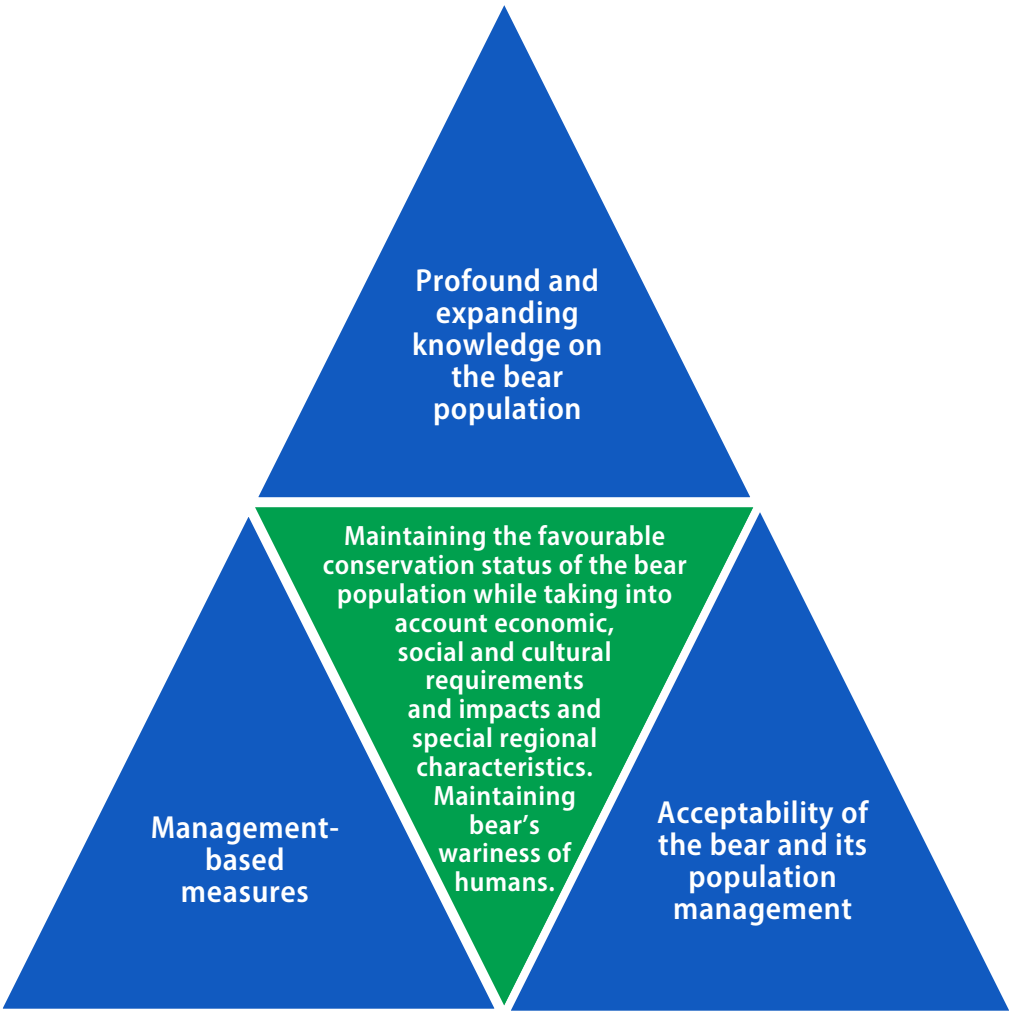
According to an estimate by the Natural Resources Institute Finland (2025), there were 1,816–2,375 bears in 2024 before the start of the hunting season (at 90% confidence interval). According to a forecast based on the Institute's population model, the number of bears before the 2025 hunting season is 2,062–2,745 (most probable 2,367). The forecast includes bears of all ages, including cubs born in spring 2025. The viability of the bear population is also assessed in the context of the IUCN Red List of Threatened Species. In the 2019 assessment, the bear was not found to be a threatened species. The brown bear was assessed to belong to the Near Threatened (NT) category.

No FRV has been previously set for the Finnish bear population, as the conservation status of the Finnish bear population has been favourable during all of the reporting periods. The examination and setting of the FRV described in the bear population management plan supports the management of the bear population so

that the bear population will not in any circumstances decline below the favourable conservation status. The FRP does not, however, represent any target level where the bear population should be or to where the population should decline considering that the bear population is significantly bigger than 1,400 individuals. It is not appropriate to set a target population in terms of the number of individuals for the Finnish bear population since the objective of the management of the bear population is to seek a balance in the whole formed by ecological, economic and social aspects.

2 Key sets of measures in the Management Plan for the Bear Population

Figure 1. The sets of measures in the Management Plan for the Bear Population are 1) profound and expanding knowledge on the bear population, 2) management-based measures, and 3) acceptability of the bear and its population management. The sets of measures support the main objectives of the management plan, that is, maintaining the favourable conservation status of the bear population, while taking into account economic, social and cultural requirements and impacts and special regional characteristics, and maintaining bear's wariness of humans.



2.1 Profound and expanding knowledge on the bear population

2.1.1 Safeguarding and developing the monitoring of the bear population

Measures:

- The general development work of the bear population estimate will be continued at the Natural Resources Institute Finland. The population model will be used to produce an estimate of the size of the population for each population management area.
- The Natural Resources Institute Finland and the Finnish Wildlife Agency will explore the opportunity to more extensively utilise observations made by citizens to support the work of large carnivore contact persons and the monitoring of the bear population.
- Border guards will record large carnivore observations in the online system (Tassu) in accordance with a procedure agreed with the Natural Resources Institute Finland.
- Genetic samples will be collected to support observational population monitoring.

A key part in the monitoring of the bear population is played by the observations of bear litters reported voluntarily by large carnivore contact persons. The difficulty with the method is the regional and annual variation in observation activity, while its cost-effectiveness is by far its most important advantage. Variation in the rate of reporting observations has, from time to time, changed the regional population estimate strongly from year to year. The population structure can also vary, especially in areas where the bear population is small.

In spring 2025, the Natural Resources Institute Finland produced for the first time a bear population estimate using the population model. The population model takes more specifically into account the reproductive biology and long life cycle of the bear and the more extensive datasets available. Published in 2025, the model

combines, for example, observation datasets collected since 2004 and the age and sex distribution of harvested individuals. The previous population estimate method was only based on litter observations for the year in question. The population model reduces the sensitivity of the population estimate to fluctuations in litter sizes and observation conditions of individual years and better illustrates change in the bear population from year to year. A version of the model suitable for the reindeer herding area, seeking to take account of the special characteristics of the reindeer herding area and the reindeer damage caused by the bear, is being developed. (Natural Resources Institute 2025c.)

To maintain the rate of reporting observations at a good level, identifying the areas from which bear observations are no longer being received would be important. The development of electronic systems offers better possibilities for identifying these areas and improving the rate of reporting observations. The Skandobs mobile app developed by Sweden and Norway or a corresponding electronic program to support observations made by citizens could be used to expand the group of persons making observations and consequently facilitate the work of the large carnivore contact persons.

The monitoring of the bear population using genetic methods is becoming more widespread around the world. For example, Finland's neighbours Sweden and Norway monitor their bear population based on genetic methods.

The Natural Resources Institute Finland is developing an additional method for monitoring the bear population based on genetic identification with a view to improving the accuracy of bear population estimates in the different population management areas. The project completed by the Institute collected bear faeces samples from 11 reference areas of Finland outside of the reindeer herding area in 2022–2023. The project's sample collection involved volunteers from game management associations and the Natural Resources Institute Finland's field staff. The DNA-based method will not replace the network of large carnivore contact persons, but comprehensive genetic data provides a reference point for the litter observation data, which helps in the interpretation of the litter observation data. The project also developed an SNP panel for genetic analyses suitable for the genetic monitoring of the bear population in the entire Fennoscandian region. The main funding provider for the project was the Ministry of Agriculture and Forestry. The inclusion of genetic monitoring in the basic methods of population monitoring would require permanent additional resources for the Natural Resources Institute Finland.

2.1.2 Network of large carnivore contact persons

Measures:

- The network of large carnivore contact persons will be developed and its operations will be regularly monitored. The Finnish Wildlife Agency will organise training in observation and recording for all new large carnivore contact persons. The Finnish Wildlife Agency and the Natural Resources Institute Finland will organise regular training and development events for all large carnivore contact persons.
- The required number of large carnivore contact persons will be trained to collect bear faeces samples for DNA analysis.
- In Northern Finland, the development of the network of large carnivore contact persons aims to increase the coverage of the observation network.
- The Finnish Wildlife Agency will investigate the willingness of representatives of professions that spend a great deal of time in the wild particularly in Northern Finland to act as large carnivore contact persons and to submit bear observations.
- The network of large carnivore contact persons in Northern Finland will be developed in such a way that experienced large carnivore contact persons trained by the Finnish Wildlife Agency will train new large carnivore contact persons in observation and recording and will be responsible for monitoring the observation activity in their area.

The population sizes of Finland's large carnivores, that is, the wolf, lynx, wolverine and bear, are regularly monitored on the basis of observations recorded in the Tassu system by the large carnivore contact persons. These include sightings as well as observations of tracks, faeces, dead animals (carrion) and mauling marks.

Information of primary importance includes all litter observations and observations of large carnivores in the vicinity of human settlements. (Finnish Wildlife Agency.)

In Northern Finland, the number of large carnivore contact persons is significantly lower than in the rest of the country. Due to the relatively low human population density in the area, it is difficult to form a network of large carnivore contact persons as extensive as in the rest of Finland. However, the network in Northern Finland can also be significantly improved.

The network of large carnivore contact persons has been systematically developed with the measures of the previous Management Plan for the Wolf Population in Finland published in 2015. However, the work should continue and, in Northern Finland, an arrangement should be tried out in the future whereby more responsibility would be taken locally in the development and maintenance of the network, as well as in the monitoring of the observation activity, as the resources of the Finnish Wildlife Agency are limited. The experiment would be carried out in cooperation with game management associations.

When developing the network of large carnivore contact persons, the possibility of using large carnivore observations by persons whose work involves spending a great deal of time in the wild should also be taken into account. Such persons include, in particular, employees of the Finnish Forest Centre, forest management associations, Metsähallitus, the Finnish Wildlife Agency, the Reindeer Herders' Association, reindeer herders in the different reindeer herding cooperatives, rural affairs officers in municipalities, public officials of the Finnish Border Guard and employees and public officials of Centres for Economic Development, Transport and the Environment.

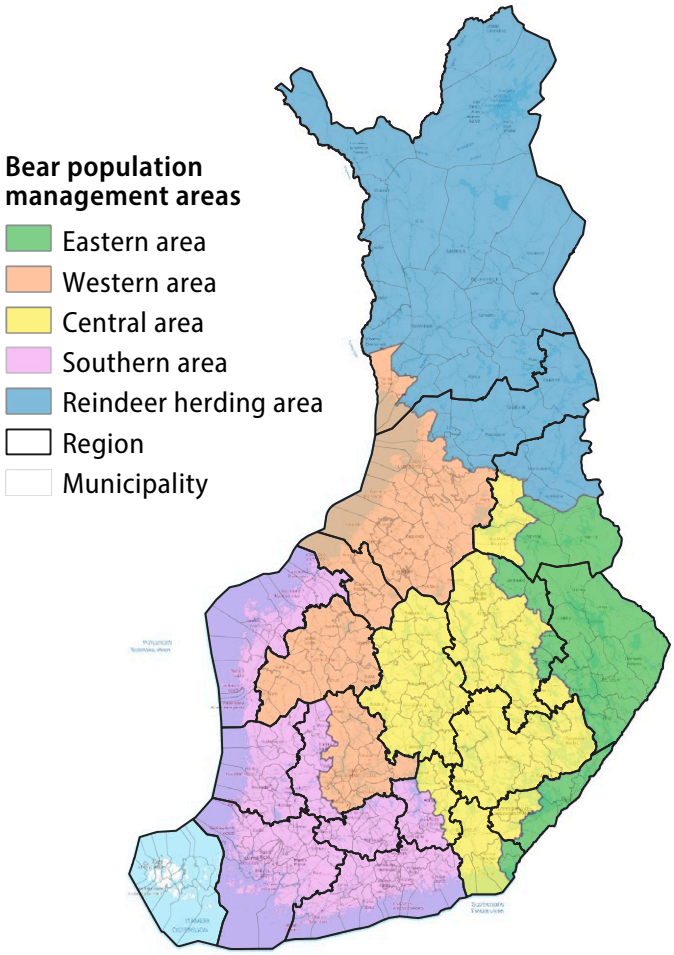
2.2 Management-based measures

2.2.1 Population management areas

Measures:

- The population management areas for the Finnish bear population are the reindeer herding area and, outside of the reindeer herding area, the eastern, central, western and southern area.
- The Ministry of Agriculture and Forestry will regularly assess the number and boundaries of the population management areas outside of the reindeer herding area.
- The Ministry of Agriculture and Forestry will approve the boundaries of the population management areas of the bear population annually by decree.

Figure 2. The population management areas of the bear population are the reindeer herding area and, outside of the reindeer herding area, the eastern, central, western and southern population management area. (Map image: Finnish Wildlife Agency.)



Regions and municipalities included in the population management areas

Reindeer herding area:
The area specified in the Reindeer Husbandry Act (848/1990).

Eastern area:
The municipalities of Imatra, Lappeenranta, Parikkala, Rautjärvi and Ruokolahti in the region of South Karelia; the municipalities of Kuhmo, Sotkamo and Ristijärvi in the region of Kainuu; the municipalities of Miehikkälä and Virolahti in the region of Kymenlaakso; the

municipalities of Ilomantsi, Joensuu, Juuka, Kitee, Kontiolahti, Lieksa, Liperi, Nurmes, Outokumpu, Polvijärvi, Rääkkylä and Tohmajärvi in the region of North Karelia; and the municipalities of Kaavi, Rautavaara, Sonkajärvi and Tuusniemi in the region of North Savo.

Central area:
The regions of South Savo and Central Finland; the municipalities of Lemi, Luumäki, Savitaipale and Taipalsaari in the region of South Karelia; the municipalities of Kajaani and Paltamo as well as the areas of Puolanka in the region of Kainuu not included in the area specified in the Reindeer Husbandry Act (848/1990); the municipalities of Hamina, Kotka, Kouvola and Pyhtää in the region of Kymenlaakso; the municipality of Heinävesi in the region of North Karelia; the municipalities of Iisalmi, Joroinen, Keitele, Kiuruvesi, Kuopio, Lapinlahti, Leppävirta, Pielavesi, Rautalampi, Siilinjärvi, Suonenjoki, Tervo, Varkaus, Vesanto and Vieremä in the region of North Savo; and the municipalities of Hartola, Heinola, Iitti and Sysmä in the region of Päijät-Häme.

Southern area:
The regions of Kanta-Häme, Ostrobothnia, Satakunta, Uusimaa and Southwest Finland; the municipalities of Hämeenkyrö, Ikaalinen, Kihniö, Parkano, Punkalaidun, Sastamala and Urjala in the region of Pirkanmaa; and the municipalities of Asikkala, Hollola, Kärkölä, Lahti, Orimattila and Padasjoki in the region of Päijät-Häme.

Western area:
The region of South Ostrobothnia; the region of Central Ostrobothnia; and the municipalities of Akaa, Juupajoki, Kangasala, Kuhmoinen, Lempäälä, Mänttä-Vilppula, Nokia, Orivesi, Pirkkala, Pälkäne, Ruovesi, Tampere, Valkeakoski, Vesilahti, Virrat and Ylöjärvi in the region of Pirkanmaa; the region of North Ostrobothnia, excluding the reindeer herding area specified in the Reindeer Husbandry Act (848/1990); and the municipalities of Kemi, Keminmaa and Tornio in the region of Lapland.

Based on the current situation, Finland will be divided in the management of the bear population into five population management areas, which will be set their respective objectives and measures that have been regarded as necessary in particular to promote the achievement of the objectives of the population management area in question. The objectives and measures of the population management areas support more broadly the national-level management of the bear population and the main objectives of this management plan. The bear population management areas are the reindeer herding area and, outside of the reindeer herding area, the eastern, central, western and southern area.

The population management area division supports those responsible for the implementation of the management plan in the promotion of the main objectives of the bear population management plan and, in that way, more broadly the national-level management of the population. Identification of the population management areas and taking the area-specific special characteristics into account also supports the area-specific targeting of measures and responds to the aim of enhancing the regionality in large carnivore population management plans (Ministry of Agriculture and Forestry 2024a). The Ministry of Agriculture and Forestry may update the population management area division, that is, the boundaries of the population management areas, by decree of the Ministry (decree on bear hunting permitted on the basis of a derogation). Only any significant changes to the boundaries of population management areas will require the management plan to be updated.

In addition to the measures described for each area (see subsections) and presented separately, the other measures described in the management plan will also be implemented in the population management areas. This means that the sets of measures described in the management plan cover the whole of Finland and the areas where bears are found. Included in the measures presented for the population management areas are those measures the role of which is emphasised when pursuing the objectives of the population management areas and when taking into account the special characteristics of the population management areas.

The multi-species approach to population management is also included in the examination of the population management areas. All species, predators and prey alike, are closely interlinked with each other in the natural environment, which is why the various species should be examined as a whole in bear population management, too. Multi-species examination takes place in the management plan particularly with regard to the eastern population management area, which is where the multi-species approach is emphasised, if only because the bear population is denser in the area. In the elk population harvesting recommendations

of the Management Plan for the Elk Population (2014), efforts have been made to take into account the predatory effect of large carnivores by including related data in the calculation model. However, at times the elk population has decreased more than expected, because the combined impact of large carnivores and hunting has not been considered properly or with sufficient accuracy. The Management Plan for the Elk Population (2014) describes in more detail the process of setting the objective for elk population management and the generally outlined objectives for the elk population management plan. Harvesting planning for the elk population takes account of the elk targets set for the elk management area as well as up-to-date estimates of the elk and large carnivore populations and the damage situation. (Ministry of Agriculture and Forestry 2014.)

The Finnish Wildlife Agency takes regional factors into account when considering derogations for the hunting of bears for population management purposes. The up-to-date game data developed in recent years in wildlife and game administration and its use offer excellent opportunities for this.

Basis of population management area division

The population management area division outside of the reindeer herding area is based in particular on the occurrence of the bear population in Finland, that is, the abundance and density of the bear population in the different areas. The starting points identified for drawing the boundaries of the population management areas are the requirements set by the Habitats Directive and its interpretation and, on the one hand, updates to the management plans being based on up-to-date information on the biology and ecological needs of game animals. This is why the first starting point for examination based on population management areas is the known occurrence of bears in Finland. This is based on Natural Resources Institute Finland data on bear litters in 2021–2023[2]. The population management areas outside of the reindeer herding area were determined on the basis of an expert assessment, taking particular account of litter observations. The boundaries of the population management areas follow the boundaries of regions and, in some places, municipal boundaries.

2 Data on bear litters for 2021–2023 has been published in population estimates in 2022–2024. The bear population estimate used to be based in particular on litter observations (NB: in 2025, the bear population estimate was produced for the first time with a population model, which takes more specifically into account the reproductive biology and long life cycle of the species and the more extensive datasets available).

The Finnish bear population is not distributed evenly. Instead, there are clear focus areas in the occurrence of bears, and the boundaries of the population management areas have been drawn to reflect these. It has not been regarded as necessary to take the division into population management areas to a level that is too fine-grained. Instead, the division into four large areas outside of the reindeer herding area has been regarded as sufficient considering the occurrence of the bear population, the data available on the bear population and impacts of bears and, on the other hand, the population management needs. A recent expert report (2025) also states that, for large carnivores, large population management units are needed considering the high mobility of large carnivores when setting hunting quotas[3].

The bear population is concentrated in eastern Finland in particular. One of the special characteristics of the eastern population management area is the impact on the bear population of bears coming from Russia.

The population management area of central Finland has the second-highest density of bears in Finland. In the western population management area, there is major local variation in the frequency of bears. In the southern area and the reindeer herding area, bear densities are regionally low and the likelihood of encountering a bear is low.

When planning the boundaries of the population management areas, aspects relating to ecology and the socio-economic impacts caused by bears were also taken into account. There are differences between areas in, for example, the number of bear observations near residential or production buildings and the amounts of damage caused by bears to livestock and agriculture. One of the most significant factors explaining unexpected encounters between bears and humans is the density of the bear population in the area.

3 The report presents, among others, best practices for large carnivore management when hunting or lethal control is conducted to manage them. The practices also include a list of the other factors that can be taken into account in bear and wolf population management when the measures also include hunting and/or lethal control. The above listing includes aspects that should be taken into account with regard to population management units. The report was prepared by the Norwegian Institute for Nature Research (NINA), Istituto di Ecologia Applicata and the Large Carnivore Initiative for Europe (LCIE). (Linnell et al. 2025a.)

It can be said at the general level that there is a focus on the area of eastern Finland in bear observations near residential or production buildings and in damage caused by bears to livestock and agriculture, with eastern Finland also having the highest density of bears in the country. When examined by population management area, bear observations near residential or production buildings in relation to surface area have been reported in the following order (with the relative number of observations decreasing as the number gets bigger, meaning the largest number of observations having been reported in eastern Finland): 1 eastern population management area, 2 central population management area, 3 western population management area, 4 southern population management area and 5 reindeer herding area. (Appendix, Graph 9.)

Executive assistance provided by game management associations to the police in problems caused by bears also appears to follow the bear density figures. Executive assistance in large game matters is provided in situations where the police order bears to be chased away or put down under the Police Act. Such orders mainly apply to situations such as those where a bear is sighted in or near a built-up area or where the behaviour of a bear is so threatening that speedy measures are required instead of a separate decision made by the Finnish Wildlife Agency, or where a bear has, for example, been injured in a car accident (see more in subsection 2.3.4). Data specific to regional offices of the Finnish Wildlife Agency shows that orders issued by the police focus on eastern Finland. An individual causing problems may have been chased away on multiple occasions under an order issued by the police. In the numbers of cases of bears being chased away, the areas standing out are the eastern and central population management areas and, in 2024, the southern population management area. (See Appendix, Graph 2.)

In the population management areas outside of the reindeer herding area, the greatest damage to livestock is reported in the central and eastern population management areas. In these areas, the damage has varied at the annual level in 2020–2024 from just under EUR 40,000 to just under EUR 90,000. The damage figures reported in the other population management areas are clearly lower. (See Appendix, Graph 3.)

The damage caused by bears in the reindeer herding area is mainly damage to reindeer, and the magnitude of damage is considerably greater than in other types of damage caused by bears at the national level.

Area-specific management of the growth and size of the bear population

In areas with high concentrations of bears, culling will not, when planned carefully, have an adverse effect on the maintenance of the favourable conservation status at the national level, considering that the bear population has dispersed over an extensive area in Finland and when assessing and taking into account the impact on maintaining the favourable conservation status. In addition, depopulation of areas particularly densely populated by bears is important to ensure social sustainability. The planning of hunting for population management purposes should not, however, be fixed merely on the density or growth of the bear population in relation to, for example, some other area or point in time. Plans must also take account of the occurrence of concrete impacts and problems caused by the bear population in the area examined at the prevailing population densities. Finland also still has suitable areas where the number of bears could stand to increase. An evenly distributed bear population should not even be pursued as, in the management of the bear population in different parts of Finland, the typical conditions, human activities and livelihoods in each region must be taken into account. Human settlements are concentrated in southern Finland and, among livelihoods, the core area of apiculture in particular is also located there.

Hundreds of bear observations are made in southern Finland every year. However, there are still few breeding females in the region. Care should be taken in the management of the bear population in areas such as this, as it is possible that even a small increase in the number of bears could cause a relatively large amount of damage and problems. Large cultivated areas are already reducing habitats directly suitable for bears.

Reindeer herding area

Objectives:

In the reindeer herding area, the objective is to keep the damage caused by bears at a reasonable level.

Measures:

- In the reindeer herding area, the aim is to reduce the damage caused by bears by way of damage-based derogations and quota hunting (so-called interruption hunting).

- The scaling of hunting in the reindeer herding area will reflect the development of damage caused by bears regionally and based on total accumulation of damage.
- The Ministry of Agriculture and Forestry, in cooperation with the Norwegian and Swedish authorities, will separately assess the need for any necessary measures to secure connections between the bear populations of Finland and Scandinavia.

In the reindeer herding area, bear densities are regionally low. It should, however, be noted that observation data from the reindeer herding area is still limited. The lack of observation data is largely due to the network of observers being sparse. Based on the regional distribution of bear observations, the bear population in the region is most abundant near the eastern border of Finland.

Reindeer husbandry is an important source of livelihood in the reindeer herding area, and even at the nationwide level the majority of the costs of compensating for damage caused by bears is also focused on reindeer husbandry. The bear population estimate in the reindeer herding area involves more uncertainties than in the rest of the country, so the development of the damage caused by bears is presently reflected in the scaling of hunting in the reindeer herding area. In future, uncertainty related to the bear population estimate in the reindeer herding area will be reduced by targeting measures to determine the number of bears in accordance with subsection 2.1.2.

The damage caused by bears to reindeer is in a league of its own in terms of number and amount of compensation paid compared with damage to livestock and agriculture. There appears to have been an upward trend in the level of compensation in recent years. In 2024, reindeer damage caused by bears was reported to a total of just under EUR 1.7 million (Appendix, Figure 7). The amount of compensation paid for livestock damage caused by bears totalled around EUR 203,000 in 2024 (source riistavahingot.fi). In addition, compensation for loss of calves is also paid for reindeer damage, which means the damage is greater than the above figure. In 2024, the calculated compensation for damage to reindeer amounted to EUR 2.66 million, with the loss of calves taken into account (Ministry of Agriculture and Forestry, memorandum on decree on bears, 22 May 2025). In proportion to surface area, compensation for reindeer damage has been paid in

recent years within the range of just under EUR 10,000 and just over EUR 14,000 per 1,000 square kilometres (Appendix, Graph 8). Bears cause damage to reindeer especially in May during the calving season and in early June. (Largecarnivores.fi)

The Sami, as indigenous peoples, have the right to maintain and develop their own languages and cultures. Traditional Sami livelihoods include fishing, hunting, gathering of natural products, reindeer husbandry and traditional Sami handicrafts and culture. In the Finnish national legislation, the core provisions on the Sami rights are laid down in the Constitution. The Sami Homeland covers the municipalities of Enontekiö, Inari and Utsjoki and the northern part of the municipality of Sodankylä. Reindeer husbandry is one of the traditional livelihoods of the Sami. Bears cause damage to reindeer in the Sami Homeland, too.

In the reindeer herding area, bear hunting takes place mainly with quotas set annually by the Ministry of Agriculture and Forestry for the eastern and western reindeer herding areas. In recent years, only a few bears have been killed on the basis of damage-based derogations.

Based on the observations of bears and the location of damage to reindeer by bears, the bear population in the reindeer herding area is oriented towards the east. Bear observations are made and reindeer killed by bears are also found in fairly large numbers in Western Lapland, such as in southern parts of Enontekiö and in Muonio, so the connections between the Scandinavian and Finnish-Russian bear populations seem to be developing in a favourable direction. The main direction of the gene flow on the western boundary of the reindeer herding area has been from the Scandinavian bear population to the Finnish bear population (Kopatz et al. 2021), which is probably mainly explained by the higher density of the bear population in Northern Sweden compared to Northern Finland.

Bears that have been killed under the quota are mainly located in areas where the damage caused to reindeer by bears is heavy. The organisation of hunting in the reindeer herding area under the eastern and western quotas will continue to be justified in order to maintain the possibility of compensating for differences in the density of the bear population between the eastern and western parts of the reindeer herding area. The division of the quota areas also makes it possible to target hunting at areas of bear damage throughout the reindeer herding area.

Provisions on the distribution of quota areas in the reindeer herding area are laid down in the Government Decree on Derogations Laid down in the Hunting Act (452/2013). The eastern reindeer herding area includes Utsjoki, Inari, Sodankylä,

Pelkosenniemi, Savukoski, Salla, Kuusamo and Suomussalmi, and the western reindeer herding area includes the other municipalities of the reindeer herding area.

Hunting of bears for population management purposes outside of the reindeer herding area, particularly with regard to the eastern population management area, is also likely to have an impact on the number of bears in the reindeer herding area. If the bear population grows, it can be anticipated that young bears will disperse to the reindeer herding area from areas outside of the reindeer herding area. Restricting the number of bears in areas bordering on the reindeer herding area is also likely to reduce the number of damage to reindeer in the southernmost reindeer herding cooperatives. Damage in the southern cooperatives focuses particularly on the eastern parts.

Eastern population management area

Objectives:

The objective for the eastern population management area is to maintain the bear population's wariness of humans and to control damage caused by bears by reducing high concentrations of bears, controlling the growth rate and size of the bear population and preventing damage. The management of the bear population will also take into account the multi-species approach to population management and relationships between species.

Measures:

- The Finnish Wildlife Agency will support the prevention of damage caused by bears by means such as provision of fence material and advice.
- The Finnish Wildlife Agency will communicate how to prevent visits by bears to the grounds of residential and production buildings.
- The bear concentrations of the area will be controlled and reduced, as considered appropriate, through hunting for population management purposes and, consequently, maintaining the bear population's wariness of humans, preventing the adverse effects of bears on human activities and supporting the coexistence of bears

and humans in the area. Hunting for population management purposes may also take place to support the maintenance of the predatory effect of bears on wild game at a reasonable level.

- When setting elk population density targets and monitoring the density targets, the regional wildlife councils of the population management area of eastern Finland will justify how they have taken into account the bear population and the multi-species approach in the area.

The Finnish bear population is concentrated in eastern Finland in particular. Within the area of eastern Finland, the density of bears is the highest in North Karelia (2020 estimate 40 individuals per 1,000 km^2, 2024 estimate 35 individuals per 1,000 km^2). By way of European comparison, the density of bears in North Karelia is comparable to, for example, the densest bear areas of Sweden, while Europe's densest bear populations can be found in mountainous regions of Romania and Slovakia. The bear population of eastern Finland is connected with the Russian bear population.

Socio-economic impacts of bears in the eastern area

The eastern population management area differs, alongside the central population management area, from the other population management areas in terms of the social and socio-economic impacts caused by bears.

In 2020–2024, the largest number of bear observations near residential or production buildings in proportion to the surface area of the region were made in the eastern area (Appendix, Graph 9). Examined by Finnish Wildlife Agency region, there is a focus in observations on the North Karelia, Southeastern Finland, South Savo and North Savo regions of the Finnish Wildlife Agency in eastern Finland[4]. In 2024, the bear observations near residential or production buildings made in North Karelia accounted for 25% of the total number of observations in Finland. Observations near residential or production buildings are made in all of the operating areas of the regional offices of the Finnish Wildlife Agency.

4 NB: Parts of the North Karelia, North Savo and Southeastern Finland regions of the Finnish Wildlife Agency belong to the central population management area. The South Savo region of the Agency belongs fully to the central population management area.

Decisions made by the police to chase away or put down bears have concentrated in eastern Finland (Finnish Wildlife Agency). The largest number of police orders in 2020–2024 were seen in the North Karelia region of the Finnish Wildlife Agency (39 orders). Over the same period, the number of orders in Southeastern Finland was 22 and in both South Savo and North Savo 10 (see footnote 4). In addition, as regards other parts of Finland, the North Häme region of the Finnish Wildlife Agency stands out with 13 orders. As regards the areas of other regional offices, the number of orders totalled less than 10 in 2020–2024[5]. For several years, the number of bears chased away by means of executive assistance in large game matters provided by game management associations has been the largest in the eastern population management area (Appendix, Graph 2).

Damage to livestock caused by bears focused, among the population management areas, on the eastern and central population management areas (with the largest share of livestock damage caused to bees). In proportion to surface area, the largest damage was reported in the eastern population management area, where the damage has varied at the annual level (period examined 2020–2024) from around EUR 1,000 to around EUR 2,000 per 1,000 km^2. (Appendix, Graph 4.) In 2024, compensation paid for livestock damage caused by bears in the eastern area totalled around EUR 71,000. In terms of total compensation levels and proportion to surface area, clearly the largest amounts of compensation for damage to agriculture caused by bears have been paid in the eastern population management area. (Appendix, Graphs 5 and 6.)

It is likely that, in the absence of hunting pressure on the bear population or in the event of continuous increases in bear density, encounters of bears and humans will increase in the areas of the eastern population management area with the highest densities of bears, and the risk of serious incidents will grow. The number of bear observations made near human residences will increase in the eastern population management area. The presence of bears near residential areas is likely to increase the insecurity experienced by people, which may be reflected as a reduction in outdoor pursuits such as berry picking. Large carnivores may have an impact on people's activities in the natural environment. According to a survey (2024), fear of bears was high or very high among 44% of the respondents, which is higher than fear of, for example, wolves. More than half of people would not like to encounter a bear in the wild. (Pellikka et al. 2024). Increases in bear population density and in the likelihood of encountering a bear while in a forest may also affect the

5 There were no orders in the areas of the regional offices of the South Häme, Lapland, Coastal Ostrobothnia and Southwest Finland over the said period.

occupational safety and health of those whose job involves spending a great deal of time in forests or on their perception of safety while in a forest. The threat posed or damage caused by bears reduces the social acceptability of the species.

Over the long term, the growth of the bear population in the eastern population management area may also lead to the need to use more damage- and safety-based derogations, since the risk of damage to crops, livestock and apiaries is likely to grow. The risk of human–bear encounters resulting in injuries or even fatalities increases if the wariness of humans caused by hunting for population management purposes is lost among bears. A worrying trend can be seen in the development of the amounts of executive assistance in large game matters, observations near residential or production buildings, and damage in the eastern area. The consequences may therefore give rise to high societal costs, a decline in the acceptance of bears, and growing concerns among the local population. A decline in the acceptance of bears may also directly weaken confidence in administrative authorities. In some cases, a counter-reaction may take place in the form of poaching, which may, as regards bears, be regarded as highly exceptional in Finland, as poaching of bears has been extremely rare.

Over the past five years, only one bear has been killed under a damage- and safety-based derogation outside of the reindeer herding area. Individual damage- and safety-based derogations will not increase the bear population's wariness of humans, since these only apply to the individual causing damage. It should also be noted that the damage compensation system does not cover indirect costs. Material for the prevention of damage will be supplied for the area, but the installation and maintenance of fences will, for reasons related to costs and adequacy of amount of material, need to be carried out by the farmer or beekeeper.

Considering the aspects described above, in the eastern population area the appropriate measures to prevent bears finding their way to the vicinity of human activities are controlling the bear population and, for example, disseminating information and providing advice relating to encounters with bears to locals, holiday home residents and hikers in the area. The supply of fence material protecting, for example, beehives should still continue in the area.

Commercial photography operations at carrion feeding sites is also one of the special characteristics of the eastern population management area (see in subsection 2.3.6).

Eastern area from the perspective of the multi-species approach and the elk population

In addition to the brown bear, the other large carnivores found in Finland, that is, the wolf, the lynx and the wolverine (*Gulo gulo*), also occur in the eastern population management area. High occurrence of large carnivores has an impact on the management of cervid populations, especially in territories of wolf packs and areas with a high density of bears. Bears are omnivores and kill cervids such as elks, especially in spring, hunting mostly calves. Predation by wolves has a significant impact on the elk population in wolf pack territories, and they mainly hunt calves both in winter and summer. Wolves also kill adult elks. Bordering on Finland's eastern border, from the perspective of the multi-species approach to population management the eastern population management area forms a whole where several different aspects must be taken into account: In addition to the four different large carnivores, the wild forest reindeer (*Rangifer tarandus fennicus*) also lives in the area, and in places the elk densities are low, bringing its own challenge to the whole.

The bear population of the eastern area is around four times that of the central area. At the same time, the density of the elk population in Kuhmo and Lieksa is around 2.4 individuals per 1,000 hectares and at the southeastern border of Finland around 3.9 individuals per 1,000 hectares (Natural Resources Institute 2025a). According to the population estimate, elk calf production in all of the elk management areas bordering on the eastern border of Finland has been lower than in the rest of the country, except for Lapland and the southwestern coast. If the elk population is scarce in an area with dense populations of large carnivores, carnivores may kill up to a half of the total annual calf production of the elk population. This would appear to be the case in the Ilomantsi-Lieksa-Kuhmo area.

The Kainuu subpopulation of the wild forest reindeer lives in Kuhmo and Sotkamo in the northern part of the area. Calf monitoring has provided observations and indications of calf loss being caused by large carnivores (Kojola et al. 2021), with the bear appearing to account for the largest impact in Kainuu (Kumpula 2022).

The dense bear population has impacted the elk population of the eastern population management area ever since the early 1990s. This has been taken into account in the annual harvesting planning for the elk population. In the area of the densest bear population in the eastern parts of North Karelia, there have been years in the areas of several game management associations where elks have not been hunted at all or where the number of hunting permits has been limited to reduce the impact of hunting on the elk population. For example, in Ilomantsi, elk hunting was not permitted for three consecutive years in the 1990s. Since then, there have

also been shorter interruptions in elk hunting. Harvesting has contributed towards the decline in the elk population, but large carnivores and the bear in particular have also played a strong role. The areas of North Karelia adjacent to the eastern border of Finland (Lieksa, Ilomantsi) have seen very little hunting in recent years. The situation has in part resulted from the elk population having been harvested too much, which has reduced the number of calves to a low level in proportion to the number of predators.

This is why the regional wildlife councils must continue to take large carnivores into account in the management of the elk population. The structure of the elk bag is guided by issuing recommendations accompanying permit decisions. The recommendations take into account that the preying on the elk by large carnivores does not apply evenly across sexes and age groups.

If the bear population continues to grow stronger in the eastern area, it may become necessary to assess the need to protect the elk in certain elk management areas. It should also be noted that if the bear and wolf populations become any stronger, they may in themselves reduce the elk population even further. This situation does not yet, however, apply to anywhere near the entire eastern population management area, but stronger wolf and bear populations would likely gradually expand the area. Large carnivores should have sufficient access to food in proportion to their population size. The elk population should remain such that elk hunting remains a recreationally, socially and economically significant leisure activity. In areas like those described above where, for example, elk densities are low and bears and wolves occur, bear hunting for population management purposes may support the management of the elk population and the taking into account of the social significance of elk hunting together with the setting of elk targets and planning elk harvesting. Control of the bear population can therefore seek to reduce the predatory impact of bears and in that way support the maintenance of the predatory impact of bears on wild game at a reasonable level.

The multi-species approach can also, for example, take into account aspects relating to social and economic sustainability, such as the significance of elk hunting regionally and the damage caused by elks to tree sapling stands.

In areas with low harvesting of elks, the further reduction of hunting in the context of the current culture and structure of hunting clubs is also challenging. People often hunt elks as part of a larger group, and hunting typically takes place repeatedly in the company of the same people and in the same area during the season (Artell et al. 2020). Elk hunting plays an important role both regionally and locally in the activities of hunting clubs and, consequently, in their maintenance.

Years missed in elk hunting reduce social interaction and create challenges in population estimates, as observation data is not collected in the hunting context. Multi-species population management should therefore also take into account the various types of regional relevance relating to elk hunting. It should also be noted that, of the cervids, the elk is the significant game species in eastern Finland. In addition to relationships between species, the multi-species approach to population management should also take into account aspects such as the social and economic impacts of the various game species.

Elk hunting also plays a major role in the social interaction of village communities, which may be of particular significance in sparsely populated areas such as eastern Finland. Communal elk hunting and feasts are some of the rare events bringing villagers together. In the activities of hunting clubs, the annual elk hunts constitute key communal work and game management efforts. The waning of club activities is also affected by some of the local elk hunters of eastern Finland getting hunting permits for areas in northern Finland owned by Metsähallitus, the agency governing the use of state-owned land. In eastern Finland, there are vast hunting areas owned by the State and forest companies, the hunting right leases for which are subject to a charge. Some hunting areas that are under strong predatory pressure remain unleased each year, since the rent charged for the hunting area is too high for the lessee considering the number of elk hunting permits available for the area.

A synthesis report on the impacts of cervids (Matala et al. 2021) describes issues including the significance of cervids as game species. For around 204,000 active Finnish hunters, cervids are virtually the only game category in the hunting of which they take part. In addition to the above, elk hunting is also carried out by many such hunters who also hunt other groups of species. Of the so-called cervid specialists, 38% responded that hunting was an important part of life and lifestyle for them, while 85% of those only hunting cervids regarded spending time with members of the hunting party, family and friends as a particular motivation for the activity. Hunters specialising in cervids also identified various recreational values, such as nature experiences, stress recovery and relaxation, in elk hunting. (Matala et al. 2021, in Pellikka 2020.) The report finds that the role played by cervid hunting can also be examined as part of local culture and its maintenance (Matala et al. 2021). The cervid hunting event can also be seen as a meeting place for hunting landowners, entrepreneurs, locals and other corresponding groups (Matala et al. 2021, in Selby et al. 2005).

The preservation of sustainable elk hunting opportunities in areas with high densities of large carnivores can also promote social tolerance of large carnivores (Ministry of Agriculture and Forestry 2014).

Central population management area

Objectives:

The objective for the central population management area is to maintain the bear population density at a level where damage and harm caused by bears to human activities remain at a reasonable level. In addition, the objective is for the central area to continue to support the dispersal of the bear population towards the west and south to habitats suitable for bears.

Measures:

- The Finnish Wildlife Agency will support the prevention of damage caused by bears by means such as provision of fence material and advice.
- The Finnish Wildlife Agency will communicate how to prevent visits by bears to the grounds of residential and production buildings.
- The development of high concentrations of bears in the area will be monitored, as considered appropriate, bear concentrations will be reduced through hunting for population management purposes and, consequently, maintaining the bear population's wariness of humans, preventing the adverse effects of bears on human activities and supporting the coexistence of bears and humans in the area.
- Where necessary, female quotas restricting hunting will be set for hunting for population management purposes to ensure the productive capacity and dispersal potential of the area's bear population.

The central area is the second-densest bear area in Finland. In 2024, the bear density in the central population management area was around 11 individuals per 1,000 km^2 in North Savo and around 8 individuals per 1,000 km^2 in Central Finland. The densities are regionally significantly lower than in the eastern population management area, but there are local concentration areas in the central area.

The role played by the central area in the dispersal of bears to such new living areas that are habitats suitable for the bear was identified in conjunction with the update of the management plan. It should, however, be noted that the bear is a species with a slow reproductive rate (Heikkinen et al. 2024). As regards the dispersal of bears, it is known that males have a stronger tendency to move from their natal sites to new areas (Swenson et al. 2007). In Finland, this characteristic has resulted in the population structure becoming more male-dominated along the east–west axis in Finland (Kojola & Laitala 2000, Kojola & Heikkinen 2006). In the bear population of the reindeer herding area, the share of females is lower than in the areas of Finland outside of the reindeer herding area (Kojola et al. 2020). According to a study on the Finnish bear population, the home ranges of females are more overlapping and the distance of the home range from its centre is longer if the relatedness of the females increases. The home ranges of female bears in Eastern Finland are smaller than in Central Finland. (Olejarz et al. 2022.) In the dispersal and population growth of bears in areas where there are no bears or very few bears at the moment, the significance of females as productive individuals is emphasised.

Socio-economic impacts of bears in the central area

In the central population management area, particularly in the areas with concentrations of bears, there are human–bear encounters, but these are generally random. Response to bears sighted locally, close to residences, is speedy.

The central population management area has seen the second-largest number after the eastern area of visits by bears to the grounds of residential or production buildings. The number of such observations in the central population management area is around 73% of those in the eastern population management area (see Appendix, Graph 9).

Damage to livestock caused by bears focus, among the population management areas, on the eastern and central population management areas (NB: the largest share of livestock damage caused to bees). In proportion to surface area, the second-largest amount of compensation for livestock damage has been paid to the central population management area. In 2024, compensation for livestock damage in the central population management area was paid at a total of around

EUR 87,000. The amount of damage to agriculture caused by bears compensated for was the second largest in the central population management area after the eastern population management area.

The westward dispersal of bears has caused significant damage to beekeepers, particularly in the central population management area, where apiculture is common as a livelihood as well as a hobby.

The development of bear concentrations in the central population management area is monitored and, where necessary, reduced by means of hunting for population management purposes, in which the maximum permitted number of females can be restricted, where necessary. The setting of female quotas can safeguard the preservation of the productive capacity of bears.

Central area from the perspective of the multi-species approach and the elk population

The cervid primarily occurring in the central population management area is the elk, which is likely to be the most important prey of the bear in the area. The white-tailed deer has been dispersing to the area, but dispersal has been slow. The roe deer occurs but only scarcely, focusing on the vicinity of residential areas. The wild forest reindeer occurs in the region of Central Finland in the northwestern parts of the central population management area. It may be necessary to take account of the calving ranges of the wild forest reindeer in the central population management area in the management of the bear population, also taking into account the predation mortality of the wild forest reindeer as a whole.

Of large carnivores, the lynx is dispersed evenly across the area. There are fewer wolf territories, with these focusing on a fairly small area in northern parts of North Savo. The bear may be a significant predator of elk calves, especially in the spring. Despite an increased abundance in the 2000s, the bear population has not been strong enough to have a clear reducing impact on elk calf production. According to a population estimate by the Natural Resources Institute Finland, the elk's calf production has, depending on the area, been 85–100 calves per 100 cows in the 2020s. Consequently, elk bags have remained fairly good in relation to the desired winter population.

Western population management area

Objectives:

The objective is for the bear population to be able to grow and disperse to habitats suitable for the bear in the western population management area. The objective is to prevent damage caused by bears. In addition, the objective is for the western area to support the dispersal of the bear population to the southern area to habitats suitable for the bear.

Measures:

- As bears disperse to new areas, the Finnish Wildlife Agency will target proactive communication at the areas. The Finnish Wildlife Agency and the area's game management association will, where necessary, organise together with the police and key stakeholders, bear-related information exchange and training events where topics including those relating to monitoring of bears, prevention of damage and executive assistance in large carnivore matters can be discussed.
- The Finnish Wildlife Agency will support the prevention of damage caused by bears by means such as provision of fence material and advice.
- The Finnish Wildlife Agency will communicate how to prevent visits by bears to the grounds of residential and production buildings.

In the western population management area, there is major local variation in the frequency of bears. There is an established bear population in the Suomenselkä area, where human–bear encounters are more likely than elsewhere in the population management area. The human population density and the size of arable land area in the Suomenselkä area are on average smaller than elsewhere in the area.

There are few observations of bears near residential or production buildings in the western population management area. In 2020–2024, the number of such observations accounted for around 23% of those in the eastern area.

Damage caused by bears to livestock and agriculture is considerably lower in the western than in the eastern and western areas. In 2024, the compensation paid for damage caused by bears in the area totalled around EUR 23,000 for livestock damage and approximately the same for damage to agriculture.

Western area from the perspective of the multi-species approach and cervids

The key habitats of the Suomenselkä population of the wild forest reindeer are located in the western population management area of the bear. As regards small cervids, the populations have been growing in this area, but densities are clearly lower than in the southern area. Predation by the bear in the area is therefore likely to focus primarily on the elk and the wild forest reindeer. The reproducing bear population has not yet dispersed over the entire area, but there are reproducing bear populations in southern parts of Oulu, in Central Ostrobothnia and in eastern parts of South Ostrobothnia, and it is specifically in these areas that key calving ranges of the wild forest reindeer are located. In these areas, the wolf is likely to play an even greater role for the wild forest reindeer, but the potential growth of the bear population will inevitably increase the loss of wild forest reindeer calves caused by bears. The wild forest reindeer may also be affected by the wolverine population growing stronger. It is therefore necessary with regard to the wild forest reindeer to examine the predation mortality of the population as a whole.

Southern population management area

Objectives:

The objective is for the bear population to be able to grow and disperse to habitats suitable for the bear. As the bear population disperses, the objective is to create the prerequisites for bears to be accepted and valued through proactive communication and prevention of damage.

Measures:

- As bears disperse to new areas, the Finnish Wildlife Agency will target proactive communication at the areas. The Finnish Wildlife Agency and the area's game management association will, where necessary, organise together with the police and key stakeholders, bear-related information exchange and training events where topics including those relating to monitoring of bears, prevention of damage and executive assistance in large carnivore matters can be discussed.

- Where necessary, the Finnish Wildlife Agency will target increased fence material supply and training in damage prevention particularly at beekeepers in new habitats of bears in cooperation with the Finnish Beekeepers' Association.

In the southern area, bear densities are regionally low and the likelihood of encountering a bear is low.

In 2020–2024, compensation paid for damage caused by bears in the southern population management area ranged from EUR 10,000 to around EUR 30,000 in the peak year of 2022. Compared with the eastern and central population management areas, however, the damage is clearly smaller. Damage to agriculture compensated for in the southern population management is minimal, with the compensation paid at the annual level having been in the hundreds or at most a few thousand euros. Apiaries are particularly frequent in the southwestern part of Finland. (Status in game damage register, 2025.)

There is hardly any reproducing bear population in the southern population management area, and the number of individuals is in any case very small. The bear therefore currently plays a very minor role in multi-species population management in the area. The southern area has had fairly strong cervid populations, primarily those of small cervids, but on the western and southern coasts the elk population has also traditionally been stronger than elsewhere in the country. The wolf population has grown a great deal stronger in the area over the past 15 years and, alongside the lynx, is therefore currently the defining large carnivore species for the multi-species approach.

2.2.2 Hunting for population management purposes

Hunting for population management purposes means influencing the size, growth and regional densities of the bear population through systematic hunting that responds to fluctuations in the population, taking into account the impacts of the bear population in the area. Since the brown bear is a species strictly protected under the Habitats Directive, the starting point for population management is

that any derogation from strict protection is not detrimental to the maintenance or achievement of a favourable conservation status of the species. For the brown bear, this means taking this into account in the planning of hunting so that any population changes planned will not in any circumstances take the bear population below the favourable conservation status.

Measures:

- Hunting for population management purposes is a necessary measure especially in the eastern population management area. In the central population management area, the development of the area's bear concentrations will be monitored and, where necessary, concentrations will be reduced by means of hunting for population management purposes. The assessment of the necessity of hunting will be conducted annually after the confirmation of the population estimate of the bear population. The maximum allowable bag limit laid down in a decree of the Ministry of Agriculture and Forestry will ensure the sustainability of hunting and the maintenance of the favourable conservation status of the bear population.
- The objective for derogations for population management purposes will be adopted annually for each population management area by decree of the Ministry of Agriculture and Forestry. Even then, the Finnish Wildlife Agency must assess, when considering derogation decisions, the attainment of the objective in the derogation area.
- The Natural Resources Institute Finland will monitor the age and sex structure of the bag from hunting for population management purposes, and the data will be taken into account when setting the maximum allowable bag limit for the following year. Efforts will be made to increase the number of samples from bears hunted for population management purposes sent by hunters to establish the age and sex structure.
- The Finnish Wildlife Agency will provide training to designated hunt leaders for bear hunting for population management purposes. The training will pay attention to selectiveness, ethicality, responsibility and safety in hunting. This contributes to the requirements set by the Directive concerning strictly supervised conditions.

The brown bear is a species of Community interest under the Habitats Directive. According to Article 1(g) of the Directive, species of Community interest are species that are endangered, vulnerable, rare or endemic. Although the bear population in Finland no longer meets any of these criteria, the species is still a strictly protected species in accordance with Annex IV to the Directive. Under Article 19 of the Directive, Annexes should be adapted, as necessary, on a proposal from the Commission, but this has not taken place even though the population of bears in Finland has increased during Finland's EU membership from around 800 individuals at the turn of the millennium (Heikkinen et al. 2017) to around 1,816–2,375 in 2024 (Mäntyniemi et al. 2025).

The Habitats Directive requires Finland to establish a system of strict protection and to prohibit all capture or killing of these individuals. However, Article 16(1) of the Habitats Directive allows Member States to derogate from the obligations imposed by the system of strict protection, provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range. The most common objectives pursued by the derogations are the prevention of very significant damage under Article 16(1)(b) and public safety or other imperative reasons of overriding public interest under Article 16(1)(c).

The Finnish bear population is at such a high level that the removal of bear individuals that cause damage or a safety threat alone cannot control the social, economic or ecological problems arising from the growing bear population. This is why Finland has regulated the bear population under Article 16(1)(e) of the Habitats Directive. The use of this derogation criterion of the Directive requires that the objective pursued by the derogation from protection be disclosed in advance. The objective cannot, in principle, be the same as in Article 16(1)(a) to (d) of the Habitats Directive. In Finland, Article 16(1)(e) of the Habitats Directive has been implemented under section 41a, subsection 3 of the Hunting Act.

In Finland, the application of Article 16(1)(e) of the Habitats Directive concerns the management of the bear population.

Population management refers to influencing the size, growth and regional densities of the bear population through systematic adaptive hunting, which responds to fluctuations in the population. As the species is strictly protected under the Habitats Directive, the starting point for population management is that the species is at a favourable conservation status and that the planned changes in the population do not, under any circumstances, result in the bear population falling below a favourable conservation status. Population control may

also be carried out if the conservation status of the species is not yet favourable (without risking the attainment of a favourable conservation status, and taking account of the precautionary principle) and if necessary to support the objectives of the population management areas and, more broadly, the objective of the management plan.

It is essential that this population management is based on a scientifically sound and regularly produced population estimate which allows for the establishment of an annual hunting quota, the assessment of the impact of the quota on the conservation status of the population, and the maintenance of the population at a favourable conservation status. When decisions are taken on an annual basis, it is possible to react to changes in the bear population, if necessary. In addition to the population estimate, accurate biological data (sex and age) and location data must be obtained on the bear individuals killed by hunters. The Finnish Wildlife Agency and the Natural Resources Institute Finland will monitor the amount of bear samples delivered from bears killed through interruption hunting and hunting for population management purposes. In the event that samples are not received comprehensively enough, the need for a mandatory obligation to deliver samples and any related legislative amendments will be assessed. According to section 3, subsection 1, paragraph 2 of the Government Decree on Derogations Laid down in the Hunting Act (452/2013), a derogation may be granted for the capture or killing of a bear, except for a cub less than one year old or a female bear accompanied by such a cub.

Bear hunting for population management purposes may, for example, aim to:

- maintain the bear's wariness of humans, which reduces potential conflicts;
- maintain the density of the bear population at a level where the harm and damage to human activities, farm animals and wild game remain socially, economically and ecologically acceptable.

In addition to the above, the success of the measures of the Management Plan for the Bear Population will be ensured, the adaptation of hunters to the presence and diet of the bear will be improved, and the influence of local people will be increased in order to address the problems arising from the presence of the bear (such as fears among berry and mushroom pickers caused by a dense bear population). Hunting for population management purposes has also enabled the volunteer hunters involved in executive assistance in large game matters to maintain preparedness for assignments relating to large carnivores through training exercises and through training of dogs. In its comments (POL-2025-52495), the National Police Board of

Finland has pointed out that the police do not have the sufficient resources for comprehensive independent attendance to duties relating to large carnivores. This is why the agreed assistance maintained and provided by game management associations is invaluable not only for the police but for society as a whole.

Relevant case law concerning hunting of large carnivores for population management purposes and taking it into account

The rulings of the Court of Justice of the European Union (CJEU) provide binding guidance on the interpretation of EU law. The CJEU has issued two rulings (342/05 Commission v Finland) and (C-647/17) on derogations concerning wolves in Finland, which have outlined the policy on the application of Article 16 of the Habitats Directive. The preliminary ruling given in October 2019 (C-674/17) concerned Article 16(1)(e) of the Habitats Directive. The judgment pertains to hunting of the wolf, an endangered (EN) species, for population management purposes, the primary objective of which was to combat poaching. The ruling contains both general points on the interpretation of the Habitats Directive and individual observations concerning the Finnish derogations subject to the complaint.

According to the preliminary ruling of the CJEU, subparagraph (e) may be used for the killing, that is, hunting, of individuals of a protected species. However, the Member State must define the objectives relied upon in support of a derogation in a clear and precise manner and with supporting evidence. According to the judgment of the CJEU concerning the preliminary ruling (10 October 2019, case C-674/17, paragraphs 41, 51, 54 and 62), the objectives relied upon in support of a derogation must be defined in a clear and precise manner and with supporting evidence in the decision. A derogation must be applied appropriately in order to deal with precise requirements and specific situations. The Member States must provide a clear and sufficient statement of reasons as to the absence of a satisfactory alternative by means of which the objectives relied upon in support of a derogation could be achieved. When authorising derogation permits, it must be established, taking account in particular of the best relevant scientific and technical evidence and in the light of the circumstances of the specific situation in question, that there is no satisfactory alternative that can achieve the objective pursued. The Member State shall also ensure that the derogations are without prejudice to the maintenance or restoration of the populations of the species in question at a favourable conservation status.

Following the ruling of the CJEU (C-674/17), the Supreme Administrative Court of Finland has found in its precedents (such as those on the lynx and the bear) that the derogation permits issued by the Finnish Wildlife Agency have not presented such an acceptable objective that would fulfil the requirements of the Habitats Directive. For this reason, hunting of the bear for population management purposes has in practice not been possible since the 2023/2024 hunting year in areas outside the reindeer herding area. Complaints have resulted in a situation where the objective determined in the derogation permits for derogations in accordance with Article 16(1)(e) of the Habitats Directive has not been accepted by courts of law.

According to Supreme Administrative Court rulings KHO:2023:99 and KHO:2023:100, the decision of the Finnish Wildlife Agency did not state in a clear and precise manner which objective acceptable under the Habitats Directive was pursued by the derogation permit decision concerning the hunting of the bear for population management purposes in the area covered by the application in question. Furthermore, the Supreme Administrative Court has ruled (KHO: 2022:48) that the implementation of the general objectives of the national population management plan alone is not sufficient grounds for granting a derogation permit. The Supreme Administrative Court has, however, communicated that hunting for population management purposes may be a possible means of attaining an acceptable objective. Hunting can therefore be a means but not the objective.

Ruling KHO:2023:100 states that 'it can as such be regarded as clear that a bear population that is too dense causes such problems that in practice can only be solved in ways that are at least in some way detrimental to the bear population'. The ruling further states that 'it cannot be ruled out in this respect that the mitigation of social problems caused by an increased density of the bear population in a controlled manner by reducing the number of bears and ensuring the maintenance of the favourable conservation status could be regarded as an acceptable objective of a derogation based on Article 16(1)(e) of the Habitats Directive to the extent that the said objective does not fall under the scope of application of Article 16(1)(a–d) of the Directive'. In its precedents concerning the bear, the Supreme Administrative Court describes, by way of example, the impacts and problems caused by increases in the density of the bear population the mitigation of which might require a derogation under Article 16(1)(e) of the Habitats Directive. It is, however, known that, in the light of statistics available, these impacts and problems already verifiably occur at the prevailing population densities. In this regard, population density or population growth alone in relation to some other area or point in time should not be the essential factor. Instead, it should be essential how the concrete impacts and problems arising from the bear population are manifested in the area examined.

When assessing the acceptability of an objective, the special characteristics relating to the species concerned may be taken into account. For example, with regard to the brown bear, population management should relate to area-specific concrete impacts and problems caused by excessive growth of the bear population. The above-mentioned decisions of the Supreme Administrative Court concerning bear hunting state that 'a derogation based on Article 16(1) of the Habitats Directive may, however, only be applied in a concrete and case-specific manner and only if there exists a specific problem or situation that must be addressed'. The message from the Supreme Administrative Court rulings is that a derogation permit must be justified by sufficient evidence of the said impacts specifically in the area concerning the derogation application. In derogations based on population management of the bear and the lynx, regionality at the level of a memorandum or management plan has been examined at a level that is too general.

To enable the hunting of large carnivores for population management purposes, the Hunting Act has been amended so that the Act lays down the competence for the Ministry of Agriculture and Forestry to set, by decree of the Ministry, an objective of hunting for population management purposes specifically to a species and to a population management area to support the consideration of derogations under Article 16(1)(e) of the Habitats Directive. In addition, the population management plan for large carnivores such as the bear will be updated as proposed by the working group on large carnivores so that they will set more specific population management areas derived from the biology of the species and other relevant aspects. The population management areas will be confirmed by decree of the Ministry of Agriculture and Forestry. In addition, the maximum allowable bag limits confirmed by the decree will be set for each population management area. (See more in the final report: *Final report of the expert working group preparing the development of derogations for wolves and other large carnivores 2024*, in Finnish).

As regards the bear, it should be noted that the brown bear has not been a threatened species in Finland since the 2015 assessment (The Red List). In the case of hunting bears for population management purposes, the bear is, in accordance with the objectives of the Habitats Directive, at a favourable conservation level, and its hunting has never been based specifically on combatting poaching (cf. C-674/17), since the bear is a valued game animal. Bear hunting is based on population management considerations, such as maintaining the bear's wariness of humans and controlling the growth of the population in a way that takes into account ecological, social and economic aspects. In the absence of hunting, the bear population outside of the reindeer herding area would, according to a forecast by the Natural Resources Institute Finland, likely double by 2030 at the current rate of growth. Judgment C-674/17 cannot therefore be regarded as an obstacle

to the granting of management-based derogations for bear hunting, but the considerations specified in the grounds of the judgment must still be taken into account when assessing whether the prerequisites for a bear derogation are met.

Impact on the objective of achieving a favourable conservation status

Article 16(1) of the Habitats Directive allows Member States to derogate from the obligations imposed by the system of strict protection, provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range.

In case 342/05 (Commission v Finland), the Court of Justice of the European Union (CJEU) ruled that a derogation from protection may be based on a predefined limited quota. Furthermore, in case C-674/17, the CJEU ruled that derogations from strict protection must not infringe the condition laid down in Article 16(1) of the Habitats Directive, which is to maintain the species at a favourable conservation status in its natural range. Both cases concerned the wolf, the conservation status of which was not favourable and which is classified as an endangered (EN) species in Finland.

The bear population in Finland has a favourable conservation status. Article 17 of the Habitats Directive requires Member States to draw up a report on the implementation of the measures taken under the Directive every six years. The reporting also includes an assessment of the conservation status of the species. In the three reporting periods (2001–2006, 2007–2012 and 2013–2018) during Finland's EU membership, the bear's conservation status has been estimated to be favourable in all respects.

In the light of the above, the Ministry of Agriculture and Forestry has taken the view that as

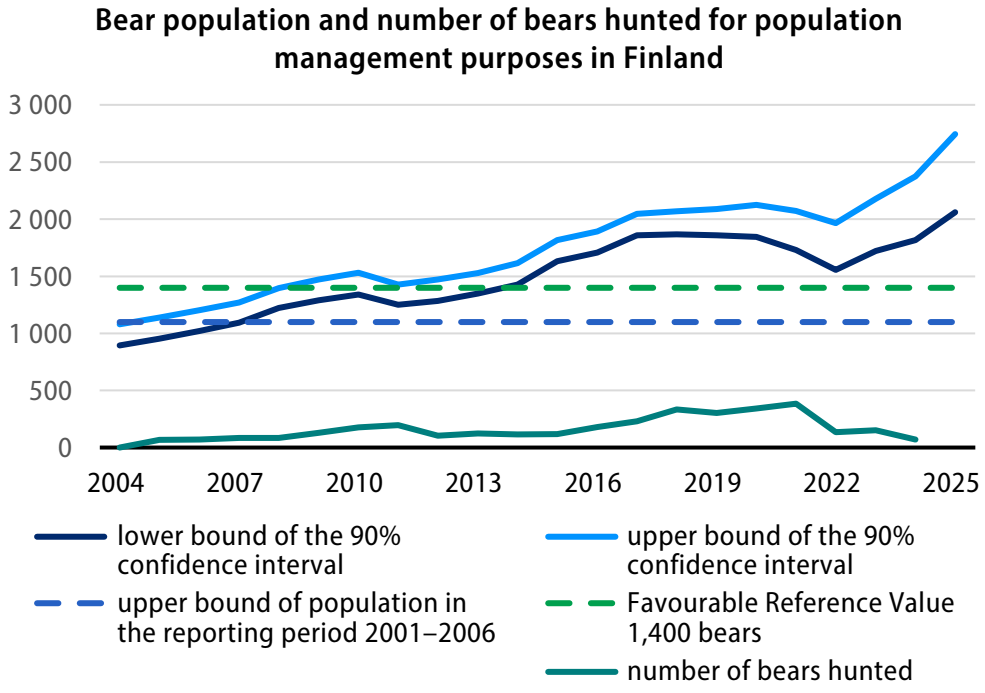
- the bear is already at a favourable conservation status;
- the population estimate of the bear has a strong scientific basis;
- the impact of hunting on the bear population and its favourable conservation status can be assessed; and
- accurate and identifiable data on bears killed by hunters are available;

the size, growth and regional densities of the bear population can be influenced through systematic adaptive hunting on the basis of Article 16(e) of the Habitats Directive, therefore ensuring the protection objectives of the Habitats Directive and their broad acceptance by society.

The impact of hunting on the objective of the Habitats Directive – the achievement of a favourable conservation status – is always neutral when the population is at a favourable conservation status and the hunting is scaled in such a way that the favourable conservation status is not compromised. So-called hunting for population management purposes of bears outside of the reindeer herding area continued regularly until 2024. In practice, bear hunting has taken place throughout Finland's EU membership[6]. Stricter case law has resulted in no bears having been hunted under derogations based on population management outside of the reindeer herding area in 2024. Planning of harvesting by means of hunting has taken into account the impact on the maintenance of the favourable conservation status and, consequently, the conservation status of the bear population has been favourable throughout Finland's EU membership. So-called interruption hunting has continued in the reindeer herding area. The actual development of the bear population in Finland shows that the Ministry of Agriculture and Forestry has been able to ensure and strengthen the favourable conservation status of the bear population.

6 The lynx has also been hunted for population management purposes in several years, and the conservation status of the species has remained favourable throughout Finland's EU membership.

Figure 3. Bear population and number of bears hunted for population management purposes in Finland. The figures representing the population trend of the brown bear and the forecast were produced with the population model of the Natural Resources Institute Finland introduced in spring 2025[7]. The lines in the graph represent the upper and lower bound of the 90% confidence interval of the number of individuals in the bear population. For 2004–2024, the lines in the graph represent the population trend of the brown bear and for 2025 the forecast produced by the model for the bear population before the 2025 hunting season. The graph also shows the number of bears hunted for population management purposes (also including the bag from quota hunting in the reindeer herding area). The broken blue line represents the upper bound of the bear population size estimate in the boreal zone for the 2001–2006 reporting period for reporting on the favourable conservation status of the species required under the Habitats Directive. At that time, the upper bound of the population estimate (maximum population) was 1,100 bear individuals. In the three reporting periods (2001–2006, 2007–2012 and 2013–2018) during Finland's EU membership, the bear's conservation status has been estimated to be favourable in all respects. In addition, the Favourable Reference Value (FRV) for the bear, 1,400 individuals, is shown by the broken green line in the graph (see chapter 1). (Population trend of the brown bear: Natural Resources Institute Finland. Bears hunted for population management purposes: Finnish Wildlife Agency).



7 The figures shown in the graph are based on the new modelling, which has also changed the understanding of the previous trend of the bear population. This is why the graph is not comparable with the population estimates of previous years based on litter observations. (Natural Resources Institute 2025c.)

Table 1. Number of bears hunted in 2020–2024.

Bears hunted for population management purposes

Year	2020	2021	2022	2023	2024	Total
Rest of Finland	271	327	74	102	0	774
Reindeer herding area	71	61	61	50	70	313

Bears hunted under damage-based derogation permit

Year	2020	2021	2022	2023	2024	Total
Rest of Finland	1	0	0	0	0	1
Reindeer herding area	7	3	5	5	4	24

Very few bears have been hunted under damage-based derogation permits. A few bears killing reindeer calves have been hunted each year in the reindeer herding area. Over the past five years, only one bear has been killed under a damage-based derogation outside of the reindeer herding area. The low damage-based hunting figure is due to there being very few applications concerning bears causing damage and, secondly, hunting under a derogation permit has been difficult considering the identification of the specific individual required by administrative courts. The bears in the reindeer herding area were hunted in the spring while ground snow cover was still in place.

The amendments to the Government Decree on Derogations Laid down in the Hunting Act that entered into force on 12 July 2024 made, within the boundaries set by the case law of the Court of Justice of the European Union and of the Finnish Supreme Administrative Court, the requirements for the targeting of damage- and safety-based derogation permits more flexible in situations where the identification of a specific large carnivore individual is not possible due to weather conditions, the biological characteristics of the species or other justified reasons. In such cases, a derogation permit may be granted without targeting it at a specific individual, and hunting under a derogation permit may be allowed in an area more extensive than an individual damage site. The purpose of the amendment is to respond in particular to challenges related to the use of damage- and safety-based large carnivore derogation permits during the period with no snow cover. (Ministry of Agriculture and Foresty 2024b.)

LCIE guidelines for population management for large carnivores and bears

The Large Carnivore Initiative for Europe (LCIE) report Guidelines for Population Level Management Plans for Large Carnivores (Linnell et al. 2008) provides guidelines for preparation of large carnivore management plans and background data and discussion on the topic. The Large Carnivore Initiative for Europe is a Species Survival Commission of the International Union for the Conservation of Nature (IUCN). The IUCN is a network of non-governmental organisations and governments, and Finland is one of its members. One of the aims of the Guidelines for Population Level Management Plans of Large Carnivores (2008) is to describe the technical requirements for the development of management plans so that the determination would take place at the population level. Development should take into account the biology of large carnivores and, for example, the fact that populations spread across state borders. The European Commission's Directorate-General (DG) for Environment stated in 2008 that the LCIE Guidelines for Population Level Management Plans for Large Carnivores represent the best practice for the management of large carnivore populations and that the DG Environment recommends them to the authorities of the Member States. The LCIE has also published other reports and recommendations relating to large carnivores.

The LCIE report highlights, among other things, the importance of large carnivore management plans and the significance of measures (such as damage prevention) to eliminate possible conflicts. It is stated in the report that, in some circumstances, it is considered to be both compatible with the conservation of large carnivores, and even desirable for gaining public acceptance for their management to either selectively cull specific individuals or to limit their numbers and/or distribution at certain levels through management actions.

Furthermore, it is maintained in the report that, from a conservation point of view there is no principle reason why large carnivore populations cannot tolerate some levels of lethal control or be managed under the same type of harvest system as wild ungulates provided that the harvest is well managed. In order for the harvesting to be potentially sustainable, proper management in this case requires effective monitoring of the population size, the setting of appropriate quotas and hunting seasons, and careful enforcement of these regulations.

The report states that Article 16(1)(e) could be used to justify carefully regulated harvest of some animals. The report refers to the report published by Ozolins in 2017 and mentions that Latvia has justified its hunter harvest of lynx under this justification. The example has been held up as a successful demonstration of a well-justified derogation by the Article 12 working group.

There are Policy Support Statements of the LCIE appended to the report (2008). The first section of the Appendix pertains to lethal control and hunting of large carnivores.

Based on the report, at least the following benefits of bear hunting for population management purposes in the Finnish conditions have been identified:

- Management-based hunting helps maintain the bear's wariness of humans, which reduces potential conflicts.
- Management-based hunting increases the acceptance of bear presence among hunters as they can regard the bear as a rewarding game species rather than as a competitor.
- Management-based hunting increases the sense of empowerment among local people who have to live in the same areas as bears.
- Management-based hunting maintains bear densities at levels that keep the damage to livestock and wild prey at levels that can be tolerated.
- Local people also feel that they are involved in the species management process.
- Reaching a population that allows initiating hunting provides a benchmark for the success of the conservation efforts and also demonstrates the flexibility of the Management Plan for the Bear Population to the various interest groups.

Management-based hunting aims to achieve several of the above benefits by taking ecological, economic and social factors into account on an equal footing in setting the objective of management-based hunting. These aspects are interdependent, which is why their effects as a whole must be considered.

The LCIE Guidelines for Population Level Management Plans for Large Carnivores (2008) was preceded by European-level species-specific action plans for large carnivores. The Action Plan for the Conservation of the Brown Bear (*Ursus arctos*) in Europe, published by the Council of Europe and the LCIE in 2000, states that regulated hunting is not a problem for a viable bear population if the size and demographics of the bear population are monitored. Legalisation of bear hunting may also increase acceptance for bears and thereby facilitate the conservation of a viable bear population. The document also makes recommendations regarding the management of the bear population and encourages the preparation of a national Management Plan for the Bear Population, as well as highlighting issues that should be covered in the plan. According to the plan, hunting should only be legalised in

populations that are documented to be viable and where targets for hunting are set with management plans. International law and the Habitats Directive must also be taken into account. Hunting makes it possible to regulate the growth rate of the bear population and also to stabilise the population. (Swenson et al. 2000.)

In its Recommendation No. 74 (1999) adopted in 1999, the Standing Committee of the Bern Convention has stated that action plans on large carnivores (such as the action plan concerning the brown bear) are considered as guidelines for competent national authorities. In addition, the Standing Committee recommends Contracting Parties to the convention to consider taking note of or implementing them in the context of the preparation of their national management plans.

A report to the Bern Convention secretariat on best practices for management of protected and strictly protected populations of large carnivores in Europe published in March 2025 has a special focus on the brown bear and the grey wolf. The report describes best practices for large carnivore conservation. The report was prepared by the Norwegian Institute for Nature Research (NINA), Istituto di Ecologia Applicata and the Large Carnivore Initiative for Europe (LCIE). The report states that successful large carnivore conservation requires the coordinated implementation of a wide range of different measures that can be broadly clustered as follows: a) planning, b) economic measures, c) monitoring and research, d) information, communication, dialogue, stakeholder participation, e) livestock policy and livestock protection and f) lethal measures (both hunting and targeted lethal control). The report also provides a more detailed checklist for situations where hunting or lethal measures are implemented in large carnivore population management. For example, there are higher demands for precision and accuracy when a more widespread use of lethal control is in use. (Linnell et al. 2025a.)

Data on the bear population as a basis for hunting

The maximum number of bear individuals that may be hunted through management-based hunting is based on up-to-date scientific studies and population model calculations. The population model prepared by the Natural Resources Institute Finland specifically provides a forecast of the development of the bear population based on observed development trends and bag sizes. Key factors that play a role in the regulation of hunting are the size and trend of the bear population. The Natural Resources Institute Finland produces bear population data that is as up to date as possible to support decision-making on hunting regulation, and the Ministry of Agriculture and Forestry issues decrees on bear hunting on this basis. By issuing decrees, the Ministry may limit the number of derogation permits based on population management specific to population

management area. The Finnish Wildlife Agency plans the more specific targeting and scaling of hunting by area, further ensuring the viability of the area's bear population, and issues derogation permits based on applications as part of its public administration duties.

The Directive-related bag limit working group established in the Finnish Wildlife Agency supports the planning of the regulation of bear hunting. The working group draws on its collective expertise and best available data on the culling of the bear population, and it also strives to use the opinions of the regional wildlife councils on regional bear statuses in its work.

The values associated with the bear in Finnish society consist of both the bear as a valued animal as part of Finnish nature and the value of the bear as a game animal. The bear is also an important predator that has a direct or indirect impact on the populations of various species. The predatory effect of the species is taken into account when planning the bag limits.

The regional wildlife councils aim to promote a constructive discussion on bear population management based on high-quality game data. The resulting view on the success of regional bear management will be disseminated to the field through timely communication.

More detailed grounds for bear hunting for population management purposes are described in the background memorandums of the Ministry of Agriculture and Forestry and in the derogation permit decisions made by the Finnish Wildlife Agency. In paragraphs 71–74 of the judgment for a preliminary ruling C-674/17, it is stated that the number of animals taken under a derogation will depend, in each case, on the population level of the species, its conservation status and its biological characteristics. The management plan and the maximum number of bear individuals to be hunted, which is set annually by decree of the Ministry of Agriculture and Forestry, can be used to ensure that the combined annual effect of the individual derogations will not undermine the maintenance of a favourable conservation status of the species in its natural range.

Maintaining the bear's wariness of humans

Bear hunting for population management purposes aims, among other things, to maintain the bear's wariness of humans. Maintaining the bear population's wariness of humans is based on a part of the population being regularly hunted every year. Bear hunting indirectly affects several individuals in a continuous shared range, which also has local concentrations, even if not all bear individuals are directly

targeted or killed. The removal of bear individuals that cause damage or a safety threat cannot, among other things, maintain bears' wariness of humans, limit the growth of the bear population or reduce the density of the bear population.

The bear usually moves away from people to avoid notice. Bears are mainly active at night and at dusk and dawn (Largecarnivores.fi). According to a study in Finland and Scandinavia (Moen et al. 2019), bears tend to avoid people and are not normally aggressive in encounters (see also similar studies Ordiz et al. 2013 and Moen et al. 2012). This supports the conclusion that the management of the bear population has been successful in Finland in this respect.

The behaviour of GPS-collared bears in relation to human approach attempts has been analysed in several studies. The most recent research was based on approach attempts made in Sweden and Finland in 2004–2012. In Finland, the approach tests were carried out in 2004–2012 and the bears lived in areas with a higher density of human population than in Sweden. (Moen et al. 2019.) The results of the study were similar to those of studies on Scandinavian bears published earlier[8] (incl. Moen et al. 2012, Ordiz et al. 2013 and Sahlén et al. 2015), that is, bears avoid people (Moen et al. 2019, see also Ordiz et al. 2019). This general feature of bear behaviour can be explained, for example, by the fact that bears are regularly hunted in Sweden and Finland and the bag sizes are similar. The history of the bear populations is also similar in the respect that the bear populations in Finland and Scandinavia declined sharply in the late 1800s and early 1900s. (Moen et al. 2019, Schneider et al. 2023, see also Swenson 1999 and Majić Skrbinšek & Krofel, 2015.) The typical behaviour of large carnivores living in human-dominated landscapes is also considered to be elusive (Moen et al. 2019).

A worldwide perspective on brown bear attacks on humans is provided in an article published in Nature Research Reports in 2019. At a global scale, attacks are more frequent in areas where human density is lower and bear density is higher. (Bombieri et al. 2019.) For more information, see subsection 2.3.3.

Under Finnish hunting legislation, a female bear accompanied by a cub born in the same year is protected. This means that a significant share of the bear population has not been directly targeted by hunting. Hunting events have, however, indirectly caused regular human pressure on this part of the population, too. For example,

8 Sahlén et al. (2015) studied experimental approaches by humans to GPS-collared females with cubs in 2008–2011 and single bears in 2006–2009. The data of Ordiz et al. (2013) covered 2006–2011, and of Moen et al. (2012) also 2006–2011.

cubs have learned from females to evade humans, that is, to steer clear of people in certain situations. A significant part of bears killed in hunting have been subadult males not yet as good at evading people as adult bears due to, for example, them typically having fewer experiences of people. The above contributed, as regards the entire bear population, towards the Finnish bear population not yet having caused significant hazardous incidents even though an upward trend in the bear population has been seen throughout the 2000s.

The impact of hunting on bears in Scandinavia has also been studied. For example, bears have been found to have changed their movements during the hunting season (Ordiz et al. 2012). A study conducted in Sweden (2024) found an increased movement rate in females accompanied by dependent offspring during the first hours of the bear hunting season in areas closer to roads. Females with dependent offspring of any age may not be hunted in Sweden. The movement rate of females with dependent offspring generally increased during the bear hunting season. The results suggest that the increased movement rate during the legal bear hunt in females with dependent offspring was likely an anti-predator response because it was more pronounced closer to roads, where most bear mortalities occurred in the study area. (Brown et al. 2024.)

In addition to females with cubs, subadults are most likely to use areas close to human activities in order to avoid male bears and predators or search for anthropogenic food, which might also make them more susceptible to encounters with humans (Bombieri et al. 2019.)

However, there may be changes in behaviour due to bears becoming accustomed to humans. In North America, for example, there have been reports of bears becoming accustomed to humans in certain areas, which has also led to problems. For example, it is possible that habituation can occur in situations where there are clumped food sources and a non-aggressive human presence. (Ordiz et al. 2019.) The possible causes of conflict situations caused by bears and other measures to prevent and respond to them are discussed in subsections 2.3.1, 2.3.3 and 2.3.4 of the management plan. Subsection 2.3.3 on encounters with bears and bear attacks on humans provides a brief overview of situations where bears are typically encountered and situations where bears have behaved aggressively towards humans. In Finland, commercial bear feeding sites may increase the risk of bears not being wary of humans, but no such link has, at least not previously, been detected (Kojola & Heikkinen 2012).

Bears not being hunted for population management purposes is likely to lead to an increased abundance of the bear population. According to a forecast by the Natural Resources Institute Finland, for example in areas of Finland outside of the reindeer herding area the absence of bear hunting would likely result, at the current rate of bear population growth, in the Finnish bear population doubling by 2030. The bear population growing and not being hunted will increase the number of cases where the police will have to take action and either chase away or put down a bear. Hunting helps maintain bear densities at levels that will keep the harm and damage to human activities, farm animals and wild game at an acceptable level. Wildlife and game administration has also recommended targeting hunting at bear individuals that move close to human habitation, precisely in order to maintain the bear population's wariness of humans.

It can be stated at the general level that, when examining the trend of the Finnish bear population and the number of observations of bears near residential or production buildings and the number of police assignments to chase away or put down a bear in 2020–2024, the amounts appear to follow each other. The bear population last peaked in 2020 and then took a downturn due to a planned increase in hunting, with the total number of individuals declining (see e.g. Heikkinen et al. 2021 and 2022). In 2023, the bear population already reached the 2020 level, since hunting decreased considerably in 2022–2023, and the population has continued to grow further. In 2020–2021, the numbers of executive assistance requests made by the police to game management associations were higher than in 2022–2023. In 2024, the number of assignments increased again. (See Appendix, Graph 1.) Observations recorded by large carnivore contact persons also show a peak in bear presence near residential or production buildings during the previous peak of the bear population in 2020 (a total of 1,121 observations near a residential or production building). In 2022 and 2023, the number of such observations was clearly smaller (511 and 497 respectively). In 2024, 880 visits by bears near residential or production buildings were recorded. This means that the number of observations of bears near residential or production buildings and the number of police assignments over the 2020–2024 observation period was larger in 2020 before the decline in the bear population, and the numbers appear to have increased again in 2024 following an increased abundance of the bear population. It should, however, be noted that the number of observations and assignments to chase away bears is likely to be affected by many different factors, with random variation also likely to be involved.

When the density of bears increases, bears disperse and also increasingly use areas close to human activities. This increases bear–human encounters. A bear typically runs away from unexpected encounters, but in the most serious incidents a bear such as a mother may attack to defend her cubs.

Any visits by bears venturing close to residential and production buildings can be prevented by removing any food attracting them. Bears have an excellent sense of smell they use efficiently to locate food sources. (See more in subsection 2.3.3.)

It should also be noted that natural conditions such as the food situation of bears may have an impact on bear behaviour that may be very sudden. It should, for example, be taken into account in the management of the bear population that the harvest of wild berries has a major impact on the food sourcing and behaviour of bears. A bear will not retreat to its winter den in poor condition. Instead, it will source the food it needs for its fat reserves wherever it can. Shortage of food may make the bear's fear of humans of secondary importance and the bear may not necessarily mind the presence of humans. In 2010, the wild berry harvest was poorer than normal in North Karelia. For bears, this meant having to find other food sources to prepare for hibernation. Cereal grains had ripened normally, and bears used them comprehensively as a food source. In the North Karelian village landscapes, cereal grain fields are often located close to residential buildings. When feeding in fields, bears came close to homes and were sighted in large numbers. The apple harvest was also good. Apple trees are almost without exception located very close to houses. This caused a lot of problems, as bears went into gardens to feed on apples. Currant bushes in gardens also attracted bears, since there were no berries in the forests. The shortage of food is illustrated by the fact that bears went to search for grains left in the soil in fields that had already been threshed and lightly tilled. During their autumn hyperphagia period, bears actively seek food also during the day when people are also moving about. This situation resulted in around 150 executive assistance requests by the police in large game matters to game management associations in North Karelia. (Finnish Wildlife Agency.)

If bear observations are made, for example, close to residences or built-up areas, the action taken will, as appropriate, follow the policy set out in the four-step table provided in the Management Plan for the Wolf Population in Finland. The table describes the action thresholds for the police and the Finnish Wildlife Agency in situations where wolf behaviour causes a threat or danger. (National Police Board, 2022.) (See more in subsection 2.3.4.) Hunting for population management purposes is not suitable for situations such as those involving a threat relating to a bear. Instead, chapter 2, section 16 of the Police Act (872/2011) is usually applied in these cases.

Organising bear hunting for population management purposes and selectiveness of hunting

Bear hunting is a valued form of hunting in Finland, and the bear is a valued and respected quarry. Bear hunting also has a long tradition.

Under section 30 of the Hunting Act, the holder of a bear derogation must appoint a hunt leader and the necessary number of deputy leaders. The appointment of a hunt leader and deputies is a comprehensive way of reaching the people who direct bear hunting. The communication functions of the Oma riista service make it possible to reach groups of bear hunters working under the management of permit holders and hunt leaders, and to disseminate information on the selectivity and ethics of hunting in real time.

Under section 23 of the Hunting Decree, the leader of a hunt for bear, wolf, wolverine or lynx must:

1. plan the hunting events in practice;

2. give the participants to the hunt the necessary orders concerning hunting and the safety measures to be complied with; and

3. ensure that the terms of the hunting permit and provisions concerning hunting are complied with.

In cooperative hunting, a hunt leader or deputy hunt leader must be present during the hunt. However, the hunt leader or deputy hunt leader does not need to be present if the hunt is conducted as stand hunting. Cooperative hunting refers to a hunting event in which more than one hunter is present. The hunt leader must ensure that the ethical principles of hunting are taken into account in the hunting of bears, also with regard to the use of dogs. The training and guidance for hunt leaders must ensure that sufficient conditions for the use of hunting dogs are maintained in order to implement ethically sustainable bear hunting. If necessary, this issue will be provided for in legislation.

Bear hunting is a challenging and demanding form of hunting, and the fact that the bear is dangerous when injured must be taken into account in hunting. Training for bear hunting should also cover safety and risk considerations.

For the management of the bear population, it is important that hunting is targeted as much as possible at potentially problematic bears or bears visiting nearby residential areas. These include subadult, especially male, bears that go near homes and are not afraid of humans or cause economic losses but cannot be identified due to the density of the bear population.

2.2.3 Multi-species approach

Measures:

- The Natural Resources Institute Finland will produce data for multi-species population management purposes, especially with regard to interactions between and within large carnivore populations and ungulates, as well as other population-regulating factors.
- The Natural Resources Institute Finland will produce information on the impact of dense bear populations on ungulate populations and, in particular, on the calf yield of wild forest reindeer.
- The current status of the wild forest reindeer population will be taken into account in the allocation of derogations for large carnivores – the bear and the lynx, in particular – especially in areas where both wild forest reindeer and a wolf pack are present.

The multi-species approach to population management means population management where the interdependencies and interactions between species – in this case large carnivores and their prey species – are taken into account. Interdependences can be seen in, for example, predators being dependent in the wild on their prey species and this in turn being manifested in the impact of the predator species on the prey species and vice versa. (See e.g. *Riistan vuoksi*, 3 April 2023.)

The question of what to take into account in the multi-species approach is multifaceted and important. Aspects to be taken into account may also include regional differences in, for example, landscape and species composition and matters related to social and economic sustainability. Population management is also part of game policy where different values and objectives are reconciled.

The bear is an omnivore and meat only accounts for part of its diet (estimated at around 30%). Bears do, however, also feed on cervids, and their spring predation targets calves in particular. In the current presence and abundance of bears in Finland, the predation of bears towards elk and wild forest reindeer may be regionally or locally of such magnitude that it must be taken into account in the

management of these game populations. However, predator/prey relationships are very complex, simply because in general there are both a number of large predatory carnivore species and a number of ungulate species suitable for prey. Research data on the impact of the bear on the elk population in Finland has been scarce. Research-based data from Sweden has been applied to conditions in eastern Finland. It has been estimated that the number of elks killed by bears is slightly smaller than in Sweden due to the lower density of elks in eastern Finland.

In the management of the elk population, the effects of large carnivores have been taken into account more widely in recent years (see e.g. Management Plan for the Elk Population, 2014). The model used by the Natural Resources Institute Finland for the assessment of the elk population and the recommended bag limits based on it have now also taken into account the impact of large carnivores on the elk population by elk management area. However, in many areas close to the eastern border, the planning of elk hunting has failed because the elk population may have fallen to such a low level that there have been years when elk hunting has not been permitted or the number of elk hunting permits in the areas has been very low (see more in chapter 2.2.1., subsection eastern area). Such situations should be avoided. If the elk population is low, the acceptance of large carnivores may also decrease. There are examples in Sweden of illegal killings of bears occurring particularly in areas where bears have killed a lot of elk calves.

The eastern border and its neighbouring areas differ from the rest of Finland in that the large carnivore populations are connected with the large carnivore populations of the vast wilderness areas on the Russian side. In addition, in Kainuu, North Karelia and the northern parts of North Ostrobothnia, the feeding of carrion to large carnivores is popular near the eastern border of Finland. The long-term ecological effects of the supplemental feeding of large carnivores are not known.

Wild forest reindeer and large carnivores

Wild forest reindeer adults and calves are regular prey for all large carnivores (Pöllänen et al. 2023). The Kainuu subpopulation of Finnish wild forest reindeer declined to less than half of its level in the peak years from the beginning of the 2000s, until the size of the overwintering population varied between 700 and 900 individuals in 2015–2023, and its range also decreased. According to the latest estimate by the Natural Resources Institute Finland, around 700 wild forest reindeer overwintered in Kainuu in the winter of 2024/2025 (Natural Resources Institute Finland 2025b). On the other hand, the subpopulation in Suomenselkä has been increasing, and the population has gradually dispersed to new summer pastures along Suomenselkä towards the north. According to the latest estimate by the

Natural Resources Institute Finland, there were around 2,000 wild forest reindeer in the Suomenselkä overwintering range of South Ostrobothnia (Natural Resources Institute Finland 2024a).

The decline of the Kainuu population is now more moderate than in the worst years, but the population is still in danger of disappearing in a few decades if the decline continues as before (Paasivaara 2022). The calf yield of wild forest reindeer has weakened along with the decline in the population, and the proportion of females with young is now significantly lower in autumn herd censuses than at the turn of the millennium (Natural Resources Institute Finland, unpublished data). In the two most recent autumn censuses of calves (Natural Resources Institute Finland 2024b and 2025b), the calf yield was the lowest during the period when these censuses have been made in Kainuu.

The decrease in the calf yield is probably not due to poor fertility or calving of wild forest reindeer does, because the does with research collars in Kainuu calve normally. On average, around 85% of does produce a calf annually (Natural Resources Institute Finland, unpublished collar data 2004–2022). During summer, calves generally disappear quickly without leaving any trace, so it is difficult to determine the exact cause of death (see Kumpula 2022). Observations and indications have been received in calf monitoring that the calf mortality is due specifically to large carnivores (Kojola et al. 2021a), with the bear appearing to account for the largest impact in Kainuu (Kumpula 2022). On the other hand, only very few collared wild forest reindeer calves that died of illness have been found so far (Kumpula 2022). Calf mortality of collared wild forest reindeer has also been observed to be higher in eastern Kainuu than in western Kainuu (Kumpula 2022). Higher mortality close to the border also in part explains the collapse of the Kuhmo population. wild forest reindeer are also found in smaller numbers than 20 years ago in the protected areas close to the eastern border that are important for wild forest reindeer. The bear also preys on adult wild forest reindeer, but the bear contributes considerably less to the mortality of collared adult forest reindeer than the wolf (Pöllänen et al. 2023). The diet of large carnivores, and bears in particular, should be studied more closely in wild forest reindeer areas.

The population of wild forest reindeer in the Republic of Karelia in Russia has also declined strongly in the last few decades and, like the population in Kainuu, is in danger of dying out in a few decades (Paasivaara 2016). The main reason for the decline of the wild forest reindeer population in the Republic of Karelia is considered to be illegal killing (Panchenko 2010 and Danilov et al. 2014). This means that the declining wild forest reindeer population in the Republic of Karelia will not be able to replace the Kainuu population if the latter disappears.

The development of the wild forest reindeer population is monitored by the Natural Resources Institute Finland. Reintroduction and restocking of the species have also been carried out around the boundaries of South Ostrobothnia, Pirkanmaa and Satakunta as well as in western Central Finland in connection with the WildForestReindeerLIFE project (2016–2023). It must be noted, however, that the creation of a viable wild forest reindeer population in completely new areas may take decades. It also requires local regulation of large carnivore populations through hunting as well as enhanced monitoring of and research on large carnivores and cervids.

The core ranges of wild forest reindeer are small in surface area, especially in Kainuu. In Suomenselkä, however, wild forest reindeer spread out in summer over a relatively large area, which now extends from the Ähtäri plain to Central Finland, to the western edges of North Savo, to the coastal areas of Ostrobothnia and to the reindeer herding area in North Ostrobothnia. The spreading of the restocked population of Suomenselkä is likely to continue if suitable mire wilderness areas are available. Wild forest reindeer nowadays have distinct winter and summer grazing ranges in both subpopulations, which are well known through collaring, aerial censuses and other observations. On the other hand, the summer and winter grazing areas seem to be constantly shifting. In order to halt the decline of the Kainuu population, efforts should be made to increase the calf yield of wild forest reindeer and reduce the mortality rate of adults. Therefore, it should be possible to limit the number of bears and other huntable large carnivores in and around the summer grazing areas of wild forest reindeer. In addition, the current core calving ranges of Kainuu wild forest reindeer are located near the reindeer herding area, so limiting the number of bears is also likely to reduce the damage to the reindeer of the southernmost reindeer herding cooperatives. The location of the current wild forest reindeer calving ranges along the southern boundary of the reindeer herding area emphasises the importance of the work on the genetic purity of wild forest reindeer. Due to the small size of the summer grazing ranges of Kainuu wild forest reindeer, limiting the number of bears in these areas will not have a major impact on the management of the entire bear population in Finland.

The coexistence of cervids and large carnivores in the same areas is a balancing act between the regulation of cervid populations and the regulation of large carnivores. The regulation of the more abundant cervid populations together with the regulation of large carnivores will determine the occurrence or population development of rare species, such as the wild forest reindeer (Wittmer et al. 2013). Large carnivores, especially the wolf and the bear, feed on the cervids that are most widely available and have the greatest nutritional benefit. In Finland, the main cervid-derived meat diet for bears and wolves is made up of elk and, in the

southern parts of the country, probably also white-tailed deer. If the elk or white-tailed deer population declines for any reason, the large carnivore population must also be adjusted to the level determined by its main food source. Otherwise, there is a risk that a rare prey species will disappear when large carnivores use alternative prey that cannot withstand the increased predatory pressure. There is always a risk of the disappearance of a rare species, even if the populations of the main prey species are high (on pseudo-competition see e.g. Wittmer et al. 2005 and Wittmer et al. 2013). The Finnish wild forest reindeer has a high risk of losing out in a pseudo-competitive situation, as it loses out to the elk and the white-tailed deer in the rate of reproduction. A wild forest reindeer rarely produces twin calves.

Ecological research and monitoring should be targeted and strengthened, especially in problem areas and where the ecological impacts of the bear population are potentially high, such as the core areas of the wild forest reindeer. The current wild forest reindeer ranges are also special areas for research, as they have more abundant elk and rarer wild forest reindeer, but also all large carnivore species. In addition, the proximity of the eastern border in Kainuu and the supplemental feeding of large carnivores create special conditions for research. Overall, research and monitoring of interactions between large carnivores and their prey should be continued and expanded. In the management of game animals, the perspective of the entire predator–prey community must be taken into account. Research on only one species such as the bear or wild forest reindeer does not provide sufficient information for the population management needs of the multi-species cervid–large carnivore community – especially in the long term. For example, it has been found that in Sweden the wolf kill rates of elk were higher without brown bear presence compared with areas where bears are also present (Tallian et al. 2017). There are likely to be area- and community-specific features in the nature of the interactions, which is why substantially more research data collected in Finland is needed to serve efforts to take the multi-species dynamics into account in contexts such as bear population management. The development and use of modelling tools describing multi-species game communities would facilitate taking complex interactions into account in the population management of large carnivores and cervids alike. In order to integrate the management of populations of large carnivores and cervids, knowledge of the interactions between them is important from an ecological, economic and social point of view.

2.2.4 Supervision of hunting

Measures:

- Wildlife liaison officers at commanding officer level appointed to police departments coordinate the planning and implementation of supervision in the police department's area.
- To enhance the supervision of hunting, the Ministry of Agriculture and Forestry will prepare a government decree to restrict the luring of large carnivores with carcasses.

In most cases, hunting offences against bears have been committed in connection with legal hunting. The use of a food bait when hunting has occurred regularly. Protected cubs less than one year old and female bears accompanied by such cubs also end up being killed. However, the shooting of cubs less than one year old and female bears accompanied by such cubs is probably more due to the hunter's lack of care in the shooting situation than to an intentional act. A study on the topic supports the notion that hunters being more experienced reduced the risk of protected cubs being killed unintentionally. Training could probably improve ability to better identify cubs under the age of one year and, consequently, contribute towards them not being shot accidentally. (Kojola et al. 2021b.)

Reports of unauthorised killings of bears are rare. The risk of being caught is low, however, and illegal hunting may actually be more commonplace than the figures indicate. Nevertheless, at least from the point of view of bear population management, illegal killing does not have the same significance as it has had for wolves (see e.g. Management Plan for the Wolf Population in Finland 2019).

The Acts Amending the Act on the Supervision of Hunting, Fishing and Wilderness Areas by Metsähallitus, section 89 of the Hunting Act and sections 99 and 108 of the Fishing Act entered into force on 1 January 2025. The amendments increase the efficiency of the supervision of hunting, among others. Following the amendments, the supervisory authorities have more extensive rights to inspect that a person's quarry and hunting devices are in compliance with provisions and regulations. Provisions on the game warden's power to issue orders and powers relating to safeguarding criminal investigations were added to the Act on the

Supervision of Hunting, Fishing and Wilderness Areas by Metsähallitus. In addition, insubordination to a game warden was laid down as punishable. The legislative amendments aim to prevent criminal activity and, consequently, promote the lawfulness of hunting.

Under section 33 of the Hunting Act, bears must not be hunted using carrion or man-made bear bait based on food or scent and, except in a grass field, bears must not be shot in a field where the crop has not been harvested, and bears must not be chased from or shot at the den. Efforts have been made to prevent the use of food bait in bear hunting by increasing the penalties. Within the limits of the powers of the Hunting Act, the Hunting Act was supplemented to restrict the above-mentioned activities in 2017 by adding a new section 34a. According to the section, a government decree may regionally prohibit deliberate baiting of game animals using carrion or other human-made bait based on food or scent of animal origin and food products intended for human and domestic animals during the period from 1 June to 9 September, if it is necessary to improve the monitoring of the prohibition on the use of food bait provided for in section 33, subsection 2, paragraph 3 of the Hunting Act. So far, the use of food bait has not been prohibited by government decree in any region.

However, according to section 34a, subsection 3 of the Hunting Act, the prohibition laid down by government decree does not apply to an undertaking whose business activity or sector recorded in the Trade Register is nature photography and viewing activities. The provisions of the Act on the Safety of Consumer Services (185/2025) apply to such undertakings. The government proposal for the 2017 amendments to the Hunting Act points out that, particularly in bear hunting, the luring of bears to a specific location with bait before the start of the hunting season has increased in recent years. When such food bait is removed before the start of the hunt, the hunter is not directly guilty of a hunting offence. However, this kind of activity puts hunting parties in an unequal position, because not everyone has adopted this kind of grey-area tactic.

Over the last few years, the supervisory authorities have increasingly found evidence of the use of scent and food bait in bear hunting, including with a view to facilitating the finding of bears. Food bait has often included foods that are not part of the bear's natural diet, such as dog food. Restricting the use of food bait is also aimed at preventing large carnivores from getting used to the scent of humans as they visit food bait placed by humans in the wild and at preventing the use of food bait in bear hunting.

According to the Animal By-products Act (517/2015), the use of Category 2 animal by-products is prohibited in the territory of the municipality in question while bear hunting is permitted. Once the bear hunting permits granted for population management purposes in the area have been used up, the use of Category 2 animal by-products is allowed once more. It is the responsibility of the keeper of the carrion feeding site and the supervisory authority to monitor the use of bear hunting permits in the area.

A bear that has been killed under a derogation must be reported to the Finnish Wildlife Agency, the police and Metsähallitus' game warden on the first working day after the bear is killed. For example, a bear killed on a Saturday can be reported the following Monday. A bear that has been killed in connection with quota hunting in a reindeer herding area must be immediately reported to the Finnish Wildlife Agency.

Investigation of crimes against large carnivores often requires a lot of resources and great professional skill. The penalties for crimes against large carnivores have been set at a high level, so the eradication of crimes against large carnivores has been considered important in our society. The resources of the authorities responsible for supervision of hunting must therefore be safeguarded. However, as the financial capacity of public finances shrinks, the resources of public authorities may weaken instead.

At the moment, each police department has a wildlife liaison officer and also police officers trained in hunting supervision who carry out hunting supervision duties and tasks linked to large carnivores, among other tasks, in cooperation with other authorities. The coordination of supervision of hunting, fishing and wilderness areas and large carnivore activities by the police is managed by the National Police Board of Finland, with regional liaison officers managing the planning and coordination of activities at their respective police departments.

The authorities responsible for the supervision of hunting, fishing and wilderness areas, such as the Ministry of Agriculture and Forestry, the Ministry of the Interior, the National Police Board, Police, the Border Guard, Metsähallitus wilderness supervision and the Finnish Wildlife Agency, organise regular cooperation meetings to develop supervision and cover current issues.

The statutory public administrative task of the game management association is the implementation of hunting supervision. Hunting wardens of game management associations monitor the legality of hunting and game management in their operating area and, if necessary, inform the authorities responsible for overseeing

compliance with the Hunting Act, the Finnish Wildlife Agency, the holders of hunting rights and the owners of hunting rights, and thereby assist the police and other authorities. In practice, this means the prevention of offences, which takes the form of awareness-raising, information and guidance for hunters and influencing opinions and attitudes at supervision events. Hunting wardens of game management associations may also intervene in observed offences within the limits of their powers. One of the criteria for allocating the subsidy to game management associations is the supervision of hunting (Act on Game Management Fee and Hunting Licence Fee 616/1993).

The obligation laid down in the Hunting Act (section 30) to appoint a hunt leader when hunting for large carnivores ensures that the parties exercising oversight of bear hunting have a better awareness of who is responsible for bear hunting. If necessary, the Oma riista service can be used to distribute information about bears and bear hunting to these persons, thereby improving the preconditions for legal and ethically acceptable hunting.

2.3 Acceptability of the bear and its population management

2.3.1 Preventing damage

Measures:

- The Finnish Wildlife Agency will ensure that sufficient supplies of protective materials are available to prevent damage caused by bears.
- The Finnish Wildlife Agency will advise beekeepers and farmers on preventing damage caused by bears. The targeting of protective measures to the most potential risk areas will be developed.
- International experience (Sweden and other countries) will be taken into account in the prevention of damage caused by bears and other large carnivores.

Bear depredation is mainly focused on the reindeer industry, but it also causes considerable damage to apiaries. Compensation for livestock damage caused by bears consists almost entirely of damage to apiaries. According to the riistavahingot.fi service reporting accidents and damage caused by game animals, damage to bees amounted to around EUR 170,000. In 2020–2023, damage to bees ranged between EUR 119,000 and EUR 168,000.

In addition to damage to bees, bears have caused damage to sheep and a few cases of damage to bovine animals and horses. The amount of damage caused by bears to sheep has fluctuated at the annual level. In 2020, damage to sheep caused by bears amounted to around EUR 43,000, while in 2022–2024 the figure ranged between EUR 4,600 and EUR 9,700. (Riistavahingot.fi)

Bears also cause damage to agriculture by breaking feed bales. In 2024, damage to agriculture caused by bears amounted to around EUR 202,000, while in 2020–2023 the figure ranged between EUR 79,000 and EUR 122,000.

The wildlife and game administration has a long history of preventing large carnivore damage since the 1990s. The statutory task of the Finnish Wildlife Agency is to promote the prevention of damage caused by game animals. Damage caused by bears has been prevented mainly by the use of electric fences, because such fences have proven to be an effective means of protection when properly installed and regularly maintained. The useful life of a large carnivore fence is at least ten years. Many other protection measures have proven to be suitable for temporary protection only, mainly in acute damage situations. In recent years, various sound and light deterrents have also been supplied for particularly challenging sites. Fences protecting livestock are mainly targeted at areas where there is an abundance of large carnivores, especially wolves, or where there has been a significant amount of damage to livestock caused by large carnivores. In the case of domesticated free-range reindeer, prevention of depredation is almost impossible.

As far as electric fences for the protection of grazing animals are concerned, the principle of cost correlation has been in place for a long time. This means that the Finnish Wildlife Agency uses case-by-case discretion when it comes to the costs incurred by the State from protecting a site, comparing them to the value of the interest to be protected. Where the value of the protected site is less than the value of the support to protect it, it is not justified to protect the site with public funds. As the implementation of protection measures for grazing animals also requires planning at each site, the current practice is appropriate.

The work effort used to promote the prevention of damage caused by game animals has partly increased at the Finnish Wildlife Agency owing to the LIFE BOREALWOLF project, which has provided resources to prevent, for example, conflicts and damage caused by wolves. The project will end in the autumn of 2025. In the future, it must be ensured that similar human resources are available to the Finnish Wildlife Agency in terms of counselling and prevention of damage linked to wolves and other large carnivores. At the current level of activity, the provision of materials for preventing damage caused by bears and the planning of their use can be managed. In addition, there are sufficient resources to carry out some experimental and training activities, supervision, guidance and information provision. In future, the prevention of bear damage should be targeted more precisely at potential risk areas, for example by means of risk analyses, which are better enabled by the evolving information systems of wildlife and game administration. More cooperation is needed with parties suffering damage, research institutes and universities in order to develop methods for preventing damage caused by game animals. In addition, more effort should be devoted to training, guidance and information provision.

In 2022, the Ministry of Agriculture and Forestry opened Riistavahingot.fi, a website where information on damage caused by large carnivores is available to all. Information on damage caused by large carnivores is updated automatically on the site, and the damage locations can be viewed on a map. The website is part of a project called Riistavahinkokeskus ('Game Damage Centre') included in the Management Plan for the Wolf Population in Finland, which aims to set up an online service to make information on game animal damage available in a single place. The Riistavahingot.fi website can be developed in the future, for example by collecting information on various methods of preventing damage.

During the preparation of the Management Plan for the Bear Population in Finland adopted in 2022, it emerged strongly that the criteria for granting damage-based derogations were felt to be unfair. For example, some damage to bees also occurs at apiaries that are adequately protected by electric fences. One of the key points of the consideration prior to granting a damage-based derogation is the search for another satisfactory solution as an alternative to granting a derogation. In general, it can be stated that, in a situation where a bear individual has learned to bypass the means of protection, there is no obstacle to the granting of a damage-based derogation if it is expected that the bear individual will cause particularly significant damage in the future. On the other hand, in a situation where damage occurs at unprotected apiaries, the other satisfactory solution is, as a rule, the protection of the apiaries. However, for each application for a derogation, the Finnish Wildlife Agency carries out a situation-specific assessment, so general guidelines for

decision-making cannot be established. Nevertheless, it should be noted that, even if the conditions for the award of a damage-based derogation are met, the owner of the beehives or the livestock farm must, as the permit applicant, also have the right to hunt in the area where the bear is to be killed. However, the hunting rights are often held by persons other than the beekeeper or livestock farmer. The removal of individuals that cause damage may therefore require parties suffering damage to cooperate with a hunting club operating in the area or a person applying for a joint permit on behalf of hunting clubs. The Finnish Wildlife Agency cannot grant hunting rights. For this reason, it is not possible to manage the bear population with individual damage-based permits alone.

Deviating from the year-round protection of the bear must comply with the requirements of the Habitats Directive. In addition, the consideration of derogations is guided by the judgments of the administrative courts. Such decisions on derogations under section 41a of the Hunting Act have been made comprehensively. According to section 90 of the Hunting Act, the recipient of a derogation decision and a registered local or regional association the purpose of which is to promote nature or environmental protection have the right of appeal in derogation decisions made under section 41 of the Hunting Act. For this reason, a derogation applicant receiving a negative decision may appeal against the decision if, for example, they consider that the Finnish Wildlife Agency's derogation consideration has been unlawful. In addition, pursuant to section 31, subsection 1 of the Administrative Procedure Act, the Finnish Wildlife Agency must ensure that a matter is sufficiently and appropriately examined, by acquiring the information and evidence necessary for a decision to be made on the matter. It is therefore for the Finnish Wildlife Agency to establish and demonstrate whether the conditions for a derogation are met. The anticipated processing times for permit applications are publicly available on the Finnish Wildlife Agency's website. The usual processing time for game mammal derogations (damage-based derogations) under the Habitats Directive is one month. The processing times take account of the fact that, in the case of requests for clarification, the applicant and, in the case of requests for comments, the person issuing the comments, must be given a reasonable period of time, normally not less than two weeks. If the Finnish Wildlife Agency receives the evidence and comments faster than requested, this will also allow for a shorter processing time. At best, applications for derogations based on damage have been processed within one to three days.

Damage caused by bears mainly occurs in spring and summer. The game damage register shows that, in quantitative terms, between years 2018–2021 19–40% of the damage to, for example, bees during the whole year have taken place after the start of the hunting season (20 August). In a situation where the damage caused by

bears occurs in an area where population management derogations are available, it would be a good idea if the holder of a derogation directed hunting activities at that area. In general, hunting in areas where bears have caused a lot of damage could also reduce the occurrence of damage.

Damage to bees

There are apiaries in each region of Finland. In the Lapland, Kainuu and Koillismaa areas of northern Finland, the number of apiaries is lower than in the rest of the country. Apiaries are the most common in the area consisting of Pirkanmaa, Kanta-Häme, Uusimaa, Southwest Finland and Satakunta.

Together with the Finnish Beekeepers' Association, the Finnish Wildlife Agency has developed protection methods for apiaries. The electric fence has been found to be an efficient and cost-effective method, although it involves work and costs for the beekeeper. A bear that receives an electric shock usually respects the electric fence and leaves the beehives alone. (Finnish Wildlife Agency 2022.) The Finnish Wildlife Agency has supplied light electric fence packages to protect apiaries. One fence can protect four to six beehives for several years. Beekeepers can order them directly from a company offering fence packages.

Not all bears are interested in apiaries. Experience shows that some individuals specialise in using beehives as food sources and can therefore cause major damage each year. It has also been observed that a mother teaches her offspring the same way of accessing food. The removal of such bears often ends damage to bees over an extensive area.

With the exception of Northern Finland, there are few areas where the risk of bears causing damage to bees is low. As a result, the protection of apiaries with electric fences should be continued, as it works and is cost-effective. In addition, the construction of fences should in future be channelled through information and guidance to areas which risk analyses identify as having the highest potential for damage. This type of analysis has not been done very much to date.

Damage to livestock and reindeer

Due to the high cost of installing electric fences for the protection of grazing animals, it is rarely necessary to install such fences solely for the purpose of preventing depredation by bears. Compared with other livestock, the depredation by large carnivores on sheep is particularly high. All large carnivores predate sheep. In order to optimise the targeting of prevention measures in potential risk areas,

a risk analysis involving all large carnivores should be carried out in the future. However, among large carnivores, the wolf and the bear cause far more damage to livestock than the lynx and the wolverine.

Bear depredation on reindeer particularly targets calves. Efforts have been made to prevent depredation by having reindeer calve in enclosures, which has been used to some extent throughout the reindeer herding area. However, even calving enclosures do not prevent bears from predating calves, as bears have sometimes preyed on reindeer calves immediately outside the enclosure after the reindeer have been released from the enclosure. There have also been cases where a bear has managed to enter the enclosure and killed both reindeer does preparing to calve and new-born calves.

Very effective means of preventing bear depredation on reindeer have not been found. As such, the main means of reducing bear depredation on reindeer is the regulation of the bear population through hunting and the damage-based hunting of bear individuals that repeatedly cause significant damage. If any effective prevention methods are found, they should be deployed, as bears cause a great deal of damage to reindeer, although the large carnivore that predates reindeer the most is the wolverine.

Feed bales

Bears tear up the plastic that protects bales and agricultural storage clamps, causing the feed to spoil. Feed bales and storage clamps are very numerous and are broken by many mammals and birds. Protecting them with electrical fencing is not very realistic, as that does not protect against smaller mammals and birds. Bear-induced damage to feed bales can be prevented mainly by storing bales in warehouses, at farm complexes and on roadsides.

2.3.2 Compensation for damage

Measures:

- Personal injury and damage to livestock, crops and bees caused by bears will be compensated in full.

- The aim is to pay for damage to livestock and bees by bears as soon as possible after the submission of applications when the appropriations permit this.

Provisions on compensation for damage caused by game animals are laid down in the Game Animal Damages Act (105/2009). The Act lays down the provisions on the grounds and procedures to be followed when granting funds for compensating for damage caused by game animals and advance prevention of damage caused by game animals from appropriations included in the State Budget. Further provisions have been laid down by government decree on the criteria for the payment of compensation and the procedure to be followed for granting it, as well as on the recovery of unduly paid compensation.

Personal injury or damage to crops, animals, moveable property and reindeer can be compensated for as damage caused by bears. In order to seek compensation for damage caused by bears as well as other large carnivores, reports of damage to crops, animals and moveable property must be submitted immediately to the local rural affairs authority, which will check the damage.

Under the compensation system, compensation is paid on the basis of fair market values and is constantly being updated. The Game Animal Damages Act was amended in 2019 to state that if compensation has to be cut due to damage to reindeer, the cuts will be targeted at damage to reindeer. From the beginning of 2020, damage to domestic animals caused by large carnivores such as the bear have been paid for in full, immediately after the claim has been approved. Damage to crops is compensated in the following spring after the standard harvest prices for the year the damage occurred have been confirmed. Damage to reindeer is compensated within the budget in the year following the year of the damage, due to the calculated elements and the fact that the amount of damage to reindeer can vary considerably throughout the year. In connection with the compensation for damage to reindeer, special compensation for loss of calves can be paid to reindeer herding cooperatives based on a calculated value according to the Game Animal Damages Act. The purpose of the compensation for loss of calves is to compensate for the loss of calves to carnivores during summer based on a calculated value, without the need to find the calves in the wild. It is almost impossible to find dead calves in summer, as carcasses disappear quickly due to predators, scavengers and decomposers.

The Ministry of Agriculture and Forestry and the Finnish Food Authority have developed an electronic and mobile-based damage reporting system, the Pesä application, through which damage to reindeer can be reported with all the data and coordinates directly to the authority's system via the mobile application. This updates the information on the accumulation of damage and makes it possible to check damage to reindeer in the wild when the exact coordinates for the damage site are available and the notification comes quickly through the service. The Reindeer Herders' Association encourages all reindeer herding cooperatives to adopt the Pesä application in reporting damage to reindeer caused by large carnivores, as this speeds up and enhances the transfer of damage data to the authorities.

Compensation of damage caused by game animals from central government resources is a multi-faceted issue. According to a citizen survey conducted as part of the 2022 management plan update, 5% of the respondents felt that no central government funding should be spent on compensating anyone, in any way, for damage caused by bears. On the one hand, very high levels of compensation could have the effect of reducing motivation for the prevention of bear damage. On the other hand, when the level of compensation for bear damage is very low, people may find it very unfair if bear damage is mainly borne by the party suffering damage. For an individual party, the economic losses caused by a bear can be high. Furthermore, it should be remembered that, ultimately, compensation for damage caused by game animals from central government funds is a political decision.

2.3.3 Other conflicts related to bears and food bait

Measures:

- The Finnish Wildlife Agency will advise people on how to prevent presence of bears near residential and production buildings and avoid encounters with bears.
- The Finnish Wildlife Agency will advise and train professionals whose job involves spending a great deal of time in forests in how to avoid encounters with bears and how to behave in any encounters.

- Parks & Wildlife Finland of Metsähallitus will provide hikers with guidance on how to avoid encounters with bears and how to behave in encounters with bears in national parks and outdoor destinations where bears are present.
- Research on the regular feeding of large carnivores, such as bears, will be continued and the various effects of feeding will be investigated.
- The Ministry of Agriculture and Forestry will launch a broad-based project to investigate the effects of feeding sites for large carnivores, such as bears, both privately and in tourism, and to draw up possible guidelines for their use and establishment. The project will also examine the need to regulate bear photography activities or carrion feeding sites by means of legislation.

Encounters with bears and bear attacks on humans

According to studies, bears in Scandinavia (both Sweden and Finland) mainly avoid people. Situations where bears are aggressive are typically ones where people encounter a mother bear and her cubs or a wounded bear, a bear eating carrion is caught off-guard or hunting dogs are involved. The likelihood of encountering a bear in Scandinavia is low, as bears exist at relatively low densities and their daytime habitat is usually in densely forested areas, which are not common hiking destinations. (Moen et al. 2012.) The bear has a good sense of hearing and smell, so it usually detects people early and leaves before it is noticed (Finnish Wildlife Agency 2015).

Most bear observations are made in spring and early summer, when there is little food available in the wild and bears are active even during daylight hours. That is also the bear rutting season, and the bears that come into or close to grounds of residential or production buildings are usually either subadults or females with dependent offspring. At other times of the year, the most likely motivation is energy-rich food. (Management Plan for the Bear Population in Finland 2022 - Background document, in finnish)

Careful waste management in bear areas, around holiday homes and other buildings alike, should be borne in mind, as bears are attracted by tempting odours. In the spring, bears can be attracted by bird feeding sites or pet food placed outdoors. Bird feeding should therefore be stopped sufficiently early on in bear areas. The bear is omnivorous and quick to learn, and even small carrion

can accustom the bear to human scents, which can lead to undesirable behaviour. Under no circumstances should a bear become accustomed to human scent or be tamed. (Finnish Wildlife Agency 2016 and 2024.) A phenomenon familiar in North America, bears seeking food in waste bins has also been observed in Finland (Finnish Wildlife Agency 2021). The Finnish Wildlife Agency guides and advises, for example, people with holiday homes on how to manage waste and avoid encounters with bears in the woods.

However, it is well known that bears can become accustomed to humans, as is the case in certain areas of North America, where bears have become habituated to hikers and bear-watchers, which has also led to problems. In Yellowstone, for example, bears got used to food of human origin and to people watching bears. (See e.g. Ordiz et al. 2019.)

An article published in Nature Research Reports (2019) that provides a worldwide perspective on brown bear attacks on humans reports that the number of bear attacks has increased globally in recent decades. This is likely to be explained by a number of factors such as the growth of human and bear populations. At a general level, bear density explains the largest proportion of variance in the number of bear attacks. In addition, a growing number of people are taking part in recreational activities in bear areas. Common cases of attack involved encounters with a female bear with cubs. In Scandinavia, attacks often occur in connection with a hunting event. Attack scenarios may also involve a bear being surprised, a dog being present or a wounded bear. In Europe, the greatest number of bear attacks on humans occurred in Romania (131 attacks and 11 fatal attacks between 2010 and 2015). Over the same period there were 54 attacks of bears on humans in Slovakia, while the figure given by the article for Finland in the same period was 17. (Bombieri et al. 2019.) Since then, 216 people have been injured and 13 people have died in bear–human encounters in Romania in 2016–2023 (data until 25 August 2023) (Jurj et al. 2023, unpublished). It is believed that two persons died in a bear attack in Slovakia in 2024 (*DW* 2024 and *The Guardian* 2024).

In Russia, 338 human injuries or fatalities caused by brown bears were reported in 1932–2017 (Kudrenko et al. 2020). The number of cases in European Russia were linked to the density of the bear population and, in Siberia, particularly to situations where humans were gathering Siberian pine cones, the seeds of which are crucial food for the bear (Kudrenko et al. 2022).

Generally it can be said that bear attacks on humans cause negative public reactions and increase opposition towards bear conservation actions. (Bombieri et al. 2019.) It has also been documented in Sweden that bear-caused human injuries have contributed to a reduced tolerance towards bears. (Moen et al. 2012.)

The LCIE report to the European Commission (2015) describes the problematic behaviour of bears, measures to prevent problems and different types of conflict situations in Europe. According to the report, 'problem bears' are typically ones that have become either habituated to human presence and/or conditioned to anthropogenic food. The season, natural food availability, cover for bears, sex, age and reproductive status of a bear, availability of anthropogenic food sources, livestock husbandry and hunting may also influence the occurrence of potential conflicts. (Majić Skrbinšek and Krofel, 2015.)

One way to prevent encounters where bears are aggressive is to promote communication providing, for example, guidance to people spending a great deal of time in forests on how to prevent encounters with bears.

The Finnish Wildlife Agency has organised training in safe encounters with large carnivores for forestry and agricultural professionals in 2025. Training has been provided for the Forest Management Association and rural secretaries of the region of North Karelia and nationally for actors in the sector. The training has focused on the behaviour of large carnivores in different situations, while at the same time providing professionals whose job involves spending time in the wild guidance on the correct way to behave in any encounters and also on how to prevent encounters. The training has also covered the most potential incidents with bears (mother with cubs and surprise encounters) and provided guidelines on how people should behave in the wild to prevent the occurrence of such situations. Guidance has also been provided on the use of horns and other sound devices when arriving at a site in the wild. The Finnish Wildlife Agency has organised annual guidance for the Finnish Beekeepers' Association on electric fences protecting against bears. How to take bears into account in occupational safety has also been covered in this context.

During the update and finalisation of the management plan adopted in 2022, a need was seen to continue research related to the feeding of large carnivores, especially bears, and also to examine the issue with a broader line-up.

Regulation relating to food bait

Game management refers to any activity aimed at increasing, maintaining or improving the population of game and the balance between different animal populations by regulating the game animal population, by safeguarding or improving the living conditions of game animals or by any other means. The feeding of game animals as a method of game management, particularly in the context of scarcity of food in nature, such as in winter, can improve the condition of the animals and therefore increase their reproductive capacity. Game feeding refers to the provision of either natural or other supplemental food such as hay, cereals, root vegetables or fruits to animals at a specific location (Dunkley & Cattet 2003, in Kauhala 2020).

The luring with bait of large carnivores to a specific location has increased in recent years. This is due in particular to the development of trail cameras. In addition to photography locations for tourists, there are also smaller-scale feeding places maintained by private persons to attract large carnivores, for example for trail camera pictures. This means food attraction is set up for the purpose of photographing and viewing bears, both for professional and recreational purposes.

The Standing Committee of the Bern Convention has adopted a recommendation on the use of artificial feeding as a management tool of large carnivore populations and their prey, with a particular emphasis on the brown bear (No. 198 (2018). The Standing Committee raises concerns, for example, that feeding can have a negative impact on the density, health and behaviour of wildlife and may therefore have unintended consequences for protected species and ecosystems. The Standing Committee recommends that the Contracting Parties should:

1. examine where appropriate the impact on ecosystems of artificial feeding of large carnivores aiming to better understand the way in which it may affect other species and the behaviour, numbers and health of the target large carnivores;
2. regulate as appropriate artificial feeding practices aimed at large carnivores, taking into account the position statement of the IUCN's Large Carnivore Initiative for Europe which is available in appendix to the recommendation.

Currently, the feeding of large carnivores is regulated at national level by, for example, the Hunting Act within the limits of the powers under the Act (for more details, see subsection 2.2.4 Supervision of hunting). Section 33, subsection 2, paragraph 3 of the Hunting Act lays down provisions on a ban on the use of food bait in bear hunting.

The provisions of the Act on the Safety of Consumer Services (185/2025) apply to bear photography hides the nature of the operations of which have been reported to the Trade Register as wildlife photography and viewing. Section 34a, subsection 4 of the Hunting Act lays down that the location of an above-mentioned food bait relating to business activity must include information on the provider of the food bait, including contact details. In addition, the food bait and its location must be reported to the Finnish Wildlife Agency. The Finnish Safety and Chemicals Agency (Tukes) monitors the activities of enterprises providing wildlife photography services that attract carnivores with bait from the perspective of consumer safety. On the other hand, the powers of Tukes do not cover other dangers arising from food bait, which are related to, for example, changes in animal behaviour.

In addition, the use of a food bait must comply with the provisions of the Act on Animal By-products (517/2015) and the regulations issued under the Act concerning the use of unprocessed by-products for feeding wild animals and the disposal of waste. The above-mentioned legislation includes concessions for the national implementation of the EU animal by-products regulations concerning the use and disposal of by-products and derived products. The EU Animal by-products Regulation is divided into two separate parts: the actual Animal by-product Regulation (EC) No 1069/2009 and the complementary implementing Regulation (EU) 142/2011. In addition, the Finnish Food Authority has issued guidelines on the use of carrion. According to the EU Animal by-products Regulation, certain Category 2 and 3 animal by-products according to the Animal by-products Regulation may be used for the feeding of wild animals provided that they do not cause any risk to health, environmental spoilage or risk of spreading animal diseases. For the latter reason, for example, food waste must not be used for feeding wild animals. The remains of elk killed in car accidents, slaughter waste from elk hunting, other wild animal carcasses and wild fish are not subject to the Animal by-products Regulation and are allowed to be used as carrion if they are not suspected of being infected with a disease communicable to humans or animals.

The use of Category 2 animal by-products is prohibited in the territory of a municipality while bear hunting is permitted there. Once the bear shooting permits granted for population management purposes in the area have been used up, the use of Category 2 animal by-products is allowed once more. It is the responsibility of the keeper of the carrion feeding site and the supervisory authority to monitor the use of derogation permits relating to bear hunting in the area. If non-wild animals and their by-products are used as carrion, they must be registered in the carrion location register before the start of the carrion activity. The notification of the commencement or termination of activities or updating of previously reported information can be made through the electronic service application of the keeper,

animal keeping location and carrion keeping site register published by the Finnish Food Authority or by submitting a completed registration/change notification form to the municipal veterinarian of the municipality where the carrion feeding site is located. (Finnish Food Authority.) A carrion feeding site must be authorised by the landowner.

Responsibility for the animal by-products that end up used as carrion and their quality lies with the producer and user of the by-product. Ultimately, they are responsible for ensuring that no material that poses a risk to animal or human health is fed to wild animals. It is also the responsibility of the above-mentioned parties to ensure that the carcasses of medicated animals that did not reach the end of the withholding period of the medicinal products before the animals died or were put down are not used as carrion.

The keeping of a carrion feeding site is also regulated by a number of other laws and regulations such as the Waste Act, the Environmental Protection Act and the Land Use and Building Act, knowledge of and compliance with which are prerequisites for activities involving carrion. A compilation of information on the use of animal by-products in feeding wild animals (carrion use) and its restrictions can be found on the Finnish Food Authority website.

Research on the impact of food bait

According to a literature review on the feeding of game animals, which focuses mainly on foreign literature, game feeding has significant impacts at the population and community level as well as at the level of individual animals. The effects may be beneficial or harmful. Game feeding can also be unintentional, such as in cases where animals other than the ones intended to be fed enter the feeding site, or when the animals feed in fields, gardens or compost heaps. The spread of diseases and parasites is considered to be the most serious adverse effect of game feeding. (Kauhala 2020.)

According to Kauhala et al., the ecological effects of artificial feeding have not been studied very much in Finland. There have, however, been various studies underway in recent years at the Natural Resources Institute Finland relating to artificial feeding

of game animals, such as a research project relating to the feeding of ungulates (2020–2021) and a project on the influence of feeding large carnivores in the reindeer husbandry area (Suurporo project)[9] (2020–2023).

According to the literature review, feeding bears can affect their movements, population density, daily activity and possibly hibernation. The effects of feeding on bear populations have been studied abroad and, for example, the condition of bears fed in Slovenia did not correlate with population density, which meant that feeding helped to avoid deterioration of the condition and reproductive efficiency as the population density increased. However, the food provided to bears (such as dog food) may be unsuitable, and feeding has also been found to have negative effects on the health of bears. Luring bears with bait can also lead to increased conflicts between humans and bears. According to Kauhala, the behaviour of bears that regularly visit feeding sites should be studied more closely, and there is also a need for a study on the ecological impact of wildlife tourism focused on large carnivores. (Kauhala et al. 2020).

So far, in the light of current knowledge, feeding has not caused conflicts in Finland between humans and bears (Kojola et al. 2012b). Currently, the most commonly used food baits at photography hides in Finland are dry dog food and salmon waste from factories, which are also replenished daily at the feeding site (Penteriani et al. 2021). Carrion is also used, for example at trail camera sites maintained by nature enthusiasts (see the 2022 background document, section 3.5). Other large carnivores, such as wolverines and wolves, may also visit bear photography hides.

According to a study published in 2021 on Finnish bear feeding sites, the probability of bears visiting a site is positively correlated to the length of time that the bear photography hide has been in use (how long bears have been fed there). The probability of a bear visit was also influenced, for example, by the time of the day – visits by bears were more likely at night. According to the study, bears visiting the feeding site mainly moved shorter daily distances, at a slower speed and within smaller home ranges. This effect on the movement of bears may also reveal fidelity to places where food bait is present. Feeding bears to attract them to a location can therefore lead to behavioural changes in bears through 'domestication'. (Penteriani et al. 2021.)

9 The latter project examined how large carnivore feeding for photography and viewing purposes affects reindeer husbandry, based on methods used in social and ecological sciences (Natural Resources Institute Finland 2025d).

The social impact of carrion feeding has also been investigated, and the study shows that the greatest conflicts arose from bears attracted to a location using carrion. For example, in the reindeer herding area, it was considered problematic that the number of bears was suspected to have increased as a result of carrion use and therefore to have affected the predation of calves. Residents of the area may have experienced the high concentrations of bears as a safety risk. (Pohja-Mykrä et al. 2009.) In addition, feeding carrion to large carnivores has been found to weaken the operating conditions of reindeer husbandry, because the predatory risk leads to loss of pasture areas and increased depredation (Kojola 2021).

2.3.4 Executive assistance in large game matters

Measures:

- The Finnish Wildlife Agency, the police and local actors providing executive assistance in large game matters will intervene effectively when bears visit grounds of residential or production buildings. The reasons will be investigated and any carrion will be removed.
- The Finnish Wildlife Agency and the police will communicate who to contact in the event of bear observations close to residences or built-up areas and what the roles of the various actors are.
- The executive assistance in large game matters relating to bears will be developed in cooperation with the police, the Finnish Wildlife Agency and game management associations.
- Under chapter 2, section 16 of the Police Act, the police will order bears that lack wariness of humans to be chased away or put down after individual consideration.
- The police will draw up an information bulletin on chasing away and putting down operations on a case-by-case basis, in accordance with the guidelines of the police communication strategy.

Bears or wolves that come near residences are usually subadults. There is also an increasing number of observations of wolverines near residential or production buildings as the population spreads southwards. It is always a good idea to inform the large carnivore contact person about any observations near residential or production buildings. Observations of large carnivores are a matter for the authorities primarily when a large carnivore poses a threat, a danger or a serious danger to human life and health. (Finnish Wildlife Agency 2021.) More detailed information on the various types of large carnivore observations and their reporting, as well as on the encounters with large carnivores and operating models for these, can be found on the websites and materials of the Finnish Wildlife Agency and the police, as well as at Largecarnivores.fi.

Under chapter 2, section 16 of the Police Act, police officers have the right to capture and, as a last resort, to put down an animal causing danger to human life or health or significant damage to property or posing a serious danger to traffic. A decision by the Parliamentary Ombudsman has noted limitations in the scope of the Police Act. According to the Ombudsman, the scope of the Police Act is mainly limited to responding to rapidly escalating situations posing a threat to human life or health, or a significant threat to property, where there is no time to determine the conditions of application of the Hunting Act or associated decrees. An animal may also be put down if keeping it alive would clearly be cruel to it.

In 2024, there were a total 38 police orders to chase away or put down a bear (28 orders to chase away and 10 to put down). The Finnish Wildlife Agency made a total of 6 decisions to chase away a bear in 2024.

In 2017, section 41, subsection 2 of the Hunting Act (615/1993) was amended to include interference as a new action allowed under a derogation, which provides the Finnish Wildlife Agency with the option of granting a derogation for chasing away an animal. In practice, decisions to chase away an animal can be made, for example, in sparsely populated areas where the boundary conditions of the Hunting Act can be complied with.

The most common causes of conflict situations and tasks for the police are wolves and bears moving in the immediate vicinity of residences or otherwise behaving atypically, as well as injured wild boars. In January 2022, the National Police Board approved updated guidelines concerning the powers and actions of the police in incidents involving wild boars and large carnivores, including bears. In cooperation with the Finnish Wildlife Agency and executive assistance actors in large game matters, the police have drawn up operating models for situations where large carnivores pose a threat to people.

In situations where the large carnivore that causes a threat or danger to humans is a bear, lynx or wolverine, the procedure is based on the wolf guidelines where applicable (Police procedure for situations involving large carnivores and wild boars). The procedure describes the situations and wolf behaviour that make it possible to determine that the wolf has lost its wariness of humans. However, in contrast to this model, measures to chase away bears are taken as soon as a bear is observed in or near a built-up area or visits the grounds of an inhabited property in a sparsely populated area. Putting down a large carnivore is a highly challenging task particularly in a built-up area. In situations where a bear is being chased away, care should be taken to ensure that the animal can be put down safely if necessary (act of necessity). Such a situation may occur, for example, if the bear charges at the people trying to chase it away or at bystanders.

Executive assistance activities in large game matters are voluntary and based on agreements between the police and game management associations and on the Wildlife and Game Administration Act. The alert system is triggered by a police request for executive assistance. A particular strength in the organisation of executive assistance activities in large game matters is that, throughout Finland, the police have the opportunity to ask for executive assistance from persons trained for the task. Executive assistance missions targeting bears are demanding because they mainly take place during the snow-free season and because injured bears can be dangerous. These missions always require many specialised skills and equipment, as well as dogs particularly well suited to such tasks. The missions may take a long time and require a large number of people. For this reason, the organisation of executive assistance activities in large game matters should be considered, especially in the case of bears, in such a way that the regional specificities are better taken into account. In areas with high concentrations of large carnivores, there are more alerts and the executive assistance requests focus on the same volunteers involved in the activity.

In the area covered by the Finnish Wildlife Agency of South Savo, problems involving bears are handled by select individuals and dogs operating in an area larger than a single game management association. The reporting of incidents related to executive assistance in large game matters is done in the Oma riista service, which has improved access to the situation picture of executive assistance activities in large game matters. The reports are also available in the game damage register. As a result, executive assistance activities in large game matters and their organisation can be developed to the greatest possible extent in different areas.

2.3.5 Wildlife councils and stakeholder cooperation

Measures:

- After consulting stakeholders, the regional wildlife councils will annually assess the achievement of the objectives and measures of the Management Plan for the Bear Population in their areas.
- The National Wildlife Council will annually assess the achievement of the objectives and measures of the Management Plan for the Bear Population throughout Finland.

The national and regional wildlife councils were evaluated at the request of the Ministry of Agriculture and Forestry in early 2016 (unpublished). One of the key observations on large carnivores was the development of stakeholder activities. As the majority of the councils are made up of hunters, only well-managed stakeholder work would make it possible to bring broad-based views to the attention of decision-makers and public officials.

Large carnivore stakeholder events organised by regional wildlife councils must be developed further. The evaluation concluded that they should be developed towards a more equal culture of dialogue. Broad-based representation of stakeholders can assist in highlighting local and regional points of conflict, especially in matters concerning large carnivores.

Having wildlife councils express their opinion on the previous year's activities related to bear population management would be compatible with their strategic role. This opinion could cover all areas of the current management system for large carnivores, in which case it would cover the Natural Resources Institute Finland, the Ministry of Agriculture and Forestry and the Finnish Wildlife Agency together with its councils and stakeholders. Implementation of the objectives and measures of the large carnivore management plans in the areas should be taken into account in this opinion. The regional wildlife councils' opinions will be submitted to the National Wildlife Council, allowing the national body to prepare its own opinion before the decrees for the following hunting season are drafted. In the case of bears, the opinion should mainly be based on the bigger picture of game management.

The work of the councils is based on wildlife data from the region, such as information about the local bear and ungulate populations. The opinion of the wildlife councils should be based on an overall view of game management, considering the strategic role of the wildlife councils and the independence of public administration in making permit decisions. It is justified to provide the regional wildlife council with an opportunity to present its opinion on the targeting of derogations from the perspective of regional game management. The idea of giving the stakeholders a possibility to issue opinions is supported by both an evaluation of the large carnivore policy (Pohja-Mykrä et al. 2014) and an evaluation of the wildlife councils' work (2016). The regional wildlife council should formulate an opinion on the success of the bear population management by reviewing regional game management as a whole and the impact of the bear on this whole. The overall opinion should be primarily based on the high-quality game data provided by game research.

2.3.6 The bear and society

Measures:

- The Natural Resources Institute Finland will participate in multidisciplinary research projects on topics relating to large carnivores (including the bear) and their societal dimension. The Natural Resources Institute Finland will take a multidisciplinary approach to studying the effects of human activities, such as hunting, on the bear and vice versa.
- The research results will be actively communicated to the general public.

The bear is the national animal of Finland and is also known by many names or euphemisms. In addition to nomenclature, bears are also prominent in Finnish culture such as art, stories and folklore. Bears, like other large carnivores, also play a significant role in the ecosystem and at its apex. Large carnivores affect mammalian populations and also benefit, for example, birds and smaller carnivores that eat carrion (WWF 2022). A study was carried out for the Management Plan for the Bear Population (2007) to gather citizens' views. The responses clearly showed that the

bear is valued as part of Finnish nature. Respondents also stressed the importance of an efficient damage compensation system, the prevention of damage, and maintaining bears' wariness of humans.

The bear was almost wiped out in Finland in the late 1800s. Bounties were also paid for killing bears, with bounties on bears not abolished under law until 1953. (Mykrä et al. 2006.) Systematic population management has helped to restore the bear population. The re-spreading of the bear throughout the country has also given rise to controversy. The EU's Habitats Directive changed Finland's hunting and nature conservation legislation, making the bear a fully protected game animal. The bear is also feared. Citizens' attitudes towards large carnivores such as bears have been surveyed in studies such as those carried out by the Natural Resources Institute in 2020 and 2024. According to the 2024 survey, fear of bears was high or very high among 44% of the respondents, which is higher than fear of, for example, wolves. The number of those reporting fear of the bear has remained at the same level as in the corresponding study from 2020. (Pellikka et al. 2024.) In addition to fear, the bear can also cause concern and distress as well as financial losses through damage to reindeer, livestock and agriculture.

The bear is a highly regarded game animal, a valuable and respected quarry. Bear hunting is challenging, and bear meat is valuable.

Nature tourism is becoming more and more popular and also brings economic opportunities to sparsely populated areas. In addition, tourism can increase awareness of, for example, nature and large carnivores at local and international levels. (Rigg, 2022.) Apart from domestic hunting tourism, the bear also attracts large carnivore tourism or wildlife tourism, which means observing, tracking or photographing large carnivores in their natural habitat. Nature tourism focused on bears and other large carnivores should be developed in such a way that the activities are both socially and ecologically sustainable (Largecarnivores.fi).

One example of tourism related to bears is photography hides, where people can view carnivores attracted to the location with food in their natural habitat. Bear-watching businesses are quite small. (Cf. Rautiainen 2014, Eskelinen 2009.) However, nature tourism plays a significant economic role. The regional economic impact was estimated at approximately EUR 1.5 million and the number of customers was approximately 6,000 per year (Rautiainen 2014). In Finland, large carnivore photography services are provided especially in eastern and northern Finland, by approximately 25–30 enterprises (Finnish Safety and Chemicals Agency (Tukes) 2019). The annual turnover of large carnivore photography and viewing tourism is estimated at approximately EUR 3.2 million, providing 105 full-time equivalent

years of employment (Pohja-Mykrä et al. 2018). The share of foreign customers of all customers has been growing, accounting for 72% according to the latest survey (Pohja-Mykrä et al. 2018).

According to a supervisory review by Tukes in 2019, the risks to customers are low when the enterprise operates with care. The risks associated with wildlife photography services that attract carnivores with carrion affect people in the area and their movements in nature if the frequency of carnivores increases and they become accustomed to humans. A guide to good safety practices for large carnivore photography services was published in 2013 (Kajaani University of Applied Sciences).

Pohja-Mykrä and Kurki (2009) investigated the social impact and conflicts of feeding large carnivores carrion, and the study shows that the biggest conflicts arose from bears attracted to a location using carrion in particular (see more in the 2022 background document).

3 Other measures

3.1 International cooperation

Measures:

- In cooperation with research institutes and wildlife and game administration, the Ministry of Agriculture and Forestry will continue to arrange regular meetings with the authorities, population management agencies and research institutes responsible for large carnivores in Norway and Sweden to exchange information and experiences.
- In cooperation with the authorities responsible for large carnivores in Norway and Sweden, the Ministry of Agriculture and Forestry will explore the possibility of preparing a framework document on regular cooperation and exchange of information and experiences related to bears between administration and research institutes.
- The Ministry of Agriculture and Forestry will explore the possibility of adopting common electronic systems with Sweden and Norway, for example, to collect observations made by citizens.
- The Ministry of Agriculture and Forestry will also maintain and establish contacts with other EU countries with a strong bear population.

The management of the Finnish bear population has the greatest connection with the management of the Swedish and Norwegian bear populations, although the gene exchange between the Scandinavian and Finnish-Russian bear populations is modest (see more in the 2022 background document" section 2.8 and sections 2.11 and 2.12 on international cooperation). The closest genetic connections of the Finnish bear population are with the Russian bear population.

Cooperation in matters relating to the management of the bear population takes place particularly with Sweden and Norway but also with EU countries where bear-related matters have been relevant.

Together with the Finnish Wildlife Agency and the Natural Resources Institute Finland, the Ministry of Agriculture and Forestry has regularly arranged joint meetings with the authorities and research institutes responsible for large carnivores in Sweden and Norway. The meetings have covered all matters pertaining to large carnivores. The Ministry of Agriculture and Forestry signed a framework document concerning the wolf with the Swedish Environmental Protection Agency and the Norwegian Environment Agency in 2020. If a similar framework is drawn up for the bear, cooperation opportunities in collecting bear DNA sample datasets, analysing samples and carrying out population monitoring between Finland, Sweden and Norway will be explored in that context.

3.2 Translocations of bears

Measure:

- No translocations of bears will be carried out in Finland.

There is no need for bears to be translocated, as the bear is currently found all over Finland. In the areas with sparser bear populations, however, the bears are mainly subadult males of migratory age. Currently, breeding females also have a large area of occupancy. This makes it possible for bears to disperse naturally and settle in new home ranges.

3.3 Diseases transmitted by bears

Measures:

- Information on the importance of the control of *Trichinella (T. spiralis)* in bear meat, even when it is not mandatory, will continue to be distributed regularly.
- Information on *Trichinella* and the investigation and prevention of *Trichinella* infection (trichinellosis) will be provided on a regular basis.

Trichinella are nematode parasites occurring in meat-eating mammals almost everywhere in the world. Humans may become infected after eating undercooked meat or meat products of pigs, bears or other animals containing infectious *Trichinella* larvae. After ingestion, *Trichinella* larvae are released in the intestines and mature into adult worms. The larvae produced by the female worms migrate to striated muscle, where they encyst. The disease caused by *Trichinella* is called trichinellosis or trichinosis. In nature, *Trichinella* spread when meat-eating animals kill each other or eat carrion. Trichinellosis is fairly common in wild carnivorous mammals in Finland. The prevalence of the parasite is high in lynxes, wolves, raccoon dogs and foxes. Nearly half of the lynx population carry *Trichinella*, while in wolves, raccoon dogs and foxes it is found in about one in three. In bears, trichinellosis is not so common: fewer than one bear in ten carries *Trichinella*. *Trichinella* has not been found in humans in Finland for decades. The last known case of trichinellosis in humans was in the 1970s, which infection was caused by eating bear meat. (Zoonosis Centre 2012.)

The Finnish Food Authority recommends that each hunter commissions a *Trichinella* examination in a laboratory approved by the Finnish Food Authority, even if the meat is for their own use (Guidance on the sale of bear meat and parts and handling of bear carcasses, updated in 2023). If meat is handed over directly to a private consumer, a *Trichinella* test must be carried out. *Trichinella* testing must be carried out on bear meat during the inspection of meat intended for the general public. (Finnish Food Authority.) More information on *Trichinella* testing and meat inspection is available on the website of the Finnish Food Authority.

Trichinella is destroyed by heat. The disease cannot therefore be transmitted by eating properly cooked meat, whether it contains larvae or not. Temperatures of +70°C are sufficient to destroy *Trichinella* larvae. In the past, it was recommended to freeze the meat to destroy the larvae, but Finland is known to have a frost-resistant species of *Trichinella* at present, so freezing can no longer be recommended as a way to protect against infection. (Finnish Food Authority 2022.)

According to practical observations, the inspection of bear meat for *Trichinella* is generally carried out even when the meat is used in the hunter's own household. Otherwise, the inspection of bear meat for *Trichinella* is subject to strict regulation and is carefully organised.

3.4 Communication

Measures:

- The accessibility of data on large carnivores produced by different parties active in the Finnish Wildlife Consortium will be improved and it will be ensured that the data is up to date.
- The Ministry of Agriculture and Forestry will convene a meeting of those responsible for communication on large carnivores in the Finnish Wildlife Consortium. The communicators will deal with communication related to the wolf and other large carnivores. Communication cooperation with stakeholders will be developed.

Many measures on developing the communication on the bear are set out above in this population management plan. Monitoring of the bear population will be developed, and training and counselling sessions for large carnivore contact persons are an essential part of this activity. In addition, a number of measures have been targeted at hunters, parties suffering damage and other stakeholders in relation to information, guidance and training.

Information on the abundance of the bear population, population estimates and the use of home ranges has been collected at Luonnonvaratieto.luke.fi, along with information on other game species. For example, bear observations and other Tassu observations recorded by large carnivore contact persons can be viewed on a map on the website. General information on the bear is available at Largecarnivores.fi, which covers almost all aspects related to the bear. Riistainfo.fi, managed by the Finnish Wildlife Agency, contains information and educational materials on the bear and other large carnivores.

The various organisations within the Finnish Wildlife Consortium are responsible for bear-related communication: the Ministry of Agriculture and Forestry, the Natural Resources Institute Finland, the Finnish Wildlife Agency, game management associations, Metsähallitus and the Finnish Food Authority. The police also communicate about bear-related issues as part of their official duties. The role of stakeholders in communication on the bear is also important.

Coordination and cooperation on communication about the bear, as well as dialogue within the Finnish Wildlife Consortium and with stakeholders, can be developed through joint meetings of responsible parties in the Finnish Wildlife Consortium.

4 Management plan implementation

Measure:

- The implementation of the Management Plan for the Bear Population will be coordinated and monitored by a person appointed at the Finnish Wildlife Agency (person responsible for the management plan).

The key actors in terms of the implementation of the management plan are the Ministry of Agriculture and Forestry, the Finnish Wildlife Agency and the Natural Resources Institute Finland. The Ministry of Agriculture and Forestry influences the objectives of the other Wildlife Consortium stakeholders by setting performance targets for them. Practical coordination and monitoring of the management plan implementation have been assigned to the Finnish Wildlife Agency, while the Natural Resources Institute Finland is responsible for many measures that play a key role for the management plan's impact related to developing the population estimate.

The Management Plan for the Bear Population in Finland contains a total of 66 measures (chapters 2, 3 and 4), of which 16 are specific to the population management areas. In practice, the implementation of the plan is coordinated by the Finnish Wildlife Agency, which appoints a person to assume responsibility for the Management Plan for the Bear Population. This person's task is to monitor and promote the implementation of the measures. The majority of the measures can be implemented by modifying existing practices.

It should be noted, however, that not all the measures can be promoted by cooperation alone: achieving the objectives of the Management Plan for the Bear Population also requires decisions on resources. The allocation of resources may be based on project-specific performance management or on the possibility of financing projects related to the implementation of the management plan through specific funding, for example.

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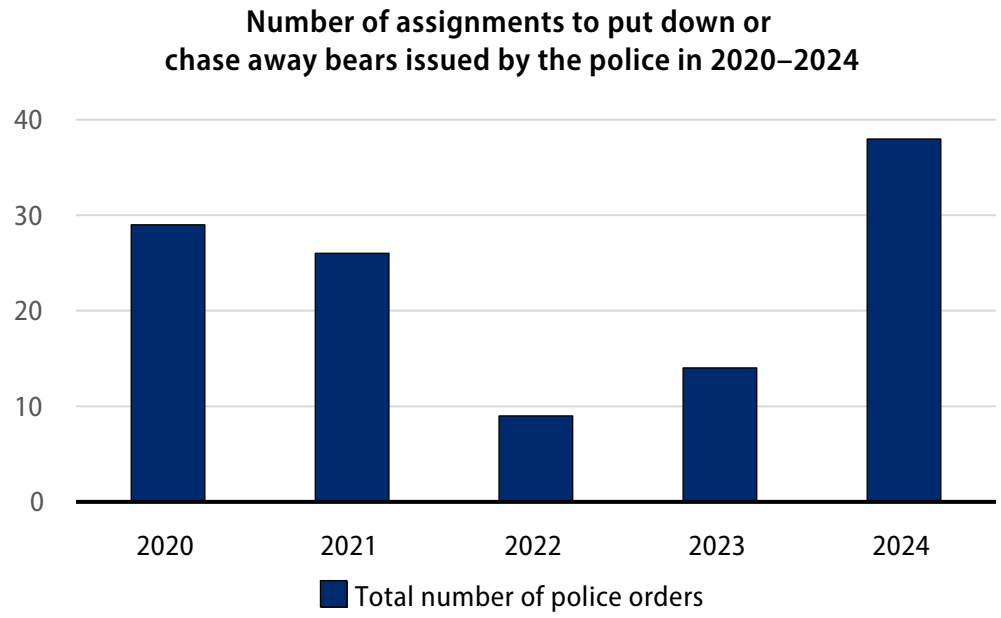
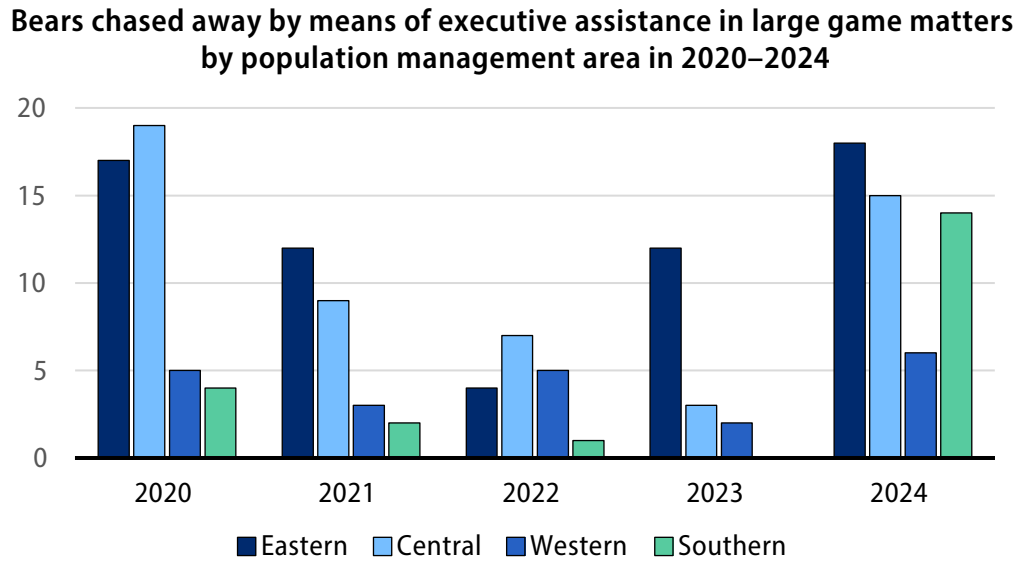
Appendix:

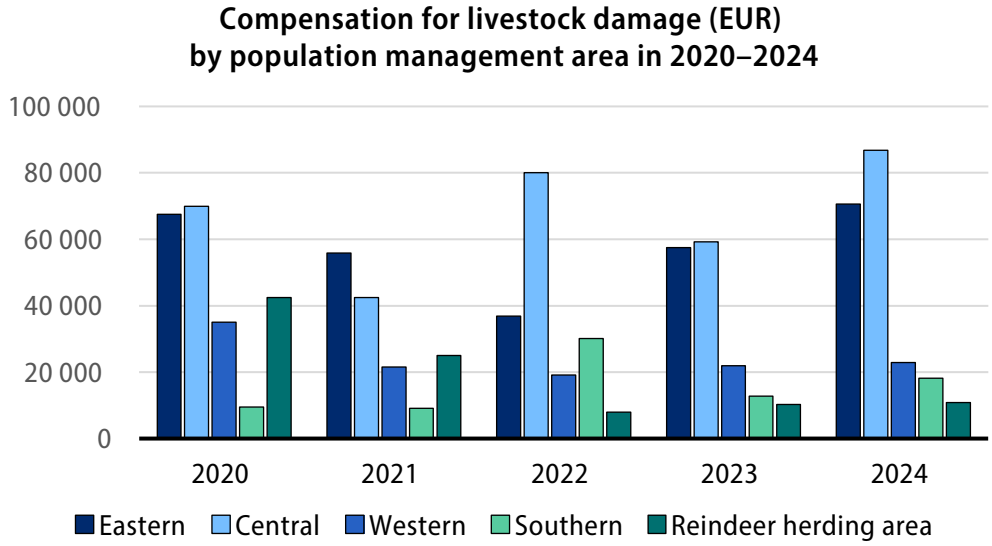
Graph 1. Assignments to chase away or put down a bear issued by the police in 2020–2024. (Graph: Finnish Wildlife Agency)



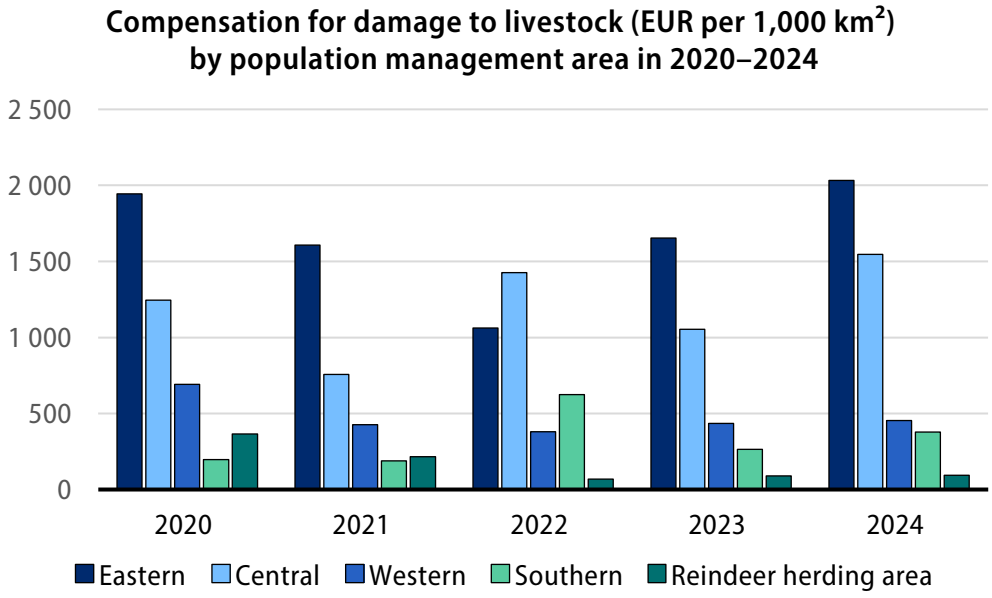
Graph 2. Executive assistance in large game matters to chase away bears by population management area (excluding reindeer herding area) in 2020–2024. (Graph: Finnish Wildlife Agency)



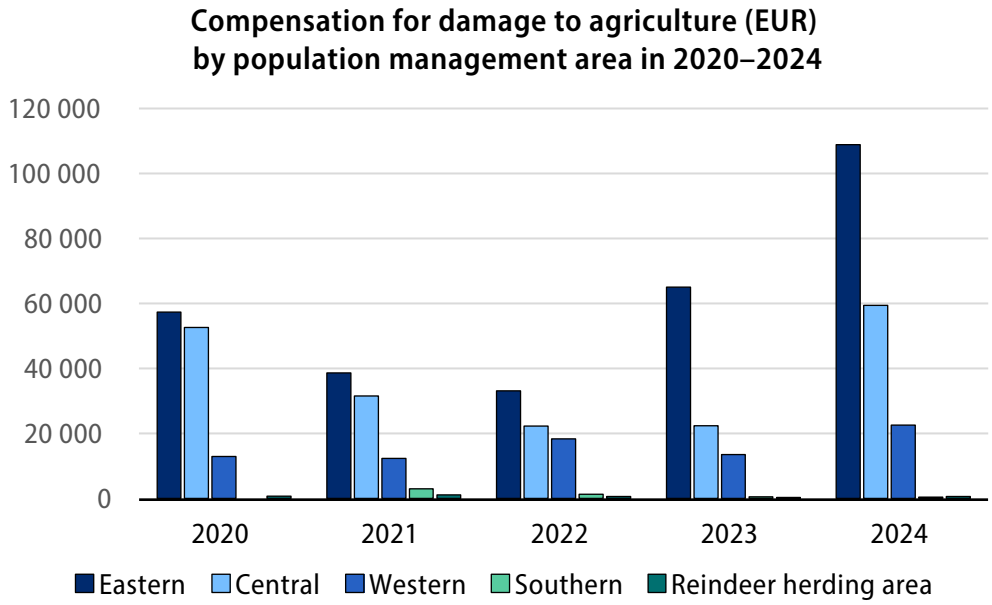
Graph 3. Value of livestock damage (EUR) caused by bears by population management area in 2020–2024. (Graph: Finnish Wildlife Agency, source: riistavahinkorekisteri [game damage register].)



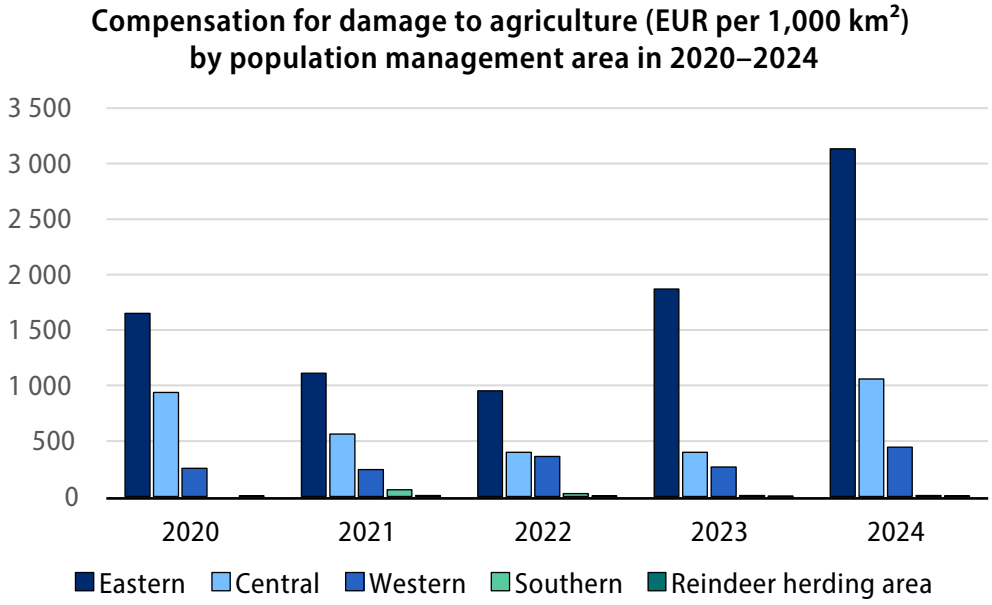
Graph 4. Value of livestock damage (EUR per 1,000 km^2) caused by bears by population management area in 2020–2024. (Graph: Finnish Wildlife Agency, source: riistavahinkorekisteri [game damage register].)



Graph 5. Value of damage to agriculture (EUR) caused by bears by population management area in 2020–2024. (Graph: Finnish Wildlife Agency, source: riistavahinkorekisteri [game damage register].)

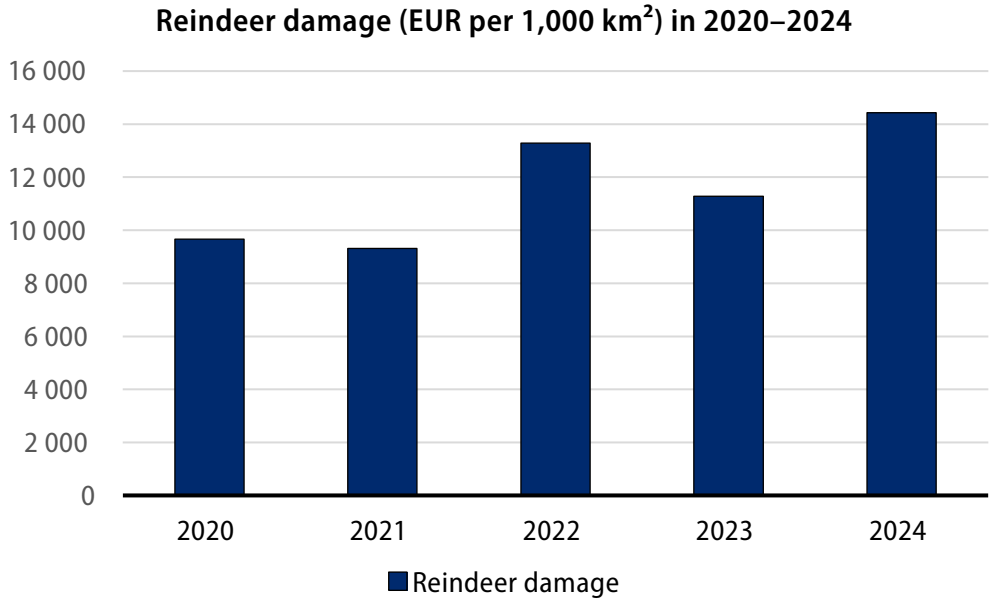


Graph 6. Value of damage to agriculture (EUR per 1,000 km^2) caused by bears by population management area in 2020–2024. (Graph: Finnish Wildlife Agency, source: riistavahinkorekisteri [game damage register].)



Graph 7. Reindeer damage caused by bears (EUR) (NB: calf loss not included) in 2020–2024. (Graph: Finnish Wildlife Agency, source: riistavahinkorekisteri [game damage register].)

Graph 8. Reindeer damage caused by bears (EUR per 1,000 km^2) (calf loss not included) in 2020–2024. (Graph: Finnish Wildlife Agency, source: riistavahinkorekisteri [game damage register].)



Graph 9. Average of bear observations near residential or production buildings per 1,000 km² by population management area in 2020–2024. (Graph: Finnish Wildlife Agency)

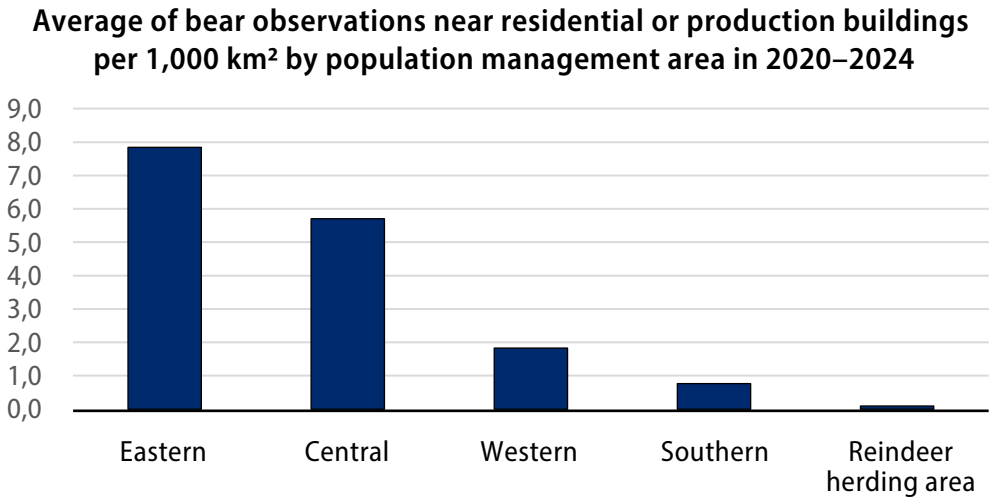


Table 2. Metres of large carnivore fence supplied by Finnish Wildlife Agency region. Source: Finnish Wildlife Agency

Finnish Wildlife Agency region	2020	2021	2022	2023	2024
South Häme	1,900	-	-	-	10,400
South Savo	-	-	-	1,000	6,800
Southeastern Finland	5,200	-	1,600	-	2,500
Kainuu	6,500	-	-	-	-
Central Finland	-	400	5,300	4,200	5,800
Lapland	-	-	-	-	-
Oulu	23,400	12,300	4,500	4,100	-
Ostrobothnia	29,300	11,800	16,700	9,400	6,600
North Häme	3,200	-	-	-	3,600
North Karelia	13,600	9,500	5,300	11,600	2,000
North Savo	3,300	4,600	3,100	3,800	2,400
Coastal Ostrobothnia	4,800	6,700	7,200	7,800	5,200
Satakunta	6,200	7,900	13,700	12,200	8,000
Uusimaa	1,400	1,000	3,000	2,300	9,100
Southwest Finland	11,500	13,300	23,400	3,900	8,900
Total	**110,300**	**67,500**	**83,800**	**60,300**	**71,300**

Table 3. Protective fence packages supplied nationwide. Source: Finnish Wildlife Agency

Prevention of bear damage	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Protective fence packages for apiaries	101	249	250	250	210	166	146	207	153	165	117	135

Ministry of Agriculture and Forestry

Hallituskatu 3 A , Helsinki
FI-00023 Government, Finland

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