



Claws & Laws

An interdisciplinary research project
in large carnivore ecology and environmental law

participants:



funder:



Managing strictly protected species with favourable conservation status - The case of the Swedish brown bear (*Ursus arctos*)

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January, 2018

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1. Introduction

In the beginning of the 20th century, the Scandinavian brown bear (*Ursus arctos*) had become almost extinct as a result of extensive hunting. Due to legal protection from hunting, the bear population has however grown substantially since then. Today the brown bear is considered to be at a favourable conservation status, both regarding numbers and range, according to the nationally determined levels. However, as with many top predators in need of a wide home range, the successful recovery of bears is associated with numerous conflicts. Conflicts e.g. arise due to bears' predation on domestic animals (such as sheep, bees and reindeer) and game species (such as moose). Since bears moreover in rare cases can attack and, in the worst cases, kill humans, they can also induce fear in humans, in particular when the number of bears in human-dominated areas increases.

To reduce conflicts between humans and large carnivores, derogations from the legal protection from hunting have been permitted in different geographical areas and to various extents over time. As the population has increased, hunting of the Scandinavian brown bear has also increased, and quite substantially since 2004. In addition to hunting to prevent damage and intrusiveness, illegal hunting, traffic and natural mortality, about 10 percent of the population has been harvested annually through quota hunting during the last decade.¹ This, together with protective hunting, has led to the first decrease in the number of bears since 1930. In 2015 the brown bear was subsequently added to the Swedish redlist as “near threatened” (NT).

At the same time, the Scandinavian brown bear is a species listed in Annex IV of the Habitats Directive² and thus a *strictly protected* species. With reference to the European Commission's guidelines on strict protection and the guidelines of the Large Carnivore Initiative for Europe (LCIE), endorsed by the Commission, the derogation ground laid down in Article 16(1)(e)

has been interpreted to provide a legal basis for authorizing quota hunting on strictly protected species by the Swedish Government and the competent authorities.³

However, despite several rulings on the protection of species listed in Annex IV, the issues of managing Annex IV-species with favourable conservation status under Article 16(1)(e) has still not been addressed by the ECJ.⁴ Although the Commission documents on species protection provide qualified interpretations of EU-law, they are non-binding.⁵ It thus remains unclear if management to control or reduce population size by licenced quota hunting, without targeting certain specimens, is acceptable under the directive when a strictly protected species has reached a favourable conservation status, but has not been down-listed to Annex V, the more flexible regime under the Habitats Directive. There is moreover a lack of legal clarity regarding the interpretation of the concepts laying down the narrow conditions for authorizing derogations under Article 16(1)(e).

Uncertainty regarding the interpretation and extent of EU-law concepts and obligations is problematic since it risks impairing the efficiency of EU-law in reaching its objectives, in this case the maintenance of a favourable conservation status of bears, and ensuring legal certainty. With an unclear legal situation, the decision-making on the management of bears will risk being unduly influenced by the values of decision-makers and strong interest groups, rather than being based on the best available scientific knowledge. A uniform implementation and application of EU-law, both within and between Member States, will consequently be jeopardized. This in turn may risk decreasing the public acceptance of EU-law.

This study aims at discussing whether or not hunting to manage strictly protected species *with* favourable conservation status is in compliance with the directive by assessing the nature and content of the obligation to protect Annex IV-species.⁶ The conditions determining Member

¹ In the Swedish hunting legislation this type of hunting is referred to as “licensjakt”. The legislation on quota hunting is described in section 2.4.

² *The European Union Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and Wild Fauna and Flora* (below “the Habitats Directive”). OJ 1992 L 206, p. 7.

³ Commission (2007). *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC* (final version, February 2007) adopted by the Commission (below Commission, 2007) and LCIE (2008). *Guidelines for population Level Management Plans for Large Carnivores* (below LCIE, 2008).

⁴ The Supreme Administrative Supreme Court of Finland has however asked for a preliminary ruling regarding the Finnish wolf hunting based on this derogation in November 2017, wherefore this question may be addressed and legally clarified in the near future (<https://www.finlex.fi/sv/oikeus/kho/vuosikirjat/2017/20170617>).

⁵ The guidelines of LCIE are considered to be “best practices” to promote coexistence with large carnivores by the Commission.

⁶ Few legal studies have addressed the issue. These studies moreover concern a species with unfavourable conservation status. See Darpö and Epstein (2014). *Under fire from all directions*. In “The Habitats

States' room for derogations under Article 16(1)(e) will be scrutinized and arguments for and against certain interpretations will be provided. Based on the assessment the compliance of the administrative practices of quota hunting on bears in Sweden will be addressed.

The starting point of the analysis is the legal text of the relevant provisions and case-law of the ECJ, as the exclusive interpreter of EU-law.⁷ Since all language versions are equally authentic, this interpretation will involve a comparison of the different language versions.⁸ It should also be kept in mind that the ECJ has stated that even if all language versions are entirely in accord with one another, "legal concepts do not necessarily have the same meaning in Community law and in the law of the various member states".⁹ The legal orders of EU-law and of Member States are two distinct legal orders and EU-law must thus be interpreted autonomously in relation to the legal orders of Member States. Where there are divergences between different language versions, the provision in question will be interpreted by reference to the purpose and general scheme of the rules of which it forms part.¹⁰ That is, unless there is a clear and precise meaning of the provision according to the literal interpretation, the provision will further be placed in its context and be interpreted in the light of the purpose of the relevant provision(s) and of the legal act at hand as well as the overall objectives of EU environmental policy.¹¹ Given the common purposes and structures of the Birds and the Habitats Directives, case-law under the Birds Directive will be used as guidance, through interpretation by analogy, when case-law under the Habitats Directive is lacking.¹² Moreover, since the Habitats Directive intends to implement the *Convention on the Conservation of European Wildlife and Natural Habitats* (the Bern Convention)¹³ within EU, the obligations will be interpreted in

the light and the spirit of these conventions.¹⁴ Where uncertainties still exist, non-binding guidance documents adopted by the European Commission will be used.¹⁵

Although the study discusses the management of bears in Sweden, the assessment of EU-law and in particular Article 16(1)(e) of the Habitats Directive, is of relevance for any Member State with large carnivores listed in Annex IV with favourable conservation status within their territory.

Directive in its EU environmental law context: European nature's best hope?" (eds., Charles-Huber Born et al.). London: Routledge, p. 348-372 and Michanek (2012), *Strictly protected European Wolf Meets Swedish Hunter with Licence to Kill*, in "Pro Natura: Festskrift till Hans Christian Bugge", p. 323-345.

⁷ With "exclusive interpreter" is meant that the interpretations of the ECJ are the only binding interpretations. Article 220 TEUF. See also 26/62, *Van Gend en Loos*.

⁸ C-283/81, *Cilfit* [1982], E.C.R. 03415, p. 18 and C-72/95, *Kraaijenveld*, [1996], E.C.R. I-05403, p. 28. The comparison is here limited to the English, Swedish, German, French and Spanish versions.

⁹ C-283/81, *Cilfit* [1982], E.C.R. 03415, p. 19.

¹⁰ C-30/77, *Regina mot Boucheureau*, [1977] E.C.R. 1999, p. 14, C-72/95, *Kraaijenveld*, [1996], E.C.R. I-05403, p. 28 and C-449/93, *Rockfon* [1995], E.C.R. I-04291, p. 28.

¹¹ C-283/81, *Cilfit* [1982], E.C.R. 03415, p. 20. The latter interpretation is closely related to the *effet utile principle* (i.e. the

principle stating that EU-law must be interpreted with a view to effectively achieve the purpose of the legislation). For a description of the different methods used by the ECJ see e.g. Gombos, *EU-law viewed through the eyes of a national judge*.

¹² Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds. OJ L 20, 26.1.2010 (below "Birds Directive").

¹³ ETS 104, Bern 1979. For a description and assessment of the Bern Convention, see Epstein (2017) and Fleurke and Trouwborst (2014). *European Regional Assessment to the Transboundary Conservation of Biodiversity: The Bern Convention and the EU Birds and Habitats Directive*. In "Transboundary Governance of Biodiversity". Martinus Nijhoff Publishers 2014, p. 128-162 (below Fleurke and Trouwborst, 2014).

¹⁴ C-61/94, *Commission v Germany* [1996] ECR I-3988, p. 52.

¹⁵ See e.g. C-342/05, *Commission v Finland* [2007] ECR I-04713, p. 29, where the court refers to the guidelines on strict protection.

2. Management of the Scandinavian Brown Bear

2.1 The Scandinavian Brown Bear

Since the beginning of 20th century when the Scandinavian bear was legally protected,¹⁶ the Scandinavian bear population has grown substantially, both in numbers and in range. With an annual growth rate at about 4,5 percent (between 1998 and 2007), the recovery of the Scandinavian bear population could be considered a success story, in particular when compared with the small and isolated populations in the southern parts of Europe. As illustrated by figure 2, the population reached a level of 3300 individuals in 2008, including a few bears in Norway.¹⁷ In comparison, the number of bears in 1850 has been estimated to about 4000-5000, but at that time with two thirds of the bears in Norway.¹⁸

The Scandinavian bear population primarily survived in four main areas, which today have the highest density of bears (although the areas are increasingly merging).¹⁹ Today the bear occupies large parts of Northern and Central parts of Sweden (from the counties of Dalarna and Gävleborg and the Northern parts of Sweden) and is spreading to the East and the South and to part of Norway.²⁰ Genetic studies show two genetic lines where the bears in the southern parts are related to brown bears in South and Central Europe and bears in the northern parts are related to brown bears in Finland and Russia. Although the Scandinavian population today is isolated from the Finnish and Russian brown bear

populations, male brown bears occasionally migrate into Sweden from Finland.²¹ The bear population is considered to be genetically viable.²² Typical characteristics of the brown bear are that it reproduces late and at lengthy intervals. Female bears reach reproductive maturity at the age of four at the earliest. Normally they breed later than age 5-7 years and then give birth only every second or third year.²³ The length of maternal care varies between 1 and 3 years.²⁴ Mating takes place during late spring and summer (May–July) and the cubs are born in the den during the winter and early spring (January-March).²⁵ Since female bears do not mate during the lengthy maternal care, male bears have incentives to kill the offspring of other males (this is referred to as “sexually selected infanticide”, SSI).

The main part of the Scandinavian brown bears' diet consists of berries, grass and herbs and in boreal forests, ants.²⁶ Bears can however also prey on livestock and on game species, such as sheep, reindeer, bees and moose, mostly calves. New research on the extent of bear predation on reindeer in forest reindeer herding districts in Northern Sweden shows that predation on new born calves can be significant in numbers (between 16 and 29 percent), but limited in time (most predation took place during the first three to four weeks after the birth of the calves).²⁷ The study shows that the risk of bear predation can be reduced by the use of clear-cuts, higher elevations and areas closer to large roads.

Predation on sheep, cattle and bees can vary considerably between different years.²⁸ One explanation is that specific bear individuals can

¹⁶ Legal protection from hunting was laid down already in 1912 on crown land, and in the whole country in 1927, Prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 18.

¹⁷ In Norway the brown bear was extinct but males from the expanding populations in Sweden, Finland and Russia have migrated to Norway.

¹⁸ Swedish Environmental Protection Agency (SEPA), URL: <http://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/Bjorn-populationsutveckling-i-Sverige/> (2017-02-03).

¹⁹ These areas are the southern parts of Härjedalen (southern part of the County of Jämtland), the County of Dalarna and Gävleborg, northern parts of the County of Jämtland and the Counties of Västernorrland and Västerbotten and two areas in the northern part of the County of Norrbotten. See prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 18.

²⁰ See e.g. SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 41-42.

²¹ Prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 18.

²² According to studies of the genetic minimum viable population size (MVP) of the Scandinavian brown bear, more than 380 respectively 400 bears are required to achieve less than 5 percent loss of genetic variability (so called “heterozygosity”) in 100 years without and with the effects of rare catastrophes taken into consideration. The estimated effective population size (N_e) of > 500 is more than 2250 respectively 2350 bears without and with rare

catastrophes. See SEPA (2014). *Complementary analyses of genetic Minimum Viable Population size of Scandinavian bears (Ursus arctos)*. Report 6644.

²³ Dahle (2003). *Reproduction strategies in Scandinavian brown bears*. Doctoral thesis. Department of Biology. Norwegian University of Science and Technology, Trondheim.

²⁴ Katajisto (2006). *Habitat use and population dynamics of brown bears (Ursus arctos) in Scandinavia*. Academic Doctoral Thesis, University of Helsinki, Berger (2006), p. 8.

²⁵ SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 39.

²⁶ Kindberg (2010). *Monitoring and Management of the Swedish Brown Bear (Ursus arctos) Population*. Academic Doctoral Thesis, Swedish University of Agricultural Sciences, p. 11 and Katajisto (2006). p. 10.

²⁷ The research also showed that high density of bear led to increased movements and higher deviation from optimal foraging, which in turn can lower body conditions. This in turn can possibly have negative effects on population dynamics. Sivertsen (2017). *Risk of brown bear predation on semi-domesticated reindeer calves. Predation patterns, brown bear – reindeer interactions and landscape heterogeneity*. Academic doctoral Thesis. Swedish University of Agricultural Sciences.

²⁸ In 2015, 9 sheep were killed, while in 2003, 79 sheep were killed according to statistics from the Wildlife Damage Center (Viltskadecenter vid Grimsö forskningsstation, SLU), URL:

induce substantial amounts of the annual damage.²⁹ However, statistics show that the number of bear attacks on sheep (which constitute the major part of livestock attacked by bears) has not increased with an increasing population.³⁰ Statistics moreover show that despite a higher density of bears in Sweden, predation on sheep in Sweden is significantly lower than e.g. in Norway. This is explained by the fact that sheep in Sweden are kept within fenced areas close to villages.³¹ Electric fencing is considered to be an efficient method of preventing bear damage.³²

With an increasing population, the encounters between bears and humans are becoming more common. Bears in Sweden however impose very low risk to humans.³³ Most injuries are connected to hunting, especially hunting with dogs. The presence of cubs is the primary factor leading to encounters between bears and unarmed persons, probably due to the fact that females with cubs use more open habitats than single bears.³⁴ Research on the Scandinavian bear population moreover indicates that the majority of bears near human-dominated areas are females with cubs, avoiding areas with higher density of males and thus the risk of SSI.³⁵

Despite the fact that bears can pose threats to both domestic animals and humans, recent studies show that the acceptance of bears in Sweden is high.³⁶ The bear is the large carnivore with highest acceptance after the lynx. In 2014, a majority (73 percent) of the Swedish population (including both counties with and without bears) accepted bears. On the national level, the level of acceptance has been stable with an increasing population of bears.³⁷ In the counties of Norrbotten, Västerbotten and Dalarna, there has however been a small reduction in the level of acceptance between 2004 and 2009. Only for the county of Norrbotten there was a statistically

significant decrease in acceptance between 2004 and 2014. 49 percent of the public moreover accepts having bears close to their homes.³⁸ The level of acceptance of bears close to one's home has moreover increased with increasing numbers of bears. The acceptance of bears close to homes is moreover higher in areas with bears than in Stockholm.³⁹

With increasing numbers, the brown bear in Sweden has again been subject to extensive lethal control. Although bears have, despite legal protection since the early 1900-century, been hunted in certain areas and in various degrees since 1943, the hunting has increased substantially the last decade. Since 2008 about 200 and 300 bears, amounting to about 10 percent of the population, have been killed annually through quota hunting only.⁴⁰

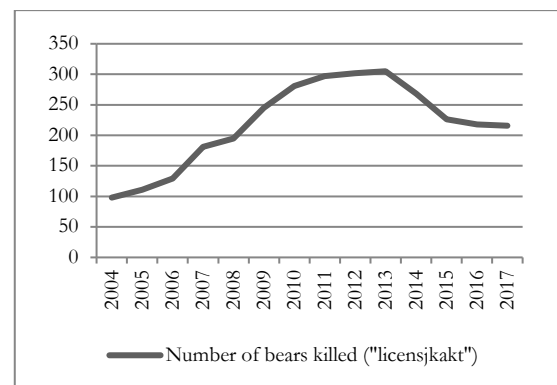


Figure 1: Number of bears killed through quota hunting in Sweden between 2004 and 2017

In addition, increasing numbers of specific bear individuals have been hunted to prevent damage ("protective hunting").⁴¹ In 2017 in total 74 bears were killed to prevent damages. Of 72 bears killed with prior authorization by the authority, 45 bears were killed in the county of Norrbotten.⁴² 2 bears (1 in the county of Jämtland and 1 in the county of Västerbotten) were killed on the initiative of

http://www.viltskadecenter.se/index.php?option=com_content&ask=view&id=111&Itemid=883 (2017-08-19).

²⁹ SOU 2007:89, *Rovdjurens och deras förvaltning*, p. 109.

³⁰ See figure 2 in Wildlife Damage Center (2016). *Viltskadestatistik 2015. Skador av fredat vilt på tamdjur, hundar och grödor*, p. 7.

³¹ SOU 2007:89, *Rovdjurens och deras förvaltning*, p. 109.

³² SOU 2007:89, *Rovdjurens och deras förvaltning*, p. 109.

³³ Between 1977 and 2012, 2 people were killed and 31 were injured. See Swensson and Kindberg (2015). *Final report. The Scandinavian Bear Research Project 2012-2014*, Report 105:2, p. 5.

³⁴ The time periods of injuries also often coincided with the bears den entre period, Swensson and Kindberg (2015), p. 5.

³⁵ The traditional explanation has been that bears enter villages to search for food. Swensson and Kindberg (2015), p. 8.

³⁶ Sandström et al. (2014). *Attityder till rovdjur och rovdjursförvaltning*. Statsvetenskaplig institutionen, Umeå Universitet, och Institutionen för fisk, vilt och miljö, SLU. Rapport 2014:1.

³⁷ Sandström et al. (2014), p. 7.

³⁸ Sandström et al. (2014), p. 8.

³⁹ Sandström et al. (2014), p. 10.

⁴⁰ According to SVA, bears killed through quota hunting ("licensjakt") between 2004 and 2016: 98, 111, 129, 181, 195, 245, 281, 297, 302, 305, 268, 226, 218. The numbers for 2017 represents the number authorized but so far not harvested, since the hunt starts on the 21st of August. See SVA, URL: http://www.sva.se/djurhalsa/vilda-djur/stora-rovdjur/licensjakt_pa_bjorn (2017-02-28).

⁴¹ In Swedish hunting legislation this type of hunting is referred to as "skyddsjakt".

⁴² The legal basis for this type of protective hunting is found in 23 a-b §§ Hunting Regulation.

private persons.⁴³ In comparison, 64 respectively 27 bears were killed for protective purposes on the initiative of the authorities in 2015 and 2016. During the same years, in total 14 respectively 15 bears were killed without prior authorization to prevent damages on domestic animals, due to intrusiveness and attacks on humans and by traffic. In addition to the legal hunt and traffic accidents, bears are killed illegally⁴⁴ and die of natural causes. In total, including bears killed by traffic and trains, 96 dead bears were identified during 2017. In total, humans cause about 88 percent of the mortality of bears and thus constitute the major threat to the conservation of brown bears in Scandinavia.⁴⁵

Harvesting of a large top-predator with slow reproduction rates and lengthy maternal care will have both direct and indirect effects on population dynamics.⁴⁶ Historically, hunting has played a significant part in the reduction and extinction of large carnivores. Research on the Scandinavian bear shows that hunting can disrupt the mating system and counteract sexual selection.⁴⁷ This can in turn have evolutionary consequences. Due to the characteristics of the brown bear, harvesting of adult females has a more significant effect on population dynamics than the harvesting of young males.⁴⁸ Harvesting males can however on the other hand increase SSI, and thus cub survival.⁴⁹ It is shown that even low hunting pressures can reduce cub survival.⁵⁰ The distribution of harvesting of males on a landscape level can be more important than the total number of males being harvested. However, increased harvesting of males through increased hunting quotas will “increase the probability of a female being located in an areas where a male has been removed.” The survival of cubs can moreover decrease if bears are disturbed during periods of hibernation.

As an effect of an extensive harvesting of bears in Sweden over more than a decade, the bear population is now decreasing. In 2013, it was estimated that there were 500 bears less than in 2008.⁵¹ In 2015 the brown bear was added to the Swedish redlist as “near threatened” (NT).⁵²

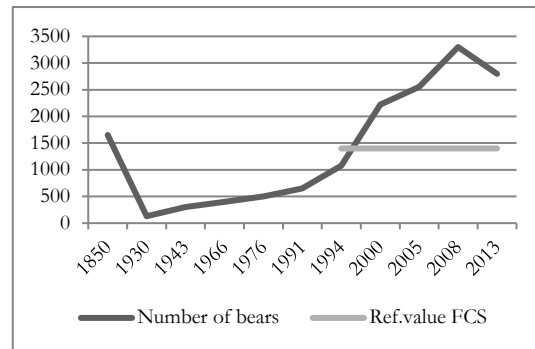


Figure 2: Number of bears in Sweden between 1850 and 2013⁵³

New regional assessments on the number of bears within parts of the country have been published, indicating both decreasing and increasing numbers and range in different areas of the country. It thus remains to be seen whether or not the total numbers of bears in Sweden have further decreased, stabilized or increased since 2013.⁵⁴

2.2 The Swedish Bear Policy

The overall objective of the large carnivore policy in Sweden is to balance conservation objectives (as defined by the Habitats Directive) with socio-economic costs.⁵⁵ Such a balance has been achieved in relation to bears when the reference values for favourable conservation status (see below) and the targets relating to level of damages due to bear predation have been met.⁵⁶ For bear predation on reindeers a tolerance level of 10 percent has been laid down. Another target is that harm to domestic animals and bee farming shall decrease in average with 10 percent compared to

⁴³ The legal basis for this type of protective hunting is found in 28 § Hunting Regulation.

⁴⁴ About of 2,3-3,1 percent of the bears in the northern range and 0,1-0,6 percent in the southern range are estimated to be killed illegally every year. SOU 2011:37, *Rovdjurens bevarandestatus*, p. 58.

⁴⁵ See Swensson and Kindberg (2015), p. 12.

⁴⁶ Gosselin et al. (2015). The relative importance of direct and indirect effects of hunting mortality on the population dynamics of brown bears. *Proc. R. Soc. B* 282:20411840.

⁴⁷ Swensson, et al. (2011). Genetics and conservation of European brown bears *Ursus arctos*. *Mammal Rev.*, Volume 41(2), p. 35–42.

⁴⁸ Swensson, J.E. (2003). *The ecology of an increasing brown bear population: managing a successful recovery*, URL: <http://bearproject.info/brown-bear-management/> (2017-02-03).

⁴⁹ For a discussion on direct and indirect effects on hunting on the Swedish brown bear, see Gosselin et al. (2015).

⁵⁰ Gosselin et al. (2017). Hunting promotes sexual conflicts in brown bears. *Journal of Animal Ecology*, Volume 86, p. 87–98.

⁵¹ The decline is statistically verified, although there are uncertainties in the extent of the decline. See SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 19.

⁵² Swedish Species Information Center (2015). *Rödlistade arter i Sverige 2015*. Swedish University of Agricultural Sciences, Uppsala, p. 80-81.

⁵³ SEPA (2017). URL: [http://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/Bjorn-populationsutveckling-i-Sverige/\(2017-02-03\)](http://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/Bjorn-populationsutveckling-i-Sverige/(2017-02-03)).

⁵⁴ The aggregated numbers will be published in 2018 when all regional monitoring data has been evaluated by SEPA.

⁵⁵ See prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 26.

⁵⁶ However, according to 1 §, *Regulation on the management of large carnivores* (2009:1263), which lay down the objective of the management of large carnivores, there is no reference to favourable conservation status.

the previous management period (2008-2013).⁵⁷ Other policy targets are to increase acceptance of bears and the trust in the competent authorities, to decrease fear of bears and to eliminate illegal hunting.

Regionalization is a central feature of the Swedish large carnivore policy, implemented to increase acceptance of large carnivores as well as of the legal measures that manage them. Another central feature of the policy is the adoption of national and regional management plans.⁵⁸ Regional management plans, which lay down *inter alia* targets on number and range within the counties, must be based on the national management plan,⁵⁹ where the overall objectives and measures of the bear policy are laid down.⁶⁰

According to the nationally determined reference values, the brown bear will be at a favourable conservation status if the number is at least 1400, however with at least one immigrating bear reproducing each generation, if the number of bears declines below 2350. A favourable conservation status also requires that the range includes at least parts of the counties of Värmland, Dalarna and Gävleborg and the county of Norrbotten, Västerbotten and Jämtland.⁶¹ Both these reference values have been met and the brown bear in Sweden was thus considered to be at a favourable conservation status according to the last national assessment (see figure 2).

In addition to the national minimum levels on favourable conservation status, regional minimum levels on reproductions for the large carnivore management areas as well as minimum levels for each county within these areas are to be laid down by SEPA and revised every fifth year.⁶²

The aggregated regional minimum levels cannot exceed the national minimum level and must take the natural range of the species into account.⁶³ For bears, the minimum level of reproduction is calculated by dividing the reference value for favourable conservation status by 10. The aggregated regional minimum number can thus not exceed 140. The distribution of minimum levels for bears is illustrated in table 1 below.

The minimum levels function as prerequisite for delegations of decisions on quota hunting from the national to the regional level (from SEPA to the County Administration Boards).⁶⁴ Delegation, without laying down a ceiling for the number of bears that may be harvested, is possible even when the minimum levels are not met in all of the counties, if the minimum level in the large carnivore management area is met.⁶⁵ Decisions on delegation can however be amended or revoked by SEPA, which is responsible for the monitoring of the impact of the delegation on the species' conservation status.⁶⁶

As part of the regionalization plan, decisions on the overall guidelines for the bear policy in the counties are to be taken by the "Wildlife delegation" within the County Administrative Boards,⁶⁷ where different societal interests are represented.⁶⁸ The delegation e.g. takes decisions on management targets for the county, which as illustrated by table 1 below, can be expressed as intervals with maximum and minimum levels (where the minimum level must exceed the minimum level laid down by SEPA).⁶⁹ The delegation moreover takes part in the process of determining the regional minimum levels for

⁵⁷ SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 7-8.

⁵⁸ The counties shall adopt regional management plans for large carnivores, according to 7 § Regulation on the management of large carnivores. See prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 61.

⁵⁹ 6 § NFS 2010:1 on the management of large carnivores.

⁶⁰ SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 12 and prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 61-64.

⁶¹ The estimated number of bears in Sweden in 1995, when Sweden entered the European Union was between 950 and 1200. The number proposed in prop. 2012/13:191, *En hållbar rovdjurspolitik* was 1100-1400 (p. 40-42). SEPA decided to set the reference value at 1400 (Nv-09661-12). In the official report, SOU 2011:37, *Rovdjurens bevarandestatus*, a reference value at 1800 was proposed (p. 49). Both the Swedish Species Information Center and SLU proposed 3300 bears as a reference value with regard to insufficient knowledge on the immigration of bears, while the Swedish museum of Natural History, proposed 3000 with reference to insufficient knowledge on genetic exchange. Several of the bodies also questioned how the reference value was calculated.

⁶² 5 and 6 §§, Regulation on the management of large carnivores.

⁶³ 5 § 2nd paragraph, Regulation on the management of large carnivores.

⁶⁴ 24 a §, *Hunting Regulation* (1987:905). The minimum levels are laid down by SEPA according to the legal provision on the setting of minimum levels in the Regulation on the management on large carnivores.

⁶⁵ 24 a § 2nd paragraph, *Hunting Regulation*. Prop. 2012/13:191, *En hållbar rovdjurspolitik*, p. 52.

⁶⁶ 24 c § *Hunting Regulation*.

⁶⁷ In Swedish "viltförvaltningsdelegationer".

⁶⁸ 3 and 4 §§ *Regulation* (2009:1474) *on wildlife delegations*. For more information and a critical discussion on the role and the composition of the delegations, see Christiernsson (2011). *Rättens förhållande till komplexa och dynamiska ekosystem. En studie om rättsliga förutsättningar för adaptiv och ekosystembaserad reglering och planering för bevarandet av biologisk mångfald vid jakt*, Academic Doctoral Thesis, Luleå University of Technology, p. 232-233.

⁶⁹ Intervals are based on minimum levels as well as fluctuations in the population dynamics between years.

bears.⁷⁰ The delegation does however not decide on quota hunting or take any other decision in individual cases.

County	Min. level	Target	Interval	Numbers
Västerbotten	11(110)	35(350)	288-432	360(2014)
Jämtland	36(360)	65(650)	500-800	907(2015)
Västernorrland	10(100)		180-220	387(2015)
Norrbottn	33(330)	82(820)	700-900	506(2016)
Gävleborg	25(250)	36(360)		381(2012)
Dalarna	25(250)		250-290	380(2017)

Table 1: Minimum levels of reproductions (minimum level on numbers of bears), policy targets and estimated number of bears (according to the latest assessments)⁷¹

As illustrated in table 1 above, most counties with minimum levels of bear reproductions lay down targets below the actual number of bears. The objective of the management in these counties is thus to reduce the numbers of bears within the county. The instrument used to reduce the number of bears is quota hunting (see section 2.4).

2.3 Monitoring

The monitoring of bears in Sweden is mainly carried out through bear observations (by hunters during the moose hunting season), collection of scats to identify individual bears from DNA (usually during the moose and bear hunting seasons) and inspection of dead animals (e.g. killed through hunting or traffic). While bear observations are carried out annually, the collections of scats are to be carried out and assessed every fifth year.⁷²

The responsibility to assess the status of bears in Sweden is shared between the counties and SEPA, but the actual monitoring is in large parts dependent on volunteers. The County Administrative Boards are responsible for annually determining if and to what extent there

are any occurrences of bears within the county and within Sàmi villages, in the latter case after consultation with the Sàmi villages.⁷³ In comparison to other large carnivores (such as lynx) there is no obligation to annually determine the number of reproductions for bears.⁷⁴ The reason is that the monitoring of bears is difficult and costly due to the characteristics of the bear.⁷⁵ The information resulting from monitoring is to be reported to SEPA, which has the responsibility to assess the status of bears on the national level every fifth year.⁷⁶ The next national assessment will be published in 2018.

2.4 Quota Hunting

In Sweden, quota hunting is perceived as an efficient instrument to control the population size, density and range of species and to reduce human-bear conflicts on a long-term basis.⁷⁷ It is moreover perceived as an instrument that can increase acceptance of large carnivores and thus improve coexistence between humans and bears, particularly if it is delegated to the regional level. It is thus perceived as one of the main instruments to achieve the objectives of the national bear policy, which forms a part of the broader large carnivore policy in Sweden. There is however little scientific evidence supporting the correlation between hunting and decreased damages and hunting and increased acceptance.⁷⁸

In contrast to protective hunting, authorizations on quota hunting permits the hunting of a specified number of individuals which occur within a certain geographical area within a certain time period, without identifying specific individuals. Hunters with hunting rights (and hunting licences) within the area where the hunt is authorized can participate.⁷⁹ The hunting is thus not executed by professionals employed by the authorities, but by recreational hunters. Another difference is that the killed animal, with some parts of the animals excepted, is the property of the hunter and not the state.⁸⁰

⁷⁰ 4 and 5 §§ Regulation (2009:1474) on wildlife delegations. However, as describe above SEPA decides on the levels.

⁷¹ The aggregated number is thus 90 within the northern management area and 50 within the central management area. See SEPA (2014). *Fastställande av miniminivåer för varg och björn gällande rovdjursförvaltningsområden och län*. Dnr NV-00552-14.

⁷² SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 47.

⁷³ 3 and 5 §§ NFS 2007:10.

⁷⁴ 8 § Regulation on the management on large carnivores does not apply to the bear due to the difficulties and high costs of monitoring of bears.

⁷⁵ Information from SEPA on the 23rd of August 2017. Monitoring is made difficult due to the facts that the bear is a solitary and

cautious animal, which hibernates and occurs at low densities. See e.g. Swensson, et al. (2011), p. 90.

⁷⁶ 9 § Regulation on the management on large carnivores

⁷⁷ SEPA (2016). *Nationell förvaltningsplan för björn. Förvaltningsperioden 2014-2019*, p. 28. For further motivations to decisions on quota hunting, see decisions of the County Administrative Boards (e.g. decision 218-5716-2017 of the County of Västerbotten, 2017-06-08, p. 11).

⁷⁸ See e.g. Eklund et al. (2017). Limited evidence on the effectiveness of interventions to reduce livestock predation by large carnivores. *Nature. Scientific reports* 7, 2097 and Treves et al. (2016). Predator control should not be shot in the dark. *Front Ecol Environ* 14(7), p. 380-388.

⁷⁹ Hunting rights follows property rights but can also be leased.

⁸⁰ 24 d § Hunting Regulation.

The legal basis for quota hunting is laid down in section 23 c of the Hunting Regulation, which aims to implement Article 16(1)(e) of the Habitats Directive. Irrespective of how the competence is allocated, the conditions laid down in 23 c § Hunting Regulation must be met. According to this provision, quota hunting of bears can only be permitted if the hunt is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in its natural range. The hunt must moreover be appropriate considering the size and composition of the population, be selective and strictly supervised.⁸¹ This must also be seen in relation to the general principle of the hunting legislation, which aims to protect all wild mammals and birds from hunting.⁸²

As described in section 1, Article 16(1)(e) of the Habitats Directive has been interpreted to provide a legal basis for hunting to manage strictly protected species *when the conservation status is favourable*, by the Swedish government, the competent national authorities and courts. As the national reference values as well as the minimum levels of reproductions have been met in the Northern and Central large carnivore management areas, the decision-making on annual quota hunting of bears has been delegated to the regional County Administrative Boards within these management areas.⁸³ The discretion to determine *if and to what extent* bears are to be hunted, has thus been delegated, over a three-year-period, to the counties of Norrbotten, Västerbotten, Västernorrland, Jämtland, Dalarna, Värmland, Gävleborg, Uppsala, Stockholm, Västmanland, Örebro, Västra Götaland. The delegation includes all counties within the management areas, despite that several of those counties do not have any documented reproductions.

The discretion of the counties to determine the form of the quota hunting is to some extent

limited due to restrictions laid down in the hunting legislation and the by-laws adopted by SEPA as well as delegation decisions on hunting.⁸⁴ Legally binding conditions relate to e.g. hunting seasons,⁸⁵ reporting,⁸⁶ registering of hunting leaders,⁸⁷ protection all females with cubs (irrespective of the age of the cubs)⁸⁸ and the use of hunting dogs.⁸⁹ There are moreover legal requirements on the content of the hunting decisions. Hunting decisions shall e.g. contain information about the maximum number of animals, permitted methods, time frames, geographical areas and any other conditions necessary to, as far as possible, avoid detrimental effects on the target population.⁹⁰ The requirement in 23 c § Hunting Regulation, to be interpreted in the light of Article 16(1)(e), on selectiveness and strict supervision of the hunt must also be met. The counties can therefore be obliged to lay down further conditions on the hunt if this is required to fully comply with Article 16(1)(e).

The discretion of the counties to determine the extent of the hunt is furthermore limited by the conditions to maintain the populations of the species concerned at a favourable conservation status in its natural range as well as the national and regional minimum values, i.e. the lowest number of bears that must be achieved within the country and within each county.⁹¹ The fixing of quotas on the regional level must therefore take into consideration the total amount of mortality both within and outside of the county particularly when a part of the population is shared between counties. The total amount of bears hunted must be appropriate considering the size and composition of the population, which in turn must be interpreted in the light of the requirement that hunting be limited in extent and numbers according Article 16(1)(e). SEPA is obliged to ensure that the hunting of bears in Sweden is not detrimental to the maintenance of a favourable conservation status and that the right to take decisions on hunting in any other way is

⁸¹ 23 c § Hunting Regulation.

⁸² 3 § *Hunting Act* (1987:259). Hunting may only be permitted if it is not detrimental to the species, prop.1986/87:58, *Om jaktlag m.m.*, p. 19-20 and 26.

⁸³ The delegation according to this decision lasts until 2017-11-30. SEPA (2014). *Delegering av beslut om licensjakt efter björn till länsstyrelserna i Norra och Mellersta rovdjursförvaltningsområdet*. Dnr. NV-06889-14 (2014-12-04).

⁸⁴ NFS 2010:7, 24 c § Hunting Regulation.

⁸⁵ Hunting of bears can only be permitted between 21st of August and 15th of October except some areas in the northern part of Sweden, where the hunting season ends on the 30th of September (NFS 2010:7, 3 §).

⁸⁶ The killing of a bear must be reported immediately and every shot aiming at killing an animal must be reported as soon as possible if it unclear whether or not the bear has been wounded. The provisions regulating the reporting are laid down in 5 a-c §§ Hunting Regulation and NFS 2010:7, 8-9 §§.

⁸⁷ NFS 2010:7, 7 §.

⁸⁸ NFS 2010:7, 4 §. See also prop.1986/87:58, p. 26 which state that animals shall not be hunted during the rearing period and as long as the bear cubs are dependent on the mother. It also follows from guidance adopted by SEPA that hunting should not be allowed during periods of rearing, breeding, migration or hibernation.

⁸⁹ 16-19 §§ Hunting Regulation and NFS 2010:7, 5 §.

⁹⁰ 7 § 2nd paragraph, Hunting Act and 9b § Hunting Regulation.

⁹¹ 4 § Regulation on the management on large carnivores.

not used too extensively. As described above the delegated right to hunt can be amended or revoked. After a ruling of the Supreme Administrative Court, and succeeding amendments in the national legislation, decisions on quota hunting of bears taken by the County Administrative Boards (or SEPA), can moreover be appealed to the Administrative Court in Luleå.⁹²

As illustrated in figure 1 above, the extent of the quota hunting of bears in Sweden has decreased on an aggregated level after the decline in the number of bears after 2008 was indicated by the national assessments in 2013. Since 2015 the decrease has however been insignificant (figure 1). On a county level, there have been both increases and decreases in various degrees. Table 2 below illustrates the changes on a regional level between 2016 and 2017.

County	2016	2017	+/-
Västernorrland 1+2	22	42	+18
Jämtland 2A+2B	37	40	+3
Jämtland 1A+1B	37	30	-7
Gävleborg 2	5	7	+1
Dalarna 4	1	2	+1
Dalarna 3	8	8	0
Dalarna 2	30	30	0
Dalarna 1	8	8	0
Värmland	0	2	+2
Gävleborg 1	20	24	+4
Västerbotten	20	26	+6
Norrbotten inland	28	0	-26
Norrbottenkusten	2	0	-2
Total	218	219	-2

Table 2: *Quota hunting on a county level in Sweden in 2016 and 2017*⁹³

In the County of Västerbotten, where the actual number of bears according to the assessments in 2014 lie within the target intervals (see table 1), the quota this year was almost twice as large compared to last year.⁹⁴ In addition, 9 bears have been killed through protective hunting in the County of Västerbotten so far this year. In the County of Jämtland, where the number of bears according to the assessments in 2015 lie above the

⁹² 58 § Hunting Regulation and 7 g § Regulation (1977:937) on the competence of the Administrative Courts. The previous regulation which permitted hunting decisions taken by the County boards to be appealed only to SEPA, was found to be in breach of EU law.

⁹³ The table present number of bears shot which can differ from the number permitted. In 2017, 216 bears could be harvested but another 3 bears were shot (2 in Västernorrland and 1 in Gävleborg 2). In 2016, the actual bear harvested was less bear than the permitted (1 of 2 bears were shot in Dalarna).

target (table 1), the quota remained at a high level. Additionally, 21 bears have been hunted to prevent damage so far this year.⁹⁵ In the County of Norrbotten, quota hunting was not authorized at all in 2017 due to the decrease in the population (according to the assessments in 2016) and extensive protective hunting of bear during the spring (42 bears).⁹⁶ The County of Norrbotten is moreover the only county which lays down a policy target above the actual number of bears according to the latest assessment.

The differences between the policy targets and the actual numbers are illustrated in table 3 below (“objective”). The table moreover illustrates the extent of the quota hunt on a county level (% of the population). As shown, between 7 and 13 percent of the bear populations within these counties has been hunted this year, in addition to protective hunting.⁹⁷

County	Quota 2017	% of population	Objective (Δ in numbers)	Actual Numbers/target
Västerbotten	26	7,2	-10	360/350 (288-432) 907/650
Jämtland	70	7,7	-257	(500-800) 387/
Västernorrland	40	10	-(167-187)	(180-220) 506/820
Norrbotten	0	0	+314	(700-900)
Gävleborg	30	7,8	-21	381/360 380/
Dalarna	48	12,6	-(90-130)	(250-290)

Table 3: *The extent of the quota hunting in 2017 and differences between actual numbers and targets on numbers*⁹⁸

⁹⁴ It is moreover stated in the decision that the hunt *inter alia* aims at achieving this target. See *decision 218-5716-2017 of the County of Västerbotten*, 2017-06-08, p. 10.

⁹⁵ Another 4 have so far this year been killed by traffic.

⁹⁶ In total 73 bears had been killed through protective hunting during 2017 (until 21st of August 2017).

⁹⁷ As mentioned in above, 73 bears have been killed through protective hunting during 2017 (until 21st of August 2017).

⁹⁸ The table present numbers permitted in 2017 (since the hunt is ongoing).

3. Strict protection of species under the Habitats Directive

3.1 *The Legal Context*

Species protection under the Habitats Directive constitutes one of the instruments to achieve the overall objective of the Habitats Directive “to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora...”⁹⁹ Measures taken under the directive shall be designed to both restore and maintain species of *inter alia* wild fauna of Community interest at favourable conservation status as defined in Article 1(i) of the directive.¹⁰⁰

By listing the brown bear in Annex IV, the EU legislator has identified the bear as a wild species of community interest in need of *strict protection*.¹⁰¹ This legal status also applies to the Scandinavian brown bear population in the whole territory of Sweden.¹⁰² In contrast to species listed in Annex IV, species listed in Annex V may be subject to management measures, such as hunting.¹⁰³ In the latter case, the directive gives recommendations but leaves to Member States to decide what measures to take. Such recommendations e.g. include regulations of the periods and/or methods of taking specimens and establishment of a system of licences for taking specimens or of quotas.¹⁰⁴ Annex V-species must however also be maintained at a favourable conservation status as defined in the directive.¹⁰⁵

When the stricter regime applies, Member States are required to take “the requisite measures to establish a system of strict protection” for the species listed in its natural range, prohibiting:

- all forms of deliberate capture or killing of specimens of these species in the wild,

- deliberate disturbances of these species, particularly during the period of breeding, rearing, hibernation and migration,
- deliberate destruction or taking of eggs from the wild and
- deterioration or destruction of breeding sites or resting places.¹⁰⁶

Quota hunting of bears is obviously classified as deliberate killing and thus constitutes an act that must be prohibited under the strict system of protection. However, given the extensive interpretation of the concept *deliberate*, even hunting of other species where there is a risk of by-catch of a protected species such as brown bears (e.g. by using large traps) can constitute *deliberate killing or capture* that must be prohibited, if it has been established that bears are present in the area and the possibility of such capture or killing thus is *accepted*.¹⁰⁷ Similarly, hunting of e.g. moose, or other activities that risk disturbing brown bears during e.g. periods of hibernation, could constitute *deliberate disturbances* of bears if the hunting takes place in areas where bears are present and there is information available about the presence of bears.¹⁰⁸

The obligation to take “the requisite measures to establish a system of strict protection” for species listed in Annex IV, such as the brown bear, includes not only a duty to ensure that administrative practices, such as the granting of hunting permits, are in conformity with EU-law.¹⁰⁹ EU-law compliance moreover requires, particularly regarding a directive, which lays down complex and technical rules and requires Member States to manage *common* resources, a general legal context that guarantees the full application of the directive in a sufficiently *clear* and *precise*

⁹⁹ Article 2, Habitats Directive.

¹⁰⁰ Article 2, Habitats Directive.

¹⁰¹ Article 12, Habitats Directive. Title of Annex IV is “*Animal and plant species of community interest in need of strict protection*”.

¹⁰² When Sweden entered the EU, the number of bears ranged between 950 and 1200.

¹⁰³ Title of Annex V is “*Animal and plant species of community interest whose taking in the wild and exploitation may be subject to management measures*”.

¹⁰⁴ Article 14, Habitats Directive.

¹⁰⁵ Article 14, Habitats Directive.

¹⁰⁶ Article 12(1)(a-d), Habitats Directive.

¹⁰⁷ In *Spanish Otter* case, the Commission argued that the permitting of the use of stopped snares to hunt foxes, which endangered a protected species (otters) through by-catches, could not be regarded as an accidental capture since the authorities knew that otters were present in the area. The court however found that the action in this case did not constitute deliberate capture since the permit in itself did not intend to allow the capture of otters and it had not been

established that otters were present in the area. The court thus clarified that for an act to constitute as deliberate capture or killing under Article 12(1)(a), it must be proven that there is an *intent* to capture or kill the concerned species (in this case otters) or “at the very least” that the possibility of such capture or killing was *accepted*, for the action (to hunt foxes) to be deliberate. C-221/04, *Commission v Spain* [2006] ECR I-04515, p. 69, 71-74.

¹⁰⁸ In C-103/00, *Commission v Greece* [2002] ECR I-1147, the court found that the use of mopeds on sand beaches and the presence of pèdalos and small boats near the breeding areas constituted deliberate disturbances since there was information available about the presence of the species as well as the prohibitions to protect the species. The court found that Greece had failed to fulfil its obligations under Article 12 by not taking all the necessary measures to prevent these deliberate disturbances. See C-103/00, *Commission v Greece* [2002] ECR I-1147, p. 35-36 (*Caretta Caretta*).

¹⁰⁹ C-342/05, *Commission v Finland* [2007] ECR I-4713, p. 22 and C-441/02, *Commission v Germany* [2006] ECR I-3449, p. 47.

manner.¹¹⁰ Mere administrative practices “which by their nature are alterable at will by the authorities” does not fulfil the requirement for the full transposition of a directive.¹¹¹ A comprehensive legislative framework, with legally binding provisions prohibiting *inter alia* the deliberate killing and capture must thus be adopted. However, the full implementation of Article 12 moreover requires the implementation of concrete and specific protection measures to enforce these prohibitions in relation to the specific species.¹¹² The system must moreover include coherent and coordinated measures of a preventive nature.¹¹³ The adoption of species protection plans can constitute effective measures for this purpose, if they are adequately established and applied.¹¹⁴ Member States must also ensure that there is an appropriate monitoring system of the species.¹¹⁵

The strict system of protection must be efficient in avoiding all kinds of actions that may negatively impact the protected species. This also includes e.g. the avoidance of destruction or deterioration of breeding sites and resting places from intensive forestry, agricultural activities, urbanisation or other activities threatening the species.¹¹⁶ It does however not include positive obligation to e.g. restore breeding sites (compare article 6 of the directive).¹¹⁷ The obligation for a system of strict protection is not restricted geographically, but applies to the whole Swedish territory.

It follows from the wording of Article 12, that the requirement to adopt a strict system of protection applies to *all* species listed in Annex IV, including those *with* a favourable conservation status, such as the Scandinavian brown bear, a status that moreover must be not only achieved but also

maintained on a long-term basis.¹¹⁸ The fact that a protected species is at a favourable conservation status or that there has been no decline in the number of species is thus in itself not a sufficient argument not to adopt a legal framework that ensures the strict protection of that species or to generally exempt species with favourable conservation status.¹¹⁹

What constitutes requisite measures for a certain species will however depend on the characteristics of the species as well as the specific threats to the conservation status of the species. Human active management to maintain a species at a favourable conservation status could constitute such measures.¹²⁰ Moreover, “economic, social and cultural requirements and regional and local characteristics” may also be taken into account.¹²¹ In the case of the Swedish brown bear, where legal and illegal hunting can constitute a major threat to the conservation of the species, necessary measures would e.g. include the adoption of legally binding prohibitions of deliberate killing as well as measures to enforce the provisions. Altogether, measures must aim at achieving both the objectives of Article 12 and of the overall objectives of the Habitats Directive.

The directive does not provide for any possibility to generally exempt species with a favourable conservation status from the strict protection, or in any other general manner to exclude certain types of acts or activities.¹²² Whether or not derogations may be permitted or not must be assessed on a case-by-case basis where an assessment of alternative measures and the impact of the derogation on the conservation status of the concerned species must be carried out. According to Article 16, Member States may

¹¹⁰ C-6/04, *Commission v United Kingdom* [2005] ECR I-09017, p. 21-26. The requirement to implement directives into national legislation is based on Article 288 in the *Treaty of the Functioning of the European Union* (TFEU), which state that directives is binding, as to the results to be achieved, but leaves to national authorities the choice of form and methods for implementing the directive into national law.

¹¹¹ C-236/85, *Commission v the Netherlands* [1987] ECR 3989, p. 18.

¹¹² C-183/05, *Commission v Ireland* [2007] ECR I-137, p. 29 and C-383/09, *Commission v France* [2011] ECR I-4869, p. 19 (*Alsace hamster case*).

¹¹³ 383/09, *Commission v France* [2011] ECR I-4869, p. 20, C-183/05, *Commission v Ireland* [2007] ECR I-137, p. 30 and C-518/04, *Commission v Greece*, [2006] ECR I-42, p. 16.

¹¹⁴ In case C-183/05 *Commission v Ireland* [2007] ECR I-137, p. 14, the court refers to the statement of the Commission regarding species action plans, which according to the Commission may “on condition that they are correctly established and applied, constitute an effective means of implementing specifically the requirements regarding protection laid down in Article 12(1)” and that in the absence of such plans, “the system of strict protection contains gaps”. The complaints were well founded according to the court (p. 18).

¹¹⁵ Article 11 and 12(4), Habitats Directive. C-103/00, *Commission v Greece* [2002] ECR I-1147, p. 32-40 and C-183/05, *Commission v Ireland* [2007] ECR I-137, p. 31-32 (see also the opinion by the Advocate General at p. 44-48).

¹¹⁶ Compare the reasoning in C-383/09, *Commission v France* [2011] ECR I-4869, p. 21 and C-103/00, *Commission v Greece* [2002] ECR I-1147, p. 39.

¹¹⁷ Commission (2007), p. 11-12.

¹¹⁸ Article 2(2) and 16 (see below). For a discussion on the meaning of “long-term basis” as well as other elements of the definition of a favourable conservation status, see Epstein (2017), paper II and III.

¹¹⁹ C-103/00, *Commission v Greece* [2002] ECR I-1147, p. 31.

¹²⁰ See the recitals 3 and 15 of the preamble.

¹²¹ Article 2(3), Habitats Directive. This provision does not provide an independent reason for derogation. See Christiernsson (2011), s. 169-170.

¹²² Compare the reasoning in C-6/04, *Commission v United Kingdom* [2005] ECR I-09017, p. 109-115, where the exclusion of acts from the application of provisions intending to implement Article 12 which were the result of lawful operation (acts without criminal intent) were found to be in breach of the strict system of protection.

authorize derogations from the strict protection of species only if 1) there are no satisfactory alternatives to meet the objective of the derogation and 2) the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status. In addition, any of the specified purposes laid down in Article 16(1)(a-d) must be met.¹²³ However, Member States may also derogate, if condition 1 and 2 is met;

“to allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of certain specimens of the species listed in Annex IV in limited numbers specified by the competent national authorities.”

Article 16 thus defines in a very precise manner the circumstances under which Member States may derogate from Article 12. As a result, the provision must be interpreted strictly.¹²⁴ All conditions must be reproduced in the national legislation.¹²⁵ Derogation grounds may not be added or the conditions modified (e.g. by widening the scope of application).¹²⁶ The burden of proving that the conditions are met rests on the authority taking decisions on derogations.¹²⁷ The authority must moreover provide for *clear and sufficient reasons* for the authorization of derogations under Article 16, which moreover refer to the reasons, conditions and requirements laid down in Article 16(1) of the Habitats Directive.¹²⁸ This also applies to derogations under (e), since it must be established that there are no satisfactory alternatives, which in turn will depend on the *objectives* of the derogation. The obligation to state a purpose moreover follows from the requirement on proportionality between

the measures taken and the objective(s) to be reached. As expressed by the ECJ regarding derogations from the protection of wild birds under Article 9(1)(c), the general principle of proportionality requires that “the derogation of which a Member States intends to make use must be proportionate to the needs which justify it”.¹²⁹

3.2 Hunting under Article 16(1)(e)

According to Article 16(1)(e), Member States may under narrow conditions authorize the “taking” of protected species. The directive does however not define “taking”; it can thus be questioned if *hunting*, i.e. deliberate killing, falls within the definition of “taking” or not. A comparison of several language versions shows that the terminology varies. The terminology used in e.g. the Swedish and Danish language versions (“insamling” and “indsamling”) cannot easily be interpreted to include hunting.¹³⁰ Given divergent language versions, the provision must thus be interpreted by reference to the purpose and general scheme of the rules of which it forms part.¹³¹

First of all, it could be noted that the provision applies to both animal and *plant species*, in comparison with Article 12, which applies only to animal species. It could thus be assumed that the wording “taking” was found more appropriate from a lexical point of view than “capture” and “killing”. Secondly, “taking”, is also used in other parts of the directive, and it is evident from Article 14 that the wording includes also “killing”. According to Article 14(2), species listed Annex V may be subject to management measures such as the fixing hunting seasons or hunting quotas.¹³²

The concept “taking” is also used in Article 9 of the Bern Convention, i.e. the provision that Article 16 aims to implement. Article 9 of the

¹²³ The purposes stated in Article 16(1)(a-d) are: in the interest of protecting wild fauna and flora and conserving natural habitats (a), to prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property (b), in the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment (c), for the purpose of research and education, of repopulating and re-introducing these species and for the breeding operations necessary for these purposes, including the artificial propagation of plants (d).

¹²⁴ C-342/05, *Commission v Finland* [2007] ECR I-4713, p. 25, C-6/04, *Commission v United Kingdom* [2005] ECR I-09017, p. 111 and C-508/04, *Commission v Austria* [2007] ECR I-3787, p. 110.

¹²⁵ Merely listing a number of prohibited hunting methods has e.g. been deemed insufficient to establish a legal framework consistent with Article 16(1), see C-508/04, *Commission v Austria* [2007] ECR I-3787, p. 112, 118-122. See also C-118/94, *Associazione Italiana per il WWF and Others* [1996] ECR I-1223, p. 22.

¹²⁶ See e.g. C-508/04, *Commission v Austria* [2007] ECR I-3787, p. 118-122 and C-183/05, *Commission v Ireland* [2007] ECR I-137, p. 48. In the latter case, the court found that the Irish legislation went beyond what it provided for under Article 16.

¹²⁷ C-342/05, *Commission v Finland* [2007] ECR I-04713, p. 25.

¹²⁸ C-342/05, *Commission v Finland* [2007] ECR I-4713, p. 25, 30-31. See also C-60/05, *WWF Italia and Others* [2006] ECR I-5083, p. 34. C-508/04, *Commission v Austria* [2007] ECR I-3787, p. 111.

¹²⁹ C-76/08, *Commission v Malta* [2009] ECR I-08213, p. 57. The case concerned hunting of protected bird species under Article 9 of the Birds Directive. See also e.g. the opinion of Advocate General Kokott in case C-342/05, *Commission v Finland* [2007] ECR I-4713, p. 24.

¹³⁰ In German the wording “die Entnahme” is used, in Spanish “la toma” and in French: “la prise.”

¹³¹ For a more extensive assessment see Michanek (2012), p. 327-330 and Christiernsson (2011), p. 188-190.

¹³² Michanek (2012), p. 327-330 and Christiernsson (2011), p. 188-190.

Convention lays down conditions for derogations from the strict protection of species listed in Annex II (from *inter alia* deliberate capture, keeping and deliberate killing).¹³³ According to Article 9(v), each Contracting Party may derogate;

“to permit, under strictly supervised conditions, on a selective basis and to a limited extent, the *taking*, keeping or other judicious exploitation of certain wild animals and plants in small numbers (*italics added*).”¹³⁴

As in the Habitats Directive, there is no definition of “taking”. In its guidance documents the Standing Committee however expresses that derogations may be permitted for hunting or any other reasons which a Contracting Party finds valid. The reasons must be clearly identified and the derogations “should be temporary”, although they “may be renewed from time to time”.¹³⁵

The view that hunting can constitute of form of “taking” under Article 16(1)(e) is moreover supported by the Commission guidance documents. The Commission states that the implementation of Article 16(1)(e), “would involve some management” and that one appropriate measure to this end would be to adopt a “species management/conservation plan” with long-term conservation objectives and measures concerning “the viability of the population and the natural range and habitat of the species”. The guidelines state that such plan is the best way of demonstrating compliance with the strict requirements of Article 16. The Latvian lynx management plan, forming the long-term strategy for the conservation and management of the species, is used as an example of an adequate application of Article 16(1)(e).¹³⁶ According to the plan limited hunting of the species (50 individuals in the upcoming hunting season) constitutes a part of this strategy.¹³⁷ The circumstances that the species has a *favourable conservation status* and its best distribution status

within the last 150 years” (at the time of adoption of the guidelines) and that hunting is perceived to have a positive impact on the population as well as the public acceptance of the species is probably decisive.¹³⁸ The LCIE guidelines, adopted by the Commission, confirms this interpretation in relation to strictly protected *large carnivore species*. The guidelines state that there is no reason from a conservation point of view to manage large carnivores as a game species by hunting, as long as the species is “well managed”.¹³⁹ Both guidelines thus support a rather wide application of the provision conditional on the favourable conservation status of the species and the lack of negative impacts on the conservation status. At the same time it is pointed out by the Commission that the use of this derogation ground “seems exceptional”.¹⁴⁰

Given the lack of adaption of the annexes to the directives, this interpretation could be seen a pragmatic approach to increase flexibility in the management of strictly protected species with favourable conservation status. However, even if it can be concluded that the wording “taking” could include hunting of individual species under Article 16(1)(e), the purpose of the derogation is clearly not to permit hunting to manage strictly protected species, i.e. to control or reduce the numbers of the species. The conditions on selectivity, strict control and limited extent and limited number moreover supports this conclusion. It could moreover be argued to go against the general scheme of the directive, since consequently Annex IV-species will be managed as Annex V-species, and the application of the provision in the long-run would become common rather than exceptional (since the aim of the directive is to achieve a favourable conservation status). Changes in the legal status of species are to be achieved by amendments of the Annexes by the EU, not by individual Member States.

Nevertheless, it should be mentioned that the ECJ has accepted hunting of protected bird

¹³³ Article 6(a).

¹³⁴ Further conditions are that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned.

¹³⁵ For an assessment of Article 9 of the Bern Convention, see Linell et al. (2017), When is it acceptable to kill a strictly protected carnivore? Exploring the legal constraints on wildlife management within Europe’s Bern Convention, *Nature Conservation* 12(21), p. 129-157 and Trouwborst et al. (2017), Norway’s Wolf Policy and the Bern Convention on Europe’s Wildlife: Avoiding the “Manifestly Absurd”, *Journal of International Wildlife Law & Policy* 20(2), p. 155-167.

¹³⁶ Commission (2007), p. 57.

¹³⁷ As described in section 3.5 According to the plan a limited hunting of the species (50 individuals in the upcoming hunting season) constitutes a part of this strategy. The Commission considers this number to be sufficiently limited in relation to the current population size (600-650).

¹³⁸ The letter to the Latvian Government from the European Commission, Brussels, 2002, can be found at URL: <http://www.jandarpo.se/ovrigt.html>.

¹³⁹ LCIE (2008), p. 28.

¹⁴⁰ Commission (2007), p. 56.

species, also regarding species not listed in Annex II,¹⁴¹ under the corresponding provision in the Birds Directive, Article 9(1)(c), which permits derogations, without a specified purpose;

“to permit, under strictly supervised conditions and on a selective basis, the capture, keeping or *other judicious use* of certain birds in small numbers” (italics added).¹⁴²

The court has stated that hunting and the capture of birds even for recreational purposes may constitute a “judicious use”, during the periods in which the Birds Directive aims at providing particular protection.¹⁴³ The reasons of the hunting and the capture could however according to the court be considered legitimate only when satisfactory solutions were lacking (see section 3.3) and the maintenance of the population at a satisfactory level was ensured. Only then could the use be “judicious” and in sufficiently “small numbers” (see section 3.5).

The value of the case-law under the Birds Directive, when interpreting legitimate reasons for derogations under the Habitats Directives, can be questioned given that the terminology between the two directives differ (“taking” and “judicious use”). However, it is likely that the wording “taking” was found to be more appropriate due to the wider application of the Habitats Directive (including also plant species). It could moreover be argued that derogations under the Habitats directive must be applied even more restrictively, since Article 16 applies only to strictly protected species listed in Annex IV, whereas Article 9 applies to all bird species to which the directive applies. This argument does however seem to lack validity, given that the court has accepted hunting also of bird species not listed in Annex II under this provision. It is thus likely that the court in a similar manner could accept a wide range of purposes as legitimate also under the Habitats Directive, as long as there is no satisfactory alternative to meet the objective.

¹⁴¹ Species listed in Annex II may be hunted under conditions laid down in Article 7.

¹⁴² Further conditions are that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned.

¹⁴³ See e.g. C-182/02, *Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement* ECR [2003] I-12105, p. 11-12 and 17, which concerned derogations from the opening and closing of hunting seasons (laid down with consideration to the objectives in Article 7(4)). See also Case 262/85, *Commission v Italy* [1987] ECR 3073, p.

Purposes that clearly go against the aim of directive should nevertheless be prohibited.

3.3 No satisfactory alternative

As described above one of the conditions for derogations under Article 16 is the absence of a satisfactory alternative. According to the ECJ, all derogations authorised under national law must be made conditional on this criterion.¹⁴⁴ In the *Finnish wolf hunting case*, the court came to the conclusion that Finland had failed to provide a “clear and sufficient statement of reasons as to the absence of a satisfactory alternative”.¹⁴⁵ Finland had failed to show that the measure to kill wolves to prevent damage, without targeting the individuals causing damage, was the only satisfactory alternative to prevent damages. By not providing evidence that the measures to achieve the envisaged objective of the derogation is the *less disadvantageous* to the maintenance of favourable conservation status, a Member States will fail to fulfil this condition. As argued by the Advocate General Kokott, even if a measure is appropriate for achieving the envisaged objective it is prohibited if there is another measure to meet the objective with less negative impact on the species.¹⁴⁶ Whether or not an alternative measure is satisfactory or not will thus depend on the objective envisaged. If the objective of the derogation is to reduce damages due to predation of large carnivores, increased fencing or the use of different locations, could e.g. constitute a satisfactory alternative to hunting. Targeting individuals causing damage could moreover constitute a satisfactory alternative to reducing the size of the population in general. Other alternatives could include increased information and changes in compensation schemes. As the Commission points out, alternatives could include e.g. different locations, different activities or different methods.¹⁴⁷ Evidence must moreover be based on “objectively verifiable factors, such as scientific and technical considerations”.¹⁴⁸

The court has addressed the condition “no other satisfactory solution” under Article 9 of the Birds

38 and C-10/96, *Ligue Royale Belge pour la Protection des Oiseaux and Others* [1996] ECR I-6775, p. 16.

¹⁴⁴ Article 16, Habitats Directive. See C-508/04, *Commission v Austria* [2007] ECR I-3787, p. 111 and C-342/05, *Commission v Finland* [2007] ECR I-04713, p. 30-31. *Finland* [2007] ECR I-4713, at p. 29.

¹⁴⁵ C-342/05, *Commission v Finland* [2007] ECR I-4713, p. 30-31.

¹⁴⁶ See the Opinion of Advocate General, C-342/05, p. 25-26.

¹⁴⁷ Commission (2007), p. 58-59.

¹⁴⁸ Commission (2007), p. 59. See also the Opinion of Advocate General, C-10/96, p. 39.

Directive in a similar manner.¹⁴⁹ The ECJ has found that the condition has not been satisfied when the hunting, *without need*, takes place during periods in which the directive aims to provide particular protection. Such need did not exist according to the court if the *sole purpose* of the derogation is to extend hunting seasons.¹⁵⁰ It wouldn't matter that the numbers were considerably smaller during the hunting seasons, the court argued. Only if the numbers during the hunting seasons were inconsiderable, would the condition for "no other satisfactory solution" be satisfied.¹⁵¹ The court found that the species were present in the area during the ordinary hunting periods and that it was not apparent that the areas, which the species visited during the hunting seasons, were not easily accessible during that period.¹⁵² Hunting during protected periods was thus not accepted since hunting during the hunting season was found to constitute a satisfactory solution. The need to pursue a certain objective justifying the derogation was thus evaluated against available alternatives. In another case the court did not accept capturing of wild birds for recreational purposes (to enable fanciers to stock their aviaries), when breeding and reproduction of the species in captivity was possible.¹⁵³ The court did not accept the arguments that breeding and reproduction in captivity were not feasible on a large scale at the time or that fanciers needed to alter the installations and change habits. Only if it had been established that the breeding and reproduction "could not prosper", the condition for "no other satisfactory solution" could be considered to be met.¹⁵⁴ Again the need to pursue a certain objective justifying the derogation was evaluated against available alternatives, including comparison of different activities (capturing and breeding in captivity). The reasoning of the court moreover shows that there is an obligation to adapt human practices to ensure nature conservation objectives.

3.4 Maintenance at a favourable conservation status

¹⁴⁹ According to Article 9, derogations may only be authorized if there is "no other satisfactory solution".

¹⁵⁰ C-76/08, *Commission v Malta* [2009] ECR I-08213, p. 50, C-182/02, *Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement* ECR [2003] I-12105, p. 16 and C-135/04, *Commission v Spain* [2005] ECR I-5261, p. 19.

¹⁵¹ C-76/08, *Commission v Malta* [2009] ECR I-08213, p. 51 and C-344/03, *Commission v Finland* [2005] ECR I-11033, p. 35 and 43.

¹⁵² C-76/08, *Commission v Malta* [2009] ECR I-08213, p. 52-53.

¹⁵³ C-10/96, *Ligue Royale Belge pour la Protection des Oiseaux and Others* [1996] ECR I-6775, p. 16-18.

¹⁵⁴ C-10/96, *Ligue Royale Belge pour la Protection des Oiseaux and Others* [1996] ECR I-6775, p. 20.

Another general condition under Article 16 is that the derogation is not "detrimental to the maintenance of the populations of the species concerned at a favourable conservation status" (italics added).¹⁵⁵ The wording of the provision thus lays down favourable conservation as a precondition for derogations under Article 16.¹⁵⁶ However, the ECJ has, in the *Finish wolf hunting case*, declared *contra legem* that derogations may be allowed even if the species conservation status is not favourable, if it has been duly established that the derogation does not worsen the unfavourable conservation status or prevent restoration at a favourable conservation status.¹⁵⁷ The court pointed out that it is possible that the killing of a limited number of specimens may have *no effect* on the objective envisaged in Article 16(1) of the Habitats Directive and that the derogation then would be *neutral* for the species.¹⁵⁸ The statements were in line with the guidelines of the Commission, which the court referred to in this case.¹⁵⁹

Although, the case concerned hunting under Article 16(1)(b), the condition applies to all derogation under Article 16, wherefore it is likely that also derogations under Article 16(1)(e) could be permissible even if a species has *not* reached a favourable conservation status if it is duly established that there is no negative impact on the species conservation status. However, given that the restrictiveness that must apply to the application of Article 16, and in particular to derogations under the catch-all provision (e) (see section 3.1), the burden of proving that such derogation has no negative effect on the species conservation status must be high (see also section 3.5). The requirement of strict scientific and objective information moreover applies.

3.5 Limited numbers

One of the specific conditions for derogation under Article 16(1)(e) relates to the number of the strictly protected species. According to the provision, taking must be "limited" in

¹⁵⁵ A favourable status requires, according to the definition in the directive, that the species is maintaining itself on a long-term basis as a viable component of its natural habitats, or as described by the Commission, is doing sufficiently well in terms of quality and quantity and has chance of doing so in the future. Moreover, it requires that the natural range of the species is neither reduced nor is likely to be reduced for the foreseeable future and that there should be and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis. Article 1(i), Habitats Directive.

¹⁵⁶ C-508/04, *Commission v Austria* [2007] ECR I-3787, p. 115-116.

¹⁵⁷ C-342/05, *Commission v Finland* [2007] ECR I-04713, p. 29.

¹⁵⁸ See C-342/05, *Commission v Finland* [2007] ECR I-4713, at p. 29.

¹⁵⁹ Commission (2007), p. 62.

numbers.¹⁶⁰ Literally, the numbers of the animals hunted must thus be within certain limits, which shall be “specified by the competent national authorities”. The wording “limited” nevertheless also indicates that the condition is relative, i.e. to be measured against something else. It is however not clear from the wording what the condition must be related to.

The concept is used neither in the Birds Directive nor in the Bern Convention. The ECJ has however to some extent clarified the concept “small number”,¹⁶¹ which is the corresponding condition under Article 9(1)(c) of the Birds Directive and also the wording used under the Bern Convention. In the previous mentioned case on bird hunting (section 3.2), the court related the condition to the conservation status of the species and found that the condition “in small numbers” could not be satisfied “if a hunting derogation does not ensure the maintenance of the population of the species concerned at a satisfactory level” (italics added).¹⁶² Hunting that does not satisfy that criteria could not be “judicious” according to the court. In another case the court accepted the opinion by the ORNIS-committee, which had suggested 1 percent of the total annual mortality of the population as a reference value for determining if the condition “in small numbers” was fulfilled.¹⁶³ In the Commission’s guidelines on sustainable hunting under the Birds Directive, the Commission states that annual mortality is an appropriate parameter to quantify “small numbers” against since this takes “population size, status and population dynamics” into account, p. 62.¹⁶⁴ The court has moreover emphasized that the number that constitutes “small” must be based on strict scientific data.

The statements of the court regarding the condition “small numbers” in the Birds Directive, could be argued to be of limited value when assessing “limited numbers”, since the wording

“small” was used in the original proposal of the Habitats Directive but replaced with “limited”, a wording that does not with the same clarity lay down a ceiling.¹⁶⁵ However, the Commission has both in its guidelines and its proceedings on the Swedish wolf hunt treated the concepts equally. In its guidelines on strict protection under the Habitats Directive, the Commission refers to the case-law under the Birds Directive where the court accepted the 1 percent ceiling and states that the concept “limited” is relative and that it must be “compared to the population level of a species”.¹⁶⁶ This is also the approach taken by the Standing Committee regarding the interpretation of “small numbers” in the Bern Convention. In its Reasoned Opinion against Sweden regarding the quota hunting on wolves, the Commission moreover argued that hunting of about 7 percent of the population did not constitute “limited numbers” of wolves and that the hunt therefore was in breach of Article 16(1)(e).¹⁶⁷ The Commission moreover stated that both the total annual mortality and the population size must be taken into account when determining what constitutes a “limited number”. As mentioned above (section 3.2), the Commission has nevertheless at the same time accepted rather extensive hunting of the Latvian lynx under this provision. In a letter from the Commission to Latvia, the Commission stated that the hunting of 50 individuals was sufficiently “limited” considering the current population size (which according to the letter was 600-650 before the hunt).¹⁶⁸ It should be kept in mind though that this hunt, in contrast to the Swedish wolf hunt, was considered to be beneficial to the species and that the conservation status of the lynx population was favourable.

From the above, it is reasonable to assume that the condition “limited numbers” would not be considered satisfied by the ECJ if it could not be duly established that there is no negative impact

¹⁶⁰ In Swedish: ”... i begränsad omfattning... i en begränsad mängd...”. In Danish: ”... i begrænset omfang... i et antal, der er begrænset...”. In German: “in beschränktem Ausmaß... einer begrenzten ... Anzahl...”. In Spanish: “de forma limitada... de un número limitado...”. In French: ”... dans une mesure limitée... d'un nombre limité...”.

¹⁶¹ In Swedish: ”... i litet antal.”. In Danish: ”... i mindre mængder.”. In German: ”... in geringen Mengen zu ermöglichen.”. In French: ”... en petites quantités.”. In Spanish: ”... en pequeñas cantidades.”.

¹⁶² C-182/02, *Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement* ECR [2003] I-12105, p. 17.

¹⁶³ C-344/03, *Commission v Finland* [2005] ECR I-11033, p. 53-59. This was based acknowledged scientific value of the committee as well as the lack of any scientific evidence to the contrary.

¹⁶⁴ In Commission (2008), *Guide to Sustainable Hunting under the Birds Directive. Council Directive 79/409/EEC on the conservation of wild birds*, (below Commission, 2008).

¹⁶⁵ During the legislative process the wording was amended to “small and specified numbers” and finally to “limited numbers specified by...”. See Article 17(1)(e) in *Proposal for a council directive on the protection of natural and semi-natural habitats and of wild fauna and flora*, COM(88)381 final and COM(91)27 final.

¹⁶⁶ Commission (2007), p. 56.

¹⁶⁷ For further information on the Commission reasoning in the infringement case against Sweden, see e.g. Darpö and Epstein (2014), Darpö (2011), *Brussels Advocates Swedish Grey Wolves*. SIEPS Policy Analysis 2011:8, and Michanek (2012).

¹⁶⁸ Letter to the Latvian Government from the European Commission, Brussels, 2002. The letters are published at URL: <http://www.jandarpo.se/ovrigt.html>.

on the species' conservation status. A question that arises is nevertheless, if the condition would be met if there is a decline in number, but the species' conservation status is maintained at a favourable level (i.e. the number is still above the reference value and the range is neither being reduced or is likely to be reduced in the foreseeable future). With such interpretation the condition "limited numbers" would however not have an independent meaning given that the Habitats Directive, unlike the Birds Directive, has a condition for the maintenance of favourable conservation status (section 3.4).

3.6 On a selective basis and under strictly supervised conditions

Article 16(1)(e) of the Habitats Directive further requires that derogations under this provision are selective and strictly supervised. The conditions are also found in the Birds Directive and the Bern Convention. There are no legal definitions in the directives or in the convention and the case-law and the guidance documents provide little guidance on how to interpret the condition. In the Commission guidelines it is however stated that the condition on selectivity under (e) requires that the hunt must clearly target *certain species or groups of subspecies* and that damages to non-targeted species must be minimized.¹⁶⁹ The guidance thus interprets the condition on selectivity as a requirement to differentiate *between species*. However, whereas the guidance document mainly discuss selectivity between species, the Commission has in its infringement proceeding against the Swedish wolf hunt argued that the condition on selectivity also requires selectivity *between individuals*, in this case based on genetic differences between different wolf individuals. The Commission argued that the condition was not satisfied when genetically important wolves were not exempted from the hunt.¹⁷⁰ This should be seen in relation to the low genetic diversity of the Scandinavian wolf population and the purpose of the hunt to improve genetic diversity. What constitutes a sufficient selective measure must be seen in relation to the characteristics of the species and the purpose of maintaining favourable conservation status as well as the purpose of the derogation.

The degree of selectivity between species or between individuals that can be achieved will depend on several factors, such as the chosen hunting periods, the geographical places and the methods for hunting. In addition to the general obligation to prohibit all indiscriminate means capable of causing local disappearance of, or serious disturbance to, the population of the targeted species (in particular means of capture and killing listed in Annex VI (a)),¹⁷¹ it is likely that the condition, taken together with the condition that there be no satisfactory alternatives, that a measure can not be found acceptable if there is another measure which is more selective (compare e.g. hunting with traps, nets or poison on the one hand and hunting with guns on the other). Non-discriminating hunting methods have however been accepted by the court when the derogations are made conditional on strict control of the hunt. In one case concerning bird hunting under Article 9(1)(c), the ECJ accepted the use of limes and nets since there was a system of individual authorisations of hunting permits in combination with strict territorial, temporal and personal controls.¹⁷² By regular control of e.g. traps or nests with the purpose to release non-target species and ensure that those are not killed, a higher degree of selectivity could be achieved. A similar line of argument has been put forward by the Standing Committee, which has stated that the condition would only be met when non-discriminating hunting methods are used *if* the derogation included means of releasing non-targeted species *unharmedly*.

Strict supervision is moreover an independent condition for derogations under (e), wherefore effective control is always required. According to the Commission this condition involves "clear authorisations relating to particular individuals, groups of individuals, places, times and quantities".¹⁷³ The ECJ, has declared that strict supervision under Birds Directive Article 9(1)(c), requires that both the administrative practice of authorizing hunting permits as well as the actual compliance with the permits is subject to efficient control.¹⁷⁴ This control must ensure that the national ceiling is not exceeded, irrespective of how the powers are delegated and distributed between different authorities within the national

¹⁶⁹ Commission (2007), p. 56 and Commission (2008), p. 66.

¹⁷⁰ Darpö and Epstein (2014), p. 348-372.

¹⁷¹ Article 15.

¹⁷² C-60/05, *WWF Italia and Others v Regione Veneto* [2007] ECR I-5083, p. 42 and C-252/85, *Commission v. France* ECR 1988, I-2243, p. 28.

¹⁷³ Commission (2007), p. 57.

¹⁷⁴ C-60/05, *WWF Italia and Others v Regione Veneto* [2007] ECR I-5083, p. 47.

administration.¹⁷⁵ This condition could thus involve requirements regarding the supervision of hunting, registration of hunters, reporting of animals killed and mandatory inspection of killed animals. Other measures could be to ensure that hunting decisions can be appealed, that the administrative practice is organized in a coordinated manner and that all hunting decisions are based only on strict scientific data. In conclusion, the determination of what constitutes a sufficiently strictly controlled measure should be assessed in relation to the requirement to ensure a strict protection and to maintain a favourable conservation status of the species.

¹⁷⁵ See by analogy, C-60/05, *WWF Italia and Others v Regione Veneto* [2007] ECR I-5083, p. 29 and 41.

4. Discussion on EU-law compliance

As described in section 2, the Scandinavian brown bear is a strictly protected species listed in Annex IV of the directive. The species is however subject to annual quota hunting, in addition to protective hunting, with the objectives to control the population size, reduce socio-economic costs and to increase public acceptance (see section 2). The quota hunting of bears (and wolves) has been considered to be in compliance with section 23 c of the Hunting Regulation, interpreted in the light of Article 16(1)(e), by the Swedish courts.¹⁷⁶ Despite the lack of legal clarification from the ECJ, the courts did not ask for a preliminary ruling. This study has therefore aimed to discuss if and under what conditions strictly protected species with a favourable conservation status may be managed under Article 16(1)(e). Based on this assessment (section 3), the compliance of the quota hunting of bears in Sweden with EU-law will be discussed below.

The *first* question to be addressed is whether or not quota hunting of bears can constitute a form of “taking” under Article 16(1)(e). In section 3.2 it is concluded that it is likely that the ECJ would find that the deliberate killing of a strictly protected species, such as quota hunting of bears in Sweden, can constitute a form of “taking” under Article 16(1)(e). However, it is also concluded that the purpose of the provision is not to provide a legal basis for managing strictly protected species, i.e. to control or reduce numbers of the species, which is one of the main objectives of the quota hunting of bears in Sweden. Such application of the provision would go against the general scheme and the aim of the directive, since it allows management of strictly protected species in a manner similar with what is recommended, by the EU-legislator, regarding Annex V-species. Even if it is likely that the legislator intended amendments of the Annexes due to changes in the actual status, and an extensive interpretation of Article 16(1)(e) could be argued to be a pragmatic approach to solve a lack of regulatory adaptivity, it should be kept in

mind that the changes in legal status are to be achieved by the EU-legislator and not by individual Member States. The requirement for a uniform decision moreover indicates particular restrictiveness in amendments of Annex IV.¹⁷⁷ If derogations to reduce numbers as long as the conservation status is kept above the reference values defining favourable status, there is moreover a risk that the reference values for favourable conservation status will function as a maximum rather than a minimum level due to the strong political pressure to reduce the numbers of large carnivores to a minimum. This must also be seen in relation to the risk that Member States will define a favourable conservation status at the lowest possible levels.¹⁷⁸ Annual derogations to hunt bears to reduce numbers are therefore found to be contrary to the aim of the strict protection, even-though a management plan for the long-term conservation of the species has been adopted and the species is at a favourable conservation status.

A *second* question to be addressed is if quota hunting of bears to pursue other objectives, than to control or reduce numbers, can be in compliance with Article 16(1)(e). The case-law of the ECJ indicates that different types of objectives can be considered legitimate for derogations on protected species as long as there is evidence on the lack of satisfactory, less disadvantageous, alternatives to meet the objectives envisaged (see below). One of the motives of the Swedish quota hunting of bears is, according to the decisions, preparatory works and policy documents, to reduce socio-economic costs from bear predation and bear damages on e.g. reindeers, sheep and bee-hives. Firstly, it can be argued that as long as all conditions in Article 16 are met, Member States shall, according to Article 2, take into account “economic, social and cultural requirements and regional and local characteristics”.¹⁷⁹ The motive to reduce socio-economic costs must thus be found acceptable under the directive. However, given that specific bear individuals often induce substantial amount

¹⁷⁶ See e.g. decision by the Administrative Court of Appeal in of Sundsvall (“Licensjakt på björn”), case 1981-6 (2016-08-18) and the decision by the Supreme Administrative Court (“Licensjakt på varg”), case 2406-2408-16 and 2628-2630-16 on 30th of December 2016 (HFD 2016 ref. 89). As described earlier, the case of the Supreme Administrative Court concerned quota hunting of wolves. However, the reasoning on whether or not quota hunting could be authorized under Article 16(1)(e) also included a principal discussion.

¹⁷⁷ Article 19(2), Habitats Directive.

¹⁷⁸ The directive does nevertheless not lay down an obligation to continuously increase the numbers (unless the status is

unfavourable) or to reach historical levels according Epstein (2017). *The Big bad EU? Species Protection and European Federalism. A case study of Wolf Conservation and Contestation in Sweden*, Academic Doctoral Thesis, Uppsala University, p. 6. On the contrary, when a species has an unfavourable conservation status a continuously increasing number is required according to Schoukens and Bastmeijer (2014). “Species Protection in the European Union: How Strict is Strict?” In *The Habitats Directive in its EU Environmental Law Context: European Nature’s Best Hope?*, Routledge, Abingdon, Oxford.

¹⁷⁹ As described in section 3, it is important to remember that Article 2 does not provide an independent legal basis for derogations.

of the total damages, the targeting of individuals causing damage must constitute a satisfactory and less disadvantageous alternative to reduce costs from bears. Given that the damages are to be considered “serious”, such hunting can be in compliance with Article 16(1)(b), which provides a legal basis for the prevention of serious damage “in particular to crops, livestock, forests, fisheries and water and other types of property”. The same conclusion applies to alternative measures such as changes in compensation schemes, increased information on predation prevention, the use of alternative locations or landscapes or increased electric fencing. Studies and statistics show that both fencing and the use of locations near villages can constitute an efficient and less disadvantageous measure to reduce predation on sheep. Scientific studies moreover show that the use of human herders and watchdogs can reduce damage from large carnivores such as bears.¹⁸⁰ In conclusion, it is unlikely that hunting without targeting individuals causing damage will be accepted by the court unless there is scientific information confirming a clear relationship between damages and number or density of the species. However, even if such correlation can be shown, the measure will still be prohibited if other less disadvantageous measures can reach the objective.

Other justifications for quota hunting are to increase public acceptance of the bear in Sweden and to reduce fear in humans. As mentioned in section 3.2, the Commission has used lynx hunting in Latvia as an example of an adequate application of this provision. In the example it is stated that this hunting is beneficial to the public acceptance of the species. The Swedish authorities have consequently argued that the improvement of public acceptance of large carnivores can constitute a legitimate purpose to hunt the species under this provision. While the LCIE guidelines confirm this interpretation,¹⁸¹ the Commission has pointed out in its Reasoned Opinion on the Swedish quota hunting of wolves that public acceptance is not listed as an acceptable reason for derogation under Article 16. The Commission moreover stated that there was a lack of scientific evidence on the positive correlation between hunting and acceptance of

large carnivores and on the lack of satisfactory alternatives.¹⁸² The issue has not been addressed by the ECJ yet, but the court has, under the Birds Directive, accepted even hunting for recreational purposes during protected periods, nevertheless only so far as other solutions were absent. In the case of the quota hunting of bears there is first of all no evidence on the need to increase public acceptance. Acceptance of bears in Sweden is already high, even in areas with bears and the acceptance has remained at a high level when the number of bears has increased, contradicting the relationship between numbers and acceptance. There is moreover no objective information provided in the decisions on the reasons why e.g. compensation and information does not constitute satisfactory alternatives to increase public acceptance and to reduce fear in humans.¹⁸³

A *third* question to be addressed is if the quota hunting of brown bears in Sweden can be considered limited and proportional. As described in section 2, almost 10 percent of the Swedish bear population has been hunted annually though quota hunting only during the last decade. During 2017, between 7 and 12 percent were killed through quota hunting in the counties issuing hunting licenses this year, except in the county of Norrbotten where no quota hunting was permitted. Hunting is by large the main threat to the Scandinavian brown bear and exceeds by far the 1 percent of the total mortality-level used as a guideline to determine “small numbers” under the Birds Directive. Although birds are different from bears, or other species listed in Annex IV of the Habitats Directive, and the directive uses different wording, the cases under the Birds Directive illustrate the restrictive view of the court. It could moreover be argued that in cases of large carnivores, such as the bear, an even stricter application is necessary, given that large mammals, in particular those which reproduce late and with lengthy intervals, are more sensitive to hunting than small species that exists in large populations and have high reproductive capacity. The large number of bears harvested through annual quota hunting (in addition to protective hunting), in relation to the total mortality, in combination with the estimated

¹⁸⁰ Eklund et al. (2017). Limited evidence on the effectiveness of interventions to reduce livestock predation by large carnivores. *Nature. Scientific reports* 7, 2097. The studies concerned predation on sheep by e.g. black bears.

¹⁸¹ LCIE (2008), p. 30.

¹⁸² The Commission did however not further develop the complaints regarding the reasons of the hunt.

¹⁸³ See also Epstein (2017), paper V, for a discussion on this issue in relation to wolf hunting. The author argues that the ECJ would probably find that the directive prohibits derogations to increase public acceptance, since it must be backed up by evidence and such evidence is not available.

decline in the population after 2008, supports the conclusion that the number of bears hunted through quota hunting exceeds what would be defined as in “limited numbers” by the ECJ. Given the extent of the hunt and the lack of detailed information about the actual social and/or economic costs of bear predation (e.g. decreasing number of sheep-farmers or lower profits), the proportionality of the measures may also be questioned. It is likely that the quota hunt of brown bears in Sweden would be found disproportionate to the needs which justify it unless more comprehensive information about socio-economic costs are provided.¹⁸⁴

Lastly, it can be asked if the quota hunting is sufficiently selective and strictly controlled to satisfy the conditions laid down in (e). As described in section 2, quota hunting is subject to a set of strict restrictions on how, when and to what extent bears may be harvested. These conditions must furthermore be laid down in the hunting decisions. The hunting of bears is moreover constrained geographically and in time in addition to numbers.¹⁸⁵ The hunting is however executed by recreational hunters and not professionals employed or appointed by the competent authority. Every participant in the hunt must have hunting rights and a hunting licence, but only the hunting leader must register. There is therefore no prior authorization of each individual hunter. To ensure that the harvesting does not exceed the quota, there is a duty to immediately report killed animals and as soon as possible to report attempts to kill an animal. When the quota is filled, the hunt is cancelled. This year (2017), 219 bears were killed, i.e. exceeding the quota by 3, however during several years fewer animals than permitted according to the quota have been shot. There is moreover a system of control and adaptation of the decision-making and delegation from the national to the regional level in relation to the reference values for a favourable conservation status as well as the actual status of the species. There is however no legal *obligation* to amend or withdraw delegated rights to permit quota hunting if the hunting is found to constitute a risk to the maintenance of a favourable conservation status. In comparison with other large carnivores such as the wolf, there

is moreover no obligation to estimate reproduction in all counties on an annual basis. The assessment of the species’ conservation status is to a large extent based on voluntary bear observation by hunters, who may have incentives to over-estimate the numbers of bears. All things considered, the hunting and the administrative system are nevertheless subject to several strict conditions and it is therefore likely that the condition will be found satisfied by the ECJ. An important improvement in the strict control of the hunt is that hunting decisions on species protected by the Habitats Directive now may be appealed to the administrative courts.¹⁸⁶

The quota hunting of bears in Sweden is clearly selective in relation to species, as only brown bears are targeted and the risk of harvesting another species must be insignificant. The hunting does however not target specific individuals, since all individuals occurring in the geographical area, except females with cubs, may be harvested. However, to ensure growth in areas with low density, the number of bears that can be harvested is often lower in geographical areas with low density than in areas with high density. To reduce the negative impact on the reproductive capacity of the population of hunting, the number of adult females (over 80 kg) that may be harvested is moreover limited. The hunting is thus often, more or less, selective in relation to both density and reproductive capacity, although by the will of the authority to define what is a sufficient selective hunt. Given the decline in the bear population after 2008, it can be questioned if the hunting has been selective enough. Since there is a lack of identification and targeting of bear individuals causing damage, while at the same time one of the main purposes of the hunt is to reduce damage and specific bear individuals cause a large proportion of the damages, it is not likely that the condition on selectiveness will be considered satisfied. As always, the burden of proving that the conditions are met lies on the authority taking the decision.

¹⁸⁴ The implementation of Article 16(1)(e) is moreover not fully implemented into national law since the condition on limited is lacking. According to the national provision the hunt must be appropriate considering the size and composition of the population. See Christierson (2011), p. 178-179.

¹⁸⁵ The hunting period was set to the 21st of August until the 15th of October, but was stopped at the 10th of October.

¹⁸⁶ See section 2.4 and case HFD 2015 ref. 79. For legal analysis, see Darpö (2017). *Klaga inte på vargen..! Om överklagandeförbudet i jaktförordningen och EU-rätten – Rättsfallskommentar till HFD 2015 ref. 79. Europarättslig Tidskrift 1* and Darpö and Epstein (2015). *Thrown to the Wolves – Sweden Once Again Flouts EU Standards on Species Protection and Access to Justice. Nordisk Miljörättslig Tidskrift. 2015:1, p. 7-20.*

5. Conclusions

Despite that the brown bear in Sweden is to be subject to a strict system of protection according to the Habitats Directive, the species has been subject to substantial quota hunting, in addition to protective hunting, during the last decade. The authorization of the quota hunting is based on a broad interpretation of Article 16(1)(e), a provision to be interpreted strictly. The study has found that the aim of the provision is not to provide a legal basis for managing strictly protected species with a favourable conservation status through hunting. The study has moreover found that the quota hunting of bears in Sweden is in non-compliance with EU-law. The competent authorities have failed to provide evidence that all the conditions laid down in Article 16(1)(e) are met.

The management of the brown bear in Sweden could nevertheless be argued to have been successful in both achieving and, so far, maintaining a favourable conservation status. Managing strictly protected species under (e) could thus be considered to be a pragmatic approach to solve a lack of regulatory adaptivity with continuous review and amendments of the Annexes according to changes in the conservation status of species. However, to comply with EU-law it is recommended that Member States strive for increased adaption of the Annexes rather than pursuing broad interpretations in breach of the directive. By systemic and continuous reviews and amendments of the Annexes to adapt the legal status to the species conservation status, both the incentives to achieve a favourable conservation status and the legitimacy of EU-law could be increased.

Acknowledgements

This study is one of the results of the large carnivore project *Claws and Laws – A Dialogue between Law and Ecology*, funded by the Swedish Environmental Protection Agency (SEPA). I would like to express my appreciation to Klas Allander (SEPA) and Michael Wallén (SEPA) for providing information and statistics on the Scandinavian brown bear and Hanna Dittrich (SEPA) for inspiring comments on the content of the study. I would also like to express my gratitude to Guillaume Chapron, Jan Darpö, Yaffa Epstein and Maria Forsberg, for good cooperation and friendship and valuable comments throughout the writing process. Any remaining errors in the text rest with the author.

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