

Implementation of Article 12 of Habitats Directive

The Wolf case

1.- Background - Introduction

The conservation and management of large carnivores in Europe is a huge challenge when we try to conserve them in Europe's crowded, human-dominated, and heavily modified ecosystems. In the case of the wolf (*Canis lupus*), its high mobility, its adaptability, its reproductive capacity, its potential to conflict with socio-economic activities in particular livestock farming, game management and hunting as well as the fact that people fear wolves, make this challenge even greater. Like with all large carnivore species, the return of the wolf can provoke dramatic social protests among rural communities, which can potentially have negative consequences for biodiversity conservation in general. This requires that a very pragmatic approach be taken to wolf management (Breitenmoser 1998¹; Boitani 2003²; Linnell et al. 2005³; Skogen et al. 2003⁴).^[DS1] Therefore, there is a need to establish conservation and management systems, which are both coordinated and flexible – to permit local adaptation of the means needed to achieve a global vision in line with Article 2.3 of the Habitats Directive.

Almost all wolf populations cross regional and national borders complicating management still further.

Wolf populations are expanding, particularly in Central Europe illustrated by the German young female wolf, wearing an electronic tracker, located in the Netherlands and Belgium in 2017 (Boffey 2018), the establishment of the first wolf pack in Denmark in 100 years (Barkham 2017), first proof of a wolf in Luxembourg (Tasch 2017). Wolves reaching the Pyrenees from the French Alpine population, which reached France from Italy were recorded. A camera trap has documented the first evidence of wolves breeding in Austria in more than 100 years. It was taken in

¹ Breitenmoser, U. (1998). Large predators in the Alps: the fall and rise of man's competitors. Biological Conservation 83(3): 279-289.

² Boitani, L. (2003). Wolf conservation and recovery. In Wolves: behavior, ecology, and conservation: 317-340. Mech, L. D. and Boitani, L. (Eds.). Chicago: University of Chicago Press.

³ Linnell, J. D. C., Brøseth, H., Solberg, E. J. and Brainerd, S. M. (2005). The origins of the southern Scandinavian wolf population: potential for natural immigration in relation to dispersal distances, geography and Baltic ice. Wildlife Biology 11: 383-391.

Linnell, J. D. C., Promberger, C., Boitani, L., Swenson, J. E., Breitenmoser, U. and Andersen, R. (2005). The linkage between conservation strategies for large carnivores and biodiversity: the view from the "half-full" forests of Europe. In Carnivorous animals and biodiversity: does conserving one save the other?: pp 381-398. Ray, J. C., Redford, K. H., Steneck, R. S. and Berger, J. (Eds.). Washington: Island Press.

⁴ Skogen, K. and Krange, O. (2003). A wolf at the gate: The anti-carnivore alliance and the symbolic construction of community. Sociologia Ruralis 43(3): 309-325.

Skogen, K., Haaland, H., Brainerd, S. and Hustad, H. (2003). Local views on large carnivores and their management: a study in four municipalities [Lokale syn på rovvilt og rovviltforvaltning. En undersøkelse i fire kommuner: Aurskog-Høland, Lesja, Lierne og Porsanger]. Norwegian Institute for Nature Research Fagrapport 070: 1-30.

the Allentsteig Natura 2000 site, also a military training area, in north-eastern Austria. Wolves were exterminated in Austria in 1882, when the last individual was killed in the region of Styria. However, since 2009 some individual wolves have been detected in Austria each year⁵ (Linnell 2016).

Local improvements in habitat quality, the increased populations of some prey species, public support and favourable legislation (the Bern Convention and Habitats Directive) have allowed the recovery of many populations of large carnivores across the EU (Chapron et al. 2014). The increase in population, particularly in Central Europe is significant though different populations have different conservation statuses, different socio-economic settings and different conservation challenges (see table 1 below).

The wolf is listed in Annex IV of the Habitats Directive for most of the EU populations and is therefore strictly protected and subject to the provisions of Article 12 of the Habitats Directive, especially part 12 (1) (a) which prohibits all forms of deliberate capture or killing of individuals in the wild. In accordance with Article 12(3), this prohibition applies to all stages of life of the animals. Table 1 shows which populations are included into which Annex of Habitat Directive.

Some wolf populations are also included in Annex II of the Habitats Directive as a priority species, whose conservation requires the designation of Special Areas of Conservation (SACs) and in Annex V listing species “whose taking in the wild and exploitation may be subject to management measures”. The specification for classification is as follows:

Annex II: “* *Canis lupus* (except the Estonian population; Greek populations: only south of the 39th parallel; Spanish populations: only those south of the Duero; Latvian, Lithuanian and Finnish populations)”

Annex IV: “*Canis lupus* (except the Greek populations north of the 39th parallel; Estonian populations, Spanish populations north of the Duero; Bulgarian, Latvian, Lithuanian, Polish, Slovak populations and Finnish populations within the reindeer management area as defined in paragraph 2 of the Finnish Act No 848/90 of 14 September 1990 on reindeer management)”

Annex V: “ *Canis lupus* (Spanish populations north of the river Duero, Greek populations north of the 39th parallel, Finnish populations within the reindeer management area as defined in paragraph 2 of the Finnish Act No 848/90 of 14 September 1990 on reindeer management, Bulgarian, Latvian, Lithuanian, Estonian, Polish and Slovak populations)”.

TABLE 1. The most recent population estimates for wolves in Europe adapted from Linnell & Cretois (2018)

Population	Countries	Last estimate (2008-2011)	Most recent estimate (2012-2016)	Trend	UCN Red List Assessment [DS2]	Annex of the HD
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⁵ <http://www.lcie.org/Blog/ArtMID/6987/ArticleID/87/First-wolf-reproduction-in-Austria-since-19th-century>

Iberian	Spain, Portugal	2200-2500 ₃	2500	Increasing	Near Threatened	Annex II and IV except Spanish populations north of the river Duero (Annex V)
Western – Central Alps	Italy, France, Switzerland	280	420-550	Increasing	Vulnerable	Annex II and IV except Swiss Population (strictly protected under Appendix II of the Bern convention)
Italian peninsula	Italy	600-800	1100-2400	Slightly increasing	Near Threatened	Annex II and IV
Dinaric – Balkan	Slovenia, Croatia, Bosnia & Herzegovina, Montenegro, Albania, FYROM (Republic of North Macedonia), Kosovo*, Greece, Serbia, Bulgaria	c.3900	c.4000	Unknown	Least Concern	Annex II and IV except (Annex V) ; Bulgarian and Greek populations north of the 39th parallel (Excluded non EU countries)
Carpathian	Czech Republic, Slovakia, Poland, Ukraine, Hungary, Romania, Serbia	3000	3460-3840	Stable	Least Concern	Annex II and IV except (Annex V) ; Slovak and Polish populations (Excluded non EU countries)
Baltic	Estonia, Latvia, Lithuania, Poland	870-1400	1713–2240	Stable	Least Concern	Annex V
Karelian	Finland	150-165	c.200	Stable / increasing	Near Threatened	Annex II and IV except (Annex V) ; Finnish populations within the reindeer management area as defined in paragraph 2 of the Finnish Act No 848/90 of 14 September 1990 on reindeer management
Scandinavian	Norway, Sweden	260-330	c.430	Increasing	Vulnerable	Annex II and IV (Excluded non-EU countries)
Central European	Germany, Poland, Denmark	36 packs + 5 pairs	780-1030	Increasing	Vulnerable	Annex II and IV except (Annex V); Polish populations

Europe₂			c.17,000	Increasing	Least Concern	
EU			13,000–14,000	Increasing	Least Concern	

Report on wolf population trends show that European populations are increasing (Linnell & Cretois 2018). The same authors highlight difficulties in harmonising the results of monitoring data because of differences in monitoring techniques and quality (different ways or periods for counting), averages vs. maximal and minimal population, non-reporting from some countries, different data quality, etc. Despite these difficulties, it is clear that wolf populations are expanding across Europe and so are the problems attached to the conservation and coexistence with this species.

Wolf conservation

Wolf populations in Europe are subject to a range of threats to their conservation. These were analysed in the context of LIFE projects in the periods 1992-1999 and again in 2000-2011 that address the conservation threats of wolf populations. The results are summarised in tables 2 and 3 below:

TABLE 2. *Wolf populations: threats reported (R) to affect the different populations and addressed (A) by LIFE project in the period 1992-1999 (Salvatori 2013)*

POPULATION	NWIBE		ALP		IP		DINBAL	
	R	A	R	A	R	A	R	A
Hunting/poaching [DS3]					X	X	X	X
Habitat quality/food availability	X	X	X	X		X	X	X
Range fragmentation	X		X				X	X
Small numbers/low densities			X					
Genetic identity					X		X	X
Legislation			X				X	
Management fragmentation	X		X					
Economic conflicts (livestock damage)	X		X	X	X			X
Negative public opinion				X		X		X
Law enforcement	X		X		X			

TABLE 3. *Wolf populations: threats reported (R) to affect the different populations and addressed (A) by LIFE project in the period 2000-2011 (Salvatori 2013)*

POPULATION	NWIBE		ALP		IP		DINBAL		CARP	
	R	A	R	A	R	A	R	A	R	A
Habitat loss / degradation	X						X		X	
Persecution	X	X	X		X	X	X	X	X	X
Traffic	X		X		X		X			
Natural disasters	X						X			
Changes in native species dynamics	X				X	X	X	X		
Intrinsic factors	X		X		X		X			

Human disturbance	X						X		X	
Other	X	X	X	X	X	X	X	X	X	X

Abbreviations for Tables 2 and 3: North Western Iberian (NWIBE), Alpine (ALP), Italian Peninsula (IP), Carpathian (CARP), Dinaric-Balkans (DINBAL).

"For the period 1992-1999 the threats reported to be present and addressed by the LIFE projects for the populations targeted at the time when the projects were implemented were related to habitat quality and insufficient food availability, which was indicated as being a threat for all populations with the exception of the Italian Peninsula population. Most populations also benefited from actions addressing the threat posed by negative public opinion.

In the 2000-2011 decade the threats were expressed in a different manner, but they were essentially consistent. It is noticeable that the threat posed by poaching is included for the Alpine population, while human disturbance is no longer considered to be a threat for that population. Pathogens, which were not considered earlier, were considered to be a threat for the Italian Peninsula populations, while genetic identity and hybridization with dogs is no longer reported as threat for the Dinaric-Balkan population. Road kills were not listed as a threat in any of the wolf populations in the decades 1990-1999, while they emerged as a threat for the N-W Iberian, Alpine, Dinaric-Balkan and Italian Peninsula populations in the second period. This threat was not directly addressed by any of the projects implemented. In fact, only a few threats were addressed by the majority of projects, although they targeted many sub categories" (Salvatori 2013).

The main cause of unnatural mortality for wolves come from **direct killing** [DS4] but this is clearly not the only problem. Several issues should be considered and Linnell (2013) point clearly that: "The extent to which any given species or population is subject to these, and other, threats varies greatly across Europe. Both the intensity of a given threat and the range of threats vary. Most populations are exposed to multiple threats. A key consideration is to consider the idea of cumulative impacts where the impacts of multiple threats may act together to have greater impacts than they would have in isolation. It is also important to realize that threats are highly dynamic in time (both between seasons and years) and need to be constantly re-assessed".

Accurate monitoring of wolf populations and the causes of mortality are clearly of great importance in this context. Monitoring, not only of biological conditions but also socio-economic reasons for lack of tolerance of wolves should be considered.

Illegal killing [DS5]:

Illegal killing has been shown to be a major threat to some wolf populations. For example, research by Liberg *et al.* (2011)⁶ has shown that illegal killing accounted for approximately half of total mortality of the Scandinavian wolf population and more than two-thirds of total poaching remained undetected by conventional methods, a source of mortality we term as 'cryptic poaching'. In Finland, according to estimates based on population parameters, even as much as 25-30% of the total wolf population was estimated to be missing because of supposed illegal killing (Kojola *et al.*, 2011⁷). Additional social science research in Finland showed that the

⁶ <http://rspb.royalsocietypublishing.org/content/early/2011/08/08/rspb.2011.1275>

⁷ <http://jukuri.luke.fi/handle/10024/530616>

[illegal killing of large carnivores can be categorised as a socio-political crime, as the main motivation is disagreement with the large carnivore management policies under the control of the Habitats Directive \(Pohja-Mykrä, 2016⁸\). The wolf, in contrast to the Brown Bear in Finland, has been treated rather as a pest than as a valuable quarry, and in spite of total protection, illegal killing has kept its population low \(Mykra et al. 2017⁹\). This social science research emphasises the important need to design conservation and management strategies in consultation with those rural stakeholders that are closest to wolves.](#)

2.- Application of article 12 on the wolf

The wolf, like the other species listed in the Annex IV of the Habitat Directive, is strictly protected. Since the objective of the Directive is to reach the favourable conservation status for the listed species, the protection provided by this annex has a preventive character, and requires Member States to avoid and prevent a number of situations that could negatively impact the species.

The formal transposition of Article 12 into national legislation may need to be complemented by further implementing actions to ensure strict protection based on the particularities, specific problems and threats faced by the wolf in a given context. Not only must the acts in question be prohibited, but the authorities must also take all measures necessary to ensure that the prohibitions are not violated in practice. Authorities are thus under a duty to take all measures necessary to prevent the (illegal) killing of wolves, and to protect their dens. According to the Court of Justice of the European Union (CJEU), Article 12(1) of the Habitats Directive "requires the Member States not only to adopt a comprehensive legislative framework but also to implement concrete and specific protection measures", whereas likewise the provision presupposes the "adoption of coherent and coordinated measures of a preventive nature" (CJEU Case C-183/05 of 11 January 2007, Commission of the European Communities v Ireland).

An example of such actions to effectively enforce the species protection provisions is the establishment of anti-poaching teams equipped with anti-poison dogs. Poaching, snares and poison baits are a real threat for wolves in many places. Poisoning is probably the biggest problem as it does affect also other species, remarkably birds of prey. To deal with this problem, several projects in Southern and Eastern Europe (Spain, Italy, Portugal, Greece, Bulgaria, and Romania) financed by LIFE program¹⁰ have contributed to establishing specific enforcement measures contributing to the effective implementation of the strict species protection regime.

Article 12 provisions therefore mean that every Member State should assess the specific problems and conflicts which jeopardize wolf populations in their territory. For example, hybridisation with dogs is often a major threat for the conservation of the wolf and specific actions may be needed to tackle the hybrids' problem in line with the Recommendation No. 173 (2014)¹¹ adopted under the Bern Convention.

[Comprehensive-W](#) wolf action plans, when correctly established and applied, may constitute an effective tool for implementing Article 12 requirements for Annex IV

⁸ <https://www.sciencedirect.com/science/article/pii/S0743016716300031>

⁹ <https://link.springer.com/article/10.1007/s10344-017-1134-1>

¹⁰ LIFE09 NAT/ES/000533 INNOVATION AGAINST POISON; LIFE Antidoto LIFE07 NAT/IT/000436; LIFE PLUTO LIFE13 NAT/IT/000311; LIFE WOLFALPS LIFE12/NAT/IT/000807; WOLFLIFE (LIFE13 NAT/RO/000205)

¹¹ <https://wcd.coe.int/com.instranet.InstraServlet?command=com.instranet.CmdBlobGet&InstranetImage=2654095&SecMode=1&DocId=2196762&Usage=2>

wolf populations. Several Member States have developed wolf conservation plans providing for an overall coherent framework for the implementation of the strict protection requirements.

For example, France has recently adopted the National Action Plan for the wolf for the period 2018-2023¹² covering a wide range of actions, including, among others: improvement and reinforcement of preventive measures and support to pastoralism; compensation of damages caused by wolves; completing and improving the knowledge base; actions aiming at monitoring and improving the efficiency of livestock preventive measures; promotion of dialogue, coordination and stakeholders platforms. Financial aid will cover 80% of costs for guarding dogs and fences, and 100% for vulnerability analysis. The plan recommends the adoption of combination of protection measures, in order to improve their effectiveness. "A shepherd and protection dog show the highest level of efficiency", according to the plan. In fact, nearly 80% of financial aid should go to pay shepherds. Compensation payments will be more structured and livestock owners must implement preventive measures in order to be compensated.

Similarly, Italy is currently drafting a ~~comprehensive~~ national plan for the conservation and management of the wolf¹³, covering actions to prevent poaching and wolf-dog hybridisation, to reduce damages and conflicts with livestock breeding, to improve monitoring and coordination at national level, to improve dialogue with stakeholders and to provide a consistent framework for the possible use of the derogations (under Article 16 of the Habitats Directive).

The preparation of such species action plans should be based on ~~robust and updated~~ best available information^[DS6] about the species ~~population conservation~~ status and trends, as well as about all the relevant threats and pressures for the population. The participation or consultation of ~~relevant stakeholders being affected by the species or by the contemplated conservation measures~~ is a good way crucial to promote integration of all relevant aspects as well as broad social acceptability of the plans. ^[DS8]

The Wolf Management Plan in the Republic of Croatia for the period 2010–2015¹⁴, for example, was the result of a two-year process with the participation of representatives of all interest groups (representatives of relevant ministries, members of the Committee for the monitoring of large carnivore populations, scientists, foresters, non-governmental associations, etc.). The most important part of the plan is the Detailed Action Plan that outlines the activities that are necessary to implement in order to ensure the wolf population in Croatia is conserved in the most harmonious possible cohabitation with humans.

3. Wolf-related conflict

The causes of conflict surrounding wolves, which led to the extermination, or severe reduction of wolf populations in much of its European range has in general well known economic grounds. This persecution and high rates of poaching still persist in many areas. The main reasons for wolf persecution are:

- **Depredation of livestock and dogs.** During 2012-2016 an annual average of 19,500 sheep were killed by wolves (Linnell & Cretois 2018). While sheep are the

¹² http://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/IMG/pdf/nap_wolf_and_stock-rearing_activities_2018-2023.pdf

¹³ https://assets.wwf.it/panda.org/downloads/piano_lupo_25_01_17.pdf

¹⁴ <http://www.life-vuk.hr/eng/wolf-management-plan/wolf-management-plan-in-croatia/wolf-management-plan-in-the-republic-of-croatia-for-the-period-2010%E2%80%932015-837.html>

main victim of wolf attacks, they also attack other livestock (goats, cattle, horses) and semi-domestic reindeer. Depredation on livestock is extremely variable and depends to a large extent on the type of farming system and whether livestock are enclosed or shepherded. For example in France (52 wolf packs), around 10,000 sheep, cattle and goats were compensated in 2016 (Dreal 2018), whereas in Germany (60 packs), the figure is just below 1,100 for the same year (DBBW 2018). Wolves also attack and kill dogs, especially hunting dogs which may be free-ranging during hunts. The loss of both livestock and dogs clearly has an important emotional impact, in addition to the direct and indirect economic losses.

- **Perceived risk for people.** In general, there is little evidence that wolves are dangerous for people. ~~In the last 40 years not one lethal attack on humans has been recorded in Europe (Linnell 2002).~~ ^[DS9] These perceptions and attitudes must be taken seriously and cannot be dealt with, for example, through the provision of educational material or statistics on the number of humans killed by wolves. Social science research shows that attitudes have a lot to do with behaviour and "results of psychological studies have shown consistently that increasing knowledge through education, whether related to health, safety, or conservation, does not lead to a change in behaviour" (Schultz, 2011)¹⁵. ~~Despite this, M~~ many people still fear wolves, particularly in the countries recently recolonized by the species. Such fears can lead to specific behaviours (e.g. not allowing children to walk to school or illegal killing), which should be carefully taken into through appropriate consultation and social science research where appropriate when developing plans for wolf conservation/management. Cases have been recorded of wolves approaching people and behaving unusually (bold wolves), normally if they have been food conditioned or dogs are present (Reinhardt 2018). There is no evidence that wolf-dog hybrids are bolder than wolves but fear of hybrids is also a specific issue in certain areas of Europe.
- **Impact on game species.** Wolves prey on wild ungulates, sometimes competing with hunters for the game. In many-some cases, the effect of wolves on wild ungulates is negligible but in other cases wolves can have a significant impact on game populations in their range as well as certain hunting modalities. ^[DS10] Furthermore, in many European cultures where large carnivores are relatively abundant there is a tradition for hunters to hunt large carnivores for recreation or trophies. In various settings carnivore hunting (but also carnivore-related ecotourism) is associated with significant economic benefits, and in many contexts is regarded as being crucial for achieving local acceptance of the presence of these species (Hofer 2002; Knapp 2006)¹⁶. From a conservation point of view there is no principle reason why large carnivore populations cannot tolerate some levels of lethal control or be managed under the same type of harvest system as wild ungulates or game birds, provided that the harvest is well managed.

¹⁵ Cited in : <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1523-1739.2012.01892.x#b7>

¹⁶

http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/guidelines_for_population_level_management.pdf

It is also important to note, that wolf persecution may not be entirely based on the real economic impact of wolves. Social and cultural considerations are also important as highlighted by Linnell (2013) and attitudes may not change rapidly, despite implementation of protection measures. As Linnell & Cretois (2018) points out:

"... research has consistently shown that although the conflicts may appear to be superficially about carnivores killing livestock, they are often far more about deeper social conflicts between rural and urban areas, between modern and traditional values, or between different social and economic classes. There is therefore rarely a clear relationship between the extent of the impact of large carnivores on livestock and the level of social conflict which this generates".

4.- Measures to improve the coexistence of humans and wolves

The variability in the impact wolves have as well as the range of attitudes in different member states suggests that solutions exist to wolf-based conflicts. Since the approval of the Habitats Directive in 1992, there have been numerous projects focused on improving the relationship between the wolf and humans. The LIFE programme has financed over 40 projects linked to the conservation of carnivores including wolves since 1992.

A frequent approach to reduce the economic impacts of wolf-damages are compensatory payments which are available in many European member states. Compensatory payments can be an appropriate measure in many cases, but it is necessary to clearly establish the rules and consider various factors, ensure that the losses are actually due to predation by wolves and that the compensations are fair and arrive on time. In many countries, farmers complain that it is complicated and expensive to receive compensation, that payments are late or insufficient. Compensation payments are usually funded by national or regional governments under the State Aid rules.

Compensation payments are however clearly not enough as they will not reduce depredation and the conflicts linked to the coexistence with wolves. Moreover, compensation payments alone are often not sustainable in the long term and therefore they do not constitute an effective solution, unless appropriately combined with other measures. Measures to prevent damage to livestock, e.g. re-establishing the use of guarding dogs, various fencing systems, changes in the management of extensive livestock and shepherding are important in this respect (see box on large carnivore management plans below). The effectiveness of these measures is highly dependent on their successful deployment and in many cases, the resources or advice and support to farmers to deploy such measures is lacking.

A comprehensive approach to funding and supporting measures to reduce wolf-related conflicts is needed within a member state (and ideally cross-borders between member states). Establishing a ~~comprehensive~~ Species Action Plan is a first step in this regard. Such a plan should highlight the main problems and opportunities, conservation threats and the financial and staffing needs to address them.

Sufficient financing for implementing the action plan may also be a shortcoming. Member states should highlight the main conservation and conflict issues with wolves in their Priority Action Frameworks (PAFs^[DS11]), identifying priorities and needs and laying out how they plan to fund the requirements of the Habitat Directives, taking into account what is realistically feasible and proportionate, especially in view of the conservation needs of other species. ^[DS12]The relevant measures can be financed under their own budgets in accordance with state aid

rules as well as under LIFE projects as mentioned above. It is also possible to include prevention measures in national Rural Development Programmes funded under Pillar 2 of the Common Agricultural Policy (CAP). EAFRD¹⁷ is indeed used in several Member States such as Greece, Bulgaria, Slovenia, Italy, France to fund livestock protection measures, including, for instance, salaries of shepherds, fences and livestock guarding dogs. The EU Platform on Coexistence between People and Large Carnivores (see below) has overviewed where RDP are currently used and the potential for future use (Marsden et al 2016).

Coexistence and the integration of the wolf with human activities in human-dominated landscapes, means that preventive and compensatory measures do not always suffice on their own. Coexistence between wolves and humans almost always requires active management (such as reintroduction, translocation, hunting, lethal control) of wolf populations and coordinated planning with conflicting landuses and activities. However, the need, and the acceptance for, different management options will vary greatly throughout Europe (Boitani 2003)¹⁸. Therefore, there is a need to establish a conservation system which is both comprehensive and flexible – to permit local adaptation of the means needed to achieve a global vision.^[DS13]

At European level there is a solid basis for sharing knowledge and experiences. The EU LC Platform has gathered 40 case studies on improving coexistence between large carnivores and humans. Case studies are classified in five groups: 1) Provision of Advice/Awareness Raising; 2) Provision of Practical Support; 3) Understanding Viewpoints; 4) Innovative Financing; and 5) Monitoring¹⁹.

Provision of advice / Awareness raising

Providing factually based information on wolves and how conflicts can be avoided can assist as part of conflict mitigation measures. The Italian web site “Protect your livestock” provides detailed advice on the types of measures which can be used to protect livestock and the different funding schemes which are available in the Italian regions. The Carnivore Damage Prevention News newsletter which has been supported through different LIFE projects provides a well-regarded source of information sharing on livestock protection within the EU and internationally. A broader approach is provided by the Contact Office “Wolves in Saxony” where several staff members are employed to be available on site, provide education materials and excursions and address peoples’ questions and concerns locally. Other case studies are taken from Austria, Finland, Lithuania, Slovenia.

Innovative financing

A very original and successful one is the Swedish initiative Conservation Performance Payments, targeting not wolf but to wolverine. In this initiative payments are linked to the successful reproduction of the wolverine rather than compensating for loss of reindeer. Payments are based on the number of documented wolverine reproductions in the respective district, regardless of predation levels. Growth in the wolverine population was observed 5 years after the programme was set in place. The number of registered reproductions increased

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http://ec.europa.eu/environment/nature/conservation/species/carnivores/case_studies_sub_rural_development_programmes.htm

¹⁸ Boitani, L. (2003). Wolf conservation and recovery. In *Wolves: behavior, ecology, and conservation: 317-340*. Mech, L. D. and Boitani, L. (Eds.). Chicago: University of Chicago Press.

¹⁹ http://ec.europa.eu/environment/nature/conservation/species/carnivores/case_studies.htm#Overview

from 57 in 2002 to 125 in 2012, with the population expanding into previously unoccupied areas

Income generated by **eco-tourism** [DS14] may also be a positive tool for improving wolf coexistence, as people living in a particular region are more likely to have a positive view of wolves if they see that they can generate income. For example, the LIFE DINALP Bear project has created a bear-friendly label used to market a range of products. Care has to be taken that tourism does not affect wolf conservation (avoiding disturbance and denning sites). Additionally, the impact on other stakeholder groups should be considered (e.g. not attracting large carnivores to areas with livestock, or contribute to a situation where large carnivores associate humans with food).

Practical support and best practices [DS15]

Practical support can include a whole range of measures to prevent depredation of livestock or deal with situations where wolves behave unusually. The box below lists the practical measures put in place to most commonly prevent livestock depredation.

Large Carnivore Management Plans of Protection: Best Practices in EU Member States (2018): ²⁰[DS16]

The experience of implemented projects has shown that a mixed approach between traditional preventive measures and modern technology should be adopted in order to optimize livestock protection. The following best practices have been identified through EU funded pilot projects, most of them under LIFE program.

Livestock Guard Dogs (LGD)

LGD are by far the best cost-effective tool to protect livestock (Marucco et al. 2012; Salvatori & Mertens 2012). Extensive research has shown that their presence dramatically decreases the number of depredation events and also the number of animals depredated (Rigg et al. 2011). They can be used regardless of local ecological conditions because there is a wide variety of European breeds well adapted to different kinds of landscape and climate.

Traditionally LGD were mainly used to herd small ruminants, but several experiences have shown that they can be just as efficient with cattle and other domestic animal species. Even though the use of LGD increases the costs of livestock production and human work, the rearing of these dogs and their subsequent sale potentially offers farmers another source of income.

Confinement

Confinement is essential to decrease livestock losses, especially during sensitive periods such as the calving and lambing season. Confinement can be done through different ways:

- *Anti-predator fences: they can be mobile or fixed and should be at least 2 m high; they should be knotted and have at least 5 wires spaced at 20-30cm apart, with the lowest no more than 20 cm from the ground and the highest at least 90-*

²⁰ [http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU\(2018\)596844](http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2018)596844) or <http://www.europarl.europa.eu/supporting-analyses>

110 cm above the ground; the base of the fence should be buried 20 cm below the ground;

- *Electric fences: using the aforementioned dimensions with electrical stimuli to further dissuade predators;*
- *Turbo-fladry fences: a mix of electric fence with visual deterrents (often small flags or pieces of cloth);*
- *Night confinement in stables.*

Deterrents

Even though deterrents have been shown to be less effective and to be easily lost over the medium-term, they can be used in critical situations or be applied in combination with other measures:

- *Fladry: a visual deterrent which consists of the application of small flags or pieces of cloth along a line;*
- *Auditory deterrents: electric devices activated by animal motion which produce sounds or ultrasounds intended to keep away predators and other wildlife;*
- *Light deterrents: electric devices activated by animal motion which produces light intended to keep away predators and other wildlife. [DS17]*

Autochthonous breeds

The rearing of autochthonous breeds, well adapted to the presence of predators, should be encouraged.

Information campaigns and stakeholder participation

Objective knowledge about wolves and their behaviour is essential to ensure coexistence with human activities and this large carnivore. Environmental education based on the presentation of the aforementioned preventive measures and a dialogue between stakeholders is therefore crucial to make human interests and wolf conservation compatible.

Population regulating management of wolves [DS18]

A factor of crucial importance for a species such as the wolf that cause a wide range of conflicts with human interests is the issue of societal carrying capacity (Decker et al. 2001)²¹. This refers to the willingness of local communities to accept the presence of wolves and pay the economic and social costs associated with their presence (e.g. damage to livestock, competition for game, fear). This has been identified as the most crucial element for large carnivore conservation in Europe, and in practice it is likely to be the overall limiting factor in determining the potential distribution and density of the species in the future (Linnell et al. 2005)²²;

²¹ Decker, D. J., Brown, T. L. and Siemer, W. F. (2001). Human dimensions of wildlife management in North America. Bethesda, Maryland, USA: The Wildlife Society.

²² Linnell, J. D. C., Nilsen, E. B., Lande, U. S., Herfindal, I., Odden, J., Skogen, K., Andersen, R. and Breitenmoser, U. (2005). Zoning as a means of mitigating conflicts with large carnivores: principles and reality. In *People & Wildlife: conflict or co-existence?*. pp 162- 175. Woodroffe, R., Thirgood, S. and Rabinowitz, a. (Eds.). Cambridge: Cambridge University Press.

Andersen et al. 2006²³). While it is expected that societal carrying capacity will be broadly related to conflict level, it will be highly variable across Europe, depending on local traditions, socio-economic situations, the experience that local people have of living with wolves, and the way in which wolves are managed (Bath & Majic 2001).²⁴ The amount of human-dimensions research focused on wolves in Europe has increased in recent years and some general principles for increased societal acceptance exist. Societal carrying capacity is likely to be below the ecological carrying capacity. Therefore, maximising local density should not automatically be regarded as a goal per se, as high density populations often generate greater conflicts with rural communities. In contrast, keeping populations at a density lower than what might be potentially achieved may reduce the intensity of local conflicts. A consequence of this policy is that it will reduce the ecological impact that wolves have on their prey populations, which strictly speaking will reduce their ecological viability. However, in the European context where little, if any, nature is truly wild it follows that a pragmatic attitude needs to be set towards setting goals – where the issue of ecological functionality is somewhat reduced in favour of achieving demographic and genetic viability. However, this effect may be context dependent, and it is possible to imagine scenarios where the overall level of conflict can be reduced by concentrating wolves into a more limited area – hence limiting the number of people influenced by their presence (Linnell et al. 2005). The exact form of conflict and the priority attributed to different conflicts will influence the optimal strategy in a given region. A central ambition is that rigorous, but publicly sensitive, management should over time increase societal carrying capacity.

This means that, when there is no other satisfactory alternative (for example when other best practices listed in this box are not sufficient on their own), population regulating management (translocation, hunting, lethal control) of wolf populations to achieve acceptable societal carrying capacity may constitute a management option.

In reality, a combination of best practice options, adapted to the local circumstances at hand, and applied through the establishment of a conservation system which is both comprehensive and flexible, will achieve the conservation goals for the wolf across its range.

Another example of practical support is the guidelines the German Nature Agency (BfN) has developed to assist managing authorities in knowing how to react to “bold wolves”. The approach helps understanding of whether a wolf is really behaving unusually or not and provides an approach for dealing with the situation (from observing, to adverse conditioning to, in the most extreme cases, removal of the wolf individual) (Reinhardt et al. 2018).

Monitoring

Linnell, J. D. C., Promberger, C., Boitani, L., Swenson, J. E., Breitenmoser, U. and Andersen, R. (2005). The linkage between conservation strategies for large carnivores and biodiversity: the view from the "half-full" forests of Europe. In Carnivorous animals and biodiversity: does conserving one save the other?: pp 381-398. Ray, J. C., Redford, K. H., Steneck, R. S. and Berger, J. (Eds.). Washington: Island Press.

²³ Andersen, R., Linnell, J. D. C. and Solberg, E. J. (2006). The future role of large carnivores on terrestrial trophic interactions: the northern temperate view. In Large herbivore ecology, ecosystem dynamics and conservation: 413-448. Danell, K., Bergström, R., Duncan, P. and Pastor, J. (Eds.). Cambridge: Cambridge University Press.

²⁴ Bath, A. J. and Majic, A. (2001). Human dimensions in wolf management in Croatia: understanding attitudes and beliefs of residents in Gorski kotar, Lika and Dalmatia towards wolves and wolf management. Large Carnivore Initiative for Europe www.lcie.org.

Involvement of stakeholders in monitoring, especially hunters can have benefits not only in terms of increasing number of people collecting data but also improving stakeholder relations.

As an example of this, the TASSU (paw)-System and Voluntary-Based Large Carnivore Contact Network in Finland is an electronic database collecting together signs of the presence of large carnivores. Data is collected by a network of volunteers comprising of about 2,000 trained contact persons, who may be called out to inspect and confirm example tracks or scats found by the general public. Contact persons are mostly hunters, but also reindeer-herders and staff from State Forest Enterprise (Metsähallitus) and The Finnish Border Guard.

Similarly, Sweden and Norway have set Skandobs - the Scandinavian Tracking System for Large Carnivores for lynx, wolverine, brown bear and wolf. In this database everyone can register observations of tracks, signs or sightings of large carnivores in Scandinavia. Increased reporting of observations will contribute to increased knowledge of the occurrence and distribution of these species. Observations that are registered here will be available to the system users. Observations can be also shared with the Skandobs-app after downloading Skandobs-Touch in the App Store or Google play onto the cell phone to report predators or track while out in the field. The database is updated every 15 minutes. The database is administered by Rovdata, an independent part of the Norwegian Institute for Nature Research (NINA).

Decisions to permit derogations, should be based on an accurate and updated knowledge of the wolf population in the area concerned based on a solid and regularly updated monitoring system. This is necessary to ensure that the decision does not undermine the restoration or maintenance at a favourable conservation status of the population. [DS19]

Understanding viewpoints

Acknowledging the cultural and social nature of conflict over wolves, participatory processes are seen as having significant conflict mitigation potential, particularly for increasing trust between stakeholders (Young et al. 2016). The EU Platform on coexistence between people and large carnivores is itself an example of such an approach (see case study9 in Annex IV of the guidelines). Such approaches are also used on a regional and national level. Many member states have set up platforms themselves. The EU institutions also financially support the establishment of regional platforms in a range of countries²⁵. LIFE EUROLARGE CARNIVORES²⁶ which started in late 2017 is also putting in place collaborative actions and sharing information between them across large carnivore hotspots in Europe.

A further good example of Engagement of all stakeholders is the Campo Grande Group (CGG). This is a Spanish nation-wide think-tank composed of people from different backgrounds and organizations involved in the conflict between extensive stock-raising and the Iberian wolf. The group was created by Fundación Entretantos in 2016, as part of a social mediation initiative focused on addressing the conflict surrounding the coexistence of Iberian wolves and extensive stock-raising. The participants have signed a common declaration and are working together to encourage others to join their approach²⁷.

²⁵ http://ec.europa.eu/environment/nature/conservation/species/carnivores/regional_platforms.htm

²⁶ <https://www.eurolargecarnivores.eu/>

²⁷ http://www.entretantos.org/wp-content/uploads/2018/08/DeclaracionGCG_v3_eng.pdf

5.- Article 16: derogations to the strict protection of wolf populations under annex IV

5.1. Introduction

As a general rule, all the wolf populations listed under the Annex IV of the Habitats Directive are strictly protected and the individuals cannot be deliberately captured, killed or disturbed. In addition, breeding and resting places cannot be allowed to deteriorate or destroyed. This protection is applying both within and outside SACs.

Nevertheless, as described above, in certain circumstances wolves can cause significant damages to livestock, and when preventive measures are not effective, some individuals may have to be killed or captured. In rare cases, individual wolves can become food-conditioned or behave in a bold manner, causing fear or posing a real risk for people, and it may be necessary to remove them from the wild if other alternative solutions do not work. Across Europe, wolves may need to be captured, radio-collared and released for research and management purposes.

Derogations may have to be applied in cases where the wolf in a certain area has a serious impact on a rare and endangered prey species that could be locally threatened by the more common carnivore species (e.g. Kojola et al. 2004)²⁸.[DS20]

In some exceptional circumstances it is considered to be both compatible with the conservation of the wolf, and even desirable for gaining public acceptance for the species management to either selectively remove specific individual wolves or to limit their numbers and / or distribution at certain levels through management actions.[DS21]

Article 16 of the Habitats Directive provides for the necessary flexibility for allowing derogations to the general provisions of strict protection under Article 12 of the Directive for protected populations, allowing for specific actions that can contribute to improving the coexistence of wolves and humans, when other actions are not sufficient. These derogations are also often essential to capture wolves in order to put radio collars and allow their study and monitoring of their populations, which in turn is essential for proper management of the species.

5.2. Preconditions before granting a derogation

Article 16 sets three preconditions, all of which must be complied with before granting derogation:

- demonstration of one or more of the reasons listed in Article 16(1) (a)-(d)
- there is no satisfactory alternative
- the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status (FCS) in their natural range.

Hereafter, the application of these requirements is illustrated for the case of the wolf.

- 1) Demonstration of one or more of the reasons listed in Article 16(1) (a)-(d)

²⁸ Kojola, I., Huitu, O., Toppinen, K., Heikura, K., Heikkinen, S. and Ronkainen, S. (2004). Predation on European forest reindeer (*Rangifer tarandus*) by wolves (*Canis lupus*) in Finland. *Journal of Zoology, London* 263(3): 229-236.

These reasons [DS22] listed in Art. 16(1) are:

- (a) "in the interest of protecting wild fauna and flora and conserving natural habitats";
- (b) "to prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property".
- (c) "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".
- (d) "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".
- (e) "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".

It is possible to see all of these arguments being present under some situations within Europe.

Examples for derogations reasons for the wolf:

Justification (a) is likely to be rarely used, but there are potential situations where a rare prey species could be locally threatened by a more common carnivore species (e.g. Kojola et al. 2004).

Justification (b) is likely to be most commonly used because of the potential for large carnivores to depredate livestock species (especially sheep and semi-domestic reindeer) and pets. In the case of wolves, most of the derogations are justified by the Member States to prevent serious damage to livestock (sentence (b)). This provision aims at avoiding serious damages, and therefore it does not require the damage to have occurred. However, the likeliness of serious damage needs to be demonstrated and there must also be enough evidence to justify that any lethal control method used under derogation is effective and durable in preventing or limiting the serious damage. This justification could be used to both try and selectively remove specific individuals that are believed to be responsible for disproportionate depredation on livestock (so called "problem individuals") and to either keep wolves out of some areas with many livestock or limit the wolf population at a level that keeps depredation at acceptable levels (Linnell et al. 1999²⁹, 2005³⁰; Odden et al. 2002³¹). The issue of how much damage constitutes serious damage is hard to define as it will depend on local acceptance levels, but it must be of a serious nature.

²⁹ Linnell, J. D. C., Odden, J., Smith, M. E., Aanes, R. and Swenson, J. E. (1999). Large carnivores that kill livestock: do "problem individuals" really exist? *Wildlife Society Bulletin* 27(3): 698-705.

³⁰ Linnell, J. D. C., Promberger, C., Boitani, L., Swenson, J. E., Breitenmoser, U. and Andersen, R. (2005). The linkage between conservation strategies for large carnivores and biodiversity: the view from the "half-full" forests of Europe. In *Carnivorous animals and biodiversity: does conserving one save the other?*: pp 381-398. Ray, J. C., Redford, K. H., Steneck, R. S. and Berger, J. (Eds.). Washington: Island Press.

³¹ Odden, J., Linnell, J. D. C., Moa, P. F., Herfindal, I., Kvam, T. and Andersen, R. (2002). Lynx depredation on domestic sheep in Norway. *Journal of Wildlife Management* 66(1): 98- 105.

Illustrative example:

The French [DS23] national action plan for the wolf foresees the possible use of derogations to prevent serious damage to livestock, provided that all the conditions are fulfilled. These derogations are to be implemented in accordance with the "intervention protocols" set by intergovernmental decree. The "intervention protocol" sets an approach based on a gradual and proportionate response depending on the seriousness of the case (i.e.: level and recurrence of the attacks). In line with this protocol, the following gradual steps should be implemented in this order: scaring shot (tir d'effarouchement); simple defensive shot (tir de défense simple); reinforced defensive shot (tir de défense renforcée); simple lethal shot (tir de prélèvement simple); and reinforced lethal shot (tir de prélèvement renforcé).

This implementation of this intervention protocol, if adequately implemented, can provide a good general framework to promote a gradual and proportionate use of derogations. In any case, the implementation and enforcement of this approach must ensure that every individual derogation fully complies with all the applicable conditions under Article 16

The reason listed in (c) concerning public health and safety, or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment [DS24], may justify the use of aversive methods to harass (or even the removal of) rabid, aggressive, food-conditioned, ~~or~~ habituated / bold wolves that consistently approach humans, or other specific individual animals that demonstrate unwanted behaviour. [DS25] It may also justify the destruction of a limited number of traditional wolf breeding areas to build infrastructures of overriding public interest. The justification could potentially be used to limit predation on wild game species if these could ever be shown to be activities of overriding public interest. Justification (c) could cover cases where a de facto hunter harvest is needed to obtain local acceptance for large carnivores among the [DS26] rural population. This situation is clearly present in many Nordic and Eastern European countries, and has been well documented in social science research.³²

Illustrative example concerning public health and safety

The German Agency for Nature Protection (BfN) has recently approved guidelines help the state managing authorities deal with bold or unusually behaving wolves (Reinhardt et al, 2018). The approach firstly helps authorities to understand whether a wolf really is behaving unusually. In the case that a wolf does appear to be attracted by people or dogs, a graduated approach is foreseen depending on the seriousness of the incidents recorded. Actions include aversive conditioning to removal of wolves in the most serious cases.

The derogation reason in (d) related to research, education, repopulation, and re-introduction might be used, for example, for allowing disturbances caused by the use of snares to capture wolves which will wear radio-collars for research or monitoring purposes of wolves' populations (which is also formally a derogation) or for conservation translocation purposes.³³

Illustrative example:

Nature protection authorities need information about the distribution, migration, use of local resources and behaviour of the wolf to conserve this species. In this respect, the use of

³² See Guidelines for Population Level Management Plans for Large Carnivores in Europe

³³ Breitenmoser, U., Breitenmoser-Würsten, C., Carbyn, L. N. and Funk, S. M. (2001). Assessment of carnivore reintroductions. In Carnivore conservation: 241-281. Gittleman, J. L., Funk, S. M., Macdonald, D. W. and Wayne, R. K. (Eds.). Cambridge: Cambridge University Press.

internationally certified soft catch traps allows the authorities to effectively and safely trap wolves to equip them with radio collars. The use of proper transmitters fitted to the trap and signalling when a wolf is caught, allows a timely intervention, reducing the stress caused to the animal.

In general, the use of leg-hold traps is forbidden by the Leg-hold Trap Regulation. However, if soft catch traps are needed for research contributing to species conservation purposes, they can be used to trap animals under the condition that there is no satisfactory alternative and that there is no negative impact on the favourable conservation status of the species. The aim of this method should be to reduce the disturbance and stress caused to the animal as much as possible.

Derogations under Article 16.1.(e) may exceptionally allow the taking (which includes killing / hunting) [DS27] or keeping of certain specimens of wolves, subject to several additional strict conditions that must be respected. The use of this derogation shall be made under strictly supervised conditions, on a selective basis, to a limited extent and should concern limited numbers of specimens.

The principle of selectivity means that the activity in question must be highly specific in its effect, targeting one species, or even one gender or age class of that species, or, where appropriate, certain groups of individuals of a species to the exclusion of all others; or selectivity may also mean excluding certain individuals or certain groups of individuals of the species (e.g. genetically important individuals). The use of these derogations must involve clear authorisations related to particular individuals or groups of individuals, [DS28] places, times and quantities and require strict territorial, temporal and personal controls to ensure an efficient enforcement.

The interpretation of Article 16.1(e) is currently subject to a question for a preliminary ruling by the CJEU³⁴.

Illustrative example:

Several Member States provide for derogations allowing the killing of wolves or other large carnivores in the framework of the so-called "species management plans".

In view of the wording of Article 16(1)(e) and its exceptional and restrictive character, this provision cannot be used as a basis for "population management purposes", unless the culling/taking is linked to a clear, specific and compelling reason or need justifying a derogation which is not in itself contrary to the general objectives of the Directive and the reasons for which it is not already listed in Article 16(1) (a) to (d).

In practice, this type of derogation could only be justified to cull limited numbers of individuals, making a virtually negligible effect on the population dynamics and on the overall mortality of the population in question. Its potential use is therefore much more restricted than the other categories of derogations under letters (a) to (d). [DS29]

2) Absence of satisfactory alternative

The second precondition is that "there is no satisfactory alternative". This implies that preventive and non-lethal methods should always be considered as a priority potential alternatives, [DS30] before applying a derogation. For example, In the case of livestock damages it is necessary to implement appropriate and reasonable preventive measures, such as supervision by shepherds, the use of livestock guarding dogs, the protection of livestock by fences, alternative management of livestock etc., in order to reduce prevention risks. The alternatives depend on the situation and reasons why a derogation is considered (points (a) to (d) of Art.

³⁴ Case C-674/17

~~16(1))~~ [DS31] and should take into account the best knowledge and experiences available for each situation.

Only when such alternative actions have been ~~implemented-considered~~ and have proved not to be ~~ineffectivesatisfactory~~, or when this kind of alternative actions cannot be implemented for the specific case, can the derogations be granted. [DS32]

Illustrative examples of alternatives:

Aversive conditioning of food-conditioned and bold-wolves: In the case of food-conditioned and bold wolves, aversive conditioning to scare them and change their behaviour should be used before killing the animals. Physical deterrents include water, stones, capsaicin spray, rubber bullets, noise deterrents and whatever non-lethal tool which discourages wolves to approach people may be applied under duly justified circumstances.

~~Practice example 1: In the case C-342/05 dealt by the European Court of Justice, Commission v Finland, related to the hunting of wolves in the populations listed in Annex IV, the Court concluded that, by authorising wolf hunting on a preventive basis, without it being established that the hunting was such as to prevent serious damage within the meaning of Article 16(1)(b) of the Habitats Directive, the Republic of Finland has failed to fulfil its obligations. It would have to be examined whether instead of killing wolves other measures suffice, such as bringing cattle into sheds at night or keeping them then behind effective fences, odours or other means of frightening off wolves, and compensation for damage caused.~~ [DS33]

3) Maintenance of the population at a favourable conservation status

The third precondition is the assurance "that the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status (FCS) in their natural range".

According to Article 1(i) of the Habitats Directive, "conservation status of a species" means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory of the Member States. ¶ The conservation status of a species is favourable when (i) the population *"is maintaining itself on a long-term basis as a viable component of its natural habitats"*, (ii) *"the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future"* and (iii) *"there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis"*. Further information can be found in the Guidelines on Reporting under Article 17 of the Habitats Directive.

The fulfilment of this condition (i.e.: that the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status (FCS) in their natural range) requires an assessment of the effect of the derogation in the natural range of the population within the territory of the Member State applying the derogation, both at local and national level, as well as the natural range of the species. [DS34]

In the Court case C-342/05, The Commission states, that "in Finland the wolf is an endangered species and, consequently, its conservation status cannot be regarded as favourable in that Member State," and "that the practice in Finland consisting in authorising hunting as a preventive measure is contrary to Article 16(1) of the Habitats Directive. Where it is thought highly likely that a wolf will cause serious damage, the latter may generally be avoided by means other than preventive

killing.” “The Commission concludes that since the conservation status of the wolf in Finland is not favourable, alternative approaches may be employed and the hunting permits are issued without any relationship to the particular wolves causing serious damage being properly established, wolf hunting is authorised in Finland to an extent which infringes the conditions laid down in Article 16(1) of the Habitats Directive”.^[DS35]

The Court held that derogations affecting populations whose conservation status is unfavourable may be permissible “by way of exception” in cases “where it is duly established that they are not such as to worsen the unfavourable conservation status of those populations or to prevent their restoration at a favourable conservation status”. *The Court then concludes 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, which consists in maintaining the wolf population at a favourable conservation status in its natural range. Such a derogation would therefore be neutral for the species concerned.” “The net result of a derogation should be neutral or positive for a species”.*^[DS36]

Derogations for killing a limited number of specimens may therefore be granted even if the ~~population conservation~~ status ^[DS37] of the species is not (yet) favourable, provided that the derogation is ~~neutral for in terms of the species’ conservation status concerned~~^[DS38], meaning that it does not jeopardise the achievement of the objective of restoring and maintaining the wolf population at a favourable conservation status in its natural range. A derogation may therefore not have ~~overall negative net~~ ^[DS39] impacts on the population dynamics, on the species distribution, on the population structure and health, on the necessary connectivity needs ~~or on the genetic health~~^[DS40] of the concerned wolf population.

~~However~~^[DS41], ~~the less favourable the conservation status and trends, the less likely that this precondition can be fulfilled and that the granting of derogations would be justified apart from under the most exceptional circumstances. The justification of the granting of derogations, apart from in the most exceptional circumstances, should be taken as more or less strict depending on the conservation status of the species or population concerned.~~ The conservation status and trends of the species (at biogeographic and population level) is therefore a key aspect for a flexible and proportional approach to the use of derogations. *In line with this principle, it can be summarised that: “the more wolves, the more flexibility”.*^[DS42]

In any case, decisions on the use of derogations and the assessment of the possible effects of the derogations on the conservation status of the population concerned should be based on an accurate knowledge of the ~~concerned~~ wolf population and trends ~~in the area concerned~~^[DS43]. This is necessary to ensure that the decision ~~does not undermine the FCS of the population. is not detrimental to the population’s conservation status.~~

5.3. Decisions to permit derogations and the role of FCS and species action plans

~~Favourable conservation status and a~~ ^[DS44] good and coherent action plan for species can be a good overall framework basis for the application of derogations.

Where Action Plans are established which are designed to maintain or restore, at favourable conservation status, the ^[DS45] ~~ensure a favourable conservation status of~~ the populations concerned, Article 16 of the Habitats Directive allows for the required flexibility through the use of derogations, especially when the population concerned is at a favourable conservation status and the overall action plan can ensure its maintenance.

Derogations to the strict protection of wolf can be more easily justified if requisite (appropriate, effective and verifiable) measures are established and effectively implemented in a Member State for a species to ensure strict protection and to aim for favourable conservation status, this means if:

- There is a good Species Action Plan for the wolf, correctly implemented and based on scientific data
- There should be an as accurate as possible ^[DS46] monitoring of the wolf populations in the country and remarkably in the area concerned
- Adequate preventive and compensatory measures against damages (appropriate, effective and verifiable) have been implemented in the area and are not enough to prevent damages
- Appropriate measures have been implemented to tackle pPoaching (such as criminalisation, enforcement and awareness raising) is under control by appropriate and verifiable measures ^[DS47]
- There is no satisfactory alternative
- Derogation is not detrimental to the population's conservation status, will not affect negatively the FCS of the population in the area concerned ^[DS48]

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