IV

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COMMISSION NOTICE

Guidance document on the strict protection of animal species of Community interest under the Habitats Directive

(2021/C 496/01)

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FOREWORD

Why an updated guidance document on the strict protection of animal species?

The first guidance document on the strict protection of animal species of Community interest under the Habitats Directive ([1]) was published in 2007. Its aim was to provide a better understanding of the provisions for species protection and of the specific terms used.

Following the fitness check of the EU Nature Directives (2014–2016), the European Commission adopted the *Action Plan for nature, people and the economy* ([2]) to promote a better, smarter and more cost-effective implementation of the Directives. Action 1 of the Action Plan called for an update of this guidance document. This was deemed necessary in light of the latest rulings of the Court of Justice of the European Union (CJEU) and to ensure better coherence with broader socio-economic objectives.

The present guidance is the result of this revision process. It takes account of the practical experience gained from implementation of the species protection provisions of the Habitats Directive over the years since the publication of the first version of the guidance.

Purpose of the guidance document

This document focuses on the obligations arising from Articles 12 and 16 of the Habitats Directive. These establish a system of strict protection for the animal species listed in Annex IV(a) to the Directive, while allowing for a derogation from these provisions under defined conditions. The document is mainly based on relevant CJEU judgments and examples of species protection systems in place in various Member States.

The document is destined for national, regional and local authorities, conservation bodies and other organisations responsible for, or involved in, implementation of the Habitats Directive, and stakeholders. It aims to assist them in devising effective and pragmatic ways of applying the provisions, while fully respecting the legal framework. Member States and key stakeholders have been consulted on various drafts of the document and their comments have been taken into consideration.

Limitations of the guidance document

This guide sets out the Commission's understanding of the relevant provisions of the Directive but is not in itself legislative; it does not make new rules but provides guidance on the application of those that exist. Only the CJEU is competent to authoritatively interpret EU law.

The guidance, which will be further updated at regular intervals, should be read in light of any emerging jurisprudence on this subject, and also with experience arising from the implementation of Articles 12 and 16 in the Member States.

Structure of the document

The document is presented in three main chapters. Chapter 1 looks at the place of species protection within the overall scheme of the Habitats Directive. Chapter 2 takes a more in-depth look at the relevant legal provisions of Article 12 of the Directive. Chapter 3 examines the derogation possibilities under Article 16.

The key points arising from the analyses are summarised (in italics) at the beginning of each section. Full references to the Court cases quoted throughout the text are provided in Annex I. Annex II presents the list of animal species covered by the species protection provisions. Annex III provides an example, in the case of the wolf, of how the guidance document can be applied.

([1]) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

([2]) More information: http://ec.europa.eu/environment/nature/legislation/fitness_check/action_plan/index_en.htm

1. CONTEXT

1.1. Species conservation under Directive 92/43/EEC

(1-1) Article 2(1) sets out the overall objective of the Habitats Directive, which is 'to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies'.

In accordance with Article 2(2), the measures taken pursuant to the Directive 'shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest'. These measures, as per Article 2(3), 'shall take account of economic, social and cultural requirements and regional and local characteristics' ([3]).

Therefore, the primary objective of the Habitats Directive is the maintenance or restoration at favourable conservation status of all natural habitats and species of Community interest. Article 1(i) of the Directive defines what is meant by the term 'favourable conservation status' for species ([4]).

(1-2) In order to attain this objective, the Directive has two main sets of provisions. The first set relates to the conservation of natural habitats and habitats of species (Articles 3–11) and the second to the protection of species (Articles 12–16).

(1-3) The provisions on the protection of species (Articles 12–16) apply across the entire natural range of species within the Member States, both within and beyond Natura 2000 sites. These provisions are complementary to those governing Natura 2000 sites, which focus on protecting natural habitats and core areas of habitats of protected species listed in Annex II of the Directive.

(1-4) A directive is binding as to the result to be achieved, but leaves Member States the choice as to the form and methods of achieving that result. Settled case-law clarifies that transposition into national law must be clear and precise, faithful and with unquestionable binding force (see CJEU Cases C-363/85, C-361/88, C-159/99 paragraph 32, C-415/01 paragraph 21, C-58/02, C-6/04 paragraphs 21, 25 and 26, C-508/04 paragraph 80).

(1-5) The interpretation and application of the provisions of the Directive should also take into account **the precautionary principle,** as established in Article 191 of the Treaty on the Functioning of the European Union (TFEU), which aims at ensuring a higher level of environmental protection through preventive decision-taking in the case of risk.

(1-6) It is also important to underline that implementation of the species protection provisions of the Directive requires **a species-by-species approach.** Member States should therefore always consider their implementation actions in light of the intended objective, the species concerned, and the circumstances surrounding each case.

(1-7) These concepts of flexibility and proportionality should not be misunderstood. They do not reduce the obligations on Member States to act in an effective way, but instead provide the authorities with sufficient room for manoeuvre to adapt their way of implementation to specific circumstances (in conservation status terms, but also in social, economic and cultural terms).

([3]) Article 2(3) is reflected, for example, in the provisions of Article 16, which provides for a derogation possibility from the strict species protection regime, inter alia, for imperative reasons of overriding public interest, including those of a social or economic nature. Article 2(3) however does not provide an additional legal basis to derogate from mandatory provisions of this Directive. See, in the context of the selection of Natura 2000 sites pursuant to Article 4(1), judgment of 7 November 2000, Case C-371/98 – *First Cooperate Shipping*, paragraph 25, ECLI:EU:C:2000:600.

([4]) See also '*Reporting under Article 17 of the Habitats Directive – Explanatory Notes and Guidelines for the period 2013–2018*', p. 7, https://cdr.eionet.europa.eu/help/habitats_art17

(1-8) According to the Court, 'Articles 12, 13 and 16 of the Habitats Directive form a coherent body of provisions intended to protect the populations of the species concerned, so that any derogation incompatible with the directive would infringe both the prohibitions set out in Articles 12 and 13 and the rule that derogations may be granted in accordance with Article 16' ([5]). The Court further clarified that 'Articles 12 to 14 and 15a and b of the Directive form a coherent body of provisions which require the Member States to establish strict regimes of protection for the animal and plant species concerned' ([6]). Whatever approach is taken as regards the implementation of these provisions, they will need to respect the overall objective of the Directive, namely to ensure biodiversity and to maintain or restore, at a favourable status, natural habitats and species of Community interest.

The natural range of species and habitats – a dynamic concept

(1-9) The natural range roughly describes the spatial limits within which the habitat or species occurs. It is not identical to the precise localities (the area actually occupied) or territory where a habitat, species or subspecies permanently occurs. Such actual localities or territories might be patchy or disjointed (i.e. habitats and species might not be evenly spread) within their natural range. If the reason for disjunction proves to be natural, i.e. caused by ecological factors, the isolated localities should not be interpreted as a continuous natural range. For example, for an alpine species, the range may be the Alps and the Pyrenees, but not the lowlands between them. However, the natural range includes areas that are not permanently used: for example, for migratory species, their range includes all the areas of land or water that a migratory species inhabits, stays in temporarily, crosses or flies over at any time during its normal migration ([7]).

(1-10) A natural range is not static but dynamic: it can decrease and expand. A natural range can constitute one aspect for the assessment of the conditions of a habitat or species. If the natural range is insufficient in size to allow for the long-term existence of that habitat or species, Member States are asked to define a reference value for a range that would allow for favourable conditions and to work towards this, for instance by fostering expansion of the current range.

(1-11) When a species or habitat spreads on its own to a new area or territory, or when a species has been reintroduced into its former natural range (in accordance with the rules in Article 22 of the Habitats Directive), this territory has to be considered part of the natural range. Similarly, restoring or recreating or managing habitat areas, and certain agricultural and forestry practices, can contribute to the expansion of a habitat or a species natural range. However, individuals or feral populations of an animal species introduced deliberately or accidentally by man to locations where they have never occurred naturally, or to where they would not have spread naturally in a foreseeable future, should be considered to be outside their natural range and consequently not covered by the Directive.

2. **ARTICLE 12**

Text of Article 12

Article 12

1. Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV(a) in their natural range, prohibiting:
(a) *all forms of deliberate capture or killing of specimens of these species in the wild;*
(b) *deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;*
(c) *deliberate destruction or taking of eggs from the wild;*
(d) *deterioration or destruction of breeding sites or resting places.*

2. For these species, Member States shall prohibit the keeping, transport and sale or exchange, and offering for sale or exchange, of specimens taken from the wild, except for those taken legally before this Directive is implemented.

3. The prohibition referred to in paragraph 1(a) and (b) and paragraph 2 shall apply to all stages of life of the animals to which this Article applies.

4. Member States shall establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV(a). In the light of the information gathered, Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.

([5]) Judgment of 20 October 2005, *Commission v UK*, Case C-6/04, ECLI:EU:C:2005:626, paragraph 112, and judgment of 10 January 2006, *Commission v Germany*, Case C-98/03, ECLI:EU:C:2006:3, paragraph 66.
([6]) Judgment of 10 May 2007, *Commission v Republic of Austria*, Case C-508/04, ECLI:EU:C:2007:274, paragraph 109.
([7]) See also Article 1 of the Bonn Convention.

(2-1) Article 12 addresses the protection of species listed in Annex IV(a). The article applies throughout the natural range of the species within the EU and aims to address their direct threats, rather than those of their habitats, with the exception of Article 12(1)(d).

(2-2) Annex IV(a) encompasses a wide variety of species, from large, wide-ranging vertebrates to small invertebrates with very small home ranges. Some species are also listed under Annex II and therefore also benefit from measures aimed at the conservation of their habitats within special areas of conservation (Articles 3 to 10). Others, however, are only listed in Annex IV(a), which means that for them Article 12 (for animal species) and Article 13 (for plant species) provide the principal provisions for achieving the conservation aim of the Directive as stated in Article 2.

(2-3) Before addressing the provisions of Article 12 in detail, it is worth recalling some general legal considerations that have been developed by the CJEU.

2.1. **General legal considerations**

The transposition of Article 12 into national law must be complete, clear and precise. The national provisions must be specific enough to satisfy the requirements of the Directive.

(2-4) The effective implementation of **Article 12 of the Habitats Directive requires full, clear and precise transposition by Member States**. According to established case-law, 'the provisions of Directives must be implemented with unquestionable binding force and with the specificity, precision and clarity necessary to satisfy the requirements of legal certainty' ([8]).

(2-5) According to the Court, 'while the transposition of a directive into domestic law does not necessarily require that the content of the directive be incorporated formally and verbatim in express, specific legislation and, depending on its content, a general legal context may be adequate for the purpose, that is on condition that that context does indeed guarantee the full application of the directive in a sufficiently clear and precise manner' ([9]). The Court has consistently held that, in order to satisfy the requirement of legal certainty, individuals should have the benefit of a clear and precise legal situation enabling them to ascertain the full extent of their rights and, where appropriate, to defend them before the national courts ([10]).

Different types of restriction may be enshrined in legislation in various forms. However, whichever form is used, it must be sufficiently clear, precise and strict. For instance, a prohibition on the use of pesticides where this is likely to have seriously harmful effects on the balance of nature has been held not to express, in a sufficiently clear, precise and strict manner, the need to prohibit the deterioration of breeding sites or resting places of protected animals as laid down in Article 12(1)(d) ([11]).

(2-6) Any provisions establishing a strict protection framework should specifically address Annex IV species and meet all the requirements laid down in Article 12. The Court ([12]) emphasised the importance of this in the *Caretta caretta* (loggerhead sea turtle) case. When asked by the Court to identify the provisions in force in their legal system that it believed met the requirements laid down by Article 12, 'the Greek Government merely listed a series of laws, regulations and administrative measures without referring to any specific provisions capable of meeting those requirements.'

([8]) See in particular 20 October 2005, *Commission v UK*, Case C-6/04, paragraph 27, but also the following judgments: 30 May 1991, *Commission v Germany*, Case C-57/89, ECLI:EU:C:1991:89, paragraphs 18 and 24; 19 September 1996, *Commission v Greece*, Case C-236/95, ECLI:EU:C:1996:341, paragraph 13; 19 May 1999, *Commission v France*, Case C-225/97, ECLI:EU:C:1999:252, paragraph 37; 10 May 2001, *Commission v Netherlands*, Case C-144/99, ECLI:EU:C:2001:257, paragraph 21; 17 May 2001, *Commission v Italy*, Case C-159/99, ECLI:EU:C:2001:278, paragraph 32.

([9]) For instance: *Commission v UK*, Case C-6/04, paragraph 21.

([10]) See to this effect Case 29/84, *Commission v Germany*, ECLI:EU:C:1985:229, paragraph 23; Case 363/85, *Commission v Italy*, ECLI:EU:C:1987:196, paragraph 7; and C-57/89, *Commission v Germany*, ECLI:EU:C:1991:225, paragraph 18.

([11]) Case C-98/03, *Commission v Germany*, paragraphs 67-68.

([12]) See judgment of 30 January 2002, *Commission v Greece*, Case C-103/00, ECLI:EU:C:2002:60, paragraph 29.

Given the specific character of Article 12, the Court ruled that legislative or administrative provisions of a general character, e.g. a mere repetition of the wording of Article 12 in national legislation, do not always satisfy the requirements of species protection or guarantee the effective implementation of Article 12. The formal transposition of Article 12 into national legislation is not sufficient in itself to guarantee its effectiveness. It must be complemented by further implementing provisions to ensure strict protection based on the particularities, and the specific problems and threats faced by species or groups of species listed in Annex IV.

(2-7) When transposing the Directive, Member States must respect the meaning of the terms and concepts used by the Directive to ensure uniformity in its interpretation and application ([13]). This also implies that national transposition measures should guarantee full application of the Directive without modifying its terms, selectively applying its provisions, or adding supplementary conditions or derogations not provided for in the Directive ([14]).

As the Court has observed, 'faithful transposition becomes particularly important in an instance such as the present one, where management of the common heritage is entrusted to the Member States in their respective territories… It follows that, in the context of the [Habitats] Directive, which lays down complex and technical rules in the field of environmental law, the Member States are under a particular duty to ensure that their legislation intended to transpose that directive is clear and precise' ([15]).

For instance, the transposition of Article 12(1)(d) prohibiting only the deterioration or destruction of breeding sites and resting places that are 'clearly perceptible' or 'perfectly known and identified as such', or prohibiting only the deliberate deterioration or destruction of breeding sites or resting places ([16]), is deemed to have modified the substance of Article 12(1)(d) and limit its scope of application. This provision requires Member States to prohibit the destruction of *all* breeding sites and resting sites, whether deliberate or not – and not just those that are well-known. It also excludes the exemption of lawful acts from the prohibition in Article 12(1)(d). This kind of transposition is therefore incompatible with Article 12(1)(d) since it does not prohibit the destruction – deliberate or otherwise – of *all* breeding sites and resting sites.

(2-8) In addition, 'mere administrative practices, which by their nature may be changed at will by the authorities, cannot be regarded as constituting proper compliance with the obligation on Member States to which a Directive is addressed, pursuant to Article 189 of the Treaty' ([17]). Another Court case reinforced this decision ([18]). The existence of national case-law alone, with no specific legal provision, cannot be considered as properly complying with the obligation to fully transpose a Directive. Conversely, 'failure to fulfil obligations may arise due to the existence of an administrative practice which infringes Community law, even if the applicable national legislation itself complies with that law' ([19]).

1 – CJEU case-law: The *Caretta caretta* (loggerhead sea turtle) case on Zakynthos

The *Caretta caretta* case (*Commission versus Greece*, Case C-103/00) was the first judgment on the application of Article 12 of the Habitats Directive for a specific species. The Court had never given an interpretation on its application and scope prior to this judgment.

The loggerhead sea turtle (*Caretta caretta*) is listed in Annexes II and IV to the Habitats Directive as a species of Community interest in need of strict protection. Laganas Bay on the island of Zakynthos is the most important breeding site for this turtle in the Mediterranean and is also a Natura 2000 site.

In 1998, a number of non-governmental organisations exposed the multiple problems facing the species on Zakynthos. This included the uncontrolled use of the island's beaches and the surrounding sea for tourism-related activities, the construction of illegal buildings, the use of mopeds on beaches and other activities with potentially negative impacts on these turtles.

([13]) For instance, judgment of 28 March 1990, *Criminal proceedings against G. Vessoso and G. Zanetti*, Joined Cases C-206 and C-207/88, ECLI:EU:C:1990:145.
([14]) Judgment of 13 February 2003, *Commission v Luxembourg*, Case C-75/01, ECLI:EU:C:2003:95, paragraph 28.
([15]) See for instance *Commission v UK*, Case C-6/04, paragraphs 25–26 and *Commission v Germany*, Case C-98/03, paragraphs 59–60.
([16]) See also *Commission v UK*, Case C-6/04, paragraph 79.
([17]) For example: judgment of 23 February 1988, *Commission v Italy*, Case 429/85, ECLI:EU:C:1988:83, paragraph 12; judgment of 11 November 1999, *Commission v Italy*, Case C-315/98, ECLI:EU:C:1999:551, paragraph 10; judgment of 13 February 2003, *Commission v Luxembourg*, Case C-75/01, paragraph 28, ECLI:EU:C:2003:95.
([18]) *Commission v Austria*, Case C-508/04, paragraph 80; judgment of 15 March 2012, *Commission v Poland*, Case C-46/11, ECLI:EU:C:2012:146, paragraph 28.
([19]) Judgment of 14 June 2007, *Commission v Finland*, Case C-342/05, ECLI:EU:C:2007:341, paragraph 22.

The Commission called on the Greek authorities to provide information on the measures taken to protect the species on this island. Based on this information and the findings of Commission officials on inspection visits, an infringement procedure under Article 258 TFEU was initiated on the grounds that Greece had failed to fulfil its obligations under Article 12(1)(b) and (d) of the Habitats Directive. In the course of the pre-litigation procedure, the Greek authorities maintained that all the appropriate measures to ensure the protection of the turtle had been taken or were in the process of being adopted and implemented.

After an updated assessment of the situation by the Commission in 1999, it was still found to be inadequate and the case was referred to the Court of Justice. More specifically, the Commission alleged that Greece had breached Article 12(1)(b) and (d) of the Habitats Directive, firstly by not adopting a legal framework designed to ensure the strict protection of *Caretta caretta* against any deliberate disturbance during its breeding period and against any deterioration in, or destruction of, its breeding sites and, secondly, by not taking any concrete, effective measures on the ground to avoid such problems.

On 30 January 2002, the Court accepted the Commission's arguments and condemned Greece for its failure to establish and implement an effective system of strict protection for the loggerhead sea turtle *Caretta caretta* on Zakynthos. In particular, the Greek authorities had not taken the requisite measures to avoid disturbance of the species during its breeding period and to prevent activities that may bring about deterioration or destruction of its breeding sites.

After, the 2nd ruling, a new Management Board was established to supervise the nesting beaches and liaise with local authorities (Prefecture, Municipalities, Police, Port authority, Public Land Authority). Codes of conduct were also signed with the NGOs, economic operators and landowners. Following the assessment of the new measures taken to protect the species, the Commission considered that Greece had complied with the Court judgment and on 27 June 2007 decided to close the case.

2.2. **Requisite measures for a system of strict protection**

(2-9) Article 12(1) of the Habitats Directive obliges Member States to take 'the requisite measures to establish an effective system of strict protection' for the species listed in Annex IV in their natural range. This raises several questions as to the definition of certain terms used. While clearly setting out the prohibitions, the Directive does not, for instance, define in detail what is meant by 'requisite' measures or a 'system' of strict protection.

(2-10) It is important therefore to recall that the interpretation and implementation of Article 12(1)(a) to (d) should take into account the aim of the Directive as laid down in Article 2. Thus, the Directive gives a certain margin of manoeuvre to the Member States in establishing a 'system' of strict protection for the species listed in Annex IV. However, this discretionary power is subject to limitations and must respect a number of minimum requirements as detailed below.

2.2.1. *Measures to establish and effectively implement a system of strict protection*

The full and effective application of Article 12 requires: (1) the establishment of a coherent legal framework for the strict protection system; (2) concrete measures to enforce it effectively on the ground; and (3) the application of a set of coherent and coordinated measures of a preventive nature.

(2-11) The full and effective **application of Article 12 requires,** on the one hand, **the establishment of a coherent legal framework**, i.e. the adoption of specific laws, regulations or administrative measures to effectively prohibit the activities indicated in Article 12 **and,** on the other hand, **the application of concrete measures to enforce these provisions** on the ground for the protection of the species listed in Annex IV. This double safeguard is fundamental to the application of Article 12.

The Court has confirmed this approach in Cases C-103/00 (concerning the protection of *Caretta caretta* in Zakynthos ([20])), C-518/04 (concerning the protection of *Vipera schweizeri* in Milos ([21])), C-183/05 (concerning the protection of several Annex IV species in Ireland ([22])), C-383/09 (concerning the protection of *Cricetus cricetus* in France ([23])) and C-504/14 (concerning the protection of *Caretta caretta* in the Kyparissia area ([24])).

(2-12) Thus, Article 12(1) requires both the establishment *and* the implementation of a system of strict protection that effectively prohibits the activities listed therein. Therefore, an adequate system of strict protection for Annex IV species also requires **a set of coherent and coordinated measures of a preventive nature**. This should also apply, where relevant, to cross-border coordination between neighbouring Member States, namely when they share the same population of a protected species.

In the *Cricetus cricetus* case (C-383/09), the Court declared that the transposition of the provision under Article 12(1)d requires, besides the adoption of a comprehensive legislative framework, the implementation of concrete and specific protection measures and the adoption of prevention measures that are coherent and coordinated ([25]) (see also Case C-518/04 ([26]), and Case C-183/05 ([27])). Such a system of strict protection must therefore enable the effective avoidance of deterioration or destruction of breeding sites or resting places of the animal species listed in Annex IV(a) of the Habitats Directive (see Case C-103/00 ([28])).

In the *Skydda Skogen* case (C-473/19 and C-474/19), the Court has confirmed that it is in fact important, for the purposes of achieving the objectives of the Habitats Directive, that the competent authorities be able to anticipate activities that would be harmful to the species protected by that directive, regardless of whether or not the object of the activity in question is the killing or disturbance of these species ([29]).

(2-13) This results directly from the term 'system of strict protection' and also takes account of the need to establish a link between the adopted measures and the objectives of Article 12 and the Directive in general. **These measures must contribute to the goal of maintaining the species in the long term or restoring its population in its habitat, and must be effectively enforced**.

This interpretation is borne out by recitals 3 ([30]) and 15 ([31]) of the Directive, which refer to the encouragement of human activities and to management measures as being necessary for maintaining or restoring species at a favourable conservation status. The recitals themselves do not have any binding legal effect and can never override the substantive provisions of the Directive, but they give a clear indication of intent. So, although the Court does not use the preamble to directly ground a judgment, it is still often used as an aid in interpreting the substantive provisions of secondary legislation ([32]).

(2-14) The need for concrete, coherent and coordinated measures of a preventive nature in order to implement the requirement for the strict protection of Annex IV species does not necessarily imply the establishment of new structures or authorisation procedures at national level. For instance, as regards projects that may affect an Annex IV species, Member States can adapt existing planning procedures to meet the requirements of Article 12. This means that the assessment of the impact on species and their breeding sites and resting places can be built into existing decision-making processes at various levels in a Member State, including, for example, land-use planning decisions or environmental impact assessment procedures for plans and projects.

([20]) *Commission v Greece*, Case C-103/00. See also the judgment of 17 January 1991, *Commission v Italy*, C-157/89, ECLI:EU:C:1991:22, paragraph 14, which concerns Article 7 of Birds Directive 2009/147/EC.

([21]) Judgment of 16 March 2006, *Commission v Greece*, Case C-518/04, ECLI:EU:C:2006:183.

([22]) Judgment of 11 January 2007, *Commission v Ireland*, Case C-183/05, ECLI:EU:C:2007:14.

([23]) Judgment of 9 June 2011, *Commission v France*, Case C-383/09, ECLI:EU:C:2011:369.

([24]) Judgment of 10 November 2016, *Commission v Greece*, Case C-504/14, ECLI:EU:C:2016:847.

([25]) *Commission v France*, Case C-383/09, paragraphs 19 and 20.

([26]) *Commission v Greece*, Case C-518/04, paragraph 16.

([27]) *Commission v Ireland*, Case C-183/05, paragraphs 29 and 30.

([28]) *Commission v Greece*, Case C-103/00, paragraph 39.

([29]) Cases C-473/19 and C-474/19, paragraph 76.

([30]) 'Whereas the maintenance of such biodiversity may in certain cases require the maintenance, or indeed the encouragement, of human activities.'

([31]) 'Whereas a general system of protection is required for certain species of flora and fauna to complement Directive 79/409/EEC; whereas provision should be made for management measures for certain species, if their conservation status so warrants, including the prohibition of certain means of capture or killing, whilst providing for the possibility of derogations on certain conditions.'

([32]) For example *Commission v Germany*, Case C-57/89.

With regard to ongoing activities, Member States can employ planning procedures, regulations or best practice codes (which need to be sufficiently detailed and clear) as tools to implement Article 12 provisions. However, as explained in Section 2.3.4., such approaches and tools complement, rather than replace, formal legal protection.

2 – Good practice example: French environmental authorisation of projects, impact assessment and strict protection of species

Since 2017, the French Environmental Code (Article L181-1) includes an environmental authorisation that must be granted for projects that have impacts on the environment (the nomenclature indicates the types of projects that are concerned). The aim of this authorisation is to ensure that the projects comply with the relevant environmental regulations (water, environmental risks, biodiversity, landscape, etc.) including the provisions on strict protection of species under the Habitats Directive.

Within this framework, an impact assessment, based on ecological studies, is required, which can in turn help define the measures needed to avoid and reduce the impacts on protected species. Indeed, the first goal is to comply with the prohibitions related to protected species. If that is not possible, and thus a derogation from the strict protection regime is needed, a thorough study has to be carried out demonstrating compliance with the conditions for granting a derogation. The case is assessed by the National Council for Nature Protection. The environmental authorisation can only be granted if the project fully complies with all relevant environmental regulations.

Once authorised, the project is submitted to field and administrative controls to ensure that the provisions of the authorisation are respected.

2.2.2. *Measures to ensure favourable conservation status*

Strict protection measures adopted under Article 12 must contribute to fulfilling the main objective of the Directive, namely maintaining or restoring a favourable conservation status.

(2-15) Interpretation of Article 12 has to take into consideration the objective of the Habitats Directive as set out in Article 2, which applies, without distinction, to habitats and species listed in all annexes. Consequently, **strict protection measures adopted under Article 12 should ensure or contribute to the maintenance or restoration, at favourable conservation status, of Annex IV species of Community interest**.

(2-16) Furthermore, Article 12 has to be interpreted in light of Article 1(i), which defines the favourable conservation status of a species. This implies that the measures to be taken must be decided based on the particular circumstances of each situation and taking into account the specificity of each species. For instance, the characteristics of a species, such as its conservation status, may justify more specific or intense protection measures.

In the *Cricetus cricetus* case (C-383/09, paragraphs 37 and 25), the Court stated that the measures implemented 'were not adequate to enable effective avoidance of deterioration or destruction of the breeding sites or resting places of the European hamster.' The Court considered that 'despite the application of the measures set out in the [European hamster] recovery plan (2007-2011) and the mutual obligations of the parties involved in the safeguarding of the species, the biological results obtained to date are insufficient to safeguard that species in France'. Accordingly 'it is vital that the measures in favour of the European hamster are markedly and rapidly improved so as to obtain biological results in the short term which show the recovery of the species.' This means that the system of strict protection has to be adapted to the needs and the conservation status of the species.

3 – Further guidance: EU species action plans for selected species

Since 2008, the European Commission has supported the development of several EU species action plans for selected species listed in the Habitats Directive. The plans are intended to be used as a tool for identifying and prioritising measures to restore the populations of these species across their range within the EU. They provide information about the status, ecology, threats and current conservation measures for each species and list the key actions that are required to improve their conservation status in the EU Member States and to comply with other relevant EU legislation. Each plan is the result of an extensive process of consultation with individual experts in the EU.

— Action Plan for the Conservation of the Common Midwife Toad in the EU

— Action Plan for the Conservation of the Danube Clouded Yellow in the EU

— Action Plan for the Conservation of the European Ground Squirrel in the European Union

— EU Action Plan for the conservation of all bat species in the European Union (2018-2024)

— Pan-European Action Plan for Sturgeons

The plans are intended to assist Member States in the conservation of these species, though they are not legally binding documents and they do not engage the Member States beyond their existing legal commitments under the Directive.

Prepared action plans are available on: http://ec.europa.eu/environment/nature/conservation/species/action_plans/index_en.htm

4 – Good practice: Conservation of the Cantabrian bear in Spain

In Spain, there are three large carnivores: the Iberian lynx (*Lynx pardinus*), the brown bear (*Ursus arctos*) and the wolf (*Canis lupus*). As in other European countries, the last two species have been persecuted throughout the centuries.

By the mid-twentieth century, the population of bears in the Cantabrian Mountains was composed of just 60–70 individuals, which were divided into two subpopulations. Another small population of 20-30 individuals existed in the Pyrenees. The Spanish strategy for the conservation of the Cantabrian bear was adopted in 1999 and updated in 2019. The strategy for the bear populations in the Pyrenees (reintroduced in the French Pyrenees with some individuals also released on the Spanish side) was approved in 2007. Among others, these strategies include measures implementing Article 12 of the Habitats Directive.

In 1992, the first LIFE project was approved for the recovery of the two subpopulations in the Cantabrian mountain range. Since then, 26 projects focusing directly or indirectly on bears have been carried out over the entire distribution area in the north of the Iberian Peninsula. These projects were mostly in the Cantabrian Mountains and Galicia, with some in the Pyrenees. The objectives were to improve the habitat, to end poaching, to gather support and involvement of local populations and actors through awareness raising, to improve connectivity between populations, to fight against poisoning, and to encourage expansion of the populations.

Thanks to support from the national and regional governments and from NGOs, the projects in the Cantabrian Mountains have had considerable success. The attitude of the inhabitants regarding the bear has also improved and poaching has now almost completely disappeared. The current population is estimated at 270–310 bears ([33]), and increasing.

2.2.3. *Measures regarding the situations described in Article 12*

Measures to be taken under Article 12 are circumscribed by the content of the prohibitions and other obligations in this Article. This may include the adoption and implementation of preventive measures that anticipate and address the threats and risks a species may face.

([33]) For more information see:
National strategy or the conservation of the brown bear in the Cantabrian Mountains: https://www.miteco.gob.es/es/biodiversidad/publicaciones/pbl-fauna-flora-estrategias-oso-cantabrico.aspx
National strategy for the conservation of the brown bear in Pyrenees: https://www.miteco.gob.es/es/biodiversidad/temas/conservacion-de-especies/especies-proteccion-especial/ce-proteccion-estr-oso-pirineos.aspx

(2-17) The scope and type of measures taken to establish a system of strict protection are circumscribed by the list of the prohibitions and other obligations in Article 12 (see also Section 2.3 below). Consequently, the measures taken must relate to actions that threaten the species themselves (12(1)(a)–(c), 12(2), 12(3) and 12(4)) or defined elements of their habitats (Article 12(1)(d)). Article 12(1) does not, by itself or in conjunction with Article 2, oblige Member States to take proactive habitat management measures ([34]); it just requires measures to effectively prohibit all activities listed in Article 12(1). In addition, under Article 12(4), 'Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.'

(2-18) Different types of measures may be required for different species listed in Annex IV, and for different situations. This can vary depending on the different ecological requirements of the species and on specific problems and threats faced by the species or groups of species. **It is the responsibility of national authorities to define the measures that are necessary to effectively implement the prohibitions of Article 12(1) and to ensure the strict protection of species**.

(2-19) Therefore, Member States have the obligation both to introduce a prohibition in the legislation (in accordance with Article 12(1)) and to effectively enforce and implement that prohibition, which includes preventive measures (such as raising awareness of the prohibitions in place, monitoring, etc.). It is also evident from the wording of Articles 12 and 1(i), and from the objective of 'maintaining' a favourable conservation status, that Member States are bound by their obligations under Article 12 even before any reduction in species numbers has been confirmed or the risk of a protected species disappearing has become a reality ([35]). Even if a species has a favourable conservation status and is likely to have this in the foreseeable future**, Member States should also take *preventive* measures to protect the species** from activities listed in Article 12.

Indeed, the CJEU has clarified that 'the implementation of the protection system laid down in Article 12(1)(a) to (c) of the Habitats Directive is not subject to the condition that a given activity causes a risk of an adverse effect on the conservation status of the animal species concerned' ([36]) and 'the protection afforded by that provision does not cease to apply to species which have attained a favourable conservation status' ([37]). Furthermore, 'since the implementation of the system of protection laid down in Article 12(1)(d) of that directive is not dependent on the number of specimens of the species concerned, it cannot be dependent (…) on the risk of an adverse effect on the conservation status of that species' ([38]).

(2-20) This view is supported by Cases C-103/00, C-518/04, C-183/05 and C-383/09, where the Court stressed the importance of the preventive character of the measures taken ([39]). The Court rejected the Greek Government's argument that a decrease in the number of nests needed to be proven in order to demonstrate the absence of strict protection for *Caretta caretta*. According to the Court 'the fact that it does not appear that the number of nests of that species has decreased over the last 15 years does not, of itself, call this finding into question', i.e. the absence of a system of strict protection for *Caretta caretta*.

The Court has held that the transposition of Article 12 requires Member States not only to adopt a comprehensive legislative framework but also to implement practical and specific protection measures in that regard and that the system of strict protection presupposes the adoption of coherent and coordinated measures of a preventive nature ([40]). Such a system of strict protection must therefore enable the effective avoidance of deterioration or destruction of breeding sites or resting places of the animal species listed in Annex IV(a) to the Habitats Directive (see, to that effect, Case C-103/00, *Commission v Greece*, European Court Reports 2002, I-1147, paragraph 39).

(2-21) Such an approach is also founded on Article 191 TFEU, according to which 'Union policy on the environment shall aim at a high level of protection', and is based on the precautionary principle and on the principle that preventive action should be taken. Preventive measures anticipate and address the threats and risks a species may face. Consequently, for some species, preventive measures should also form part of the 'requisite measures' to establish the system of strict protection.

([34]) Active management measures in a specific Natura 2000 site may, however, be required if the species concerned is also listed in Annex II of the Directive in line with Article 6(1).

([35]) See in particular paragraph 43 of the Advocate General's opinion and paragraph 31 of the *Caretta caretta* judgment Case C-504/14, and paragraph 21 of the *Vipera schweizeri* judgment Case C-518/04.

([36]) Case C-473/19 and C-474/19, paragraph 57.

([37]) Case C-473/19 and C-474/19, paragraph 78.

([38]) Case C-473/19 and C-474/19, paragraph 84.

([39]) This solution had already been applied in judgment of 2 August 1993, *Commission v Spain*, Case C-355/90, ECLI:EU:C:1993:331, paragraph 15.

([40]) Judgment of 15 March 2012, *Commission v Cyprus*, Case C-340/10, ECLI:EU:C:2012:143, paragraphs 60 and 61.

5 – Further guidance: examples of preventive measures that support effective implementation 'on the ground' of the prohibitions in Article 12

— Information campaigns to raise awareness among the general, or a targeted, public (e.g. landowners) of the protection requirements for certain species and their location, and the location of their breeding sites and resting places.

— Action to ensure that species protection considerations are taken into account by relevant economic activities (e.g. agriculture, forestry or fisheries) that may have an impact on Annex IV species to avoid the negative impacts of certain land or sea use practices. This could include training, codes of conduct, guidance documents, the adaptation of forestry or agricultural plans or fisheries practices, and best practice or administrative procedures.

— Active prevention of likely disturbances (e.g. restricting access to bat caves during sensitive periods to avoid disturbance or vandalism, modification or restriction of agricultural, forestry or fishing practices).

— The identification of particularly damaging activities that need to be subject to specific permits or local control.

— The identification of potentially damaging activities that need to be subject to monitoring.

— The integration into environmental impact assessment and strategic environmental assessment procedures of requirements to assess impacts of projects and plans on Annex IV species and their breeding sites and resting places.

— Inspections and the use of rangers for surveillance.

— Preparation of national conservation plans, which could set out in detail the measures mentioned above and provide practical guidance to local/regional authorities, affected interest groups, etc. on effectively implementing these provisions for specific species.

6 – Good practice example: Killer whale national conservation plan in Spain

In 2017, Spain adopted a killer whale (*Orcinus orca*) conservation plan for the Strait of Gibraltar and Gulf of Cadiz, the two places where the species occurs in Spanish waters. It is the first conservation plan for a marine species approved in Spain. The killer whale population status in the Strait of Gibraltar and the Gulf of Cadiz is described as 'vulnerable' in the Spanish catalogue of threatened species (CEEA) but was assessed as favourable by Spain in its latest Article 17 report. This plan has actions to reduce the threats to killer whales in the area, with the aim of guaranteeing a favourable conservation status.

The main threats are prey reduction by overfishing, interaction with vessels, and acoustic and chemical pollution. The plan therefore includes measures such as prohibition of oil and gas exploration by seismic surveys in certain zones, regulation of whale watching, reduction of the fishing effort to ensure sufficient food resources for the whale population, reduction of pollution in the area, and monitoring of the population.

Other legal acts regarding the cetacean's protection have been adopted. The Royal Decree 1727/2007 establishes protection measures for cetaceans covering, among others, whale-watching activities. The Royal Decree 699/2018 designates the cetacean's migration corridor in the Mediterranean as a marine protected area. It also approves a preventive protection regime and proposes the inclusion of the migration corridor in the list of Specially Protected Areas of Mediterranean Importance within the framework of the Barcelona Convention.

There are also focused projects, such as the LIFE IP INTEMARES project, which implement cetacean conservation measures, such as the analysis of marine traffic and cetacean distribution, to reduce mortality of cetaceans by collision in waters around the Balearic Islands and Canary Islands. Furthermore, there are actions to control recreational activities that involve approaching cetaceans, and measures to promote noise reduction in the sea ([41]).

([41]) For more information see:
Estrategias marinas. [Marine Strategies]
http://www.miteco.gob.es/es/costas/temas/proteccion-medio-marino/estrategias-marinas/
LIFE IP INTEMARES: https://fundacion-biodiversidad.es/es/biodiversidad-marina-y-litoral/proyectos-propios/life-ip-paf-intemares
Sociedad Española de cetáceos. [Spanish cetacean Society] https://cetaceos.com/

7 – Good practice: protecting bat caves in Romania

The Pădurea Craiului, Bi-hor and Trascău Mountains in Romania, are riddled with spectacular underground caves of varying sizes. They are home to important colonies of different bat species that are protected under the Habitats Directive. Bats are very vulnerable to any form of disturbance, especially during their roosting and hibernating periods.

In order to safeguard the existing roosts from disturbance from tourists, a LIFE project ([42]) was launched in 2010 to close the entrances to 15 caves hosting important bat roosts (100 000 bats in Huda lui Papară Cave alone). This was done by placing a specially designed grill or a fence at the entrance to caves in order to control human access whilst still allowing the bats unhindered access.

Guided tours to these caves can still be conducted in small groups but they must follow a code of conduct to ensure they avoid disturbing the bats. Information panels have also been placed at the entrance of the caves to explain why the caves have been closed, and what kind of bats are being protected.

2.2.4. *Provisions of Article 12(1)(a)–(d) and 12(4) in relation to ongoing activities*

For ongoing activities, such as agriculture, forestry or fisheries, the challenge is to apply the species protection provisions of Article 12 in a way that pre-empts any conflicts in the first place. The use of tools such as planning instruments, codes of conduct and practical information and guidance can potentially satisfy conservation needs while also taking into account economic, social and cultural requirements. However, these tools must be accompanied by a legal framework that ensures proper enforcement by the regulatory authorities in case of non-compliance. As for the non-deliberate disturbance or incidental killing of individual specimens during ongoing activities, this must be addressed under Article 12(4).

(2-22) While the application of protective regulations can be clearly linked to project approval procedures (e.g. for construction and infrastructure projects), their application in the case of recurring and widespread activities, such as **agriculture, forestry or fisheries** ([43]), can be a more complex issue.

The Directive does nevertheless apply to these activities as well. Indeed, the CJEU has clarified that the prohibitions in Article 12(1)(a) to (c) of the Habitats Directive may apply to an activity, such as forestry work or land development, the purpose of which is clearly other than the capture or killing, disturbance of animal species or the deliberate destruction or collection of eggs ([44]). By analogy, the same is true for the prohibition in Article 12(1)(d) of the Habitats Directive.

Member States must therefore ensure they meet their obligations to protect the species in Annex IV in the case of ongoing activities as well. This does not necessarily mean that new structures or authorisation procedures need to be introduced at national level. Member States will most likely have in place planning procedures, regulations or best practice codes that could be adapted to incorporate the provisions of Article 12. Nevertheless, independently of the approach chosen to apply Article 12 requirements to ongoing activities (creation of a new mechanism or adaptation of existing mechanisms), Member States must ensure that the strict protection requirements are adequately met. As agriculture, forestry and fisheries differ significantly on this point, each is discussed separately below.

([42]) http://www.batlife.ro/

([43]) As very widespread activities, agriculture, forestry and fisheries are looked at in detail in this chapter. However, while the level of statutory control over ongoing activities may vary, the principles set out in this chapter should be seen as generally applying to other ongoing activities as well (e.g. the maintenance of traffic routes, aquaculture, raw material extraction, tourism, maintenance activities, etc.)

([44]) Case C-473/19 and C-474/19, paragraph 53.

(2-23) As regards **agriculture** ([45]), a number of Member States have opted for preventive measures to ensure compliance with Article 12. This can involve, for instance, the development of **guidance and codes of conduct** (even if they are not legally binding) that are sufficiently detailed and clear. It is useful to note that basic farming practice rules often include the protection of certain landscape features – such as hedges, ponds, etc. – that might also be habitats for species listed in Annex IV. The range of species concerned is, however, very broad and, in some cases, Member States have found it appropriate to produce more detailed species-specific guidance.

The Directive nevertheless requires that **such approaches and tools complement, rather than replace, formal legal protection**, i.e. if these tools (e.g. codes of conduct, best practices) are ignored or not properly implemented, there must be legal procedures in place to effectively enforce the strict species protection system under Article 12.

(2-24) In this context, it should be stressed that the occurrence of protected species in agricultural land is often the result of traditional land-use and farming practices, usually of an extensive nature. Where land-use practices are clearly supportive of the conservation status of a species under consideration, it is obvious that the continuation of such practices should be encouraged. In addition to the requirements under Article 12(1), incidental capture or killing of protected animal species linked to such ongoing activities needs to be monitored and evaluated in accordance with Article 12(4).

(2-25) Applying Article 12 to **forestry** is, in some respects, more complex in that it is more likely that the trees to be harvested are themselves also the habitat (breeding site or resting place) of the Annex IV species concerned. The specific characteristics of the sector, i.e. long production cycles and, consequently, the need for long-term planning, add to the special challenges of species conservation in forests.

In the search for sustainable forest management practices that are consistent with conservation requirements, a variety of approaches has been developed in different Member States to address the issue. Existing approaches vary from detailed forestry planning and prior approval of forest management plans, or general codes of practice, to the pre-notification of felling proposals to enable environmental authorities to intervene where known populations of protected species may be involved.

As in the case of agricultural practices, these preventive approaches can ensure the protection of the species concerned, provided that they are communicated effectively and implemented with good will and sufficient resources. Economic incentives can help promote acceptance for such an approach, as in the case of forest certification schemes, which may require compliance with certain environmental protection provisions, including biodiversity and species protection. The approaches may, of course, need to be adapted to conform to the protection requirements of Annex IV species. However, such approaches do not provide an absolute guarantee, except where full prior approval of forest management plans is obligatory, and must therefore (as indicated above) be supported by an enforceable legal protection regime.

(2-26) **Forestry measures would also comply with Article 12 if they were planned in a way to avoid any of the situations specified in Article 12 from arising in the first place**. An appropriate preventive approach could avoid conflicts with the prohibitions in Article 12 if it excluded any damaging forestry practices when the species is at its most vulnerable, e.g. when breeding. Outside the breeding season, the measures required by Article 12 should be identified on a case-by-case basis, based on the ecological needs of the species, ideally in the framework of forest management plans ([46]) and aiming at avoiding any deterioration or destruction of breeding sites or resting places.

([45]) With respect to the relationship between agriculture and environmental protection, the 2003 reform of the common agricultural policy (CAP) is significant in two key aspects. Firstly, it broke the link between EU subsidies and the productivity of farmland. Since then, the majority of farmers receive a single farm payment no longer related to their productivity. The incentive for farmers to increase productivity is solely determined by economic considerations set by market prices. Secondly, a condition for receiving single farm payments and any other support under the CAP is compliance with a number of statutory management requirements (SMR) including EU rules on public, animal and plant health; animal welfare; and the environment EU as well as observance of a set of basic farming practice rules (good agricultural and environmental conditions – GAECs). Under one of these rules – GAEC 7 – farmers must ensure the retention of landscape features such as walls, hedges, banks, watercourses and trees, bringing knock-on benefits for biodiversity (see https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy_en). See also the European Commission's evaluation of greening, published in December 2017 (https://ec.europa.eu/agriculture/evaluation/market-and-income-reports/greening-of-direct-payments_en) and the EU Court of Auditors report *Greening: a more complex income support scheme, not yet environmentally effective* published in December 2017 (https://www.eca.europa.eu/en/Pages/NewsItem.aspx?nid=9338).

([46]) Joined Cases C-473/19 and C-474/19 – *Föreningen Skydda Skogen* – concerning the application of Article 12 on forestry measures.

The CJEU has clarified that forestry work should be based on a preventive approach taking account of the conservation needs of the species concerned and be planned and carried out so as not to infringe the prohibitions arising from Article 12(1)(a) to (c) of the Habitats Directive, while taking into consideration, as is apparent from Article 2(3) of the directive, the economic, social, cultural, regional and local requirements ([47]). By analogy, the same is true for the prohibition in Article 12(1)(d) of the Habitats Directive.

8 – Good practice example: Bat conservation in forests, Germany

In 2000, the German Association for Landcare (an umbrella organisation in which land users such as farmers and foresters as well as conservationists and local politicians cooperate) carried out an R&D project on the ecology of bats in forests involving 50 experts nationwide. the findings of the project were transformed into a series of recommendations for forest managers which was published by the Federal Agency for Nature Conservation. One of the recommendations, for instance, concerns the need to offer a sufficient number of roost sites to a natural community of bat species for which it is recommended that a 120-year-old commercial forest stand has to permanently provide 25 to 30 tree holes per hectare of suitable tree stand. This equals an average density of 7 to 10 roost trees per hectare.

Since then, several *Länder* (Bavaria, Berlin, Saarland, Schleswig-Holstein) have also recommended, as good practice, the conservation of up to 10 old trees per ha.

9 – Good practice example: Bat protection in Castilla y León, Spain

The regional government of Castilla y León undertook a LIFE project for the protection of several bat species from 1997 to 2000 (LIFE96 NAT/E/003081). The main results were an inventory and mapping of the distribution of bats in the region, together with the successful installation of 5 000 artificial shelters for forest bats and the integration of bat conservation into other socio-economic activities. As a follow-up to this project, the regional government developed two manuals: one for the conservation of individual species and a second listing the measures that need to be applied for forest management to be compatible with the conservation of birds and bats associated with forests. In 2011, a second methodological guide on forest planning in Natura 2000 areas was adopted.

The 'compatible management' manual includes measures such as:

1. In the forest areas used as a refuge by species of forest bats, a minimum protection environment of 15 ha must be left. This must include the group of trees selected by the bats that are then protected.

2. In areas where there is evidence of the presence of these species, trees that could be or become potential bat shelters must be surveyed, marked and preserved.

3. The presence of forest bat specimens must be verified before marking operations.

4. The mosaic of forest and associated habitats must be maintained at the landscape scale, considering that predominantly broadleaved forests are most suitable for the conservation of bats, as well as the groups of mature trees of 10–15 ha.

In 2015, an order was adopted (ORDER FYM/775/2015) in which the conservation plans for all the Natura 2000 sites were approved, along with the plans for their habitat types and species, including individualised plans for each species of bat ([48]).

10 – ECJ Case-Law: Skydda Skogen case – tree felling

Joined Cases C-473/19 and C-474/19

([47]) Case C-473/19 and C-474/19, paragraph 77.

([48]) LIFE Project. Quirópteros/Castilla León – *Priority actions to protect bats in Castilla y León Communitary interesting zones* (LIFE96 NAT/E/003081)
http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=424

A notification of tree felling in respect of a forest area in the Swedish municipality of Härryda was submitted to the Forest Agency. The forest area covered by the notification is the natural habitat of several protected species, including several birds and the Moor Frog, *Rana arvalis* (Habitats Directive Annex IV(a) species). The planned forestry work in that area would lead to specimens of those protected species being disturbed or killed.

The Agency took the view that, on condition that the guidance it provided was followed, the activity would not contravene the prohibitions set in Article 12 of the Habitats Directive, as transposed into Swedish Species Protection Ordinance. Three conservation associations unsuccessfully requested that the Regional Administrative Board take action against the notification of felling and the Agency's advice, and then brought an action before the national court.

The national court decided to stay the proceedings and asked the CJEU to provide a preliminary ruling on questions referring to interpretation of the Birds and Habitats Directives, in particular Article 12 of the Habitats Directive:

— One question asked, in essence, if the terms 'deliberate killing/disturbance/destruction' in Article 12(1)(a) to (c) of the Habitats Directive are to be interpreted so that if the purpose of the measures are manifestly different from the killing or disturbance of species (for example, forestry measures or land development), the prohibitions set in Article 12 only apply in the event of a risk of adverse effects on the conservation status of the species concerned.

— Another question was in essence if the expression 'deterioration/destruction' as regards the animals' breeding sites in Article 12(1)(d) is to be interpreted as the prohibition only applies if the conservation status of the species concerned or the status of its local affected population is likely to deteriorate.

Additionally, the national court asked whether the strict protection in the Directives ceases to be applicable to species for which the objective of the Habitats Directive (favourable conservation status) has been achieved.

Regarding interpretation of Article 12 of the Habitats Directive, the CJEU replied that:

— the prohibitions laid down in Article 12(1)(a) to (c) apply to any measures including those the purpose of which is manifestly different from the killing or disturbance of animal species,

— these prohibitions apply at the level of individual specimens and are not subject to the condition that a given activity causes a risk of an adverse effect on the conservation status of the animal species concerned,

— the provision of Article 12(1)(d) prohibiting deterioration or destruction of breeding sites applies regardless of the number of specimens of the species concerned that are present in the area in question, and cannot be dependent on the risk of an adverse effect on the conservation status of that species,

— the strict species protection pursuant to Article 12(1)(a) to (c) applies to all Annex IV species irrespective of whether they have achieved favourable conservation status or not.

(2-27) Another example of recurring activities is the **maintenance of public infrastructure**. Maintenance measures can be designed in a way to help preserve and connect habitats for strictly protected species, such as the sand lizard (*Lacerta agilis*) on railway lines (e.g. careful maintenance of roadside greenery, railway ballast and riverine vegetation). Member States can draw up good practice guidance for such maintenance measures to help ensure compliance with the requirements of the Habitats Directive.

(2-28) Member States **may also use voluntary measures**, such as contracts for forest-environment-climate services and forest conservation under the common agricultural policy, to contribute to implementation of the Article 12 provisions. Such measures have the potential to successfully combine the preventive approach with (voluntary) proactive habitat management. **Nevertheless, these measures can only complement, but not replace, a formal legal protection.**

(2-29) Applying Article 12 to **fisheries** requires regulating fishing activities to prevent negative effects on strictly protected species, such as deterioration of their breeding or resting places, deliberate capturing or killing of those species, or their bycatch in fishing gear. Application of the necessary preventive measures could be done through planning tools such as fisheries management plans or through fishing licences including specific requirements. To ensure adequate and effective protection, they should be based on a good knowledge of the risks posed by certain types of fishing gear. In addition, specific attention should be paid to areas where there is a risk of interaction resulting in incidental catches.

Since conservation of marine biological resources is the exclusive competence of the European Union under the common fisheries policy, implementation of the necessary measures must be done through this policy framework. The basic rules that apply are set out in Regulation (EU) No 1380/2013 of the European Parliament and of the Council ([49]), which applies an ecosystem-based approach to fisheries management aiming to limit environmental impacts and ensuring coherence with environmental legislation. Different fisheries management tools can be used to implement the necessary prevention measures, such as those under the 'technical measures regulation' (Regulation (EU) 2019/1241 of the European Parliament and of the Council ([50])).

In the framework of the regionalisation process under that Regulation, Member States must submit joint recommendations to the Commission to adopt delegated acts containing the necessary measures. As a general rule, Member States can apply the necessary rules and preventive measures to fishing fleets flying their own flag. For other fleets fishing in the marine territory of Member States, the measures need to be implemented through the Commission's delegated acts. Under Regulation (EU) No 1380/2013, Member States can adopt emergency measures applicable to all vessels under certain conditions in order to alleviate a serious threat to species. They can also take non-discriminatory measures within 12 nautical miles of its baselines applicable to all vessels under certain conditions.

Considering the fact that by-catch is one of the main pressures on marine protected species, particularly cetaceans, turtles and seabirds according to current knowledge, it is very important to adopt and implement effective preventive measures addressing relevant fishing activities. The available mechanisms under the common fisheries policy, and more specifically the technical measures regulation (Regulation (EU) 2019/1241), should be used for that purpose. Preventive measures can, for instance, include modifications of, or restrictions on, certain types of fishing gear, spatial/temporal regulation of fishing activity (e.g. total prohibition on the use of certain fishing gear within an area where such gear represents a threat to the conservation status of species in that area, or a threat to their habitats) or development of alternative gears.

11 – Further guidance: Regulation (EU) 2019/1241

Regulation (EU) 2019/1241 ('technical measures regulation'), which came into force in 2019, amongst other provisions provides for the adoption of technical measures to prevent or mitigate the impacts of fishing gear on species protected under the Habitats Directive and on their habitats. In particular it:

— prohibits certain types of fishing gear and uses, such as driftnets of more than 2,5 km in length which are non-selective and could therefore be damaging to marine life,

— prohibits the catching, retention on board, transhipment or landing of fish or shellfish species on Annex IV of the Habitats Directive except when derogations are granted under Article 16 of that Directive. If caught accidentally the specimen must not be harmed and promptly released back into the sea, except for the purpose of allowing scientific research on accidentally killed specimens, provided this is granted in accordance with Article 16 of the Directive,

— prohibits the catching, retention on board, transhipment or landing of marine mammals or marine reptiles listed in Annexes II and IV to Habitats Directive and of seabirds covered by the Birds Directive. When caught, specimens shall not be harmed and promptly released.

Furthermore, on the basis of the best available scientific advice a Member State may, for vessels flying its flag, put in place mitigation measures or restrictions on the use of certain gear. Such measures shall minimise, and where possible eliminate, the catches of the EU protected species. The Member States shall, for control purposes, inform the other Member States concerned of provisions adopted under paragraph 4 of this Article. They shall also make publicly available appropriate information concerning such measures.

([49]) Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC (OJ L 354, 28.12.2013, p. 22).

([50]) Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005 (OJ L 198, 25.7.2019, p. 105).

Annex XIII lists the mitigation measures that apply, which include the mandatory use of active acoustic deterrent devices for vessels with an overall length of 12 m or more on certain types of fishing gear in specific areas as defined in the annex. In such cases Member States shall take necessary steps to monitor and assess by means of scientific studies or pilot projects, the effects of acoustic deterrent device use over time in the fisheries and areas concerned. Member States having a direct management interest may submit joint recommendations containing necessary measures amending, supplementing, repealing or derogating from the measures listed in Annex XIII, to be adopted by the Commission as delegated acts.

Concerning the habitats of protected species, several areas listed in Annex II of the regulation are closed for certain fisheries. Where best scientific advice recommends an amendment of that list, the Commission is empowered to adopt delegated acts in accordance with the rules set out in the regulation.

(2-30) The overall conclusion that can be drawn from this section is that ongoing activities should ideally be undertaken in such a way that avoids conflicts with species protection provisions arising in the first place. Such an approach also has the advantage of potentially protecting the person engaging in an activity (i.e. from prosecution) as long as that person adheres to these measures. Tools such as planning instruments, systems of prior consent, codes of conduct and practical information or guidance are options to this end. Such measures should:

(a) form part of the 'requisite measures' needed under Article 12 to 'establish and implement an effective system of strict protection';

(b) incorporate the strict protection requirements;

(c) ensure that any harmful action takes full account of the conservation needs of the species or population concerned, and be accompanied by a legal framework for strict protection that ensures adequate enforcement by the regulatory authorities in the case of non-compliance (legal certainty aspects are met); and

(d) help define appropriate levels of surveillance (required under Article 11 of the Directive) and how these should be funded.

2.3. **The specific protection provisions under Article 12**

2.3.1. *Deliberate capture or killing of specimens of Annex IV(a) species*

Article 12(1)(a) prohibits all forms of deliberate capture or killing of specimens of Annex IV(a) species in the wild. It requires the implementation of clear, effective and well-monitored measures to prevent deliberate killing or capture. Good information and guidance by the competent authorities contribute to implementing these provisions in practice. The term 'deliberate' is interpreted by the CJEU as going beyond 'direct intention'. 'Deliberate' actions are to be understood as actions by a person or body who knows that their action will most likely lead to an offence against a species, but intends this offence or, at least, consciously accepts the foreseeable results of his action.

(2-31) Article 12(1)(a) prohibits all forms of deliberate capture or killing ([51]) in the wild of specimens of species listed in Annex IV(a). In accordance with Article 12(3), this prohibition applies to all stages of the life of the animals. According to Article 1(m), 'specimen means any animal or plant, whether alive or dead, of the species listed in Annex IV and Annex V, any part or derivative thereof, as well as any other goods which appear, from an accompanying document, the packaging or a mark or label, or from any other circumstances, to be parts or derivatives of animals or plants of those species.'

([51]) In its judgment of 18 May 2006 (*Commission v Spain*, Case C-221/04, ECLI:EU:C:2006:329, paragraph 69), the Court clarified that it is clear from a reading of the different language versions that 'deliberate' refers to both the capture and killing of protected animal species.

(2-32) In the *Caretta caretta* Case C-103/00 (paragraph 37), the Court referred to the element of 'intent', observing that: 'the use of mopeds on the breeding beaches was prohibited and notices indicating the presence of turtle nests on the beaches had been erected. As regards the sea area around Gerakas and Dafni, it had been classified as an absolute protection area and special notices had been erected there.' According to the Court, the fact that, despite the information available to the public on the need to protect these areas, mopeds were used by people on the beach and pedalos and small boats were present in the surrounding sea area ([52]) constituted deliberate disturbance of the turtles during their breeding period for the purposes of Article 12(1)(b). Thus, the Court 'seems to interpret the term "deliberate" in the sense of conscious acceptance of consequences' ([53]).

(2-33) In Case C-221/04 ([54]), the reasoning of the Court was more specific. In that case, the Commission brought an action before the Court because, due to the authorisation by the authorities in Castilla y León of snares in several private hunting areas, Spain had failed to comply with Article 12(1)(a) as regards the protection of the otter (*Lutra lutra*). The Court recalled the findings of the *Caretta caretta* case and stated that '**for the condition as to "deliberate" action in Article 12(1)(a) of the Directive to be met, it must be proven that the author of the act intended the capture or killing of a specimen belonging to a protected animal species or, at the very least, accepted the possibility of such capture or killing'** ([55]).

This was used as a 'requisite criterion' by the Court, which – in that case – found that the contested permit related to fox hunting and accordingly was not in itself intended to allow the capture of otters. In addition, the Court stressed that the presence of otters in the area had not been formally proven, so that it had also not been established that the Spanish authorities knew that they risked endangering otters by issuing the contested permits for fox hunting. Thus, the Court concluded that the requisite criteria – for determining that the capture or killing of a specimen belonging to a protected animal species was deliberate – had not been met ([56]).

In Case C-340/10, the Court declared that Cyprus had failed to fulfil its obligations under Article 12(1) by tolerating activities that seriously compromised the ecological characteristics of Paralimni Lake and by not having taken the protective measures necessary to maintain the population of *Natrix natrix cypriaca* (Cypriot grass snake) and by not having taken the requisite measures to establish and apply a system of strict protection for that species.

(2-34) On the basis of the approach taken by the Court in Cases C-103/00 and C-221/04, 'deliberate' actions are to be understood as actions carried out by a person who is aware that these actions will lead to capturing or killing a species listed in Annex IV, or consciously accepts the possibility of such an offence.

In other words, **the provision applies not only to a person who fully intends to capture or kill a specimen of a protected species but also to a person who is sufficiently informed and aware of the consequences his or her action will most likely have and nevertheless still performs the action, which leads to the capturing or killing of specimens** (e.g. as an unwanted but accepted side-effect) (conditional intent).

National authorities should, using all appropriate means, proactively disseminate information about protected species occurrence and about any existing rules for their protection. The beach notices indicating the presence of turtle nests on the beaches in the *Caretta caretta* case is an example of this.

(2-35) This need for information is also highly relevant for species caught accidentally during fisheries operations conducted in breach of fisheries rules. The EU has adopted certain rules to protect cetaceans from capture and killing in fishing gear. Regulation (EU) 2019/1241 prohibits certain vessels from using certain types of fishing gear in specific areas without the simultaneous use of active acoustic deterrent devices, which can prevent entanglement of harbour porpoises in fishing nets (see also Section 2.3.6). In such cases, Member States must not only ensure that the use of acoustic deterrents is effectively controlled and enforced but also that the fishers are fully informed of this obligation.

([52]) Since the Court emphasised the fact that both the riding of mopeds and the presence of small craft were not isolated occurrences, in practical terms it seems that the repeated character of the violations was decisive in proving the existence of deliberate disturbance.
([53]) See paragraph 118 of the Advocate General's Opinion in Case C-6/04.
([54]) *Commission v Spain*, Case C-221/04.
([55]) *Commission v Spain*, Case C-221/04, paragraph 71.
([56]) *Commission v Spain*, Case C-221/04, paragraphs 72–74.

12 – Good practice example: Working with fishers to bring about the recovery of *Monachus monachus* in Greece

The monk seal *Monachus monachus* is a priority species under the Habitats Directive and is listed in both Annexes II and IV. Greece has had a conservation programme for the species in place for the last couple of decades. The programme has included measures for the rescue and rehabilitation of injured individuals, the establishment of protected areas and for management, monitoring, public awareness, environmental education and creation of an appropriate legal framework. A key element of these conservation efforts has been the work done with fishers.

The Hellenic Society for the Study and Protection of the Monk Seal (MOm) has put in place a number of measures aimed at improving the often conflictual relationship between fishers and monk seals. In 2009, it developed an *Action Plan for the mitigation of monk seal and fisheries interactions in Greece*, which identifies numerous legislative, management and technical measures that limit the risks to the species and protects its food source. Very importantly, these measures also limit the financial burden on fishers resulting from damage caused to their fishing gear and to their fish catch.

There has been extensive research on food preferences of the monk seal, combined with research on identified hot spots (i.e., areas with significant monk seal presence) in terms of tonnage and density of fishing vessels, use of fishing gear, and impacts on fisheries. Fishing businesses and other stakeholders, such as port police, fishery departments and fish farm owners, have been directly involved in research actions. Fishers have also received training on how to act in cases of entangled monk seals, and experimental fishing methods have been tested in collaboration with them. A tailor-made communication campaign has also targeted the fishing sector ([57]). All of this has led to a significant reduction in the number of monk seals accidentally caught or killed by fishers and a steady recovery of the monk seal population in Greece.

2.3.2. *Deliberate disturbance of Annex IV(a) species, particularly during periods of breeding, rearing, hibernation and migration*

(2-36) Article 12(1)(b) prohibits the deliberate disturbance of Annex IV species especially during periods of breeding, rearing, hibernation and migration, when the species are more vulnerable ([58]). Article 12(3) states that this prohibition applies to all stages of the life of the species concerned.

2.3.2.a) Deliberate disturbance

Any deliberate disturbance that may affect the chances of survival, the breeding success or the reproductive ability of a protected species, or that leads to a reduction in the occupied area or to relocation or displacement of the species, should be regarded as a 'disturbance' in line with the terms of Article 12.

(2-37) Neither Article 12 nor Article 1 of the Habitats Directive contains a definition of the term 'disturbance' ([59]). The provision is not explicitly restricted to 'significant' disturbances, as is the case under Article 6(2) of the Directive, but the scope of the provision has to be interpreted in light of the Directive's overarching objective.

([57]) LIFE MOFI:
https://webgate.ec.europa.eu/life/publicWebsite/project/details/2592
Action Plan for the mitigation of the negative effects of monk seal-fisheries interactions in Greece — summary report in English (https://www.monachus-guardian.org/library/mom09a.pdf).
National Strategy and Action Plan for the Conservation of the Mediterranean Monk Seal in Greece, 2009–2015 (https://www.monachus-guardian.org/library/notarb09b.pdf www.mom.gr).

([58]) In *Commission v Luxembourg*, Case C-75/01, paragraphs 53–54, the Court declared that Luxembourg had failed to ensure the full and complete transposition of Article 12(1)(b), since deliberate disturbance of species was not prohibited during the period of migration.

([59]) However, Article 6 guidelines contain some useful information on the term in relation to habitats. See *Managing Natura 2000 sites – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC* (https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_._nov_2018_endocx.pdf).

As already mentioned above, implementation of the protection regime prescribed in Article 12(1)(a) to (d) of the Habitats Directive 'is not subject to the condition that a given activity causes a risk of an adverse effect on the conservation status of the animal species concerned' ([60]) and 'the protection afforded by that provision does not cease to apply to species which have attained a favourable conservation status' ([61]).

It is clear that **any activity that deliberately disturbs a species to the extent that it may affect its chances of survival, breeding success or reproductive ability, or leads to a reduction in the occupied area or the relocation or displacement of the species, should be regarded as a 'disturbance'** under the terms of Article 12.

(2-38) Considering their specific life histories (in particular their reproductive strategy or mobility) and the often complex social interactions of some animals, disturbance of individuals can often have impacts on population levels. For example, this would be the case if disturbing a pregnant female or separating a mother from calf of large, long-living and highly mobile animals with low fecundity, such as marine mammals.

(2-39) Generally, the intensity, duration and frequency of repetition of disturbances are important parameters when assessing their impact on a species. Different species will have different sensitivities or responses to the same type of disturbance, which has to be taken into account. Factors causing disturbance for one species might not create disturbance for another. Also, the sensitivity of a single individual of a certain species might be different depending on the season or on certain periods in its life cycle (e.g. breeding period).

Article 12(1)(b) takes into account this possibility by stressing that deliberate disturbances should be prohibited, particularly during the sensitive periods of breeding, rearing, hibernation and migration. It also has to be considered that disturbance (e.g. by noise, source of light) does not necessarily always directly affect the physical integrity of a species. It can also have an indirect negative effect on the species (e.g. by forcing them to use lots of energy to flee: bats, for example, when disturbed during hibernation, heat up as a consequence and take flight, so are less likely to survive the winter due to high loss of energy resources).

(2-40) **A case-by-case approach is therefore required.** The competent authorities will have to reflect carefully on the level of disturbance that is to be considered harmful, taking into account the specific characteristics of the species concerned and the situation, as explained above. For instance, repeated disturbance of cetaceans by whale-watching boats could lead to significant impacts on individual specimens, with negative consequences for the local population. On the other hand, sporadic disturbances without any likely negative impact on the individual animal or local population, such as for example scaring away a wolf from entering a sheep enclosure in order to prevent damage, should not be considered as disturbance under Article 12.

(2-41) The disturbance also has to be 'deliberate' in order to fall within the scope of Article 12(1)(b) (for definition of 'deliberate', see Section 2.3.1). Again, in the *Caretta caretta* Case C-103/00, the Court analysed each of the various activities on the breeding beaches with a view to establishing a causal link between those activities and the disturbance of the species. It found, first of all, that riding mopeds on a breeding *Caretta caretta* beach was likely to disturb this species, mainly because of the noise nuisance, particularly during the egg laying, incubation and hatching period and when the young turtles were making their way out to sea. The presence of small craft close to the breeding beaches also constituted a threat to the lives and well-being of the turtles. In the eyes of the Court, this sufficed to constitute, for the purposes of Article 12(1)(b), a deliberate disturbance of the species in question during its breeding period.

([60]) Case C-473/19 and C-474/19, paragraphs 57 and 84.
([61]) Case C-473/19 and C-474/19, paragraph 78.

13 – CJEU case-law: Disturbance of the loggerhead sea turtle (*Caretta caretta*) in the Kyparissia area

The loggerhead sea turtle (*Caretta caretta*) is listed in Annexes II and IV of the Habitats Directive and therefore, in need of strict protection. The Mediterranean Sea is a nursery for juveniles, as well as a popular place for adults in the spring and summer months. Greece is the most popular nesting site along the Mediterranean, with more than 3 000 nests per year. Laganas Bay in Zakynthos hosts the largest Mediterranean nesting area, followed by Kyparissia Bay (a Natura 2000 site (GR2550005)), which benefits from a well-preserved dune system and a coastal forest, but is threatened by uncontrolled developments.

Two Court cases (C-103/00 and C-504/14) have dealt with the application of Article 12(1)(b) and (d) to establish and implement an effective system of strict protection for the loggerhead sea turtle in these areas. By not implementing appropriate measures to avoid the disturbance of the species during its breeding period and the deterioration or destruction of its breeding sites, the Court concluded that Greece had failed to fulfil its obligations under the provisions of the Directive.

In the absence of an integrated and coherent national legislative framework, including the lack of an approved management plan, the Court ruled that the strict protection of the loggerhead sea turtle and its breeding sites cannot be ensured. It does not suffice for a system of strict protection to establish a piecemeal set of isolated measures that concern environmental protection in general but are not designed to prevent, by specific means, all deliberate disturbance of the species concerned during the period of breeding and all activity likely to cause deterioration or destruction of its breeding sites ([62]).

14 – Further guidance: Addressing the impacts of underwater anthropogenic noise on cetaceans

Activities that can cause disturbance of strictly protected marine species, such as cetaceans, include shipping or offshore windfarms through continuous noise and construction, oil and gas exploration, or military activities through impulsive noise. The consequences for cetaceans range from disturbance and masking of the sound used in communication, to short and long-term hearing impairment, physical injuries and even death. Combined with the additional effects of stress, confusion and panic, this can be devastating for individual animals and for whole populations.

As regards shipping, Member States can consider a wide range of preventive measures, including reducing the speed of vessels or rerouting the traffic. Concerning seismic surveys using airguns or offshore construction using pile driving, these activities usually require permits. Therefore, for such plans and projects, the necessary preventive measures can be proposed in the context of environmental impact assessments under the Strategic Environmental Assessment and Environmental Impact Assessment directives.

The challenges in defining appropriate mitigation measures have been recognised on the international level and relevant methodological guidelines have been adopted, for example by ACCOBAMS ([63]) and ASCOBANS ([64]) focusing on cetaceans, while the Convention on Migratory Species produced guidelines on environmental impact assessments for marine noise-generating activities. These guidance documents provide a very useful framework for ensuring compliance with the rules under the Habitats Directive. However, their application should always take into account the latest scientific and expert knowledge in the field and should be based on detailed considerations of each particular activity and its effects on particular species.

([62]) *Sources:* https://rm.coe.int/threats-to-marine-turtles-in-thines-kiparissias-greece-complainant-rep/168073e91b
Judgment of CJEU (C-504/14): http://curia.europa.eu/juris/liste.jsf?language=en&num=C-504/14

([63]) https://accobams.org/

([64]) https://www.ascobans.org/

15 – Further guidance on seismic exploration and its potential impact on marine mammals, Ireland

Ireland has developed a robust regulatory and management regime for seismic exploration in order to avoid potentially significant impacts on all marine mammal species both within and outside Natura 2000 sites. In 2014, The Department of Arts, Heritage and the Gaeltacht published a comprehensive guidance document on how to 'Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters' ([65]). The Guide describes the kinds of risks that may arise (e.g. from dredging, drilling, pile driving, geophysical acoustic surveys, blasting) and explains how to carry out a risk assessment, supported by worked up examples. It then goes on to describe the regulatory responses that should be given (e.g. no consent, consent with conditions …)

2.3.2.b) Periods of breeding, rearing, hibernation and migration

The periods of breeding, rearing, hibernation and migration are considered as especially sensitive periods in relation to disturbance. These periods can only be defined using a species-by-species approach, due to ecological, biological and behavioural differences between species.

(2-42) The periods of breeding, rearing, hibernation and migration are considered to be **especially sensitive periods for a species in relation to its disturbance**. There is, however, no definition of these terms in the Habitats Directive. As Annex IV(a) of the Directive includes a very wide range of species, which are very different ecologically, biologically and behaviourally, it is necessary to use, once more, a 'species-by-species' approach when defining periods of breeding, rearing, hibernation and migration (where these periods apply at all).

(2-43) For the purposes of Article 12, the following definitions should be applied:

— *Period of breeding and rearing:* This period may include (where applicable) the period of courtship, mating, nest construction or selection of egg laying or parturition site, parturition or egg laying, or production of offspring where reproduction is asexual, egg development and egg hatching, and rearing of young.

— *Period of hibernation:* Hibernation is a period of time when an animal becomes inactive and remains in a state of sleep, a torpid or resting state, usually during winter. Usually such a state is accompanied by a lowered body temperature and slowed heartbeat and breathing. Hibernation allows an animal to survive harsh conditions by using less energy than if it were active (for example some bats, rodents, amphibians or reptiles).

— *Period of migration:* Migration is the periodic movement of specimens from one area to another as a natural part of their life cycle, usually in response to seasonal changes or changes in the food supply.

2.3.3. *Deliberate destruction or taking of eggs from the wild*

(2-44) Under Article 12(1)(c), the deliberate destruction or taking of eggs from the wild is forbidden.

2.3.4. *Deterioration or destruction of breeding sites or resting places*

(2-45) Article 12(1)(d) is a stand-alone provision. Unlike the other prohibitions of Article 12, it does not concern the specimens directly but instead aims to protect important elements of their habitats, since it prohibits the deterioration or destruction of breeding sites or resting places. In addition, while points (a), (b) and (c) of Article 12(1) use the term 'deliberate', this is not the case for point (d).

([65]) https://www.npws.ie/sites/default/files/general/Underwater%20sound%20guidance_Jan%202014.pdf

2.3.4.a) Consequences of the word 'deliberate' not being included in Article 12(1)(d)

The fact that the word 'deliberate' is not used in Article 12(1)(d) underlines the importance of preventive action by Member States to avoid all likely deterioration or destruction of breeding sites or resting places caused by humans. Cases of deterioration or destruction resulting from natural causes (i.e. not directly the consequence of human activities, e.g. natural disasters), or caused by unforeseeable events, do not fall within the scope of Article 12(1)(d).

(2-46) Under Article 12(1)(a-c), only deliberate acts are prohibited and must be prevented, whereas under subparagraph (d) a deliberate act is not required as a necessary precondition ([66]). **Article 12(1)(d) requires all acts resulting in deterioration or destruction of breeding sites or resting places to be prohibited irrespective of whether they are deliberate or not** ([67]).

The Court further confirmed that 'by not limiting the prohibition laid down in Article 12(1)(d) of the Directive to deliberate acts, which it has done in respect of acts referred to in Article 12(1)(a) to (c), the Community legislature has demonstrated its intention to give breeding grounds or resting places increased protection against acts causing their deterioration or destruction. Given the importance of the objectives of protecting biodiversity which the Directive aims to achieve, it is by no means disproportionate that the prohibition laid down in Article 12(1)(d) is not limited to deliberate acts' ([68]).

(2-47) In criminal law, a distinction is made between intentional or deliberate acts and unintentional acts. 'Deliberate' also covers situations where the result is not directly intended but the person ought to have taken into account the consequences that could follow from the action. This clearly indicates that, when omitting the word 'deliberate' from subparagraph (d), the intention was to include non-deliberate acts leading to deterioration or destruction in the scope of this provision as well. This introduces a special quality to this provision: all deterioration or destruction of breeding sites or resting places is to be effectively prohibited, i.e. avoided.

(2-48) This does not, however, mean that proactive habitat management measures are required under Article 12(1)(d) of the Directive (e.g. to actively manage a meadow for butterflies). Nonetheless, in order to protect breeding sites or resting places from deterioration or destruction, a simple prohibition in a legal text is not sufficient and must be supported by an adequate enforcement mechanism, including preventive measures. Under a strict protection system, **Member States should anticipate the threats that sites may face from human action** and take measures to ensure that those likely to commit an offence (intentionally or not) are aware of the prohibition in force and act accordingly.

(2-49) In the first *Caretta caretta* case ([69]), the Court declared that the presence of buildings on a beach used by the species for breeding was liable to lead to the deterioration or destruction of the breeding site within the meaning of Article 12(1)(d) of the Directive ([70]). Significantly, the Court did not require that these buildings were 'illegal'. The mere fact that buildings had been built there and were liable to cause deterioration and destruction was the overriding argument for the Court. Therefore, the construction of buildings on a beach classified as 'an absolute protection area' and, in particular, where in addition 'special notices had been erected', is sufficient to constitute an infringement of Article 12(1)(d).

([66]) It is worth mentioning that this point constitutes one of the differences between the Habitats Directive and the Bern Convention. While this specific part of Article 12 lacks the word 'deliberate', the term appears in the comparable wording of Article 6 of the Bern Convention.

([67]) In its judgment of 20 October 2005 (*Commission v UK*, Case C-6/04, ECR p. 9017, paragraph 79), the Court observed that 'by prohibiting only the deliberate damaging or destruction of breeding sites or resting places of the species concerned, the legislation applicable in Gibraltar does not satisfy the requirements of Article 12(1)(d)'. The Court followed the same approach in its judgment of 11 January 2007 (*Commission v Ireland*, Case C-183/05, not yet published in the ECR, paragraph 47): 'by providing that acts which unintentionally interfere with or destroy breeding sites or resting places of wild species do not constitute an offence, Section 23(7)(b) of the Wildlife Act does not satisfy the requirements of Article 12(1)(d) of Directive 92/43, which prohibits such acts, whether they are intentional or not'.

([68]) See the judgment of 10 January 2006, *Commission v Germany*, Case C-98/03, ECR p.53, paragraph 55.

([69]) *Commission v Greece*, Case C-103/00.

([70]) According to paragraph 38 of the judgment, 'there is no doubt that the presence of buildings on a breeding beach such as the one at Dafni is liable to lead to the deterioration or destruction of the breeding site within the meaning of Article 12(1)(d) of the Directive'.

(2-50) The Court also clarified in Case C-441/17 (concerning the protection of certain Annex IV saproxylic beetle species – *Buprestis splendens, Cucujus cinnaberinus, Phryganophilus ruficollis* and *Pytho kolwensis* – in Białowieża Forest, Poland) ([71]) that the prohibitions in Article 12 of the Habitats Directive apply, irrespective of the number of specimens of the species covered by the strict protection. More recently, the Court has reiterated that 'the implementation of the system of protection laid down in Article 12(1)(d) of that directive is not dependent on the number of specimens of the species concerned' ([72]). In other words, the fact that a species may have a strong presence within a given location and that its survival in the area is not threatened does not diminish the obligations of strict species protection. Such facts should be taken into account in the derogation process instead. The opposite scenario is also true, i.e. the fact that an area constitutes a breeding site or a resting place only for one or few individuals of a species listed in Annex IV(a) does not diminish the obligation to protect this area against actions that may deteriorate or destroy it.

(2-51) On the other hand, there will be occasions when the deterioration of natural habitats takes place naturally (including through natural succession after cessation of a certain land use like agriculture) or is caused by unforeseeable events, so that the habitat is no longer a suitable breeding site or resting place for certain species. In this case, where no act has been committed to provoke the deterioration or destruction of breeding sites or resting places, but where this has arisen through natural causes, Article 12(1)(d) does not apply ([73]).

16 – CJEU case-law: Failure to guarantee the strict protection of certain saproxylic beetles

The Puszcza Białowieska Natura 2000 site (PLC 200004 Białowieża Forest) includes the Białowieża National Park and management forests of three forest districts (Białowieża, Browsk and Hajnówka). It is one of the best-preserved natural deciduous and mixed forests in Europe, characterised by large quantities of old trees and a high volume of dead wood. It is a unique biodiversity hotspot and an important source of scientific knowledge, particularly for ecological processes.

Because of the constant outbreak of spruce bark beetle (caused, among others, by changing climate conditions), the Polish Minister for the Environment approved an amendment in 2016 of the 2012 Forest Management Plan. This authorised almost a tripling of harvesting of timber for the period from 2012 to 2021 in the Białowieża Forest District alone, and the carrying out of some forest activities in areas excluded from economic activities, such as sanitary felling or artificial regeneration. Subsequently, in 2017, the Director-General of the State Forest Office adopted, for the three forest districts of Białowieża, Browsk and Hajnówka, a decision concerning the felling and removal of trees affected by spruce bark beetle for public safety reasons and to reduce the fire risk in all age classes of the forest. Work thus began on the removal of dry trees and trees colonised by spruce bark beetle from these three forest districts across approximately 34 000 hectares, while in the Puszcza Białowieska Natura 2000 site this extended over 63 147 hectares.

The European Commission took the view that the Polish authorities had failed to ascertain that those forest management measures would not adversely affect the integrity of the Puszcza Białowieska Natura 2000 site. The Commission therefore brought an action before the Court of Justice in July 2017 for a declaration that Poland had failed to fulfil its obligations under Article 6(3) and Article 12(1)(a) and (d) of the Habitats Directive. In its ruling of 17 April 2018 ([74]), the CJEU declared that an 'appropriate assessment' had not been carried out properly and that the Government of Poland had failed to fulfil its obligations to protect Białowieża Forest. The Court further highlighted that there is scientific controversy regarding the most appropriate measures to stop the spread of spruce bark beetle. Consequently, the Polish authorities should not have increased logging, since there was no scientific certainty that the active forest management operations would not have lasting adverse effects on the integrity of Białowieża Forest and on the protected species (among others saproxylic beetles).

([71]) Judgment of 17 April 2018, *Commission v Poland*, Case C-441/17, ECLI:EU:C:2018:255.

([72]) Case C-473/19 and C-474/19, paragraph 84.

([73]) The appropriate instrument for dealing with deterioration due to natural causes or unforeseeable events is Article 6(2) of the Habitats Directive, which, however, only applies to Natura 2000 sites. In its judgment of 20 October 2005 (*Commission v UK*, Case C-6/04, ECR p. 9017, paragraph 34), the Court stated that 'in implementing Article 6(2) of the Habitats Directive, it may be necessary to adopt both measures intended to avoid external man-caused impairment and disturbance and measures to prevent natural developments that may cause the conservation status of species and habitats in SACs to deteriorate.'

([74]) Judgment of 17 April 2018, *Commission v Poland*, Case C-441/17, ECLI:EU:C:2018:255.

The Court also clarified that the prohibitions in Article 12 of the Habitats Directive apply irrespective of the number of specimens of the species covered by the strict protection regime. In other words, the fact that a species may have a strong presence within a given location and that its survival in the area is not threatened does not waive the obligations of strict species protection. This should be taken into account in the derogation process instead.

17 – Good practice example: Wind farm sensitivity map for birds and bats in Flanders (Belgium)

Wildlife sensitivity maps are recognised as an effective tool for identifying areas where the development of renewable energy might affect sensitive communities of wild plants and animals, and thus should be avoided. They can be used to identify at an early stage in the planning process areas containing ecological communities sensitive to wind energy developments. Wildlife sensitivity maps typically inform strategic planning decisions during the initial site selection phase of the development process and therefore are intended to operate at a landscape scale, often with regional, national or multi-national coverage.

The wind farm sensitivity map for birds and bats in Flanders aims to indicate areas where siting wind turbines may pose a risk to birds or bats. It is intended to inform and guide more site-level assessments and strategic planning. It is an example of a multi-species sensitivity map and demonstrates how dissimilar groups can be assessed in a single tool.

The map classifies the region into four categories of high, medium and possible risk, as well as low risk/no data. It includes a GIS-based vulnerability map for birds, which is made up from several component maps including information on important bird areas and migration routes. The sensitivity maps and accompanying guidelines are frequently used in siting decisions in Flanders. Project developers and consultancies use them for strategic planning and as 'starting point' for more detailed site-level project assessments. Local and regional authorities apply them for the same purpose and for checking if project developers and consultancies did their job well.

The map also includes information on bats but differs from the thematic maps for birds in that it is based on the identification of a suitable habitat (using aerial photographs and land cover field inventory), which was used as a predictor of bat presence. However, it should be noted that the level of data available on bats is much lower than for birds. Consequently, greater caution should be exercised when interpreting the sensitivity forecasts for bats.

Source: Wildlife sensitivity manual https://ec.europa.eu/environment/nature/natura2000/management/docs/wildlife%20manual%20final.pdf

2.3.4.b) Identification of 'breeding sites and resting places'

Breeding sites and resting places must be strictly protected because they are crucial to the life cycle of animals and are vital elements of a species' entire habitat. Article 12(1)(d) should therefore be understood as aiming to safeguard the continued ecological functionality of such sites and places, ensuring that they continue to provide all the elements needed by the animal to rest or to breed successfully. The protection applies all year round if these sites are used on a regular basis.

(2-52) In light of the objectives of the Directive, breeding sites and resting places require strict protection because they are crucial to the life cycle of animals and are very important elements of a species' entire habitat ([75]), needed to ensure its survival. Their protection is directly connected with the conservation status of a species. **The provision in Article 12(1)(d) should therefore be understood as aiming to safeguard the ecological functionality of breeding sites and resting places**. Thus, Article 12(1)(d) provides that such sites and places are not to be damaged or destroyed by human activities so that they can continue to provide all that is required for a specific animal to rest or to breed successfully.

([75]) Article 1(f) defines the 'habitat of a species' only as 'an environment defined by specific abiotic and biotic factors, in which the species lives at any stage of its biological cycle'.

(2-53) In Case C-383/09, Advocate General Kokott interpreted 'breeding sites and resting places' to extend not only to the burrows but also to the surrounding habitats. The Court judged not only direct destruction of burrows but also the processes of urbanisation and changes in crop structure in wider areas as failing to fulfil obligations under Article 12(1)(d) ([76]).

(2-54) Thus, it follows from Article 12(1)(d) that such breeding sites and resting places also need to be protected when they are used only occasionally or are even abandoned ([77]) but where there is a reasonably high probability that the species concerned will return to these sites and places. If, for example, a certain cave is used every year by a number of bats for hibernation (because the species has the habit of returning to the same winter roost every year), the functionality of this cave as a hibernating site should be protected in summer as well so that the bats can reuse it in winter.

(2-55) The identification of general criteria for breeding sites and resting places is difficult, because Annex IV(a) lists species from many taxa with many different life history strategies. It is not possible to provide a rigid definition of 'breeding site' and 'resting places' that will apply to all taxa. Any interpretation of the terms 'breeding sites' and 'resting places' must therefore take into account this variety and reflect different prevailing conditions. The following general definitions aim at providing some guidance in this regard and they are based on the assumption that the sites in question can be identified and reasonably delimited. They are intended to be used as a checklist of elements to be considered as not all these elements will be applicable to all species. Knowledge gaps for species can also be identified here. The two definitions below are detailed in separate sections, though in practice they will often interlink and overlap and so could be considered together.

(2-56) For the purposes of Article 12, the following definitions should be applied.

— *Breeding sites*

Breeding is defined here as mating, giving birth to young (including egg laying) or production of offspring where reproduction is asexual. A breeding site is defined here as the areas needed to mate and to give birth in, and covers also the vicinity of the nest or parturition site, where offspring are dependent on such sites. For some species, a breeding site will also include associated structures needed for territorial definition and defence. For species that reproduce asexually, a breeding site is defined as the area needed to produce offspring. Breeding sites that are used regularly, either within or between years, must be protected even when not occupied.

The breeding site may thus include areas required for:

1. courtship;
2. mating;
3. nest construction or selection of egg laying or parturition site;
4. places used for the purpose of parturition or egg laying or production of offspring where reproduction is asexual;
5. places of egg development and egg hatching;
6. nest or parturition sites when occupied by young dependent on that site; and
7. wider habitats that make reproduction successful, including feeding grounds.

— *Resting places*

Resting places are defined here as the areas essential to sustain an animal or group of animals when they are not active. For species that have a sessile stage, a resting place is defined as the site of attachment. Resting places will include structures created by animals to function as resting places, such as roosts, burrows or hides. Resting places that are used regularly, either within or between years, must be protected even when not occupied.

([76]) Judgment of 9 June 2011, *Commission v France*, Case C-383/09, ECLI:EU:C:2011:369.

([77]) In pending Case C-477/19, the CJEU will rule on the question whether the term 'resting place' within the meaning of Article 12(1)(d) of the Habitats Directive is to be interpreted as also including former resting places that have since been abandoned.

Resting places essential for survival may include one or more structures and habitat features required for:

1. thermoregulatory behaviour, e.g. *Lacerta agilis* (sand lizard);

2. resting, sleeping or recuperation, e.g. Nyctalus leisleri (Leisler's bat) roosts;

3. hiding, protection or refuge, e.g. *Macrothele calpeiana* burrows; and

4. hibernation, e.g. bat dormitories, and *Muscardinus avellanarius* (common dormouse) hides.

(2-57) **A proper implementation of Article 12(1)(d) requires a good knowledge of the ecology** (biology, habitats, population size, distribution and dynamics) and behaviour of the species (life cycle, organisation, interaction within and between species).

Examples of breeding sites and resting places

	Breeding site	Resting place
Triturus cristatus *(crested newt)*	The pond used for mating has individual male territories within which courtship and mating take place. Eggs are laid singly on emergent plants and mature over a period of 12–18 days. Young larvae emerge and swim freely. The pond is therefore the breeding site.	During the terrestrial phase of its life, *T. cristatus* makes use of refuges such as stones, tree roosts and logs to hide under during the day. Similar refuges are used for periods of hibernation (in cold regions) or summer dormancy (in hot regions). During the aquatic phase of their life, adults and larvae make use of submerged and emergent vegetation as a place of refuge. *T. cristatus* does disperse to adjacent pools. Healthy populations of *T. cristatus* utilise a series of pools and move between them, dispersing over a suitable interconnecting terrestrial habitat. Individuals may move approximately 1 km from their natal pool. The resting places for *T. cristatus* are thus the ponds they inhabit and the adjacent terrestrial habitat that supports them during the terrestrial part of their life cycle.
Nyctalus Leisleri (Leisler's bat)	Males are living separately from females during breeding time. Males establish mating territories in tree holes in the autumn. Mating takes place in late autumn and females delay fertilisation until the spring. Young are born in a maternity roost and are dependent on their mother until they are weaned in the summer. Breeding territories and maternity roosts are therefore breeding sites. This strict application of the definition omits winter hibernation roosts, which are covered by 'resting places' in Article 12(1)(d).	**For hibernation** *N. leisleri* is principally a tree-dwelling bat that hibernates over winter. In the winter, they roost in tree holes, buildings and occasionally caves and tunnels that provide a suitable microclimate. They will also utilise artificial roost boxes. Tree roosts have been found in parkland and urban areas and deciduous and coniferous woodland. These roosts must be in a relatively undisturbed position as bats roused from their torpor expend valuable energy reserves that cannot be replaced in winter. Day roosts during their active period (in spring) are also essential to all bat species, requiring a relatively undisturbed site during daylight hours, again in the cracks and crevices of old trees and buildings. Depending on their location, a colony may use several summer roosts in turn, the larger of which may be used as maternity roosts, while males will become solitary or live in small groups.

	Breeding site	Resting place
		During migration *N. leisleri* is known to migrate in some parts of its European range: individuals ringed in Germany have been found to winter in France and Switzerland (National report 2003 ([78])). Exact migration patterns are not known. However, other populations appear more sedentary with both maternity and winter roosts located in the same location. Roosts used by *N. leisleri* to rest during the day and in which to hibernate are resting places.

	Breeding site	Resting place
Maculinea arion (large blue)	*M. arion* requires a site with its larval food plant (*Thymus* species) and larval host and food source (*Myrmica* ant nests) to complete its development. Eggs are laid in the bud of a *Thymus* flower where they feed and develop. At a certain stage, the larva drops from the plant and attracts an ant to pick it up and take it into the ants' nest. The larva continues its development within the nest, preying on ant larvae. Pupation occurs within the nest and the adults emerge in early summer. The breeding site for *M. arion* will be a site with *Thymus* species plants close to the site of adult emergence and the *Myrmica* ant nest where the larvae and pupae develop.	This species has no clearly defined resting places other than those needed for larval development and pupation. These life stages are covered by the definition of breeding site on the left.
Osmoderma eremita (hermit beetle)	Resting place and breeding site are in effect synonymous for *O. eremita*. This saproxylic species lives for the majority of its life within the rot-filled cavities of mature deciduous trees, usually of the *Quercus* species. A high proportion of individuals do not leave the natal tree. Mating takes place inside the substrate, and eggs are deposited deep within the substrate. The development from egg to beetle takes several years. Pupae develop in the autumn; adults emerge in the late spring or early summer. A series of mature and substantially hollow deciduous trees, usually *Quercus* species with heart rot, being used by the species is the resting place for *O. eremita*.	

(2-58) The species example on *Triturus cristatus* (see box above) illustrates that for some species that have **small home ranges**, breeding sites and resting places can overlap. In such cases, it is important to protect a functionally viable and coherent area for the species that includes both its resting and breeding sites and other areas that are considered necessary to maintain the ecological functionality of the breeding and/or resting site. Defining the 'local' population of such a species could play a useful role in defining such an area.

([78]) http://www.eurobats.org/sites/default/files/documents/pdf/National_Reports/Inf.MoP7_.20-National%20Implementation%20Report%20of%20Germany.pdf

(2-59) There is also a need to consider how to handle **wide-ranging species** within the context of Article 12. The particular problem posed by wide-ranging species is already recognised in Article 4(1) of the Directive. Here, it may be advisable to restrict the definition of breeding and resting site to a locality that can be clearly delimited: e.g. the roosts for bats, the winter dens for bears or the holt of an otter, or other areas that can be clearly identified as being important for breeding or resting.

(2-60) In the *Caretta caretta* case, the Court did not give any definition of breeding sites and resting places for species and followed a case-by-case/species-by-species approach. In the case in question, the Court emphasised the importance of Laganas Bay as a 'vital breeding region for the protected species *Caretta caretta*' ([79]). This area had the physical and biological factors essential for the reproduction of the species (marine area and nesting beaches). It is difficult to establish a general definition of 'breeding sites' and 'resting places' because of the wide range of differences in the ecological characteristics of species. The up-to-date knowledge on species' ecology and behaviour needs to be considered.

2.3.4.c) Concept of 'deterioration'

Deterioration can be defined as physical degradation affecting a breeding site or resting place. In contrast to destruction, such degradation might also occur slowly and gradually and so reduce the functionality of the site or place. Article 12(1)(d) applies if it is possible to establish a clear cause-effect relationship between one or more human-induced activities and the deterioration of a breeding site or resting place.

(2-61) Neither Article 12(1)(d) nor Article 1 of the Habitats Directive contains a definition of the concept of 'deterioration', although this term is also present in other provisions of the Directive (e.g. Article 6(2)).

(2-62) In general, deterioration can be defined as the physical degradation affecting a habitat (in this case a breeding site or resting place). In contrast to destruction, **degradation may occur slowly and gradually reduce the functionality of the site** or place. Deterioration may therefore not immediately lead to a loss of functionality of a site or place. However, it would adversely affect functionality in terms of the quality or quantity of the ecological elements present and might, over a period of time, lead to its complete loss. Because of the wide variety of species listed in Annex IV(a), the assessment of deterioration of a particular breeding site or resting place must be carried out on a case-by-case basis.

(2-63) When trying to identify and avoid the causes that lead to the deterioration or even loss of breeding or resting functionality, it is important to establish a clear **cause-effect relationship** between one or more human-induced activities and the deterioration or destruction of a breeding site or resting place. Obviously, the causes for deterioration can be located inside or outside, and possibly even at some distance from, the breeding site or resting place under consideration. Such causes and activities then need to be controlled in such a way that deterioration and destruction can be avoided. Only a clear view of the causes will enable the authorities to act accordingly and avoid further or future deterioration or destruction.

(2-64) Therefore, the tolerance of activities that degrade or damage, directly or indirectly, the habitat of protected species can constitute a breach of Article 12(1), as recognised by the Court in Case C-340/10. In this case, the Court concluded that the excessive extraction of water and other damaging activities in the proximity of Paralimni Lake was capable of having a considerable negative impact on the habitat of the Cypriot grass snake and on the conservation of that species, particularly during years of drought. By tolerating that type of operation, Cyprus had failed to fulfil its obligations under Article 12(1).

(2-65) In order to define the limits of what one can regard as 'deterioration', an analysis of Article 12(1)(d) as a whole is indispensable. The purpose of Article 12 is to introduce a system of strict protection for Annex IV(a) species. The explicit protection of breeding sites and resting places in addition to the protection of the species as such, without the qualification 'deliberate', demonstrates the importance granted to these sites by the Directive. This specific protection against the deterioration or destruction of breeding sites and resting places is self-evidently linked with the essential function of these sites, which must continue to provide all the elements required by a specific animal (or group of animals) to breed or to rest.

([79]) *Commission v Greece*, Case C-103/00, paragraph 27.

(2-66) Examples of activities that may lead to **deterioration** under Article 12(1)(d):

— **Filling in** of parts of **spawning grounds** for the crested newt (*Triturus cristatus*) or other strictly protected amphibians, thereby reducing (in sum) their function as a breeding site.

— **Deterioration** in the function of parts of a **hamster burrow** as a breeding and resting place caused by deep ploughing.

— **Engineering works** along a stretch of a **river** that is a resting and breeding site for the Atlantic Sturgeon (*Acipenser sturio)* or other strictly protected fishes.

— **Land drainage** or other activities causing changes in hydrology that seriously compromise the ecological characteristics of habitat and influence the population of *Natrix natrix cypriaca* (Cypriot grass snake, see Section 2.33).

— **Felling/removing of dead or dying trees** that constitute important habitats for certain Annex IV strictly protected saproxylic beetle species ([80]) (*Buprestis splendens, Cucujus cinnaberinus, Phryganophilus ruficollis and Pytho kolwensis*).

— Construction of houses, resorts, roads and other **infrastructures**, as well as **light pollution** or **fishing** activities, in or closely around the loggerhead sea turtle (*Caretta caretta)* breeding areas ([81]).

18 – Good practice example: A strategic programme for the sturgeon in the Danube

Sturgeon constitute an important part of the natural heritage of the Danube river basin and the Black Sea. They serve as **excellent indicators of good water and habitat quality**. Today, four out of the six species are critically endangered, one is considered vulnerable and one is extinct. All are **now protected under the EU Habitats Directive**.

In June 2011, the EU Strategy for the Danube region set as one of its targets (PA6 target) to 'secure viable populations of Danube sturgeon species and other indigenous fish species by 2020'. A **Danube sturgeon task force** was created a year later in January 2012 to determine how to work together towards achieving this target. It brought together sturgeon experts, NGO delegates, and representatives of the International Commission for the Protection of the Danube River, the Danube strategy and national governments.

One of the task force's first actions was to draw up a Sturgeon 2020 programme, to act as a framework for concerted action. The implementation of the programme required commitment and complex cooperation between governments, decision makers, local communities, stakeholders, scientists and NGOs.

One obvious vehicle for taking forward the measures proposed under the Sturgeon 2020 programme is the Danube river basin management plan (DRBMP) and its joint programme of measures. The 2nd draft DRBMP, updated in 2015, sets as one of its visions and management objectives 'that anthropogenic barriers and habitat deficits do not hinder fish migration and spawning anymore – sturgeon species and specified other migratory species are able to access the Danube River and relevant tributaries. Sturgeon species and specified other migratory species are represented with self-sustaining populations in the DRBD according to their historical distribution'.

The following are amongst the identified measures to be implemented in order to reach this management objective:

— Specification of number and location of fish migration aids and other measures to achieve / improve river continuity, which will be implemented by 2021 by each country.

— Specification of location and extent of measures for the improvement of river morphology through restoration, conservation and improvements, which will be implemented by 2021 by each country.

— Avoidance of new barriers for fish migration imposed by new infrastructure projects; unavoidable new barriers must incorporate the necessary mitigation measures like fish migration aids or other suitable measures already in the project design

([80]) Judgment of 17 April 2018, *Commission v Poland*, Case C-441/17, ECLI:EU:C:2018:255, paragraphs 233–236.
([81]) Judgment of 10 November 2016, *Commission v Greece*, Case C-504/14, ECLI:EU:C:2016:847, paragraphs 160 and 114.

— Closing the knowledge gaps related to the possibility for sturgeon and other specified migratory species to migrate upstream and downstream through the Iron Gate I & II dams, including habitat surveys,

— If the results of these investigations are positive, the appropriate measures should be implemented and a feasibility study should be performed for the Gabčíkovo Dam and the upper Danube.

According to the DRBMP, by 2021 **140 fish migration aids** will be constructed in the river basin (120 have already been constructed since the first DRBMP.) These should ensure the migration of all fish species, including sturgeon, and age classes using the best available techniques. **Around a further 330 measures to restore river continuity interruptions** are planned to be implemented after 2021 (WFD Article 4.4). http://www.dstf.eu

2.3.4.d) Measures to ensure the continued ecological functionality of breeding sites or resting places

Measures that ensure the continued ecological functionality of a breeding site or resting place in the case of projects and activities with a possible impact on such sites or places must have the character of mitigation measures (i.e. measures minimising or even cancelling out the negative impact). They may also include measures that actively improve or manage a certain breeding site or resting place in such a way that it does not – at any time – suffer from a reduction or loss of ecological functionality. As long as this precondition is fulfilled and such processes are controlled and monitored by the competent authorities, there is no need for recourse to Article 16.

(2-67) Measures used to ensure continued ecological functionality (hereinafter referred to as 'CEF measures') are preventive measures aimed at minimising or even eliminating the negative impact of an activity on breeding sites or resting places of protected species. However, they may also go beyond this and include actions that actively improve a certain breeding site or resting place so that it does not suffer – at any time – a reduction or loss of ecological functionality. This could include, for example, enlarging the site or creating new habitats in, or in direct functional relation to, a breeding site or resting place, in order to maintain its functionality. The maintenance or improvement of ecological functionality linked to such measures for the species in question would of course have to be clearly demonstrated.

(2-68) Such measures can be used only in situations where an authorisation or planning regime with formal procedures is in place, and where the competent authorities are able to assess whether the measures taken to preserve the 'breeding' or 'resting' functionality of a site are sufficient. CEF measures may be an option when an activity might affect parts of a breeding site or resting place only. If the breeding site or resting place, as a result of CEF measures, will still remain at least the same (or greater) size and retain the same (or better) quality for the species in question, there will be no deterioration in the function, quality or integrity of the site. It is crucial that the continued ecological functionality of the site is maintained or improved. Therefore, monitoring the effectiveness of CEF measures is important.

(2-69) In accordance with the precautionary principle, if the measures proposed (e.g. by the project developer in the context of a project) do not guarantee the continued ecological functionality of a site, they should not be considered to be in line with Article 12(1)(d). For Article 12(1)(d) to be complied with, there must be a high degree of certainty that the measures are sufficient to avoid any deterioration or destruction and the measures should be effectively in place in the appropriate time and form so as to avoid any deterioration or destruction. The assessment of the probability of success must be made on the basis of objective information and in light of the characteristics and specific environmental conditions of the site concerned.

(2-70) Appropriate CEF measures ensuring that there will be no deterioration in the function, quality or integrity of the site will have an overall positive impact with regard to the protection of the species concerned.

(2-71) CEF measures could be an integral part of the specifications of an activity or project; they could also form part of preventive measures under a strict protection system to comply with Article 12(1)(d).

(2-72) Based on the definition of breeding sites and resting places (see Section 2.3.4.b), the approach outlined above seems especially relevant when dealing with animals with small home ranges, where breeding sites or resting places are delimited as 'functional units' (i.e. the wider approach is used). Here, it should be stressed that a Member State must be consistent in its definition of breeding sites and resting places for a given species and consequently in providing for their protection across its territory.

(2-73) **CEF measures are different from compensatory measures in the strict sense** (including compensatory measures under Article 6(4) of the Habitats Directive). Compensation measures aim to compensate for specific negative effects on a species and thus imply that there is, or has been, a deterioration or destruction of a breeding site or resting place. This is not the case with CEF measures, which ensure that the continued ecological functionality of the breeding site or resting place remains fully intact (in quantitative and qualitative terms) after the activity has taken place. Where there is deterioration or destruction of a breeding site or resting place, a derogation under Article 16 is always necessary whenever the conditions thereby established are fulfilled. Section 3.2.3.b deals with the use of compensation measures under Article 16.

2.3.5. *Keeping, transport and sale or exchange, and offering for sale or exchange, of specimens taken from the wild*

The prohibitions in Article 12(2) apply to all life stages of Annex IV(a) species.

(2-74) For Annex IV(a) species, Article 12(2) states that: 'Member States shall prohibit the keeping, transport and sale or exchange, and offering for sale or exchange, of specimens taken from the wild, except for those taken legally before this Directive is implemented.' Article 12(3) stipulates that the prohibitions in Article 12(1)(a) and (b) and Article 12(2) apply to all life stages of Annex IV(a) species.

2.3.6. *Monitoring system for the incidental capture and killing of Annex IV(a) species*

Article 12(4) requires Member States to establish a system of monitoring of incidental capture and killing, and take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.

(2-75) Article 12(4) requires the establishment of a system to monitor incidental capture and killing of the animal species listed in Annex IV(a). **The monitoring system must be robust enough to be able to acquire reliable data on the impact of all activities that might entail a risk of incidental capture and killing for the species concerned.** The information collected must be able to provide a reliable estimate of incidental capture and killing that can, combined with the results of the surveillance of their conservation status, lead to an informed decision on whether conservation measures are needed to ensure that there is no significant negative impact on the species concerned.

Examples include the monitoring of the by-catch of cetaceans or sea turtles in fishing gear, or of their killing by ship strikes, the monitoring of bat deaths around wind turbines, or the monitoring of roadkills (e.g. amphibians during spring migrations). In Case C-308/08, the Court addressed the issue of the implementation of Article 12(4) in relation to the Iberian lynx (*Lynx pardinus*) in Andalusia and noted the existence of a system for monitoring the incidental killing of Iberian lynx in relation to road traffic (see box below).

19 – Good practice example: Upgrading of a road across the territory of Iberian lynx

The Iberian lynx (*Lynx pardinus*) is the world's most endangered feline species. It preys almost exclusively on the European rabbit, which makes the species even more vulnerable due to its narrow ecological requirements. The Iberian lynx is endangered because of a combination of threats: decreasing food base (epidemics, such as myxomatosis and the haemorrhagic disease, have affected rabbit populations over the years), vehicle collisions (due to fragmentation of their habitat by many country roads), habitat loss and degradation (further development of infrastructure such as roads, dams, railways, and other human activities), and illegal killing (the species was historically regarded both as an attractive hunting trophy and as vermin). By the turn of the 21st century, the Iberian lynx was on the verge of extinction, with only about 100 individuals surviving in two isolated subpopulations in Andalusia (Spain), as well as in parts of Portugal. By 2019, this had risen to more than 600 mature individuals in eight subpopulations and with increasing connectivity among them.

Under the LIFE programme, the European Union has greatly supported the recovery of this species, whose population has notably improved over the last decade. Under the LIFE Iberlince ([82]) project, the Spanish authorities developed a range of actions aiming at improving the connectivity between the different cores of the population and reducing by 30 % the mortality rate of Iberian lynx related with vehicle collision. Actions implemented in this regard included the construction and adaptation of fauna passages, targeted fencing, signage and establishment of speed limitations. The Spanish Ministry of Public Works and Transport, which is the competent authority for road security, became an associated beneficiary of this LIFE project to foster the implementation of actions to reduce collision risks. Further efforts and measures may be required to ensure that incidental killing caused by road collisions, and other causes of non-natural mortality, are appropriately addressed and that significant impacts on the population of Iberian lynx are avoided.

20 – Good practice example: the LIFE SAFE Crossing project – Preventing animal vehicle collisions

The LIFE SAFE-CROSSING project aims at implementing actions to reduce the impact of roads on some priority species in four European countries: Marsican brown bear (*Ursus arctos marsicanus*) and wolf (*Canis lupus*) in Italy, Iberian lynx (*Lynx pardinus*) in Spain, and Brown bear (*Ursus arctos*) in Greece and Romania.

These species are severely threatened by road infrastructures, both by direct mortality as well as by the barrier effect. In order to mitigate these effects we will rely on the experience gained in a previous LIFE Project LIFE STRADE project during which an innovative tool for the prevention of Animal-Vehicle Collisions, was successfully installed in 17 sites in central Italy. It was also found out that one of the main causes of the road kills is the low level of awareness and attention of drivers regarding the risk of collisions with wildlife.

The LIFE SAFE-CROSSING project therefore aims at the following objectives:

— Demonstrate the use of the innovative Animal-Vehicle Collision Prevention Systems (AVC PS),

— Reduce the risk of traffic collisions with the target species,

— Improve connectivity and favor movements for the target populations,

— Increase the attention of drivers in the project areas about the risk of collisions with the target species.

The project involves 13 partners: NGO, private companies and public bodies. The participation of Terni Province will ensure the transfer of expertise from the LIFE STRADE project to the new areas.

([82]) http://www.iberlince.eu/index.php/esp/

The SAFE-CROSSING project area includes 29 Natura 2000 sites (SCIs). By reducing the direct mortality and the fragmentation represented by roads, the project will contribute to improving biodiversity within the Natura 2000 sites, as well as the connectivity between the sites. The standardization of the methods and practices and the dissemination activities will promote the replication of the best practices in other areas. Finally, the intense effort of awareness raising during the project will also increase the knowledge of the local communities and tourists about the Natura 2000 network.

https://life.safe-crossing.eu/

(*http://www.lifestrade.it/index.php/en/*) (LIFE11BIO/IT/072)

(2-76) **Systematic monitoring and collection of reliable data** on incidental capture and killing is an essential prerequisite for implementation of effective conservation measures. For example, concerning bycatch in fishing gear, a monitoring system can rely on the data collected by Member States under the fisheries data collection framework. Regulation (EU) 2017/1004 of the European Parliament and of the Council ([83]) establishes rules on the collection, management and use of biological, environmental, technical and socio-economic data concerning the fisheries sector, contributing to the objectives of the common fisheries policy and environmental legislation. Modern control technologies, such as remote electronic monitoring (REM) tools incorporating closed-circuit television and sensors, have much potential. Recent developments in artificial intelligence can facilitate the automatic reviewing of large volumes of REM data. Such control tools offer a cost effective and viable means for authorities to monitor and account for incidental catches of sensitive species. Such REM tools are being increasingly used around the world as a solution to various fisheries control issues, in scenarios where cost effective continuous monitoring is required for data collection and for control and enforcement purposes.

Member States are obliged to establish national work plans in accordance with the multiannual EU programme for data collection. Such a programme for 2020–2021 was adopted by the Commission Delegated Decision (EU) 2019/910 ([84]) and Commission Implementing Decision (EU) 2019/909 ([85]). The programme includes an obligation to collect data on incidental catches of all birds, mammals, reptiles and fish protected under European Union legislation and international agreements. Data must be collected for all types of fisheries and vessels, during scientific observer trips on fishing vessels, or by the fishers themselves through logbooks.

Where the data collected during observer trips do not provide sufficient insights regarding incidental catches for end-user needs, other methodologies must be implemented by Member States, for example the use of remote electronic monitoring (REM) by cameras on vessels which are recording the hauling of gear and the catch. Data collection methods and quality need to be appropriate for the intended purposes and should follow best practices and relevant methodologies advised by relevant scientific bodies. They should cover a sufficient proportion of the fleet in order to provide a reliable estimate of bycatch. The collection of data on incidental catches of protected and sensitive species under relevant regulations and directives, and the implementation of appropriate conservation measures requires close intersectoral and interinstitutional cooperation, enforcement of rules and adequate support for and by fishers.

([83]) Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (OJ L 157, 20.6.2017, p. 1), https://op.europa.eu/en/publication-detail/-/publication/dd3dc59f-557f-11e7-a5ca-01aa75ed71a1

([84]) Commission Delegated Decision (EU) 2019/910 of 13 March 2019 establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors (OJ L 145, 4.6.2019, p. 27).

([85]) Commission Implementing Decision (EU) 2019/909 of 18 February 2019 establishing the list of mandatory research surveys and thresholds for the purposes of the multiannual Union programme for the collection and management of data in the fisheries and aquaculture sectors (OJ L 145, 4.6.2019, p. 21).

(2-77) **For wide-ranging species like cetaceans that move across the waters of Member States, cooperation with other countries in the species natural range is essential** because the monitoring and measures concern fishing vessels from different countries. It is therefore useful to highlight that obligations under Article 12 are a shared responsibility of Member States. This view is supported by the wording of the aforementioned provisions and the supranational objective of the Directive, which is to protect species and habitats of Community interest across their natural range, as well as by the duty of sincere cooperation under the Treaty. Therefore, even though the primary responsibility to implement Article 12 falls on the Member State hosting the species, other Member States must cooperate if such cooperation is necessary to comply with their legal duties. This is the case both for monitoring and implementation of conservation measures.

(2-78) In the light of information gathered through the monitoring system, Member States must undertake further research or conservation measures as required **to ensure that incidental capture and killing does not have a significant negative impact on the species concerned**. It is therefore also essential to have reliable information on the population, range and conservation status of the species, which requires full implementation of surveillance as required by Article 11 of the Directive.

(2-79) Although Article 12(4) does not define 'significant negative impact' ([86]), it can be understood that this involves a detailed examination of the effect of incidental capture and killing on the status of subpopulations and populations of species, and finally on the achievement or maintenance of its favourable conservation status. The significance of impact will need to be assessed on a case-by-case basis, taking into account the life history of the species, the magnitude and duration of the negative impact, and the conservation status and trend of the species concerned. For example, the impact can be deemed significant if a species is in unfavourable conservation status and there is a further decline in numbers due to incidental capture and killing, in particular if it affects future recovery prospects. The impact should also be assessed as significant if there is a regular and large number of animals captured and killed incidentally, which could affect a subpopulation or local population of the species concerned. **In the case of lack of data on the conservation status and/or the actual level of incidental capture and killing, the precautionary principle should apply.**

(2-80) Another activity that can cause incidental killing of strictly protected marine species is maritime traffic, in particular through collisions of animals with ships (ship strikes). Member States could consider a wide range of preventive measures, including reducing the speed of vessels or rerouting the traffic. These measures will usually need to be implemented under the rules of the International Maritime Organization (IMO). Depending on the scope of the measures proposed and their impact on the normal maritime traffic, and pursuant to Directive 2002/59/EC of the European Parliament and of the Council ([87]), this might need to be done through an EU submission to the IMO.

(2-81) Some military activities, in particular the use of active sonars in the marine environment or dumping or destruction of unexploded munitions, could cause killing of sensitive species like cetaceans. Military activities are not exempted from the provisions of Article 12, hence various Member State navies have developed policy initiatives for the use of military sonar, taking into account the need to minimise potential environmental effects. For example, precautionary zones can be designated where the use of these sonar activities is restricted. This should be done while respecting existing international legislation, mainly regulated under the framework of the United Nations Convention on the Law of the Sea, including specific provisions in relation to particular rights and obligations of warships.

([86]) Article 6(3) of the Habitats Directive refers to 'significant effects'. Guidance on this is available on https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/EN_art_6_guide_jun_2019.pdf

([87]) Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC (OJ L 208, 5.8.2002, p. 10).

3. **ARTICLE 16**

Text of Article 16

1. *Provided that there is no satisfactory alternative and the derogation is not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range, Member States may derogate from the provisions of Articles 12, 13, 14 and 15 (a) and (b):*

(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.*

2. *Member States shall forward to the Commission every two years a report in accordance with the format established by the Committee on the derogations applied under paragraph 1. The Commission shall give its opinion on these derogations within a maximum time limit of 12 months following receipt of the report and shall give an account to the Committee.*

3. *The reports shall specify: (a) the species which are subject to the derogations and the reason for the derogation, including the nature of the risk, with, if appropriate, a reference to alternatives rejected and scientific data used; (b) the means, devices or methods authorised for the capture or killing of animal species and the reasons for their use; (c) the circumstances of when and where such derogations are granted; (d) the authority empowered to declare and check that the required conditions obtain and to decide what means, devices or methods may be used, within what limits and by what agencies, and which persons are to carry out the task; (e) the supervisory measures used and the results obtained.*

(3-1) Article 16 of the Directive provides for the possibility of derogations, including from the system of strict protection for animal species set up under Article 12.

(3-2) There is limited scope under Article 16 for derogating from the restrictions and prohibitions under Article 12. Derogations must not only be justified in relation to the overall aim of the Directive, but also subject to three specific conditions (see 3.2).

(3-3) Failure to fulfil any one of these conditions renders the derogation invalid. The Member State authorities must therefore carefully examine all general and specific requirements **before** granting a derogation.

3.1. General legal considerations

3.1.1. *Obligation to ensure full, clear and precise transposition of Article 16*

Article 16 must be fully and formally transposed with unquestionable binding force. The criteria to be met before granting a derogation must be reproduced in specific national provisions. National transposition measures must guarantee the full application of Article 16, without modifying its terms, selectively applying its provisions or adding types of derogations not provided for by the Directive. Administrative provisions alone are not sufficient.

(3-4) Transposing Article 16 into national law must guarantee the implementation of the derogation provisions by the competent authorities. Note that a Directive is binding in terms of the result to be achieved, but leaves Member States the choice as to how to achieve that result. However, the Court has set limits to this margin of manoeuvre. Hence, the national transposition of the derogation system under Article 16 must comply with all the basic legal principles of EU law and a number of requirements, as explained below.

(3-5) According to CJEU case-law ([88]), **'transposition of a Directive into domestic law** does not necessarily require that its provisions be incorporated formally and verbatim in express, specific legislation. A general legal context may, depending on the content of the Directive, be adequate for the purpose, provided that it does indeed **guarantee the full application of the Directive in a sufficiently clear and precise manner**.' Administrative provisions alone, which by their nature may be changed by the authorities and which are not given the appropriate publicity, cannot be regarded as constituting the proper fulfilment of a Member State's obligations under the TFEU and the Directive ([89]).

(3-6) Accordingly, application of the requirements under Article 16 in practice is not a substitute for formal transposition. In Case C-46/11, the Court confirmed that correct implementation of the provisions of a Directive could not, on its own, provide the clarity and precision required to fulfil the legal certainty principle. Moreover, **administrative practices alone cannot be regarded as implementation of the Member States' obligation to transpose the Directive** ([90]) **into national law.**

(3-7) Moreover, the **provisions of the Directives must be implemented with unquestionable binding force**, and with the specificity, precision and clarity necessary to meet the requirements of legal certainty ([91]). The Court was more explicit in Case C-339/87 and stated that 'the criteria which the Member States must meet in order to derogate from the prohibitions laid down in the Directive must be reproduced in specific national provisions, since a faithful transposition becomes particularly important in a case where the management of the common heritage is entrusted to the Member States in their respective territories.' In its judgment of 20 October 2005, the Court applied this case-law to the Habitats Directive and observed that 'in the context of the Habitats Directive, which lays down complex and technical rules in the field of environmental law, the Member States are under a particular duty to ensure that their legislation intended to transpose that directive is clear and precise' ([92]).

(3-8) As the Court has held, with regard to Article 16 of the Habitats Directive, the criteria on the basis of which Member States may derogate from the prohibitions imposed by the Directive must be reproduced unambiguously in the provisions of national law. In doing so, Article 16 of the Habitats Directive must be interpreted restrictively, since it defines in a precise manner the circumstances under which Member States may derogate from Articles 12 to 15 of the Directive ([93]). The Court reiterated this position in Case C-46/11 ([94]).

(3-9) When transposing Article 16, Member States must follow the meaning of terms and concepts used by the Directive with the aim of ensuring uniformity in both interpretation and application ([95]). This also implies that national transposition measures **must ensure full application of the Directive, without modifying its terms and without adding supplementary conditions or derogations not provided for by the Directive** ([96]). For instance, in Case C-6/04 ([97]), the Court found that a derogation authorising acts that lead to the killing of protected species and to the deterioration or destruction of their breeding and resting places, provided such acts are lawful and cannot be reasonably avoided, 'is contrary both to the spirit and purpose of the Habitats Directive and to the wording of Article 16 thereof'.

In Case C-183/05 ([98]), the Court considered that the regime of derogations under Irish legislation (Section 23(7)(b) of the Wildlife Act) was inconsistent with Articles 12 and 16 of the Directive. Under Irish legislation, acts that unintentionally interfere with or destroy breeding sites or resting places of wild species do not constitute an offence. According to the Court, not only does this provision not meet the requirements of Article 12(1)(d) of the Directive, which prohibits such acts, whether or not they are intentional, but it also goes beyond what is provided for in Article 16 of the Directive, since the Directive sets out in an exhaustive manner the conditions under which derogations may be granted.

([88]) See judgment of 28 February 1991, *Commission v Germany*, Case C-131/88, ECLI:EU:C:1991:87.
([89]) For example, see *Commission v Italy*, Case C-315/98, paragraph 10.
([90]) Judgment of 15 March 2012, *Commission v Poland*, Case C-46/11, ECLI:EU:C:2012:146, paragraphs 28 and 56.
See also the Opinion of 11 January 2007 of the Advocate General in Case C-508/04, at paragraph 31.
([91]) See in particular the following judgments: *Commission v Germany*, Case C-59/89, paragraphs 18 and 24; *Commission v France*, Case C-225/97, paragraph 37; 17 May 2001; *Commission v Italy*, Case C-159/99 paragraph 32; *Commission v Luxembourg*, Case C-75/01, paragraph 28, 87-88; *Commission v UK*, Case C-6/04, paragraph 27.
([92]) *Commission v UK*, Case C-6/04, paragraphs 25–26.
([93]) *Commission v Austria*, Case C-508/04, paragraph 110.
Opinion of 11 January 2007 of the Advocate General in Case C-508/04, paragraph 53.
([94]) *Commission v Poland*, Case C-46/11, paragraph 29.
([95]) For instance, Joined Cases C-206 and C-207/88 – *Vessoso and G. Zanetti*.
([96]) *Commission v Luxembourg*, Case C-75/01, paragraph 28.
([97]) *Commission v UK*, Case C-6/04, paragraphs 109–113.
([98]) *Commission v Ireland*, Case C-183/05, paragraphs 47–49.

(3-10) **National provisions must ensure that all the conditions laid down in Article 16 are strictly and thoroughly transposed, without selectively applying only some provisions**. In Case C-98/03 ([99]), the Court found that German law (paragraph 43(4) of the Federal Nature Conservation Act) was not compatible with Article 16 since it did not make derogations subject to all of the conditions laid down in that article.

In Case C-508/04 ([100]), the Court clarified that 'national provisions under which the grant of derogations from the prohibitions established by Articles 12 to 14 and 15(a) and (b) of the Directive is subject not to all the criteria and conditions set out in Article 16 of the Directive but, incompletely, to certain elements of them, cannot constitute a regime consistent with Article 16'. In Case C-46/11 the Court found that Polish law was not compatible with Article 16 because it did not make derogations subject to all criteria and conditions set out in that article.

3.1.2. *Appropriate overall application of derogations*

Article 16 derogations must be a last resort. The derogation provisions must be interpreted narrowly: they must cover precise requirements and specific situations. It is up to the Member States to ensure that the combined effect of all derogations issued in their territory does not produce effects that go against the objectives of the Directive.

(3-11) Issuing Article 16 derogations must be a last resort ([101]). National authorities responsible for issuing derogations must take into consideration that **derogations must be interpreted and implemented restrictively to avoid undermining the overall objective and key provisions of the Directive** ([102]). In Case C-6/04, the Court made clear that this principle also applies in the context of Article 16 ([103]). In Case C-674/17, the CJEU ruled that 'a derogation based on Article 16(1) of the Habitats Directive must be applied appropriately in order to deal with precise requirements and specific situations' ([104]).

(3-12) As regards measures to be taken under Article 12 of the Habitats Directive, the need to implement appropriate and effective measures in a sufficient and verifiable manner has been underlined. The same approach can be followed for the derogations scheme. If used correctly, this ensures that granting derogations does not go against the objective of the Directive ([105]). In Case C-6/04, the Court observed that 'Articles 12, 13 and 16 of the Habitats Directive form a coherent body of provisions intended to protect the populations of the species concerned, so that any derogation incompatible with the directive would infringe both the prohibitions set out in Articles 12 and 13 and the rule that derogations may be granted in accordance with Article 16'.

As a general rule, the severity of any of the conditions or 'tests' will increase with the severity of the potential impact of a derogation on a species or population.

(3-13) Issuing a derogation presupposes that the competent national authorities have ensured that all the conditions set in Article 16 have been met. **Member States must also ensure that the cumulative effects of derogations do not produce impacts that go against the objectives of Article 12 and the Directive as a whole** ([106]).

([99]) *Commission v Germany*, Case C-98/03, paragraphs 57–62.
([100]) *Commission v Austria*, Case C-508/04, paragraph 111.
([101]) See paragraph 33 of the Advocate General's Opinion in Case C-10/96.
([102]) See the following judgments of the ECJ in relation to derogations under the Birds Directive: judgment of 8 July 1987, *Commission v Italian Republic*, Case 262/85, ECLI:EU:C:1987:340; judgment 7 March 1996, *WWF Italy v Regione Veneto*, Case C-118/94, ECLI:EU:C:1996:86, judgment of 12 December 1996, *Ligue royale belge pour la protection des oiseaux and Société d'études ornithologiques v Région Wallonne*, Case C-10/96, ECLI:EU:C:1996:504.
([103]) *Commission v UK*, Case C-6/04, paragraph 111.
See also *Commission v Austria*, Case C-508/04, paragraph 110, in the context of the comparable derogation provision of Article 9 of the Birds Directive 2009/147/EC.
([104]) Judgment of 10 October 2019, Case C-674/17, *Tapiola*, ECLI:EU:C:2019:851, paragraph 41.
([105]) *Commission v UK*, Case C-6/04, paragraph 112.
([106]) Case C-674/17, paragraph 59.

(3-14) Consequently, the use of derogations is often best managed within a national conservation framework to ensure that, overall, the cumulative impacts of derogations for a particular species are not detrimental to maintaining the species at favourable conservation status at national and/or biogeographic level within a Member State. In any case, Member States must **have an overview and supervise the use of derogations** at national level (and, if necessary, also an overview extending beyond borders for cross-border populations). This may require, depending on the organisational structure in a Member State, regional or local authorities to look at the effects of derogations beyond their own territories.

An example of how the national authority can frame the use of the derogations issued within its territory can be found in Case C-342/05. On this case, the Court clarifies that 'as to the fact that decisions to issue wolf hunting permits are also subject to a maximum regional limit of specimens which may be killed in each game management district, this cannot be regarded as contrary to Article 16(1) of the Habitats Directive. That limit, which is set according to the number of specimens which may be killed without endangering the species in question, is only the framework within which the game management districts may issue hunting permits **where, in addition, the conditions in Article 16(1) of the Habitats Directive are fulfilled**' ([107]). In other words, it is possible to set a maximum limit of specimens that may be killed (to avoid negative impact on conservation status) but this does not remove the need for each derogation to fulfil all the conditions in Article 16(1).

3.2. **A carefully controlled system for granting derogations: the three tests**

(3-15) Article 16 sets **three tests, all of which must be met** before granting a derogation:

(1) demonstration of one or more of the reasons listed in Article 16(1)(a)–(d) or 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 (letter 'e');

(2) absence of a satisfactory alternative; and

(3) assurance that a derogation is not detrimental to the maintenance of populations at a favourable conservation status.

The third test reflects the overarching objective of the Habitat Directive, which is to contribute to biodiversity through the conservation of natural habitats and wild fauna and flora (Article 2(1)). The measures taken must be designed to maintain or restore the protected natural habitats and species of wild fauna and flora, at favourable conservation status. They must also take account of economic, social and cultural requirements and regional and local characteristics (Article 2(2) and (3)).

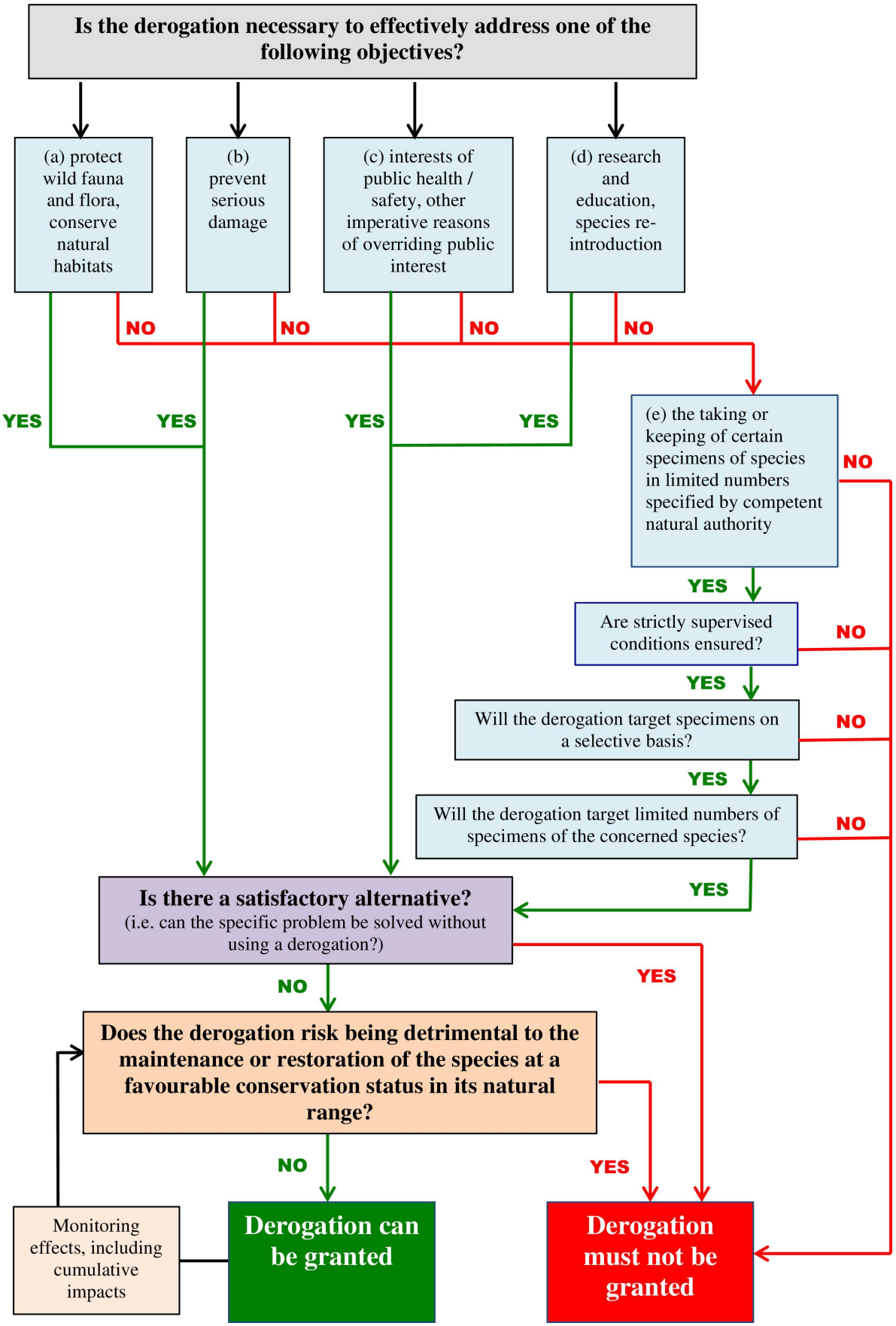
Before the second and third tests can be examined, the application must meet the first test. In practical terms, there is little point examining the issue of satisfactory alternatives and impact on conservation status if the action does not meet Article 16(1)(a)–(e).

(3-16) **Member States must nevertheless ensure that all the three tests are met.** The burden of proof lies with the competent authorities to demonstrate that each derogation meets all tests, as explained by the Court in the Case C-342/05: 'Since Article 16(1) provides exceptional arrangements which must be interpreted strictly and must impose on the authority taking the decision the burden of proving that the necessary conditions are present for each derogation, the Member States are required to ensure that all action affecting the protected species is authorised only on the basis of decisions containing a clear and sufficient statement of reasons which refers to the reasons, conditions and requirements laid down in Article 16(1) of the Habitats Directive' ([108]).

([107]) Judgment of 14 June 2007, *Commission v Finland*, Case C-342/05, ECLI:EU:C:2007:341, paragraph 45.

([108]) *Commission v Finland*, Case C-342/05, paragraph 25.

Flow chart for issuing a derogation under Article 16(1)



3.2.1. *TEST 1: Demonstration of one of the reasons under Article 16(1)(a–d) or 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(1)(e))*

When assessing the case for a derogation, national authorities should consider whether it is justified by one of the reasons given under Article 16(1)(a–d) or (e). The type and weight of the reason must also be seen in relation to the interest of the protected species in the specific circumstances in question to ascertain whether the derogation is appropriate.

(3-17) Derogations are granted because there is a specific problem or situation that needs to be tackled. **Derogations must be based on at least one of the options listed in Article 16(1)(a), (b), (c), (d) and (e)**. Specific derogations not justified by any of these reasons/options are contrary both to the spirit and purpose of the Habitats Directive and to the wording of Article 16 ([109]).

In Case C-508/04 ([110]), the Court found that the Austrian legislation was not consistent with Article 16(1) of the Directive, in part because the grounds for the derogation under Austrian legislation (i.e. commercial operation of an agricultural or silvicultural nature, production of beverages, and the construction of installations) did not fall within any of the reasons/options exhaustively listed in Article 16(1) of the Directive.

(3-18) When granting a derogation, **the objective pursued must be stated in a clear and precise manner and the national authority must establish, in the light of rigorous scientific data, that the derogations are appropriate with a view to achieving that objective**, must justify the choice of a reason/option under Article 16(1)(a) to (e) and verify that the specific conditions are met ([111]).

(a) ***In the interest of protecting wild fauna and flora and conserving natural habitats***

(3-19) The first reason for granting a derogation is the protection of wild flora and fauna and the conservation of natural habitats. Article 16(1)(a) specifies neither the type of fauna, flora or natural habitats covered nor the type of threats. Given the general objective of the Directive, **vulnerable, rare, endangered or endemic species and natural habitats** (for example, those listed in the annexes to the Habitats Directive) are more likely to be covered by this reason, which would effectively aim to reduce the negative impact of a given species on them. It would be unusual to prioritise the interests of a species that is common and thriving over the interests of a species that meets the criteria of Article 1(g) of the Directive.

(3-20) The competent authority should thoroughly examine whether the interests of protecting a habitat or species of Community interest may justify affecting another species of Community interest, for example where a prey species could be locally threatened by a carnivor species ([112]), on a case-by-case basis. Before considering issuing a derogation to protect a prey species, it should assess and address all other possible threats (e.g. habitat deterioration, overhunting, disturbance, competition from domestic species). The assessment should cover the conservation status of the species covered by the possible derogation versus the conservation status of the 'fauna, flora and habitats' in question, the long-term impact on the affected population(s), the long-term efficacy in reducing the threat, etc. The assessment should follow the proportionality principle: the disadvantages caused must not be disproportionate to the aims pursued.

([109]) See also *Commission v UK*, Case C-6/04, paragraphs 109–113.
([110]) *Commission v Austria*, Case C-508/04, paragraphs 120 and 128.
([111]) Judgment of 10 October 2019, Case C-674/17.
([112]) 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.

(b) ***To prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property***

(3-21) The second reason for granting a derogation is to prevent serious damage, in particular to crops, livestock, forests, fisheries, water, and other types of property. This derogation takes into account economic interests, and, as noted, the damage to be prevented must be serious. The list is not exhaustive, however; it may cover other types of property. Serious damage relates to specific interests, i.e. it leads, or could lead, inter alia to a direct or indirect economic and/or financial loss, loss of property value, or to the loss of production material.

(3-22) However, as highlighted by the Court in its ruling in Case C-46/11, **Article 16(1)(b) does not allow authorities to derogate from the prohibitions set under Articles 12 merely because complying with such prohibitions compel a change in agricultural, forestry or fish farm activities**. In Case C-46/11, the Court ruling stated that Article 16(1)(b) does not authorise derogating from the Article 12 prohibitions on the grounds that compliance with those prohibitions would not allow the use of technologies normally used in agriculture, forestry or fish farming ([113]).

(3-23) Ruling on the comparable derogation procedure under Article 9 of the Birds Directive 2009/147/CE, the Court noted that the Directive is not designed to prevent minor damage but only serious damage, i.e. exceeding a certain degree ([114]). It follows that mere nuisance and normal business risks cannot constitute legitimate reasons for granting derogations. What is considered serious damage should be evaluated on a **case-by-case basis when the issue arises**.

(3-24) The Court specified that 'Article 16(1) of the Habitats Directive does not require serious damage to be sustained before derogating measures can be adopted' ([115]). As this provision is intended to *prevent* serious damage, it is not necessary that the serious damage itself has already occurred; likelihood of serious damage occurring is sufficient. However, **the mere chance that damage might occur does not suffice; the likelihood that damage will occur must be high, and so must the extent of the damage.** The high probability of serious damage occurring must be demonstrated by sufficient evidence. There must also be sufficient evidence that the risk of serious damage is largely attributable to the species targeted by the derogation and that there must be a strong likelihood that serious damage would occur if action is not taken. Past experience should demonstrate a high probability of the occurrence of damage.

(3-25) When granting derogations, **Member States must be in a position to demonstrate that any control method used under the derogation is effective and durable in preventing or limiting the serious damage**, e.g. specifically targeted to the location and time where damage is occurring or likely to occur and targeting the damage-causing individuals etc. In Case C-342/05 ([116]), the Court found that Finland had failed to fulfil its obligations under Articles 12(1) and 16(1)(b) of the Habitats Directive by authorising wolf hunting on a preventive basis, without it being established that the hunting would prevent serious damage within the meaning of Article 16(1)(b). It follows that derogations should be **targeted at the necessary scale** even to that of an individual specimen (e.g. a single problem bear).

(3-26) Derogations for the prevention of serious damage are mainly issued for species that have a significant impact on different sectors, such as large carnivores, *Castor fiber* and, to a lesser extent, *Lutra lutra*. These are topical examples of species whose presence and expansion can lead to a number of conflicts with human interests in different Member States. Mitigating these conflicts may require developing comprehensive conservation strategies and adjusting, when possible, human practices that give rise to conflicts in order to develop a culture of coexistence. It may also require developing plans that are locally adapted to the specific characteristics of the species and of the impacted activities, which may include derogations in line with Article 16(1)(b).

([113]) *Commission v Poland*, Case C-46/11, paragraph 31.

([114]) Judgment of 8 July 1987, *Commission v Belgium*, Case C-247/85, ECLI:EU:C:1987:339, paragraph 56. 'The aim of this provision of the Directive is not to prevent the threat of minor damage. The fact that a certain degree of damage is required for this derogation from the general system of protection accords with the degree of protection sought by the Directive.'

([115]) *Commission v Finland*, Case C-342/05, paragraph 40.

([116]) *Commission v Finland*, Case C-342/05, paragraphs 41–44 and 47.

(3-27) The European Commission has supported multiple LIFE projects and initiatives that have developed good practice guidelines for managing conflicts involving protected species (e.g. the *EU Platform on coexistence between people and large carnivores* ([117]) described in the box below). Species-specific guidelines have been produced at national or regional level in several Member States ([118]). When the plan is to seek a derogation, it is advisable to explore the measures, practices and instruments suggested in these guidelines or experienced elsewhere, in order to find the best locally adapted solutions to reduce damages and conflict, following the principle of proportionality.

21 – Good practice example: the *EU Platform on coexistence between people and large carnivores*

Four large carnivorous species, brown bear *Ursus arctos*, wolf *Canis lupus*, Eurasian lynx *Lynx lynx*, and wolverines *Gulo gulo*, are among the most challenging group of species in conservation terms at EU level. This is because they have large ranges that cross regional and national borders and they potentially conflict with human economic activities, such as farming. The issue is further complicated by the fact that different populations have different conservation statuses, different protection and management regimes, and different socio-economic settings.

The *EU Platform on coexistence between people and large carnivores*, supported by the European Commission since its launch in 2014, is a grouping of organisations representing different interest groups that have agreed to a joint mission: 'to promote ways and means to minimise, and wherever possible find solutions to, conflicts between human interests and the presence of large carnivore species, by exchanging knowledge and by working together in an open-ended, constructive and mutually respectful way'. Representatives of different interest groups take part in the meetings, including hunters, land owners, reindeer herders and nature protection NGOs.

The platform collates information and good practice from different Member States and promotes the findings on their website and through their information channels. Promoting and supporting the adoption of damage prevention measures through EU rural development funding and the collection and evaluation of case studies have been long-standing strands of the platform's work.

The platform communication plan describes the lessons learnt to date. Joint activities are most successful as it is easier to engage with a range of different stakeholders if they feel their interests are represented. Having international representatives from the platform and the European Commission in the regional events helps both in terms of the subjects covered and in the participants feeling that their concerns are being listened to by a wider group. Joint statements are generally agreed after events that set a marker for future events and enable them to build on previous activities ([119]).

22 – Good practice example: Management of the European beaver in France

In France, the European beaver is a strictly protected species and its conservation status is improving. However, in some areas, beavers cause damage to forestry, by chewing into forest stands and flooding wooded areas with their dam construction activities.

([117]) http://ec.europa.eu/environment/nature/conservation/species/carnivores/coexistence_platform.htm

([118]) See, for example, the guidelines for beaver management in Bavaria, by the Bavarian Ministry for Environment: Bayerisches Staatsministerium für Umwelt und Verbraucherschutz, 2016. 'Richtlinien zum Bibermanagement'. https://www.stmuv.bayern.de/service/recht/naturschutz/doc/bibermanagement_2016/richtlinien_bibermanagement_2016.pdf

([119]) For more information see:
EU Platform (2014), Agreement to participate in the EU Platform on coexistence between people and large carnivores: https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/EN_Agreement.pdf
EU Platform (2018a) Communication Plan, Version 2:
https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/2014_LC%20Platform%20Communication%20Plan%20v2.pdf
EU Platform (2018b) website.
https://ec.europa.eu/environment/nature/conservation/species/carnivores/coexistence_platform.htm

Following a regular recurrence of such damages, the affected individuals and organisations requested the national authorities to grant derogations from the strict protection of the species. A continued conflict could foster the illegal killing of individuals or uncontrolled interventions on the habitats of the species (destruction of dams) affecting the maintenance of populations in some areas. To find a satisfactory solution that was in-keeping with the species conservation status and its symbolic significance, derogations to move specimens into other areas have been granted when necessary and when other measures taken to promote coexistence with the species have not been sufficient. However, carrying out this operation is not easy and requires the acceptance of stakeholders in the new area, who may also fear the future impacts of the species.

Faced with this situation, the national hunting and wildlife agency (ONCFS – *Office national de la chasse et de la faune sauvage*) has set up a technical beaver network involving experts to build up knowledge about the species and provide in-the-field assistance to individuals affected by damages caused by beavers. The experience gained is currently being written up a good practice guidance to prevent damage to tree plantations and to reconcile the maintenance of the species' habitats ecological functionality while preventing flooding.

Measures that aim to reduce conflicts are being progressively developed and their effectiveness must therefore be assessed over the long term. These measures are varied and include technical solutions such as installing systems that prevent beaver digging, beaver pipes, beaver flow control devices, mechanical protection of trees and crops by using sleeves, stockades or electric fences, as well as the use of derogations for dam removal, displacement or notching, etc. These measures are adopted on a case-by-case basis.

On a larger scale, local management plans are drawn up with differentiated areas of action, depending on the risk and related prevention, mitigation and compensatory measures. This may include creating natural areas where restoring beaver habitats and where beaver dams can create wetlands. Management measures also involve monitoring the species and its impact, as well as communication and information activities.

(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***

(3-28) The third possible reason for granting a derogation is for 'imperative reasons of overriding public interest'. This concept is not defined in the Directive but the paragraph mentions public interest reasons such as public health and public safety. It also covers other non-specified reasons, such as reasons of a social or economic nature, reasons that have beneficial consequences of primary importance for the environment, etc. (the list is not exhaustive).

(3-29) In other fields of EU law where similar concepts appear, for instance the free movement of goods, the European Court of Justice has held that overriding requirements or public interest justify national measures restricting the principle of freedom of movement. In this context, it has recognised public health, environmental protection, and the pursuit of legitimate goals of economic and social policy as such imperative requirements.

(3-30) The same concept also appears in Article 6(4) of the Directive. So far, the Court has not issued any jurisprudence on how to interpret this specific concept but it can be considered that demonstrating the overriding considerations for a plan or project should be equally applicable to derogations. The Commission's analysis in its Article 6 guidance document ([120]) is helpful to explain this concept.

(3-31) Firstly, it is clear from the wording that **only public interests**, promoted either by public or private bodies, **can be balanced against the conservation aims of the Directive**. Thus, projects that are entirely in the interest of companies or individuals are not typically considered as being in the public interest.

([120]) Commission Notice C(2018) 7621 final, Brussels, 21.11.2018, Managing Natura 2000 sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1548663172672&uri=CELEX:52019XC0125(07)

(3-32) Secondly, the 'overriding' nature of this public interest must be underlined. This implies that not every form of public interest of a social or economic nature is sufficient, in particular when set against the particular weight of the interests protected by the Directive. Careful balancing of interests is needed here. It is also reasonable to assume that **in most cases, the public interest is likely to be overriding only if it is a long-term interest**: short-term interests that only yield short-term benefits would not be sufficient to outweigh the long-term interest of species conservation.

(3-33) The competent authority must thoroughly examine the 'overriding' nature of the public interest on a case-by-case basis, and strike an appropriate balance with the overall public interest of achieving the Directive's objectives. It seems reasonable to consider, as for Article 16(1)(b), that the use of derogations under Article 16(1)(c) does not require damages to human health or safety to be sustained before the adoption of derogation measures. However, when using this derogation, Member States must be able to demonstrate, with sufficient evidence, a link between the derogation and the cited objectives of overriding public interest.

(3-34) Species derogations for overriding public interests may be needed for plans or projects that affect Natura 2000 sites, subject to the requirements of Article 6(3-4). Preventive, mitigation and compensation measures envisaged under Article 6 should therefore also take into account the species concerned by the derogations. To ensure consistency and streamline the Article 16 procedures with the Article 6 assessments, it is advisable to also streamline, where relevant, verification of the derogation conditions (lack of satisfactory alternative solutions and of detrimental effects on the species) in the context of the appropriate assessment, where applicable.

23 – Good practices applied in granting derogations under Article 16(1)(c)

Based on an overview of Member States' derogation reports, Article 16(1)(c) 'for other imperative reasons of overriding public interest', is one of the most widely used reasons to issue a derogation in many countries. These derogations are usually linked to construction works, often in the framework of development projects or plans. The activities allowed often result in the disturbance of species, the deterioration or destruction of resting or breeding sites, and sometimes the killing of specimens. These derogations are in most cases 'multi-species' and often affect bats, amphibians and reptiles, as well as insects and other mammals.

Member States have stipulated different measures to be applied before issuing these derogations, both during and after implementation. The measures include:

— a feasibility study on all alternative options, balancing the impact on other species or habitats, as well as other ecological/social/economic aspects,

— an assessment of the effect of the activity on the species, both during and after the works,

— arrangements to minimise negative impacts (work timing, ecologists supervision, etc.),

— measures to increase the site attractiveness and accessibility for the species after the works,

— provision of temporary shelters in case the habitat is temporary unavailable,

— compensation measures, such as a replacement site near the project area before the works begin or within the new development upon its completion,

— monitoring changes in the use of the site and the response of the affected population to the measures taken,

— a control system to monitor implementation of the derogation to ensure that all conditions are met,

— a survey on the conservation status of the species affected in their natural range,

— the application of procedures in specific guidelines for carrying out works.

Some of these measures are required to ensure that derogations are not detrimental to the conservation status of the populations of the species concerned. Others go beyond the requirements, since they can also actively improve the initial site conditions or create new, broader or more suitable habitats.

These measures are similar to those envisaged in the assessment procedures under Articles 6(3) and 6(4). When Article 16(1)(c) derogations are linked to projects or plans subject to Article 6 (for example, for the destruction of habitats of Annex II/IV species within a Natura 2000 site), it is possible to carry out the assessment against the criteria of Article 16 and to frame further measures within the appropriate assessment. This approach saves time and avoids the cost of a double assessment while ensuring coherence in satisfying the requirements of both Articles 6 and 16, and producing a more comprehensive result in terms of meeting the conservation objectives.

(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***

(3-35) Such derogations could, for example, cover the marking of certain individuals of a species for research purposes (e.g. radio collars) in order to better understand their behaviour, or for conservation projects that aim to reintroduce species. Research projects must obviously also consider alternative methods. For example, where the research involves killing a specimen, the use of carcasses and samples from specimens killed for other reasons should be encouraged ([121]). It is also necessary to demonstrate that the purpose of such research overrides the interests of strict protection of the species.

(3-36) The taking of eggs, capture and captive breeding, translocation, etc. can all be allowed for the purpose of restocking eroded populations, increasing their genetic diversity or re-introducing a species. However, although the aim of these derogations is the conservation of the species, they could have several potential negative impacts, involving ecological, social and economic aspects and animal welfare considerations. It is therefore advisable, when granting derogations of this type, to use the best available data, mechanisms, tools (IUCN *Guidelines for Reintroductions and Other Conservation Translocations* ([122])) and relevant species-specific experiences, to increase the chance of success and prevent possible risks for the reintroduced species or other species.

When the species to be repopulated or reintroduced is listed in both Annex IV and Annex II to the Habitats Directive, and the destination areas are outside Natura 2000, the authorities should also evaluate the opportunity/need to designate the core reproductive and feeding areas of the repopulated or reintroduced species population as Natura 2000, in particular for priority species. Moreover, possible alternatives to reintroduction or translocation must have been previously assessed as less effective or shown to be not feasible as a means to reach the specific and clearly defined conservation objectives of the reintroduction or translocation.

(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***

(3-37) The fifth and last reason to issue a derogation is to take or keep certain specimens of the species listed in Annex IV, under strictly supervised conditions, on a selective basis and to a limited extent.

(3-38) Contrary to the provisions of Article 16(1) (a) to (d), Article 16(1)(e) does not specify an objective to be pursued when using this derogation. Nevertheless, **an objective must still be given when using Article 16(1)(e) and must be fully justified.** The objective must also be in line with the overall objectives of the Directive. The CJEU clarified in Case C-674/17 that 'a derogation decision must define the objectives relied upon in support of a derogation in a clear and precise manner'. The Court also considers that an exemption based on Article 16(1) of the Habitats Directive 'must be applied appropriately in order to deal with precise requirements and specific situations' ([123]). It is therefore clear that there must be a specific objective for granting a derogation.

([121]) See also Linnell J., V. Salvatori & L. Boitani (2008). Guidelines for population level management plans for large carnivores in Europe. A Large Carnivore Initiative for Europe report prepared for the European Commission.
([122]) See: https://portals.iucn.org/library/efiles/documents/2013-009.pdf
([123]) Case C-674/17, paragraph 41.

(3-39) In Case C-674/17 ([124]) the CJEU ruled that 'the objective of a derogation based on Article 16(1)(e) of the Habitats Directive cannot, in principle, be confused with the objectives of the derogations based on Article 16(1)(a) to (d) of that Directive, with the result that the former provision can only serve as a basis for the grant of a derogation in cases where the latter provisions are not relevant' and that 'Article 16(1)(e) of the Habitats Directive cannot serve as a general legal basis for granting derogations from Article 12(1) of that Directive, without depriving the other situations covered by Article 16(1) thereof as well as the system of strict protection of their effectiveness'.

Article 16(1)(e) is therefore not a general legal basis to provide derogations, but may only be applied if the objectives pursued with the derogation do not fall under Article 16(1)(a)–(d). Otherwise the provisions of 16(1)(a)–(d) and the system of strict protection would lose their effectiveness. In this particular case, the CJEU dealt explicitly with the problem of poaching a protected species, which it recognises as a major challenge to the conservation of endangered species. The Court acknowledged that, in principle, combating poaching may be cited as a method of contributing to maintaining or restoring the favourable conservation status of the species concerned and thus as an objective covered by Article 16(1)(e) of the Habitats Directive ([125]).

(3-40) It follows from the ruling in Case C-674/17 that Article 16(1)(e) does not limit the range of objectives that can be pursued legitimately with a derogation. In addition to combating poaching, other reasons may justify the use of Article 16(1)(e), provided that the objective of the derogation is in line with the overall objective of the Directive to maintain and restore the favourable conservation status of the species concerned.

However, the CJEU in Case C-674/17 also ruled that 'it is for the national authority to support, **on the basis of rigorous scientific data, including**, where appropriate, comparative data on the effects of hunting for population management purposes on the conservation status of wolves, the proposition that hunting for population management purposes is actually capable of reducing illegal hunting to such an extent that it would have a net positive effect on the conservation status of the wolf population, while taking account of the number of derogation permits envisaged and the most recent estimates of the number of wolves taken illegally' ([126]).

The CJEU also underlined that 'it must be considered that the mere existence of an illegal activity such as poaching or difficulties associated with its monitoring cannot be sufficient to exempt a Member State from its obligation to ensure the safeguarding of species protected under Annex IV to the Habitats Directive. On the contrary, in such a situation, that Member State must give priority to strict and effective monitoring of that illegal activity and implement methods that do not involve failure to observe the prohibitions laid down in Articles 12 to 14 and Article 15(a) and (b) of that Directive' ([127]).

(3-41) Even when it has been demonstrated that a derogation is based on a legitimate objective that fulfils the above conditions, **it can only be granted if it also meets a series of other criteria,** namely it must only concern limited numbers of specimens of the species, it must be applied on a selective basis and to a limited extent, and done under strictly supervised conditions ([128]). Each of these criteria are explored below.

— Limited numbers

(3-42) This is a relative criterion which has to be compared to the population level of a species, its annual reproduction and mortality rates and is directly linked with its conservation status ([129]). Therefore, it is essential to set a threshold for the number of individuals that can be taken/kept. In Case C-674/17, the CJEU clarified that **this number depends on the population level (number of individuals), its conservation status and its biological characteristics.** The 'limited

([124]) See paragraphs 34–37 of Case C-674/17.
([125]) Case C-674/17, paragraph 43.
([126]) Case C-674/17, paragraph 45.
([127]) Case C-674/17, paragraph 48.
([128]) See paragraph 35 of Case C-674/17.
([129]) In a case concerning the comparable provision of Article 9 of the Birds Directive 2009/147/EC (judgment of 27 April 1988, *Commission v France*, Case C-252/85, ECLI:EU:C:1988:202), the Court stated that: 'It is apparent from Article 2, in conjunction with the 11th recital of the preamble to the Directive, that the criterion of small quantities is not an absolute criterion but rather refers to the maintenance of the level of the total population and to the reproductive situation of the species concerned.'

numbers' will need to be established, under the responsibility of the competent national authority, on the basis of rigorous scientific information of geographical, climatic, environmental and biological data and in light of reproduction rates and total annual mortality due to natural causes but also losses due to other causes such as accidents, other derogations (e.g. under Article 16(1)(b)) and specimens, which are 'missing'.

The number of animals taken must also **ensure that it does not entail the risk of a significant negative impact on the structure of the population in question, even if it is not, in itself, detrimental to the maintenance of the populations of species concerned at a favourable conservation status in their natural range** ([130]). The 'limited numbers' must be clearly mentioned in the derogation decisions ([131]). This limit should be set at population level; this requires coordination between all management units that share the population concerned. For wide-ranging vertebrates with cross-border populations, such as large carnivores, the Member States sharing a population must coordinate to establishing a common position on what can be considered limited numbers for purposes of granting derogations.

(3-43) Derogations should not be granted where there is a risk that the derogation might have a significant negative effect on the conservation of the local population concerned in quantitative or in qualitative (e.g. on population structure) terms (see also Chapter 3.2.3). Given that all derogations must in any case fulfil the precise condition of Article 16(1) of not being 'detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range', the express reference in Article 16(1)(e) to 'limited numbers' suggests that the legislator intended a greater level of constraint.

(3-44) **The 'limited numbers' concept for strictly protected species is much more restrictive than the 'maximum sustainable quota' or the 'optimal sustainable yield' for species subject to hunting management and listed under Annex V to the Directive**. The 'limited numbers' condition is in line with the degree of protection sought by the Directive for non-exploitable species. The condition is more restrictive than the general derogation condition of ensuring the maintenance of populations of the species concerned at a favourable conservation status. It is therefore more restrictive than the 'sustainable' use required for Annex V species under Article 14, which ensures their exploitation is compatible with maintaining the species at a favourable conservation status ([132]).

(3-45) The 'limited number' threshold should be determined on the basis of specific criteria for each species, as it depends on the ecological requirements of each species. These may include spatial scale of distribution, habitat and landscape fragmentation, the availability of prey, social organisation of the species, patterns and levels of threat, including disease, pollution and contaminants, illegal and incidental mortality and climate change. In all cases, the 'limited number' ceiling '**must be determined on the basis of strict scientific data'** ([133]).

— Under strictly supervised conditions, on a selective basis and to a limited extent

(3-46) This qualification clearly demonstrates that the EU legislator intended to set significant constraints. The principle of strictly supervised conditions also implies that any use of this type of derogation must involve clear authorisations that must be related to particular individuals or groups of individuals, places, times and quantities. The term 'to a limited extent' supports this interpretation. It also implies the need for strict territorial, temporal and personal controls to enforce the derogations and ensure compliance.

([130]) Case C-674/17, paragraph 72. See also judgments of 8 June 2006, *WWF Italia and Others*, Case C-60/05, ECLI:EU:C:2006:378, paragraphs 25 and 29 and of 21 June 2018, *Commission v Malta*, Case C-557/15, ECLI:EU:C:2018:477, paragraph 62 in the context of Article 9 of the Birds Directive 2009/147/EC.

([131]) C-674/17, paragraph 70–72.

([132]) This is also coherent with the indications provided in the Guidance document on hunting under Council Directive 79/409/EEC on the conservation of wild birds for the definition of 'small numbers'. The Guidance considers that 'small numbers' must be a figure much lower than those figures characteristic of the taking of birds under Article 7 and even lower for those species which are not to be hunted.

([133]) Judgment of 8 June 2006, *WWF Italia and Others*, Case C-60/05, ECLI:EU:C:2006:378.

(3-47) In turn, the principle of **selectivity means that the activity in question must be highly specific in its effect**, targeting certain individuals of one species, or even one gender or age class of that species (e.g. mature males only) to the exclusion of all others. This approach is supported by the specification in Article 16(1)(e) that the taking or keeping must be restricted to 'certain specimens'. It also implies that certain technical aspects of the method used should verifiably demonstrate selectivity.

In Case C-674/17, the CJEU stressed this aspect by ruling: 'As regards the conditions relating to the selective and limited basis on which certain specimens of species are taken or kept, it should be noted that they require the derogation to cover a number of specimens determined in the narrowest, most specific and efficient way possible, taking into account the objective pursued by the derogation in question. It may also be necessary, in view of the level of the population of the species in question, its conservation status and its biological characteristics, for the derogation to be limited not only to the species concerned or to the types or groups of specimens thereof, but also to individually identified specimens' ([134]).

The same ruling clarified the term 'under strictly supervised conditions' as meaning: '…, in particular, that those conditions and the manner in which compliance with them is ensured can guarantee that the specimens of the species concerned are taken or kept on a selective basis and in limited numbers. Thus, for each derogation based on that provision, the competent national authority must ensure that the conditions laid down therein are satisfied before that derogation is granted **and monitor its subsequent impact.** The national legislation must **ensure** that the lawfulness of the decisions granting derogation permits under that provision and the manner in which those decisions are implemented, including as regards **compliance with the accompanying conditions relating to, in particular, places, dates, numbers and types of specimens targeted, are subject to effective control in a timely manner**' ([135]).

(3-48) The 'selective basis' condition echoes the ban under Article 15(a) on using non-selective means of capture and killing listed in Annex VI(a) for the taking, capture or killing, under derogations, of species listed in Annex IV(a). The method used for capture or trapping must be selective when derogations under Article 16(1)(e) are applied.

24 – CJEU case-law: Tapiola Case. The use of derogations to hunt wolves for population management purposes – Case C-674/17

Background:

In 2015, the Finnish Ministry of Agriculture and Forestry adopted a new national management plan for the wolf population in Finland whose objective was to establish and maintain the wolf population at a favourable conservation status. The plan outlined data showing growing social acceptance of illegal wolf hunting in certain circumstances and indicated a potential relation between poaching and considerable variations in recent wolf numbers.

Based on this, it noted that its objectives would not be met unless the needs of the people living and working in wolf territories were taken into account and advocated the use of derogation permits against individual animals causing nuisance, in order to prevent the illegal killing of wolves. These derogation permits had to relate to areas hosting large numbers of wolves and could not exceed a maximum number of animals that could be taken set by the authorities at (53 individuals per year for the period 2016–2018, outside the reindeer management area).

In December 2015, the Finnish Wildlife Agency granted two derogation permits to kill up to seven wolves in the Pohjois-Savo region, recommending that the permit holders target young individuals or individuals causing a nuisance and not alpha males. Tapiola, a Finnish association for nature conservation, contested this decision and brought the case before the Supreme Administrative Court of Finland. The latter decided to stay the proceedings and ask the Court of Justice of the European Union (CJEU) for guidance on the interpretation of Article 16(1)(e).

Question 1: Can regionally restricted derogation permits based on application from individual hunters be granted for 'population management purposes' under Article 16(1)(e), the objective of which is to combat poaching?

([134]) Case C-674/17, paragraph 73.
([135]) Case C-674/17, paragraph 74.

The CJEU recalls that the use of Article 16(1) constitutes an exception to the Directive's species protection regime and must therefore be interpreted restrictively. Derogations are only possible if it has been demonstrated that there is no satisfactory alternative and that the derogation is not detrimental to the maintenance of the populations of the species at a favourable conservation status in their natural range.

Article 16(1)(e) can only be used if the reasons for a issuing a derogation under Article (1)(a)–(d) are not relevant. In this case, the Court notes it was apparent from the content of the derogation decisions and the wolf management plan that poaching represented an important challenge to the maintenance or restoration of the wolf at a favourable conservation status in its natural range. It thus concludes that, in principle, if it can be demonstrated that those derogations would indeed help in combating poaching, then this could be considered a relevant objective covered by Article 16(1)(e).

However, before issuing a derogation under Article 16(1)(e), the national authority must be able to demonstrate, on the basis of rigorous scientific data, that such derogations are actually capable of reducing illegal killing to such an extent that they would have a net positive effect on the conservation status of the wolf population. In this case, no such scientific evidence had been provided.

In addition, the competent national authorities have to establish, taking account of the best relevant scientific and technical evidence and in the light of the circumstances of the specific situation in question, that there is no satisfactory alternative that can achieve the objective pursued. The Finnish Wildlife Agency had not demonstrated this.

Finally, the Court highlighted that the mere existence of an illegal activity such as poaching or difficulties associated with its monitoring cannot be sufficient to exempt a Member State from its obligation to protect the species. On the contrary, in such a situation, the Member State must give priority to strict and effective monitoring of that illegal activity and implement methods to ensure the prohibitions laid down in Articles 12 to 14 are fully respected.

Question 2: How is the requirement under Article 16(1) concerning the conservation status of species populations to be assessed when regionally restricted derogation permits are granted?

The Court notes that the assessment of the impact of a derogation at the level of the territory of a local population is generally necessary in order to determine its impact on the conservation status of the population concerned on a larger scale. Moreover, the conservation status of a population at national or biogeographical level also depends on the cumulative impact of the various derogations affecting local areas. Therefore, such a derogation cannot be granted without an assessment of the conservation status of the populations of the species concerned and the impact that the envisaged derogation is capable of having on it at both local level and the level of the territory of that Member State or, where applicable, at the level of the biogeographical region in question, and, to the extent possible, at cross-border level.

In principle, a management plan setting the maximum number of individual animals that may be killed for a given hunting year within the national territory could ensure that the annual cumulative effect of the individual derogations is without prejudice to the maintenance or restoration of the populations of the species in question at a favourable conservation status. However, if the number is set too high, this precondition will clearly not be respected.

In this case, in the 2015–2016 hunting year, over 14 % of the entire wolf population of Finland (43 or 44 out of between 275 and 310 wolves) was killed on the basis of derogation permits, including numerous breeding individuals. Moreover, these added up to the approximately 30 wolves killed illegally each year (as estimated in the management plan). Finally, it appears that the derogations have increased the overall killings of wolves, resulting in a net negative effect on the wolf population.

As regards the effect of an unfavourable conservation status of a species on the possibility of authorising derogations under Article 16(1), the Court recalls that granting such derogations remains possible *by way of exception* 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. Such derogations would therefore have to be neutral for the species concerned. (*Commission v Finland*, Case C-342/05, ECLI:EU:C:2007:341, paragraph 29).

However, as the Court pointed out, in accordance with the precautionary principle, if, after examining the best scientific data available, there remains uncertainty as to whether or not a derogation will be detrimental to the maintenance or restoration of populations of an endangered species at a favourable conservation status, the Member State must refrain from granting or implementing that derogation

3.2.2. *TEST 2: Absence of a satisfactory alternative*

The second consideration is whether there is a satisfactory alternative to the derogation, i.e. whether the problem the authority faces can be solved in a way that does not involve a derogation.

(3-49) Under Article 16(1), Member States must be certain that there is no satisfactory alternative before using a derogation. This is an overarching condition applicable to all derogations. It is for the competent national authorities to make the necessary comparisons and to evaluate alternative solutions. This discretionary power is nevertheless **subject to several constraints**.

(3-50) Based on case-law of the Court on the comparable provision of Article 9 of the Birds Directive 79/409/EEC ([136]), especially in Case C-10/96, analysing whether there is 'no other satisfactory alternative' can be considered as having three parts: **What is the problem or specific situation that needs to be addressed? Are there any other solutions?** If so, **will these resolve the problem or specific situation** for which the derogation is sought? The following remarks are based on CJEU case-law on the comparable derogation provision of Article 9 of the Birds Directive and can be applied by analogy to Article 16.

(3-51) The analysis of whether 'there is no other satisfactory alternative' presumes that a specific problem or situation exists and that it needs to be addressed. The competent national authorities are called upon to solve this problem or situation by choosing, among the possible alternatives, the most appropriate that will ensure the best protection of the species while solving the problem/situation. To ensure the strict protection of species, the alternatives must be assessed against the prohibitions listed in Article 12. For example, they could involve alternative locations of projects, different development scales or designs, or alternative activities, processes or methods.

For example, when assessing the existence of 'other satisfactory alternatives' to the measures under Article 16(1)(b), which aim to prevent serious damages to crops, livestock, forests, fisheries and water or other type of property, preventive non-lethal means compatible with Article 12 must first be implemented or, at least, seriously examined. In most cases, crop or livestock damage **preventive measures** (such as the use of appropriate fences, wildlife deterrent devices, livestock guarding dogs, shepherding or changes in livestock management practices, as well as promoting improvement of the habitat conditions or prey populations of the species concerned) may be a satisfactory alternative to the use of derogations under Article 16(1)(b) derogations. Other preventive measures, such as the dissemination of science-based information with the purpose of reducing conflict (for example husbandry methods or human behaviour) may be part of the satisfactory alternatives to the use of lethal control under both Article 16(1)(b) and Article 16(1)(c) derogations.

(3-52) When ascertaining whether another satisfactory solution exists for a specific situation, all ecological, economic and social pros and cons should be considered, in order to identify the optimal alternative for the specific case. This **analysis of pros and cons** should look at the potential negative effects of the possible solutions as well as options and tools to annul or minimise any negative effects. The net result, in terms of solving the problem while avoiding or minimising secondary effects, should then be weighed against the effects of a derogation, taking into account the overall objective of the Directive.

([136]) *Ligue royale belge pour la protection des oiseaux ASBL and Société d'études ornithologiques AVES ASBL v Région Wallonne*, Case C-10/96; judgment of 16 October 2003, *Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement*, Case C-182/02, ECLI:EU:C:2003:558.

(3-53) Once again, when authorising derogations, the competent national authorities must ascertain whether there are no satisfactory alternatives that can achieve the objective pursued, taking account in particular of the best relevant scientific and technical evidence, in the light of the circumstances of the specific situation and in compliance with the prohibitions laid down in the Habitats Directive ([137]).

(3-54) In Case C-674/17, for instance, the CJEU considered that the mere existence of an illegal activity, such as poaching or the difficulties encountered in monitoring this activity, are not sufficient to relieve a Member State of its obligation to safeguard the species in accordance with Annex IV to the Habitats Directive. In such a situation, it must give priority to the strict and effective control of that illegal activity and to adopting measures that are in line with the prohibitions laid down in Articles 12 to 14 and Article 15(a) and (b) of that Directive ([138]).

(3-55) Only when it is sufficiently demonstrated that potential alternatives are not satisfactory, either because they are not able to solve the specific problem or are technically unfeasible, and when the other conditions are also met, can the use of the derogation be justified.

However, **if a measure is partially satisfactory even if it does not sufficiently address the problem, but it can still reduce or mitigate the problem, it should be implemented first**. Derogations for lethal intervention may only be justified for the residual problem, if no other methods are possible, but must be proportional to the problem remaining after non-lethal measures are taken.

(3-56) The process to ascertain whether another alternative is unsatisfactory should be based on a well-documented assessment of all possible available options, including in terms of their effectiveness, based on the best available facts and data. The assessment of alternatives must be balanced in light of the overall objective of maintaining or restoring the favourable conservation status of the species of Community interest concerned (it must therefore take into account the conservation status, the impact of additional incidental or illegal removal of specimens and prospects of the population concerned). The assessment may also take into account proportionality in terms of cost. However, economic cost cannot be the sole determining factor when analysing alternative solutions. In particular, satisfactory alternative solutions cannot be rejected from the outset on the grounds that they would cost too much ([139]).

(3-57) In any case, **issuing an Article 16 derogation must be a last resort** ([140]). The essential common characteristic of any derogation system is that it has to be subordinate to other requirements laid down in the Directive in the interest of conservation.

(3-58) The same approach applies to the interpretation of the term 'satisfactory'. Given the exceptional nature of the derogation regime and the duty of Member States under Article 4(3) TEU to help the EU achieve its tasks, a derogation would only be justified on the basis of an objective demonstration that there is no other satisfactory solution ([141]).

(3-59) The Advocate General in Case C-342/05 clarified the proportionality principle, according to which ([142]) a 'measure may not be implemented if its objective can be attained by less drastic means, that is to say by means of a satisfactory alternative within the meaning of Article 16(1) of the Habitats Directive'. 'An alternative is satisfactory not only if it would attain the objectives of the derogation equally well, but also if the disadvantages caused by the derogation would be disproportionate to the aims pursued and the alternative would ensure proportionality'.

([137]) Case C-674/17 paragraph 51.
([138]) Case C-674/17, paragraph 48.
([139]) See for the principle proportionality in the context of Article 6 Commission Notice C(2018) 7621 final, Managing Natura 2000 sites – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, p. 55. https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1548663172672&uri=CELEX:52019XC0125(07)
([140]) See paragraph 33 of the Advocate General's Opinion in Case C-10/96.
([141]) According to the Advocate General in Case C-10/96, this term 'may be interpreted as meaning a solution which resolves the particular problem facing the national authorities, and which at the same time respects as far as possible the prohibitions laid down in the Directive; a derogation may only be allowed where no other solution which does not involve setting aside these prohibitions can be adopted'.
([142]) See paragraphs 24–27of the Advocate General's Opinion in Case C-342/05.

(3-60) **The determination of whether an alternative is satisfactory in a given factual situation must be founded on objectively verifiable factors, such as scientific and technical considerations.** Given the exceptional nature of the derogation regime, a derogation would only be justified on the basis of an objective demonstration of the grounds on which other prima facie satisfactory solutions cannot be adopted ([143]). Evidently, the requirement to seriously consider other alternatives is of primary importance. Member States have limited discretionary power, and where another solution exists, any arguments that it is not satisfactory will need to be convincing. The judgment in Case C-182/02 illustrates the strict approach taken by the Court for derogations under the Birds Directive. In order to ascertain whether a satisfactory solution existed, the Court assessed both the 'need' and the 'purpose' of the derogation ([144]).

This judgment confirms the importance of demonstrating that there are compelling reasons to justify a derogation ([145]). **Another solution cannot be deemed unsatisfactory merely because it would cause greater inconvenience to or compel a change in behaviour** in the beneficiaries of the derogation. In this regard, the arguments based on the 'deeply rooted tradition' or 'historical and cultural tradition' of hunting practices were found to be insufficient to justify the need for a derogation from the Birds Directive ([146]). The same logic applies to derogations under the Habitats Directive.

(3-61) In addition, the solution finally selected, even if it involves a derogation, must be objectively limited to the extent necessary to resolve the specific problem or situation ([147]). This means that **derogations must be limited in time, place, numbers** of specimens involved, specific specimens involved, persons authorised, etc. The need to limit a derogation to the extent necessary to resolve the problem was re-confirmed in Case C-10/96 on the comparable provision of Article 9 of the Birds Directive ([148]). According to the Court, the number of specimens involved by the derogation must be 'fixed at the level of what proves to be objectively necessary to provide a solution for those problems'. This limit is distinct from the 'limited numbers' in Article 16(1)(e), which is an overall 'cap' when applying this particular derogation ([149]).

3.2.3. *TEST 3: Impact of a derogation on conservation status*

In line with the harmonised reporting framework agreed for Article 17 of the Directive, the overall conservation status of a species in a Member State is evaluated at a biogeographic level in each Member State. But to assess the impact of a specific derogation, this should be done at a lower level (e.g. site, population level) in order to be meaningful in the specific context of the derogation.

(3-62) According to Article 16(1), derogations must not be 'detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range'. Implementation of this provision should include a two-step assessment: firstly, to assess the conservation status of the specific populations of a species in its natural range within the Member State concerned (and possibly beyond national boundaries if the populations are shared with

([143]) See also paragraph 39 of the Advocate General's Opinion in Case C-10/96.

([144]) *Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement*, Case C-182/02, paragraph 16.

([145]) See also judgment of 15 December 2005, *Commission v Finland*, Case C-344/03, ECLI:EU:C:2005:770, paragraphs 18–46.

([146]) Judgment of 9 December 2004, *Commission/Spain*, Case C-79/03, ECLI:EU:C:2004:782, paragraph 27. See also the Opinion of the Advocate-General delivered on 7 November 1996 in Case C-10/96, ECLI:EU:C:1996:430, paragraph 36: 'Article 9 only admits a derogation "where there is no other satisfactory solution", and not where the application of a prohibition would merely cause some inconvenience to those affected or require them to change their habits'. 'It is in the nature of environmental protection that certain categories of persons may be required to amend their behaviour in pursuit of a general good; in this case, the abolition, as a consequence of the Directive, of "tenderie" or 'the capture of birds for recreational purposes"'. 'That such activities may be "ancestral" or partake of an "historical and cultural tradition" does not suffice to justify a derogation from the Directive'.

([147]) See paragraphs 21–22 and 26–27 of the judgment.

([148]) *Ligue royale belge pour la protection des oiseaux ASBL and Société d'études ornithologiques AVES ASBL v Région Wallonne*, Case C-10/96.

([149]) In line with paragraph 3.4.12 of the Guidance document on hunting under Council Directive 79/409/EEC on the conservation of wild birds.

neighbouring countries) and, secondly, an evaluation of the impact of the derogation on the conservation status of the specific population or populations concerned. For the sake of clarity, 'population' is defined here as a group of individuals of the same species that live in a defined geographic area at the same time and are (potentially) interbreeding (i.e. sharing a common gene pool) ([150]).

3.2.3.a) Scale of assessment

(3-63) The question then arises as to the level that should be considered for evaluating whether the impact of a derogation is detrimental, neutral or could be positive for the conservation status of a species. The conservation status of a species must ultimately be considered across its natural range, according to Article 1(i). In discussions with the Habitats Committee, it was agreed that, for the purpose of reporting under Article 17 (in connection with Article 11), conservation status should be assessed at biogeographic level in each Member State. This would ultimately allow information to be aggregated for entire biogeographic regions across the EU. The conservation status of a species within the given biogeographic region in a Member State is therefore highly relevant information when considering a derogation.

(3-64) **However, an assessment of the impact of a specific derogation will in most cases have to be at a lower level** than the biogeographic region in order to be meaningful in ecological terms. A useful level could be the (local) population. The wording of Article 16, which mentions *'populations of the species concerned'*, confirms this interpretation.

Of course, the approach must be adapted to the species in question: the cumulative effects of killing individuals of a wide-ranging large carnivore will need to be evaluated at population level (cross-border where applicable ([151])), while the impact of destroying a breeding site in a rather fragmented amphibian habitat may be better evaluated on an individual site or at meta-population level ([152]).

According to established case-law, derogations must be applied appropriately to deal with precise requirements and specific situations ([153]). It follows that assessments at lower levels are normally essential, since the derogations must deal with specific problems and provide suitable solutions. Derogations must therefore be **granted for a specific place since their primary impact is at local level**. The assessment at a lower level would then have to be assessed against the situation on a larger scale (e.g. biogeographic, cross-border or national), for a complete picture of the situation.

In its ruling in Case C-674/17 on derogations for wolves, the CJEU follows this reasoning by stating that, before authorising derogations, the national authorities must **assess the conservation status of the population concerned and the impact of the envisaged derogations at both local level and the level of the territory of the Member State** or, where applicable, at the level of the biogeographical region in question where the borders of the Member State straddle several biogeographical regions or if the natural range of the species so requires and, to the extent possible, at cross-border level. The CJEU clarified that: 'the assessment of the impact of a derogation at the level of the territory of a local population is generally necessary in order to determine its impact on the conservation status of the population concerned on a larger scale. (…) The most direct effects of such a derogation are generally felt in the local area to which it relates. Moreover the conservation status of a population at national or biogeographical level depends also on the cumulative impact of the various derogations affecting local areas' ([154]). 'Therefore, such a derogation cannot be granted without an assessment of the conservation status of the populations of the species concerned and the impact that the envisaged derogation is

([150]) For the definition of 'range' and 'population', see also 'Reporting under Article 17 of the Habitats Directive – Explanatory Notes and Guidelines' for the period 2013–2018, p. 29f. https://cdr.eionet.europa.eu/help/habitats_art17

([151]) Regarding species with cross-border populations or species that migrate across the frontiers of the EU, the overall natural range of these species, should be considered where possible or feasible.

([152]) A metapopulation consists of a group of spatially separated populations of the same species which interact at some level. The term 'metapopulation' was coined by Richard Levins in 1969 to describe a model of population dynamics of insect pests in agricultural fields, but the idea has been most broadly applied to species in naturally or artificially fragmented habitats.

([153]) See in particular: *Commission v Belgium*, Case 247/85, paragraph 7; judgment of 8 July 1987, *Commission v Italy*, Case 262/85, paragraph 7; *WWF Italy v Regione Veneto*, Case C-118/94, paragraph 21; C-674/17, paragraph 41.

([154]) Case C-674/17, paragraph 59.

capable of having on it at both local level and the level of the territory of that Member State or, where applicable, at the level of the biogeographical region in question where the borders of that Member State straddle several biogeographical regions or if the natural range of the species so requires and, to the extent possible, at cross-border level' ([155]). However, 'it cannot be accepted that, for the purpose of that assessment, account should be taken of the part of the natural range of the population in question extending to certain parts of the territory of a third country which is not bound by an obligation of strict protection of species of interest for the European Union' ([156]).

(3-65) Where the authority to grant derogations is given at sub-national levels (e.g. by the regional administration), it is necessary to coordinate and have an **overview and supervision** of the granting of derogations at Member State level (and also beyond national borders in the case of cross-border populations), to avoid the risk that the sum of the derogations result in detrimental effects to the conservation status of the populations of the species concerned in their (national) natural range (see also 3.1.2).

3.2.3.b) Derogations and the impact on conservation status

The net result of a derogation should be neutral or positive for a species' conservation status. Compensation measures may, under certain circumstances, be used to compensate e.g. for the impact of a derogation on breeding sites and resting places, but do not replace or reduce the need to comply with any of the three tests. Species conservation plans are not obligatory but they are recommended as they help ensure that derogations are granted in line with the objectives of the Directive.

(3-66) As pointed out in applicable ECJ case-law ([157]), 'Article 16(1) of the Directive makes the favourable conservation status of those populations in their natural range a necessary precondition in order for the derogations for which it provides to be granted'. Neither the granting of derogations for species in an unfavourable conservation status nor the use of compensation measures is explicitly provided for in the Directive. However, by interpreting and implementing the provision in Article 16(1) in a way that puts the focus on reaching the overall objective of favourable conservation status, both concepts may be incorporated in the interpretation provided that reaching this objective is not compromised in any way.

(3-67) The favourable conservation status of the populations of the species concerned in their natural range is in principle a necessary precondition to grant a derogation ([158]). Nonetheless, in Case C-342/05, having established that the conservation status of the wolf in Finland was not favourable, the Court considered ([159]) that the granting of derogations for killing wolf specimens remain possible 'by way of exception' and '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 killing of a limited number of specimens might have a negligible effect on the objective envisaged in Article 16(1) of the Habitats Directive, namely maintaining or restoring the wolf population at a favourable conservation status in its natural range. Such a derogation could therefore be neutral for the species concerned. Thus, if the conservation status of the concerned species is not favourable, a derogation can only be granted if it is justified as being under exceptional circumstances and only if the conservation status is not worsened and its restoration at a favourable status is not prevented (neutral effect), and provided that all the other requisite conditions under Article 16 are also fulfilled. In Case C-342/05, the Court found that in fact derogations were granted by the relevant national authorities 'without relying on an assessment of the conservation status of the species, without providing a clear and sufficient statement of reasons as to the

([155]) Case C-674/17, paragraph 61.
([156]) Case C-674/17, paragraph 60.
([157]) See in particular: Judgment of 10 May 2007, *Commission v Republic of Austria*, Case C-508/04, paragraph 115, and Judgment of 14 June 2007, *Commission v Finland*, Case C-342/05, paragraph 28.
([158]) See in particular: *Commission v Republic of Austria*, Case C-508/04, paragraph 115, and *Commission v Finland*, Case C-342/05, paragraph 28.
([159]) Judgment of 14 June 2007, *Commission v Finland*, Case C-342/05, ECLI:EU:C:2007:341, paragraph 29.

absence of a satisfactory alternative and without specifically identifying the wolves causing serious damage which could be killed'. Furthermore, the Court stated that such derogations 'which are not based on an assessment of the effect of the killing of the wolves that they authorise on the maintenance at a favourable conservation status of the population of that species in its natural range, and which do not contain a clear and sufficient statement of reasons as to the absence of a satisfactory alternative, are contrary to Article 16(1) of the Habitats Directive' ([160]). In Case C-674/17, the EUCJ stressed that the abovementioned assessment of the effect of the planned derogations on the favourable conservation status must be carried out in light of the precautionary principle ([161]). In other words, 'if, after examining the best scientific data available, there remains uncertainty as to whether or not a derogation will be detrimental to the maintenance or restoration of populations of an endangered species at a favourable conservation status, the Member State must refrain from granting or implementing that derogation' ([162]).

A similar approach should be adopted when the conservation status of the concerned species is unknown. In this case, it would be impossible to ascertain the impact of the derogation on the conservation status, so that the derogation could not be granted.

(3-68) Obviously, the less favourable the conservation status and trends, the less likely that a derogation could be justified, except under the most exceptional circumstances.

It is also clear that taking this approach to derogations is best done within a clear and well-developed framework of species conservation measures. Again (as with protection measures), the conservation status of a species is the core consideration when assessing and justifying the use of derogations. It is therefore important not only to consider the current conservation status, but also to examine how it is changing.

(3-69) Regarding the current conservation status of the affected species, the state and condition of the local population of a species in a certain geographical area might well be different from the overall conservation status of populations in the biogeographic region in the Member State (or even the natural range). Therefore the conservation status at all levels should be known and properly assessed before deciding whether to issue a derogation.

(3-70) No derogation can be granted if it has – at any level – a detrimental effect on the conservation status or on the attainment of favourable conservation status for a species. In other words, if a derogation is likely to have a significantly negative effect on the population concerned (or the prospects of this population) or even on a local population within a Member State, the competent authority should not grant it. **The net result of a derogation should be neutral or positive for the relevant populations of the species.**

(3-71) When data are not sufficiently robust and reliable to prove that the conservation status is favourable and/or to ensure the derogation does not adversely affect the conservation status, the precautionary principle (requiring that the conservation objectives should prevail where there is uncertainty) should be applied and no derogations should be granted. As stated by the CJEU in Case C-674/17, 'it must also be noted that, in accordance with the precautionary principle enshrined in Article 191(2) TFEU, if, after examining the best scientific data available, there remains uncertainty as to whether or not a derogation will be detrimental to the maintenance or restoration of populations of an endangered species at a favourable conservation status, the Member State must refrain from granting or implementing that derogation' ([163]).

(3-72) Where the state and condition of the species is different in the different geographic levels, the assessment should first look at the local population level, and then the impact of the derogation on the population in the biogeographic region, taking into account also the cumulative effect of other derogations for the same species in that biogeographical region.

([160]) Case C-342/05; paragraphs 30–31.
([161]) Case C-674/17; paragraphs 68–69.
([162]) Case C-674/17; paragraph 66.
([163]) Case C-674/17; paragraph 66.

3.3. **Additional considerations**

(3-73) When assessing whether a derogation could be detrimental to maintaining populations of the species at a favourable conservation status, consideration should also be given to the following elements in particular:

(a) whether the requisite (appropriate, effective and verifiable) measures are established, implemented and enforced effectively for a species in a Member State to ensure its strict protection and that it reaches a favourable conservation status;

(b) that the derogation does not work against, render ineffective or neutralise the requisite measures;

(c) the impacts (including cumulative effects) of derogations are closely monitored and lessons are drawn for the future.

3.3.1. *The role of species action plans*

(3-74) One way of ensuring an appropriate use of derogations, as a part of a strict protection system, would be to **draw up and implement comprehensive species action plans or conservation/management plans,** even though these are not required under the Directive. These plans should aim to protect the species and restore or maintain its favourable conservation status. They should include not only the requisite measures under Article 12 but also measures to support or restore the viability of the population, its natural range and the habitats of the species. The plans could then provide a useful basis, and guiding framework, for issuing derogations, provided that the derogations are still granted on a case-by-case basis, that all the other conditions of Article 16 are met and that it has been demonstrated that the derogation is not detrimental to maintaining the populations of the species concerned at a favourable conservation status.

(3-75) For example, derogations to prevent serious damages to crops or property can be less effective in resolving the problem over the long term if they are done independently of any other measures for the species. However, if they are accompanied by a number of other measures (i.e. non-lethal arrangements, prevention measures, incentives, compensations, etc.), in the context of a species conservation/management plan, as a part of a strict protection system, the derogations could be rendered much more effective. Under such conditions, a species conservation/management plan, if properly implemented, could provide an appropriate framework for issuing derogations in line with the objectives of the Directive. Such plans would naturally have to be updated regularly in the light of improved knowledge and monitoring results.

(3-76) To set an appropriate framework for issuing derogations, species conservation/management plans should be based on **robust and updated scientific information** about the species population status and trends and have as the main objective to maintain or restore the species to a favourable conservation status (specifying the conditions to be fulfilled for this goal). The plans should include a solid and comprehensive assessment of all the relevant threats and pressures on the species, as well as an analysis of existing mortality levels, either by natural causes or human-induced factors, such as illegal killing (poaching) or incidental capture and killing.

(3-77) On the basis of the best existing information and sound scientific assessments and monitoring systems, species conservation/management plans could then set out a coherent range of measures to be implemented and monitored in order to ensure that the favourable conservation status of the population concerned is achieved or maintained. Only under these circumstances could the species conservation/management plans constitute a suitable framework for issuing derogations, which may in turn help simplify the procedure for granting each specific derogation, provided that all the requisite conditions under Article 16 are also fulfilled.

3.3.2. *Impact assessment for plans/projects and species protection*

(3-78) The specific provisions and procedures under Article 16 need to be complied also in case of a plan or project, that might affect a EU protected species and is subject to the assessment procedures under Article 6(3) of the Habitats Directive or under the EIA or SEA Directives. In this case, the impact assessment procedures carried out for plans and projects can be used to assess the impact on the requirements under Article 12 and to verify whether the conditions for a derogation under Article 16 are fulfilled.

This would be relevant, for example, when the construction and/or operation of a project is likely to cause the deterioration or destruction of breeding sites or resting places or the disturbance of any species listed in Annex IV(a) and occurring in the project area.

In those circumstances, it is necessary to assess:

— if any of the species listed in Annex IV(a) to the Habitats Directive is present in the project area,

— if any of the breeding sites or resting places of the species listed in Annex IV(a) to the Habitats Directive are present in the project area,

— if any of these species and/or their breeding sites or resting places will be 'impacted' (killed, disturbed, damaged, etc.) by the construction and/or operation of the project and, if so

— if the conditions set out in Article 16 are fulfilled.

(3-79) Only after the above checks are carried out may a derogation under Article 16 be granted and project be lawfully carried out (after having obtained development consent). If, for example, a breeding site of an Annex IV(a) species is present and will be destroyed by the project construction or operation, authorisation of the project would constitute a breach of Article 12, unless a derogation under Article 16 is granted and that the conditions for issuing a derogation are fulfilled.

(3-80) When projects are likely to have a significant effects on Natura 2000 sites, either individually or in combination with other plans or projects, they are subject to an appropriate assessment under Article 6(3) of the Directive, which would also carry out the checks in the abovementioned list and follow up as appropriate.

For projects that are not subject to Article 6(3) because they are not likely to have a significant effects on Natura 2000 sites, either individually or in combination with other plans or projects, Member States can adapt existing procedures to meet the requirements of Article 12 and 16. This means that the checks in the list above can be built into the appraisals that form part of the decision-making processes at various levels in a Member State, including land-use planning decisions or environmental assessment procedures for programmes, plans and projects.

The underlying purpose is to correctly and promptly identify the impacts of a project, including the impact on protected species listed in Annex IV(a) to the Habitats Directive and their habitats, before the project is carried out. The EIA procedure is a possible vehicle for this.

(3-81) Coordinating legal procedures may avoid legal complications. Ideally, after receipt of the request for development consent on a project falling within the scope of the EIA Directive, an EIA (at least the screening stage) is started so that all potential impacts can be identified. Thus, the need for derogation can be identified without delay and it can be assessed whether the requirements of Article 16 Habitats Directive can be met. If so, the development consent could then be given together with the derogation. If the project needs to be modified due to the findings of the EIA, the derogation can be based on the modified project.

Ideally, the EIA carried out following the application for the single permit will cover all relevant impacts on the environment (including the impact on species listed in Annex IV(a) to the Habitats Directive and their breeding sites or resting places) which can be dealt with when granting the permit. For example, this can be done by setting conditions mitigating the negative impacts and/or by granting derogations to certain prohibitions set in law, if they fulfil the conditions for the derogations.

(3-82) Although it is not obligatory under Articles 12 and 16 of the Habitats Directive to carry out the abovementioned checks within an appropriate assessment under Article 6(3) of the Habitats Directive or as part of the EIA procedure, this is the best way to ensure compliance with Articles 12 and 16 of the Habitats Directive. The EIA procedure can identify the impact on species listed in Annex IV to the Habitats Directive associated to a project as well as the potential consequences of the project in terms of breaching any of the prohibitions in Article 12 of the Habitats Directive. Carrying out the impact assessment including the multiple consultations required before issuing a derogation and the development is the best way forward as it facilitates coordination in decision-making.

3.3.3. *The role of compensation measures (derogations from Article 12(1)(d))*

(3-83) Compensation measures may be envisaged for justified derogations, namely from Article 12(1)(d), i.e. where there is a deterioration or destruction of breeding sites and resting places. Depending on the biology, ecology and behaviour of species, such measures may work well for some species, but not for others.

Unlike mitigation measures, compensation measures are independent of the activity that causes the deterioration or destruction of a breeding site or resting place. Such measures are intended to compensate for specific negative effects on a breeding site or resting place, which in no case results in a detrimental impact on the conservation status for the species concerned. Ideally, compensation measures should match the negative effects on the breeding site or resting place, and be in place and effective before the negative effect occurs.

(3-84) Compensation measures are not mentioned in Article 16, and therefore are not obligatory. They also cannot justify or compensate for a breach of Article 12, but can be one element to seek to ensure compliance with the requirement in Article 16(1) that there be no detrimental impact on the conservation status for the species concerned.

Ideally, compensation measures would:

(i) compensate for the negative impact of the activity on the species' breeding sites and resting places, under the specific circumstances (at local population level);

(ii) have a good chance of success and be based on best practice;

(iii) improve a species' prospects of achieving favourable conservation status;

(iv) be effective before or at the latest when the deterioration or destruction of a breeding site or resting place starts to take place.

(3-85) Carried out in this way, compensation measures could guarantee that no overall detrimental effect is produced on the species' breeding sites and resting places at either population or biogeographic level. ***However, it does not replace or reduce the need for derogations under Article 16 to comply with the three tests mentioned above.*** This means that adoption of a compensation scheme cannot be used to bypass the need for a derogation and the need to pass all three tests described in Chapter 3.2.

3.3.4. *Multi-species derogations*

(3-86) Some projects (e.g. large infrastructure projects of public interest, such as transport networks) can affect a number of Annex IV species. In these cases, the impact on ***each*** of the affected species should be assessed and, based on this information, an overview of the overall impact should be formed in order to select the best solutions. The solutions must also meet all three tests. It is not enough to simply list the number of species potentially affected without taking the further step of assessing the extent of the problems and finding ways to avoid them.

3.3.5. *Temporary nature: dealing with the colonisation of sites under development by species listed in Annex IV*

(3-87) There will be occasions when already licensed land development activities (for instance the construction of new infrastructure such as roads, houses, etc. or ongoing quarrying activities) lead to the creation of favourable new habitats that become colonised by species listed in Annex IV to the Directive. Such typical nature features, for instance on extraction sites, could include new ponds (benefiting amphibians and dragonflies), open ground, sand and gravel areas (attracting insects and birds), pioneer grasslands (attracting insects and birds), loose cliffs (benefiting birds and solitary bees), and the creation of areas providing shelter (for reptiles, amphibians, and insects).

As the strict protection regime under Article 12 does not distinguish between temporary (e.g. up to 5–10 years) or permanent, artificially or naturally created environments, it must be considered that protected animal or plant species listed in Annex IV that start to occupy a new site as a result of permitted land development activities **are also fully covered by the scope of the protection** provisions of Article 12.

(3-88) Applying the strict protection regime under Article 12 to such cases can present a significant challenge to project developers and land owners who, by the nature of the work, may need to remove these 'temporary' habitats in order to advance their work as permitted. Removing the habitats, either during a preparatory, operational or decommissioning phase of a project, requires a derogation under Article 16(1) if the conditions are fulfilled (see below).

Without legal certainty that the area in question can legitimately be used for the permitted purpose as planned, land owners or project developers may want to prevent the intrusion of protected species (for instance, by using pesticides or tillage) in the interim period when the land is not actively being developed in order to avoid additional burdens, restrictions or limitations linked to the presence of protected species that were not originally present on their land. This could present a lost opportunity as any additional temporary habitats that would not have otherwise thrived in the area concerned can, under certain conditions, contribute positively to the objectives of the Directive.

(3-89) To provide this legal certainty, and thereby an incentive to enable temporary nature sites to be created or maintained, developers **can apply for a derogation under Article 16 at an early stage of the planning process**, when protected species have not yet colonised the site but where such colonisation can be expected with some certainty (this may be the case for instance when the species is already present in the surrounding areas). This form of prior derogation would allow the subsequent removal of temporary nature features in line with the project development needs. However, the legal standards for such derogations cannot be lower than those for derogations for already occurring protected species and their habitats, and they must still fulfil all the conditions set out in Article 16. Among other issues, this means that derogations granted prior to the actual settlement of the colonising species or its habitat must specify the objectives sought through the derogation in a clear and precise manner ([164]).

(3-90) Therefore, **it will be important that applications for an Article 16 derogation are preceded by a complete field inventory** that aims to detect all protected species, not only within the project area but also in surrounding areas. This will ensure that all 'predictable' Annex IV species are identified, together with their abundance and the likelihood of them colonising the project area. The Article 16 decision can then be used to set conditions for maintaining the continued ecological functionality of the species' habitat in the event that the new colonised habitat within the project area has to be removed for the purposes of the permitted project/activity. This could, for instance, include creating and protecting similar habitats outside the project area and relocating the species within the project area to these habitats, supported by long-term monitoring. As with all derogations, correct implementation must also be verified and recorded.

(3-91) Derogations that address temporary nature situations as described above, require an objective justification, under one of the grounds set out in Article 16(1). One possibility is to base the derogation on the reasons set out in Article 16(1)(a) which justifies a derogation 'in the interest of protecting wild fauna and flora and conserving natural habitats'. The wording of the provision is not limited to derogations granted to protect a plant or animal species against other competing protected species. The wording can be interpreted to also allow for a derogation from the strict protection regime for a protected species for its own benefit. The wording 'interest' in the provision suggests that the **derogation must provide an added value to the species concerned**. This would mean that Article 16(1)(a) would be applicable if it can be shown that there is a net benefit for the species concerned which was only made possible by granting the derogation in the first place.

(3-92) Article 16(1)(c) provides for the possibility to grant a derogation 'for (…) imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment'. The reference to 'primary importance for the environment' could be interpreted in a similar way to the one suggested above with regard to the reference made to 'the interest of protecting wild fauna and flora and conserving natural habitats', as contained in Article 16(1)(a), i.e. assuming that a derogation from the strict protection regime for a species could be granted also for its own benefit. However, the added value would have to be of 'primary importance' which in this case sets a higher threshold than under Article 16(1)(a).

([164]) See Case C-674/17, paragraph 41.

(3-93) The possibility of using derogations for temporary nature sites should be carefully addressed at the project-planning phase, and should include a detailed scientific assessment of where protected species may settle in the different phases of the project. The planning phase should include an assessment of how the species having colonised the temporary habitats can be preserved during and after the project, to the extent possible, e.g. by implementing suitable mitigation measures and supporting relocation.

(3-94) The derogation decision must nevertheless still fulfil all the other criteria laid down in Article 16 (absence of alternatives, no detriment to conservation status) and should set out strict surveillance and monitoring commitments in advance ([165]). These will ensure that development of the temporary site corresponds to the predicted emergence/occurrence of protected species on the site. This monitoring work would also provide the evidence needed to apply for an additional derogation to address any new occurrences that were not anticipated from the outset.

25 – Good practice example: LIFE in quarries project in Belgium: dynamic management of biodiversity in the context of active quarries

The aim of the LIFE in quarries [LIFE14 NAT/BE/000364] project is to develop methods to optimise the biodiversity potential of operating mineral extraction sites. As part of quarry-specific biodiversity management plans, the project explored scientific and legal approaches to support temporary habitats (e.g. temporary ponds or sand banks) generated by and dependent on the quarry activity, which can host protected species (e.g. the sand martin, lizards, wall lizards, natterjack toads or algae typical of poor environments). This dynamic management of biodiversity fostering existing and/or new species aligned with quarry activity (both existing and additional temporary activity) can be combined with the anticipated restoration measures of permanent habitats during and after the extracting period in order to maximise stable and biodiversity-rich ecosystems after the project is completed (additional permanent nature) ([166]).

3.4. Monitoring and reporting of derogations

Competent national authorities must not only ensure that all conditions of the derogation scheme are met before granting a derogation (i.e. the that it meets the three tests), but they must also monitor the impact of the derogation (and the effectiveness of any compensation measures) after they are implemented. Reports on derogations should be complete and include information to enable the Commission to evaluate whether the Article 16 derogation scheme has been correctly applied.

3.4.1. *Monitoring the impacts of derogations*

(3-95) Competent national authorities must not only ensure that all the conditions of the derogation scheme are met *before* granting a derogation, but they must also monitor the impact of derogations (and the effectiveness of any compensation measures) after they are implemented ([167]). Article 16(3)(e) requires that Member States' derogation reports specify 'the supervisory measures used and results obtained'. This means they must supervise and monitor implementation of the derogations granted.

Monitoring the impact of derogations is also needed to verify whether the derogations have been implemented correctly and whether they achieved their objective, supported by scientifically based evidence, and, if necessary, to take corrective measures. This should ensure that any unintentional risk or damage to the species as a result of the implementation of the derogation is detected. An appropriate use of the derogation system requires that that the framework conditions must be right to ensure that the approach does not lead to undesired effects. Monitoring is key to achieve this.

([165]) See, for example, the Dutch model: Staatscourant (2015): BeleidslijnTijdelijkeNatuur (concept 11 juni 2015) – Nr. 209016. https://zoek.officielebekendmakingen.nl/stcrt-2015-29016.html

([166]) For further information, see the LIFE project website: https://www.lifeinquarries.eu

([167]) See also the Judgment of 26 January 2012, *Commission v Poland*, Case C-192/11, ECLI:EU:C:2012:44, paragraphs 65 and 67, on the comparable provision of Article 9(2)(e) of the Birds Directive 2009/147/EC.

(3-96) After implementing derogations, the national authorities must also monitor the cumulative impact of all derogations granted in the national territory for each species covered by the derogations, regardless of the reasons for which they were granted, and to confirm the initial assessment that the derogations are not detrimental to maintaining the populations of the species at a favourable conservation status. The results of this monitoring should obviously be taken into account in any future decisions to grant derogations.

(3-97) This monitoring could also come under the general surveillance obligation under Article 11 of the Directive. It would be reasonable for such surveillance to be sensitive to the effects (including cumulative effects and the effects of compensation measures) of derogations implemented for species for which derogations are recurrently granted or which are in an unfavourable conservation status (and are nevertheless, in exceptional circumstance, the subject of derogations). It would be also reasonable that such surveillance includes monitoring other factors that may have a negative impact on species' conservation status (such as illegal killing). Such data can be used when assessing the conservation status of the species.

3.4.2. *Reporting obligations under Article 16(2) and 16(3)*

(3-98) Derogations must also fulfil the formal conditions set out in Article 16(2) and (3). In the words of the Court in Case C-118/94 (a Birds Directive case), these formal conditions 'are intended to limit derogations to what is strictly necessary and to enable the Commission to supervise them'.

(3-99) Member States do not need to consult the Commission before applying derogations but they have an obligation to submit a report every two years to the Commission on implementation of Article 16. Article 16(2) does not specify the precise content of these reports. It is, however, clear that the information must be complete, factual and cover all the details set out in Article 16(3). On the basis of the information provided in the derogation reports, the Commission must be in a position to supervise the application of Article 16 within the Member States and check its compatibility with the Directive. In cases where the Commission concludes that the use of derogations breaches the requirements of the Directive, it has the right to initiate an infringement procedure against the Member State concerned.

(3-100) The current derogation reporting format also covers all reporting obligations under Article 9 of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) ([168]) and aims to improve the efficiency and usability of the reporting on all levels (regional, national, EU). The new reporting format and a new IT tool, called the Habitats and Birds Directives Derogation System+ (HaBiDeS+), is currently used by the Commission and Member States ([169]).

(3-101) The new format includes the formal conditions set out in Article 16(3) that need to be met and specified in any derogation granted, as well as additional information (e.g. details helpful to further understand the reason, means and methods, evidence of the specific requirements of Article 16(1)(e), references to alternatives rejected, evidence that the derogation is not detrimental to the population's conservation status) that provide an understanding of the competent authorities' reasoning in applying the derogation system under Article 16.

([168]) Under the current arrangement between the European Commission and the Bern Convention Secretariat, the European Union compiles all derogations that EU Member States have reported for a given reporting period, and forwards these to the Bern Convention Secretariat.

([169]) The HaBiDeS+ tool can be accessed online at: https://webforms.eionet.europa.eu/

ANNEX I

Court case references

Species protection provisions of the Habitats Directive

12 November 1969, *Stauder v Stadt Ulm*, Case C-29/69, ECLI:EU:C:1969:57

27 October 1977, *Regina v Bouchereau*, Case C-30/77, ECLI:EU:C:1977:172

12 July 1979, *Koschniske v Raad van Arbeid*, Case C-9/79, ECLI:EU:C:1979:201

23 May 1985, *Commission v Germany*, Case C-29/84, ECLI:EU:C:1985:229

9 April 1987, *Commission v Italy*, Case C-363/85, ECLI:EU:C:1987:196

8 July 1987, *Commission v Belgium*, Case C-247/85, ECLI:EU:C:1987:339

8 July 1987, *Commission v Italy*, Case C-262/85, ECLI:EU:C:1987:340

23 February 1988, *Commission v Italy*, Case C-429/85, ECLI:EU:C:1988:83

27 April 1988, *Commission v France*, Case C-252/85, ECLI:EU:C:1988:202

7 July 1988, *Moksel v BALM*, Case C-55/87, ECLI:EU:C:1988:377

15 March 1990, *Commission v Netherlands*, Case C-339/87, ECLI:EU:C:1990:119

28 March 1990, *Criminal proceedings against G. Vessoso and G. Zanetti*, Joined Cases C-206 and C-207/88, ECLI:EU:C:1990:145

17 January 1991, *Commission v Italy*, Case C-157/89, ECLI:EU:C:1991:22

28 February 1991, *Commission v Germany*, Case C-57/89, ECLI:EU:C:1991:89

28 February 1991, *Commission v Germany*, Case C-131/88, ECLI:EU:C:1991:87

30 May 1991, *Commission v Germany*, Case C-59/89, ECLI:EU:C:1991:225

2 August 1993, *Commission/Spain*, Case C-355/90, ECLI:EU:C:1993:331

7 March 1996, *WWF Italy v Regione Veneto*, Case C-118/94, ECLI:EU:C:1996:86

19 September 1996, *Commission v Greece*, Case C-236/95, ECLI:EU:C:1996:341

12 December 1996, *Ligue royale belge pour la protection des oiseaux and Société d'études ornithologiques v Région Wallonne*, Case C-10/96, ECLI:EU:C:1996:504

19 May 1999, *Commission v France*, Case C-225/97, ECLI:EU:C:1999:252

11 November 1999, *Commission v Italy*, Case C-315/98, ECLI:EU:C:1999:551

7 November 2000, *First Cooperate Shipping*, Case C-371/98, ECLI:EU:C:2000:600.

10 May 2001, *Commission v Netherlands*, Case C-144/99, ECLI:EU:C:2001:257

17 May 2001, *Commission v Italy*, Case C-159/99, ECLI:EU:C:2001:278

30 January 2002, *Commission v Greece*, Case C-103/00, ECLI:EU:C:2002:60

13 February 2003, *Commission v Luxembourg*, Case C-75/01, ECLI:EU:C:2003:95

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

6 November 2003, *Commission v UK*, Case C-434/01, ECLI:EU:C:2003:601

20 October 2005, *Commission v UK*, Case C-6/04, ECLI:EU:C:2005:626

15 December 2005, *Commission v Finland*, Case C-344/03, ECLI:EU:C:2005:770

10 January 2006, *Commission v Germany*, Case C-98/03, ECLI:EU:C:2006:3

16 March 2006, *Commission v Greece*, Case C-518/04, ECLI:EU:C:2006:183

18 May 2006, *Commission v Spain*, Case C-221/04, ECLI:EU:C:2006:329

8 June 2006, *WWF Italia and Others*, Case C-60/05, ECLI:EU:C:2006:378

19 December 2006, *Commission v Italy*, Case C-503/06, ECLI:EU:C:2008:279

11 January 2007, *Commission v Ireland*, Case C-183/05, ECLI:EU:C:2007:14

10 May 2007, *Commission v Austria*, Case C-508/04, ECLI:EU:C:2007:274

14 June 2007, *Commission v Finland*, Case C-342/05, ECLI:EU:C:2007:341

20 May 2010, *Commission v Spain*, Case C-308/08, ECLI:EU:C:2010:281

9 June 2011, *Commission v France*, Case C-383/09, ECLI:EU:C:2011:369

26 January 2012, *Commission v Poland*, Case C-192/11, ECLI:EU:C:2012:44

15 March 2012, *Commission v Cyprus*, Case C-340/10, ECLI:EU:C:2012:143

15 March 2012, *Commission v Poland*, Case C-46/11, ECLI:EU:C:2012:146

10 November 2016, *Commission v Greece*, Case C-504/14, ECLI:EU:C:2016:847

17 April 2018, *Commission v Poland*, Case C-441/17, ECLI:EU:C:2018:255

10 October 2019, Preliminary ruling Case C-674/17, ECLI:EU:C:2019:851

11 June 2020, Preliminary ruling Case C-88/19, ECLI:EU:C:2020:458

4 March 2021, Joined Cases C-473/19 and C-474/19 – *Föreningen Skydda Skogen*, ECLI:EU:C:2021:166

Pending Case C-477/19 – *Magistrat Stadt Wien*

ANNEX II

List of animal species covered by Annexes II, IV and V of the Habitats Directive 92/43/EEC

Disclaimer:

The following table is a consolidated table produced by DG Environment. It is meant purely to provide an overview. We do not accept any liability for its content. The legally binding versions of the annexes are those officially published in the relevant legal acts. The latest version of these annexes on which the table is based is published in the 'Council Directive 2013/17/EU of 13 May 2013 adapting certain directives in the field of environment, by reason of the accession of the Republic of Croatia [1]*'*

The species listed in this annex are indicated:

— by the name of the species or subspecies (in bold and italics), or

— by all the species belonging to a higher taxon or to a designated part of that taxon. The abbreviation 'spp.' after the name of a family or genus should be taken to mean all the species belonging to that family or genus.

An asterisk (*) before the name of a species indicates that it is a priority species of Annex II (Annex VI and V do not distinguish between priority and non-priority species).

The annexes consolidated in this table are:

ANNEX II: SPECIES OF COMMUNITY INTEREST WHOSE CONSERVATION REQUIRES THE DESIGNATION OF SPECIAL AREAS OF CONSERVATION

ANNEX IV: SPECIES OF COMMUNITY INTEREST IN NEED OF STRICT PROTECTION

ANNEX V: SPECIES OF COMMUNITY INTEREST WHOSE TAKING IN THE WILD AND EXPLOITATION MAY BE SUBJECT TO MANAGEMENT MEASURES

Species name	Annex			Geographic restrictions
	II	IV	V	
ANIMALS				
VERTEBRATES				
MAMMALS				
INSECTIVORA				
Erinaceidae				
Erinaceus algirus		X		
Soricidae				
Crocidura canariensis		X		
Crocidura sicula		X		
Talpidae				
Galemys pyrenaicus	X	X		
CHIROPTERA				
Microchiroptera				

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01992L0043-20130701

Species name	Annex			Geographic restrictions
	II	IV	V	
Rhinolophidae				
Rhinolophus blasii	X	X		
Rhinolophus euryale	X	X		
Rhinolophus ferrumequinum	X	X		
Rhinolophus hipposideros	X	X		
Rhinolophus mehelyi	X	X		
Vespertilionidae				
Barbastella barbastellus	X	X		
Miniopterus schreibersi	X	X		
Myotis bechsteini	X	X		
Myotis blythii	X	X		
Myotis capaccinii	X	X		
Myotis dasycneme	X	X		
Myotis emarginatus	X	X		
Myotis myotis	X	X		
All other Microchiroptera		X		
Megachiroptera				
Pteropodidae				
Rousettus aegiptiacus	X	X		
RODENTIA				
Gliridae				
All species except *Glis glis* and *Eliomys quercinus*		X		
Myomimus roachi	X	X		
Sciuridae				
* *Marmota marmota latirostris*	X	X		
* *Pteromys volans (Sciuropterus russicus)*	X	X		
Spermophilus citellus (Citellus citellus)	X	X		
* *Spermophilus suslicus (Citellus suslicus)*	X	X		
Sciurus anomalus		X		
Castoridae				
Castor fiber	X	X	X	Annex II: except the Estonian, Latvian, Lithuanian, Finnish and Swedish populations Annex IV: except the Estonian, Latvian, Lithuanian, Polish, Finnish and Swedish, populations

Species name	Annex			Geographic restrictions
	II	IV	V	
				Annex V: Finnish, Swedish, Latvian, Lithuanian, Estonian and Polish populations
Cricetidae				
Cricetus cricetus		X	X	Annex IV: except the Hungarian populations Annex V: Hungarian populations
Mesocricetus newtoni	X	X		
Microtidae				
Dinaromys bogdanovi	X	X		
Microtus cabrerae	X	X		
* *Microtus oeconomus arenicola*	X	X		
* *Microtus oeconomus mehelyi*	X	X		
Microtus tatricus	X	X		
Zapodidae				
Sicista betulina		X		
Sicista subtilis	X	X		
Hystricidae				
Hystrix cristata		X		
CARNIVORA				
Canidae				
* *Alopex lagopus*	X	X		
Canis aureus			X	
* *Canis lupus*	X	X	X	Annex II: 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: except the Greek populations north of the 39th parallel; Estonian populations, Spanish populations north of the Duero; Latvian, Lithuanian, Polish, Slovak, Bulgarian 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

Species name	Annex			Geographic restrictions
	II	IV	V	
				Annex V: Spanish pop-ulations north of the 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
Ursidae				
* *Ursus arctos*	X	X		Annex II: except the Estonian, Finnish, and Swedish populations
Mustelidae				
* *Gulo gulo*	X			
Lutra lutra	X	X		
Martes martes			X	
Mustela eversmanii	X	X		
Mustela putorius			X	
* *Mustela lutreola*	X	X		
Vormela peregusna	X	X		
Felidae				
Felis silvestris		X		
Lynx lynx	X	X	X	Annex II: except the Estonian, Latvian and Finnish populations Annex IV: except the Estonian population Annex V: Estonian population
* *Lynx pardinus*	X	X		
Phocidae				
Halichoerus grypus	X		X	
* *Monachus monachus*	X	X		
Phoca hispida bottnica	X		X	
* *Phoca hispida saimensis*	X	X		
Phoca vitulina	X		X	
All other Phocidae			X	
Viverridae				

Species name	Annex			Geographic restrictions
	II	IV	V	
Genetta genetta			X	
Herpestes ichneumon			X	
DUPLICIDENTATA				
Leporidae				
Lepus timidus			X	
ARTIODACTYLA				
Cervidae				
* *Cervus elaphus corsicanus*	X	X		
Rangifer tarandus fennicus	X			
Bovidae				
* *Bison bonasus*	X	X		
Capra aegagrus (natural populations)	X	X		
Capra ibex			X	
Capra pyrenaica (except *Capra pyrenaica pyrenaica*)			X	
* *Capra pyrenaica pyrenaica*	X	X		
Ovis gmelini musimon(Ovis ammon musimon) (natural populations – Corsica and Sardinia)	X	X		
Ovis orientalis ophion (*Ovis gmelini ophion*)	X	X		
* *Rupicapra pyrenaica ornata* (*Rupicapra rupicapra ornata*)	X	X		
Rupicapra rupicapra (except *Rupicapra rupicapra balcanica*, *Rupicapra rupicapra ornata* and *Rupicapra rupicapra tatrica*)			X	
Rupicapra rupicapra balcanica	X	X		
* *Rupicapra rupicapra tatrica*	X	X		
CETACEA				
Phocoena phocoena	X	X		
Tursiops truncatus	X	X		
All other Cetacea		X		
REPTILES				
CHELONIA (TESTUDINES)				
Testudinidae				

Species name	Annex			Geographic restrictions
	II	IV	V	
Testudo graeca	X	X		
Testudo hermanni	X	X		
Testudo marginata	X	X		
Cheloniidae				
* *Caretta caretta*	X	X		
* *Chelonia mydas*	X	X		
Lepidochelys kempii		X		
Eretmochelys imbricata		X		
Dermochelyidae				
Dermochelys coriacea		X		
Emydidae				
Emys orbicularis	X	X		
Mauremys caspica	X	X		
Mauremys leprosa	X	X		
SAURIA				
Lacertidae				
Algyroides fitzingeri		X		
Algyroides marchi		X		
Algyroides moreoticus		X		
Algyroides nigropunctatus		X		
Dalmatolacertaoxycephala		X		
Dinarolacerta mosorensis	X	X		
Gallotia atlantica		X		
Gallotia galloti		X		
Gallotia galloti insulanagae	X	X		
* *Gallotia simonyi*	X	X		
Gallotia stehlini		X		
Lacerta agilis		X		
Lacerta bedriagae		X		
Lacerta bonnali (Lacerta monticola)	X	X		
Lacerta monticola	X	X		
Lacerta danfordi		X		
Lacerta dugesi		X		
Lacerta graeca		X		

Species name	Annex			Geographic restrictions
	II	IV	V	
Lacerta horvathi		X		
Lacerta schreiberi	X	X		
Lacerta trilineata		X		
Lacerta viridis		X		
Lacerta vivipara pannonica		X		
Ophisops elegans		X		
Podarcis erhardii		X		
Podarcis fifolensis		X		
Podarcis hispanica atrata		X		
Podarcis lilfordi	X	X		
Podarcis melisellensis		X		
Podarcis milensis		X		
Podarcis muralis		X		
Podarcis peloponnesiaca		X		
Podarcis pityusensis	X	X		
Podarcis sicula		X		
Podarcis taurica		X		
Podarcis tiliguerta		X		
Podarcis wagleriana		X		
Scincidae				
Ablepharus kitaibelli		X		
Chalcides bedriagai		X		
Chalcides ocellatus		X		
Chalcides sexlineatus		X		
Chalcides simonyi(Chalcides occidentalis)	X	X		
Chalcides viridianus		X		
Ophiomorus punctatissimus		X		
Gekkonidae				
Cyrtopodion kotschyi		X		
Phyllodactylus europaeus	X	X		
Tarentola angustimentalis		X		
Tarentola boettgeri		X		
Tarentola delalandii		X		
Tarentola gomerensis		X		
Agamidae				

Species name	Annex			Geographic restrictions
	II	IV	V	
Stellio stellio		X		
Chamaeleontidae				
Chamaeleo chamaeleon		X		
Anguidae				
Ophisaurus apodus		X		
OPHIDIA (SERPENTES)				
Colubridae				
Coluber caspius		X		
* *Coluber cypriensis*	X	X		
Coluber hippocrepis		X		
Coluber jugularis		X		
Coluber laurenti		X		
Coluber najadum		X		
Coluber nummifer		X		
Coluber viridiflavus		X		
Coronella austriaca		X		
Eirenis modesta		X		
Elaphe longissima		X		
Elaphe quatuorlineata	X	X		
Elaphe situla	X	X		
Natrix natrix cetti		X		
Natrix natrix corsa		X		
* *Natrix natrix cypriaca*	X	X		
Natrix tessellata		X		
Telescopus falax		X		
Viperidae				
Vipera ammodytes		X		
* *Macrovipera schweizeri (Vipera lebetina schweizeri)*	X	X		
Vipera seoanni		X		Annex IV: except Spanish populations
Vipera ursinii (except *Vipera ursinii rakosiensis* and *Vipera ursinii macrops*)	X	X		
* *Vipera ursinii macrops*	X	X		
* *Vipera ursinii rakosiensis*	X	X		

Species name	Annex			Geographic restrictions
	II	IV	V	
Vipera xanthina		X		
Boidae				
Eryx jaculus		X		
AMPHIBIANS				
CAUDATA				
Salamandridae				
Chioglossa lusitanica	X	X		
Euproctus asper		X		
Euproctus montanus		X		
Euproctus platycephalus		X		
Mertensiella luschani (Salamandra luschani)	X	X		
Salamandra atra		X		
* *Salamandra aurorae (Salamandra atra aurorae)*	X	X		
Salamandra lanzai		X		
Salamandrina terdigitata	X	X		
Triturus carnifex (Triturus cristatus carnifex)	X	X		
Triturus cristatus (Triturus cristatus cristatus)	X	X		
Triturus dobrogicus (Triturus cristatus dobrogicus)	X			
Triturus italicus		X		
Triturus karelinii (Triturus cristatus karelinii)	X	X		
Triturus marmoratus		X		
Triturus montandoni	X	X		
Triturus vulgaris ampelensis	X	X		
Proteidae				
* *Proteus anguinus*	X	X		
Plethodontidae				
Hydromantes (Speleomantes) ambrosii	X	X		
Hydromantes (Speleomantes) flavus	X	X		
Hydromantes (Speleomantes) genei	X	X		
Hydromantes (Speleomantes) imperialis	X	X		
Hydromantes (Speleomantes) strinatii	X	X		
Hydromantes (Speleomantes) supramontis	X	X		

Species name	Annex			Geographic restrictions
	II	IV	V	
ANURA				
Discoglossidae				
Alytes cisternasii		X		
* *Alytes muletensis*	X	X		
Alytes obstetricans		X		
Bombina bombina	X	X		
Bombina variegata	X	X		
Discoglossus galganoi (including *Discoglossus « jeanneae »*)	X	X		
Discoglossus montalentii	X	X		
Discoglossus pictus		X		
Discoglossus sardus	X	X		
Ranidae				
Rana arvalis		X		
Rana dalmatina		X		
Rana esculenta			X	
Rana graeca		X		
Rana iberica		X		
Rana italica		X		
Rana latastei	X	X		
Rana lessonae		X		
Rana perezi			X	
Rana ridibunda			X	
Rana temporaria			X	
Pelobatidae				
Pelobates cultripes		X		
Pelobates fuscus		X		
* *Pelobates fuscus insubricus*	X	X		
Pelobates syriacus		X		
Bufonidae				
Bufo calamita		X		
Bufo viridis		X		
Hylidae				

Species name	Annex			Geographic restrictions
	II	IV	V	
Hyla arborea		X		
Hyla meridionalis		X		
Hyla sarda		X		
FISH				
PETROMYZONIFORMES				
Petromyzonidae				
Eudontomyzon spp.	X			
Lampetra fluviatilis	X		X	Annex II: except the Finnish and Swedish populations
Lampetra planeri	X			Annex II: except the Estonian, Finnish, and Swedish populations
Lethenteron zanandreai	X		X	
Petromyzon marinus	X			Annex II: except the Swedish populations
ACIPENSERIFORMES				
Acipenseridae				
* *Acipenser naccarii*	X	X		
* *Acipenser sturio*	X	X		
All other Acipenseridae species			X	
CLUPEIFORMES				
Clupeidae				
Alosa spp.	X		X	
SALMONIFORMES				
Salmonidae / Coregonidae				
Coregonus spp. *(except Coregonus oxyrhynchus* -anadromous populations in certain sectors of the North Sea)			X	
* *Coregonus oxyrhynchus* (anadromous populations in certain sectors of the North Sea)	X	X		
Hucho hucho (natural populations)	X		X	
Salmo macrostigma	X			

Species name	Annex			Geographic restrictions
	II	IV	V	
Salmo marmoratus	X			
Salmo salar (only in fresh water)	X		X	Annex II: except the Finnish populations
Salmothymus obtusirostris	X			
Thymallus thymallus			X	
Umbridae				
Umbra krameri	X			
CYPRINIFORMES				
Cyprinidae				
Alburnus albidus (Alburnus vulturius)	X			
Anaecypris hispanica	X	X		
Aspius aspius	X		X	Annex II: except the Finnish populations
Aulopyge huegelii	X			
Barbus spp.			X	
Barbus comiza	X		X	
Barbus meridionalis	X		X	
Barbus plebejus	X		X	
Chalcalburnus chalcoides	X			
Chondrostoma genei	X			
Chondrostoma knerii	X			
Chondrostoma lusitanicum	X			
Chondrostoma phoxinus	X			
Chondrostoma polylepis (including *C. willkommi*)	X			
Chondrostoma soetta	X			
Chondrostoma toxostoma	X			
Gobio albipinnatus	X			
Gobio kessleri	X			
Gobio uranoscopus	X			
Iberocypris palaciosi	X			
* *Ladigesocypris ghigii*	X			
Leuciscus lucumonis	X			
Leuciscus souffia	X			
Pelecus cultratus	X		X	
Phoxinellus spp.	X			

Species name	Annex			Geographic restrictions
	II	IV	V	
* *Phoxinus percnurus*	X	X		
Rhodeus sericeus amarus	X			
Rutilus alburnoides	X			
Rutilus arcasii	X			
Rutilus frisii meidingeri	X		X	
Rutilus lemmingii	X			
Rutilus pigus	X		X	
Rutilus rubilio	X			
Rutilus macrolepidotus	X			
Scardinius graecus	X			
Squalius microlepis	X			
Squalius svallize	X			
Cobitidae				
Cobitis elongata	X			
Cobitis taenia	X			Annex II: except the Finnish populations
Cobitis trichonica	X			
Misgurnus fossilis	X			
Sabanejewia aurata	X			
Sabanejewia larvata (*Cobitis larvata* and *Cobitis conspersa*)	X			
SILURIFORMES				
Siluridae				
Silurus aristotelis	X		X	
ATHERINIFORMES				
Cyprinodontidae				
Aphanius iberus	X			
Aphanius fasciatus	X			
* *Valencia hispanica*	X	X		
* *Valencia letourneuxi* (*Valencia hispanica*)	X			
PERCIFORMES				
Percidae				

Species name	Annex			Geographic restrictions
	II	IV	V	
Gymnocephalus baloni	X	X		
Gymnocephalus schraetzer	X		X	
* *Romanichthys valsanicola*	X	X		
Zingel spp. (except *Zingel asper* and *Zingel zingel*)	X			
Zingel asper	X	X		
Zingel zingel	X		X	
Gobiidae				
Knipowitschia croatica	X			
Knipowitschia (Padogobius) panizzae	X			
Padogobius nigricans	X			
Pomatoschistus canestrini	X			
SCORPAENIFORMES				
Cottidae				
Cottus gobio	X			Annex II: except the Finnish populations
Cottus petiti	X			
INVERTEBRATES				
ANNELIDA				
HIRUDINOIDEA – ARHYNCHOBDELLAE				
Hirudinidae				
Hirudo medicinalis			X	
ARTHROPODS				
CRUSTACEA				
Decapoda				
Astacus astacus			X	
Austropotamobius pallipes	X		X	
* *Austropotamobius torrentium*	X		X	
Scyllarides latus			X	
Isopoda				
* *Armadillidium ghardalamensis*	X	X		
INSECTA				
Coleoptera				

Species name	Annex			Geographic restrictions		
	II	IV	V			
Agathidium pulchellum				X		
Bolbelasmus unicornis				X	X	
Boros schneideri				X		
Buprestis splendens				X	X	
Carabus hampei				X	X	
Carabus hungaricus				X	X	
* *Carabus menetriesi pacholei*				X		
* *Carabus olympiae*				X	X	
Carabus variolosus				X	X	
Carabus zawadszkii				X	X	
Cerambyx cerdo				X	X	
Corticaria planula				X		
Cucujus cinnaberinus				X	X	
Dorcadion fulvum cervae				X	X	
Duvalius gebhardti				X	X	
Duvalius hungaricus				X	X	
Dytiscus latissimus				X	X	
Graphoderus bilineatus				X	X	
Leptodirus hochenwarti				X	X	
Limoniscus violaceus				X		
Lucanus cervus				X		
Macroplea pubipennis				X		
Mesosa myops				X		
Morimus funereus				X		
* *Osmoderma eremita*				X	X	
Oxyporus mannerheimii				X		
Pilemia tigrina				X	X	
* *Phryganophilus ruficollis*				X	X	
Probaticus subrugosus				X	X	
Propomacrus cypriacus				X	X	
* *Pseudogaurotina excellens*				X	X	
Pseudoseriscius cameroni				X	X	
Pytho kolwensis				X	X	
Rhysodes sulcatus				X		
* *Rosalia alpina*				X	X	

Species name	Annex			Geographic restrictions		
	II	IV	V			
Stephanopachys linearis				X		
Stephanopachys substriatus				X		
Xyletinus tremulicola				X		
Hemiptera						
Aradus angularis				X		
Lepidoptera						
Agriades glandon aquilo				X		
Apatura metis					X	
Arytrura musculus				X	X	
* *Callimorpha (Euplagia, Panaxia) quadripunctaria*				X		
Catopta thrips				X	X	
Chondrosoma fiduciarium				X	X	
Clossiana improba				X		
Coenonympha hero					X	
Coenonympha oedippus				X	X	
Colias myrmidone				X	X	
Cucullia mixta				X	X	
Dioszeghyana schmidtii				X	X	
Erannis ankeraria				X	X	
Erebia calcaria				X	X	
Erebia christi				X	X	
Erebia medusa polaris				X		
Erebia sudetica					X	
Eriogaster catax				X	X	
Euphydryas (Eurodryas, Hypodryas) aurinia				X		
Fabriciana elisa					X	
Glyphipterix loricatella				X	X	
Gortyna borelii lunata				X	X	
Graellsia isabellae				X		X
Hesperia comma catena				X		
Hypodryas maturna				X	X	
Hyles hippophaes					X	
Leptidea morsei				X	X	
Lignyoptera fumidaria				X	X	
Lopinga achine					X	

Species name	Annex			Geographic restrictions		
	II	IV	V			
Lycaena dispar				X	X	
Lycaena helle				X	X	
Maculinea arion					X	
Maculinea nausithous				X	X	
Maculinea teleius				X	X	
Melanargia arge				X	X	
* *Nymphalis vaualbum*				X	X	
Papilio alexanor					X	
Papilio hospiton				X	X	
Parnassius apollo					X	
Parnassius mnemosyne					X	
Phyllometra culminaria				X	X	
Plebicula golgus				X	X	
Polymixis rufocincta isolata				X	X	
Polyommatus eroides				X	X	
Proterebia afra dalmata				X	X	
Proserpinus proserpina					X	
Pseudophilotes bavius				X	X	
Xestia borealis				X		
Xestia brunneopicta				X		
* *Xylomoia strix*				X	X	
Zerynthia polyxena					X	
Mantodea						
Apteromantis aptera				X	X	
Odonata						
Aeshna viridis					X	
Coenagrion hylas				X		
Coenagrion mercuriale				X		
Coenagrion ornatum				X		
Cordulegaster heros				X	X	
Cordulegaster trinacriae				X	X	
Gomphus graslinii				X	X	
Leucorrhina albifrons					X	
Leucorrhina caudalis					X	
Leucorrhinia pectoralis				X	X	

Species name	Annex			Geographic restrictions		
	II	IV	V			
Lindenia tetraphylla				X	X	
Macromia splendens				X	X	
Ophiogomphus cecilia				X	X	
Oxygastra curtisii				X	X	
Stylurus flavipes					X	
Sympecma braueri					X	
Orthoptera						
Baetica ustulata				X	X	
Brachytrupes megacephalus				X	X	
Isophya costata				X	X	
Isophya harzi				X	X	
Isophya stysi				X	X	
Myrmecophilus baronii				X	X	
Odontopodisma rubripes				X	X	
Paracaloptenus caloptenoides				X	X	
Pholidoptera transsylvanica				X	X	
Saga pedo					X	
Stenobothrus (Stenobothrodes) eurasius				X	X	
ARACHNIDA						
Araneae						
Macrothele calpeiana					X	
Pseudoscorpiones						
Anthrenochernes stellae				X		
COELENTERATA						
Cnidaria						
Corallium rubrum						X
MOLLUSCS						
GASTROPODA						
Anisus vorticulus				X	X	
Caseolus calculus				X	X	
Caseolus commixta				X	X	
Caseolus sphaerula				X	X	

Species name	Annex			Geographic restrictions		
	II	IV	V			
Chilostoma banaticum				X	X	
Discula leacockiana				X	X	
Discula tabellata				X	X	
Discula testudinalis					X	
Discula turricula					X	
Discus defloratus					X	
Discus guerinianus				X	X	
Elona quimperiana				X	X	
Geomalacus maculosus				X	X	
Geomitra moniziana				X	X	
Gibbula nivosa				X	X	
* *Helicopsis striata austriaca*				X		
Helix pomatia						X
Hygromia kovacsi				X	X	
Idiomela (Helix) subplicata				X	X	
Lampedusa imitatrix				X	X	
* *Lampedusa melitensis*				X	X	
Leiostyla abbreviata				X	X	
Leiostyla cassida				X	X	
Leiostyla corneocostata				X	X	
Leiostyla gibba				X	X	
Leiostyla lamellosa				X	X	
* *Paladilhia hungarica*				X	X	
Patella feruginea					X	
Sadleriana pannonica				X	X	
Theodoxus prevostianus					X	
Theodoxus transversalis				X	X	
Vertigo angustior				X		
Vertigo genesii				X		
Vertigo geyeri				X		
Vertigo moulinsiana				X		
BIVALVIA						
Anisomyaria						

Species name	Annex			Geographic restrictions		
	II	IV	V			
Lithophaga lithophaga					X	
Pinna nobilis					X	
Unionoida						
Margaritifera auricularia					X	
Margaritifera durrovensis (Margaritifera margaritifera)				X		X
Margaritifera margaritifera				X		X
Microcondylaea compressa						X
Unio crassus				X	X	
Unio elongatulus						X
Dreissenidae						
Congeria kusceri				X	X	
ECHINODERMATA						
Echinoidea						
Centrostephanus longispinus					X	

ANNEX III

Implementation of Article 12 of the Habitats Directive: The wolf example

1. Background – Introduction

The wolf belongs to European native fauna and is an integral part of our biodiversity and natural heritage. As a top predator, it plays an important ecological role, contributing to the health and functioning of ecosystems. In particular it helps to regulate the density of the species it preys on ([1]) (typically wild ungulates such as roe deer, red deer and wild boar, but also chamois and moose, depending on the area) and improving their health through selective predation. The wolf used to occur all over continental Europe, but it had been exterminated from most regions and countries by the first half of the 20th century.

The 2020 State of Nature report ([2]), based on data reported by Member States, confirms that wolf populations are generally recovering (stable or increasing) in the EU and are recolonising parts of their historical range, although they have reached a favourable conservation status in some Member States only ([3]). The return of the wolf is a major conservation success ([4]), which has been made possible by legal protection, more favourable public attitudes, as well as the recovery of its prey species (e.g. deer and wild boar) and of forest cover (following rural land abandonment).

At the same time, the return of the wolf to regions where it had been absent for decades or more is a significant challenge for Member States as this species is often associated to several types of conflict and can provoke strong social protests and reactions among concerned rural communities.

Just like other large carnivores, wolves have very large area requirements, with individuals and packs using hundreds of thousands of km^2 for their territories. As a result they occur at very low densities and their populations tend to spread over very large areas, typically across many administrative borders, both within and between countries. From a biological point of view, it is therefore recommended that conservation and management measures are as coordinated and consistent as possible. This highlights the need for cross-border cooperation, for example by applying consistent and coordinated approaches at the level of the wolf population. Further guidance is available in the *Guidelines for population-level management plans of large carnivores in Europe*, developed for the European Commission (Linnell et al, 2008) ([5]).

The wolf is listed in Annex IV of the Habitats Directive for most Member States and regions and is therefore subject to the strict protection provisions of Article 12 of the Habitats Directive, including the prohibition of all forms of deliberate capture or killing of individuals in the wild.

For certain Member States and regions the wolf is listed under Annex V, as a species 'whose taking in the wild and exploitation may be subject to management measures'. For most Member States and regions, the wolf is also included in Annex II, as a priority species, requiring the designation of special areas of conservation (SACs) and appropriate conservation measures. The table shows which populations are included in which Annex of Habitat Directive.

Table

Wolf listing in the Habitats Directive's Annexes

Annex II (need to designate SACs): '* *Canis lupus* (except the Estonian, Latvian, Lithuanian and Finnish populations, Greek populations north of the 39th parallel and Spanish populations north of the Duero)'.

([1]) https://link.springer.com/article/10.1007/s10344-012-0623-5
([2]) https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020
([3]) Under Article 17 of the Habitats Directive, Romania, Lithuania, Latvia, Estonia and Italy have reported the wolf as being in favourable conservation status in all their biogeographical regions.
([4]) https://science.sciencemag.org/content/346/6216/1517
([5]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/promoting_management.htm

Annex IV (strict protection): '*Canis lupus* (except the Estonian, Bulgarian, Latvian, Lithuanian, Polish and Slovak populations, Greek populations north of the 39th parallel, Spanish populations north of the Duero 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 (species management is allowed): '*Canis lupus* (Spanish populations north of the 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)'.

As mentioned above, the wolf has not yet achieved a favourable conservation status in many Member States and regions ([6]).

A study carried out in 2018 for the European Parliament ([7]) assessed the extinction risk for individual wolf populations on the basis of the IUCN Red List criteria. Out of nine (mainly cross-border) wolf populations, three were assessed as 'least concern', three 'near threatened' and three 'vulnerable'. One wolf population (the Iberian population, Spain-Sierra Morena) has become extinct. The authors of the study also highlighted difficulties in harmonising the results of monitoring data because of differences in monitoring techniques and approaches (different ways or periods for counting), averages vs maximum and minimum population, lack of reporting by some countries despite the species being present, differences in data quality, etc. ([8]).

Although it appears that several wolf populations are recovering and expanding across Europe, the species still faces various threats and conservation problems, notably poaching (which is often undetected but is likely to account for a very large share of the total mortality). The specific threats and the potential measures to address them are described for each wolf population in a European Commission-funded report *Key actions for Large Carnivore populations in Europe* (Boitani et al, 2015 ([9])).

2. **Legal requirements for the protection of individual wolves**

The wolf, wherever it is listed under Annex IV of the Habitats Directive, is strictly protected. Since the Directive's objective is to reach favourable conservation status for the listed species. The protection that Article 12 of the Habitats Directive provides to the populations of species listed in this annex has a preventive character, and requires Member States to prevent situations that could negatively impact the species.

The formal transposition of Article 12 into national legislation needs to be complemented by further implementing actions to ensure strict protection based on the specific problems and threats faced by the wolf in a given context. Not only must the actions listed in Article 12 be prohibited, but the authorities must also take all measures necessary to ensure that the prohibitions are not breached in practice. This implies, for example, that the authorities are duty bound to take all measures necessary to prevent the (illegal) killing of wolves, and to protect the areas that serve as resting or reproductive sites, such as their dens and their '*rendezvous sites*'.

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 the provision also 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*). This approach has been confirmed by the judgment of the CJEU of 10 October 2019 (preliminary ruling in Case C-674/17): 'In

([6]) https://nature-art17.eionet.europa.eu/article17/species/summary/?period=5&group=Mammals&subject=Canis+lupus&region=
([7]) https://www.europarl.europa.eu/RegData/etudes/STUD/2018/617488/IPOL_STU(2018)617488_EN.pdf
([8]) The IUCN Red List of Threatened Species 2018: https://www.iucnredlist.org/ja/species/3746/144226239. Other recent data provide slightly different figures than the above study in a few cases for the Iberian, Western-Central Alps and the Karelian populations.
([9]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/key_actions_large_carnivores_2015.pdf

order to comply with that provision, the Member States must not only adopt a comprehensive legislative framework but also implement concrete and specific protection measures. Similarly, the system of strict protection presupposes the adoption of coherent and coordinated measures of a preventive nature. Such a system of strict protection must therefore enable the actual avoidance of deliberate capture or killing in the wild, and of deterioration or destruction of breeding sites or resting places, of the animal species listed in Annex IV(a) to the Habitats Directive'.

One example of an action that effectively enforces the species protection provisions is the setting up of effective anti-poaching teams equipped with anti-poison dogs. Poaching, snares and poison baits are indeed a major threat for wolves in many places. Poisoning is a particularly serious problem because it also affects other species, in particular birds of prey. To deal with this problem, several projects in Southern and Eastern Europe (Spain, Italy, Portugal, Greece, Bulgaria and Romania) financed by the LIFE programme ([10]) have contributed to establishing specific measures that effectively support the strict species protection regime, e.g. establishing anti-poison dog units, training personnel (park rangers, forest guards, provincial police, veterinarians) and capacity building within public bodies; and awareness-raising activities targeted at livestock breeders, hunters, tourist operators, schoolchildren and the general public.

Wolf conservation/management plans, when established in line with Article 12 and when properly implemented, may constitute an effective framework for the implementation of strict protection provisions for Annex IV wolf populations, building up a comprehensive coexistence system that aims to ensure favourable conservation status while addressing the conflicts with human activities.

Such plans may include actions such as: (i) support for preventive measures (through investment aids, information, training and technical assistance); (ii) compensation of economic damages caused by wolves; (iii) improvement of the monitoring and knowledge base of the concerned wolf population; (iv) monitoring, evaluation and improvement of the efficiency of livestock protection measures; (v) promotion of involvement and dialogue with and among stakeholders (e.g. through dedicated platforms); (vi) improvement of the enforcement efforts to fight the illegal killing of wolves; (vii) habitat protection and improvement of feeding conditions (e.g. if needed, by restoring wild prey populations); (viii) development of eco-tourism opportunities associated with wolves; (ix) promotion/marketing of agricultural products originating from wolf areas; and (x) information, education and awareness raising. The plans may also allow relevant authorities to authorise a limited use of lethal control to remove wolf specimens, by applying derogations in accordance with the conditions set out in the Directive. Note, however, that plans adopting an adaptive harvest management (such as those for huntable species in Annex V of the Habitats directive) would not be consistent with the strict protection provisions that apply to Annex IV species.

These plans should be prepared based on the best available information on the species' conservation status and trends as well as on all the relevant threats and pressures. The participation or consultation of all the relevant stakeholders, especially those affected by the species or by the envisaged conservation measures, is crucial for integrating all relevant aspects of the plans and encouraging broad social acceptance.

Example of stakeholder involvement in a management plan

Croatia's 2010–2015 wolf management plan (Croatian Ministry of Culture, 2010), was the result of a two-year process, which involved representatives of all interest groups (relevant ministries, members of the Committee for the monitoring of large carnivore populations, scientists, foresters, non-governmental associations, etc.). The detailed action plan outlines the measures that Croatia should implement to ensure that its wolf population is conserved in the most harmonious possible cohabitation with humans.

Wolf conservation and management plans can therefore provide an appropriate structure to assess and address all the relevant problems and conflicts that threaten wolf populations, with a view to achieving favourable conservation status.

([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).

They can therefore also cover issues like wolf hybridisation with dogs, which is reported for all the nine European wolf populations and in 21 European countries ([11]). In some locations, this is a major threat for the conservation of the wolf ([12]) and specific preventive, proactive and reactive actions may be needed to tackle the problem, as indicated in Recommendation No 173 (2014 ([13])) adopted under the Bern Convention (Council of Europe, 2014). However, as wolf-dog hybridisation is a complex issue, it is strongly recommended that a well-defined management plan is drafted at national and population levels using the most updated and reliable field, laboratory, and statistical procedures (see box).

Wolf-dog hybrids

Interbreeding between wolves and their domestic form, dogs, has probably occurred repeatedly throughout the history of dog domestication and it is still occurring with varying intensity in several parts of the wolf range. As a type of anthropogenic hybridisation, wolf-dog hybridisation is not a natural evolutionary process where the hybrids should be subject to conservation measures. Rather, as a threat to the genetic integrity of wolf populations, wolf-dog hybridisation is an issue of high conservation concern and should be addressed through appropriate management plans and tools.

In Europe, hybridisation has been detected in several countries, e.g. Norway, Latvia, Estonia, Bulgaria, Italy, Spain, Portugal, Germany, Greece, Slovenia and Serbia. Note, however, that estimations of the introgression of dogs' genes into the wild wolf population are based on diverse approaches and associated experimental protocols. While in several cases, crossbreeding resulted in only one or a few litters of hybrids in restricted areas, in other cases the introgression of dogs' genes into the wild wolf population has been found to be spread across substantial areas, though to different extents (from 5,6 % in Galicia, Spain to more than 60 % in the province of Grosseto, Italy). Similarly, high rates of introgression have been found in the northern Apennines while only rare hybrid cases have been found in the alpine wolf population (from France to central-eastern Alps). However, the reported hybridisation rate elsewhere stands at about 5–10 % (Leonard et al. 2011). Hybridisation mainly occurs between male dogs and female wolves. The opposite can also occur in rare cases. The high number of free-ranging dogs from various areas, especially in Mediterranean regions, offer extensive opportunities for wolf-dog encounters. Knowledge on the ecology of wild-living wolf-dog hybrids is lacking, but there is no evidence that hybrids have reduced individual fitness, dispersal, reproductive success, behavioural modification, or population viability.

Managing wolf-dog hybridisation is a conundrum for governmental authorities as it poses several serious challenges.

(a) **The taxonomic status of a hybrid**

Dogs descend from wolves through domestication, and both belong to the same taxonomic entity, the species *Canis lupus*. Dogs are sometime identified by the subspecies qualifier *Canis lupus familiaris*. There is little doubt that the hybrids maintain the name *Canis lupus*.

(b) **The legal status of hybrids**

Contrary to dogs whose survival is normally dependent on human care and resources, hybrids have an independent and viable life as wild animals. As such, they would be considered by many national legislations to be equal to wild fauna and managed under the same rules. Were hybrids to be considered equal to dogs, they would fall under national laws on domestic animals. In any event, it appears to be useful for wolf-dog hybrids to receive 'the same legal status as wolves from hunters and the public in order to close a potential loophole for the irregular killing of wolves' (Policy Support Statement on hybridisation produced by the Large Carnivore Initiative for Europe and annexed to the *Guidelines for population-level management plans of large carnivores* (Linnell et al., 2008)). Indeed, if hybrids were to be considered legally unprotected by national laws, this could lead to increased accidental killing of wolves, given the difficulty of distinguishing hybrids from genetically 'pure' wolves based only on morphological characteristics. This

([11]) Salvatori, V et al (2020) *European agreements for nature conservation need to explicitly address wolf-dog hybridisation*. https://www.sciencedirect.com/science/article/pii/S000632071931674X
([12]) Salvatori, V. et al. (2019).
([13]) https://rm.coe.int/0900001680746351

might involve not only accidental but also intentional killing, as the unprotected status of hybrids might be used as a cover for killing actual wolves. Management authorities are encouraged to ensure that hybrids are clearly and unambiguously covered by their national laws as either wild fauna or domestic animals.

(c) **Options for management responses**

The most appropriate management response will depend on the overall estimated level of introgression and whether the introgression is limited to restricted areas and a few packs or widespread across large areas and/or most of the packs. For instance, limited introgression may not be a serious threat if this has remained stable across generations. Significant and widespread hybridisation (hybrid swarm) may be intractable, even though it may still be desirable to reduce the ongoing and future flow of domestic genes into the wolf population. High but localised prevalence could still be treated with targeted actions to neutralise the reproduction of hybrids (through either physical removal or sterilisation). Although several caveats have been raised on the difficulty and effectiveness of removing hybrids to control low levels of widespread introgression, this intervention is potentially useful when hybridisation is not widespread and its application is supported by applied research, monitoring and an adaptive management framework.

The range of management tools is wide, and the usefulness of each tool depends on the objectives. It is strongly recommended to address hybridisation through a dedicated plan at national, or possibly population level, where objectives, protocols and criteria are fully described and justified. A range of preventive, proactive and reactive actions will have to be identified and described. The plan will likely include provisions to:

(1) Set up an international collaborative effort involving all genetic laboratories, to agree on a common approach to define thresholds and procedures for identifying hybrids, and to share allelic frequencies of reference populations.

(2) Approve a set of policy guides for studying and monitoring the spread and prevalence of hybridisation and dog genetic introgression into the wolf population.

(3) Define areas where different management tools are appropriate depending on levels and patterns of hybrid prevalence, from no intervention to active removal of hybrid individuals. Ultimately, the social context could have a bearing on the management areas and actions selected.

(4) Set up emergency teams (and procedures) responsible, where and when necessary, for removing wolf-dog hybrids from the wild or for their capture/sterilisation/release. The Bern Convention Recommendation No 173 (2014) is fully endorsed by the European Commission and it states, among other things that: 'it is in the interest of effective wolf conservation to ensure that the removal of any detected wolf-dog hybrids is conducted exclusively in a government-controlled manner'. It appears that this can be accomplished only through prohibiting the killing of hybrids under national law only making an exception for governmental agencies or their designated agents. The Recommendation calls on parties to: 'Ensure that the government-controlled removal of wolf-dog hybrids takes place after government officials and/or the bodies entrusted by governments for this purpose and/or researchers have confirmed them as hybrids using genetic and/or morphological features. Removal should only be carried out by bodies entrusted by the competent authorities with such a responsibility, while ensuring that such removal does not undermine the conservation status of wolves'. 'Adopt the necessary measures to prevent wolves from being intentionally or mistakenly killed as wolf-dog hybrids. This is without prejudice to the careful government-controlled removal of detected wolf-dog hybrids from the wild by bodies entrusted with this responsibility by the competent authorities'.

(5) Approve a national plan to control free-ranging dogs (feral, stray or owned by people who let them roam freely) and prohibit the keeping of wolves and wolf-dog hybrids as pets. Establish awareness campaigns in support of controlling feral and free-ranging dogs in wolf ranges.

3. **Wolf-related conflict**

The wolf has historically been associated with several types of socio-economic conflict with humans. In the past such conflicts have led to the extermination or severe reduction of wolf populations in much of its European range. This persecution together with high rates of poaching still persist in many areas. Today the main conflicts are:

— **Depredation of livestock.** Livestock depredations mainly concern sheep. Linnell & Cretois (2018) calculate that during 2012–2016 an average of 19 500 sheep per year were killed by wolves in the EU (note that data was missing for Poland, Romania, Spain, Bulgaria, Austria and parts of Italy). This figure is currently the best available proxy for the predation impact of wolves in the EU.

While sheep are the main victims of wolf attacks, other types of livestock (goats, cattle, horses) and semi-domestic reindeer are also concerned to a lesser extent. Depredation is extremely variable and largely depends on the type of livestock system, the type of management, and the level of supervision, namely whether livestock are enclosed – especially during the night, or shepherded. For example in France (80 wolf packs), around 11 000 sheep, cattle and goats were preyed upon and compensated in 2019 (Dreal 2019 ([14])), whereas in Germany (128 wolf packs) the figure is below 3 000 for 2019 (DBBW 2019 ([15])) and in Sweden (31 wolf packs) only 161 sheep were preyed upon in 2018 (Viltskadestatistik 2018, SLU ([16])).

Linnell & Cretois (2018) highlight the difficulties of gathering consistent and reliable data across Europe on depredation of livestock by wolves. Livestock can die or go missing for a variety of reasons and it is not always possible to link their deaths to large carnivores. The quality of reporting by farmers and livestock managers largely depends on the compensation system. For example, on the level (full or partial) of compensation, on the length and difficulties of the related administrative process, and on whether on-the-spot checks are made to verify if the depredation was actually caused by large carnivores. Wolves may also occasionally attack and kill dogs. For example, in Sweden or Finland when chasing moose with unleashed dogs in wolf territories. The loss of both livestock and dogs clearly has an major emotional impact, in addition to the direct and indirect economic losses. While the overall impact of wolf predation on the livestock sector in the EU is negligible, wolf predation on unprotected grazing sheep could be significant at individual farm-level, and brings an additional pressure and burden to the concerned operators in a sector that is already affected by a range of socio-economic pressures.

— **Perceived risk for people**. Wolves do not see humans as possible prey, but rather as a threat to avoid. While fatal wolf attacks on humans have been reported in the past (often related to specimens with rabies or that had been fed by humans, provoked, injured or trapped), the actual risk of wolf attacks to humans, in current European environmental and social conditions, is considered to be extremely low. (Linnell et al, 2002; Linnell and Alleau, 2016 ([17]); KORA, 2016; Linnell et al, 2021). Despite this, many people still fear wolves, particularly in the countries and regions recently recolonised by the species or where increasing wolf numbers make them more visible in areas where they were not usually present before. Cases have been reported of wolves approaching people and behaving unusually ('bold' or 'fearless' wolves). This has notably occurred when they have become food conditioned or when dogs were present (Reinhardt 2018). As regards wolf-dog hybrids, there is no evidence that they are bolder or more dangerous than wolves but fear of hybrids is also a specific issue in certain areas of Europe. These perceptions and attitudes must be carefully taken into account and seriously addressed. It is useful, but often not sufficient, to support educational activities, to provide correct information and to debunk fake news through fact-checking (as carried out by some local or regional authorities or under LIFE projects). Furthermore, it must be made clear that, in the unlikely case of an objective danger, caused for example by a rabid or aggressive wolf or by a food-conditioned or habituated wolf, the targeted removal of the wolf concerned is fully legitimate under the Habitats Directive (see the paragraph on derogations under Article 16.1 c in Chapter 6 below).

([14]) http://www.auvergne-rhone-alpes.developpement-durable.gouv.fr/IMG/pdf/20200327bilandommages2019_especes.pdf
([15]) https://www.dbb-wolf.de/Wolfsvorkommen/territorien/karte-der-territorien
([16]) https://www.slu.se/globalassets/ew/org/centrb/vsc/vsc-dokument/vsc-publikationer/rapporter/viltskadestatistikrapporter/viltskadestatistik-2018-1-webb.pdf
([17]) 'Despite the need to recognize that the potential for wolf attacks on people is greater than zero […] there are currently > 12 000 wolves in Europe and > 50 000 wolves in North America, many of which are living in proximity to millions of humans, and yet we only find evidence for a handful of attacks in recent decades': Predators_That_Kill_Humans_Myth_Reality_Context_and_the_Politics_of_Wolf_Attacks_on_People https://www.researchgate.net/publication/301267098

— **Impact on game ungulates species**. Wolves and human hunters can sometimes pursue the same quarry i.e. wild ungulates. When large carnivores return, hunters often fear that competition will affect their activities and this may cause a major conflict. The impact of wolf predation on both numbers and behaviour of wild ungulates is quite variable and complex, depending on the species and the local context. In general, wolves remove only a small percentage of wild ungulates each year – much less than hunters – and do not seem to have a negative impact on the current (generally increasing) trends of ungulates populations in Europe ([18]) (Bassi, E. et al 2020; Gtowaciflski, Z. and Profus, P. 1997). In any event, unlike predation on domestic livestock, predation of a wild, native carnivore on wild ungulates cannot be prevented or mitigated, as it is part of the natural processes that biodiversity policy aims to restore and preserve. This represents a great challenge for European hunters as the return of large carnivores has to be taken into account when planning hunting and setting quotas for wild ungulates. Finally, the contribution of wolves to regulating the densities of ungulates (Ripple, W.J. and Beschta, R.L., 2012) needs to be acknowledged, taking into account the associated benefits, including in terms of reduced damages to forestry and agricultural crops ([19]).

— **Conflicts about values (competing visions of European landscapes)**. Conflicts associated with wolves are not always about the direct economic impact on some rural stakeholders. Wolves are strongly symbolic for a number of wider issues, and conflicts often reflect deeper social divides (e.g. between rural and urban areas, between modern and traditional values, or between different social and economic classes) (Linnell, 2013). Wolves often trigger a fundamental debate about the future direction of European landscapes (Linnell, 2014) between different segments of society with opposing points of view and visions on how wildlife and landscapes should be preserved, used or managed ([20]). This explains why there is rarely a clear relationship between the extent of the direct economic impact of large carnivores and the level of social conflict that this generates (Linnell and Cretois, 2018).

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

Since the adoption of the Habitats Directive, the Commission has promoted the coexistence approach, which aims to restore the favourable conservation status of large carnivore populations, while addressing and reducing the conflicts with legitimate human activities, with a view to sharing multi-functional landscapes. The LIFE programme has financed over 40 projects linked to wolf conservation and coexistence, which have helped find and testing good practices to achieve these objectives ([21]).

Many coexistence examples and case studies have been identified by the *EU Platform on coexistence between people and large carnivores* – a group of organisations representing different interests groups that have agreed a joint mission to promote coexistence solutions ([22]). Such cases studies are classified under five categories: (1) providing advice/awareness raising; (2) providing practical support; (3) understanding viewpoints; (4) innovative financing; and (5) monitoring ([23]) (EU LC Platform, 2019).

A 2018 study requested by the European Parliament ([24]) presented recommendations and examples of practical coexistence measures in several Member States for wolves and other large carnivores.

At European level, there is therefore a wide basis for sharing knowledge and valuable experiences. The most common approaches to reducing conflict are described below.

([18]) See, as an example, ungulates hunting bags in recent years in France. http://www.oncfs.gouv.fr/Tableaux-de-chasse-ru599/-Grands-ongules-Tableaux-de-chasse-nationaux-news467

([19]) See also Carpio et al (2020) *Wild ungulate overabundance in Europe: contexts, causes, monitoring and management recommendations.*

([20]) For example the conflicts among the views of traditional production landscapes, heritage landscapes, recreational landscapes, nature conservation landscapes or multi-functional landscapes. Or the conflicts and tensions related to the shift from declining, traditional (and rural) lifestyles to modern (and urban) lifestyles.
https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/task_4_conflict_coexistence.pdf
https://www.lcie.org/Blog/ArtMID/6987/ArticleID/65/The-symbolic-wolf-Competing-visions-of-the-European-landscapes

([21]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/promoting_best_practices.htm

([22]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/coexistence_platform.htm

([23]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/case_studies.htm

([24]) https://www.europarl.europa.eu/RegData/etudes/STUD/2018/596844/IPOL_STU(2018)596844_EN.pdf

— ***Compensatory payments***

A frequent approach to reducing the economic impact of wolf damages and increasing tolerance for the protected species, are compensatory payments, which are used in many EU countries. Compensatory payments can often be an appropriate measure, but eligibility rules should be clearly defined and various factors considered. This includes checking if the livestock losses are actually due to predation by wolves, and ensuring that the compensation is fair and paid to the eligible recipient promptly.

In many countries, farmers complain that it is complicated and expensive to receive compensation, or that payments are late or insufficient. Compensation payments are usually funded by national or regional governments in accordance with the relevant EU State aid rules ([25]) (which allow for 100 % compensation of both direct and indirect costs). Damage compensation payments alone are not always enough to address coexistence problems, as they will not reduce depredations or other conflicts. Moreover, compensation payments are often not sustainable in the long term unless they are appropriately combined with other measures.

— ***Prevention measures and technical assistance***

Prevention measures are a fundamental component of a comprehensive coexistence system. Experience gained (e.g. from LIFE projects and rural development programmes) shows the importance and effectiveness of various livestock protection measures, such as different types of fencing, shepherding, livestock guarding dogs, night-time gathering of livestock, and visual or acoustic deterrent devices (Fernández-Gil, et al 2018, see also Carnivore Damage Prevention News (CDP news, 2018)). In particular, the presence of shepherds can make livestock protection measures considerably more effective and is in itself a deterrent against predation. A report developed by the EU large carnivore platform demonstrates successful experiences and good practices (Hovardas et al, 2017). Prevention measures need to be tailor-made and adjusted to specific regional characteristics (including type of livestock, herd size, topography etc.).

The effectiveness of these measures depends strongly on their proper implementation by the relevant operators and on the availability of sufficient resources and technical advice to support their deployment on the ground (e.g. van Eeden et al. 2018). No single measure can be 100 % successful, but adequate technical solutions (often used in combination) can significantly reduce livestock losses to predators. The relevant authorities and stakeholders need to carefully design the prevention measures so that they are suitable for different situations. They must also implement them properly (including maintenance), monitor their effectiveness and make any necessary adjustments. Training, information, follow-up and technical assistance for the operators concerned are key and should be allocated adequate public support, including to maintain the prevention systems and handle the additional workload.

— ***Information, advice, awareness raising***

Providing factual information on wolves and on how to minimise impacts can be a useful conflict mitigation measure (EU LC Platform, 2019). For example the Carnivore Damage Prevention News newsletter ([26]), which has been supported through different LIFE projects, helps spread information on livestock protection in the EU and internationally. The Italian website 'Protect your livestock' (Proteggi il tuo bestiame, 2019) provides detailed advice on measures to protect livestock as well as the different funding schemes available in the Italian regions. The website of the Spanish Ministry for Ecological Transition provides a catalogue of good preventive measures that can avoid or minimise interactions between protected species and agricultural and livestock farms ([27]).

Another example of this approach, specifically targeted to the hunting community, is provided by the LIFE Wolfalps project, whose activities include sharing data and information on the population dynamics of the wild ungulates species in the Alps and on the effects of the wolf return on its preys and on hunting activities ([28]). A broader approach is provided by the Contact Office 'Wolves in Saxony' (Kontaktbüro Wölfe in Sachsen, 2019) and the Wolf Competence Centre in Saxony-Anhalt, where several staff members are available on site to provide education materials, organise excursions and address peoples' questions and concerns.

([25]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/Briefing%20note%20state%20aid_EU%20Platform.pdf
([26]) http://www.protectiondestroupeaux.ch/en/cdpnews/
([27]) https://www.miteco.gob.es/es/biodiversidad/temas/conservacion-de-especies/especies-silvestres/ce-silvestres-interacciones.aspx
([28]) http://ex.lifewolfalps.eu/wp-content/uploads/2014/05/LWA_brochure-E3_168x240_5mm-abbondanzaBassa.pdf

— ***Monitoring***

Monitoring large carnivore populations is crucial to provide accurate information, understand the population dynamics needed to guarantee their survival, adapt management practices to changing situations and fulfil obligations under the Habitats Directive. It is also a very demanding exercise as it is conducted over a large geographical area, often crossing international borders, and because of the low densities and elusive behaviour of large carnivores (LCIE Policy Support Statement annexed to Linnell et al. 2008). All management decisions (including those on derogations) should be based on solid data on the concerned wolf population. Monitoring should also cover the implementation of all prevention measures (their uptake, results, efficiency), and the identification of the livestock predator to distinguish between wolves and dogs (f. e. Echegaray and Vilà, 2010; Sundqvist et al., 2008) and to gauge whether adjustments or improvements to the system are needed.

Considering that a very common conflict across Europe is the disagreement on the size and status of carnivore populations, the involvement of stakeholders – including hunters – in monitoring can have benefits not only in terms of increasing the number of people collecting data but also improving stakeholder relations and reducing conflicts.

Solid monitoring data are necessary for taking appropriate decisions on wolf conservation and management. Therefore, investing in an adequate monitoring system that can provide accurate and up-to-date knowledge of the wolf population in the area concerned is of key importance. The French monitoring system can be considered as a good example ([29]).

Examples of stakeholder involvement in monitoring

A Commission-supported pilot action in Slovakia involved a wide range of stakeholders (environmentalists, foresters, protected area staff and hunters) in a science-based wolf census. They were responsible for collecting wolf scats and urine samples from a study area. Their involvement, along with the use of high tech analysis, has led to greater agreement on the local wolf population's size (Rigg et al, 2014).

Another example is the Large Carnivore Observer Network in Finland – a group of approximately 2 100 active volunteers nominated by local Game Management Associations. This network of trained observers, mainly local hunters, is responsible for verifying the observations of large carnivore tracks and other signs, reported by the public. These volunteers will record the observation data in a national database 'TASSU' ('paw' in Finnish), which is maintained by Luke (Natural Resources Institute Finland). This database is used e.g. to generate national and regional-level population estimates for large carnivores and is used by game management officials and game wardens. The network, the database and their governance are constantly developing and adjusting to help build mutual trust and cooperation between different institutions and stakeholders' groups in sharing, using and accessing the data on such sensitive species. For example, the LIFE BOREALWOLF project running from 2019 to 2025 aims to strengthen the Large Carnivore Observer Network by providing further education to its current volunteers and recruiting new ones that are non-hunters.

Similarly, Sweden and Norway have set up Skandobs – the Scandinavian tracking system for large carnivores for lynx, wolverines, brown bears and wolves. Anyone can register their observations of tracks, signs or sightings of large carnivores in Scandinavia into this database. Increased reporting of observations will help increase knowledge about the occurrence and distribution of these species. Observations registered in the database are available to all system users. Observations can also be shared using the Skandobs App (users can download Skandobs-Touch from the App Store or Google play to report predators or tracks while out in the field). The database is updated every 15 minutes. It is managed by Rovdata, an independent part of the Norwegian Institute for Nature Research (NINA).

([29]) https://www.loupfrance.fr/suivi-du-loup/situation-du-loup-en-france/

— ***Dialogue with and involvement of stakeholders***

Acknowledging the cultural and social nature of conflict over wolves, participatory processes are seen as having significant conflict mitigation potential, particularly by increasing trust between stakeholders (Young et al. 2016). The *EU Platform on coexistence between people and large carnivores* is an example of such an approach (see Case Study 9 in Annex IV of the guidelines). Such approaches are also used at regional and national level. Many Member States have set up national platforms. Through a pilot project, the EU institutions are also supporting the setting up of regional platforms in Italy, Romania, Spain, France, Germany and Sweden (Regional LC Platforms, 2019). The LIFE EUROLARGECARNIVORES project (2019), also supports collaboration and information sharing between major carnivore hotspots in Europe.

Another positive example of stakeholder engagement is the Grupo Campo Grande (GCG). This is a Spanish nationwide think tank composed of people from different backgrounds and organisations 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 joint declaration and are working together to encourage others to follow their approach (GCG, 2018).

— ***Lethal control/culling of wolves***

Historically, lethal control/culling of wolves has been widely used to get rid of wolves and of any associated impacts and conflicts they create. Such practices have caused the eradication of wolves from most of their original European range. Nowadays, certain methods and levels of lethal control are still used by several European countries who claim that their intention is to prevent or reduce livestock losses and to improve human tolerance for the wolf, including some Member States where the species is listed under Annex IV of the Directive (strict protection regime).

Nevertheless, under the current policy and related legislation, the conflicts associated with the conservation of wolves and other protected large carnivores in Europe's multi-functional landscapes cannot be addressed only or mainly through culling/lethal control. The use of derogations to authorise lethal control is a possible and legitimate tool and Member States may consider using it to complement the other conflict management measures mentioned above, respecting all the conditions listed in Article 16(1) of the Habitats Directive (see paragraph 5).

There seems to be no solid evidence on the effectiveness of the use of lethal control to reduce livestock predation. According to certain studies, lethal control/culling seems to be less effective than livestock protection measures (van Eeden et al, 2018, Santiago-Avila et al, 2018) and it might actually lead to an increase in livestock predation and conflicts (Wielgus and Peebles, 2014; Fernández-Gil et al., 2016), possibly because of the disruption of the wolf pack structures caused by culling.

In addition, using lethal control/culling of a protected species, unlike the previously mentioned non-lethal measures, is a controversial tool among conservation professionals (Lute et al 2018) and is increasingly challenged by large parts of society ([30]). Given this, as well as empirical evidence, it is unclear whether wolf culling leads to an increase or a decrease in social conflict.

In conclusion, non-lethal measures, including livestock management and protection measures appear more effective, more sustainable, less likely to be legally challenged and more acceptable (by most people) for reducing livestock predation risks and conflicts.

Competent authorities in the Member States should take all these elements into account when deciding on and implementing their management measures.

([30]) Opinion polls conducted by Savanta ComRes in 2020 in six Member States show that most people are against killing wolves even when they attack farm animals. https://www.eurogroupforanimals.org/news/new-poll-shows-eu-citizens-stand-wolves

Comprehensive wolf conservation/management plans

The best approach for Member States would be to combine several of the abovementioned measures to support the right level of coexistence, and tailor them to the local situation. Their comprehensive and consistent wolf conservation and management plans should also make use of all the available tools and funding sources. These plans (ideally cross-border plans for those neighbouring Member States sharing the same wolf population (Linnell et al., 2008)) would address all the relevant threats, conflicts, opportunities and needs related to the wolf in the concerned Member State. This would be the best way to achieve and maintain a favourable conservation status for the wolf across its natural range, while providing for the necessary management flexibility, within the limits set by the Directive, and maintaining or improving public acceptance of the wolf (the 'societal carrying capacity').

5. Funding for coexistence measures

Support to help resolve conflicts associated with wolf conservation can be granted from EU funds, in particular the LIFE programme and the European Agricultural Fund for Rural Development (EAFRD) and from national funds (State aid).

— **The LIFE programme**, on the basis of annual competitive calls for proposals, can finance demonstration activities and testing of innovative solutions for: livestock protection measures; assessment of the predation risk; establishment of damage compensation schemes; and training of local rangers and veterinarians on methodologies to assess livestock damage. LIFE can also finance targeted communication and information activities aimed at resolving human–wolf conflicts. Note that LIFE does not fund recurring management.

— **The EAFRD** can provide support for preventive measures, such as purchasing protective fences or guard dogs (which, as non-productive investments, can be financed up to 100 %). Additional labour costs for farmers to check and maintain or move the protective fence, and feed and veterinary costs for the guard dogs may be covered by agri-environment-climate payments. The EAFRD is used in several Member States (e.g. Greece, Bulgaria, Slovenia, Italy and France) to fund livestock protection measures, such as additional costs for shepherding, fencing and guard dogs. The *EU Platform on coexistence between people and large carnivores* (see below) prepared an overview of where rural development programmes (RDP) are currently used and where they could be used in future (Marsden et al 2016) ([31]). The future common agricultural policy might also support preventive measures and shepherding systems through the new eco-schemes ([32]).

— **The ERDF Interreg instrument**, can support projects aiming to improve cross-border cooperation on conservation and management of large carnivores, for example in relation to habitat connectivity, knowledge transfer, livestock damage prevention and other coexistence measures ([33]).

— **National funding (State aid)**, can provide support, up to a rate of 100 %, for preventive measures; for restoring destroyed agricultural potential, such as replacing livestock killed by wolves; for compensation of damages caused by wolves, such as killed animals and material damage to the farm assets or veterinary costs and costs related to the search for missing animals ([34]).

A comprehensive approach to funding and supporting measures to reduce wolf-related conflicts is needed within a Member State, (and ideally across the borders of Member States sharing the same wolf population).

Member States should reflect the main conservation and conflict issues with wolves in their priority action frameworks (PAFs), identifying the associated priorities and financial needs and laying out how they plan to fulfil them. The updated PAF format ([35]) includes a section (E.3.2.) specifically on priority measures and their associated costs, for prevention, mitigation or compensation of damages caused by species protected under the EU Birds and Habitats Directives.

([31]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/case_studies_sub_rural_development_programmes.htm
([32]) https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/factsheet-agri-practices-under-ecoscheme_en.pdf
([33]) See for example the project 'Carnivora Dinarica' between Slovenia and Croatia: https://www.carnivoradinarica.eu/en/ Further info on Interreg projects on biodiversity: https://ec.europa.eu/environment/nature/natura2000/financing/docs/Interreg%20Natura2000.pdf
([34]) https://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/Briefing%20note%20state%20aid_EU%20Platform.pdf
([35]) https://ec.europa.eu/environment/nature/natura2000/financing/docs/PAF%20format%20EN.docx

In addition, a number of more innovative ways to finance and support coexistence have been used across Europe.

Examples of innovative financing

An original and successful example of innovative funding for coexistence is the Swedish initiative 'conservation performance payments' for the wolverine. It entails payments that are linked to the successful reproduction of the wolverine rather than compensation for the 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 put in place. The number of registered reproductions increased from 57 in 2002 to 125 in 2012, with the population expanding into previously unoccupied areas (Persson, 2015).

Another successful innovative financing system is the Golden Eagle scheme to reward the Sami Reindeer herding community in Finnish Lapland for the successful establishment of Golden Eagle nests and territories (European Commission, 2017). Since the Finnish government introduced the scheme in 1998, herders' attitudes towards Golden Eagles are reported to have changed dramatically with the species now being seen as a resource rather than a pest.

Income and employment opportunities generated by nature-based eco-tourism may also help improve acceptance of wolves and their coexistence with the concerned rural communities. In Spain, the region northwest of Zamora (namely 'Sierra de la Culebra') has become an important area for wolf-watching tourism, which is a significant economic asset, attracting thousands of visitors each year. For such tourism initiatives, care must be taken not to hinder wolf conservation (e.g. avoiding disturbance and denning sites). The impact on other stakeholder groups should also be considered (e.g. not attracting large carnivores to areas with livestock or contributing to a situation where large carnivores associate humans with food).

A different type of opportunity has been developed in Italy, Piedmont (under the LIFE WOLFALPS project). A local label ('Terre di lupi' = 'Land of wolves') has been created and several initiatives have been introduced to promote cheese and other products produced by farmers who are concerned by the presence of wolves and implement prevention measures to ensure coexistence.

The 2020 winner of the Natura 2000 award in the category 'socio-economic benefits' was the project 'Pro-Biodiversidad: shepherds as biodiversity conservators in Natura 2000'. It demonstrated how farmers and conservationists can work together so that nature conservation produces resources and benefits, and not problems, for local communities. Much of the Picos de Europa mountain range suffers economically from rural abandonment, loss of pastures, loss of food sources for scavengers, and risk of fire. The Fundación para la Conservación del Quebrantahuesos decided to tackle this problem by creating a special certification brand, Pro-Biodiversidad (Pro-Biodiversity), to support the extensive sheep sector, halt rural abandonment and improve conditions for biodiversity. Through this scheme, a higher price is paid for sheep meat produced by farmers who coexist with wolves.

6. **Article 16: derogations to the strict protection of wolf populations in Annex IV**

As a general rule, all the wolf populations listed in the Annex IV of the Habitats Directive are strictly protected and the individuals may not be deliberately captured, killed or disturbed in their natural range. In addition, breeding and resting places may not be deteriorated or destroyed. This protection applies both within and outside the Natura 2000 sites.

Nevertheless, in certain exceptional circumstances, it may be justified to allow the capture or killing of some individual wolves. For example, to prevent significant livestock predation, or to radio-collar wolves for research, monitoring and management purposes or to remove food-conditioned or bold and potentially dangerous individuals.

Article 16 of the Habitats Directive provides for the necessary flexibility to address the above situations by allowing Member States to adopt derogations to the general provisions of strict protection and carry out the abovementioned activities (the following paragraphs should be read along with Part III of the document).

Preconditions for granting a derogation

Article 16 sets three preconditions, all of which must be met before granting a derogation. The competent national authorities need to demonstrate:

— the occurrence of one (or more) of the reasons listed in Article 16(1) (a)-(e) backed up by sufficient evidence,

— the lack of a satisfactory alternative (i.e. whether the problem can be solved in a way that does not involve a derogation, namely by using non-lethal tools),

— the absence of detrimental effects of the derogation on the maintenance of the populations of the species concerned at a favourable conservation status in their natural range.

The application of these requirements is illustrated here for the case of the wolf. It is important to recall that it is for the relevant national authorities to implement these provisions by properly justifying and demonstrating that all the conditions under Article 16(1) are fulfilled. Similarly, it is primarily for the national judicial authorities to verify and ensure compliance with the requirements in a particular context and in specific cases.

(1) ***Demonstration of one or more of the reasons listed in Article 16(1)(a)–(e)***

These reasons listed in Article 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'.

Examples of derogation justifications for wolves:

— **Justification (a)** is likely to be rarely used. It might be invoked in a case where for example an endangered wildlife prey species is threatened by wolf predation. Nevertheless, it has to be recalled that predation of a native species by another native species is a natural process and an integral part of ecosystem functioning. Furthermore, before considering any derogation, the other threats or limiting factors for the prey species should be identified and effectively addressed (e.g. habitat deterioration, human disturbance, overhunting, competition by domestic species, etc.).

— **Justification (b)** In the case of wolves, derogations used by the Member States often aim to prevent serious damage to livestock. This provision aims to avoid serious damages, and therefore it does not require the damage to have occurred. However, the likelihood of serious damage, beyond normal business risk, needs to be demonstrated and there must also be enough evidence to justify that any lethal control method used under the derogation is effective, proportionate and sustainable in preventing or limiting the serious damage. This justification could be used to remove wolves that are likely to cause high levels of depredation on livestock despite the adequate implementation of appropriate prevention measures (such as wolf-proof electric fences and livestock guarding dogs).

— **Justification (c)** on 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, may for example justify the use of aversive methods to harass or remove food-conditioned, habituated or bold wolves that consistently approach humans, or other individuals or wolf packs that demonstrate unwanted and dangerous behaviour.

Examples of measures in the interest of public health and safety

The German Dokumentations und Beratungsstelle des Bundes zum Thema Wolf (DBBW) has approved guidelines to help national managing authorities deal with bold or unusually behaving wolves (Reinhardt et al, 2018). As a first step, these guidelines help authorities to understand whether a wolf really is behaving unusually. Then, if a wolf does appear to be attracted by people or dogs, a gradual approach is recommended depending on the seriousness of the incidents recorded, starting with removal of attractants (e.g. food) and aversive conditioning, and escalating up to (lethal or non-lethal) removal of the wolf in the most serious cases.

The scientific experts from the LCIE (Large Carnivore Initiative for Europe: a specialist group of the IUCN's Species Survival Commission) have produced a policy statement on the management of bold wolves along similar lines which describes recommended measures for different types of wolf behaviour, as well as research priorities (LCIE, 2019).

Assessment of wolf behaviour and of the risk it may pose for human safety with recommendations for action (LCIE, 2019)

Behaviour	Assessment	Recommendation for action
Wolf passes close to settlements in the dark.	Not dangerous.	No need for action.
Wolf moves within sighting distance of settlements/scattered houses during daylight	Not dangerous.	No need for action.
Wolf does not run away immediately when seeing vehicles or humans. Stops and observes.	Not dangerous.	No need for action.
Wolf is seen over several days < 30 m from inhabited houses (multiple events over a long time period).	Demands attention. Possible problem of strong habituation or positive conditioning.	Analyse situation. Search for attractants and remove them if found. Consider aversive conditioning.
Wolf repeatedly allows people to approach it within 30 m.	Demands attention. Indicates strong habituation. Possible problem of positive conditioning.	Analyse situation. Consider aversive conditioning.
Wolf repeatedly approaches people by itself closer than 30 m. Seems to be interested in people.	Demands attention/critical situation. Positive conditioning and strong habituation may lead to an increasingly bold behaviour. Risk of injury.	Consider aversive conditioning. Remove the wolf if appropriate aversive conditioning is not successful or practical.
Wolf attacks or injures a human without being provoked.	Dangerous.	Removal.

— **Justification (d)** related to research, education, repopulation, and reintroduction might be used, for example, for allowing the temporary capture of wolves to fit them with radio collars for research or monitoring purposes or for conservation translocation purposes.

Example of wolf trapping for research and monitoring

In 2018, through an exchange of letters, the Commission agreed with the German authorities that Council Regulation (EEC) No 3254/91 ([36]) on leg-hold traps can under certain conditions be interpreted in a way that excludes *soft-catch traps* from the scope of the prohibition of that Regulation. These soft-catch traps have rubber-padded jaws (instead of steel teeth) in order to minimise the risk of animals being injured when trapped. They are considered the best available means to catch wolves alive for monitoring and research purposes as they have a greater success rate and a lower probability of causing injury.

The Commission considers that, if soft-catch traps prove to be necessary for scientific research or monitoring aimed at improving the conservation status of the relevant species, it would run counter to the conservation objective of Regulation (EEC) No 3254/91 to include such traps within the scope of the prohibition of the Regulation. Consequently, the use of soft-catch traps could be envisaged for conservation purpose only, provided that: (i) there is no satisfactory alternative; (ii) there is no negative impact on the favourable conservation status of the species; and (iii) all precautions are taken not to harm the animal and to reduce its stress to a minimum.

Practically, such soft-catch traps should be equipped with a transmitter informing the responsible authorities immediately when an animal is caught. Once informed, the responsible authorities should intervene within 30 minutes so that the stress period for the animal is reduced as much as possible and self-inflicted damage is avoided. The animal must be anesthetised by a professional veterinarian, equipped with a transmitter and then immediately released into the wild.

Derogations under Article 16.1.(e), as explained in Chapter 3.2.1, may exceptionally be used to allow the taking or keeping of certain specimens of wolves, subject to several additional strict conditions that must be respected. The CJEU has confirmed, in Case C-674/17, that the concept of 'taking' must be understood as including both the capture and killing of specimens ([37]).

The objective of a derogation based on Article 16(1)(e) cannot, in principle, be confused with the objective of a derogation based on Article 16(1)(a) to (d) of the Directive in that the former can only serve as a basis for granting a derogation if the latter is not relevant ([38]). If the aim of the derogation falls under any of the indents (a) to (d) of Article 16, the derogations must be based on one (or several) of those indents. There needs to be transparency in the derogations and the reasons for using them. For example, if the main purpose is to prevent serious damage to livestock/property, then indent (b) should be used. If a habituated wolf is acting dangerously, indent (c) is to be used. Indent (e) is therefore not a catch-all provision to be used for any type of killing.

As for any derogation under Article 16, national decisions authorising killing on the basis of (e) should be granted for exceptional, specific and clear aims, consistent with the Directive objectives (Article 2) and adequately justified.

([36]) Council Regulation (EEC) No 3254/91 of 4 November 1991 prohibiting the use of leghold traps in the Community and the introduction into the Community of pelts and manufactured goods of certain wild animal species originating in countries which catch them by means of leghold traps or trapping methods which do not meet international humane trapping standards (OJ L 308, 9.11.1991, p. 1).

([37]) Paragraph 32.

([38]) See paragraph 37 of Case C-674/17: 'Consequently, the objective of a derogation based on Article 16(1)(e) of the Habitats Directive cannot, in principle, be confused with the objectives of the derogations based on Article 16(1)(a) to (d) of that directive, with the result that the former provision can only serve as a basis for the grant of a derogation in cases where the latter provisions are not relevant'.

In Case C-674/17, the CJEU accepted that combating the illegal hunting (poaching) of wolves could in principle be an aim to be pursued by a derogation issued under Article 16(1)(e), provided that it contributes to maintaining or restoring a favourable conservation status for the species concerned in its natural range. In this case, the national permitting authority must justify the derogation with rigorous scientific evidence, including with comparative elements on the consequences of such derogation on the conservation status of the species. If the aim of the derogation is to combat poaching, the authority has to also take into account the most recent estimations on the level of poaching and the mortality based on all the derogations granted. Such derogations granted for combating poaching should therefore be capable of reducing the poaching mortality of the concerned population to such an extent that it would have an overall net positive effect on the size of the wolf population.

Furthermore, derogations based on Article 16(1)(e), as compared with those referred to in Article 16(1)(a) to (d), must satisfy additional restrictive conditions. The use of this derogation is permitted under strictly supervised conditions, with clear authorisations related to places, times and quantities and requiring strict territorial, temporal and personal controls to ensure an efficient enforcement. Additionally, it must only be carried out selectively, to a limited extent and should concern a limited numbers of specimens.

On selectivity, the derogation must concern specimens which are determined in the most specific and appropriate way possible, in light of the objective pursued by the derogation. Therefore, as it was underlined by the CJEU in Case C-674/17, it may be necessary to determine not only the species which is the subject of the derogation or the types or groups of specimens, but also the individually identified specimens ([39]).

Regarding 'limited numbers', this number will depend in each case on the population level (number of individuals), its conservation status and its biological characteristics. The 'limited numbers' will need to be established on the basis of rigorous scientific data of geographical, climatic, environmental and biological factors as well as those on reproduction rates and total annual mortality due to natural causes. The number must be clearly mentioned in the derogation decisions.

(2) ***Absence of a satisfactory alternative***

The second precondition is that 'there is no satisfactory alternative'. This implies that preventive and non-lethal methods should always be considered the first option (derogation is the last resort). The alternatives will depend on the context and the specific objectives of the derogation being considered and they should take into account the best knowledge and experiences available for each situation.

For example, in the case of livestock damages, before authorising derogations, it is necessary to prioritise non-lethal alternatives and to correctly implement appropriate and reasonable preventive measures in order to reduce depredation risks, such as supervision by shepherds, the use of livestock guarding dogs, the protection of livestock by fences or alternative management of livestock (e.g. calving/lambing control). Only when such alternative actions have been implemented and have proved to be ineffective or only partly effective, or when this kind of alternative actions cannot be implemented for the specific case, may the derogations be authorised to resolve the (residual) problem.

In case of bold and/or unusually behaving wolves, or food-conditioned wolves, the removal of the specific causes (e.g. food attractants due to poorly managed waste) and aversive conditioning should be the first responses to consider, in order to scare them away and try to change their behaviour, discouraging them from approaching people (through e.g. several types of deterrents and non-lethal tools) (Reinhardt et al, 2018). When such alternative solutions have been considered and have proved not to be satisfactory, or feasible in the specific case, a derogation may be granted.

On the abovementioned derogations aiming to reduce poaching, the CJEU (in Case C-674/17, paragraphs 48, 49, 50) has clarified that the mere existence of an illegal activity such as poaching or difficulties associated with its monitoring cannot be sufficient to exempt a Member State from its obligation to ensure the safeguarding of species protected under Annex IV to the Habitats Directive. On the contrary, in such a situation, a Member State must give priority to strict and effective control of that illegal activity and implement methods that respect the prohibitions laid down in Articles 12 to 14 and Article 15(a) and (b) of the Directive. To support their case for a derogation, a Member State should provide a clear and sufficient statement of reasons for the absence of a satisfactory alternative to achieving the objectives, referring to the absence of any other satisfactory solution or to relevant technical, legal and scientific reports.

([39]) Case C-674/17, paragraph 73.

(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 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 in their natural range) requires an assessment of the possible effect of the derogation on both the population concerned and on the species' conservation status within the territory of the Member State.

The decisions on the use of derogations and the assessment of the possible effects of the derogations on the conservation status of the population concerned must be based on an accurate knowledge of the concerned wolf population and of its trends. The additional and cumulative effects of the derogations should also be properly assessed taking into account any other direct or indirect negative impacts from human activities (including incidental and illegal killing). This is necessary to ensure that the decision is not detrimental to the population's conservation status.

In Case C-674/17 (paragraph 57–61), the CJEU has underlined that a derogation under Article 16(1) must be based on criteria that ensure the long-term preservation of the dynamics and social stability of the species in question. The cumulative demographic and geographic impacts from all derogations on the concerned population should therefore be properly assessed, in combination with any other natural or human-induced mortality.

The assessment is to be made 'at both local level and at the level of the territory of the concerned Member State or, where applicable, at the level of the biogeographical region in question where the borders of that Member State straddle several biogeographical regions, or if the natural range of the species so requires and to the extent possible, at cross-border level'. However, this should not take account of 'the part of the natural range of the population in question extending to certain parts of the territory of a third country which is not bound by an obligation of strict protection of species of interest for the European Union'.

In Case C-342/05, the CJEU 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 concluded 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.'

Such an approach has been confirmed by the CJEU in Case C-674/17 (paragraphs 66–69), with an additional reference to the precautionary principle: 'as regards the effect of an unfavourable conservation status of a species on the possibility of authorising derogations under Article 16(1) of the Habitats Directive, the Court has already held that the granting of such derogations remains possible by way of exception 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'. However, 'if, after examining the best scientific data available, significant doubt remains as to whether or not a derogation will be detrimental to the maintenance or restoration of populations of an endangered species at a favourable conservation status, the Member State must refrain from granting or implementing that derogation'.

Derogations for killing very few specimens may therefore be granted on a case-by-case basis, even if the conservation status of the species is not (yet) favourable, provided that the derogation is neutral in terms of the species' conservation status, 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 an overall negative net impact on the population dynamics, the natural range, the population structure and health (including on genetic aspects), or the connectivity needs of the concerned wolf population.

Consequently, the less favourable the conservation status and trends, the less likely that this third precondition can be fulfilled and that the granting of derogations would be justified, apart from under the most exceptional circumstances. The conservation status and trends of the species (at biogeographic and population level), based on accurate knowledge and data, is therefore a key aspect to assess the fulfilment of the third precondition.

Derogations and the role of favourable conservation status and species plans

An appropriate and comprehensive conservation and management plan for the wolf can provide a good overall framework for implementing all the necessary tools and measures, including the possible use of derogations. Where such plans are properly implemented, with demonstrated results on favourable conservation status, Article 16 of the Habitats Directive allows for the required flexibility through the use of derogations.

Derogations to the strict protection of wolves can be better justified if a comprehensive set of appropriate, effective and verifiable measures are established and properly implemented in a Member State to ensure effective protection and to achieve or maintain the favourable conservation status for the species.

This would be the case if:

— There is an appropriate conservation and recovery plan for the wolf, which is fully and correctly implemented and well monitored, aiming to ensure a favourable conservation status and to address socio-economic conflicts.

— The plan is based on the best available scientific data and on a solid system for monitoring the wolf population.

— All the necessary prevention and compensation measures are implemented.

— Appropriate measures are implemented to effectively fight poaching (such as criminalisation, enforcement and awareness raising) and to address any other human-caused mortality factors (such as road kills).

— All the other threats to wolf conservation in the concerned area are successfully addressed (e.g. hybridisation).

— The other causes of mortality of grazing livestock (e.g. free-ranging dogs) are properly addressed.

— The objectives and conditions for the derogations are clearly established and justified with sufficient scientific evidence. It is proven that no satisfactory alternatives are available and that the lethal method used in the derogation is the only way of preventing or limiting the serious damage or in achieving the other objectives of the derogations, in line with the relevant legislation. Derogations are assessed and decided on a case-by-case basis.

— The envisaged derogation is not detrimental to the population's conservation status at both local population level and across the species natural range.

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