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Guidance document on the general system of protection of bird species – Article 5 and Article 9 of the Birds Directive

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1. **FOREWORD**

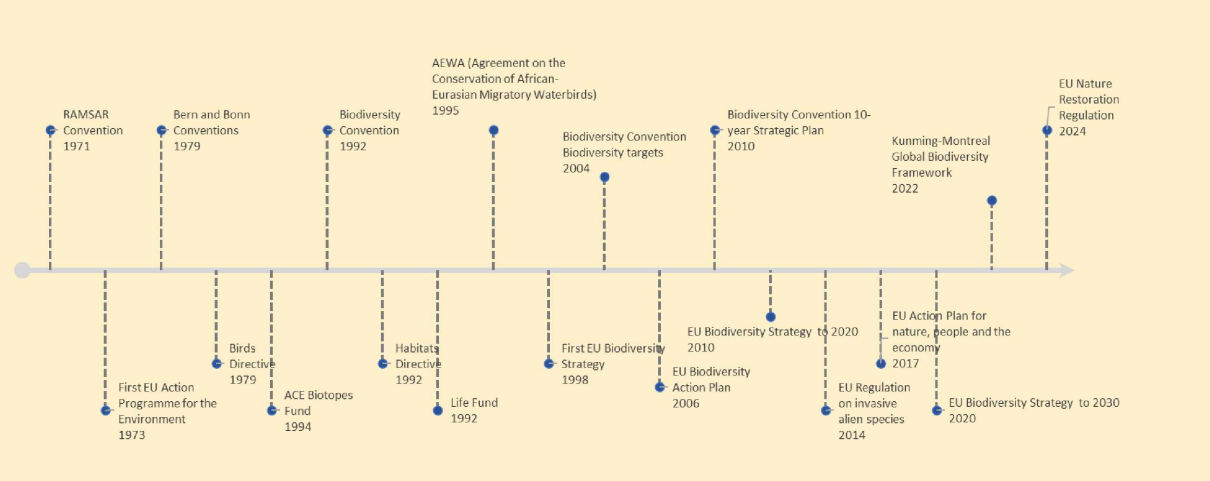
Directive 2009/147/EC on the conservation of wild birds (the Birds Directive) ([1]) is a key pillar of EU environmental policy. It is an assertion of the EU's commitment to global biodiversity conservation which continues to ensure the protection of bird species across Europe.

Adopted in 1979, the Birds Directive was the policy response to a strong public outcry over the dramatic decline in bird life. Because birds migrate and don't recognise national borders, it was clear that conservation efforts would be more effective if coordinated at EU level. Birds are furthermore a significant proxy indicator for the state of biodiversity and the health of the environment. The Birds Directive therefore brought a new dimension to wildlife conservation based on the protection and management of habitats as well as species as it was becoming increasingly clear that, in order to protect a species, one also had to conserve its habitat.

While there are still challenges to be overcome to ensure long-term healthy bird populations, the Birds Directive continues to set the standard for bird conservation across the 27 EU Member States.

Figure 1

Timeline of key EU and international initiatives for nature and biodiversity



DISCLAIMER

This interpretative guidance aims to clarify the provisions of Article 5 and Article 9 of the Birds Directive, compiling also the applicable case law of the Court of Justice of the European Union (CJEU). The guidance is not legally binding and does not create new legal obligations. It rather presents several clarifications to support Member States in the development of the national implementation measures most appropriate to their specific context.

This is without prejudice to further case law by the CJEU, to the outcome of the ongoing stress test of the Birds and Habitats Directives and to the package of proposals for the simplification of administrative burdens tabled by the European Commission ([2]). In particular, as part of that package, the Commission has proposed some provisions

([1]) Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Codified version) (OJ L 20, 26.1.2010, p. 7, ELI: http://data.europa.eu/eli/dir/2009/147/2019-06-26).

([2]) Communication from the Commission to the European Parliament, the Council and the Committee of the Regions, 'Simplifying for sustainable competitiveness', COM(2025) 980 final.

which would ensure that the species protection requirements in Article 5 of the Birds Directive are not interpreted in an overly restrictive or burdensome way, without compromising the achievement of the objectives of the Directive ([3]). A revision of this guidance may be necessary following the outcome of the legislative process.

General framework of the Birds Directive

The Birds Directive protects all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies (Article 1) ([4]).

In recognition of the importance of balancing the essential need to protect our environment, including through the conservation of bird species, with other vital interests, Article 2 of the Birds Directive requires Member States to take measures to maintain the population of all species covered by Article 1 at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population to that level.

The Birds Directive pursues this objective primarily through two core pillars:

(1) protecting the habitats of bird species (site-based protection); and

(2) establishing a general system of protection for all species with certain prohibitions (species protection).

The first pillar relates to the site-based protection regime of the Birds Directive and is underpinned by its Articles 3 and 4. Article 3 requires Member States to take measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all species of birds referred to in Article 1. Under Article 4, special protection areas (SPAs) are to be classified for the conservation of the most suitable territories for the species listed in Annex I of the Directive and regularly occurring migratory species. Once a site has been classified, it becomes part of the Natura 2000 network, and subject to the protective regime set out in Article 4(1) and (2) of the Birds Directive, and Article 6(2), (3), and (4) of Directive 92/43/EEC ([5]) (the Habitats Directive) by virtue of Article 7 of that Directive ([6]). For each SPA, Member States are required to define site-specific conservation objectives and to establish and implement the necessary conservation measures ([7]). Finally, plans or projects affecting SPAs can be approved only if they don't have a significant negative effect on the integrity of the site. However, pursuant to Article 6(4) of the Habitats Directive, a plan or project that would have a significant impact on an SPA can nevertheless be carried out for imperative reasons of overriding public interest including those of social and economic nature, in the absence of alternative solutions and if compensatory measures are taken to ensure coherence of the SPA network.

([3]) Proposal for a Regulation of the European Parliament and of the Council on speeding-up environmental assessments, COM(2025) 984 final. Specifically, Article 8 of the proposed Regulation for speeding-up environmental assessments proposes that when the plans and projects have adopted appropriate and proportionate mitigation measures to avoid killing and disturbance, aiming to avoid significant adverse impacts on the population of the species concerned, despite the possible existence of negative impacts on individual specimens of those species, then such killing or disturbance shall not be considered as deliberate withing the meaning of Article 5 of the Birds Directive. At the time of publication of the present guidance document, this proposed regulation has yet to be adopted. In full respect of the co-legislators, who are solely competent for the adoption of EU legislation, it is beyond the scope of the present guidance to discuss this proposal. Therefore, a revision of this guidance may be necessary following the outcome of the legislative negotiations of this Regulation. The same is relevant for the European Grids Package also not yet adopted at the time of publication of this present guidance https://ec.europa.eu/commission/presscorner/detail/en/ip_25_2945.

([4]) See joined cases C-473/19, and C-474/19, *Föreningen Skydda Skogen*, paragraph 36. The Commission has produced a list of wild bird species coming within the scope of the Directive (the birds list): https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/f3bdeb3b-55c0-47a1-8482-e9a91b126b69/details.

([5]) 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, ELI: http://data.europa.eu/eli/dir/1992/43/2025-07-14).

([6]) Article 7 of the Habitats Directive makes SPAs subject to the site-based management requirements set out in Article 6(2-4) of the Habitats Directive. For more information on those provisions, refer to 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC' https://data.europa.eu/doi/10.2779/02245.

([7]) The requirement to define conservation objectives and to put in place conservation measures in special protection areas was confirmed in Case C-66/23, *Elliniki Ornithologiki Etaireia*, paragraphs 46 and 56.

The second pillar establishes a general system of protection for the bird species referred to in Article 1 of the Birds Directive. Unlike the site-based protection requirements, this system applies to all naturally occurring wild bird species in the European territory of the Member States to which the Treaty applies.

This pillar is governed by Articles 5 to 9 of the Birds Directive. Article 5 requires the establishment of a general system of protection for the bird species referred to in Article 1, listing particular prohibitions that apply in this context. Article 6 prohibits the sale, transport for sale, keeping for sale and the offering for sale of live or dead birds or derivatives thereof, subject to the exceptions provided for in Article 6(2) and (3) for species listed in Annex III to the Directive. Article 7 sets the conditions for hunting of the bird species listed in Annex II of the Directive ([8]). Article 8(1) prohibits the use of all means, arrangements or methods for the large-scale or non-selective capture or killing of birds or those capable of causing local disappearance of a species. Annex IV, point (a) lists some such practices that fall within the scope of Article 8. Article 8(2) prohibits hunting from the modes of transport and subject to the conditions listed in Annex IV, point (b). Lastly, Article 9 ensures that the protective restrictions of Articles 5 to 8 are balanced against other important interests by defining the circumstances in which it is possible to derogate from those requirements.

The implementation of the Birds Directive is subject to the precautionary principle in Article 191(2) of the Treaty on the Functioning of the European Union (TFEU), applying a higher standard of protection in cases of scientific uncertainty as to the risk to a species.

Since the legal instrument is a directive, Member States must transpose its provisions into their respective national legal systems allowing them to take national specificities into account. The CJEU has consistently held that the transposition of a directive must be clear and precise, faithful with unquestionable binding force and with the specificity, precision and clarity necessary to satisfy the requirements of legal certainty ([9]). In addition to the obligation to correctly transpose the provisions of the Directive into national law, Member States are also required to ensure that the system of protection put in place is effectively applied on the ground. That is why the competent authorities play a key role in raising awareness about the protection provisions, setting requirements, creating incentives, monitoring compliance and ensuring full and effective enforcement ([10]). It is up to the Member States' competent authorities to ensure that human activities can be done in a way which is sensitive and compatible with the need to protect bird species in the EU. The Birds Directive also provides for flexibility, notably through its derogation provisions, that enable Member States to balance the protection of the environment with important socio-economic interests.

Scope of the guidance

This guidance document seeks to support the Member States in the correct implementation of Article 5 and Article 9 of the Birds Directive. It only reflects the views of the Commission and is not legally binding. Only the CJEU can provide authoritative interpretations of EU law. Where the CJEU has ruled on a provision of the Birds Directive, the Commission draws on that ruling to inform this guidance as well as emphasises the flexibilities available to Member States in applying the provisions in consideration of the overarching objectives of the Directive.

Article 7, which establishes the conditions governing the hunting of bird species listed in Annex II, within the framework of the Directive's overall conservation objectives, has already been covered in previous Commission guidance document. Therefore, this guidance document is complementary to, and should be read in conjunction with, the '*Guide to sustainable hunting under the Birds Directive*' ([11]).

([8]) See guidance on hunting under the Birds Directive: https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive/sustainable-hunting-under-birds-directive_en.

([9]) See Case C-363/85, *Commission v Italy*, paragraph 6; Case C-361/88, *Commission v Germany*; Case C-159/99, *Commission v Italy*, paragraph 32; Case C-415/01, *Commission v Belgium*, paragraph 21; Case C-58/02, *Commission v Spain*; Case C-6/04, *Commission v United Kingdom*, paragraphs 21, 25 and 26; Case C-508/04, *Commission v Austria*, paragraph 80; and Case C-290/18 *Commission v Portugal (Designation and protection of special areas of conservation)*, paragraph 35.

([10]) In addition, under Article 3(2)(n) of the Directive (EU) 2024/1203 of the European Parliament and of the Council of 11 April 2024 on the protection of the environment through criminal law, Member States are required to ensure that the unlawful and intentional killing, destruction, taking of, possession, sale or offering for sale of a specimen or specimens of the species referred to in Article 1 of the of the Birds Directive constitutes a criminal offence, except where such conduct concerns a negligible quantity of such specimens.

([11]) See guidance on hunting under the Birds Directive: https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive/sustainable-hunting-under-birds-directive_en.

This guidance does not cover the provisions of Articles 6 to 8 of the Birds Directive or the site-based protection provisions of Article 4. For details on the requirements for the management of SPAs which are contained in Articles 6(2) to (4) of the Habitats Directive, see the Commission guidance *'Managing Natura 2000 sites: The provisions of Article 6 of the "Habitats" Directive 92/43/EEC'* ([12]).

Why is this guidance needed?

In view of the growing global economic and security challenges, it is important to ensure that the Birds Directive continues to facilitate a competitive and sustainable economy while protecting our natural heritage.

The document aims to provide guidance for the interpretation and implementation of the general system of protection under the Birds Directive while at the same time, to help reduce the administrative burden. It clarifies the minimum requirements and explains how the species protection requirements can be correctly applied while simplifying this task for competent authorities and economic operators.

To ensure a common application of the provisions, this guidance also aims to explain the flexibilities which are available to the Member States in light of the requirements of the Directive and the jurisprudence of the CJEU. This aims to allow public authorities, as well as land and sea users, to continue their activities with certainty that they are not at risk of breaching the requirements of the Directive.

The guidance is mainly aimed at national, regional and local authorities in Member States, but will serve as a reference for organisations and other stakeholders, involved in the implementation of the Birds Directive. Its purpose is to clarify and rationalise the implementation of the Directive by giving clear and practical guidance based on experiences in different Member States, and on the insights gained from the interpretation of the Directive by the CJEU.

Annex I to the present guidance contains guidance related to the Barnacle Goose (*Branta leucopsis*), a species which has undergone a significant population increase, which had led, in some instances, to significant damage impacting economic activities. A previous guidance document, *'Great Cormorant: Applying derogations under Article 9 of the Birds Directive 2009/147/EC'* ([13]), explained the application of Article 9 in the particular context of preventing serious damages to certain economic activities related to the Great Cormorant (*Phalacrocorax carbo*). Given the relevance of the subject matter, the need to update that document in light of national challenges arising from the increased abundance of the species in parts of the EU and the need for solutions to address the conflicts between the Great Cormorant and fisheries, an updated version is presented in Annex II to the present guidance. These two annexes aim to explain the level of flexibility available to Member States in order to prevent serious damage to agriculture and fisheries caused by these two species, including by way of practical examples.

2. SCOPE AND OBJECTIVES OF THE BIRDS DIRECTIVE

2.1. Scope

1. Article 1 of the Birds Directive defines the scope of its protection.

'*Article 1*

1. This Directive relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the protection, management and control of these species and lays down rules for their exploitation.

2. It shall apply to birds, their eggs and habitats.'

([12]) Managing Natura 2000 sites – Publications Office of the EU (europa.eu).
([13]) https://op.europa.eu/en/publication-detail/-/publication/eb3840b0-937d-4f0b-b616-107fe9825801.

2. According to its Article 1, the Birds Directive therefore relates to the protection of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies ([14]). The Commission has listed the bird species falling within the Directive's scope, including accidental visitors ([15]).

3. The CJEU has held that the Birds Directive requires Member States to protect naturally occurring wild birds in the EU even if the natural habitat of the species in question does not occur in the territory of the Member State concerned ([16]). Species that are introduced in a Member State are covered by the Birds Directive if they are native elsewhere in the EU. However, the scope of the Directive does not extend to introduced species that are not native to any of the EU Member State unless they are explicitly mentioned in one of the annexes to the Directive (e.g. the Wild Turkey, *Meleagris gallopavo*).

4. The CJEU has confirmed that the Directive is not applicable to specimens of birds born and reared in captivity, since extending the protective regime beyond bird populations present in their natural environment would not serve the environmental objective underlying the Directive ([17]). However, the Directive is applicable to domesticated or born and reared in captivity individuals of wild species that are released to the wild and can no longer be clearly distinguished from wild specimens. This is necessary to ensure the protection of wild specimens which might be mistakenly subjected to harm prohibited by the Directive ([18]).

2.2. **Objectives**

5. Article 2 of the Directive requires measures to be taken for the birds listed in Article 1.

'*Article 2*

Member States shall take the requisite measures to maintain the population of the species referred to in Article 1 at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level.'

6. While there is no specific provision of the Birds Directive that defines its objectives, the CJEU has articulated the purpose of the Directive as follows:

'… the purpose of the Birds Directive is, as is apparent from Article 1 thereof, read in the light of recitals 3, 5, 7 and 8 thereof, to protect, manage and control all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaties apply in order to ensure their conservation as the heritage of the peoples of Europe, which entails long-term protection by maintaining or restoring a sufficient diversity and area of habitats. In the light of that objective, that directive requires the Member States, pursuant to Article 2, read in conjunction with recital 10 thereof, to take the requisite measures to maintain the population of those species of birds at a "satisfactory" level, which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of those species to that level' ([19]).

([14]) See joined cases C-473/19, and C-474/19, *Föreningen Skydda Skogen*, paragraph 36.

([15]) https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/f3bdeb3b-55c0-47a1-8482-e9a91b126b69/details.

([16]) Case C-149/94, *Vergy*, paragraph 18.

([17]) Case C-149/94, *Vergy*, paragraph 12-15.

([18]) In the case of the Rock Dove (*Columba livia*), in many urban areas, domesticated specimens have escaped from breeding installations for a long time and constitute feral populations which have interbred with wild populations. While captive bred specimens do not fall under the scope of the Directive, feral pigeons fall under the scope of the Birds Directive unless it can be clearly demonstrated that they are captive bred and distinguishable from the wild population. If this distinction at the specimen level cannot be done, as is commonly the case in real-life management scenarios, the protective regime of the Birds Directive fully applies. Various management strategies are employed to control urban feral pigeon populations, including imposing feeding bans, regulating food and water sources, using visual and acoustic deterrents, installing physical barriers like nets and spikes to prevent roosting and nesting, replacing fertile eggs with dummy eggs in supervised dovecotes, nest removal, sterilization, distributing contraceptive feed, and capturing and removing or relocating individuals. If the chosen management options risk violating the prohibitions set forth in Article 5 of the Birds Directive, appropriate derogations must be issued under the provisions of Article 9.

([19]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraph 51, see also paragraph 54 of that judgment. See also Case C-131/24, *VIRUS and Others*, paragraph 40.

7. As provided in Article 1, the purpose of the Birds Directive is the conservation of all naturally occurring bird species in the wild state in the EU. The wording of Article 2 places particular emphasis on the need to maintain those species at a level which corresponds to ecological, scientific and cultural requirements, while taking economic and recreational requirements into account. The reference to these requirements in Article 2 reflects the influence that they can have on the population levels of species protected under the Birds Directive. For the conservation of these species, a 'satisfactory level' must therefore be understood in the context of these different requirements, and the ways in which they can influence bird population levels ([20]). The reference to the need to take account of economic and recreational requirements also reflects the fact that economic and recreational activities are both dependent on and influenced by the protection of birds. It is therefore necessary to ensure that ecological, scientific and cultural, as well as economic and recreational requirements inform the implementation of all provisions of the Directive.

8. In line with this, the CJEU has confirmed that Article 2 takes into consideration, on the one hand, the necessity for effective protection of birds and on the other, the requirements of public health and safety, the economy, ecology, science, farming and recreation ([21]). However, the CJEU has also confirmed that Article 2 does not constitute an autonomous derogation from the general system of protection established by the Birds Directive ([22]).

9. Therefore, those ecological, scientific, cultural, economic and recreational requirements are without prejudice to the requirements set out in the Birds Directive, including Article 5, and do not enter into consideration when applying its prohibitions ([23]). The derogation possibilities under Article 9 reflect the requirements mentioned, which aim to balance the different policy priorities which concern the implementation of the Directive. Additionally, economic and recreational requirements may be relevant when assessing the proportionality of potential derogations in the context of a review of satisfactory alternatives.

10. Economic and recreational requirements may also be taken into account insofar as such activities may form part of the influences acting on the species. Equally, the satisfactory level which must be achieved and maintained must therefore take account of pressures on species arising as a result of economic or recreational activities.

11. The overarching objectives of the Birds Directive must not be conflated with the scope of Article 5, which contributes to the achievement of the objectives of the Directive through a general system of protection, discussed in Chapter 3 ([24]).

12. To ensure consistent interpretation between the Birds Directive and the Habitats Directive and to achieve effective implementation, the Commission is of the view that 'satisfactory levels' can be understood as the level at which favourable conservation status is achieved ([25]).

([20]) See by analogy, Case C-629/23 *Eesti Suurkiskjad*, paragraph 68.
([21]) Case C-262/85, *Commission v Italy*, paragraph 8.
([22]) Case 247/85, *Commission v Belgium*, paragraph 8; Case C-262/85, *Commission v Italy*, paragraph 8.
([23]) See by analogy in relation to Article 4(4) of the Birds Directive, Case C-57/89, *Commission v Germany*, paragraph 22.
([24]) Article 5 applies irrespective of the status of the species or the impact that an activity would have on the species concerned. For further discussion, see Chapter 3.
([25]) The Commission has previously highlighted this connection in the Guidance on sustainable hunting under the Birds Directive, p. 20. Such an interpretation is derived from the role which the Birds Directive plays in ensuring that the international obligations of the EU are met under the Convention on the Conservation of Migratory Species of Wild Animals and in particular the Agreement on the Conservation of African Eurasian Migratory Waterbirds (AEWA), the Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Asia (Raptors MoU) and African-Eurasian Migratory Landbirds Action Plan (AEMLAP), each of which require the protection of bird species and have as their objectives the maintenance or achievement of favourable conservation status.

3. **ARTICLE 5 OF THE BIRDS DIRECTIVE**

3.1. **Text of Article 5**

'Without prejudice to Articles 7 and 9, Member States shall take the requisite measures to establish a general system of protection for all species of birds referred to in Article 1, prohibiting in particular:

(a) deliberate killing or capture by any method;

(b) deliberate destruction of, or damage to, their nests and eggs or removal of their nests;

(c) taking their eggs in the wild and keeping these eggs even if empty;

(d) deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of this Directive;

(e) keeping birds of species the hunting and capture of which is prohibited.'

3.2. **General considerations**

13. Article 5 of the Birds Directive requires the establishment of a general system of protection for all species of naturally occurring birds in the wild state referred to in Article 1. Article 5 lists prohibitions under paragraphs (a) to (e) for the protection of those species.

14. The proper application of Article 5 requires the Member States to establish a complete and effective legislative framework for bird protection, leading to the implementation of concrete and specific protection measures that must ensure compliance with the prohibitions set out in Article 5 ([26]). Article 5 therefore requires not only the adoption of a comprehensive legislative framework, but also the implementation of concrete and specific protection measures ([27]).

15. The Birds Directive affords Member States flexibility in establishing this general system of protection, including in terms of the methods and legislative tools that can be used to implement the prohibitions. This can include the adoption of specific laws, regulations or administrative measures to effectively prohibit the harms listed in Article 5. That discretion is subject to the limitations specified in Article 5, as detailed further below ([28]), and the obligation to ensure that those measures lead to actual avoidance of the harms listed in Article 5 ([29]). In addition, the establishment and application of the general system of protection should be based on the objective referred to in Article 2 of the Directive, namely to maintain the bird populations at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or adapt the population of these species to that level.

16. In line with Article 1, the prohibitions in Article 5 apply to all naturally occurring bird species in the wild in the European territory of the Member States to which the Treaty applies. As held by the CJEU, it follows from 'the clear and unambiguous wording of Article 5 of the Birds Directive that the application of the prohibitions referred to in that provision is in no way restricted to the species which are listed in Annex I to that directive, or which are at some level at risk or are suffering a long-term decline in population' ([30]). As a result, even if the population of a common species is stable and likely to remain so for the foreseeable future, Member States cannot exclude such species from the scope of the prohibitions required by Article 5 ([31]). The CJEU has also held that any consideration

([26]) Joined cases C-473/19 and C-474/19, *Föreningen Skydda Skogen*, paragraph 35.
([27]) See by analogy, Joined cases C-473/19 and C-474/19, *Föreningen Skydda Skogen*, paragraph 75.
([28]) See by analogy, Case C-518/04, *Commission v Greece*, paragraph 16.
([29]) Joined cases C-473/19 and C-474/19, *Föreningen Skydda Skogen*, paragraph 75.
([30]) Joined cases C-473/19 and C-474/19, *Föreningen Skydda Skogen*, paragraph 36.
([31]) Case C-441/17, *Commission v Poland*, paragraphs 262-263.

of the impact of an activity on the population level, or conservation status, of a species will not be relevant for the purposes of applying Article 5 except for the prohibition under paragraph 5(d) (see Section 3.4) ([32]). In the case of Article 5(d), considerations such as the abundance or conservation status of a species is only relevant when determining if the disturbance is significant as regards the objective of the Birds Directive but does not permit the exclusion of a species from the scope of Article 5(d).

17. The prohibitions in Article 5 also apply to the species listed in Annex II to the Birds Directive. While Article 7 permits the hunting of those species, which includes killing or capturing specimens during defined periods and within certain constraints set out in Article 7 ([33]), actions falling outside of the hunting periods and the activities which would breach Article 5, such as deliberate destruction of nests or eggs, remain prohibited for the species listed in Annex II. The scope of Article 7 is limited to hunting, meaning other activities capable of causing harm are still prohibited for species listed in Annex II. The Commission's Guidance on sustainable hunting ([34]) provides further guidance on the obligations set out in Article 7.

18. Based on the case law of the CJEU, it is clear that the prohibitions under Article 5 must apply without any limitation in time ([35]). The actual measures and rules by which these prohibitions are implemented can, however, take account of seasonal factors, if duly justified, and be applied only during specific time periods, such as during the nesting period. In respect of Article 5(d), Member States must to pay particular attention to sensitive stages in the life cycles of bird species such as breeding or rearing periods. While such seasonal factors can be taken into account, bird species cannot be removed – even temporarily – from the general system of protection required by Article 5 ([36]). As explained below, the application of preventive measures to potentially harmful activities can ensure that economic activities avoid the prohibited harms listed in Article 5 and become compatible with this provision.

19. The complete and effective protection of wild birds also requires comprehensive protection in terms of geographic scope. This means that Article 5 applies to the full geographical scope of the Birds Directive, as defined in its Article 1, irrespective of where the birds may rest or pass through or if the area is inside or outside of the Natura 2000 network. Any national legislation limiting the protection of wild birds to a specific area (e.g. natural heritage area) is therefore incompatible with the Birds Directive ([37]). However, when implementing the prohibitions in Article 5, Member States may take account of geographical criteria relevant to each species, taking also into account the objectives of Article 2.

Practical Implementation Support 1: Flexibility in establishing a legal framework for a general system of protection

Member States have significant flexibility in transposing the provisions of the Birds Directive into their national legislation, while maintaining a clear legislative framework and implementing effective preventive measures to ensure that the objectives of the Birds Directive are met. This could involve introducing new or enacting specific laws, regulations, or administrative measures at either a national or regional level, tailored to their unique governance systems. Preventive measures can also be integrated into sectoral legislation governing economic activities like energy, forestry or agriculture, and adapted to the particular regional or local circumstances when necessary. Additionally, Member States can facilitate the implementation of the legal framework by offering support to economic stakeholders through advisory services, targeted funding schemes, and initiatives to raise awareness.

([32]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 53-54 and Case C-131/24, *VIRUS and Others*, paragraph 43.

([33]) In Case C-157/89, *Commission v Italy* at paragraph 14, the CJEU referred to the need for a 'complete system of protection in the periods during which the survival of wild birds is particularly under threat'.

([34]) https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive/sustainable-hunting-under-birds-directive_en.

([35]) Case C-252/85, *Commission v France*, paragraph 9, though this judgment concerned Article 5(b) and (c), it can be applied to Article 5 as a whole, as the language does not limit the scope of any of the prohibitions thereunder.

([36]) Case C-507/04, *Commission v Austria*, paragraphs 114.

([37]) Case C-252/85, *Commission v France*, paragraph 15.

3.3. **The notion of 'deliberateness' under Article 5 of the Birds Directive**

20. Before turning to the specific provisions of Article 5, it is important to clarify the notion of 'deliberateness', a key factor in interpreting and implementing the prohibitions under Article 5(a), (b) and (d):

(a) deliberate killing or capture by any method;

(b) deliberate destruction of, or damage to, their nests and eggs or removal of their nests; and

(d) deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of this Directive.

21. Meanwhile, the prohibitions listed in paragraphs (c) and (e) will apply irrespective of the intention of the author of the act.

22. There is an established CJEU case-law as regards the notion of 'deliberateness'. According to the CJEU, the term 'deliberate' encompasses both activities which have as their purpose the capture, killing, or disturbance of birds or the destruction/damage to their nests, and activities which do not manifestly have such a purpose but involve acceptance of the possibility of such capture, killing, disturbance, destruction or damage ([38]). Therefore, if the author of an activity accepts the possibility that their actions will result in prohibited harm, but nevertheless proceeds, this is covered by the prohibitions in Article 5 even if such harm was not their intention ([39]). However, with regards to species listed in Annex II, there is an exception, as specimens of these species can be hunted, *i.e.* killed or captured during defined periods and within certain constraints set out in Article 7.

23. To establish awareness for the purposes of determining deliberateness, two cumulative conditions need to be present: (i) the awareness of the presence of birds, and (ii) the knowledge that the activity under consideration is capable of causing prohibited kind of harm to those birds. Both elements must be considered in the light of the information available and its dissemination.

24. To support economic operators conducting activities which may lead to prohibited harms, Member States should raise their awareness of the available preventive measures.

25. First, awareness of the presence of birds includes situations in which birds or their nests were observed in an area that will be affected by the activity in question, or where there is scientific data and documented observations of the presence of birds in such an area. The CJEU has held that this can also include circumstances where their presence can be reasonably expected based on ecological factors, for example the type and age of a forest or grasslands typical for certain bird species ([40]).

26. Awareness of the presences of birds is not enough by itself, there also must be a reasonable risk that the activity at issue could lead to prohibited harm to the birds present. In this context, it is important to consider the needs and sensitivities of the species, taking account of where the species nests, nesting habits, what areas it uses for foraging or hunting, and other species-specific considerations. This knowledge can be based on the information in species action plans, Natura 2000 site management plans or forestry plans as well as any other relevant scientific data and research on the species concerned.

([38]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraph 49 and Case C-131/24, *VIRUS and Others*, paragraph 39.

([39]) See Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 47-48 where the Court confirmed that the concept of 'deliberateness' must be read consistently between Article 5 of the Birds Directive and Article 12 of the Habitats Directive. As result, the Court applied the longstanding jurisprudence applied to the concept of 'deliberateness' under the Article 12 of the Habitats Directive, to the parallel concept under Article 5 of the Birds Directive.

([40]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraph 61.

27. The determination of the risk is therefore based on an interaction between the impacts of the activity at issue and the needs and sensitivities of the species in question. This could concern, for example, felling trees during nesting period in places where forest birds are known to nest, or, certain agricultural practices affecting in the case of some ground-nesting birds, which may lead to killing, destruction of their nests or significant disturbance. It does not result in a ban of logging and mowing but ensuring that the practice is compatible with birds protection.

28. Equally, if an activity is planned outside of the nesting period of bird species, or other precautions (see below on preventive measures) are taken for example, this may fall outside of the scope of deliberate harm. Such planning could be based on the time of year when the absence of bird specimens in the area subject to an activity is expected. It could also be possible to identify specific zones where birds are not present within a broader site or habitat. Such considerations are highly context specific and must therefore be assessed on a case-by-case basis.

29. In all cases, the role of the national authorities is essential. The national authorities should rely on scientific data about the geographical and temporal occurrence of birds when regulating economic activities. They should use all appropriate means to proactively disseminate information about the occurrence of birds and about any existing rules for their protection, as well as available preventive measures. In the light of Article 2, the national authorities should also make that information available to the stakeholders concerned so that their economic or recreational activities can coexist with bird protection requirements.

30. Because the prohibitions under Article 5 apply irrespective of their actual impact on species concerned, except for Article 5(d), the acceptance of the possibility of harm cannot be determined by reference to the population level of the species concerned, or the impact thereon ([41]).

3.4. **Taking preventive measures to avoid deliberate harm**

31. As explained below, the adoption of effective preventive measures in response to potentially harmful activities can lead to the exclusion of deliberate harm, prohibited under Article 5(a), (b), or (d), when specific conditions are met. This approach can provide a clear framework for economic operators and national authorities and reduce the need for application of derogations, and hence also reduce the administrative burden.

32. Where an activity is likely to breach the prohibitions set out in Article 5(a), (b) or (d), national competent authorities may define preventive measures which actors (economic or otherwise) can put in place during the planning and/or implementation stage to allow the activity at issue to go ahead while also avoiding harm for the bird species present, as far as possible. Such preventive measures must be concrete and specific, taking into account the relevant information on the species concerned and designed to avoid any prohibited impacts the activity at issue may have, as far as possible, so as to ensure actual observance of the prohibitions listed in Article 5 ([42]). Where activities are based on a preventive approach ([43]) and there is a high degree of certainty that the harm will be excluded, subsequent residual impacts can be considered incidental and not deliberate. This approach has the benefit of allowing an activity to go ahead without the need for a derogation under Article 9 of the Birds Directive.

33. Where it is not possible to avoid such harm, it will instead be necessary to rely on the derogation provision set out in Article 9 (see next Chapter).

([41]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 49-54.

([42]) See Case C-441/17, *Commission v Poland*, paragraph 259, wherein the CJEU found a decision of the national authorities permitting the felling of trees which were known to be important habitats for a number of bird species to be in breach of Article 5(b) and (d) in part due to the failure to put in place concrete and specific protection measures that would exclude the prohibited harm and ensure observance the requirements thereto.

([43]) See by analogy, Joined Cases C-473/19 and C-474/19, *Föreningen Skydda Skogen*, paragraph 77.

34. These preventive measures can be taken into account when assessing whether a project or an activity is in breach of the prohibitions of Article 5 ([44]). The CJEU has confirmed that it is not necessary to assess the effects of a project independently of the accompanying measures proposed to prevent those effects or, in the case of Article 5(d), reduce them to insignificant levels. Only the effects which birds will actually suffer as a result of implementation of a project are relevant ([45]).

35. As regards the identification of such preventive measures and their integration into the design and implementation of projects or activities, the competent authorities have a duty to take account of the 'most reliable scientific data available and on the most recent results of international research' when assessing the effectiveness of preventive measures ([46]). However, it should not be made unreasonably difficult for operators and competent authorities to prove that prohibited harm would not occur ([47]). The CJEU has held that there is no obligation to require proof of the effectiveness of preventive measures in the form of scientific documentation attesting to the successful implementation of such measures, as such documentation is not always be available ([48]). When considering the use of preventive measures, for example, in the context of a permitting procedure, their effectiveness may be proved by the reasoned assessment of a court expert ([49]), and depending on the national laws, other similar tools may be used.

36. Once in place, the effectiveness of preventive measures need to be monitored to ensure that those measures are carried out and actually ensure compliance with Article 5 by preventing harm to birds and/or their nests and eggs. Where appropriate, a mechanism can be put in place to respond to prohibited harms that are observed to ensure compliance with Article 5. Without these monitoring and response mechanisms, it would not be possible to ensure that the preventive measures actually ensure compliance. Where harm is detected, it may be necessary to make adjustments to address any further harm which occurs so that compliance with Article 5 is ensured and the activity at stake can continue.

Practical Implementation Support 2: Reducing the administrative burden and ensuring legal certainty through integrated preventive measures

National authorities can facilitate economic or recreational activities that may risk breaching Article 5 of the Birds Directive by identifying specific preventive measures designed to effectively avoid harm to birds. Where an effective preventive approach is implemented, any remaining impacts should not be considered deliberate, allowing the activity to proceed without the need for a derogation under Article 9. This can simplify the implementation and significantly reduce the administrative burden and cost for authorities and businesses, while providing legal certainty for operators. This approach should be implemented through close cooperation between competent national authorities and economic sectors, including through advising operators on how to comply with the requirements of Article 5 (See Chapters 3.3. and 3.5).

3.5. Specific prohibitions under Article 5

37. Each of the prohibitions listed under Article 5 identify harms that must be prohibited by the Member States. The CJEU has confirmed that, in relation to paragraphs (a) and (b), any examination of the effect of a human activity on the population level of the bird species concerned is not relevant for the purposes of those provisions ([50]). This interpretation can be extended to paragraphs (c) and (e) by analogy, since these prohibitions also make no reference to the need for the harm to have a significant impact on the population of the species, or by reference to the

([44]) See by analogy, Case C-131/24, *VIRUS and Others*, paragraph 44. This case concerned only the prohibition under Article 5(d), but its interpretation is also useful for Article 5 (a) and (b).
([45]) See by analogy, Case C-131/24, *VIRUS and Others*, paragraph 45.
([46]) See by analogy, Case C-131/24, *VIRUS and Others*, paragraph 57.
([47]) See by analogy, Case C-131/24, *VIRUS and Others*, paragraphs 50-53, where the Court refers to the principle of effectiveness.
([48]) See by analogy, Case C-131/24, *VIRUS and Others*, paragraph 57.
([49]) See by analogy, Case C-131/24, *VIRUS and Others*, paragraphs 51 and 57-58.
([50]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraph 54.

objectives of the Birds Directive. The CJEU asserted that the implications of an activity for the population level of a species will be taken into account only insofar as it is relevant for assessing the proportionality of a derogation sought pursuant to Article 9 ([51]) (see Chapter 4). On the other hand, the examination of the impact of human activity on the population level of concerned bird species will be relevant for the purposes of Article 5(d) ([52]).

5(a) Deliberate killing or capture by any method

38. Article 5(a) applies to all stages of life of the bird species. This is apparent from the absence of any such qualification in the wording of that provision.

39. Killing or capture for the purposes of hunting may take place for certain species listed in Annex II to the Directive, and within the constraints set out in Article 7. According to Article 7, the species listed in Annex II may be hunted provided that hunting is not carried out during the rearing season or during the various stages of reproduction of those species and it does not jeopardise conservation efforts in the distribution area of the species. For migratory birds listed in Annex II, the hunting prohibition extends to the period of the return of the species to their rearing grounds. Clarifications about the provisions related to the hunting of species listed in Annex II are provided in *Guide to sustainable hunting under the Birds Directive* ([53]).

5(b) Deliberate destruction of, or damage to, their nests and eggs or removal of the nests

40. The aim of protecting nests ([54]) and eggs is to ensure the successful reproduction of the bird species. Some species return to the same nest each year while others build a new nest. As a result, the CJEU has asserted that Article 5(b) requires uninterrupted protection of nests, observing that an 'uninterrupted protection of the birds' habitat is necessary since many species re-use each year nests built in earlier years' ([55]). However, in the case of species that normally do not re-use their nests from year to year, and their nests will normally not be re-used by other species, it will not be necessary to provide protection of those nests, once they are abandoned.

5(c) Taking their eggs in the wild and keeping these eggs even if empty

41. The taking of birds' eggs in the wild is a considerable threat to their conservation as it interrupts the natural breeding cycle, preventing birds from successfully rearing their offspring. This is a particularly serious threat when it comes to rare and endangered species or species that have a high demand in the illegal wildlife trade. For some species populations, like the saker falcon (*Falco cherrug*), taking eggs from nests has driven sharp population declines. As a result, the prohibition on keeping eggs, even if empty, contributes to minimising the demand for taking, collecting and trading of eggs. The CJEU has held that this prohibition must also apply without any limitation in time, meaning uninterrupted protection must be provided to wild bird eggs ([56]).

5(d) Deliberate disturbance of birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of the Directive

42. Article 5(d) prohibits disturbances of birds which would be significant in terms of achieving the objectives of the Birds Directives. Therefore, in addition to the condition of 'deliberateness', Article 5(d) only applies in so far as disturbance 'would have a significant effect on the objective of maintaining populations of the bird species

([51]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 54-56.
([52]) Case C-131/24, *VIRUS and Others*, paragraph 43.
([53]) https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive/sustainable-hunting-under-birds-directive_en.
([54]) A nest is a hollow place or structure that a bird makes or chooses for laying its eggs in, and to incubate and shelter its offspring.
([55]) Case C-252/85, *Commission v France*, paragraph 9.
([56]) Case C-252/85, *Commission v France*, paragraph 9.

concerned at a satisfactory level or adapting them to that level' ([57]). While this prohibition applies without any strict temporal limitations, it is particularly relevant to disturbances during the breeding and rearing periods, as these are the most sensitive stages for the survival of bird species, and in turn achieving the objectives of the Directive.

43. The CJEU has confirmed that this prohibition only applies to disturbances which have a significant effect on the maintenance of the populations of a species at a satisfactory level, and not to specimens of those species. The situation is different only if 'the population of a given wild bird species is numerically reduced to such an extent that the disturbance of isolated specimens of that species is such as to jeopardise its conservation' ([58]).

44. Therefore, the competent authorities must carefully assess what level of disturbance can be considered significant, taking into account the characteristics and sensitivities of the species and its requirements, and the activities in question. The prohibition under Article 5(d) will need to be applied more strictly in relation to rare and/or vulnerable species as well as those which are, for example, in an unfavourable status. For species whose populations are above satisfactory level, more disturbance could be permitted.

45. Factors to consider in relation to determining the significance of a disturbance include the duration (temporary or permanent), intensity (scale, noise levels, degree of change to the surroundings), frequency, the surface and proximity to the birds concerned. It is therefore necessary to consider also the cumulative effect of disturbances by reference to the other activities which are occurring in the area, in order to accurately determine whether the disturbance is significant.

46. As mentioned in Article 5(d), disturbance during the breeding and rearing periods is particularly relevant, but other sensitive life stages which could jeopardise survival (such as disturbances in important feeding and wintering grounds), should also be of concern.

47. When assessing whether a disturbance is significant by reference to the objective of maintaining or restoring populations to a satisfactory level, is possible to take into account any preventive measures (see Section 3.3) which effectively prevent a project or other activity from disturbing birds or reduce disturbance to the extent that it does not have significant effects ([59]). Proof that such disturbance would not have significant effects on the objectives of the Directive must not be made 'unreasonably difficult' ([60]).

5(e) Keeping birds of species the hunting and capture of which is prohibited

48. This prohibition applies to all life stages of a specimen, alive or dead, and any part of it. It does not apply to huntable bird species listed in Annex II (subject to the limits set out in Article 7), or to birds not covered by the Directive (see section 2.1.) and birds otherwise legally caught in the wild under a lawful derogation pursuant to Article 9.

49. It must be possible to identify kept specimens using an official registration system in place at national level. This can be ensured using an official ringing system ([61]) or preferably through the use of microchip transponders or DNA fingerprinting as these are more robust methods. In any case, as a minimum, a closed registered leg ring of the correct size and which has suffered no tampering is the condition which indicates that the bird was in the possession of the breeder the first 10 days of life of the bird, indicating that it was presumably born in captivity.

([57]) Case C-784//23, *Voore Mets and Lemeks Põlva*, paragraph 62.
([58]) Case C-131/24, *VIRUS and Others*, paragraph 41.
([59]) Case C-131/24, *VIRUS and Others*, paragraph 44. In this case, the preventive measures were related to a road project, but the same would apply to other activities.
([60]) Case C-131/24, *VIRUS and Others*, paragraph 53.
([61]) A closed leg ring of the correct size and which has not been tampered with is the minimum condition to prove that a bird was in the possession of the breeder during the first 10 days of a bird's life, indicating that it was presumably born in captivity.

3.6. **Implementation of Article 5**

3.6.1. *The need for a complete and effective legislative framework*

50. As explained in Chapter 1, the provisions of a directive must be implemented with unquestionable binding force, specificity, precision and clarity, necessary to satisfy the requirements of legal certainty. Article 5 therefore requires the adoption of a complete and effective legislative framework through the implementation of concrete and specific protection measures that ensure that the prohibitions are actually complied with ([62]). Overall, Member States must ensure that activities, including recurring activities, are carried out in line with species protection provisions, to effectively avoid prohibited harms. The general system of protection should comprise rules and practices prescribed to operators but also include awareness-raising campaigns, promotion and, if needed, enforcement actions. This can be achieved with various tools such as planning instruments, systems of prior consent, or specific rules applicable to individuals or economic operators in sectors that are likely to impact bird species.

51. The measures should be tailored to the life cycle of the particular species, taking into account their breeding season, feeding habitats, migration pathways, resting or nesting grounds. Where appropriate, measures can be applied to groups of species that share the same threats and characteristics. On the basis of Article 2, the conservation and restoration objectives for a species may justify more specific or restrictive measures, to exclude any impacts from the activities prohibited under Article 5.

52. The competent authorities in Member States must communicate clearly the prohibitions as well as the available information about the presence of the species, and the available or prescribed protection measures to the concerned land and sea users and the wider public. Monitoring is essential to determine the effectiveness of the measures. This could include GPS tracking, surveillance of nests and colonies and, for recreational activities, surveillance of participants by the organisers. The scope and scale of such monitoring (such as plot/site level, landscape level, regional level) should be defined by the national competent authorities to ensure that there is on a case-by-case basis an effective overview of the implications measures are having for birds.

53. Even where all the preventive measures are taken, not all risks can be guaranteed to be eliminated. Member States should put in place a system that assesses the effectiveness of the preventive measures and reviews those measures periodically, as part of the general system of protection required by Article 5.

54. These measures taken to implement the Birds Directive should be complemented by further implementing or stimulating measures, such as targeted information on protection requirements. These measures can include guidelines and brochures designed specifically for the sector, awareness raising to stakeholders, and robust monitoring of the presence of birds and nests, while leveraging input from citizen science.

55. In specific cases and where the conditions are fulfilled, a derogation from the general system of protection can be granted (see Chapter 4).

56. To avoid the need for a derogation and hence to reduce the administrative burden, Member States may take preventive measures to ensure compliance with the requirements of Article 5 of the Directive. Such preventive measures take the specificities of sectors into account, as implied by Article 2 of the Directive, and facilitate compliance.

57. Preventive measures (as explained in Section 3.3) can relate to the type, location, design and timing of a specific activity or project. These measures can concern planning, construction and the operational phases of a project or activity. For example, installing roadside barriers that prevent birds from flying and colliding with cars, or setting lower speed limits on a motorway once it has been constructed, if the possibility of prohibited harm cannot be excluded. Such measures must be fully functional during the entire duration of the project or activity.

([62]) Case C-441/17, *Commission v Poland (Bialowieza Forest)*, paragraph 252.

3.6.2. *Integration of requirements of Article 5 into permitting procedures*

58. Article 5 does not require specific impact assessments or permitting procedures to achieve compliance. Because Article 5 is a provision within a directive, Member States have the flexibility to choose the most appropriate means to implement the requirements, including through integration into existing permitting or environmental procedures. This is in line with the principle of procedural autonomy of the Member States ([63]).

59. For a planned activity or project requiring a permit, such as for example the construction of powerlines, windfarms, highways, mines or aquaculture, Member States can integrate the protection measures into the approval or permitting procedures and the environmental impact assessments laid down by Article 6(3) of the Habitats Directive, or in the Environmental Impact Assessment (EIA) Directive ([64]) and Strategic Environmental Assessment (SEA) Directive ([65]), to ensure that activities requiring a permit are not harmful to bird species. This is also possible for recurring or ongoing activities, for species protection requirements to be taken into account when their permits are being renewed.

60. In this context, the likelihood that the activity in question will lead to harm prohibited under Article 5 could be assessed and delimited through existing decision-making processes. To this end, environmental impact assessments or screening decisions undertaken pursuant to the EIA Directive can provide a useful framework for identifying risks to bird species. For instance, Article 3(1)(b) of the EIA Directive requires Member States to identify, describe and assess the direct and indirect significant effects of a project on, among other components of the environment, biodiversity, with particular attention to species protected under the Birds Directive. That description of likely effects can be used to determine if it is necessary to put in place preventive measures and to adapt the project at issue to comply with the prohibitions under Article 5. Similarly, the application of the SEA to plans (e.g. forest management plans) could be used to identify relevant preventive measures and ensure compliance with the Article 5 requirements.

61. When a plan or project is likely to have a significant effect on Natura 2000 sites, either individually or in combination with other plans or projects, it should be a subject to an appropriate assessment under Article 6(3) of the Habitats Directive (see Chapter 1 for details on the general framework of the Birds Directive). This means that the assessment of the potential harm to birds can be built into the appraisals that form part of the decision-making processes at various levels in a Member State. This allows to correctly and promptly identify the potential impacts of a project on bird species to ensure compliance with the provisions of Article 5 of the Birds Directive before it is carried out.

62. Some Member States have integrated species impact assessments into existing permitting procedures ([66]), including to reduce the administrative burden. Other Member States have introduced specific procedures to meet requirements of Article 5 in cases where above-mentioned environmental assessments do not apply. It is also possible to issue standard prevention measures in sectoral legislation for activities known to lead to killing or significant disturbance of birds, to issue sectoral guidelines or standards, or issue seasonal restrictions on certain activities. When making the choice of the best approach to implement the requirements of Article 5, Member States should also consider the potential administrative burden.

([63]) See Case C-131/24, *VIRUS and Others*, paragraph 50-53.

([64]) Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (OJ L 26, 28.1.2012, p. 1, ELI: http://data.europa.eu/eli/dir/2011/92/oj), as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014. See also the Guidance on the interpretation of definitions of project categories in Annex I and II of the EIA Directive (https://op.europa.eu/en/publication-detail/-/publication/e7f9c73c-86ba-11ef-a67d-01aa75ed71a1/language-en?).

([65]) Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (OJ L 197, 21.7.2001, p. 30, ELI: http://data.europa.eu/eli/dir/2001/42/oj).

([66]) In France, the impact assessment of a project on species is similar to the procedure under Article 6(3) of the Habitats Directive for Natura 2000 sites. Any project likely to have significant effects on birds is subject to an appropriate assessment of its implications for bird conservation. If the project significantly affects the species, the authority uses derogations.

3.6.3. *Examples of activities that can fall within the scope of Article 5 and of potential preventive measures*

Road and rail

63. Road or railway traffic can have an impact on bird species as collision can occur between birds and vehicles and transport infrastructure or significant disturbance from traffic noise ([67]). Competent national authorities are responsible for taking measures that are needed to prevent prohibited harm in relation to the construction and operation of transport infrastructure. Relevant measures can include setting permanent or temporal speed limits, closing the road during certain periods, installing anti-collision screens with repeated drawings or decals of birds of prey on transparent acoustic barriers and installing other relevant structures, for example to avoid pollution by runoff or to avoid other types of disturbance.

Energy

64. Energy production and infrastructure, especially fossil-fuel based, can have significant negative impact on bird species. Considering especially the cumulative effect on climate, emissions from fossil fuel power plants kill over 30 times more birds than wind farms, per produced GWh ([68]). Birds can be affected by striking smokestacks at fossil fuel-fired power stations, wind turbines, nuclear power plant cooling structures and transmission and distribution lines. Appropriate preventive measures will therefore need to be integrated during their planning and for individual projects.

65. Wind energy accounts for the highest share of renewable energy production in the EU, contributing to fighting climate change, which is the main cause of biodiversity loss. However, wind farms may negatively affect bird populations. Even though wind turbines are responsible for less than 0,1 % of human-related bird deaths – much less than traditional energy plants or skyscrapers ([69]) – due to their relevance, the potential impacts have been studied extensively within and beyond the EU. There are many national guidance documents on impacts and possible mitigation measures as well as the Commission's guidance 'Wind energy developments and EU nature legislation' ([70]).

66. One key risk posed by wind turbines is bird collisions with turbine blades. A hierarchical approach is necessary when considering mitigation measures. First, measures that aim to avoid the impacts should be considered, like preventing significant impacts from occurring in the first place, starting with strategic site selection for the windfarms to avoid migratory routes, breeding, and foraging areas. Where this is not possible, measures that aim to reduce the impacts should be implemented.

Case study 1: The wind farm sensitivity map for birds and bats in Flanders

Flanders developed a combined sensitivity map that 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. It classifies the region into four categories of high, medium and possible risk, as well as low risk/no data. Although aspects of the map are distinctive to Flanders, the principles could be readily applied elsewhere.

([67]) In Case C-131/24, *VIRUS and Others*, paragraph 39, the Court confirmed that projects for the construction of a road can fall under the scope of Article 5(d), even where harm to birds was not the object of that activity.
([68]) 5 things you should know about wind energy – European Commission.
([69]) 5 things you should know about wind energy – European Commission.
([70]) https://op.europa.eu/en/publication-detail/-/publication/2b08de80-5ad4-11eb-b59f-01aa75ed71a1/language-en.

The instrument includes a GIS-based vulnerability map for birds, which is made up of nine thematic maps (e.g. foraging and resting areas for non-breeding wildfowl, seasonal migration routes) and a habitat prediction map. These layers are best examined individually but can also be overlaid to give an overview of all potential sensitivities. The stacked layers (as synthesis map) are shown with sensitivity categories represented as high (3), medium (2) and possible risk (1), as well as low risk/no data (0). This map can be consulted in detail in a web-based application that also provides other important maps, like protected nature reserves, Natura 2000 areas, etc.

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 duly took into considerations the available information. It must be emphasised that for high-risk areas, local assessment should be more detailed.

The web-based application: https://geo.inbo.be/windturbines/index.html

More information:

Flemish Risk Atlas Birds/Bats – Wind Turbines, https://www.vlaanderen.be/inbo/en-gb/data-applications/de-vlaamse-risicoatlas-vogelsvleermuizen-windturbines/

67. After avoidance, temporary adjustment on demand can be used as an important mitigation strategy to reduce bird collisions with wind turbines, in particular along major migratory flyways. This can include temporary adjustments to the operation taking into account seasonal and diurnal patterns of species behaviour, such as temporarily stopping turbine blades when birds are detected near wind turbines. Initially reliant on human observers, the temporary adjustment on demand is now increasingly automated, using radar, cameras, GPS transmitters, geofencing, and artificial intelligence to track bird movements in real time. Some systems combine both human and technological detection, with operators making the final shutdown decision.

68. If avoidance measures are not considered appropriate or proportionate, measures to reduce impact should be considered. These may include project design measures which can reduce the intensity of impacts (e.g. visual deterrents on wind turbines to increase visibility to birds can reduce the risk of collision, acoustic deterrent devices can be used during the construction and operation of offshore projects to reduce underwater noise).

Case Study 2: Radar-assisted shutdown on demand, Barão de São João Wind Farm, Portugal

The 50-megawatt Barão São João Wind Farm of E.ON, located on a migratory flyway, applied a radar-assisted shutdown on demand (RASOD) protocol based on a predefined set of criteria. A monitoring team conducting vantage point watches was used to monitor migratory bird flight activity. Real-time radar data provided the monitoring team coordinator with better quality information based on which to initiate a shutdown.

Over time, the monitoring team's experience positively influenced the effectiveness of the RASOD approach: the average time it took for a shutdown to happen after an order was given decreased by 91 % and the average annual equivalent shutdown hours decreased by 86 % between 2010 and 2014. Turbine blades could be immobilised within approximately 15 seconds of a shutdown being initiated, using a 'supervisory control and data acquisition' (SCADA) system to provide real-time access to and management of individual wind turbines and wind farms.

Additionally, turbines were restarted again without the need for additional communication with operational staff. No collisions of migratory soaring birds were recorded during the application of the shutdown protocol. By the final year of the five-year study, the total equivalent shutdown period corresponded to 0,2 % of the annual available equivalent time, and more than 40 % of the equivalent shutdown periods resulted in negligible energy losses by virtue of low wind speeds.

69. For installations of renewable energy plants, co-located energy storage facilities and connections of such plants and storage to the grid, Directive (EU) 2023/2413 (the revised Renewable Energy Directive) ([71]) has introduced relevant provisions for putting in place mitigation measures within the 'renewables acceleration areas' (RAAs) (Article 15c of the revised Renewable Energy Directive), the 'dedicated infrastructure areas' (Article 15e of the revised Renewable Energy Directive), as well as for renewable energy project outside these areas (Article 16b of the Renewable Energy Directive).

70. Article 15c(1)(b) of the revised Renewable Energy Directive provides for the establishment of appropriate rules on effective mitigation measures when drawing up RAA plans. It provides that Member States must, where appropriate, ensure that appropriate mitigation measures are applied in a proportionate and timely manner, to ensure compliance with Article 5 of the Birds Directive, among others. Article 15e(2) of the revised Renewable Energy Directive includes a similar provision when developing dedicated infrastructure areas plans for grid and storage infrastructure necessary to integrate renewable energy into the electricity system. Guidance ([72]) and specific study ([73]) on designating RAAs and guidance ([74]) on the establishment of dedicated infrastructure areas has been developed, including on the use of mitigation measures.

71. The qualifier of 'appropriate mitigation measures' means that the mitigation measures should be adequate and effective in ensuring compliance with Article 5 of the Birds Directive (e.g. avoiding killing and significant disturbance of birds), but at the same time proportionate. For example, if the use of visual or acoustic deterrents is proven sufficient to avoid collisions of birds with wind turbines in a specific wind farm, the use of another mitigation measure such as the temporary curtailment of operation when birds are in the vicinity would not be needed.

72. Article 16b(2) of the revised Renewable Energy Directive (EU) 2023/2413 specifies that for projects located outside RAAs 'where a renewable energy project has adopted necessary mitigation measures, any killing or disturbance of the species protected under Article 12(1) of Directive 92/43/EEC and Article 5 of the Birds Directive 2009/147/EC shall not be considered to be deliberate. Recital 37 of the revised Renewable Energy Directive further clarifies that that any killing or significant disturbance should not be considered deliberate if a project for the construction and operation of renewable energy plants [falling under the scope of Renewable Energy Directive] provides for appropriate mitigation measures to avoid such killing, to prevent disturbance, to assess the effectiveness of such measures through appropriate monitoring and, in the light of the information gathered, to take further measures as required to ensure that there are no significant adverse impact on the population of the species concerned. While recital 37 does not distinguish between projects located inside and outside RAAs, it is implied that such clarification would be applicable in both contexts ([75]).

73. As regards the use of novel mitigation measures (without their effectiveness being widely tested), Article 15c(1) and Article 16b(2) of Renewable Energy Directive allows their use in pilot projects, for renewable energy plants located inside and outside RAAs, provided that their effectiveness is monitored and corrective measures are taken immediately if they do not prove to be effective.

74. However, the monitoring of the effectiveness of such measures must be ensured. In the light of the information gathered, it will be necessary to take further measures as required if they do not prove to be effective.

([71]) Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 (OJ L, 2023/2413, 31.10.2023, ELI: http://data.europa.eu/eli/dir/2023/2413/oj).

([72]) https://energy.ec.europa.eu/publications/guidance-designating-renewables-acceleration-areas_en.

([73]) https://op.europa.eu/en/publication-detail/-/publication/354ebc7c-496d-11ef-acbc-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.

([74]) https://commission.europa.eu/document/download/76fa5c90-909c-4bda-b655-edf564f5542e_en?filename=C_2025_4012_1_EN_annexe_acte_autonome_cp_part1_v2.pdf.

([75]) Article 16b(2) of Directive 2023/2413 explicitly addresses projects located outside RAAs. In light of this, projects located within RAAs – which benefit from simplified permitting procedures – should not be subject to stricter species protection rules than those applicable outside RAAs.

Electricity transmission and distribution facilities

75. Powerlines may pose several significant risks to birds, primarily through collision and electrocution.

76. Collision is caused by both transmission and distribution lines and occurs when birds, especially larger species like raptors or waterfowl, fail to detect wires in their flight path, leading to injury or death. This is particularly problematic in areas where powerlines intersect migratory routes, wetlands, or open landscapes where birds rely on visual cues for navigation. Some species are more vulnerable due to their flight behaviour, size, or limited manoeuvrability.

77. Electrocution is another major threat that is posed by medium and low voltage powerlines. It concerns especially larger birds that perch on poles or cross conductors, touches the two-phase conductors or one conductor and an earthed device simultaneously, especially when the feathers are wet, and thus completing an electrical circuit. Raptors, storks, and other large birds are most affected, with mortality often concentrated in areas where pole design or conductor spacing is inadequate. Species groups that are particularly frequently affected by electrocution include Ciconiiformes, Falconiformes, Accipitriformes Strigiformes and Passeriformes ([76]).

78. Beyond direct fatalities, powerlines can lead to secondary ecological effects, such as population declines, changes in species composition, and increased vulnerability to predators. Mitigation measures like bird diverters, insulated conductors, and strategic line routing are essential to reduce these impacts, but careful planning and monitoring remain critical to balance energy infrastructure development with bird conservation. Additionally, high-tension lines can fragment habitats and create barriers, altering bird movement patterns and potentially reducing access to critical feeding or breeding areas.

79. The Commission has developed specific guidance document on the matter to help Member States, stakeholders and business operators to address the issues in line with the provisions of EU nature legislation ([77]). Similar guidance has also been developed elsewhere ([78]).

Case study 3: The SafeLines4Birds project

This is a six-year project co-financed by the EU LIFE Programme, aiming to reduce non-natural bird mortality caused by power lines in France, Belgium, and Portugal. These interactions -collisions, electrocutions, and disturbances during breeding, pose significant threats to various bird species, including the Bearded Vulture, Cinereous Vulture, and Little Bustard. The project focuses on 13 species particularly vulnerable due to their size, behaviour, and distribution.

A diverse consortium of 15 partners, including transmission system operators (TSOs), distribution system operators (DSOs), environmental NGOs, and scientific experts from France, Belgium, Portugal, Germany, and the United States, collaborates on this project. Initiated by France's National Avifauna Committee (CNA), SafeLines4Birds exemplifies a rare and effective coordination between nature protection organisations and grid operators. This collaboration facilitates targeted and coordinated actions to mitigate the impact of power lines on birds.

([76]) https://www.sciencedirect.com/science/article/abs/pii/S0006320797001766.
([77]) https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52018XC0618(02).
([78]) Bern Convention on the Conservation of European Wildlife and Natural Habitats, 2004. Recommendation No. 110 on minimising adverse effects of above-ground electricity transmission facilities (power lines) on birds; https://wcd.coe.int/ViewDoc.jsp?id=847305&Site=COE; UN Convention on the Conservation of Migratory Species of Wild Animals (CMS), 2002. Resolution 7.4 on Electrocution of Migratory Birds; http://www.cms.int/sites/default/files/document/RES_7_04_Electrocution_0_0.pdf.

The project employs a multifaceted approach to address bird mortality. The key is the development of a sensitivity mapping and identify the most critical areas and then deploy retrofitting measures or help with the future planning of the grid. Among the main mitigation measures that project will implement is the installation of 3 880 anti-collision devices at high-risk sites. It will also test innovative solutions like the Avian Collision Avoidance System (ACAS), which uses ultraviolet light to enhance wire visibility at night, and implementing measures to prevent electrocution. Additionally, SafeLines4Birds aims to reduce disturbances during the breeding season and to improve and share knowledge across Europe. The long-term goal is to ensure the viability of the targeted bird species by minimizing their interactions with power lines.

More information:

https://www.safelines4birds.eu/

Box 1: Wingspan conference

'Wingspan 2024: Partnerships for a bird-friendly energy transition' conference took place in Brussels in 2024 and was the inaugural edition of Wingspan, a conference that will take place every two years for a nature-positive energy transition.

The conference in 2024 showcased partnerships between electricity grid operators, renewables developers and operators, and environmental civil society – and fostered an environment for new partnerships to be born. It was the first in a series of biennial conferences for conservationists, scientists, grid operators, renewable developers, and government representatives to share strategies and solutions for a nature-positive energy transition. Topics designed for an international audience covered recent scientific knowledge, state-of-the-art conservation strategies, and nature-inclusive technological innovations.

With 320 online and in-person attendees, the event brought together a broad range of stakeholders – grid operators, NGOs, renewable energy developers, academics, and authorities – from across the globe to address the urgent need for a nature-friendly energy transition. The conference featured insightful panel discussions, scientific presentations, a workshop, a poster session, and a fair showcasing bird protection devices used along power lines and wind energy infrastructure.

All conference materials are available here: https://wingspan-conference.eu/wingspan-2024/

Abstract book: https://acrobat.adobe.com/id/urn:aaid:sc:EU:ccde2a24-f6a9-4347-bfd1-43daa5280358

Extractive industry

80. By its very nature, the extraction of minerals invariably has an impact on the land upon which it operates. Most mines and quarries require the removal of surface features during the extraction process and need space for storage mounds, spoil tips and lagoons as well as for associated infrastructures, buildings and access roads. Such activities can also, on occasion, destroy nests and eggs and cause significant disturbance to birds and lead to the loss or deterioration of their habitats. However, this is by no means systematic, and the risks of impacts must be assessed on a case-by-case basis. Ongoing monitoring of bird occurrence is necessary, and appropriate measures should be taken within the extraction site and its surrounding areas accordingly. The Commission has developed specific guidance on the matter to help Member states, stakeholders and business operators to address the issues in line with the provisions of the EU nature legislation ([79]).

([79]) European Commission: Directorate-General for Environment, EC guidance on undertaking non-energy extractive activities in accordance with Natura 2000 requirements, Publications Office, 2011, https://data.europa.eu/doi/10.2779/98870; and Guidance document on non-energy mineral extraction and Natura 2000: a summary, Publications Office, 2019, https://data.europa.eu/doi/10.2779/985239.

Case study 4: LIFE in Quarries

LIFE in Quarries is a project led by Fédération de l'Industrie Extractive et Transformatrice de Belgique (FEDIEX) in partnership with the Walloon region (Department of Nature and Forests), University of Liège - Gembloux Agro-Bio Tech, Biodiversity and Landscape Unit, Natagora asbl and the Parc naturel des Plaines de l'Escaut. It showed that active quarries which create cliffs, sandy slopes, bare soils, temporary or permanent water bodies and varied terrain can harbour a surprising diversity of species, including birds that prefer such open or rocky/sandy habitats rather than forests or farmland.

Through measures such as refreshing vertical cliffs and sand banks (sandbanks/loose cliffs), managing temporary ponds and grasslands, and creating permanent water bodies or floating platforms, the project established nesting and feeding sites favourable for birds. Among species that benefit are cliff-nesting or bank-nesting birds such as the Sand Martin, European Bee-eater and the Kingfisher. In highly urbanised and stabilised landscapes, quarries play a role in maintaining their populations. The conservation, intentional creation and maintenance of vertical faces and sand banks provide an ideal habitat for these diggers. Without intervention, vertical faces eventually collapse and vegetation invades these bare sands, rendering the habitat unsuitable.

Rather than waiting until quarries close, LIFE in Quarries applied 'dynamic biodiversity management' during extraction meaning bird-friendly habitat creation and maintenance happened in parallel with quarry operations. This showed it is possible to combine ongoing industrial activity with conservation of bird and other wildlife populations.

On the network of 27 participating active quarry sites, biological monitoring confirmed that target species including birds rapidly colonized the newly created habitats showing that management actions translated into real biodiversity outcomes, not just theoretical potential.

The project laid the foundations for good practices in biodiversity management that can be applied elsewhere with guidelines, monitoring protocols, and long-term commitments (e.g., maintaining key habitats for 15 years) offering a template for quarry operators to include bird and wildlife conservation in their standard operations.

More information:

https://www.lifeinquarries.eu/en/

Housing and buildings

81. Buildings impact birds in several ways. The use of large glass surfaces on modern buildings poses a collision risk. Birds often cannot distinguish reflective or transparent glass from open sky or vegetation, so they fly into it and are injured or killed. Many glazing manufacturers in Europe now supply 'bird-friendly glass' that incorporates visible patterns (dots, lines) or coatings to make the glass perceptible to birds. Retrofitting existing glass surfaces is also possible, using films that can reduce reflection and if well designed minimise significantly collision. Architectural design adaptations of buildings to incorporate for example angled glass, fins and breaks in reflections so the glass is less of a 'straight-through' illusion for birds, also provides solutions.

Case study 5: LIFE BooGI-BOP preventing collisions of birds with buildings

LIFE BooGI-BOP (LIFE17 GIE/DE/000466) is a project funded by the LIFE programme, which recognised that collisions of birds with glass-fronted buildings represent a largely overlooked biodiversity threat. Under its 'Bird strike on buildings: what can companies do?' initiative, BooGI-BOP provides companies and site-owners with a factsheet and guidance document outlining why birds fly into windows. For example reflection of vegetation or sky, and disorientation by internal lighting and external night lighting. The guidance frames bird-building collisions as part of broader biodiversity-oriented premises design, encouraging companies to integrate collision-prevention into their site assessments, tendering procedures and facility management practices.

In practice, BooGI-BOP supports companies by helping them identify risk zones on their premises (e.g. large uninterrupted glass façades, areas with high night illumination, buildings adjacent to vegetation/green corridors) and then applying mitigation measures. These include using bird-safe glazing treatments or films, applying visible patterns on glass surfaces, reducing or redirecting internal/external lighting to reduce attraction and reflection, and integrating off-peak or movement-sensitive lighting systems. The project demonstrated that such interventions contribute both to biodiversity goals and to a company's sustainability credentials.

More information:

https://www.biodiversity-premises.eu/en/eu-life-project.html

https://www.biodiversity-premises.eu/files/Bilder/Documents/Publikationen/Fact%20Sheet%20Bird%20Strike.pdf

82. Artificial lighting from buildings disrupts bird behaviour in multiple ways. Nocturnally migrating birds often use natural light cues stars, moonlight or the horizon to navigate. When bright lights from buildings or urban infrastructure dominate the night sky, they can disorient these birds. They may circle lighted structures, stray off course, burn vital energy reserves, land in hazardous locations, collide with glass façades or illuminated surfaces or become easy prey.

Case Study 6: LIFE Natura@night addressing light pollution

The LIFE Natura@night project is led by Sociedade Portuguesa para o Estudo das Aves in partnership with six municipalities and a number of institutes operates across the Macaronesian archipelagos the Azores, Madeira, and the Canary Islands to address the growing problem of light pollution. These Atlantic islands host 10 breeding seabird species highly sensitive to artificial light, as well as other nocturnal animals like bats. However, rapid urban expansion in recent years has significantly increased artificial light. Data gathered by a network of photometers installed on 14 islands under the earlier Interreg EELabs project confirmed a steady rise in light pollution, highlighting the urgency of mitigation efforts.

Light pollution poses a particular threat to young seabirds, especially species such as the Cory's Shearwater (*Calonectris borealis*). When fledging in late autumn, these birds navigate using the moon and stars to reach the ocean, where they will remain for several years before returning to breed. Artificial light from streets, cars, and buildings can disorient them, leading to exhaustion, collisions, or grounding in towns where they fall prey to predators such as cats and rats. This has become one of the main causes of seabird mortality in the region.

The LIFE Natura@night project is mapping the extent of the light pollution on the islands and using this to develop less harmful public lighting master plans in partnership with a number of municipalities. This includes changing traditional light bulbs for new LED ones, which are much more efficient, not only helping birds but also offering significant economic savings for the municipalities. The Municipality of Câmara de Lobos in Madera, for example, recently installed 66 new LED lights that minimise blue light emissions, which is known to have a particular impact on birds and insects. By its end the project aims to remove over 400 lighting units from sensitive areas and implement downward-directed lighting to reduce skyglow.

Beyond seabirds, the initiative benefits broader biodiversity and local communities. Reduced artificial lighting helps bats and insects maintain natural behaviours and improves human health by mitigating sleep disorders and other issues linked to excessive nighttime illumination. In addition, the project engages volunteers and conservationists to rescue disoriented seabirds; in November 2023 alone, over 800 grounded birds were found and safely returned to the sea.

This an example of a win-win solution addressing the impact from artificial lightning at night on birds and other animals while reducing the public cost.

More information:

https://naturaatnight.spea.pt/en/

Case study 7: Building sector in Spain, LIFE project ZEPAURBAN

One of the objectives of this project was to avoid destroying or disturbing the breeding colonies of the Lesser Kestrel (*Falco naumanni*) caused by restoration work on the buildings in which the birds nest. The project aimed to design and produce artificial nest boxes that are more secure, longer lasting and more economical.

One action concerned the suitability of the nesting substrate in buildings managed by the Directorate-General for libraries, museums and cultural heritage. The measures taken in Cáceres aimed to consolidate the colonies in three buildings in which the Lesser Kestrel and other birds had been causing material to fall on the ground in the urban centre.

In the San Jorge Cultural Centre, the building that hosts the largest number of pairs, the area of the roof used and damaged by the birds was renovated. The work involved cleaning the cover of curved ceramic tiles and waterproofing, mindful of the need to give the birds access. To mitigate the impacts on birds, underdeck wooden nails and associated ventilation tiles were installed to give birds access to the roofs.

More information:

http://www.zepaurban.com/en

Agriculture

83. Tillage or mowing, ploughing grassland and arable fields hosting ground nests, grassland conversion or hedge trimming in spring can have impacts on birds. Agriculture can include also activities that can harm birds during wintering or resting periods, such as intensive harvesting of olive groves during the night. To ensure that such activities do not lead to harm prohibited under Article 5 of the Birds Directive, Member States should identify and adopt clear and detailed protection measures to prevent and mitigate any prohibited harms on the species. Specific protection measures should be applied in the form of rules or prescribed practices by the competent authorities that should be applied at farm level. This could include spatial zoning, local orders on the conservation of bird species, possibly complemented by a manual of good practices, local/national action plans, or networks of volunteers willing to monitor the presence of birds and which can alert farmers and authorities (see case study 8). Financial incentives and support for land managers are also important to help adapt agricultural practices.

84. Article 5 of the Birds Directive does not mean that agricultural activities cannot take place during the breeding and rearing periods of farmland birds. However, such activities must be adapted, in order to avoid the harm prohibited under Article 5, based on the best available information, for example about the presence of birds or location of their nests. Member States should identify and adopt clear and detailed protection measures to prevent and mitigate any prohibited harms on the species. Such measures should be actively promoted through issuing guidance, training or notifications, and to ensure awareness and implementation of the restrictions (see case study 8). Member States also need systems to control and enforce these measures, relying on robust monitoring of the presence of birds and nests ([80]), while leveraging input from citizens science.

85. Measures under the EU common agricultural policy (CAP), including but not limited to eco-schemes, environmental, climate-related and other management commitments and area-specific payments for certain mandatory requirements (such as Natura 2000 payments), as well as CAP conditionality ([81]) could help to ensure compliance with Article 5 of the Birds Directive. Similar measures will remain available in the CAP post-2027. One of the CAP standards for good agricultural and environmental condition (GAEC) of land targeting biodiversity is GAEC 8 ([82]). It requires farmers to maintain landscape features and bans cutting hedges and trees during the bird breeding and rearing season, therefore contributing to compliance with Articles 5(b) and 5(d) (see case study 9). However, it should be noted that any changes to CAP conditionality rules, as well as related national rules, do not alter the obligations established by the Birds Directive. In order to ensure compliance with Article 5, Member States may need to supplement such rules with additional rules, while ensuring that all relevant measures apply to all farmers, including those that are not receiving support from the CAP.

Case Study 8: Hen harrier protection by volunteers in France

In France, the Normandy region supports the monitoring of nests in cereal crop fields with the help of volunteers. Once nests are identified by volunteering ornithologists, the authorities notify the landowner to communicate the need to protect the nests. Then, alongside the competent authorities, ornithologists meet the farmer to discuss species protection. Most farmers participate in this system of species protection without difficulty. In spring 2021, volunteers and professional ornithologists in this region protected 67 endangered species, over 50 % above the highest figure over the previous four years. In 2021, this operation avoided the destruction of 41 nests of Hen Harrier (*Circus cyaneus*), 12 nests of Stone Curlews (*Burhinus oedicnemus*) and, above all, the Baillon's crake (*Zapornia pusilla*) breeding territories in the Seine estuary.

More information:

https://www.normandie.developpement-durable.gouv.fr/bilan-2021-de-la-mise-en-oeuvre-de-la-protection-a4619.html

https://www.ouest-france.fr/normandie/caen-14000/dans-la-plaine-de-caen-les-busards-les-mieux-proteges-de-france-6906175

([80]) New technologies for bird monitoring providing high-resolution, real-time data become increasingly widely used, reducing the need for labour-intensive, manual field observations.

([81]) In order to receive EU income support, farmers must follow a set of basic rules. The interplay between these rules and the support provided to farmers is called conditionality. Farmers are expected to comply with rules including good agricultural and environmental conditions (GAECs) in order to receive support under the CAP. Farmers breaching the GAECs will have their EU support reduced and may face other penalties. See Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP strategic plans).

([82]) The relevant requirement and standard of GAEC 8 for implementation of Article 5 is 'Retention of landscape features' and 'Ban on cutting hedges and trees during the bird breeding and rearing season'.

Case study 9: Implementation of GAEC 8 in Belgium, Luxembourg, Germany, Italy and Spain

Examples for implementing the prohibitions under Article 5(b) and (d) of the Birds Directive through GAEC 8:

— Belgium (Wallonia): pruning of hedgerows and trees is prohibited during the bird breeding and nesting period, i.e. from 1 April to 31 July.

— Belgium (Flanders): pruning of hedges and trees is prohibited during the breeding season (indicatively from 15 March to 15 June).

— Luxembourg: hedge and tree pruning and cutting restrictions during bird breeding and rearing season: in accordance with Article 17(6) and (7) of the Law of 18 July 2018, cutting live hedges, brush, and forest edges is prohibited from 1 March to 1 October. Exceptions include hedge trimming for residential properties or parks and trimming necessary for forestry operations. Any cutting that damages living hedges, brush, or forest edges, particularly with inappropriate tools or methods such as flail mowers, is prohibited.

— Germany: the cutting prohibition applies from 1 March to 30 September, in accordance with the Federal Nature Conservation Act and the related state law, applies under the framework of conditionality to hedges and wooded strips, trees in rows, field groves, and individual trees.

— Italy: pruning of trees and shrubs prohibition applies nationwide from 15 March to 15 August to cover the bird breeding and nesting season, unless otherwise regulated at the regional level.

— Spain: it is prohibited to carry out hedge and tree cutting and pruning operations during the bird breeding and reproduction season (from March to August), unless expressly authorized by the environmental authority. Hedges are defined by the 'landscape elements' section of the GAEC.

86. Farm advisory services also contribute with specific advice to support compliance with the species protection requirements of the Birds Directive. Agriculture advisers specialised in farmland birds can provide advisory support to farmers. These advisers can be available through agriculture chambers, private consultancy services, private agencies or NGOs. Their tasks are to raise farmers' awareness regarding their obligations in relation to the protection of species present on their land. They can provide online information, written information or direct on-site advice. For example, information can be provided on a smartphone application when a plot of farmland is included in an area used by farmland birds.

Forestry

87. Article 5 of the Birds Directive does not mean that forestry activities cannot take place during the breeding and rearing period. Preventive measures should be integrated in forest management planning and practices in order to avoid harm to bird species, in particular logging during the breeding season which is likely to impact birds and their nests. Preventive measures may include risk-based spatial and temporal planning of operations, for example, buffer zones around sensitive features or retention of key habitat structures, as appropriate. The CJEU has clarified that if logging (whether clear-cut or not) is planned in a forest known to host bird nests, regardless of the conservation status of the species, logging during bird breeding and rearing is covered by the prohibitions under Article 5(a) and (b) of the Birds Directive ([83]). If the logging would lead to a disturbance which would have a significant effect on the bird populations in view of the objectives of the Directive, it is also covered by Article 5(d).

([83]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 49, 54 and 62.

88. This does not mean a complete logging ban, not even during birds' nesting and rearing period, however activities must be adapted, in order to avoid the prohibited actions in Article 5, based on the best available information, for example about the presence of nesting birds in breeding or rearing sites ([84]). Where operations would take place during the breeding and rearing seasons, particular caution will be required to plan and conduct those activities so as to avoid areas with indications of active breeding or rearing (e.g. known or regularly used breeding sites and particularly sensitive habitats). Trees known to be suitable for nesting, dead trees, habitat trees and cavity trees should be left unharvested to avoid destruction of the nests. In some habitats known to have high nesting density, or potential thereof, limiting forestry work during nesting periods can be also an appropriate measure. For some species, other additional measures, such as establishing quiet or 'no-go' zones around known nests during the nesting period (especially for large species like the Black Stork (*Ciconia nigra*) or raptors), could also be considered when there is a possibility of destruction of nests or of significant disturbance. For example, for the implementation of Article 5(d), the restriction of human activities around the nests of certain raptor species, owls and black storks, has long been practised in Hungary, where temporal restrictions to avoid direct disturbances during the breeding season are used ([85]). For some other, less sensitive species, momentary disturbance during the breeding season might not have significant impact and would not jeopardise their breeding success. It is for the national competent authorities to define the appropriate preventive measures with regard to the concrete species and situation.

89. Where operators schedule operations outside breeding and rearing periods, and if necessary, apply site-specific preventive measures, residual effects normally do not constitute a deliberate and significant disturbance within the meaning of Article 5(d).

90. Measures such as ambitious retention forestry, leaving permanent patches, habitat trees and other biological important structures could, where appropriate, be applied within the framework of sustainable forest management, which covers the majority of current forest management practices. Commission's guidelines on Natura 2000 and forests also contain good practice experiences and examples from different Member States in managing forests ([86]) and provides further insights to align forestry with nature and bird protection.

91. Financial incentives and support for foresters are also important to help to ensure that forestry activities are in line with the protection of birds.

Case study 10: Best practices for the conservation and management of the black stork in Poland

The Forest Experimental Station in Rogów, and the Committee for the Protection of Eagles, with support from the Polish Operational Programme Infrastructure and Environment, have implemented a series of measures that aim to improve the protection of the black stork and its habitats in 16 Natura 2000 sites across Poland.

By 2023, the project had protected as many as 600 to 700 breeding sites, supporting 55 % of the national breeding population. This was done by the regional directors for environmental protection designating nest protection zones (each of around 2 800 hectares). Forest management practices and human disturbance are restricted in these zones both during and outside the breeding season. This not only prevents breeding birds from being disturbed but preserves the nests and the habitat around. In Natura 2000 sites, protected zones around nesting sites cover a cumulative area of more than 600 000 hectares.

([84]) The simple observation of a bird does not necessarily mean that the bird is breeding in the area. To confirm that a bird is nesting in an area requires evidence such as finding a nest with eggs or young, seeing adults carrying food for young, observing recently fledged young, or seeing distraction displays/injury feigning. To consider probable breeding, elements such as a pair in suitable habitat, courtship display, territorial singing, birds visiting a probable nest site, or nest building should be observed.

([85]) DOI: 10.13140/RG.2.2.12902.47687, https://www.researchgate.net/publication/328737807_Suggested_methodology_for_temporal_and_long-term_spatial_restrictions_of_human_activities_around_the_nests_of_strictly_protected_raptors_owls_and_black_storks_Javaslat_a_fokozottan_vedett_ragadozomada.

([86]) Natura 2000 and forests. Part III, Case studies, Publications Office, 2015, https://data.europa.eu/doi/10.2779/65827.

Because the black stork's well-known association with forests, the project also included running education and publicity activities targeted at for stakeholders involved with Natura 2000 forest areas.

More information:

https://cepl.sggw.edu.pl/bocianimy/

Case study 11: Avoiding disturbance during the nesting period of large birds of prey in commercially managed forests in Finland

Harvesting and other forest management activities during bird nesting period can cause interruption of nesting. Disturbance during nesting period may have significant effect on the Birds Directive's objective of maintaining bird populations at a satisfactory level. Large birds of prey with naturally low individual count and long nesting period are particularly susceptible to human disturbances.

Information about nests of large birds of prey has been compiled into a national database, that is kept constantly up to date. When the forest owner sends the forest national authority a mandatory declaration about the intention to carry out logging, the authority carries out an automated spatial comparison between known bird nests and the proposed logging area. If the area to be logged is near a known nest, a notice is sent automatically to the landowner and owner of the logging rights. The notice concerns Article 5 prohibitions and serves as a final verification to avoid unintended harmful impacts on birds of prey during nesting period. However, the most effective phase of utilizing the nest information is during planning phase before sending the declaration, when bird protection can be incorporated in the management most efficiently. If a planned forest management would impact a nesting area of large birds of prey, year-round protection is possible by establishing a protection area around the nest.

National database for species information at the Finnish Biodiversity Information Facility:

https://laji.fi/en

Case study 12: Conservation of forest birds through a strategy to preserve old wood and deadwood in Baden-Württemberg

The Alt- und Totholzkonzept (AUT) strategy was developed to preserve and enhance biodiversity in Baden-Württemberg's forests by integrating key habitat structures like old wood and dead wood. It addresses the needs of various forest bird species, particularly those reliant on old and dead wood for nesting, feeding, and shelter. The AUT concept has been gradually implemented across Baden-Württemberg state forests since February 2010.

Central to the concept is the establishment of habitat tree groups (Habitatbaumgruppen) and forest refuges (Waldrefugien). These designated areas remain untouched by forestry activities, allowing natural processes to create diverse structural habitats. This is particularly beneficial for cavity-nesting birds such as *Dendrocopos major*, which requires dead and decaying trees for excavating its nests, *Dryocopus martius*, which prefers mature trees, and *Columba oenas*, which depends on large, old trees with previously existing holes for nesting.

Implementation of the scheme involves regular monitoring to ensure the measures being taken are effective. It includes the selection and marking of habitat tree groups, that are then mapped for ongoing management.

The AUT is a strategic measure that integrates ecological, legal, and safety considerations to improve the conservation of forest habitats. By preserving critical habitat structures, it directly supports the needs of forest bird species, ensuring their continued presence and ecological function within Baden-Württemberg's forests. AUT is a pioneering approach for forest management practices aiming at biodiversity conservation.

Information about the AUT concept is available here (in German):

https://www.fva-bw.de/fileadmin/publikationen/sonstiges/aut_konzept_2017.pdf

92. Government advisory services should provide information about bird protection requirements to forest land holders. This information should be guided and supported by central, online species-specific databases, specific guides on species protection in forestry, cartographic tools, brochures on certain protected species, or an online service portal with information options for dialogue between forestry bodies and authorities.

Case study 13: Mapping Platform 'Forest, Biodiversity and Landscapes in Pays de la Loire'

The Centre National de la Propriété Forestière (CNPF) is a public body in France that is responsible for supporting and advising private forest owners, promoting sustainable forest management, preparing and approving forest management plans, providing technical expertise, training, and guidance and conducting research and innovation through its subsidiary organisation the Institut pour le Développement Forestier (IDF).

They have developed an online platform for mapping and documenting forest biodiversity and habitats, The platform aggregates and displays inventories, 'nature' data layers (birds, amphibians, old-trees, deadwood, wetlands, etc.), and zones of ecological or heritage interest (e.g. high-value forests, wetlands and environmental-sensitive areas). By making this information accessible on a map, forest managers can see clearly where important habitats are located such as nesting zones for forest birds, wetlands, or areas with high conservation value. They can then avoid harmful interventions (such as logging) in those zones, or plan harvesting and other forestry operations in ways that minimise the impact on sensitive species.

The platform encourages the use of an assessment tool -the Indice de Biodiversité Potentielle (IBP) that evaluates a forest stand's 'capacity to host biodiversity' based on a set of ecological criteria: presence of deadwood, senescent trees, structural diversity (age of trees, undergrowth, habitat-trees), continuity of forest cover over time, etc. These criteria are all relevant for birds (and other fauna) because many bird species depend on older trees, cavities, a varied forest structure, deadwood and a stable habitat over time for their nesting, feeding, or shelter. By using IBP during forest management planning, managers can explicitly factor in biodiversity potential and thus design measures that preserve or enhance habitat features important for birds.

By combining spatial data with a long-term perspective and with participatory management, the approach helps to integrate conservation into routine forestry activities instead of treating biodiversity as a separate, optional concern. The platform is not just a static map: it links to 'guides' (for example on 'birds and forest management', 'wood-dead & senescent trees', 'forest wetlands & amphibians', etc.) that advise foresters on how to manage habitats in a biodiversity-friendly way. This means that forestry can remain economically viable while still safeguarding the forest's ecological functions, including protecting bird populations, preserving habitat complexity, and ensuring continuity of forest-dependent ecosystems.

More information:

https://bretagne-paysdelaloire.cnpf.fr/se-former-s-informer/les-fiches-et-guides-techniques/plateforme-cartographique-foret-biodiversite

Fishing

93. The general system of protection under Article 5 also requires the regulation of fishing activities ([87]) that are likely to lead to prohibited harm. One of the main impacts on birds in this context and on seabirds in particular, is bycatch. Other pressures may include lights and noise from fishing vessels that significantly disturb nearshore bird colonies, or significant disturbance through the scaring of birds around inland fisheries. It is therefore necessary for Member States to adopt and implement effective preventive measures (see case study 14). This can be done through planning tools such as fisheries management plans, fishing licences setting specific requirements and restrictions on certain types of high-risk fishing gear and spatial and temporal regulation of fishing activity or operations of fishing vessels.

94. To ensure adequate protection, the measures should be based on a good knowledge of the risks posed to birds by certain types of fishing gear. Systematic bycatch monitoring is therefore a prerequisite for the implementation of effective preventive measures. Such monitoring can rely on the data collected by Member States under the fisheries data collection framework, insofar as this provides a robust assessment of bycatch risk to enable establishment and implementation of preventive measures. More information on this topic can be found in Section 2-76/77 of the 'Guidance document on the strict protection of animal species of Community interest under the Habitats Directive', which is also relevant for birds ([88]).

95. Since the conservation of marine biological resources is withing the exclusive competence of the European Union under the common fisheries policy, the establishment of the necessary measures must be done through this policy framework ([89]). More information on this topic can be found in Section 2-29 of the above-mentioned Guidance, as well as in the 'Guidance document on Natura 2000 and fishing' ([90]).

Case study 14: Fishers and seabirds: allies for the sea

This example illustrates good practice as regards recurring fishing activities. Funded by the EU LIFE Programme and the European Maritime and Fisheries Fund, and working closely with the fishing community, the nature conservation NGO Sociedade Portuguesa para o Estudo das Aves (SPEA) has, identified the most problematic fishing gear and the seabird species that were most susceptible to accidental catches. On this basis, they developed and trialled different mitigation measures. One of the measures labelled the 'scary bird decoy' proved particularly effective. This is a device simulating the presence of a predator, attached to fishing vessels and kept in motion by the wind and the movement of the boat.

After being tested at sea, the results were unequivocal: the scary bird decoy kept seabirds away, reducing the likelihood that they would be caught. It was found to be particularly effective for the Balearic shearwater (*Puffinus mauretanicus*). Fishers helped to fine-tune the device, which they found to have many other advantages. Cheap and easy to produce, easy to assemble and repair, it did not interfere with fishing dynamics, saved time otherwise lost removing birds from fishing gear, and reduced damage to nets. The scary bird decoy is now used by all fishermen involved in the trials and a new cooperation project is underway to extend its use to more fishing vessels.

More information:

https://spea.pt/projetos/medaves-pesca/

([87]) Case C-507/04, *Commission v Austria*, paragraph 121.

([88]) https://op.europa.eu/en/publication-detail/-/publication/dab5274d-5891-11ec-91ac-01aa75ed71a1/language-en.

([89]) Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy (OJ L 354, 28.12.2013, p. 22, ELI: http://data.europa.eu/eli/reg/2013/1380/oj); and 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 (OJ L 198, 25.7.2019, p. 105, ELI: http://data.europa.eu/eli/reg/2019/1241/oj).

([90]) European Commission: Directorate-General for Environment, Natura 2000 and fishing – Application of Article 6 of the Habitats Directive and Article 4 of the Birds Directive to marine fishing activities – Commission notice, Publications Office of the European Union, 2025, https://data.europa.eu/doi/10.2779/1449747.

Hunting

96. Hunting activities may also result in killing, significant disturbance of birds or other prohibited harm under Article 5 of the Birds Directive where these hunting activities have an impact on non-huntable bird species or they are not in line with the requirements of Article 7 ([91]). Measures to regulate hunting should therefore be taken, not only to ensure sustainable exploitation of the targeted species listed in Annex II of the Directive, but also to protect other birds not the target of the hunting but nevertheless affected by it. This should cover issues related to misidentification by hunters of lookalike species. The use of lead ammunition, which can result in lead poisoning, was banned in wetlands in 2021 under the Commission Regulation (EU) 2021/57 on the Registration, Evaluation, Authorisation and Restriction of Chemicals ([92]).

Aviation

97. Aviation affects birds in three specific ways. Firstly, aircrafts can significantly disturb birds when flying at low altitudes over their habitats or close to their nests during the breeding seasons. Secondly, aircrafts may collide with birds, particularly during take-off and landing, and during low-level training with military aircrafts. Thirdly, birds may be attracted to airports, which can provide suitable habitats for breeding, resting or foraging. In particular, birds may approach airports for refuge from intensive agriculture nearby. Measures to minimise and where possible prevent the impact of aviation on birds should therefore be taken, in cooperation with flight safety authorities.

98. Airports in Europe already implement a variety of measures to reduce the risk of bird strikes, which are a major safety concern. Habitat management is one of the most common strategies, involving the careful maintenance of vegetation, the management of standing water and the removal of food sources that attract birds. By managing grass height, clearing fruiting trees, and covering ponds, airports make the surrounding environment less appealing to birds.

99. In addition to these measures, physical deterrents such as netting and spikes prevent birds from landing or perching in sensitive zones. Airports increasingly rely on technology like radar systems and surveillance cameras to monitor bird movements in real time, enabling rapid response when flocks are detected. European airports are required to maintain Wildlife Hazard Management Plans (WHMPs), ensuring that trained personnel assess risks, implement mitigation measures, and report wildlife strikes. Together these strategies create a comprehensive approach that minimises bird collisions and maintains aviation safety.

Recreation

100. Recreational activities such as hiking, wind and kitesurfing, motorsports, music festivals, climbing, kayaking, boating, birdwatching, walking off-leash dogs and flying of drones can significantly disturb birds or damage their nests. It is the responsibility of the national authorities to take sufficient preventive measures to ensure that the prohibitions in Article 5 are complied with in relation to recreational activities. Such measures might include creating quiet areas, fencing, closing off or restricting activities, especially during breeding seasons, or bringing in permitting systems to limit harmful activities. This must be supplemented by awareness raising using information boards, by briefing local businesses and distributing leaflets, and through proper enforcement of measures when needed (see case study 15). Further relevant information concerning recreational activities is provided in the *Guidance document on Natura 2000 and tourism*, available on the Commission website.

([91]) See guidance on hunting under the Birds Directive: https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive/sustainable-hunting-under-birds-directive_en.

([92]) Commission Regulation (EU) 2021/57 of 25 January 2021 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards lead in gunshot in or around wetlands (OJ L 24, 26.1.2021, p. 19, ELI: http://data.europa.eu/eli/reg/2021/57/oj).

Case study 15: Eco-tips for sea and shore

In Brittany in France, an environmental awareness campaign was launched in the summer of 2019 (from 15 June to 15 September) aimed at boaters, port infrastructure managers, tourists and recreational anglers. The aim of the campaign was to help these groups to minimise their impact on the environment; it included birdwatching activities. With the help of stakeholders, the partnership produced information kits on six topics, a booklet available in both French and English, a poster, a series of short videos and an informative website. Two ambassadors were appointed to help broadcast the message.

By the end of the campaign, the mediators had provided information to 600 people, made 338 individual enquiries, involved 32 boating associations, distributed kits and other material at 60 distribution points, and participated in 28 nautical events. A notable activity was the campaign '*Attention, on marche sur des œufs!*', which was run in all beaches in the area with the aim of preventing people from trampling on eggs and destroying nests.

More information:

https://www.protegeonslamer.bzh/biodiversite/

4. **ARTICLE 9 OF THE BIRDS DIRECTIVE**

4.1. **Text of Article 9**

'1. Member States may derogate from the provisions of Articles 5 to 8, where there is no other satisfactory solution, for the following reasons:

(a) — in the interests of public health and safety,

— in the interests of air safety,

— to prevent serious damage to crops, livestock, forests, fisheries and water,

— for the protection of flora and fauna;

(b) for the purposes of research and teaching, of re-population, of re-introduction and for the breeding necessary for these purposes;

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

2. The derogations referred to in paragraph 1 must specify:

(a) the species which are subject to the derogations;

(b) the means, arrangements or methods authorised for capture or killing;

(c) the conditions of risk and the circumstances of time and place under which such derogations may be granted;

(d) the authority empowered to declare that the required conditions obtain and to decide what means, arrangements or methods may be used, within what limits and by whom;

(e) the controls which will be carried out.

3. Each year the Member States shall send a report to the Commission on the implementation of paragraphs 1 and 2.

4. On the basis of the information available to it, and in particular the information communicated to it pursuant to paragraph 3, the Commission shall at all times ensure that the consequences of the derogations referred to in paragraph 1 are not incompatible with this Directive. It shall take appropriate steps to this end.'

4.2. **General considerations**

101. Article 9 of the Birds Directive provides for the possibility to derogate from the prohibitions of Article 5 in exceptional circumstances, subject to certain conditions. This provision reflects the need for a degree of flexibility and a careful balancing of the need to achieve the conservation objectives of the Directive and the importance which may be attached to the grounds set out in Article 9. Because derogations are exceptional by nature, Member States competent authorities must ensure that all the requirements set out in Article 9 are met before granting one.

102. While the scope of this guidance is limited to Articles 5 and 9, it should be noted that Article 9 also permits derogations to be issued in relation to Article 6, Article 7, and Article 8 of the Directive.

103. Derogations from the requirements of Articles 5 to 8 of the Directive may only be granted within the framework of Article 9 of the Birds Directive. The CJEU has previously confirmed that Article 2 of the Directive, which requires Member States to take measures to maintain the population of all bird species at a level which corresponds to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, does not constitute an autonomous derogation from Article 5 ([93]). That the CJEU has clarified that the derogation scheme provided with Article 9 'must be interpreted strictly and impose on the authority taking the decision the burden of proving that those conditions exist for each derogation' ([94]).

104. It is therefore up to the Member States to design their regulatory framework in a way that ensures that derogation provisions are applied in line with the principle of legal certainty ([95]). The CJEU has ruled that relevant national legislation must specify the criteria for the derogation clearly and precisely and require the competent authorities to take these criteria into account ([96]). The CJEU has also asserted that for exceptional arrangements such as derogations, it is necessary to ensure that all actions affecting the protected species can be authorised only on the basis of decisions containing a clear and sufficient statement which refers to the reasons, conditions and requirements laid down in Article 9 ([97]).

105. Full and accurate transposition of Article 9 is a prerequisite for proper implementation of its provisions. For that reason, observance of the requirements of Article 9 based on administrative practices cannot be regarded as constituting proper compliance ([98]). The CJEU 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' ([99]). The provisions of Article 9 of the Birds Directive differ from those in the similar derogation regime under Article 16 of the Habitats Directive. Member States should therefore make a clear distinction between different provisions on derogations of the two directives when transposing the provisions into the national legal framework.

([93]) Case C-247/85, *Commission v Belgium*, paragraph 8.
([94]) Case C-557/15, *Commission v Malta*, paragraph 47; Case C-76/08, *Commission v Malta*, paragraph 48; Case C-217/19, *Commission v Finland* (Spring hunting of male common eiders), paragraph 66.
([95]) Case C-557/15, *Commission v Malta*, paragraph 47.
([96]) Case C-557/15, *Commission v Malta*, paragraph 47.
([97]) See Case C-557/15, *Commission v Malta*, paragraph 47; see also Case C-217/19, *Commission v Finland* (Spring hunting of male common eiders), paragraph 66.
([98]) Case C-339/87, *Commission v Netherlands*, paragraph 29.
([99]) Case C-339/87, *Commission v Netherlands*, paragraph 36.

106. Article 9 contains three conditions that must be fulfilled if a Member State wishes to derogate from Articles 5 to 8. The CJEU has subsequently confirmed this holding that 'first, the Member State must restrict the derogation to cases in which there is no other satisfactory solution; secondly, the derogation must be based on at least one of the reasons listed exhaustively in Article 9(1)(a), (b) and (c); thirdly, the derogation must comply with the precise formal conditions set out in Article 9(2), which are intended to limit derogations to what is strictly necessary and to enable the Commission to supervise them' ([100]).

107. According to the established case-law of the CJEU, 'derogations under Article 9 of the Directive may be used only if it is ensured that the population of the species concerned is maintained at a satisfactory level' ([101]). The competent authorities responsible for issuing derogations must ensure that the three conditions are satisfied and that derogations do not undermine the achievement of the overall objectives of the Birds Directive so that species populations are maintained at or progress towards a satisfactory level. It is therefore necessary to monitor the use of derogations and their implications for the bird species concerned (and for other species where relevant).

108. In this context, the scope of any derogation must be defined in clear and precise terms that are applicable to the specific situation ([102]) and that address a particular problem. Derogations must therefore be sufficiently well delimited, meaning they cannot be issued on the basis of general terms, or with indefinite durations according to the CJEU ([103]). The geographical scope of a derogation should be as clearly defined as possible. The existence of a causal link between the problem to be addressed and the activity requiring a derogation should be demonstrated ([104]). The scope must be therefore strictly limited to what is necessary to achieve the legitimate aim of the derogation at issue and a clear link to the objective pursued must be demonstrated ([105]). This is ensured by including the information required under Article 9(2) in the derogation decision.

109. Any licence or other instrument granting a derogation should therefore be complete and explicit in its references to the conditions that the derogation must satisfy. This also enables the competent authorities, including judges, to supervise the derogations granted ([106]).

110. Derogations are granted without consulting the Commission, meaning the approval procedure takes place entirely at national level. Once granted, those derogations must be included in a report to the Commission each year, in line with Article 9(3) of the Directive ([107]). Under Article 9(4), the Commission is then required to ensure that the consequences of those derogations are not incompatible with the Directive. The Commission is required to take appropriate steps to that end.

([100]) Case C-247/85, *Commission v Belgium*, paragraph 7.
([101]) See for instance, Case C-76/08, *Commission v Malta*, paragraph 59.
([102]) Case C-247/85, *Commission v Belgium*, paragraph 7.
([103]) Case C-247/85, *Commission v Belgium*, paragraphs 28 and 34.
([104]) See by analogy Case C-601/22, *WWF Österreich and others*, paragraph 73.
([105]) Case C-79/03, *Commission v Spain*, paragraph 28. In this case, the CJEU condemned the use of non-selective traditional hunting methods because no link could be drawn between the practice that was the subject of the derogation and the stated objective: prevention of serious damage to crops.
([106]) It should be recalled that, according to Article 278 and 279 of the TFEU, the CJEU may, if it considers that circumstances so require, order that application of the contested act be suspended and may in any cases before it prescribe any necessary interim measures. For example, in Case C-503/06, *Commission v Italy*, the CJEU ordered Italy to suspend the application of a regional law granting hunting derogations.
([107]) Individual derogations can be viewed at https://www.eea.europa.eu/data-and-maps/dashboards/derogations-and-exceptions-table. Overview of derogations and exceptions to species protection across the EU – https://www.eea.europa.eu/en/analysis/maps-and-charts/overview-of-derogations-and-exceptions-dashboards.

Practical Implementation Support 3: Online IT tool reducing administrative burden and facilitating reporting of derogations by Member States

HaBiDeS+ is a dedicated online IT platform managed by the European Environment Agency and used by Member States (including regions and other local administrations) to record, manage and transmit information on derogations granted under the Birds and Habitats Directives. It provides a modern single and centralised system for reporting derogations, including their legal bases, objectives, species concerned, geographic scope, duration and conditions attached. By using common data fields and definitions, the Habitats and Birds Directives Derogation System+ (HaBiDeS+) supports a consistent application of Article 9 of the Birds Directive and Article 16 of the Habitats Directive across the EU.

The platform offers structured reporting facilities that guide Member States through the submission of derogation data, including predefined templates, mandatory fields and automated checks that help ensure completeness and clarity. HaBiDeS+ enables national authorities to update and correct derogation records over time and facilitates the Commission's compliance assessment, follow-up and comparative analysis. In doing so, it reduces administrative burden and the fragmentation of reporting practices improving transparency and traceability of the use of derogations at EU level.

For more information:

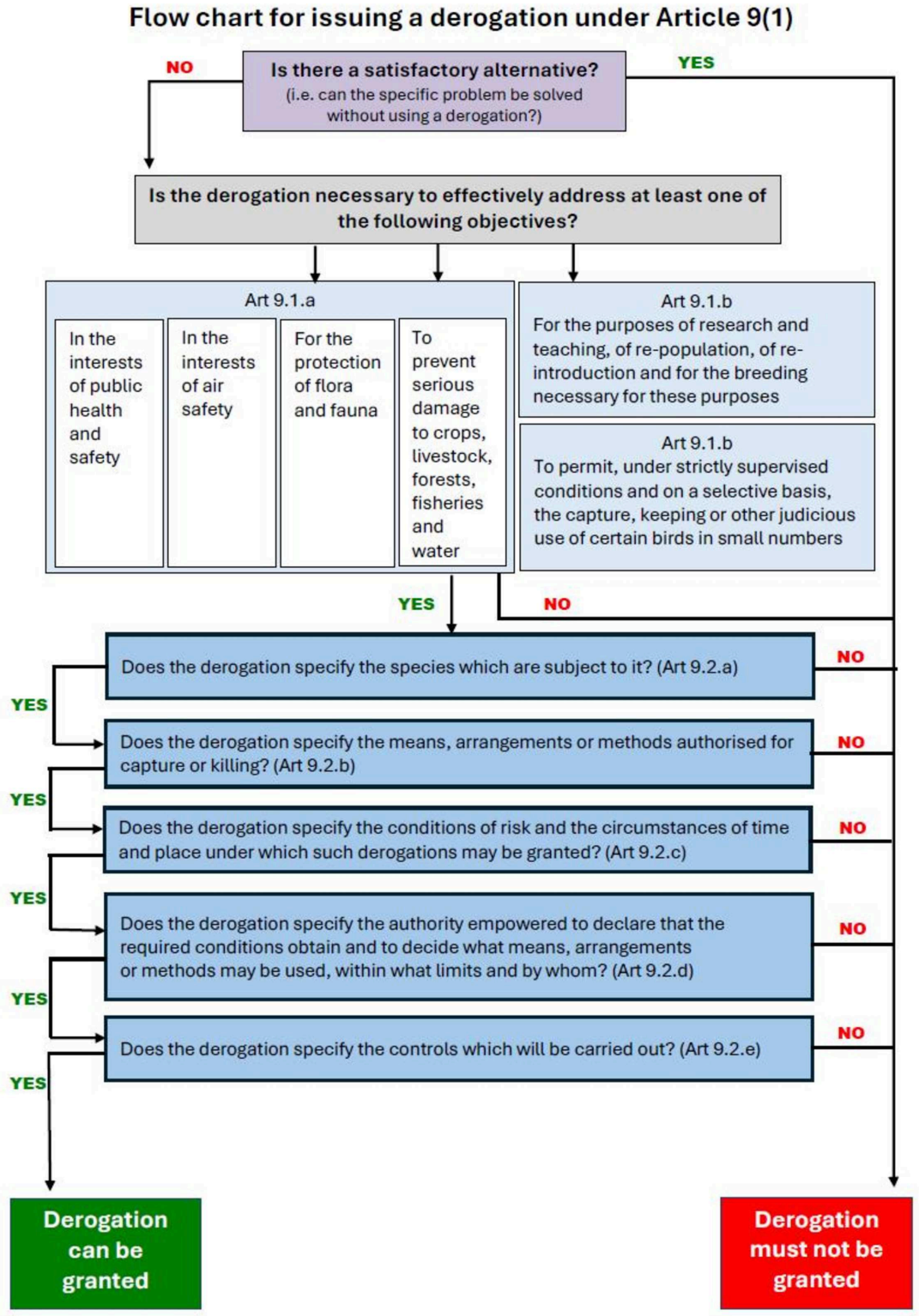
https://circabc.europa.eu/ui/group/173a90fc-40bf-492d-a3a9-df99c4aa8807/library/cfc38522-bd5e-4237-af4b-37928504ee87/details

4.3. **Conditions for applying derogations under Article 9**

111. A valid derogation may only be granted if the three conditions set out in Article 9 are satisfied ([108]).

112. As a first condition, Article 9(1) states that there must be no other satisfactory solution to the specific issue which the derogation aims to address. Secondly, the derogation must be adopted on one of the six grounds specified in Article 9(1)(a) to (c) of the Directive. Lastly, the derogation must comply with the technical requirements of Article 9(2).

([108]) Case C-247/85, *Commission v Belgium*, paragraph 7.



Condition 1: No other satisfactory solution

113. Article 9(1) states that Member States may derogate from the requirements of Articles 5 to 8 only 'where there is no other satisfactory solution'. This means that a derogation cannot be granted if the same outcome could be achieved satisfactorily in a different way that either avoids a breach of Article 5 entirely or is less harmful in view of the prohibitions and the objectives of the Directive.

114. Based on the case law of the CJEU, analysing whether there is 'no other satisfactory solution' can be considered as being composed three questions: (1) What is the problem or specific situation that needs to be addressed? (2) Are there any other solutions? (3) If so, will these resolve the problem or specific situation at issue in a satisfactory way ([109])?

115. The assessment of the availability of other satisfactory solutions should be conducted on a case-by-case basis and on the best available evidence and taking account of proportionality considering the impact of the derogation and the need for the activity. The decision granting the derogation must include a 'clear and sufficient statement of reasons' leading to the conclusion that there is no other satisfactory solution ([110]).

116. The analysis of whether 'there is no other satisfactory alternative' therefore 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 addressing the problem or situation. To ensure the protection of species, the alternatives must be assessed against the prohibitions listed in Article 5. For example, they could involve alternative locations of projects, different development scales or designs, or alternative activities, processes or methods.

117. For example, when assessing the existence of 'other satisfactory solutions' to the measures under Article 9(1)(a), third indent, which aim to prevent serious damage to crops, livestock, forests, fisheries and water, feasible and preventive non-lethal means compatible with Article 5 should be preferred or, at least, seriously examined. In most cases, crop or livestock damage preventive measures (such as changes in farming practices, as well as promoting improvement of the habitat conditions) may be a satisfactory alternative to the use of derogations under Article 9(1)(a). Other preventive measures, such as the dissemination of science-based information for the purpose of reducing conflict (for example human behaviour) may be part of the satisfactory alternatives to the use of lethal control.

118. Having identified the problem or specific situation to be addressed and verified that is it in line with grounds listed in Article 9(1), the assessment should consider the various solutions for addressing it satisfactorily. When ruling on satisfactory alternatives in a case concerning the trapping of birds, the CJEU has held that the fact that another measure is not yet feasible on a large scale is not sufficient to conclude that the other measure is not an 'other satisfactory solution' ([111]).

119. Therefore, another solution cannot be deemed unsatisfactory merely because it would cause greater inconvenience to, or compel a change in the behaviour of, the beneficiaries of the derogation ([112]). 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 ([113]). Moreover, using a particular hunting method cannot be considered as an aim in itself, as a hunting method is by definition a method for achieving an aim. Indeed, if using a particular hunting method were to be considered as an aim in itself, merely preferring one hunting method over another would be sufficient to meet the 'no other satisfactory solution' test. This would undermine the function of Article 9 in contributing to the achievement of the objectives of the Directive.

120. The availability of alternative satisfactory solutions varies depending on factors such as the species concerned, the derogation ground pursued, the specific area concerned and the Member State in which it occurs. For example, scaring techniques may constitute a satisfactory alternative solution to prevent damage to crops from certain species, but this may not be satisfactory for other more persistent species that would simply return once the disturbance ceases.

([109]) Case C-10/96, *Ligue Royale Belge pour la protection des oiseaux*. See also the Guide to sustainable hunting under the Birds Directive, paragraph 3.4.2.
([110]) Case C-557/15, *Commission v Malta*, paragraph 50.
([111]) Case C-10/96, *Ligue Royale Belge pour la protection des oiseaux*, paragraph 22.
([112]) Case C-900/19, *One Voice*, paragraphs 40 and 41.
([113]) Case C-79/03, *Commission v Spain*, paragraph 27.

121. When assessing a potential alternative measure, it may also be appropriate to take into account the proportionality of other solutions. The economic cost of a technically feasible option is relevant and can be taken into account. However, this cannot be the sole determining factor when ruling out alternatives for achieving the aim pursued ([114]).

122. The proportionality of other solutions can be assessed by reference to the population levels and trends of the species which would be affected by the measure under consideration ([115]). The CJEU has held that an assessment must be made of the impact of the activity at issue on the level of the population and the need for that activity, as well as of the alternative solutions for achieving the aim pursued ([116]). For example, as a part of the determination of the proportionality of a measure, it may be possible to exclude another solution if it would entail significant economic costs while only offering minor benefits by reference to the objectives of the Directive, and this would be the case especially for species whose populations are above satisfactory levels. By contrast, if the other measure entails a minor cost increase compared to the contemplated measure but is more aligned with the objectives of the Directive, it constitutes another satisfactory solution.

123. The standard of evidence for satisfying the condition that there is no other satisfactory solution is therefore higher if the granting of the derogation may have implications for the achievement of objectives of the Directive.

124. Only when it is sufficiently demonstrated that potential alternatives are not satisfactory, taking into account the abovementioned considerations, 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. When determining that there is no other satisfactory solution, it is necessary to underpin the derogation decision with a detailed statement of reasons based on the best relevant scientific knowledge and setting out the reasons which led the competent authority come to that conclusion ([117]).

Practical examples

125. In many cases, measures to prevent damage, including wildlife deterrent devices, changes in agricultural management practices, safe areas, as well as restoring good habitat conditions or prey populations of the species concerned, or a mix of measures, may be a satisfactory alternative to the use of derogations under Article 9. For example, for air safety, vegetation management to make airports unattractive for wildlife and techniques to deter them are used widely and sometimes a combination of different measures might be necessary to effectively prevent damages.

126. In some cases, complete avoidance of prohibited harm may not be possible, meaning the solution with the lowest impact in view of the prohibitions of Article 5 and the objectives of the Directive should be opted for. This might include the use of scaring techniques complemented with limited lethal control to make the scaring more effective, as opposed to discarding the option of scaring entirely.

127. Problems which may require application of derogations are often a result of habitat deterioration and decreased food availability. For example, the impact of predation by some corvids or raptors on ground-nesting birds, such as the Partridge (*Perdix perdix*) is partly due to the loss of good nesting and rearing habitats offering shelter and food. Therefore, long-term, ecosystem-based solutions such as the restoration of good habitat condition for species, both for those causing conflicts and those suffering from the impact, should be implemented in tandem with any short-term solutions, possibly involving a derogation, aimed at addressing any immediate problems.

([114]) See by analogy, Case C-601/22, *WWF Österreich*, paragraph 82.
([115]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 54-56.
([116]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraphs 56.
([117]) Case C-900/19, *One Voice*, paragraphs 32.

128. As regard other satisfactory solutions for the purpose of research, any decision to grant a derogation should mention the absence of other standard scientific means of research in the ornithological field ([118]) and contain a precise and sufficient statement of reasons as regards such absence.

Condition 2: Demonstrating one of the six grounds in Article 9(1)(a)-(c)

129. Before discussing each of the grounds that must exist in order to derogate from the species protection obligations of the Birds Directive, it is pertinent to note that the list is exhaustive. As a result, derogations can only be taken if they pursue any of the headings identified in Article 9(1)(a) and (b) or they are carried out in line with the specifications of Article 9(1)(c). The derogation ground under subparagraph (c) 'to permit, under strictly supervised conditions and on a selective basis, the capture, keeping or other judicious use of certain birds in small numbers' is not discussed here as it is already described in the 'Guidance on sustainable hunting under the Birds Directive' ([119]).

Article 9(1)(a), first indent: in the interests of **public health and safety**

130. This ground covers such circumstances as the protection of the public from diseases and prevention of accidents. This derogation ground relates to situations in which actions taken to prevent risks concerning the health and safety of humans are at odds with and override the need to protect bird species.

131. The use of the term 'public' indicates 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, unless they also serve a wider purpose in parallel. The CJEU has confirmed that this heading could cover the prevention of fires, floods and diseases ([120]). Another practical example of this could be preventing contamination through avian excrement of a drinking water reservoir or food storage facility.

132. Such derogations may only be granted in relation to specific situations in which the interest of public health and safety overrides the protection of birds ([121]). Therefore, a link must be established between the activity permitted under the derogation and the public health and safety concern identified. This requires the derogation system to be sufficiently delimited and to specify the conditions of risk and the circumstances of time and places in which derogations may be granted ([122]). To take the example of contamination from bird excrement, the mere presence of excrement, or of a nest, will not be sufficient in itself to grant a derogation. It must be demonstrated that the location or number of nests are such as to give rise to a genuine health risk.

133. According to Article 16f of Directive (EU) 2023/2413 (the Renewable Energy Directive III) ([123]), for the purposes of Article 9(1)(a) of the Birds Directive, when the legal interests in a particular case are being weighted up, the planning, construction and operation of renewable energy plants, their connection to the grid, the related grid itself, and storage assets are presumed to serve public health and safety ([124]). This presumption can be challenged and is subject to a case-by-case assessment. Member States may, in duly justified and specific circumstances, restrict the aplication of this Article to certain parts of their territory, to certain types of technology or to projects with certain technical characteristics in accordance with the priorities set out in their integrated national energy and climate plans submitted pursuant to Articles 3 and 14 of Regulation (EU) 2018/1999.

([118]) See Case C-23/23, *Commission v Malta*, paragraph 69.
([119]) Guide to sustainable hunting under the Birds Directive, Section 3.5, page 58. https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/4b5dffd4-369c-4c4b-a249-625adc2a7545.
([120]) Case C-247/85, *Commission v Belgium*, paragraph 27.
([121]) Case C-247/85, *Commission v Belgium*, paragraph 27.
([122]) Case C-247/85, *Commission v Belgium*, paragraph 28.
([123]) Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 (OJ L, 2023/2413, 31.10.2023, ELI: http://data.europa.eu/eli/dir/2023/2413/oj).
([124]) Article 16(f) of Directive (EU) 2023/2413.

134. Article 15(3) of Regulation (EU) 2024/1735 (the Net-Zero Industry Act) ([125]) provides that net-zero strategic projects ([126]) and net-zero technology manufacturing projects in designated net-zero acceleration Valleys ([127]) are in the public interest and may be considered to serve the interests of public health and safety provided that all the conditions set out in the Birds Directive are fulfilled ([128]).

135. In addition, under Article 10(2) of Regulation (EU) 2024/1252 (the Critical Raw Materials Act) ([129]), strategic projects contributing to the security of supply of strategic raw materials are considered to serve public health and safety provided that all the conditions set out in the Birds Directive are fulfilled. As a result, as in all cases when granting Article 9 derogations, there is still a need to demonstrate that the other conditions under Article 9 of the Birds Directive, namely the absence of alternative satisfactory solutions and the technical requirements of Article 9(2), are fulfilled.

Article 9(1)(a), second indent: in the interests of **air safety**

136. Heavy and/or flocking bird species are a major hazard to the safety of aircrew, passengers and aircraft. Collisions with such bird species can result in delays, damaged aircraft and even crashes, costing human lives and far-reaching financial repercussions for the aviation industry. Collisions are always fatal for the struck birds, resulting in conservation issues when they are specimens of rare or endangered species. At many aerodromes and airports, management measures are taken to prevent bird strikes with aircrafts ([130]). Such solutions involve habitat management to reduce the attractiveness of the site to birds and flocks of birds and various scaring techniques such as canons which produce loud noises. Such measures can infringe on Article 5 of the Directive, particularly subparagraph (d) prohibition on significant disturbance. In many cases, other satisfactory solutions are available that are more effective and durable than killing. For example, habitat restoration far from the aerodrome to divert the birds should also be considered, when relevant, and would avoid the need for a derogation.

Article 9(1)(a), third indent: to prevent **serious damage to crops, livestock, forest, fisheries and water**

137. This ground accounts for, among other things, certain economic interests related to these areas. It is of qualitative nature, thus it can only be applied where damage is 'serious'. Therefore, minor damage or the threat of minor damage cannot be considered sufficient to grant a derogation under this heading ([131]).

138. This ground is preventive in nature, meaning it can apply before serious damage has been sustained. In that respect, Member States can rely on the existence of recurring damage in the past and on the consequent probability that serious damage linked to identified bird populations would take place again in the absence of action ([132]). Use of this

([125]) Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem and amending Regulation (EU) 2018/1724 (OJ L, 2024/1735, 28.6.2024, ELI: http://data.europa.eu/eli/reg/2024/1735/oj).

([126]) Article 15(3) of Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem.

([127]) Article 18(4) of Regulation (EU) 2024/1735 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem.

([128]) Net-zero industry projects covered under Regulation (EU) 2024/1735 are not exempted from the obligations under Article 9 of the Birds Directive, whose conditions continue to apply normally.

([129]) Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020 (OJ L, 2024/1252, 3.5.2024, ELI: http://data.europa.eu/eli/reg/2024/1252/oj).

([130]) To uphold aviation safety, Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes sets aviation safety standards, including for managing hazards related to wildlife.

([131]) Case C-247/85, *Commission v Belgium*, paragraph 56.

([132]) See by analogy Case C-601/22, *WWF Österreich*, paragraph 70. Though this case concerns derogations for killing of wolves, the judgment interprets the meaning of 'serious damage', which can be applied by analogy to Article 9 of the Birds Directive.

ground must be underpinned by evidence and be at least largely attributable to the species targeted by the derogation ([133]). In that respect, possible future indirect damage that constitutes an abstract risks and is only partially caused by protected species cannot be regarded as 'serious damage' in this context ([134]).

139. The list of forms of damage covered by this derogation ground is exhaustive. Some sectoral examples that may give rise to a derogation under this heading are:

— serious damage to crops, for example by foraging birds through the destruction and consumption of seeds, plant growth or of the final product;

— serious local damage to forests, for example through stunted tree growth due to excessive excrement from dense colonies of herons or cormorants;

— serious damage to livestock, for example through livestock taken or harmed by raptors or crows, or through the increased risk of disease transmission;

— serious damage to fisheries, for example through predation of fish both in the wild and in aquaculture;

— serious damage to water bodies, for example through pollution of water reservoirs, or damage to irrigation channels.

140. The assessment of whether such damage is serious will mostly depend on the economic cost, the extent and impact for the stakeholders or communities involved. The damage must also be assessed with reference to the capacity of the stakeholder to sustain such damage. For example, the seriousness of damage done by geese to crops in single field will differ between a small-scale farmer and a farmer operating a larger enterprise. The seriousness of damage should be also assessed at the same scale at which the derogations are taken (i.e. farm-level in the case of measures for a single farm, or at regional, national, or flyway level in the case of existence of regional, national or flyway management plans).

141. As discussed above, derogations must be sufficiently delimited and address specific situations. Therefore, when designing preventive control strategies, the first approach should be to make the actions timebound and localised to where the serious damage is likely to occur or is occurring. However, widespread species that can cause damage over large areas, such as the Common Wood Pigeon (*Columba palumbus*), the Great Cormorant (*Phalacrocorax carbo*), or some goose species, may justify derogations that cover a broader area. This is without prejudice to the overarching requirement to ensure that the geographical scope of a derogation is as clearly defined as possible. Equally, these derogations must be specific in terms of numbers, timing and methods and must explain what the derogation aims to address.

142. The use of coordinated derogations, such as 'flyway derogations', under which derogations for species (such as the Barnacle Goose or the Great Cormorant) would be granted in one country to prevent damage in another country, could be possible. This approach should be used either under the framework of an international management plan developed under international convention or agreement to which the EU is a party or within a similar framework approved by all Member States concerned. In addition, this approach could be used if: (1) a link is demonstrated between the serious damage/risk in an area in one Member State and the birds subject to the derogation in another Member State; (2) all other applicable conditions under Article 9 are fulfilled; (3) it is demonstrated that a derogation applied in the Member State where the serious damage/risk takes place is not sufficient to prevent that serious damage/risk; and (4) derogations are only granted at the request of and in consultation with the Member State where the serious damage/risk takes place. A possible example of the application of a derogation on the ground of 'serious damage' by cormorants is included in Annex II to this guidance document.

([133]) See by analogy Case C-601/22, *WWF Österreich*, paragraph 71.
([134]) See by analogy Case C-601/22, *WWF Österreich*, paragraph 72-74.

Article 9(1)(a), fourth indent: **for the protection of flora and fauna**

143. This ground applies to conservation efforts for species or habitats, addressing situations in which it is necessary to breach the prohibitions in Article 5 in order to protect other flora or fauna. The types of fauna or flora are not specified but would appear to be different from the flora and fauna of economic interest covered by other provisions of Article 9(1)(a). The justification for using this ground is likely to be strongest where it relates to conservation efforts for species that are rare or threatened but is not limited to such species. Furthermore, there appears not to be a need in this case to demonstrate a likelihood of serious effect before applying the derogation.

144. The determination of whether it is appropriate to pursue a derogation for the protection of flora and fauna must be considered on a case-by-case basis balancing the conservation status and needs of the relevant species against one another. Various factors will need to be taken into account when determining if it is appropriate to grant a derogation under the fourth indent of Article 9(1)(a), but in all cases such derogations must serve a conservation purpose. The conservation status rarity, or vulnerability of the species of flora or fauna will be relevant. Equally, the fact that the flora or fauna requiring protection is rarer or has a worse conservation status than the bird species for which the derogation is sought will also be relevant. Another factor is the protection status of the flora or fauna species protected in the EU or by national law. Justification for the use of the fourth indent of Article 9(1)(a) will be stronger where it relates to those flora and fauna species which are protected at EU level (such as species listed in Annex IV and Annex V to the Habitats Directive) or species protected under national law.

145. Birds may affect flora and fauna by predation, grazing, trampling, accumulation of droppings etc. This derogation ground can therefore apply to predators, such as raptors that prey on protected species. Because the fecundity of raptors is low, it is particularly important to ensure that all other possible solutions are considered to avoid additional mortality or removal from the breeding population. Authorities must demonstrate that the specimen(s) which would be the subject of the derogation is/are directly responsible for the conservation concern which the derogation aims to address, ruling out other factors such as disease, poor food availability and lack of shelter.

146. An important aspect to consider is the extent to which predation can be directly attributed to broader dynamics such as habitat loss, deterioration, or modification. For example, raptor predation is the main cause of mortality for the European hamster (*Cricetus cricetus*), especially during their reproduction and post-hibernation. However, the decline caused by predation is a direct consequence of anthropogenic habitat loss and fragmentation for the hamster. In Alsace, France, hamsters typically burrow in wheat or alfalfa fields, which provide food and shelter from predators. The conversion of these fields to maize monoculture results in long periods with bare soil, leaving the hamsters vulnerable to raptor predation ([135]). In such cases, predator control through derogations can only be carried out when concurrent species habitats restoration measures are ongoing or steps have been taken to regulate harmful human activities. These measures should be prioritized over culling and removal of protected raptor specimens as a standalone measure. This is supported by Article 9(1) requiring that no other satisfactory solution exists (see above).

Article 9(1)(b): for the purposes of **research and teaching, of re-population, of re-introduction and for the breeding necessary for these purposes**

147. Derogations granted under this heading include capture for ringing or deployment of tags for satellite tracking, for the purpose of studying migration patterns, and identifying stopover sites. It may also be necessary to capture birds for research of diseases, such as avian influenza.

148. The term 'research' in Article 9(1)(b) must be understood as 'scientific research'. This means that the research which is the subject of the derogation must follow certain methodological steps. For example, a research project must have an objective expressed in a research question and be designed in way that yields progress towards answering to that question ([136]). Indeed, the term 'for the purposes of' indicates that the design and implementation of the research

([135]) https://www.grand-hamster-alsace.eu/the-great-hamster/?lang=en.
([136]) Opinion of Advocate General Ćapeta in Case C-23/23, *Commission v Malta*, point 60.

programme must be reasonable and proportionate in relation to its stated scientific objective ([137]). This therefore requires a link between the activity permitted through the derogation and the research that is needed to answer the question. For example, an unreasonably large sample size causing highly intrusive disturbance for the species in return for limited new scientific data or data which does not override the overarching importance of conserving wild bird species would not be considered proportionate. The design of the research is also expected to adhere to scientific and ethical standards, and it should normally be performed, designed or, at least, reviewed and approved by an independent scientific institution. Bird ringing, for example, should only be performed by independent and trained ornithologists.

Practical Implementation Support 4. Flexibility in the application of Article 9 through a coordinated flyway approach

To help Member States address challenges related to economic damage by certain species in an effective and coordinated way, flyway derogations can be applied when appropriate under the Birds Directive. This approach allows a Member State to grant derogations for certain species, especially migratory ones (such as the Barnacle Goose or the Great Cormorant) in order to prevent serious damage occurring in another Member State. However, this approach should take place within the framework of an international convention or agreement to which the EU is a party, such as the African-Eurasian Waterbirds Agreement (AEWA) or the Bern Convention, or an European or regional species action plan agreed by all concerned Member States, with adequate safeguards in line with the requirements of Article 9 and proper consultation with and involvement of Member States concerned (see paragraph 139).

Condition 3: Applying the technical requirements of Article 9(2)

149. The third condition concerns fulfilling the technical requirements of Article 9(2). Article 9(2) of the Birds Directive lays down precise specifications for derogations. These which allow Member States and the Commission to monitor derogations made under paragraph 1. Competent authorities must include the following information in their derogation decisions and in their derogation reports to the Commission:

(a) the species subject to the derogations;

(b) the means, arrangements or methods authorised for capture or killing;

(c) the conditions of risk and the circumstances of time and place under which such derogations may be granted;

(d) the authority empowered to declare that the required conditions obtain and to decide what means, arrangements or methods may be used, within what limits and by whom;

(e) the controls which will be carried out.

150. To facilitate compliance with Article 9(2), the Commission has translated the technical requirements of Article 9(2) into a reporting format for derogations that uses the online digital tool called Habitats and Birds Directives Derogation System+ (HaBiDeS+) ([138]). Member States are invited to make use of this tool which simplifies the process for complying with this condition for granting derogations. If used, it can reduce the administrative burden related to the implementation of Article 9.

([137]) Opinion of Advocate General Ćapeta in Case C-23/23, *Commission v Malta*, point 62.
([138]) See HaBiDeS+ reporting manual, https://circabc.europa.eu/ui/group/173a90fc-40bf-492d-a3a9-df99c4aa8807/library/cfc38522-bd5e-4237-af4b-37928504ee87/details.

151. The CJEU has held that these formal conditions 'are intended to limit derogations to what is strictly necessary and to enable the Commission to supervise them' ([139]). Separately, the CJEU has held that 'the applicable national legislation must specify the criteria for the derogation clearly and precisely and require the authorities responsible for their application to take them into account' ([140]). Full and accurate specifications pursuant to Article 9(2)(a)-(e) is necessary to allow the Commission to fulfil its obligation under Article 9(4) to ensure that the consequences of the derogations are not incompatible with the Directive.

152. More precisely, to comply with Article 9(2), Member States should observe the following in relation to the information required by each subparagraph:

— Article 9(2) (a) 'the species which are subject to the derogations'

Member States must issue and report derogations per species using its scientific name, and not grouped at a higher taxonomic level or vaguely defined categorisations such as 'birds', 'all species', 'crows'. For example, a derogation granted to the owner of a commercial fishpond for killing a certain number of Grey Herons (*Ardea cinerea*) and a certain number of Great Cormorants (*Phalacrocorax carbo*) should be reported as two different derogations. Exceptions may be made in certain cases where the circumstances surrounding the derogation under consideration make it difficult to have all the necessary information, for example, when the list of species to be targeted cannot be anticipated such as in the case for air traffic safety or where justified by the circumstances but nevertheless later reported accordingly.

For each species, the number of individuals targeted and actually killed, or disturbed, or the number of nests targeted and actually destroyed/damaged, should be defined and indicated in the reporting. Where it is not possible to define exact number, an estimation or a range of values should be indicated. This is sometimes done by limiting the number of permits, and/or setting national or regional quotas, which must align with Article 9 and the overarching objectives of the Birds Directive.

— Article 9(2)(b) 'the means, arrangements or methods authorised for capture or killing'

These must be reported to assess their impact on the species. Details about the methods, such as type and size, should be included.

— Article 9(2)(c) 'the conditions of risk and the location and time under which the derogation may be granted'

Derogations must be time limited and apply locally, targeting the time and place the issue is expected to occur. Such details should be defined with as much precision as practicable and necessary to determine the scope of the derogation.

— Article 9(2)(d) 'the authority empowered to declare that the required conditions obtain and to decide what means, arrangements or methods may be used, within what limits and by whom'

The competent authority which granted the derogation must be clearly identified with its full name at national, regional, or local level, as well as to whom the derogation is granted to, where appropriate.

— Article 9(2)(e) 'the controls which will be carried out'

The competent authorities must supervise and monitor their correct implementation, verify whether they achieved their objective, supported by scientific evidence, and, if necessary, take corrective measures to prevent risk or damage to the species.

([139]) Case C-118/94, *Associazione Italiana per il WWF*, paragraph 21.
([140]) Case C-557/15, *Commission v Malta*, paragraph 47.

4.4. **The role of Article 9 in ensuring the achievement of the objectives of the Birds Directive**

153. Measures taken pursuant to the provisions of the Birds Directive must contribute towards the achievement of the overarching objectives of the Directive of maintaining populations of bird species at a satisfactory level or adapting them to that level. As a result, derogations granted under Article 9 must be in line with the objectives of the Directive, namely to maintain populations of bird species at a satisfactory level, or to adapt them to that level ([141]). This is clear from Recital 9 to the Directive, which stresses the need 'to restrict all derogations to those species whose biological status so permits'. This requirement is normally ensured through the assessment of proportionality when applying the condition that there is no other satisfactory solution, as explained in section 4.3 ([142]).

154. As a result, Member States must monitor the use of derogations at national level to ensure that their cumulative impacts are compatible with the objectives of the Directive. This will allow the Member States, and subsequently the Commission, to monitor the impacts of derogations on the population levels of bird species, and, if necessary, the cross-border impacts of the derogations on transboundary bird populations. This may require regional or local authorities to assess the effects of derogations beyond their own jurisdictions, particularly where derogations are taken at flyway level and in decentralised Member States. Considering the above, and having regard to Article 9(2)(e), large-scale and local monitoring may, depending on the structure of the national system, be approached differently, but in both cases a specific overall scheme must be provided. Competent national authorities must ensure that all the conditions of the derogation scheme are met before granting a derogation, and monitor the impact of derogations after they are granted ([143]). This analysis should cover both individual derogations and their cumulative effects when assessed in combination with other derogations, where applicable. Appropriate use of the derogation system requires a procedural framework that prevents undesired effects in view of the objectives of the Birds Directive and allows competent authorities to verify that the conditions attached to the derogations are met ([144]).

155. When an agreement between Member States for damage prevention based on coordinated use of derogations at flyway level is established, there should be a need to ensure that the cumulative impact of the derogations will not impact the maintenance of the species at satisfactory level or adaptation to that level. This requires setting (1) a favourable reference value (FRV) for the population concerned and (2) a threshold higher than the FRV below greater attention should be given to the species' population. The cumulative effects of derogations must also consider other pressures that impact bird population levels and their range, such as hunting, illegal killing and invasive species. Member States must also take account of various criteria relating in particular to the situation regarding the species' reproduction and total annual mortality rate owing to natural causes ([145]).

156. Such conditions should be checked for each individual management unit of the species population, based for example on the model adopted for the Barnacle Goose ([146]) or Greylag Goose (*Anser anser*) under the AEWA.

157. One approach may be to set a maximum number of birds that might be killed or removed at flyway level during a certain period of time to ensure the population remains at a satisfactory level. This maximum level must not be a target but a ceiling which must not be exceeded collectively through application of derogations. This approach may be used either in the framework of an international management plan developed under international conventions or agreements to which the EU is a party or within a similar framework approved by all Member States concerned. The competent authorities in the Member States concerned would need to coordinate their actions to avoid exceeding that ceiling.

([141]) Case C-76/08, *Commission v Malta*, paragraph 59.
([142]) Case C-784/23, *Voore Mets and Lemeks Põlva*, paragraph 54-56.
([143]) Article 9(2)(e) provisions providing for binding control measures should be transposed into the national legal order, Case C-192/11, *Commission v Poland*, paragraphs 65 and 67.
([144]) Case C-60/05, *WWF Italia and Others*, paragraph 44.
([145]) Case C-60/05, *WWF Italia and Others*, paragraph 25.
([146]) See for example, adaptive flyway management programmes of the Barnacle Goose: https://egmp.aewa.info/sites/default/files/meeting_files/documents/AEWA_EGM_IWG_9_6_Status_RBG_AFMP.pdf.

4.5. **Article 9(3) and (4)**

158. Article 9(3) requires Member States to send a report to the Commission on the implementation of Article 9(1) and (2). Under Article 9(4), the Commission is required to use the information available to it, including that reported under Article 9(3), to ensure that the consequences of derogations are compatible with the Directive. The Commission is required to take appropriate steps to that end.

159. Article 9(4) establishes a supervisory role for the Commission to ensure that the cumulative effects of derogations granted by Member States are in line with Article 9(1) and (2) as well as the overarching conservation objectives of the Directive. Even where derogations are justified in individual cases, they must not lead to a situation where bird populations decline or fail to reach satisfactory levels, as explained above. To this end it is necessary for Member States to report their implementation of Article 9(1) and (2) to the Commission every year, pursuant to Article 9(3). The specifications required under Article 9(2) will be especially important in this context for assessing the implications a derogation would have for the species at issue.

160. Article 9(3) and (4) therefore establish a framework for monitoring the compliance of the derogations granted in the Member States with the requirements of Article 9 and with the overarching objectives of the Directive.

161. The reporting obligations ([147]) detailed in the current derogation reporting format aim to improve the efficiency of reporting on all levels of governance, including regional, national and EU levels ([148]). The new reporting format and HaBiDeS+, are currently used by the Commission and the EU Member States ([149]) with the aim to reduce the administrative burden related to reporting.

162. The Commission periodically provides feedback to Member States based on an assessment of the information in their official reports. This feedback may highlight issues of compliance in the derogations granted by a Member State and may, for example, suggest lowering the numbers of birds that can be taken or reassessing alternative solutions. The Commission can also draw to the attention of Member States issues arising from incomplete information in the derogation reports. Member States are requested to adjust their derogation system to ensure compliance with the Birds Directive, in particular to ensure its objectives are met.

163. All derogation data reported yearly by Member States is available on the website of the European Environment Agency ([150]). Three interactive data viewers facilitate access to the information submitted by the Member States with the use of filters such as by species and subspecies (such as different cormorant spp.), country, year and reason for granting the derogation. These digital tools, along with the IT reporting tool, aim to reduce the administrative burden on authorities and to provide transparent and reliable information on derogations.

([147]) The reporting obligations required under Article 9(3) are described in the 'Guide to Sustainable Hunting', Section 3.7.1 to 3.7.8.

([148]) It also covers all reporting obligations under Article 9 of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention). Under the current arrangement between the European Commission and the Bern Convention Secretariat, the European Union compiles all derogations reported by EU Member States for a given reporting period, and forwards these to the Bern Convention Secretariat.

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

([150]) See interactive data viewers at https://www.eea.europa.eu/en/topics/in-depth/nature-protection-and-restoration/species-protection-and-conservation?activeAccordion=fa9bdf76-5165-4f3a-a940-e059381a7972.

ANNEX I

Applying derogations under Article 9 of the Birds Directive in relation to the Barnacle Goose

1. Background

This annex describes the use of derogations in the context of conflicts between Barnacle Goose (*Branta leucopsis*) and human activities. As a large and abundant grazing waterbird that occurs at high densities, the species comes into conflict with agricultural activities through local crop damage and impact on – and competition for – grass. There has been a long history of managing such conflicts through a wide range of different measures, summarized below.

The legal status and populations of Barnacle geese are first discussed. This annex then presents the types of measures for Barnacle geese that require application of derogations under Article 9 of the Birds Directive, summarises the main conflicts that occur. It also presents the approach of flyway derogations in the framework of the International Single Species Management Plan (ISSMP) ([1]) for the species adopted by the Parties to the African-Eurasian Waterbirds Agreement (AEWA) in 2019.

A good deal of relevant information on Barnacle Geese, including on their range, ecology, conservation status, detail of population numbers and trends can be found in the following sources and are not duplicated here:

— the AEWA International Single Species Management Plan (ISSMP) for the Barnacle Goose; and

— web-pages related to the species linked to AEWA's European Goose Management Platform (EGMP) ([2]) which contain much relevant data and information about these populations. EGMP has task forces for both the Greenland and the Russian Barnacle Goose population.

Further information sources are provided in Section 8 below.

2. Legal protection status of the Barnacle Goose

As with all wild bird species naturally occurring in the European territory of the Member States, the Barnacle Goose is covered by the general protection system of the Birds Directive. Its deliberate capture or killing, significant disturbance particularly during the breeding and rearing period, destruction of its nests or taking of its eggs may be allowed by Member States only in accordance with the derogation system of the Directive (Article 9).

The Barnacle Goose is listed in Annex I of the Directive requiring classification of special protection areas. It is not listed in Annex II, which means that hunting in line with Article 7 is not possible. However, regulated hunting through a derogation granted under Article 9 of the Directive may serve as a legitimate management tool for preventing serious damage to crops.

The Barnacle Goose is listed in Appendix II to the Bern Convention requiring, among other things, the prohibition of deliberate killing (Article 6) (unless through a derogation under Article 9 of that Convention).

Each population has a different status under the AEWA Action Plan (Annex 3, Table 1), with protective requirements defined.

([1]) Jensen, G.H., Madsen, J., Nagy, S. & Lewis M. (compilers) 2018. AEWA International Single Species Management Plan for the Barnacle Goose (Branta leucopsis) – Russia/Germany & Netherlands population, East Greenland/Scotland & Ireland population, Svalbard/South-west Scotland population. AEWA Technical Series No. 70. Bonn, Germany. https://www.unep-aewa.org/publication/international-single-species-management-plan-barnacle-goose-russiagermany-netherlands.

([2]) https://egmp.aewa.info/.

Table 1

Legal status of Barnacle Goose populations under international agreements and the EU Birds Directive

Population	Birds Directive	Bern Convention	AEWA ([1])
East Greenland / Scotland & Ireland	Annex I	Appendix II	B1
Svalbard / south-west Scotland	Annex I	Appendix II	A3a
Russia/Germany & the Netherlands	Annex I	Appendix II	C
Established non-migratory populations	Annex I	Appendix II	Not covered

([1]) AEWA status: populations are ranked by concern: A (high risk), B (intermediate), C (favourable) as defined by Table 1 of AEWA's Action Plan.

3. **Populations and trends**

There are four biogeographical populations occurring in the EU (Table 2), of which three are historically based ([3]) and one is non–migratory. They have grown considerably in the last two decades ([4]). Three populations (East Greenland/Scotland & Ireland; Svalbard/South-west Scotland and Russia/Germany & Netherlands) are listed by the AEWA, whilst all four – including resident birds – have status in relation to Annex I of the Birds Directive and thus are subject to special conservation measures concerning their habitat at all times of the year as well as benefiting from the general requirements of Article 3.

Table 2

Biogeographical populations of the Barnacle Goose occurring in the EU

Population	Status	Range states (EU in bold)
East Greenland / Scotland & Ireland	Migratory	Br: Greenland, Iceland, UK Nbr: Iceland, **Ireland**, UK
Svalbard/South-west Scotland	Migratory	Br: Norway (Svalbard) Nbr: Norway (mainland) and UK
Russia/Germany & Netherlands	Migratory (MU1 &2)	Br: MU1 Russia, MU2 – **Finland, Sweden, Estonia, Denmark**, MU3, **Germany, Netherlands**
	Non-migratory (MU3)	Nbr: **Finland, Sweden, Latvia, Lithuania, Poland, Denmark, Germany, Netherlands, Belgium**
Established non-migratory populations ([1])	Non-migratory	**Belgium, France, Czechia**, Switzerland, UK, Norway

([1]) See *European Breeding Bird Atlas 2* for distribution and abundance in the breeding season. In the Baltic region, non-migratory birds are included as a segment (Management Unit 2 – below) of the Russian population for modelling and management purposes (see ISSMP).

Br = Breeding
Nbr = Non-breeding

([3]) Scott, D.A. & Rose, D.A. 1996. *Atlas of Anatidae populations in Africa and western Eurasia*. Wetlands International Publication No. 41. Wageningen, The Netherlands.

([4]) Feige, N., van der Jeugd, H.P., van der Graaf, A.J., Larsson, K., Leito, A. & Stahl, J. 2008. Newly established breeding sites of the Barnacle Goose *Branta leucopsis* in North-western Europe – an overview of breeding habitats and colony development. *Vogelwelt* 129: 244-252.

As a result of successful long-term conservation efforts, mainly derived from the obligations under the Birds and Habitats Directives, all four populations of the Barnacle Goose have significantly increased in numbers, and their EU population status is secure (favourable).

For the purposes of the European Goose Management Platform (EGMP – section 3.1, Appendix 1) under AEWA, three management units (MU) are recognized within the Russia/Germany & Netherlands population:

MU1: Long-distance migratory birds breeding in Arctic Russia

MU2: Baltic-breeding birds

MU3: Non-migratory birds breeding in North Sea countries

The size of the Russia/Germany and the Netherlands Barnacle Goose population has increased from 102 000 in the 1990s to about 1,6 million by January 2024. EGMP notes that 'after being stable at a level of around 1,4 million individuals, the flyway population size seems to have increased again in the past two seasons [2022 and 2023] despite reports on losses caused by outbreaks of avian influenza' ([5]).

With these population sizes, the International Union for Conservation of Nature (IUCN) lists the species' conservation status as being of Least Concern (LC). Of the three AEWA-listed populations, the Russia/Germany and the Netherlands population is currently the largest. Most recent population size estimates and trends are presented by the EGMP.

Alongside the historical rise in population numbers and given that the species occurs in high densities in European non-breeding areas ([6]), increased damage to agriculture has also been reported in recent years (although in some areas there has been a long history of such conflicts, pre-dating the Birds Directive).

4. **Nature of conflicts with Barnacle Geese in the EU**

The growth in numbers and distribution of Barnacle Geese has given rise to increasing conflicts through their international range. These include:

— conflicts with agriculture, crop damage and also in spring when there can be acute competition for early season grazing with farm animals ([7]) especially at northern latitudes and/or in migratory staging areas and wintering areas;

— potential air-strike risks in situations where sometimes very large numbers of geese fly over or near to airports ([8]); and

— impacts on other biodiversity and/or ecosystem functions ([9]).

5. **Article 9 of the Birds Directive and its application to Barnacle Goose**

The Barnacle Goose, like all naturally occurring birds in the wild state in the EU, is protected under the Birds Directive. As the species is not huntable (not listed on Annex II), derogation from the protective requirements of Article 5 is only possible if the requirements of Article 9 are fulfilled:

— there is no other satisfactory solution,

— one of the reasons listed in 9(1)(a), (b), or (c) applies, and

— the technical requirements of Article 9(2) are met.

([5]) https://egmp.aewa.info/sites/default/files/meeting_files/reports/egmp_briefing_note_2025.pdf.
([6]) See AEWA ISSMP for details: Jensen, G.H., Madsen, J., Nagy, S. & Lewis M. (compilers) 2018. *AEWA International Single Species Management Plan for the Barnacle Goose (*Branta leucopsis*) – Russia/Germany & Netherlands population, East Greenland/Scotland & Ireland population, Svalbard/South-west Scotland population*. AEWA Technical Series No. 70. Bonn, Germany.
([7]) See AEWA ISSMP for details.
([8]) Bradbeer, D.R., Rosenquist, C., Christensen, T.K. & Fox, A.D. 2017. Crowded skies: conflicts between expanding goose populations and aviation safety. *Ambio* 46(Supplement 2): S290-S300.
([9]) Buij, R., Melman, T.C.P., Loonen, M.J.J.E. & Fox, A.D. 2017. Balancing ecosystem function, services and disservices resulting from expanding goose populations. *Ambio* 46(Supplement 2): S301-S318.

This section illustrates how the three conditions for derogations are applied for Barnacle Geese and the most frequent types of derogations used.

Member States do not need to consult the Commission before applying derogations. However, as a minimal tool for coordination and as a feedback mechanism, they send the European Commission an annual report on all derogations issued under Article 9. Within the reports, the derogations are justified on the basis of the requirements of the Directive. In practical terms, this means that the use of the derogations must not lead to a situation where the Barnacle Goose population and range is reduced to such an extent as to become unviable, or is not maintained at a satisfactory level.

Condition 1: Absence of a satisfactory alternative

Article 9(1) states that Member States may derogate from the requirements of Articles 5 to 8 only 'where there is no other satisfactory solution'.

There are numerous non-lethal management measures, or tools, available to alleviate damage from Barnacle geese. These typically involve scaring geese away from potentially sensitive agricultural fields using various audible and visual deterrents ([10]). Such measures are well understood, and their use is long-standing. Other widely used methods to manage goose conflicts with agriculture include:

— the provision of financial incentives or compensation to encourage the accommodation of Barnacle and other geese on farmland and to offset profits lost; and

— strategic spatial approaches to creating refuge areas ([11]) (sometimes called 'go' and 'no go' areas) which can accommodate geese scared from surrounding sensitive farmland.

A full review of the goose management measures used by EU and non-EU range states has been compiled by the AEWA EGMP ([12]).

Regarding other satisfactory solutions, scaring and other conflict reduction approaches must be taken. If they prove inefficient, derogations for lethal control can be granted. The proportionality of different alternatives may be taken into account based on their impact on the species and the necessity of intervention needed to prevent damage. Relevant considerations would be the population levels of the species and the scale of the damage which the geese are causing, compared to the cost and feasibility of the available options.

Condition 2: Demonstrating one of the six grounds in Article 9(1)(a)-(c)

The reason most frequently cited by Member States for issuing derogations for Barnacle Geese is 'to prevent serious damage to crops, livestock, forests, fisheries and water' (Article 9.1(a)).

The general concept of 'serious damage' caused by Barnacle Geese is relative and, as such, needs to be evaluated on a case-by-case basis, where and when a conflict occurs. Heavy grazing on grassland, for example, may not be agriculturally significant in autumn, when grass is still abundant, or in mid-winter when farm animals are being fed in barns. But it may be very significant in spring when there is an agricultural need to exploit the first new, and nutritious growth of grass.

([10]) E.g. Robai, C.I., Nyaga, J.M., Karuri, H., Elmberg, J. & Månsson, J. 2024. Reducing the number of grazing geese on agricultural fields – effectiveness of different scaring techniques. *Crop Protection* 177: 106552.

([11]) There is a long history of the development of refuge areas for Barnacle and other goose species (*e.g.* Owen, M., Black, J.M., Agger, M.K. & Campbell, C.R.G. 1987. The use of the Solway Firth, Britain, by barnacle geese *Branta leucopsis* Bechst. in relation to refuge establishment and increases in numbers. *Biological Conservation* 39(1): 63-81). However, ultimately their effectiveness is limited in situations with ever-increasing numbers to be accommodated.

([12]) Tombre, I.M., Brunner, A., D'Hondt, B., Düttmann, H., Enzerink, R., Fox, A., Feige, N., Heldbjerg, H., Herraro, B., Huysentruyt, F., Kostiushyn, V., Månsson, J., McKenzie, R., Mensink, G., Meyers, E., Midtgaard, L., Nilsson, L., Nolet, B., Petrovych, O., Post, K., Scallan, D., Teräväinen, M., Uldal, C., Westebring, M. & Høj Jensen, G. 2019. An overview of the management measures for geese in Range States of the European Goose Management Platform. AEWA EGMP Publication No. 10. Bonn, Germany. 41 pp.

For a along time, experience has been gained of managing conflicts between geese and agriculture in Europe ([13]). This has shown that conflicts with agriculture have both a spatial and atemporal element where and when grazing occurs are both significant issues. Accordingly, the seriousness of the damage should be determined by reference to factors like the number of specimens present and the risk to the farmland based on factors such as the time of year and the location. The precise factors to be considered when determining the seriousness of the damage is for the Member States to decide on.

Condition 3: Technical requirements of Article 9(2)

In accordance with Article 9(2), means, arrangements and methods for capture or killing must be specified in the derogation. The competent authority is empowered to declare that the required conditions are fulfilled and to decide what means, arrangements or methods may be used, within what limits, and by whom. A variety of particular arrangements and circumstances of time and place relating to the limitations on derogations are possible. The number of birds killed, or scared (which is particularly relevant during the breeding season), should, however, be indicated and monitored through the derogation to the extent possible. Where precise numbers are not possible, ranges of individuals killed/scared under the derogation can be reported. In any event, these figures have to remain coherent with the main aim of the Bird Directive, that is the conservation of birds.

For derogations under Article 9(1)(c) it is also important to note the specific conditions referred to that point. This requires specific conservation measures to be developed in order to avoid adverse effects on other threatened species, especially within special protection areas. Since Article 9(2)(e) requires a description of the controls which will be carried out, large-scale control and local control have probably to be considered differently. But in both cases a specific scheme has to be provided.

6. **Case studies**

6.1. *Population-focussed management and AEWA*

In 2019, parties to the AEWA adopted an International Single Species Management Plan (ISSMP), and subsequently have taken forward the development of the EGMP which provides a structured and international means of sharing best practice in relation to conservation of this, and other, goose species especially regarding the management of conflicts.

The basis of the approach promoted by the EGMP is close co-operation between Range States, noting both the migratory nature of many goose populations and the benefit from sharing both specific and strategic solutions to common problems. For Barnacle Goose, it provides an international forum for the co-ordination of the actions outlined in the adopted ISSMP, including approaches to derogations.

The European Goose Management International Working Group (IWG) has made management recommendations on the benefits of co-ordination of derogations. The process has established favourable reference values, or FRVs, for population size, range and extent of habitat. The EGMP process assesses annually the most recent international data on numbers, survival and productivity for each population and reports on these. A safety threshold of 200 % (i.e. double) the favourable reference population (FRP) has been set for each of the four populations.

Every three years, the EGMP assess whether the population size and its management units are below a 200 % threshold and approaching the favourable reference population (100 %).

The latest information on the population status and management recommendations is presented in the briefing note from the 10th Meeting of the European Goose Management International Working Group that took place in 2025 ([14]).

The latest population trends for the three Management Units (MUs) of the Russia/Germany & Netherlands population are given in Figure 2.

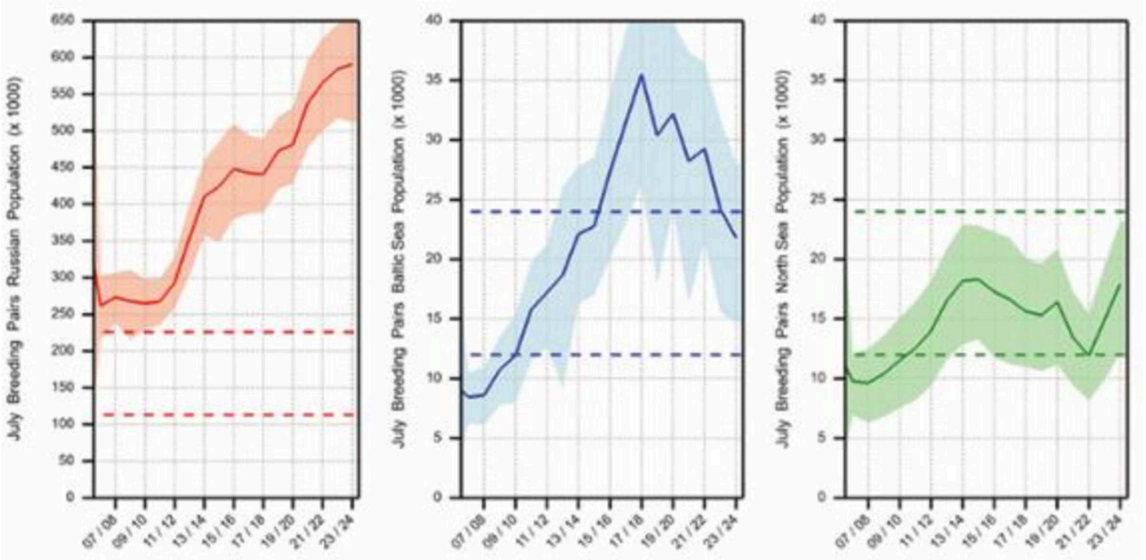
([13]) Roomen, M. van & Madsen, J. 1992. *Waterfowl and agriculture: review and future perspective of crop damage in Europe*. Proceedings of the international workshop convened by the Ministry of Agriculture, Nature Management and Fisheries and IWRB. *IWRB Special Publication* 21. Slimbridge, UK.

([14]) https://egmp.aewa.info/sites/default/files/meeting_files/reports/egmp_briefing_note_2025.pdf.

Figure 2

Trends for three management units (MU) of the Russia/Germany & Netherlands Barnacle Goose population: left (red) MU1; centre (blue) MU2; right (green) MU3 [15]

Lower dotted line in each graph is the FRP, upper dotted line is the safety threshold of 200 % FRP. Trends are Integrated Population Model-based means (solid colour line) with 95 % confidence intervals for the number of breeding pairs in July for each MU.



According to the information in the briefing note '...numbers in the Russian Management Unit 1 (MU1) are well above the FRP and the 200 % FRP threshold level.

In contrast, the Baltic Management Unit 2 (MU2) has seen a decline, with population size falling below the 200 % FRP threshold in 2024. This development triggered the need for coordinated management of offtake if significant levels of derogation are expected to impact the local breeding populations in Denmark, Finland, or Sweden.

In the North Sea MU3, the number of breeding pairs has increased recently and is now above the FRP. However, numbers are still below the 200 % threshold, thus requiring coordinated management of derogation between Germany and the Netherlands.'

When the population level is much above 200 %, as is the case for MU1 coordination of the level of offtake via derogations between MS concerned is not required. Coordination of offtake becomes needed if the level of the population is below the 200 % threshold and approaching the FRP. This is the case for MU2 and MU3. Their population levels have triggered the need for coordinated management of offtake if significant application of derogations is expected to impact the local breeding populations.

In the North Sea MU3, the number of breeding pairs has increased recently and is now above the FRP. However, numbers are still below the 200 % threshold, thus requiring coordinated management of derogations between Germany and the Netherlands. The Netherlands and Germany agreed that if significant derogations were planned in Germany, coordination would take place between the two countries [16]. Otherwise, coordination should primarily take place within the Netherlands, where the national favourable reference population (FRP) has now been distributed across the provinces and a coordinated process is being implemented by the regional Wildlife Councils. In response to population levels approaching the provincial FRP levels, suspension or significant reduction of derogations has already taken place in some provinces in the Netherlands. Guided by the decision of the EGM IWG9, the Netherlands and Germany have submitted a report on the coordination of the offtake in the two countries.

[15] Population status and management recommendations EGM IWG10 – https://egmp.aewa.info/sites/default/files/meeting_files/reports/egmp_briefing_note_2025.pdf.
[16] https://egmp.aewa.info/sites/default/files/meeting_files/documents/AEWA_EGM_IWG_10_14_Rev.1.pdf.

6.2. *Experience and solutions in Finland*

Approximately 800 000 or more Russian-breeding Barnacle Geese (of the AEWA Management Unit 1) stop over and feed on the fields of North Karelia and south-east Finland in spring and autumn. Each year damage can occur on more than 10 000 hectares of farmland in these areas.

Although Finland spends EUR 500 000 on preventing damage caused by geese in spring, including hiring goose herders, yet the damages amount to EUR 3-4 million.

Finland has tested sirens, gas balloons, falcon kites, human figures, exploding gas cannons, laser cannons, handheld lasers, goose herders, and drones. However, according to Finland none of these trials have produced lasting results that would significantly reduce crop damage. Several national Court decisions have outlined legal limitations to the use of some of these methods in spring, especially in regard to their potential impacts on other breeding bird species. The general breeding and nesting period for birds in Finland occurs between April and July.

Regarding autumn derogation permits, in 2023 the Administrative Court of Eastern Finland stated that the use of blank cartridges can be considered a satisfactory alternative to lethal shooting for preventing serious damage caused by Barnacle Geese to crops. Subsequently, a study ([17]) concluded that blank cartridges and lethal shooting are equally effective deterrent methods, although in some cases, lethal shooting has a stronger effect.

More recently, Finland has explored a more cooperative approach through 'accommodation fields' where geese are tolerated, combined with 'no-go' fields where they are actively repelled. It was found that geese show individual selection for accommodation fields compared to normal or repelling fields across several scales. The establishment of functional accommodation field for geese needs careful planning, knowledge on the behaviour of geese and information on the history of agricultural damage and recognition that conservation status of the area alone does not guarantee success.

It was also found that functional and attractive accommodation fields most likely work better in areas that have a long history of goose preference and agricultural damage. These early results suggest that this zoning system, developed with local farmers, can reduce conflicts by concentrating geese on selected areas while protecting crops elsewhere. This Finnish case points to the potential of locally co-designed approaches to better balance conservation and farming interests.

However, longstanding experience in Finland has shown that preventing serious damage to the crops may also require additional measures involving preventive hunting. In the absence of alternative solutions, preventive hunting would be justified for avoiding serious crop damage if Article 9 conditions are met.

6.3. *Management of Dutch resident Barnacle Geese* ([18])

In the Netherlands, Barnacle Geese became established as a breeding species in 1982. By 2012 the national population (part of AEWA Management Unit 3 – see above) had grown to an estimated 13 800 breeding pairs, increasing agricultural conflict. The Northern Delta area is traditionally the stronghold of the Dutch population with about half of the birds residing there.

The amount of damage to agricultural crops and grasslands caused by Barnacle Geese has increased in the Northern Delta area. Compensation to farmers for crops assessed as having been damaged by geese is provided by the Dutch 'Fauna Fund' (previously Game Fund), which compensate arable crops yield losses, the first cut of grass for silage, competition with livestock grazing and the effects of puddling during wet weather. The compensation is paid only after farmers have tried to scare geese from their land.

([17]) Seltmann, M.W., Ylitalo, A.K., Piironen, A., Store, R., Heikkinen, J., Heim, W., Piha, M., Seimola, T., Laaksonen, T. & Forsman, J.T. 2025. Arctic migrating barnacle geese utilize accommodation fields in a new agricultural staging area. *Journal of Applied Ecology* 62(2):317-328.

([18]) van der Jeugd, H.P. & Kwak, A. 2017. Management of a Dutch resident barnacle goose *Branta leucopsis* population: How can results from counts, ringing and hunting bag statistics be reconciled? *Ambio* 46(Supplement 2): 251-261.

Since 2005, derogation shooting of Barnacle Geese in the Delta area has been permitted under licence as a measure of last resort to scare geese from sensitive crops and to reduce the local population size. The number of birds shot Northern Delta area under a derogation increased from 377 in 2005, to 5 324 in 2014.

The impact of derogation shooting has been monitored by summer counts of birds and nests, and assessment of survival rates measured by ringing and re-sighting. The population size has almost doubled to around 28 000 individuals during the period between 2007 and 2014, despite annual removal of 15-25 % of geese and adult and juvenile survival rates of 79 % and 67 % (c.f. natural survival of 96 % for both age classes).

Shooting may be less effective because of the disproportionate take of immature post-breeding and of individuals from other populations in winter. Immature geese have a higher natural mortality, especially in their first winter, so many that are shot would likely have died naturally anyway. Further, killing visiting geese from other populations is ineffective if the aim is to control local birds causing damage.

In order to achieve optimum adaptive management, stakeholder involvement is critical.

7. **Reporting on derogations**

Transparent reporting on derogations and coordinated offtake is vital to build trust among stakeholders and ensure compliance with international agreements. The Commission has thus developed online derogations data viewers ([19]). They present detailed information on the annual derogations submitted by Member States, as well as statistics on the completeness of those reports:

— Overview of derogations and exceptions to species protection across the EU;

— Individual derogations and detailed information about them; and

— Data completeness of national reports on derogations and exceptions.

8. **Further information**

Much information on the protective measures provided by the Birds Directive is available on the Commission's webpage: https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive_en.

Other sources of useful information include:

— International Single Species Management Plan for the Barnacle Goose (Russia/Germany & Netherlands Population East Greenland/Scotland & Ireland Population Svalbard/South-west Scotland Population) adopted by AEWA MoP 7;

— European Goose Management Platform – contains a full archive of papers related to international discussions and decisions on the adaptive flyway management programmes (AFMPs) for the three populations of Barnacle Goose (see Appendix 1 below). It also contains a long list of relevant peer-reviewed publications here; and

— Goose management: from local to flyway scale – A special issue of the journal *Ambio* containing a large number of papers on goose management conflicts and solutions.

([19]) Derogations and exceptions table dashboard | European Environment Agency.

ANNEX II

Applying derogations under Article 9 of the Birds Directive in relation to the Great Cormorant

1. **Background**

Three species of the cormorant family *Phalacrocoracidae* are present in the EU: the European Shag (*Gulosus aristotelis*, formerly *Phalacrocorax aristotelis*), the Pygmy Cormorant (*Microcarbo pygmaeus*, formerly *Phalacrocorax pygmaeus*), and the Great Cormorant (*Phalacrocorax carbo*). The first two species are both listed in Annex I of the Birds Directive in view of their unfavourable conservation status. The Great Cormorant – often simply referred to as the cormorant – is more widespread and since 1997 has is no longer been included in Annex I to the Birds Directive ([1]), which means that there is no obligation to classify special protection areas for this species.

Like all wild bird species naturally occurring in the European territory of the Member States, the Great Cormorant (*Phalacrocorax carbo*) is covered by the general protection regime provided by Articles 5, 6 and 8 of the Birds Directive. In recent decades, as the result of the combined effect of the protective measures of the Birds Directive, the expansion of aquaculture, and other factors, the Great Cormorant numbers have increased in Europe ([2]). As a gregarious species that nests in colonies close to its main food sources, the Great Cormorant started causing conflicts with both commercial and recreational fisheries as well as aquaculture, due to impacts on, and competition for fish, but also may negatively affect fish species of particular conservation concern and create conflicts with other commercial or recreational use of water bodies.

In order to support Member States to address the conflicts between the Great Cormorant and fisheries, the Commission has taken a number of initiatives:

— In 2011, at the request of the European Parliament, the Commission launched an EU Cormorant Platform based predominantly on the earlier (2004-2008) EU-funded INTERCAFE project which worked closely with key stakeholders to study in detail the different conflicts caused by the Great Cormorant. The INTERCAFE research network produced a series of reports on cormorant-fisheries conflicts supported by broad habitat/fishery case studies. The case studies included a cormorant management 'toolbox' to help prevent and reduce cormorant problems in European fisheries, which can be used by the authorities and stakeholders. All the documents are available at: https://www.ceh.ac.uk/our-science/projects/intercafe-information.

— The EU Cormorant Platform produced a series of summary documents on the Great Cormorant's distribution, range, ecology, population status and trends, and its interactions with fish, fisheries and aquaculture and on the management of cormorant/fishery conflicts. The documents were updated in 2024 and are available on the Commission's webpage on the Birds Directive ([3]). While certain elements are briefly summarised below, the documents on the webpage represent exhaustive resources which can be used for addressing the conflicts.

— In 2013 the Commission published a guidance document entitled *Great cormorant – applying derogations under Article 9 of the Birds Directive* ([4]), based on all the information collected and experience gains and on the rulings of the Court of Justice of the European Union on the application of Article 9 of the Birds Directive.

This annex replaces and updates the previous guidance published in 2013 and forms part of the guidance on the general system for the protection of bird species under the Birds Directive. It specifically addresses the use of derogations to resolve conflicts between the Great Cormorant and human activities. It provides a brief overview of the population numbers and trends of the species, its legal status and the nature of conflicts involved, as well as possible solutions. It then outlines the steps for applying the derogation provisions under Article 9 of the Birds Directive.

([1]) Commission Directive 97/49/EC of 29 July 1997 amending Council Directive 79/409/EEC on the conservation of birds (OJ L 223, 13.8.1997, p. 9, ELI: http://data.europa.eu/eli/dir/1997/49/oj).

([2]) https://circabc.europa.eu/ui/group/e21159fc-a026-4045-a47f-9ff1a319e1c5/library/b32b1896-aa4b-492b-af20-28f43cfe5bd4/details.

([3]) https://environment.ec.europa.eu/topics/nature-and-biodiversity/birds-directive_en.

([4]) European Commission: Directorate-General for Environment and N2K Group EEIG, *Great cormorant – Applying derogations under article 9 of the birds directive 2009/147/EC*, Publications Office, 2013, https://data.europa.eu/doi/10.2779/56719.

2. **The Great Cormorant in the EU**

In Europe, two subspecies of the Great Cormorant have been described. *Phalacrocorax carbo carbo* (the Atlantic subspecies) lives along the Atlantic coast and breeds almost exclusively on the rocky coasts of Iceland, Norway, the UK, Ireland and western France. In recent years, increasing numbers of birds have moved inland to overwinter and feed in freshwater habitats and are spending longer periods of time there before returning to breed on the coast.

Phalacrocorax carbo sinensis (the Continental subspecies) occurs from western Europe across the whole of Asia to China and India. It has always utilised both inland and coastal sites to breed and feed. It can be found in a wide range of different wetland habitats from coastal wetlands, inland lakes and large lowland river systems to fishponds and farms, man-made gravel pits and open reservoirs.

There has been a substantial increase in numbers of the *P. carbo sinensis* subspecies over the past few decades while the *P. carbo carbo* population has grown more modestly (and even declined in some places).

The increasing time spent inland by some Atlantic subspecies and the increase of the Continental subspecies has meant that more birds of both subspecies now occur at inland sites. At these sites the two species have often come into contact with each other, resulting sometimes in interbreeding.

Cormorants have complex migration patterns. Unlike many other migratory birds, they do not all migrate at the same time or to the same areas. Their migration habits depend to some extent on the geographical position of the breeding colony. Many birds from northern countries and central Europe migrate south in the winter. However, distances vary greatly among individuals from the same colony and also depend on the severity of the winter. While some birds migrate only 100 kilometers south, others fly across the Mediterranean Sea to the coast of North Africa.

According to the most recent pan-European count of breeding colonies in Europe in 2012, coordinated by the IUCN/Wetlands International Cormorant Research Group and funded under the EU CORMAN project ([5]), the breeding population of the Continental subspecies *P. carbo sinensis* in the western Palaearctic (covering Europe west of the Urals, parts of the Middle East and North Africa) was estimated to be 370 000 breeding pairs. Of those, however, only 214 800 breeding pairs occurred in the EU 28 ([6]) (the majority breeding in countries bordering the Baltic Sea), with most of the rest breeding in Russia and Ukraine. There were also 16 000 breeding pairs of the Atlantic subspecies *P. carbo carbo* (in just three EU 28 Member States: France, Ireland and the UK).

According to the reports under Article 12 of the Birds Directive (for the 2013-2018 period) ([7]), the breeding population of the *P. carbo sinensis* subspecies for the EU 28 was estimated to be between 220 000 to 272 000 breeding pairs. The subspecies is considered to have a stable or positive short and long-term trend in most of the Member States where it breeds.

The increase in *P. carbo sinensis* numbers is probably due to a combination of factors, including their legal protection from past persecution, the protection of their key breeding sites, a reduction in the use of dichlorodiphenyltrichloroethane (DDT) and other bio-accumulating pesticides, milder winters and easier access to feeding habitats ([8]).

The breeding population of the *P. carbo carbo* subspecies in the EU-28, was estimated at 13 910 breeding pairs, with a negative short-term trend in France and the UK and a positive short-term trend in Ireland. The most recent (2015-2021) major international census of UK and Irish seabirds reported a maximum total of 13 330 breeding pairs indicating a small increase in both countries.

The Member States are currently submitting their new Article 12 reports for the period 2019-2024. According to the preliminary assessment of the data submitted, the breeding population of the *P. carbo sinensis* is estimated to be between 287 000 and 323 000 pairs.

([5]) http://cormorants.freehostia.com.
([6]) Prior to the exit of the United Kingdom from the European Union.
([7]) European Commission (2020) Article 12 Web Tool (2013-2018): Population status and trends at the EU and Member State levels [online]. https://nature-art12.eionet.europa.eu/article12/.
([8]) Christof Herrmann, Thomas Bregnballe, Kjell Larsson, Meelis Leivits, Pekka Rusanen, 'Population development of Baltic Bird Species: Great Cormorant (*Phalacrocorax carbo sinensis*)' (2018).

3. Legal protection status of the Great Cormorant

The Great Cormorant is covered by the general system of protection under the Birds Directive (Article 5). The deliberate capture and killing of Great Cormorants, significant disturbance particularly during the reproduction period, destruction of their nests or taking of their eggs, are prohibited and may be permitted by Member States only in accordance with the derogation system set out in Article 9 of the Directive. The Great Cormorant is not listed in Annex I (species subject to special protection measures) or Annex II (species that may be hunted) to the Directive.

With regard to international agreements, the Great Cormorant is listed in Appendix III – Protected fauna species to the Bern Convention. As such, it is not a strictly protected species, which allows for its exploitation to be regulated. The species is also covered by the African-Eurasian Migratory Waterbird Agreement (AEWA). It is included in Column C, Category 1 of Table 1 of Annex 3 of the Agreement, which means it has a population numbering more than around 100 000 individuals and thus could significantly benefit from international cooperation.

4. Article 9 of the Birds Directive and its application to the Great Cormorant

The Great Cormorant, as all naturally occurring birds in the wild state in the EU, the is protected under the Birds Directive, and its protection is governed by Articles 5, 6 and 8. Article 9 allows Member States to derogate (i.e. depart) from the prohibitions in Article 5 if three conditions are fulfilled:

— there is no other satisfactory solution,

— one of the reasons listed in 9(1)(a), (b), or (c) applies, and

— the technical requirements of Article 9(2) are met.

Member States do not need to consult the Commission before applying derogations. However, as a minimal tool for coordination and as a feedback mechanism, they send the European Commission an annual report on all derogations issued under Article 9. Within the reports, the derogations are justified on the basis of the requirements of the Directive. In practical terms, this means that the use of derogations must not lead to a situation where the Great Cormorant population and range is reduced to such an extent as to become unviable, or is not maintained at a satisfactory level.

Member States are making full use of the derogation provisions to address the conflicts between cormorants and fisheries. There are significant differences in the way this is done, both in terms of methods and sites where derogations are applied as way of conflict management. Some Member States are using the derogations extensively, including measures applied in breeding colonies, while other Member States do not use derogations ([9]).

Most derogations are approved to allow deliberate killing or capture by any method (prohibited under Article 5(a)). Cormorants are usually shot as an aid to scaring in order to reinforce other deterrents, to temporarily reduce the number of individual birds feeding at a particular site and to adjust their population levels in line with the requirements of Article 9. There are, however, problems with killing birds in practice because dead birds are very often replaced by others. This is particularly true at sites on cormorant migration routes especially in the autumn and winter. It may also be the case at other times of the year if cormorants are moving freely between locations.

Derogations are also widely used to allow deliberate destruction of, or damage to, their nests and eggs or removal of their nests (prohibited under Article 5(b)). Destruction of nests or eggs can reduce birds' breeding output so that there should be fewer fledged birds at the end of the breeding season, fewer older birds to visit fisheries in winter, and, subsequently, fewer adult birds to breed. Cormorants are, however, flexible in their breeding behaviour and their populations are quite resilient to mortality. For example, it is possible for cormorants to rebuild their nests and relay clutches of eggs.

This section illustrates how the three conditions for derogations may be applied in the case of the Great Cormorant. It shows the extent and most frequent types of derogations used by Member States.

([9]) https://www.eea.europa.eu/en/analysis/maps-and-charts/overview-of-derogations-and-exceptions-dashboards.

Condition 1: Absence of a satisfactory alternative

Article 9(1) states that Member States may derogate from the requirements of Articles 5 to 8 only 'where there is no other satisfactory solution'. This means that a measure being considered cannot rely on the Article 9 derogation grounds where its claimed objective could be addressed in another 'satisfactory' way which is either (a) lawful under the Birds Directive (even if it may require its own derogation) or (b) less harmful in view of the prohibitions in Article 5 and the objectives of the Directive.

There are numerous alternative solutions, or tools, available to prevent, or reduce the conflict between the Great Cormorant and fisheries and fish species at local level. These methods which avoid the need for derogations should be preferred unless the solution can be ruled out on the basis of previous experience or implementation would be disproportionate to the conservation benefits that it would yield. The search for alternatives should therefore be limited to those reasonably expected to be effective in a given situation, based on best available scientific knowledge.

Some examples of the preventive measures:

— **Scaring cormorants away** from a fishery. The approach relies on scaring cormorants sufficiently by means of auditory or visual deterrents so that they move to another foraging site. The effectiveness of scaring techniques relies on the deterrents being sufficiently frightening to make the cormorants move elsewhere and the availability of a 'better' alternative site for them to move to. The main drawback is that the cormorants eventually (and often quite quickly) realise that there is no real threat, become habituated to the noises, sights or smells and start ignoring them. However, there is good evidence that birds are consistently scared by human presence if they perceive that humans are associated with danger. Scaring methods are most efficient on small water bodies, meaning that they may not be sufficiently effective or proportionate as a preventive measure for larger ones. Equally, the scaring effect of non-lethal measures can be reinforced by combining them with limited lethal control for which derogations must be obtained.

— **Protecting fish using exclusion devices** to prevent cormorants from accessing them. These techniques rely on nets and overhead wires to keep cormorants away from fish. They work best when the fish are concentrated in relatively small areas. The techniques are ideal for land-based ponds or raceway fish farms where netting enclosures can be fixed permanently. At other sites, such as fish farm cages in open bodies of water, anti-predator netting can be hung in curtains or as complete enclosures underwater to prevent diving birds from reaching fish stock in the mesh bag of the cage. At such sites, it may be possible to take advantage of the fact that cormorants generally require quite long distances for take-off and landing. By positioning wires, ropes or mesh barriers across waters it may be possible to make it difficult, or even impossible, for cormorants to land on, or take off from, the water's surface. In larger water bodies, complete exclusion is more difficult and may well be impractical.

— **Fish stock management techniques** to reduce the availability of fish to cormorants. These tools rely on the fact that cormorants need to make choices when selecting where to feed. They have to balance a number of issues if they are to meet their daily food requirements. These will include whether the bird is losing or gaining weight (the body state of the bird); environmental conditions (more food/energy is required during colder/wetter periods); the stage in the annual cycle (migration periods, breeding season, over-wintering); the brood size and its age, and the distances between roosts or colonies and the feeding sites. The choice of the foraging site is also dependent on the availability, number, and quality of suitable potential feeding sites. A high-quality foraging site will be a site that offers risk-free, undisturbed access and feeding, with good supplies of relatively easy-to-catch fish. Fish stock management techniques aim to alter the quality of the foraging opportunities available to cormorants by trying to make fish less easy to catch. The basic principle is that if fish are difficult to catch, then the birds may choose to feed on other waters where it is easier to fish. For example, where fishery managers have control over fish stocking regimes, there are several options that might reduce fish losses and make sites less attractive to foraging cormorants. Some examples of measure are:

  — *Delaying fish stocking during peak cormorant presence*

    This measure can be effective where cormorant numbers show clear seasonal peaks (e.g. wintering or migration periods). By reducing fish availability when cormorant pressure is highest, fish farms and stocking sites become less attractive feeding areas. Evidence from several Member States shows that cormorants may shift to alternative sites when foraging efficiency declines. However, this approach requires flexibility in stocking schedules and may not be feasible for all fisheries.

— *Stocking fish at frequent intervals and multiple locations*

Dispersed and staggered stocking reduces the predictability and profitability of feeding opportunities for cormorants. Releasing smaller quantities of fish at several sites lowers local prey density, which in turn reduces the incentive for cormorants to aggregate. This measure is widely regarded as good practice in extensive fisheries and rivers, especially when combined with habitat complexity that limits fish visibility.

— *Stocking larger fish less vulnerable to predation*

Cormorants preferentially target smaller, more easily captured fish. Stocking larger size classes may significantly reduce immediate predation losses, particularly in still waters and fishponds. While this may increase stocking costs, it is often considered cost-effective in the long term where predation pressure is high.

— **Habitat modification techniques** to reduce the availability of fish to cormorants such as removal of potential perches and roost structures near sensitive waters (e.g. dead trees or artificial structures) to discourage cormorants from staying close to fish stocks or creating fish refuges by installing submerged structures, vegetation, or artificial refuges where fish can hide reduces cormorants' foraging efficiency and helps fish avoid predation. Increasing habitat complexity (e.g. enhanced spawning areas, deeper margins) also provides fish with more places to escape from cormorants. These tools are an extension of the fish stock management techniques described above. They aim to make sites less attractive to cormorants for roosting, nesting, or feeding. Although they will never stop cormorants from roosting, breeding or feeding altogether, at a site-specific level they may reduce or eliminate cormorant presence and prevent birds colonizing the area. Preventing cormorants to setting up a roost site may stop them from being attracted to an area by the presence of other birds or may prevent subsequent attempts at breeding.

— **Financial incentives** to encourage the accommodation of cormorants on waterbodies or compensation to offset economic losses (see Case Study 1).

However, if after the implementation of preventive measures there is still a contradiction with the provisions of Article 5 of the Birds Directive, such as combination of non-lethal and lethal methods, application of derogation would be needed.

Condition 2: The reason for the derogation

Based on the derogation report that Member States submit every year to the European Commission, the most frequently cited reasons by Member States for issuing derogations for the Great Cormorant are to prevent serious damage to fisheries (including aquaculture), forests, and water and to protect the flora and fauna (Article 9(1)(a)).

(a) Derogations to prevent serious damage to fisheries

The rise in the Great Cormorant numbers has resulted in an increase in reported conflicts with fisheries and aquaculture, mainly because many of the water bodies where cormorants tend to feed are also sites of direct interest to people – for example, commercial fisheries, fish farms (extensive and intensive) as well as recreational angling (in natural, semi-natural or artificial aquatic habitats). Fisheries occur in freshwaters (including fishpond systems and natural lakes), brackish water (coastal wetlands), and marine areas (coastal areas). However, cormorant predation is often just one of the many stressors currently impacting fish stocks in those areas.

The Birds Directive does not distinguish between different categories of fishery, e.g. commercial or recreational. However, in the present context, the concept of 'fisheries' covers:

— the industry of catching, processing, and selling fish or the place where this is done,

— a place where fish are reared to be sold (aquaculture),

— recreational fisheries.

The concept of recreational fisheries in particular corresponds not only to leisure fishing grounds but also to angling clubs, commercial put and take.

Conflicts between cormorants and commercial fishing are also very complex and dynamic. The timing and extent of such conflicts varies enormously since there are large variations in the numbers and distribution of cormorants across Europe, with birds undertaking broad-scale seasonal movements between breeding and wintering areas. Conflicts thus occur at different times of the year, in different places and on different geographical scales and can involve breeding, wintering, or migrating birds.

Moreover, in addition to the cormorant's complex movement patterns, conflicts will also be influenced by equally complex fish population dynamics (e.g. density-dependent mortality) and seasonal and annual variations in external factors, such as weather conditions (particularly winter severity) and effects of water pollution but also availability of compensatory mechanisms.

This inherent complexity means that each situation is different, and assessing conflicts requires a case-by-case approach taking account of the full range of factors, and that conflict management should be adaptive. The timing of management actions within the year also plays a critical role in determining how effective they are.

It should be highlighted that for a Member State to be able to issue a derogation, it is necessary to determine whether or not the likely damage is considered 'serious'. The aim of this provision of the Directive is not to prevent the threat of minor damage. For the damage to be considered 'serious', it must be expected to have a substantial economic impact on fisheries and/or on fisheries-related recreational interests.

Types of damage

Damage to fisheries might lead to a direct or indirect economic loss, or loss of property value, or to the loss of production material. It could also generate additional costs (e.g. to replace damaged equipment and re-stock the fisheries). In the case of recreational fishing interests, it could lead to economic losses and not just adversely affect recreational interest per se unless this has economic consequences (e.g. reduced sales of fishing licences).

Predictability and risk

If damage has **not** yet occurred, past experience should be used to predict whether there is a high probability of the occurrence of damage. Additionally, the situation should concern serious damage to an economic interest that goes beyond mere nuisance or normal business risk.

Evidence

It follows from the above that the damage to assets (that has either already occurred or is expected to happen) must be factually demonstrated. Given the difficulties of quantifying fish stock size and that predation by cormorants can rapidly deplete a fish stock (which can prevent detailed studies from being carried out before action is taken), it may be necessary to take a quick and pragmatic approach to determining whether damage is serious, for example through an evaluation by independent experts using all available evidence and scientific knowledge. However, when an expert opinion is used to justify a derogation, such expertise still requires a scientifically based justification to support its conclusion, as well as ascertaining that the experts have no conflicts of interest. The economic damage is often based on multiplying an estimated daily number of birds present on fishponds with average daily quantity of fish eaten per bird. Where relevant, for example where not already obvious based on occurrences in the area, there should be monitoring by ornithologists or other qualified wildlife experts to estimate daily numbers. The cost of spreading diseases, the human effort and the costs of ammunition for guns used to deter birds from the fishpond should not be accounted.

Prevention

It should be recalled that derogations issued under Article 9(1)(a) of the Birds Directive are intended to prevent serious damage, meaning that there is no requirement to wait for damage to be incurred, or to demonstrate damage. Nevertheless, it will be necessary to show that damage is likely to be incurred. There must be a likelihood that damage will both occur in a particular location and be sufficiently serious. Previous instances of damage can be used to show that there is a likelihood that serious damage will occur again, or, in the absence of previous instances, it will be sufficient to show that there is a high probability of serious damage.

Where the damage has little or no economic impact, whether direct or indirect, derogations relating to damage to fisheries may still be possible for 'the protection of fauna and flora' (see Box 1 below). The measure of damage may thus also relate to the ecological importance of the species being affected (e.g. a rare or threatened species) as much as to any impact on fisheries.

Box 1: Practical assessment of whether damage is 'serious'

Although cormorant biology and ecology have been the subject of considerable scientific research, practically understanding the interactions between cormorants and fish and fisheries remains complex. Losses may be quantified at fish farm sites, but reliable assessments are typically much more difficult for more extensive fisheries and in other water bodies.

Some studies have demonstrated that cormorants can have significant negative impacts on fish stocks and fisheries – resulting in reductions in fish abundance and biomass. However, other investigations have also indicated that the mere presence of cormorants at a site does not necessarily mean that serious damage is occurring.

Moreover, it is not possible to provide any fixed, standardised thresholds in terms of population numbers, or proportions or rates of fish stock removed that could serve as a benchmark for assessing the occurrence of 'serious damage'.

Nevertheless, an objective assessment based on facts regarding the cormorant's actual presence and potential impacts, taking into account other factors influencing fish stocks, is always necessary to justify derogations.

More detailed information on evidence of damage is available in the document 'Interactions between cormorants, fish and fisheries' which also provides links to case studies on conflict fishery conflicts for different fishery sectors and aquatic habitat: https://circabc.europa.eu/ui/group/e21159fc-a026-4045-a47f-9ff1a319e1c5/library/ab7d8f27-fb1c-4117-8f66-36246abad59c/details

(b) Derogations to prevent serious damage to forests

Damage to vegetation and trees generally occurs when there is a large colony or a permanent large roost of cormorants which leads to the accumulation of acid guano. The same concept of 'serious damage' applies as explained above in the section on the prevention of serious damage to fisheries. For instance, the seriousness of the damage can be demonstrated when the use of trees for commercial purposes is threatened. However, the size of the affected area should also be taken into consideration when determining the seriousness of the damage.

Where damage has no economic impact, whether direct (wood cannot be sold) or indirect (affects aesthetics of the forest and thus reduces tourism), derogations relating to damage to forests and vegetation may still be possible for 'the protection of fauna and flora' (see below).

(c) Derogations to prevent serious damage to water

This reason for derogation should be used only when cormorants cause serious damage to commercial purpose of the water body other than fishing. For example, this could be the case in certain areas used for leisure activities, for example, which may be economically affected by serious damage caused by cormorants, e.g. serious loss in quality of the water body or in its viability for tourism due to cormorant guano pollution. If the subject of the derogation is related to angling activities it should be reported as 'damage to fisheries', and not as 'damage to water'.

The same concept of 'serious damage' applies as described above in the section on the prevention of serious damage to fisheries. For instance, tourists attracted to the natural beauty of waterfront areas may cease to find the areas as attractive once cormorants take up residence, also because of the strong odour coming from the roosts. On a local scale, decreasing property values and reduced tourism and recreation may cause economic losses for area residents and businesses that rely on income from tourism.

If the concentration of cormorants could affect the quality of drinking water in certain reservoirs, Article 9(1)(a) first indent (in the interests of public health and safety) should be used as the reason for the derogation.

(d) Derogations for the protection of flora and fauna

The fourth reason for derogations undertaken under subsection (a) of Art 9(1), concerns the protection of flora and fauna. The case for using the derogation is likely to be strongest where it is linked to the maintenance of populations of species that are rare or threatened, but it is not limited to such species.

There are, for instance, reported incidents of cormorant predation on stocks of European eel (*Anguilla Anguilla)*, salmon smolt (*Salmo salar)*, marble trout (*Salmo marmoratus)*, grayling (*Thymallus thymallus)* (see Box 2 below), as well as other fish species that are protected (at EU or national level). Each case should be considered thoroughly and decided on the basis of advice from the competent authorities. Decisions should be based on best available scientific information on the long-term impact on the affected population(s).

Box 2: 'ProtectFish' research project

In 2024, a new EU-funded project under the Programme 'Horizon Europe Research & Innovation', ProtectFish, was launched to analyse the Great Cormorant population and its impact on populations of river fish species listed under the Habitats Directive. The project, which has a particular focus on river grayling populations, will carry out various types of field experiments, review existing results and organise consultations/workshops/interviews to evaluate and consolidate existing knowledge regarding of the role of predation on protected river fish.

The role of predation and predation control will be measured in river stretches patrolled by hundreds of volunteers. In shorter river segments, the effect of physical structures such as nets and natural structures on fish survival will be studied. Electro-fishing data will be used in combination with wildlife cameras to monitor and count predators and prey to assess the impact of predation on EU-protected fish.

The Consortium carrying out the project consists of universities, research institutes and organisations from Austria, Belgium, Czechia, Denmark, Germany, Italy, Poland, and Sweden. It is coordinated by the Danish Technical University.

More information available here: https://protectfish.eu/

Condition 3: Technical requirements of Article 9(2)

In accordance with Article 9(2), means, arrangements and methods for capture or killing must be specified in the derogation. The competent authority is empowered to declare that the required conditions are fulfilled and to decide what means, arrangements or methods may be used, within what limits, and by whom. A variety of particular arrangements and circumstances of time and place related to the limitations on derogations are therefore possible. Nevertheless, the number of birds that would be killed, or scared (which is a situation particularly relevant during the breeding season), should be indicated and then monitored throughout the derogation in all cases. This is sometimes done by limiting the number of permits, and/or imposing national or regional quotas. In any event, these figures have to remain coherent with the main aim of the Birds Directive, i.e. the conservation of birds.

It must therefore be kept in mind that a derogation scheme cannot be used to reduce the population as an aim in itself, but to fulfil one of the derogations of Article 9(1), that is, either to prevent serious damage or to protect fauna and flora. It cannot aim to eliminate every individual in an area, but to reduce the number in line with the level of damage to be mitigated or the conservation objectives for protecting fauna and flora. However, this does not exclude measures aimed at removing or preventing breeding colonies or night roosts in specified parts of a larger area, as it does not exclude the occurrence of individual birds.

During the breeding season, interventions concerning eggs (e.g. oiling or replacement with dummies) is the main method used to control the reproduction of Great Cormorants. However, while several countries around the Baltic Sea are now using this method, this is not the case in many other countries. Firearms to kill or scare the birds and scaring devices (gas guns or other) are the main methods used during migration or wintering time.

It is possible to grant general authorisations while satisfying the formal conditions of Article 9(2), *i.e.* authorisations not given to specific individuals but rather to a general category of authorised persons such as landowners and their agents. However, as indicated in the Guide to Sustainable Hunting, unlike Article 9(1)(c), which requires derogations to be granted under 'strictly supervised conditions', the wording of Article 9(2) does not preclude such general authorisations for derogations based on Article 9(1)(a). In that regard, as also stated in the Guide to Sustainable Hunting under the Birds Directive, assuming of course that the derogation covers all the aspects referred to in Article 9(2), it is expected that the reasons justifying the granting of derogations to a wide category of person should be clearly specified in the derogation.

Lastly, although derogations are to be applied at Member State level, coordination between Member States could be useful (see Box 3).

Box 3: The use of flyway derogations to prevent serious damage in the territory of another Member State

It is possible to use coordinated population control, including application of 'flyway derogations', under which derogations for species such as the Great Cormorant would be granted in one country to prevent serious damage in another country.

This approach may be taken either within the framework of an international management plan developed under an international convention or agreement to which the EU is a party or with in a similar framework approved by all concerned Member States.

However, in order to establish coordinated approach, it is essential that accurate and up to date information should be available to determine favourable reference values for the Great cormorant population (population size, range and extend of habitat). Secondly, a robust coordinated monitoring scheme that provides regular data on numbers, survival and productivity should be established.

Following this, agreement must be reached on the flyway-favourable reference population and a safety threshold set in order to ensure a precautionary approach. Based on that agreement, a reference level could be established separately for each country. Agreement should be reached on issues such as geographic scale for the above coordination and evaluation of the management plans to assess population status and the coordination and evaluation of management approaches.

It is therefore also critical to regularly evaluate the situation and thereby not only monitor numbers, survival and productivity of the species but also to monitor fisheries, including assessment of damage. This is fundamental in order to ensure that all applicable conditions under Article 9 are fulfilled and to evaluate the efficacy of the measures, inform ongoing management decisions and adaptation of strategies, where necessary.

5. **Case studies**

5.1. *Addressing conflicts with the Great Cormorant on carp fishponds in Croatia*

In Croatia, there are 15 extensive carp fishponds covering around 12 000 hectares. All are important sites for breeding and migration of waterbirds and are included in the Natura 2000 network. Although the Great Cormorant (*Phalacrocorax carbo sinensis*) is not a target species for SPA classification it is regularly present and feeds on carp fishponds. Although not so numerous as a breeding bird, there is a significant pressure from overwintering birds which mostly include Cormorants coming from other parts of Europe (up to 20 000 birds migrate to Croatia every winter).

The Great Cormorant was a strictly protected species in Croatia until 1995 and the state was taken to court by a number of fish farms requesting financial compensation for damages. The state lost all the court cases and was forced to pay out large sums for many years.

After years of joint efforts by ornithologists, and the nature conservation and fishery sectors, the state agreed to offer fish farms annual incentive payments for 'maintaining carp fishpond ecosystems' (instead of paying compensation for damage caused). This measure which has been in place since 2008 and has been widely accepted continues to this day.

According to Croatia's 2021-2027 prioritized action framework between 2014 and 2016 the Ministry of Agriculture provided state support to the fish farms 'for the maintenance of ecosystems of carp fishponds' totalling of EUR 3,5 million. Starting in 2018 this support was revised to be compensation 'for damage from various species of birds and other animals on carp fishponds', with a total allocation of EUR 8,7 million from 2018 to 2020. Compensations were paid from the state Budget based on annual ordinances of the Ministry of Agriculture and were allocated per hectare of productive area of fishponds. For specially protected fishponds where no hunting is allowed, the support was increased by 30 % in 2020 and by 50 % since 2021. The support continues to this day and in September 2024 the premium was increased to EUR 902,18 per hectare of production area.

In 2024, a new measure has been activated under the Operational Program for Fisheries and Aquaculture of the Republic of Croatia for the programming period 2021-2027 titled 'Measure II.10. Aquaculture that provides environmental protection services'. This measure ensures compensation for additional costs and/or lost income resulting from the application of methods in aquaculture that are in accordance with the specific needs of the environment and are subject to special management requirements arising from the designation of areas as part of the Natura 2000 network. As previously mentioned, all extensive carp fishponds are within the Natura 2000 network and must implement conservation measures defined by the Ordinance on conservation objectives and measures for SPAs.

Although the carp fishponds have not been designated specifically for the Cormorant, since it is not listed in Annex I to the Birds Directive, the birds are an integral part of the management of the Natura 2000 site, because they are in close colonies with other fish-eating bird species for which the site has been classified. They also share fishponds as winter feeding habitats. Any hunting or scaring away of the cormorants would therefore have direct negative effects on the other bird species as well.

The measure is open for the period 1 August 2024 to 31 December 2029 ([11]) (the last eligibility year being 2028). Criteria for Measure II.10 include scoring based on the status of protection of the fishpond (special reserve, nature park), fishpond area (> 1 000 ha; 400-1 000 ha; < 400 ha) and type of fish-farm (micro and small; medium; large enterprise) ([12]). The premium is set at 356 EUR/ha ([13]) of registered production area of a fishpond but 'cannot exceed 35 % of the annual income from the sale of aquaculture products of the user achieved in the reference calendar year'. This premium was based on calculations from the 'Croatia EU Natura 2000 Integration Project – NIP', which used the concept of opportunity cost, by comparing the income and costs of conventional fishponds with extensive ones. Compensation is paid 70 % by EU budget and 30 % by the State budget.

To conclude, after several decades of trying to address the issue of cormorants in Croatia by removing or scaring away fish-eating birds, and compensating for any damage caused, the situation has been improved by redirecting efforts toward providing incentives for maintaining the biodiversity value of extensive carp fishponds, and for accepting the presence of fish-eating bird species in particular, including the cormorant. The challenges which need to be addressed in the future are related to ensuring the economic viability of extensive carp ponds and developing other diversified services based on natural values.

5.2. *Cormorant management in Denmark*

Denmark's current management plan for the conflict between the Great Cormorant and fisheries was published in March 2022 and builds on the principle of local conflict management established in the previous plan, which was valid from 2016 to 2020. The aim of the plan is to find a balance between maintaining viable populations of the species and addressing the concerns of the fishing industry.

Denmark's cormorant population started to grow in the 1980s due to improved protection in Denmark and in the rest of Europe. The population remained relatively stable at around 39 000 pairs from 1993 to 2006. Numbers then declined to about 25 000 in 2013 but increased and then stabilized afterwards. In 2020 the Danish population was estimated at nearly 32 000 pairs.

The principle underlying the conflict management plan is that the challenges posed by the cormorant must be addressed locally. Cormorant foraging should be reduced in areas that are important for fish stocks and where vulnerable fish species occur. Denmark has designated a number of priority areas where most of the efforts related to the management of breeding colonies are concentrated.

Before lethal control is applied, other solutions such as scaring away the birds or the use of technical deterrents must be tried first and be used to the extent that it is practically and economically possible in order to prevent damage. If these measures are not satisfactory, regulatory measures which comprise shooting, egg oiling or the destruction of nests and eggs can be undertaken. These measures can only be carried out following prior authorisation. It is proven by practice that in the case of the Great cormorant the use of scaring techniques complemented with limited lethal control makes the scaring more effective.

Apart from a regulatory permit from the Danish Nature Agency, shooting also requires a valid hunting license and a permit from the landowner. Lethal control can take place between 1 August and 31 March (and from 1 April to 1 May, to protect plaice, salmon and trout migrating to the sea).

Egg oiling and/or the destruction of nests and eggs may be authorised to reduce the size of existing colonies or to prevent the establishment of new colonies. They may be carried out in the cormorant colonies listed in the management plan, in colonies located within a 30-kilometre radius of coastal areas designated as important for fishing and fish stocks or streams and lakes with the presence of vendace, grayling, salmon, trout or eel or in colonies located more than 30 kilometres from such designated areas, if it can be proven that the colony is the cause of extensive damage to fish, fisheries and fishery interests. A regulatory permit from the Nature Agency and the permit from the landowner are required both for egg oiling and the destruction of nests and eggs.

The plan was drawn up in dialogue with the established cormorant working group and was finalized by the Ministry of Environment. It has no end period but it will be evaluated and its tools updated to reflect new knowledge and experience from the field.

Box 4: Is it valid to consider Great Cormorants a severe threat to various populations of fish in the Netherlands?

Mennobart van Eerden & Stef van Rijn reviewed their long-term monitoring results in The Netherlands and published their observations in Ravon 87 magazine, December 2022, Volume 24 | Number 4. pp. 78-81

https://natuurtijdschriften.nl/pub/1019938/RAVON2022024004004.pdf

Summary

The Netherlands 'has never intervened by taking population control measures'. Yet, the population of breeding pairs tends to decline, notably in the area of the large lakes of the IJsselmeer area (> 80 % reduction) parallel with a marked reduction in the availability of nutrients. Having been the stronghold of the species in the 1970s and 1980s, breeding colonies have become much smaller and shifted to the smaller water bodies inland. These smaller water bodies have much better water quality and fish stocks. It is clear from the long-term data on fish consumption, that cormorants feed mostly on abundant, small fish (7-25 centimetres). Since their diet (as studied by determination of otoliths) largely reflects the fish composition, the Great Cormorants are considered to react on fish availability in a bottom up manner. Combined with a natural harvest of 20 % or less of the fish stock, at a water system level there is little to fear from predation by Great Cormorant. Only in small or heavily stocked water bodies this may be the case locally, especially when shelter for fishes is missing (dead wood, macrophytes a.o.). Managing the fish habitats seem a useful measure to reduce the risk of predation by Great Cormorants, especially near barrier dams, sluices or fish passages.

6. **Reporting on derogations**

Transparent reporting on derogations and coordinated offtake is vital to build trust among stakeholders and ensure compliance with international agreements. The Commission has thus developed online derogations data viewers ([10]). They present detailed information on the annual derogations submitted by Member States, as well as statistics on the completeness of these reports:

— overview of derogations and exceptions to species protection across the EU;

— individual derogations and detailed information about them; and

— data completeness of national reports on derogations and exceptions.

([10]) Overview of derogations and exceptions to species protection across the EU | European Environment Agency.

7. **Further information**

Documents from the EU-funded INTERCAFE project, which worked closely with key stakeholders to study in detail the different cormorant-fisheries conflicts, are available from: https://www.ceh.ac.uk/our-science/projects/intercafe.

Summary documents on the Great Cormorant's distribution, range, ecology, population status and trends, its interactions with fish, fisheries and aquaculture and the management of cormorant/fishery conflicts are available on the Commission's webpage on the Birds Directive:

— Cormorant ecology FAQ to better understand its biology, ecology and behaviour;

— Cormorant numbers and distribution in Europe explaining the monitoring and counting of cormorant numbers in the EU;

— Interactions between cormorants, fish, and fisheries which are the most common sources of conflict;

— Management of cormorant-fishery conflicts a synthesis of information on management measures and tools used to reduce cormorant problems for fisheries;

— Social, cultural, and legal aspects of cormorant-fishery issues as well as the ecology of birds and fish;

— An extensive bibliography on the most important publications on the issue (over 5 000 publications accompanied by a key word search).