GUIDE TO SUSTAINABLE HUNTING UNDER THE BIRDS DIRECTIVE

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FOREWORD

Council Directive 79/409/EEC on the conservation of wild birds (the so-called “Birds Directive”) provides a common framework for the conservation of naturally occurring species of wild birds and their habitats throughout the European Union. The directive owes its origin to the fact that wild birds, which are mainly migratory, represent a shared heritage of the Member States and whose effective protection is typically a transfrontier problem entailing common responsibilities.

The Birds Directive fully recognises the legitimacy of hunting of wild birds as a form of sustainable use. Hunting is an activity that provides significant social, cultural, economic and environmental benefits in different regions of the European Union. It is limited to certain species, listed in the Directive, which also provides a series of ecological principles and legal requirements relating to this activity, to be implemented through Member States legislation. This provides the framework for the management of hunting.

There has been a lot of controversy and in recent years some confrontation, over the compatibility of hunting with certain requirements of the Directive. The controversy is often fed by differing interpretations of those requirements.

The Commission has therefore recognised the need to start a new dialogue with a view to developing co-operation between all governmental and non-governmental organisations concerned with the conservation and wise and sustainable use of our wild birds. With a view to this it launched a ‘Sustainable Hunting Initiative’ in 2001 aimed at improved understanding of the legal and technical aspects of the Directive’s provisions on hunting as well as developing a programme of scientific, conservation and awareness raising measures to promote sustainable hunting under the directive.

This guidance document aims to fulfil one of the key objectives of the dialogue by providing better clarification of the requirements of the Directive relating to hunting, within the existing legal framework and strongly based on scientific principles and data and the overall conservation aim of the directive. This builds on the work that has already taken place on the key concepts of Article 7(4) of the Directive.

Why a guide on hunting?

There is clearly a demand for improved guidance on the hunting provisions of the Directive. This is evident from the extent of litigation on the subject. There have also been many questions to the Commission on this subject including those from the European Parliament. This must also be seen in the context of the increased polarisation as is evidenced by contrasting petitions to Parliament from hunting and bird conservation organisations, which have secured the signatures of millions of people.

1 OJ No L 103, 25.4.1979, p.1
Linked to this demand is a real need for improved clarity. Some Member States want to know what are the possibilities to fix hunting seasons outside the limits imposed by Article 7(4), which may be overly constraining, as appears to be the case for a small number of problematic species (such as the Mallard Anas platyrhynchos and the Wood Pigeon Columba palumbus) with early pre-nuptial migration and/or long reproduction periods, and wish to consider recourse to Article 9 derogations.

There is already positive experience from the development of guidance on Article 6 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (“the Habitats Directive”). This is seen as a proactive rather than reactive approach that stimulates coherent reflection and avoids interpretation developing in an ad hoc and inconsistent way. However, it must be recognised that, unlike Article 6 of the Habitats Directive, the provisions of the Birds Directive are much older and have been subject to more extensive case-law, a factor which any interpretative guidance must take into account.

This document will also be of value to the Commission services in any contemplated action in this field and will provide principal stakeholders with some security in terms of what they can expect.

**Limits of the guide**

The guide is intended to be bound by and faithful to the text of the Directive and the wider principles underpinning Community environmental law. It is not legislative in character (not making new rules but providing guidance on the application of those that exist). As such this document reflects only the views of the Commission services and is not of a binding nature.

It should be stressed that it rests with the EU Court of Justice to provide definitive interpretation of a Directive. Therefore, the guidance provided will need to evolve in line with any emerging jurisprudence on this subject.

The guide intends to fully respect the existing case law of the Court, which is already quite extensive. This determines aspects of the guide, especially where clear positions have already been established by the Court.

The guide also aims to explain the ecological principles that underpin the management of hunting under the Directive and makes use of best available scientific data, although it is recognised that the lack of good quality scientific data creates a constraint in so far as trying to correctly and accurately manage populations.

It recognises that the management of hunting is the responsibility of the Member States, including their role in determine hunting seasons within their territory in accordance with the requirements of the Directive.

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Scope of guide

The essential focus of the guide is on the timing of recreational hunting. However, other issues relevant to hunting are covered as appropriate. Its legal focus is primarily on huntable species listed in Annex II of the Directive as well as the relevant provisions of Articles 7 and 9 but all other Articles will be examined as relevant. Particular consideration is given to examining the basis for exercising derogations, especially under Article 9.1 (c). The guide not only deals with legal provisions but also covers scientific and technical dimensions given in the directive which are relevant to the conservation of wild birds.

Structure of the guide

The guide is presented in three main chapters. The first chapter provides an overview of hunting within the framework of the Directive, including consideration of the relevant preambles and Articles.

The second chapter considers in more details the relevant legal and technical provisions of Article 7, including the specific conditions related to fixing hunting seasons under the Directive.

The third chapter then examines the possibilities for allowing for some hunting under the system of derogations that apply under Article 9 of the Directive. Different parts of the document are supplemented by Figures where additional information is considered useful to the guidance.
INTRODUCTION
Common Snipes - Acrylic painting by Pieter Verstappen
1 INTRODUCTION

1.1 Hunting within the Overall Scheme of the Directive

1.1.1 Council Directive 79/409/EEC is a wide-ranging instrument aimed at the general conservation of wild birds in the European Union. Addressing several aspects of conservation (including safeguards for habitats, controls on trade and hunting and promotion of research), it follows a standard layout for this type of legal instrument: a preamble with recitals, Articles containing substantive provisions, and a series of Annexes.

1.2 Preamble

1.2.1 The recitals in the preamble reflect the structure of the body of the Directive. The preamble is often used as an aid to interpreting the substantive provisions of secondary legislation, and has been cited by the Court in this regard in relation to the Directive4.

1.2.2 As with any directive the interpretation needs to have regard to the different language versions, all of which are valid. In the context of the present guide it is to be noted that some phrases (e.g. ‘judicious use’, ‘rearing season’) in the different language versions merit careful attention. It is important when looking at the different language versions to elicit a meaning that best reflects the purpose and context of the terms under examination.

1.3 Species Covered by the Directive

1.3.1 Article 1 of the Directive states that it 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." The case law of the Court confirms that, when implementing the Directive, the Member States have an obligation to protect species of wild birds occurring in the territory of the Community, and not merely those species occurring in their national territories5.

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4 For example, see point 21 of case C-57/89, Commission of the European Communities v Federal Republic of Germany. In this case, which concerned the application of the habitat protection provisions of Directive 79/409/EEC, the Court observed: « That interpretation of Article 4(4) of the Directive is borne out, moreover, by the ninth recital in the preamble, which underlines the special importance which the Directive attaches to special conservation measures concerning the habitats of the birds listed in Annex I in order to ensure their survival and reproduction in their area of distribution. It follows that the power of the Member States to reduce the extent of a special protection area can be justified only on exceptional grounds. »

5 In its judgment of 8 July 1987, Commission/Belgium, case 247/85, ECR 1987, p.3029, the Court noted at paragraph 6: « The Directive is based on the consideration that effective bird protection is typically a transfrontier environment problem entailing common responsibilities for the Member States (third recital in the preamble). ». In this context, the preamble to the Directive notes that " effective bird protection is typically a trans-frontier environment problem entailing common responsibilities."
1.3.2 Protection does not extend to specimens bred in captivity\(^6\). Nonetheless, in cases where captive bred individuals are released into or return to the wild, and are indistinguishable from wild individuals of the same species occurring in the same areas, it is reasonable to consider that the terms of the Directive are applicable\(^7\).

1.3.3 The Commission has sought to list the wild bird species coming within the Directive’s scope\(^8\). This list covers all bird species that naturally occur in the Member States, including accidental visitors. It does not extend to introduced species unless they are explicitly mentioned in one of the Annexes to the Directive (e.g. the Wild Turkey *Meleagris gallopavo*). However, introduced species are covered by the terms of the Directive in a Member State if they are native to another Member State.

### 1.4 General Orientation of Directive

1.4.1 Article 2 contains the general obligation on Member States to "*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.*" As this Article requires the protection of bird species to be balanced against other interests, a question has arisen as to whether this Article comprises a derogation independent from the general requirements of the Directive. The Court has confirmed that it does not, including with specific regard to hunting\(^9\). Nonetheless, the Court’s pronouncements show that Article 2 is not

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\(^7\) In areas where the only specimens of a huntable species in the wild are of released individuals from captive bred stock it would be reasonable to conclude that hunting seasons for this species must be fixed in a way that takes full regard for non permissible periods for similar species (e.g. release of Chukars *Alectoris chukar* in the Alps and possible confusion risk with Rock Partridge *Alectoris graeca*).

\(^8\) A list of bird species covered by the Directive has been prepared by the Commission and presented to the Committee for the Adaptation to Technical and Scientific Progress (commonly referred to as the ORNIS Committee), established pursuant to Article 16 of the Directive. This is not a legal listing but is intended for guidance in application of the Directive. It is available on the web site of DG ENV at [http://ec.europa.eu/environment/nature/conservation/wildbirds/eu_species/index_en.htm](http://ec.europa.eu/environment/nature/conservation/wildbirds/eu_species/index_en.htm)

\(^9\) In its judgment of 8 July 1987, Commission/Belgium, case 247/85, ECR 1987, p.3029, the Court noted at paragraph 8 : « *In this context it is necessary to refer to Article 2 of the Directive, which requires Member States to take the requisite measures to maintain the population of all bird species at a level, or to adapt it to a level, which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, and from which it is therefore clear that the protection of birds must be balanced against other requirements, such as those of an economic nature. Therefore, although Article 2 does not constitute an autonomous derogation from the general system of protection, it none the less shows that the Directive takes into consideration, on the one hand, the necessity for effective protection of birds and, on the other hand, the requirements of public health and safety, the economy, ecology, science, farming and recreation. »* . In its Judgment of 8 July 1987, Commission/Italy, case 262/85, ECR 1987, p.3073, the Court rejected arguments by the Italian government that departures from the requirements of Article 7(4) could be based directly on Article 2. It noted at paragraph 37 : « *...it must be stressed that Article 2, as observed above, is not an independent derogation from the obligations and requirements of the Directive. »*
without relevance and weight when considering the interpretation of other provisions of the Directive. In this regard, its provisions have value as a general orientation guide as to what the Directive requires and allows.

1.5 Conservation of Habitats

1.5.1 Article 3 and 4 address the conservation of habitats. They include provisions related to prevention of significant disturbance within special protection areas (SPAs) classified pursuant to Article 4 (1) and (2). The Commission does not consider that socio-economic activities – of which hunting is an example - necessarily contravene these provisions. However, it is necessary that such activities within SPAs to be properly managed and monitored to avoid such significant disturbance10.

1.5.2 The Commission has already prepared a guidance document covering the provisions of Article 6(2), (3) and (4) of Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (“the Habitats Directive”), which replace the provisions of Article 4(4), first sentence with regard to classified SPAs11. This existing document discusses disturbance. It is appropriate to have regard to the principle of proportionality in considering the matter of hunting under Article 6 of the Habitats Directive. The relevant section of the Article 6 guide is to be read in the sense that effects, which are not significant in terms of the conservation objectives for the NATURA 2000 site, are not to be considered as contravening Article 6(2) of the Habitats Directive.

1.5.3 Hunting is only one of the many potential uses of NATURA 2000 sites, alongside uses such as agriculture, fisheries and other forms of recreation. There is no general presumption against hunting in NATURA 2000 areas under the nature directives. However, it is clear that hunting and other human activities have potential to lead to a temporary reduction in use of habitats within a site. Such activities would be significant if they would lead to a pronounced reduction in the capacity of the site to support the species for which it was designated and would also result in reduced hunting potential.

1.5.4 There will be specific instances where hunting is incompatible with the conservation objectives of individual sites. Examples may be where there is the occurrence of rare species which is highly sensitive to disturbance alongside potential quarry species. Such instances can only be determined on a site by site basis.

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1.5.5 Sustainable hunting can provide beneficial consequences to habitat conservation in and around sites. This is considered further in section 2.4.20-2.4.23 of the guide.

1.5.6 Ensuring that hunting or other activities does not lead to significant disturbance will depend on a variety of factors such as the nature and extent of the site and of the activity as well as on the species present. There is a need to understand the reasons why the site is important for nature conservation leading to its inclusion in NATURA 2000, which provides the basis for determining its conservation objectives. Such an understanding provides an essential starting point for determining the specific management actions that are needed to conserve the site.

1.5.7 In order to reconcile human use with the conservation objectives the Commission advocates the development of management plans, which make provision for ensuring that activities in and around SPAs under the Birds Directive as well as sites designated under the Habitats Directive (which are collectively known as the NATURA 2000 network) are consistent with the ecological requirements of the species or habitats types of EU conservation interest for which these sites have been designated. It is reasonable to expect that those who exploit natural resources such as wild birds have also a responsibility to ensure that their activities are sustainable and not detrimental to the populations concerned. In conclusion, therefore the Commission believes that hunting activities on NATURA 2000 sites are essentially management issues to be determined predominantly at local level. This management would be best structured with a management plan which ensures that activities are compatible with the conservation objectives for which the sites have been designated.

1.5.8 Depending on the nature of the NATURA 2000 sites and hunting practices such management plans should give consideration to the provision of adequate no hunting refuge zones. A comprehensive research programme in Denmark has shown that the careful establishment of hunting free zones can increase at the same time site use by waterfowl and hunting opportunities in the vicinity of such areas\textsuperscript{12}. The concept of hunting free zones is also well established in other Member States and is not restricted to NATURA 2000 areas (e.g. reserves de chasse in France).

Madsen & Fox (1997), The impact of hunting disturbance on waterfowl populations: The concept of flyway networks of disturbance-free areas. \textit{Gibier faune sauvage} 14: 201-209. However, this particular model may not be applicable to Member States or areas where hunters’ access and hunting pressure are regulated differently (e.g. private property owners).
1.6 Basic Species Protection Prohibitions

1.6.1 Article 5 of the Directive requires Member States to take the requisite measures to "establish a general system of protection for all species referred to in Article 1". The basic prohibition on hunting is found in Article 5 (a) of the Directive, which requires Member States to prohibit in particular the "deliberate killing or capture by any method".  

1.6.2 Article 6(1) contains the basic prohibition on trading in birds that are protected under Article 1. Specifically "Member States shall prohibit, for all the bird species referred to in Article 1, the sale, transport for sale, keeping for sale and the offering for sale of live or dead birds and of any readily recognisable parts or derivatives of such birds."

1.7 Exceptions to Basic Prohibitions

1.7.1 The Directive provides for exceptions to the general prohibitions set out in Articles 5 and 6.

1.7.2 The trade in species listed in Annex III of the Directive is permitted, provided that the conditions and restrictions within Articles 6 (2) and 6 (3) are observed.

1.7.3 In relation to hunting, species listed in Annex II may be hunted under Article 7 of the Directive owing "to their population level, geographical distribution level and reproductive rate throughout the Community". Where a species is not listed in Annex II, an exception to the prohibitions in Article 5 is only possible where the strict requirements of Article 9 are fulfilled.

1.7.4 The Article 7 hunting exception to the Article 5 prohibitions is subject to several conditions set out in Article 7. Member States are required to ensure "that the practice of hunting, including falconry if practised, as carried on in accordance with the national measures in force, complies with the principles of wise use and ecologically balanced control of the species of birds concerned and that this practice is compatible as regards the population of these species, in particular migratory species, with the measures resulting from Article 2." They are also required to ensure that "the species to which hunting laws apply are not hunted during the rearing season or during the various stages of reproduction. In the case of migratory species, they shall see in particular that the species to which hunting regulations apply are not hunted during their period of reproduction or during their return to their rearing grounds." The Court of Justice has interpreted the last-mentioned

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13 Article 5 also requires Member States to prohibit the:
- deliberate destruction of, or damage to, their nests and eggs or removal of their nests (Art 5 (b))
- taking their eggs in the wild and keeping these eggs even if empty (Art 5 (c))
- 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 (Art 5 (d))
- keeping birds of species the hunting and capture of which is prohibited (Art 5 (e))
provision as requiring that Member States set the hunting period so as to ensure that the period "guarantees complete protection of the species concerned." The requirements of Article 7 are considered in detail in Chapter 2.

1.7.5 Further qualifications are set out in Article 8, which requires Member States to prohibit «the use of all means, arrangements or methods used for the large-scale or non-selective capture or killing of birds or capable of causing the local disappearance of a species, in particular the use of those listed in Annex IV (a).» Hunting from the modes of transport and under the conditions mentioned in Annex IV(b) is also required to be prohibited.

1.7.6 In addition to the exceptions for trade and hunting set out in Articles 6(2),(3) and 7, Article 9 allows Member States to derogate (i.e. depart) from the basic prohibitions in Article 5, 6, 7 and 8 provided three conditions are fulfilled: there is no other satisfactory solution; one of the reasons listed in 9(1)(a), 9(1)(b), or 9(1)(c) applies; and the technical requirements of Article 9(2) are fulfilled. These conditions are considered in detail in Chapter 3. Article 9 also provides for a system of annual derogation reports from the Member States to the Commission.

1.7.7 Derogations under Article 9 are also possible with regard to the prohibitions set out in Article 7 and 8.

1.8 Research

1.8.1 Article 10 requires Member States to encourage research and «any work required as a basis for the protection, management and use of the population of all species of bird referred to in Article 1.». The Court of Justice confirmed that this provision creates an obligation for Member States and has to be transposed and implemented in national domestic legal orders. Particular attention is required to be paid to research and work on subjects listed in Annex V. A number of categories of research listed in Annex V are relevant to hunting, especially items (c) “listing of data on the population levels of migratory species as shown by ringing” and (d) “assessing the influence of taking wild birds on population levels”. Item (e) “Developing or refining ecological methods for preventing the type of damage caused by birds” is also relevant to species which may cause damage. The case-law of the Court of Justice underscores the importance of using the best available scientific information as a basis for implementing the Directive.

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15 On the basis of these annual reports the Commission provides a report on the use of derogations under the Birds Directive to the Convention on the Conservation of European Wildlife and Natural Habitats. This biannual report is provided in fulfilment of Article 9(2) of the Convention.
17 In its judgment of 17 January 1991, Commission/Italy, Case C-157/89, ECR 1991, p.57, paragraph 15, the Court accepted that, in the absence of specific Italian reference material, the Commission was entitled to rely on a more general ornithological reference work in support of its contentions, especially as the Italian government had not adduced alternative scientific studies.
1.8.2 However, it must be acknowledged that, in relation to the categories of research relevant to huntable species, high quality information on a series of even basic features of the migratory system of many huntable species remains extremely limited. The proper hunting management of migratory birds implies an adequate knowledge of the functional system of staging, moulting, fattening and wintering areas representing a migratory route, or flyway. In order to better apply the Directive, there is a need for enhanced understanding of geographical distribution of flyways, seasonality of movements and ecological requirements of migratory birds across the EU. Relevant studies can best be performed on individually marked birds; recoveries of ringed birds provide exact locations of migrants in time and space, and represent the best source of information for such large-scale analyses. Migration studies can provide the necessary information both at the level of species and geographical population; they also offer the unique opportunity to describe migratory patterns for different sex- and age-classes, which is an important parameter for the proper management of wild populations.

1.9 Introduction of Non-naturally occurring Bird Species

1.9.1 Article 11 relates to the prevention of damage to local flora and fauna by the introduction of bird species which do not occur naturally in the wild state in the European territory of the Member States. One of the most documented cases is the threat posed by the North American Ruddy Duck *Oxyura jamaicensis* to the endangered native European White-headed Duck *Oxyura leucocephala* through hybridisation as well as competition and displacement. There is potential for introductions to not only pose a threat to rare species but also to more widespread species, including those at present subject to hunting.

1.10 Reporting

1.10.1 Article 12 concerns the general reporting obligations of the Member States and Commission. These three-yearly general Member State reports are to be distinguished from the annual Member State derogation reports referred to in Article 9. The Commission reports produced pursuant to Article 12 are a valuable reference for several hunting-related issues. For example, the second report on the implementation of the Directive\(^\text{18}\) contained information on the status of Annex II species in the Member States, on special measures taken by the Member States for wise use of hunted species, as well as a record of earlier discussions in the Committee established under the Directive (“the ORNIS Committee”) on several important concepts such as wise use and small numbers.

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\(^{18}\) COM(93) 572 final.
1.11 Stand-Still Clause

1.11.1 Article 13 states that «application of the measures taken pursuant to this Directive may not lead to deterioration of the present situation as regards the conservation of species of birds referred to in Article 1. » This is an example of a « stand-still clause. » Such clauses appear in a significant number of Community environmental Directives. They are aimed at ensuring that the implementation of the Directives concerned will not worsen the initial status of the environmental features sought to be conserved.

1.12 Possibility of Stricter National Measures

1.12.1 Article 14 provides that Member States may introduce stricter protective measures than those provided for under the Directive. This reflects a general approach to Community environmental legislation, which has since been enshrined in the Treaty, whereby Member States retain a freedom to exceed the level of protection agreed by the Community. With reference to hunting, some Member States have set national limitations going beyond what the Directive requires – for example, they have prohibited the hunting of certain species that are huntable under the Directive.

1.12.2 It is important to note that the faculty of adopting stricter measures is not unrestricted. Member States must respect rules in the EC Treaty concerning freedom of trade, as is confirmed by a decision of the Court in Case C-169/89, Criminal proceedings against Gourmetterie Van den Burg. In addition, where it can be demonstrated that the huntability of a bird species is clearly linked to conservation benefits for that and/or for other wild bird species as a result of hunting-associated habitat conservation measures, it may be appropriate, where a hunting ban is contemplated, to consider any disbenefits that may arise for habitat conservation.

1.13 Adapting the Directive

1.13.1 Articles 15 to 17 contain provisions relating to the adaptation to technical and scientific progress of Annexes I and V, as well as to the adaptation of Annex III. These provisions give a role to a committee established under Article 16,

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19 Judgment of 23 May 1990, Criminal proceedings v Gourmetterie Van den Burg, case C-169/89, ECR 1990, p. 2143. This case involved a request from a Dutch Court to the Court of Justice for an interpretative ruling following the prosecution in the Netherlands of an individual for possession of a Red Grouse, Lagopus lagopus, lawfully shot and killed in the United Kingdom. The Court drew a distinction between migratory species and endangered species listed in Annex I, and other species, such as Red Grouse. Noting the special emphasis the Directive placed on protection of migratory and endangered species, it stated at paragraph 12: «It follows from those general objectives laid down by Directive 79/409 for the protection of birds that the Member States are authorized, pursuant to Article 14 of the directive, to introduce stricter measures to ensure that the aforesaid species are protected even more effectively. With regard to the other bird species covered by Directive 79/409, the Member States are required to bring into force the laws, regulations and administrative provisions necessary to comply with the directive, but are not authorized to adopt stricter protective measures than those provided for under the directive, except as regards species occurring within their territory.
consisting of representatives of the Member States and Commission. While formally the regulatory role of this committee is quite limited, in practice the representatives on the Committee – now known as the “ORNIS Committee” – have an important advisory role and regularly discuss all aspects of the implementation of the Directive, including hunting aspects. With reference to changes to the hunting provisions of the Directive, the Committee has no formal role. Any relevant amendments to either the body of the Directive or Annex II require adoption by the Council of Ministers and European Parliament\(^{20}\) on the basis of a proposal from the Commission.

\(^{20}\) To date Annex II has been amended by one secondary instrument, Council Directive 94/24/EEC. This modified Annex II of Directive 79/409/EEC to include five species of *Corvidae*, which can cause damage to crops, and for which control measures were formerly only possible under Article 9 derogations.
2 PROVISIONS OF ARTICLE 7
Mallards - Oil painting by Pieter Verstappen
2 PROVISIONS OF ARTICLE 7

Text of Article 7

“1. Owing to their population level, geographical distribution and reproductive rate throughout the community, the species listed in Annex II may be hunted under national legislation. Member states shall ensure that the hunting of these species does not jeopardise conservation efforts in their distribution area.

2. The species referred to in Annex II/1 may be hunted in the geographical sea and land area where this Directive applies.

3. The species referred to in Annex II/2 may be hunted only in the member states in respect of which they are indicated.

4. Member states shall ensure that the practice of hunting, including falconry if practised, as carried on in accordance with the national measures in force, complies with the principles of wise use and ecologically balanced control of the species of birds concerned and that this practice is compatible as regards the population of these species, in particular migratory species, with the measures resulting from Article 2. They shall see in particular that the species to which hunting laws apply are not hunted during the rearing season nor during the various stages of reproduction. In the case of migratory species, they shall see in particular that the species to which hunting regulations apply are not hunted during their period of reproduction or during their return to their rearing grounds. Member states shall send the commission all relevant information on the practical application of their hunting regulations.”

2.1 Introduction

2.1.1 Article 7 provides an explicit basis for hunting under the Directive. By reference to Annex II it lists the species that may be hunted throughout the Community (listed in Annex II part 1) and those that may be hunted within specified Member States (listed in Annex II part 2). It also sets out the principles to be respected with regard to hunting, including with regard to the fixing of hunting seasons.

2.1.2 This chapter of the guide starts with a brief reference to the need for appropriate transposition. It then deals in turn with the species that are huntable, the general principles and criteria to be respected in hunting (non-jeopardisation of conservation efforts, wise use, and ecologically balanced control). It finally considers the specific conditions relating to fixing hunting seasons.

2.1.3 As regards hunting seasons the chapter ends with a discussion of overlaps between the hunting periods and prohibited periods under Article 7(4) of the Directive.
2.2 **Formal considerations**

2.2.1 The relevant provisions of Article 7 of the Directive need to be fully and clearly transposed by the Member States." In Case C-159/99, Commission v Italy\(^{21}\), the Court observed that "the provisions of Directives must be implemented with unquestionable binding force, and the specificity, precision and clarity necessary to satisfy the requirements of legal certainty". In Case C-339/87, Commission v the Netherlands, the Court also noted that "mere administrative practices, which by their nature may be changed at will by the authorities, cannot be regarded as constituting proper compliance with the obligation on Member States to which a Directive is addressed, pursuant to Article 189 of the Treaty."\(^{22}\)

2.3 **Huntable species**

**RATIONALE FOR ALLOWING HUNTING**

2.3.1 Article 7 allows for the hunting of certain species of bird. Due to their population level, geographical distribution and reproductive rate throughout the Community, hunting of these species is considered to constitute acceptable exploitation.

2.3.2 Whereas bird hunting in Europe is mainly a recreational activity and is generally not carried out to regulate bird populations, it may also be a tool to control damage-caused by certain bird species (see section 2.4.31 onwards on ecologically balanced control).

**WHICH SPECIES CAN BE HUNTED?**

2.3.3 The species that may be hunted are listed in Annex II of the Directive. This comprises two parts. Those species listed in Annex II part 1 may be hunted in all Member States. The species listed in Annex II part 2 may only be hunted in those countries for which they are indicated. The number of potentially huntable species present in each Member State is shown in Figure 1.

2.3.4 Apart from adaptations resulting from the accession of new Member States, there has been one amendment of Annex II part 2 to take account of the latest knowledge on the situation of birds. This resulted in the addition of five species of *Corvidae* to Annex II/2 and the removal of three species of waders from Annex II/2 for Italy (species which closely resemble the globally threatened species Slender-billed Curlew *Numenius tenuirostris*).

2.3.5 Hunting is carried out under national legislation. The listing of a species in Annex II does not oblige a Member State to allow for it to be hunted. It is


merely an option of which the Member States may or may not avail themselves.

### 2.4 General principles and criteria to be respected in hunting

#### 2.4.1 Article 7(1) and 7(4) of the Directive provide a number of general principles that must be applied in relation to the practice of hunting. Each of these is considered in turn.

**Non jeopardisation of conservation efforts in area of distribution**

2.4.2 Member States must ensure that hunting is compatible with the maintenance of the populations of the species concerned at a satisfactory level and that the practice does not jeopardise conservation efforts in their area of distribution. This clearly implies that the practice of hunting must not represent a significant threat to efforts for the conservation of both huntable as well as non-huntable species. The national hunting regime should take into account this potential disturbing aspect of hunting. This provision needs to be assessed in the light of the nature and geographical scope of the ‘conservation efforts’ in question, as these may vary from a local to an international level (e.g. flyway management plan).

2.4.3 An example to illustrate this point is the Ferruginous Duck *Aythya nyroca*, a non-huntable bird species, which is globally threatened. This species has a late reproduction period, which can make it vulnerable to the opening of hunting seasons for other species in areas where it is still breeding.

2.4.4 As regards the area of distribution of species it is clear that for most species this is not restricted to the area of the Member State concerned with hunting but applies to the species range. This is particularly relevant to migratory species. If species are subject to excessive hunting along their migration route it may impinge on conservation efforts elsewhere, including those outside the European Union.

2.4.5 The area of application of the Directive is the European territory of the Member States to which the Treaty applies. However, for species whose range extends beyond the area covered by the Directive the international commitments entered into by the Community may also be relevant in this context.

**Wise use**

2.4.6 Wise use is not defined in the Birds Directive. An explanation of the notion of wise use, developed in conjunction with the ORNIS Committee, is given in the second report on the application of the Directive23. This looked at potential impact of hunting on species both at the levels of their populations and their use of habitats. I

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23 Pp. 8-9 of Second Report on application of Directive 79/409/EEC (COM(93)572 final). This explanation has been used and further developed in the present guide.
2.4.7 In the context of hunting wise use clearly implies sustainable consumptive use with an emphasis on maintaining populations of species at a favourable conservation status. The concept appears to correspond well with the definition on sustainable utilisation given in Convention on Biological Diversity (CBD)²⁴: “the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.” The Birds Directive is one of the legal instruments of the European Union to implement this Convention.

2.4.8 Guidance on the issue of wise use has also been developed under the Ramsar Convention. The 3rd Meeting of the Conference of the Contracting Parties to the Convention (1987) have agreed a definition which states that ‘the wise use of wetlands is their sustainable utilization²⁵ for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem’.

2.4.9 It can therefore be reasonably concluded that the concept of wise use is the same as the concept of ‘sustainable utilisation’ compatible with the conservation of natural resources, thus corresponding to the concept of sustainability laid down in the Community ⁵th Environmental Action Programme.

2.4.10 Hunting, which represents a consumptive use of wildlife, therefore must be seen in the broader context of sustainable use of resources. The concept of wise use needs not necessarily be limited to consumptive use. It must recognise that birdwatchers, nature lovers, scientists and society as a whole also have a legitimate right to enjoy or explore wildlife, as long as they exercise this right responsibly. It is generally accepted that the value of environmental resources includes both use values and existence values. The principle of wise use thus should cover the provision of access to and enjoyment of wildlife for non-hunter users in the countryside, which should be managed in a sustainable way and should also aim to provide benefits to local communities²⁶.

²⁴ The “sustainable use” objective is referred to in most of the substantive Articles of the Convention providing inter alia for the integration of sustainable use into national decision-making; the regulation and management of biological resources to ensure their conservation and sustainable use; the adoption of measures to avoid or minimize adverse impacts on biological diversity; the monitoring of ecosystems and habitats required by migratory species and species of economic value or cultural importance; the promotion of research which contributes to sustainable use.

²⁵ Sustainable utilization is defined as "human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations". Natural properties of the ecosystem are defined as "those physical, biological or chemical components, such as soil, water, plants, animals and nutrients, and the interactions between them”.

²⁶ Recently, IUCN’s Policy Statement on Sustainable Use of Wild Living Resources (Annex to Resolution 2.29, Amman, 2000), also concluded that “Both consumptive and non-consumptive use of biological diversity are fundamental to the economies, cultures, and well-being of all nations and peoples.”
2.4.11 In the following sections a number of aspects of wise, relevant to huntable bird species are examined. This includes population impact, habitat use, game management and the conservation status of species. These sections underline the challenge of applying the concept of wise use for both sedentary and migratory bird species. Finally, the important role of education, training and awareness raising in promoting wise use is highlighted.

- **Relevance to huntable species**

2.4.12 Most of the scientific work on the sustainability of hunting has been focused on water birds (excluding gulls), tetraonids and partridges (the latter two groups belonging to the Galliformes, often referred to as “gamebirds”). These birds differ very much in ecology and behaviour. Most water birds are typically long-distance migrants, which breed widely in Northern Europe and winter in patchily distributed wetlands in temperate to tropic regions. Because of their congregatory behaviour significant hunting disturbance\(^{27}\) affects a many times more birds than the numbers actually killed by hunting. However, a recent scientific literature review on energetic physiology of birds has challenged the assumption that hunting always will give rise to disturbance which will significantly threaten the survival of wild birds (see section 2.6.17). Furthermore, a high hunting take restricted to a local level may not affect these local populations in the long term, given sufficient availability of food, where shot birds are able to be replaced by birds from elsewhere or through other biological compensatory mechanisms. However, this may not be the case where high hunting pressure is exercised over wider part of the range of a species.

2.4.13 On the contrary gamebirds that are sedentary species sometimes have complex social systems, of which local populations can benefit much from proper hunting management. A high hunting take may result in population reduction. Water birds and gamebirds are the main quarry species in the Europe, comprising 71% of all Annex II taxa. The remaining categories of Annex II species are gulls (7%), pigeons (6%), and passerines (15%).

- **Wise use and population impact**

2.4.14 Given that the overall objective of the Directive is the maintenance of bird population at a favourable conservation status\(^{28}\) this should be reflected in the principle of wise use. From a general understanding of population dynamics and the theory of the taking of migratory birds it can be concluded that low

\(^{27}\) Significant disturbance of birds in wetlands from hunting can cause considerable under-use of the resource, also putting pressure on non-quarry species. Local displacements and reduced stopover times may even have impacts on populations at the flyway level, because of over-winter density-dependence. However, the impact of disturbance at the level of flyway populations is at present poorly understood and therefore meriting investigation.

\(^{28}\) Whereas the term ‘favourable conservation status’ is not mentioned explicitly in the Directive (was introduced in 1992 in the Habitats Directive) it is implicit from the requirements of Article 2 of the Directive.
levels of taking are likely to have little effect on spring populations’ size\textsuperscript{29}. Moderate levels are unlikely to cause populations of huntable species to decline but will reduce the size of the spring population. Very high levels of taking are likely to lead to a decline in populations. For most species this level of taking is unknown\textsuperscript{30}.

2.4.15 So that hunting does not lead to the decline of huntable species the general approach in wildlife management is to ensure that hunting of species does not exceed the range between ‘maximum’ and ‘optimum’ sustainable yield\textsuperscript{31}. This concept would appear to be easier to apply to sedentary than to migratory species. In the absence of good information on population dynamics and hunting take of sedentary and migratory species high levels of exploitation should generally be avoided.

2.4.16 Furthermore, there is a need for sound, scientifically based monitoring mechanisms to ensure that any use is maintained at levels which can be sustained by the wild populations without adversely affecting the species’ role in the ecosystem or the ecosystem itself. This should include information on bag statistics, which is at present lacking or poorly developed for most species throughout the European Union\textsuperscript{32}.

- **Wise use and habitat use**

2.4.17 Significant disturbance from hunting or other human activities is likely to restrict the use of habitats where it is taking place. This may result in birds subjected to hunting having to cover greater distances or to adapt their behaviour to escape hunting. It may even result in a failure to utilise habitats with a relatively high human presence. It is therefore important to ensure that the management of such activities is carried out in a way that avoids disturbance which would significantly effect the conservation values of the sites in question (see also section 1.5 of the guide).

\textsuperscript{29} This depends on the timing of taking. A small take in Spring when the population is usually at its lowest annual level, can have disproportionate effects on population structure, if the species is subject to differential migration


\textsuperscript{31} Sustainable yield may be defined as the removal of resources from the environment at a rate that allows balanced replacement by natural processes. Under normal conditions density dependent processes maintain bird populations at a stable level. The yield of a species is directly linked to its reproduction rate and its survival rate. Though annual harvesting can remove a sizeable proportion of a population, this is offset by a lower natural mortality and/or better reproduction rate. The maximum number of birds that can be hunted each year will be achieved when the largest number of birds is breeding at the fastest possible rate. This is achieved when breeding stock is reduced considerably below habitat capacity (Newton, I. 1998. Population limitation in Birds). Hunting usually reduces breeding populations of birds with low natural mortality (K-strategists, i.e geese) but their reproductive rates are higher than in non-hunted populations. This is termed the maximum sustainable yield. Because of the vagaries in ecological systems harvesting rates are usually set at a somewhat lower rate, which is defined as the optimal sustainable yield. Good management of populations can increase this yield.

\textsuperscript{32} Other information may be relevant for certain species such as studies on crippling rates and impact of shotgun pellets in birds on their survival (eg see Madsen, J. and H. Noer 1996. Decreased survival of pink-footed geese Anser brachyrhynchus carrying shotgun pellet. Wildlife Biology 2 : 75-82.)
2.4.18 This is particularly relevant in wetlands where large concentrations of wild birds, including huntable species, occur. In the Commission’s Communication on the wise use and conservation of wetlands sustainable wetland resource use is identified as one of the key wetland issues. Specific reference is made to bird exploitation: “Waterfowl hunting in European wetlands is a popular leisure activity and can be an important source of income for wetland owners. Rightly, hunting associations are becoming an important driving force for wetland conservation. The principle of using the waterfowl resource in a sustainable way can substantially contribute to wetland conservation, providing it includes the use of non-toxic shot, the setting of bag limits, the creation of an adequate network of game refuges, and the adaptation of the hunting seasons to the ecological requirements of the species. These are also aspects covered by Council Directive [...] on the conservation of wild birds”.

2.4.19 The issue of the environmental pollution from lead shot arising from ammunition also needs to be considered in the context of wise use. It is increasingly recognised that the use of lead shot poses a significant threat to wild birds and their habitats, especially wetlands. Whereas there is no explicit mention of lead shot in the Birds Directive any use of it in Special Protection Areas that leads to deterioration of habitats or significant disturbance to birds is incompatible with the protection requirements of these sites. The need to phase out the use of lead shot in wetlands has already been recognised in international forums such as the Ramsar Convention and the African Eurasian Waterbird Agreement.

- Hunting and game management

2.4.20 The notion of wise use should also incorporate the positive role that can derive from game management. This implies a set of measures such as the provision of better habitat, better nutrition, less predation, less disease or less poaching which improve the living conditions of huntable and other species. Therefore, whereas annual harvesting can remove a sizeable proportion of the population this is offset by gains due to a lower natural mortality and/or better reproduction rate. Sound management practices, in accordance with the wise use principle, should also take into account the needs of non-huntable species and the ecosystem. This can result in populations of game and other species on managed land being significantly higher than on unmanaged areas. This principle contrasts markedly with harvesting a wildlife resource in a situation where no management is undertaken. A harvested population, even when stable and being hunted sustainably, will inevitably be maintained at a lower level than an unharvested one under similar conditions. The beneficial consequences of game management are most evident with sedentary species.

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33 Wise use and conservation of wetlands (COM (95) 189, 29.05.1995).
34 See for example Newsletter of the African Eurasian Waterbird Agreement, Special edition: Lead Poisoning in Waterbirds through the ingestion of spent lead shot. Special Issue 1, September 2002.
35 However, it must be recognised that certain wetlands have been actively managed for migratory waterfowl (e.g. Camargue in France). There is also management of bogs directly linked to the hunting of Snipe Gallinago gallinago.
2.4.21 Some of the most important wildlife sites in Europe have survived the pressures of development and destruction due to the interests of game management. For example the United Kingdom has the largest areas of heather moorland anywhere in Europe largely due to its value for grouse hunting, which provided a strong basis from preventing the loss of this habitat from commercial afforestation and other threats. In Spain the remaining populations of Spanish Imperial Eagle *Aquila adalberti* mainly survived on large private game estates, where the hunting was formerly almost exclusively focussed on big game. In France, wild populations of Grey Partridge *Perdix perdit* are high in certain regions with intensive farming (e.g. Beauce, Picardie) as a result of management efforts, in particular the creation of thousands of hectares of ‘wildlife set aside’ with financial support of hunters.

2.4.22 Hunting can therefore support conservation through wise use. Steps taken to improve the condition for target species can not only enhance the sustainable yield but also benefit a range of other animals and plants that have similar requirements. Woodland managed for Pheasants *Phasianus colchicus* is more diverse than woodland managed exclusively for forestry. Field margins managed to help Partridges *Perdix perdit* also benefit wild flowers, butterflies and other invertebrates.

2.4.23 However, game management focused at artificially raising population levels of single species may be detrimental to some other species, particularly if it is linked to illegal persecution of birds of prey.

- **Wise use and conservation status of huntable species**

2.4.24 Bird species may be considered as having an unfavourable conservation status\(^36\) when the sum of influences acting on the species concerned negatively affect the long-term distribution and abundance of its populations. This would include a situation where population dynamics data shows that the species is not maintaining itself on a long-term basis as a viable component of its natural habitats\(^37\). It is, of course, generally not advisable to subject such species or populations to hunting, even if hunting is not the cause of or contributing to their unfavourable conservation status. However, allowing hunting of a

\(^36\) The term conservation status of a species is defined in Article 1 i) of Council Directive 92/43/EEC as “the sum of influences acting on the species concerned that may affect the long-term distribution and abundance of its populations ....” It is considered to be favourable when “population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitat, and the natural range of the species is neither being reduced nor is likely to be reduced in the foreseeable future, and there is, and will continue to be, a sufficiently large habitat to maintain its population on a long-term basis.”. Although the term is not explicitly mentioned in Directive 79/409/EEC the principles underpinning it are equally applicable in relation to the objectives of this Directive.

\(^37\) Favourable conservation status assumes population viability: the concept of a “viable” population number that represents a threshold for survival versus extinction (Fiedler & Jain 1992, Conservation Biology). Viability of populations lies at the heart of the requirement laid down in Article 2 of the Directive, which contains the general obligation of population maintenance. Viable populations are integral to demonstrating a secure conservation status, but it encompasses more than just a stable population. Extrinsic forces, such as habitat loss, over-harvesting, and competition by introduced species, often lead to population decline. Random fluctuations that increase as populations become smaller can lead to extinction even of populations that have, on average, positive population growth when below carrying capacity.
species can provide a strong incentive to manage habitats and address other factors contributing to population decline, therefore contributing to the objective of restoring populations to favourable conservation status.

2.4.25 The issue of allowing the continuation of hunting of species with an unfavourable status was raised during the discussion on the last proposed amendment of Annex II of the Directive. In section 2.7 of the report\textsuperscript{38} of the European Parliament’s Committee on the Environment, Public Health and Consumer Protection on the Commission’s 1991 proposal\textsuperscript{39} to modify the Birds Directive, it was stated that ‘Where a species is declining, hunting cannot by definition be sustainable unless it forms part of a properly running management plan that also involves habitat conservation and other measures that will slow and ultimately reverse the decline.’

2.4.26 Where such management plans are prepared, aiming at restoring the species’ population levels they should apply to all populations, peripheral as well as central. Indeed, peripheral populations may play a particularly important role in the process through which species adapt to changes in the environment. In the European context, this process is fundamental. Furthermore, such plans can exist at different territorial levels (e.g. at EU, national or local levels).

2.4.27 Community management plans are being developed for Annex II species that have been identified as having an unfavourable conservation status. Those plans that have already been approved by the Member States, within the framework of the ORNIS Committee, are available on the web site of DG Environment. These framework plans do not have any separate legal status under the Directive. However, the success in their implementation and the extent to which the declines in huntable species are halted and reversed, as evidenced by appropriate monitoring, may ultimately determine if the continued hunting of these species is justified under the Directive or if other measures are required.

2.4.28 Management plans aimed at the recovery of species need to be underpinned with monitoring programmes that are able to detect changes in conservation status of the species concerned. This monitoring should include assessments of the hunting harvest and the role that this is playing in the dynamics of the population.

2.4.29 Finally, it should be noted that temporary moratoria on hunting certain species with an unfavourable conservation status, not necessarily as a result of hunting, introduced by Member States in agreement with hunter organisations represents a potentially important approach. Such an approach, if combined with a programme of conservation action for the species, can provide a strong incentive to different interests, including hunters, to work together to restore the species to a favourable conservation status. An important consideration for hunters is that such moratoria need to be seen and perceived as ‘temporary’ and not leading more or less automatically to a permanent hunting ban.

\textsuperscript{38} PE 154. 220/fin
\textsuperscript{39} COM (91) 0042 – C3 – 0180/91
**Wise use and education, training and awareness**

2.4.30 The notion of wise use of natural resources implies also proper knowledge and skills. Hunters should be well informed about the need for correct species identification, good practices, hunting and the law, need for reporting etc. Illegal activities (shooting protected species, use of illegal trapping devices, shooting out of season or in prohibited areas, illegal use of poisons) are contrary to the 'principle of wise use' and are not in accordance with the principle of conservation through sustainable use. Furthermore, the illegal actions of a small number of hunters can also bring the entire activity of hunting into serious disrepute. As hunters are the most effective custodians of the hunted areas it is in their long-term interests to increasingly oppose such activities and to be seen to do so. There is also a need to inform people about the principle of conservation through sustainable use.

**ECOLOGICALLY BALANCED CONTROL**

2.4.31 This principle is not defined in the Directive. However, the 8th recital of the preamble of the Birds Directive suggests that it may not refer primarily to recreational utilisation but to population management aimed at species conservation: ‘Whereas conservation is aimed at the long-term protection and management of natural resources as an integral part of the heritage of the peoples of Europe; whereas it makes it possible to control natural resources and governs their use on the basis of the measures necessary for the maintenance and adjustment of the natural balances between species as far as is reasonably possible’.

2.4.32 Furthermore, Article 1 refers to “protection, management and control”, while pursuant to Article 2 measures shall be taken to maintain populations or to adapt populations to a level “which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements”. The latter may mean that the control is not only focused on “balances between species” but could also be aimed at the protection of economic interests (e.g. damage prevention).

2.4.33 “Ecologically balanced control” implies that the measures taken should be ecologically sound and in proportion to the problem to be solved taking into account the conservation status of the species involved. Control measures may be considered necessary only for few Annex II species (e.g. crows, pigeons, gulls). This appears to be the main incentive for the listing of five species of Corvidae in Annex II/2 with the 1994 adaptation of the Directive.

2.4.34 On the contrary, for most other quarry species management measures are aimed at the increase or the restoration of population numbers in view of both conservation and hunting interests.

2.4.35 Application of this principle in the framework of Article 7(4) offers enhanced possibilities to the control measures for the protection of flora and fauna, that
may be taken under the derogation regime of 9 (1a). However, the extent to which populations of damage causing species can be effectively regulated during the regular hunting season alone is unclear. Other methods need to be explored such as scaring of birds, which can at least temporarily and locally solve the problem of damage.

2.4.36 Other dimensions to ecologically balanced control need consideration. These include the extent to which it should relate to ensuring demographically balanced exploitation of a species (e.g. not removing a surplus of any sex or age cohort). Also it needs to ensure that impacts on populations harvested do not result in imbalances in the ecosystem (favouring the development of another species through lack of competition).

2.5 Specific conditions related to fixing hunting seasons

2.5.1 Article 7(4) of the Directive lays down a number of key principles relating to the fixing of hunting seasons, the objective of which is to ensure that hunting does not take place during the most vulnerable periods of the annual cycle of huntable species.

2.5.2 For sedentary species it requires that they are not hunted during their rearing season or during the various stages of reproduction. In the case of migratory species it requires that they be not hunted during their period of reproduction or during their return to their rearing grounds.

2.5.3 The Court has stated that ‘the second and third sentences of Article 7(4) of the Directive are designed to secure a complete system of protection in the periods during which the survival of wild birds is particularly under threat. Consequently, protection against hunting activities cannot be confined to the majority of birds of a given species, as determined by average reproductive cycles and migratory movements.’

THE KEY CONCEPTS WORK: REPRODUCTION AND PRE-NUPITAL MIGRATION PERIODS

2.5.4 The Commission and the ORNIS Committee have recognised the need to have a clear interpretation of these concepts of Article 7(4) in the light of the 1994 Court of Justice's ruling, and how to apply them to the bird species of Annex II and have already carried out a review of information on the period of prenuptial migration and reproduction of each Annex II species for each Member State where that species occurs. The ORNIS Committee has approved this review, which provides definitions for both the ‘period of reproduction’ and ‘return to the breeding areas’, which are outlined below.

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• **Period of reproduction**

2.5.5 ‘**Breeding season**’ was defined using the definition of Cramp & Simmons (1997): “the breeding season is the period during which a species lays and incubates its eggs and rears its young to the flying stage.” However, the ‘**reproduction period**’ not only covers the breeding season but also includes the occupation of the breeding areas as well as the period of dependence of young birds after leaving the nest (previously recognised in the 1993 Commission report on the application of the Birds Directive). A scheme, which deals with the different stages of reproduction, was agreed by the ‘ORNIS committee’ as an appropriate general scheme for the period of reproduction (see Figure 2). The sequence and importance of the elements of this general scheme may vary by species according to differences in breeding biology.

• **Return to the breeding areas**

2.5.6 Return to the breeding areas is an annual displacement, in one of more stages, of birds from their wintering areas back to nesting grounds. The wintering period ends with departure from the wintering areas where migrant birds have been more or less stationary since the end of the post-nuptial (autumn) migration. The return to the breeding areas is commonly called ‘pre-nuptial migration’ or ‘spring migration’.

2.5.7 In Europe, return migration movements are mostly directed North, Northeast or Northwest. This means that migrants from African winter quarters first cross the Mediterranean, then pass through central Europe on their way to their Northern European breeding areas. This migration normally takes several weeks (including breaks at resting places on the way) but individual birds can complete the journey in one or a few days. The start, end and length of the migration season in a particular country are determined by a number of biological, geographical and methodological factors.

2.5.8 Regarding the beginning of the pre-nuptial migration, all individuals of a species within a same region do not end their wintering period at the same time. Not only are there individual differences, but also within a single wintering area, birds of different populations having different annual cycles come together. Birds belonging to northern populations, for example, often start their return flight much later than birds breeding more to the south. An extreme case is the so-called 'leapfrog' migration (e.g. in the Redshank *Tringa*).

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42 Note that Article 7(4) refers both to 'rearing season' and 'the various stages of reproduction' (cf. French version 'les différents stades de reproduction et de dépendance'; German version 'Einzelnen Phasen der Brut - und Aufzuchtzeit'; Dutch version 'zolang de jonge vogels het nest nog niet hebben verlaten').

43 This term is considered equal and better English than the term 'rearing season' used in Article 7(4).


46 “return to breeding areas” is taken as a synonym of “return to the rearing grounds”
birds breeding in more northern latitudes travel greater distances and move to more southerly wintering areas than those that nest farther south.

2.5.9 The fact that birds leave a wintering area does not necessarily mean that they start their return migration. They can move to other wintering quarters because of changes in the local ecological conditions, exhaustion of food resources, disturbance or changes in climatic conditions. When migratory and sedentary birds of the same species coexist on the same wintering grounds, the situation can be even more complex. Thus, apparent discrepancies may arise among the data for large countries. Major differences between neighbouring regions can reflect ecological differences more than actual differences in migration timing. For example, although the southern parts of Spain (Andalucía) and Italy (Sicilia) are situated on the same latitude (37th) this does not necessarily imply similar arrival dates of migrants because different populations might be involved.

2.5.10 The length of the migration period does not only depend on the North-south extension of the country concerned but also on the availability and the use of resting-places. A typical example concerns the Bar-tailed Godwits Limosa lapponica which migrate from the African winter quarters to Siberian breeding areas. After a continuous flight from the Banc d'Arguin in Western Africa, they stay several weeks in the Wadden Sea. The migration period length is also determined by the quantity and the geographical range of the birds involved: a small population can pass in a few days while a numerous species with an extensive breeding range can have a prolonged migratory season encompassing several months. Moreover, the migration period can also be extended if a country is passed over by several populations with different time schedules.

- Applying the ‘key concepts’ definitions to different Annex II species

2.5.11 In general, for migratory species, the stage of reproduction identifying the start of the period of reproduction is the 'occupation of the breeding sites'. However, the occupation of the breeding sites is generally difficult to use where the species is mainly locally resident or where there is a mixing of locally resident and migratory birds. In these cases, the stage identifying the start of the period of reproduction is the 'construction of the nest'. In those situations where the stage retained is difficult to recognise in the field, a mention is made to the corresponding number of decades counted from the start of egg laying (generally well known for most species).

2.5.12 In general, the stage retained to identify the end of the period of reproduction is the 'full flight of young birds', i.e. fledging of all broods including second or third broods for some species (e.g. rails/Rallidae, pigeons/Columbidae, thrushes/Turdidae). Full flight means that young birds are capable of sustained, continuous flight to a similar capacity as adult birds and corresponds to the 'independence of young birds'. Nonetheless, for certain species (e.g. crows/Corvidae) the full flight occurs before 'independence of young birds'. Young birds are independent when the loss of parental care
and/or feeding does not significantly lower survival prospects of young. In those situations where the ‘full flight/independence of young’ is difficult to establish in the field, a mention is made to the corresponding number of decades counted from the end of hatching.

2.5.13 The stage that is used to identify the start and end of the period of reproduction for each Annex II species has been determined in relation to their biology. On the basis of this and the available information from different Member States the pre-nuptial and reproduction periods have been determined for each species. It is recognised that there are likely to be differences in quality of the data for species across the EU and that there will be a need to regularly update this review, taking into account new and better data as it becomes available. Apart from this regular review it will also be necessary to account for any changes in migration or timing of breeding that may result from climate change effects, and to account for changes in timing as a result of other environmental pressures.

2.6 Assuring a system of complete protection where staggered opening and closing dates are considered

2.6.1 According to the consistent case-law of the Court “national authorities are not empowered by the Directive to fix closing dates for the hunting season which vary according to the species of bird, unless the Member State concerned can adduce evidence, based on scientific and technical data relevant to each individual case, that staggering the closing dates for hunting does not impede the complete protection of the species of bird liable to be affected by such staggering.” On condition that “complete protection of the species” is guaranteed, the Court has also held that “the fixing of closing dates, which vary between the different parts of the territory of a Member State, is compatible with the Directive”.

2.6.2 In cases C-435/92 and C-38/99, the Court recognised two difficulties with the staggering of closing dates, which are also relevant to opening dates: disturbance of other species and the risk of confusion. These are examined below and a proposed approach to addressing them is given.

47 As regards presentation of the data for each species a number of general principles were applied (see p.7 of key concepts report). Where there is a range of dates in timing of pre-nuptial migration or reproduction the earliest date has been chosen. Likewise, where significant between year variation occurs on a regular basis, data from the earliest periods have been taken. Where different populations migrate through a country the earliest migrating population has been used. However, extreme, outlining and erratic data were excluded due to their unpredictable nature.


RISK OF CONFUSION

2.6.3 This phenomenon depends on a series of factors, including in particular the similarity between huntable species for which there is an open hunting season, and those for which the hunting season has ended or has still to commence, the conditions under which hunting is taking place and hunter proficiency.

2.6.4 In case C-435/92 the Court noted that, with regard to the risk that certain species for which hunting has already been closed will be subject to indirect depletion owing to confusion with the species for which hunting is still open, it must be emphasised that the third sentence of Article 7(4) of the directive is specifically intended to prevent those species from being exposed to the risk of depletion due to hunting during the period of pre-mating migration, requiring the Member States to take all necessary measures to prevent any hunting during that period.

2.6.5 The risk of confusion between different bird species is well recognised and has already been the subject of a number of specialist identification guides. On the basis of criteria such as similarity in appearance and plumage, habitat use and behaviour (including calls) it is possible to categorise huntable species into groups of ‘look-alike’ species for the purpose of minimising the risk of confusion. This should be under the responsibility of the competent authorities that are responsible for authorising hunting seasons. Figure 3 is presenting one possible scheme for such a categorisation.

2.6.6 If staggering of hunting dates is to be allowed the opening and closing dates must be fixed for each group of ‘look-alike’ species in a way that ensures that there are not overlaps with non-permissible periods under the directive.

2.6.7 Any grouping of look-alike species needs to be adapted to the circumstances of time and place in which hunting is carried out. Firstly, for a risk to be real the huntable species (or group of species) must be present and huntable in the area during the timeframe in question. Secondly, other ‘confusable’ huntable species, for which the hunting season is closed, should also have a predictable and significant presence.

2.6.8 Furthermore, as regards hunting in early autumn it should be noted that surface duck species are mainly in eclipse plumage at this stage (males assume plumage similar to females during moult) which makes distinguishing them at this time significantly more difficult.

2.6.9 In addition, the problem of confusion is compounded by the fact that different bird species frequently co-exist. For example ducks, waders and thrushes

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frequently move in flocks of mixed species. A group of ducks may be comprised of four or even five different species. Therefore, in such circumstances ‘selective’ shooting can become very difficult.

2.6.10 The categories of confusable species focus on different groups of the huntable species listed in Annex II of the directive. However, it should also be noted that the risk of confusion is not limited to huntable species and may represent a conservation threat to certain vulnerable or endangered species (e.g. Ferruginous Duck Aythya nyroca, Marbled Teal Marmaronetta angustirostris, Lesser White-fronted Goose Anser erythropus, Crested Coot Fulica cristata) in particular areas where hunting takes place. This problem would need to be addressed in the overall context of the management of these sites.

2.6.11 The second factor that needs to be considered is the conditions under which hunting is taking place. This will depend upon factors such as the observation distance. The further a bird is from the hunter the greater is the difficulty in determining its specific characteristics (size, plumage etc.) Identification of flying birds will depend on the time that the bird is visible, which can be quite short. Therefore, the type of hunting is likely to influence the level of risk of confusion.

2.6.12 Likewise, the lighting conditions can also play an important role. Poor visibility at sunrise and sunset or at night can significantly reduce the capacity to distinguish bird species\(^52\). Particular weather conditions such as fog and rain can also reduce the possibility to correctly identify birds in the wild.

2.6.13 Finally, the issue of hunter proficiency also has an important influence. This will depend on the training and experience of the hunter. This applies at all times of the hunting season and is also relevant to distinguishing huntable from non-huntable species (e.g. Knots Calidris canutus from other small waders; Skylarks Alauda arvensis from other larks). Training and awareness schemes to assist hunters with species identification should be encouraged or enhanced where they already exist, as appropriate. Hunters should not shoot at a bird unless they are confident of its identity. However, many hunters specialise in particular groups of birds and rarely hunt species about which they do not have earlier experience. In this way hunters become specialists in the identification of their favourite target species.

**RISK OF DISTURBANCE**

2.6.14 This phenomenon will depend, inter alia, on the type of hunting, its intensity, frequency and duration, the species concerned and the habitats used, as well as on the availability of alternative refuge areas.

\(^52\) Identification guidance has been produced by hunters on this subject (e.g. ‘Reconnaître les oiseaux la nuit’ by Philippe du Cheyron for the Association Picarde des chasseurs de gibier d’eau).
2.6.15 In case C-435/92\textsuperscript{53} the Court noted that hunting activity can lead to disturbance of wildlife and that it may affect the conservation status of the species concerned, independently of the extent to which it depletes numbers. The Court stated that the consequences of such activity are ‘particularly serious for groups of birds, which, during the season of migration and wintering, tend to gather together in flocks and rest in areas which are often very confined or even enclosed. Disturbances caused by hunting force these animals to devote most of their energy to moving to other spots and to fleeing, to the detriment of time spent feeding and resting for the purpose of migration. These disturbances are reported to have an adverse impact on the level of energy of each individual and the mortality rate of all the populations concerned. The effects of disruption caused by hunting birds of other species are particularly significant for those species whose return migration takes place earlier’.

2.6.16 Disturbance is considered to most likely have an impact on bird populations during periods of the annual cycle when food is scarce or unavailable and birds have difficulty in meeting their energy and nutrient requirements.\textsuperscript{54} This is most acute when birds need to build up their reserves prior to periods of high energy demand such as prior to migration or during periods, during severe adverse weather conditions or before commencing breeding.\textsuperscript{55} With regard to the severe weather conditions there are provisions in different Member States to introduce ‘cold weather hunting bans’.

2.6.17 A recent review of the scientific literature on energetic physiology of birds has challenged the assumption that hunting always will give rise to disturbance that will pose a significant threat to the survival of bird populations.\textsuperscript{56} The energy balance of birds is a key factor in determining the reproductive success and survival potential of birds. This review demonstrates that under certain conditions birds can show high physiological and behavioural adaptability, through increase of food-intake rate and shift from a night-time to a day-time feeding or vice-versa, to offset the significant energetic and nutritional stresses that can result from disturbance, including hunting disturbance. As long as birds have access, even intermittently, to sufficient food resources (i.e. within acceptable levels of disturbance and food availability) then they are able to compensate to changes in their energy balance in response to disturbance.


\textsuperscript{56} Boos, M., J-P. Arnauduc, J-P. Robin. 2002 ‘Effets du dérangement sur l’énergétique chez les oiseaux et les possibilités de compensation nutritionnelles’ Rapport final de convention de recherche CNRS/FNC. Centre d’Ecologie et Physiologie Energétiques, France. The assumptions underpinning the conclusions of this study included the following: that the mean disturbance frequency to which birds actively react by flying was from 1 to 2.5 disturbances an hour; that the mean flight time was between 1 to 2 minutes per disturbance; that the period of disturbance extended over 10 hours per day; that food supply was not a limiting factor; that the birds were not in an advanced stage of preparation for reproduction, especially for egg production.
sources (see example of study of diving ducks on large shallow lake)\textsuperscript{57}. Even if there are significant behavioural changes from this disturbance the impact on the energy equilibrium is small.

2.6.18 However, behavioural responses to disturbance are complex and may be underestimated especially where hunting is intense. For example the time lost after landing before birds resume feeding may take up to one hour (and if repeated disturbance up to 2 hours). This may affect other behavioural activities (social, preening, resting, mating). Disturbance is also likely to lead to increased vigilance to the detriment of feeding. Also there are currently few studies to support the assumption that birds have free and ample access to food resources to compensate. Birds will seek alternative undisturbed sites, which may not be nearby or where there may not be an adequate food supply. Furthermore, different categories of birds vary in their level of sensitivity to disturbance in relation to their biology and behaviour and dependency on different habitats. Notwithstanding, even though feeding behaviour can be disturbed there is a general lack of studies to determine if birds over a short or long-time scale cannot efficiently feed, particularly as energy income via food intake has to be considered in both the short and the long-term.

2.6.19 In the absence of empirical studies the consequences of a lack of energy balance on the reproductive success and survival of species is still not fully understood. According to the conclusions of the above mentioned review birds are unable to compensate if, in addition to the energy loss from disturbance there is no access to food resources during consecutive days (e.g. during adverse weather conditions) or during the active period prior to and during reproduction. This latter view is supported by studies of geese (which are capital breeders – i.e. dependant on energy reserves laid down before arrival on the breeding grounds) which have shown that disturbance can significantly reduce the reproductive success\textsuperscript{58}.

2.6.20 Allowing for staggered hunting dates during prenuptial migration is likely to present a greater risk to birds than at the end of the period of reproduction possibly due to the higher energetic demands of birds at this time. Other factors may play a role (e.g. shorter day length in February than in August with less potential daylight feeding time). The energy strategy over the annual cycle is an important fact. It has been shown for different waterfowl that February corresponds to a spontaneously and endogenously programmed build down of body fuels even when food is available \textit{ad libitum}. This regulation of body reserves is associated with the voluntary decrease of food intake\textsuperscript{59}.


\textsuperscript{59} M. Boos, pers. comm.
Furthermore, the demography of the population normally differs significantly between these two periods, with a relatively high adult cohort in the population in spring, which represent potential breeders, supplemented by a large proportion of immature birds in autumn.

2.6.21 There is a lack of consistent information and research on birds at flyway level to better evaluate the effect of disturbances, such as hunting, on bird populations and their conservation status. Various studies have shown that poorly managed hunting can seriously reduce the carrying capacity of wetlands to support waterbirds. The location of hunting in relation to feeding areas may also be relevant.

2.6.22 As regards minimising the potential impact of human disturbance on bird populations during periods of staggering of hunting dates full account must therefore be taken of the need for supplementary undisturbed refuge areas that provide for both the resting and feeding requirements of affected birds. The design of such areas needs to ensure that there are sufficient opportunities for good quality feeding and other activities within them. This needs to be determined on an area by area basis in relation to the ecological, behavioural, nutrient and energy requirements of the different huntable species affected by staggered hunting dates. In this regard there has recently been increased research and development of appropriate and more effective methods to manage existing refuge and buffer areas, especially in wetland areas.

**WHAT CONDITIONS NEED TO BE MET IF A MEMBER STATES WANTS TO AVAIL OF STAGGERED OPENING AND/OR CLOSING DATES FOR HUNTING UNDER ARTICLE 7(4) OF THE DIRECTIVE?**

2.6.23 To ensure that this is consistent with the principle of complete protection, as interpreted by the Court of Justice, Member States must be able to demonstrate at the relevant geographic level at which staggering is intended to be applied that there are non-significant risks of confusion and disturbance.

2.6.24 As regards the risk of confusion this would require the categorisation of groups of ‘look-alike’ huntable species using the same habitat types at the same time and the fixing of the same opening and closing dates for hunting of these groups in a way to avoid overlapping with non-permissible periods. It also requires a determination that the conditions under which hunting takes

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place do not give rise to a significant risk of confusion between different huntable species.

2.6.25 As regards the risk of disturbance there is a need to demonstrate a balance between the intensity, frequency and duration of hunting, and the availability and proximity of sufficient undisturbed areas offering adequate feeding and roosting areas.

2.6.26 There needs to be adequate enforcement measures to ensure that the above provisions are respected.

2.6.27 Finally, in areas which may be subject to staggered hunting seasons \(^{62}\), integrated planning that takes full account of hunting and other potential disturbances on the birds and their use of the natural resources would appear to be a valuable management tool. Such planning should incorporate scientific monitoring to evaluate the potential impacts on the bird species concerned.

2.6.28 A suggested schema for considering the conditions that need to be fulfilled to ensure compatibility of staggered opening and closing dates is proposed (Figure 4).

### 2.7 Overlaps analysis

2.7.1 A preliminary comparison between existing hunting season periods and the agreed pre-nuptial and reproduction periods for huntable species in each Member States reveals that there are a wide range of potential or actual overlaps\(^{63}\), which vary in extent between the different species. All Member States are concerned although the majority of them only have problems for a relatively small number of species. The problem of overlaps appears to be more complex in those Member States where hunting dates are fixed at regional levels. However, it should be noted that for the majority of species in the different Member States there is no overlap.

2.7.2 Data on reproduction and pre-nuptial migration periods in the ‘Key concepts’ analysis report is presented in 10 day periods (decades). Consequently the degree of accuracy is 10 days. Therefore, an overlap of one decade between hunting date and the period of prenuptial migration or reproduction is categorised as ‘a theoretical overlap’ as during this period it is possible that there may not actually be an overlap. For periods of greater than 1 decade of overlap there is no such uncertainty as this is therefore a ‘real overlap’.

2.7.3 Furthermore, as the overlap analysis at the level of the Member State there may be situations where hunting in particular regions of larger Member State is actually in conformity with the requirements of Article 7(4), because the breeding season may end or return migration may start later than in the country as a whole.

\(^{62}\) The scale of such planning would need to be determined in relation to the geographic scope of application of the area subject to staggering.

\(^{63}\) Overlap analysis – DG Environment, 2002.
2.7.4 This analysis reveals that there are problems of overlaps in both the reproduction and pre-nuptial migration periods. Some current hunting regulations allow hunting:
- extending into period of pre-nuptial migration (and sometimes the reproduction period at the same time)
- starting before end of reproduction period
- at other times of the reproduction period

2.7.5 The most problematic species is the Wood Pigeon *Columba palumbus* (overlap for 13 Member States with up to 15 decades in Ireland). The Mallard *Anas platyrhynchos* also appears to be a problem in eight Member States (with up to 5 decades overlap). Overlaps (or theoretical overlaps) for several Crow species *Corvidae* (up to 9 decades) occur in several of the Member States.

2.7.6 Several of these overlaps appear to be linked to species with long reproduction periods (or late reproduction) and/or early migration periods. Other possible explanations for the overlaps may be linked to the inappropriateness of hunting during the normal period or due to the unavailability of the huntable species at this time. A more detailed examination of different categories of overlap is given in Chapter 3.

2.7.7 It would also appear that there are cases of hunting of species under Article 7(4), which may be justified in the context of controlling damage-causing species under Article 9.1 of the Directive.

- **Possible solutions to overlap problem**

2.7.8 For each case of overlap there is a need for full compliance with the requirements of Article 7(4). Therefore, in all cases there will be a need to bring the national and/or regional legislation that fixes hunting dates under Article 7(4) of the Directive into conformity.

2.7.9 However, it is recognised that some limited flexibility can be exercised in interpreting data with a view to determining opening and closing dates for hunting seasons in accordance with Article 7(4) of the Directive. The ‘Key concepts’ document has allowed for the exclusion of erratic, outlier and extreme data in determining the pre-nuptial and migration periods for different huntable bird species. Furthermore, it is possible to exclude overlaps of one 10 day period as, based on the level of precision of the data, these can be considered as theoretical overlaps (see section 2.7.2).

2.7.10 If hunting seasons are set for the country as a whole, they should not overlap with the breeding and return migration periods as identified in the “Key concepts” document. If regional hunting seasons overlap with national reproduction or return migration periods scientific and technical data could provide evidence that such overlap does in fact not occur because breeding ends earlier or return migration starts later in the region concerned. This may be the case particularly in countries with profound climatic differences.
between the southern and northern parts and or with similar climatic differences between regions situated at different altitudes. In each case there would be a need to demonstrate clearly distinguishable regions, where on the basis of clear scientific evidence on pre-nuptial migration and/or reproduction periods, such differential opening and closing dates could be justified. In the absence of regional data the overlap analysis has to be based on national data (or if not available reference should be made to data from neighbouring parts of Europe, cf. Conclusion C-157/89, para. 16). It should be noted however, that large distance within a country is not in itself evidence for regional variation in migration patterns because migratory birds can easily cover hundreds of kilometres in one day.

2.7.11 Likewise, where the breeding range of a species with a prolonged reproduction period is clearly geographically restricted in a Member State, with late localised breeding of this species, it may be permissible to allow for earlier opening dates for hunting seasons of the species outside of these areas. In such circumstances there would be a need for the geographic areas to be at the appropriate scale to ensure that territories with late breeders are not subject to hunting seasons until the reproduction period has ended.

2.7.12 The situation regarding the Mallard Anas platyrhynchos, which has a prolonged combined pre-nuptial and reproduction period in some Member States deserves particular mention (see also section 3.4.33 and figure 7). In some countries a large proportion of the population is comprised of captive bred specimens. Captive bred specimens as such are not covered by the terms of the directive (as confirmed by the decision of the Court of Justice in Case C-149/94). In application of the directive account needs to be taken of the mixing of captive bred and wild stocks. Introducing a high level of captive bred birds into the population may result in abnormal population behaviour, including that relating to pre-nuptial migration and reproduction periods. This would appear to be particularly the case in relation to the prolonged breeding seasons of this species. In light of the fact that highly artificial human-derived factors are superimposed on the biological pattern, it would seem to be appropriate in those countries containing a high percentage of an artificial population to make allowance for any distortion in the pre-nuptial migration and breeding data when fixing the hunting season of this species under Article 7 to bring it into alignment with that for other similar surface duck species. This would also have the added value of reducing hunting pressure during this period on these other species which are less plentiful than the Mallard.

2.7.13 One other most obvious solution to avoid overlap under Article 7(4) is shortening or shifting the hunting season, which, if necessary, could be

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64 For example in Sweden the time of breaking up of the ice on lakes varies from 15 March in the south to 15 June in the mountainous parts in the north. This difference corresponds to up to 9 decades and has profound phenological consequences.
65 For example, whereas the French breeding population of the Mallard is estimated at 30000-60000 pairs, game breeders produce 1.4 million Mallard each year (source: Y.Ferrand, Office National de la Chasse et de la Faune Sauvage).
combined with a proportional increase in hunting days (if hunting is restricted to certain days in the week).

2.7.14 In any case such solutions have to be examined if an Article 9 derogation is considered necessary. The next chapter of this guide examines the possibility for allowing for some hunting under the derogation system of Article 9 of the Directive. Several damage-causing species for which overlapping hunting dates exist at present may be more appropriately treated under Article 9(1)(a) of the Directive. The possibility for limited hunting of certain species outside the normal hunting period, as a form of ‘judicious use’ under Article 9(1)(c), is also explored in the next chapter of the guide.
Summary issues to consider to allow for hunting and fixing hunting seasons under Article 7

7.1 Is it a huntable species (Annex II/1&2)?
   - No
   - Yes

7.1 Non jeopardization of conservation efforts in area of distribution?
   - No
   - Yes

7.4 Is it wise use?
   - No
   - Yes

7.4 Where appropriate Is it ecologically balanced controlled?
   - No
   - Yes

7.4 Is there complete protection?
   - No
   - Yes

- no overlap between hunting periods and reproduction and pre-nuptial migration periods?
- no staggering of opening and closing dates? (see separate scheme in Figure 4)

Hunting allowed

No hunting allowed unless possible derogation (Art9)

General principles

Fixing hunting seasons

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3 PROVISIONS OF ARTICLE 9
Grey Lag Geese - Acrylic painting by Pieter Verstappen
3 PROVISIONS OF ARTICLE 9

Text of Article 9

“1. Member states may derogate from the provisions of Articles 5, 6, 7 and 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 must specify:
- the species which are subject to the derogations,
- the means, arrangements or methods authorized for capture or killing,
- the conditions of risk and the circumstances of time and place under which such derogations may be granted,
- 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 controls which will be carried out.

3. Each year the member states shall send a report to the Commission on the implementation of this Article.

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 these derogations are not incompatible with this Directive. It shall take appropriate steps to this end.”

3.1 Introduction

3.1.1 Derogations are ‘exceptions’ which allow for some flexibility in the application of a law. A limited number of activities normally prohibited under the Birds Directive (Articles 5-8) are permissible by way of such derogations, where particular problems or situations exist or may arise. The possibilities for use of these derogations are constrained. They must be justified in relation to the overall objectives of the Directive and comply with the specific conditions for derogations described in Article 9. Member States do not need to consult the Commission before applying derogations but are obliged to report all derogations to the European Commission in annual derogation reports.
3.1.2 In this chapter major considerations relating to the use of derogations, particularly with regard to hunting, are reviewed. Firstly, formal legal considerations are examined. Secondly, the need to ensure that conditions for derogations are satisfied is explained. Then the three major conditions for use of derogations are explored. These are the issue of ‘no other satisfactory solutions’, the need to demonstrate one of the reasons allowed under Article 9(1)(a) to (c), which is followed by a section dealing with the need to satisfy the formal conditions set out in Article 9.2. Finally, reference is made to the reporting of derogations by Member States under Article 9.3 and the role of the Commission under Article 9.4 in ensuring that these are compatible with the requirements of the directive.

3.2 Formal legal considerations

3.2.1 Certain basic formal considerations must be taken into account in any use of derogations.

3.2.2 The national legislation on which derogations are based needs to fully and accurately mirror the provisions of Article 9. According to the established case-law related to transposition of the Directive, the Court of Justice stated that "the criteria which the Member States must meet in order to derogate from the prohibitions laid down in the Directive must be reproduced in specific national provisions, since a faithful transposition becomes particularly important in a case where the management of the common heritage is entrusted to the Member States in their respective territories." In Case C-159/99, Commission v Italy, which also related to the Directive's transposition, the Court observed that "the provisions of Directives must be implemented with unquestionable binding force, and the specificity, precision and clarity necessary to satisfy the requirements of legal certainty".

3.2.3 In Case C-339/87, the Court also confirmed that observance of the requirements of Article 9 in practice was not a substitute for proper formal transposition. It noted that "mere administrative practices, which by their nature may be changed at will by the authorities, cannot be regarded as constituting proper compliance with the obligation on Member States to which a Directive is addressed, pursuant to Article 189 of the Treaty."

3.2.4 Derogations should not be compromised by non-compliance with the provisions from which they derogate. In particular, the prohibitions and other requirements from which derogations are made should be properly transposed into national law. Furthermore, in accordance with general legal principles, the

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grounds justifying derogations need to be strictly interpreted to avoid undermining the main provisions of the Directive.

3.2.5 The Court confirmed that Article 9 is to be interpreted as meaning that it authorizes the Member States to derogate from the general prohibition on hunting protected species laid down by Articles 5 and 7 of the directive only by measures which refer in sufficient detail to the factors mentioned in Article 9(1) and (2). In exercising their powers concerning the granting of derogations, in accordance with Article 9 of the Directive the authorities of the Member States must take account of various criteria relating to geographic, climatic, environmental and biological factors and, in particular, to the situation regarding the species’ reproduction and total annual mortality rate owing to natural causes. A licence or other instrument embodying a derogation should therefore be complete and explicit in referring to the conditions that a derogation must satisfy.

3.2.6 This enables the Commission, the Court and, mainly, the national authorities to supervise the derogations granted. It should be recalled that, according to Articles 242 and 243 of the EC Treaty, the Court 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. In a recent case, the Court ordered Italy to suspend the application of a regional law granting hunting derogations.

3.2.7 When granting derogations, the national authorities bear the burden of proof and must motivate their decisions in a clear and sufficient manner. According to the Court, "the relevant national legislation applicable must specify the criteria for the derogation in a clear and precise manner and require the authorities responsible for applying them to take account of those criteria. In respect of exceptional arrangements, which must be interpreted strictly and impose on the authority taking the decision the burden of proving that those conditions are present for each derogation, the Member States are required to ensure that all action affecting the protected species is authorised only on the basis of decisions containing a clear and sufficient statement of reasons which refers to the reasons, conditions and requirements laid down in Article 9(1) and (2) of the Directive."

72 Judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083, paragraph 25.
73 See for instance the case of spring hunting in Finland (judgment of 15 December 2005, Commission/Finland, ECR 2005, p.11033), where the Finnish Government has not provided evidence to support its assertions (e.g. paragraphs 35, 39 and 41).
74 Judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083, paragraph 34.
3.2.8 In addition, the Court has provided useful clarification with regard to the effectiveness of the national control mechanisms of the decisions granting derogations. In Case C-60/0577, the Court stressed that "the relevant national procedural framework applicable must guarantee not only that the lawfulness of decisions granting authorisations derogating from the system of protection laid down by the Directive may be verified in a timely manner but also that the conditions attached to those decisions are complied with". Based on the need to ensure the power of the competent national authorities to intervene in a timely and effective manner, the Court ruled that "the administrative procedures provided for are organised in such a way that both the decisions of the competent authorities authorising hunting derogations and the manner in which those decisions are applied are subject to effective control exercised in a timely manner".

3.3 Ensuring that Overall Conditions for Derogations are Satisfied

3.3.1 Before a valid derogation can be given under Article 9, the competent national authority needs to consider and properly address several conditions concerning the derogation's prior justification and subsequent application.

3.3.2 In Case C-118/94, Associazione Italiana per il World Wildlife Fund and Others v. Regione Veneto, the Court noted78 that the use of Article 9 is subject to three conditions: "It is important also to bear in mind that the Court has stated that the possibility provided for in Article 9 of derogating from the restrictions on hunting, as well as from the other restrictions and prohibitions contained in Articles 5, 6 and 8 of the Directive, is subject to three conditions. 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. Although Article 9 therefore authorizes wide derogations from the general system of protection, it must be applied appropriately in order to deal with precise requirements and specific situations (judgements in Case 247/85 Commission v Belgium [1987] ECR 3029, paragraph 7, and Case 262/85 Commission v Italy [1987] ECR 3073, paragraph 7)."

3.3.3 Non-respect of any one of these conditions may render a derogation invalid. It is therefore necessary for the Member State authorities to carefully examine the applicability of all three conditions, irrespective of the number and identity of the authorities within their territory responsible for applying that provision79. As noted in paragraph 3.2.5 above, any derogation should also be

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77 Judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083, mainly paragraphs 42-47.
78 See paragraph 21 of the judgment.
79 See in particular the judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083, paragraphs 41.
explicit in its references to these conditions. In terms of the structure of the present guide, Sections 3.4, 3.5 and 3.6 deal with each of the three conditions in turn.

3.4 **First Condition for Derogations: Showing there is ‘No other Satisfactory Solution’**

3.4.1 As has been noted at paragraph 3.3.2 above, derogations are only possible in cases where there is no other satisfactory solution. This is an overarching condition that all derogations must satisfy.

**General Considerations**

3.4.2 An analysis of whether there is "no other satisfactory solution" can be considered as having three parts: What is the problem or specific situation that needs to be addressed? Are there other solutions? If so, will these resolve the problem or specific situation for which the derogation is sought? Before answers are sought to the second and third parts, it should be clear that the problem or specific situation is capable of being covered by Article 9(1)(a) to (c).

3.4.3 This approach is illustrated by Case C-10/96, *Ligue Royale Belge pour la Protection des Oiseaux ASBL, Société d'Etudes Ornithologiques AVES ASBL v. Région Wallonne* - the most extensive decision of the Court of Justice to date on "no other satisfactory solution". Although this case involved very specific circumstances, it is of considerable assistance in any general analysis of how this condition should be addressed. It is therefore worth looking at in some detail.

3.4.4 The background was a challenge made in the Belgian Court against two orders of the Walloon Region, which, *inter alia*, authorised the capture, under specified conditions, of certain species of birds protected by the Directive. The aim of the purported derogation was to supply bird fanciers with wild specimens to enable more successful captive-breeding to be carried out. Contesting the validity of the orders, the *Ligue Royale* and AVES argued that the capture of wild birds was in principle prohibited by the Directive and that derogations from that prohibition could, according to Article 9, be permitted only if there was no other satisfactory solution, such as breeding in captivity. They contended that there were extensive and adequate opportunities for breeding the species whose capture was authorised by the contested orders.

3.4.5 Two lines of argument were advanced by the Belgian authorities as to why there was no satisfactory alternative to allowing the capture of wild birds. The first related to the difficulties of immediately obliging bird fanciers to make the changes necessary to ensure more successful breeding using only captive-bred birds. The second related to the risk to successful captive breeding posed

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80 The recitals to the Directive relate the possibility of derogations to “certain specific situations”.
by a lack of genetic diversity in captive breeding stocks. These two rationales are reflected in the questions referred by the Belgian Conseil d’État to the Court of Justice for interpretation.

3.4.6 In essence, the Court rejected the first line of argument, but, with several qualifications, accepted the possibility of derogations to deal with problems of consanguinity.

3.4.7 In analysing the issue of other solutions, the Court noted that the actions to be permitted under the derogation (in this case capture of wild birds for recreational purposes) were an example of "judicious use" and thus came within the exhaustive reasons that constitute the second condition referred to in Case C-118/94, (see paragraph 3.3.2 above), i.e. a derogation must be based on at least one of the reasons listed exhaustively in Article 9(1)(a), (b) and (c). This underlines the inter-relationship between the issue of other satisfactory solutions and the reasons for the derogation. In practical terms, there is little point in examining the issue of other solutions if the actions concerned by the derogation do not come within the scope of Article 9(1)(a) to (c).

3.4.8 The Court observed that, in the specific circumstances of the case, there was another solution to capturing wild birds under the derogation, namely breeding exclusively using captive specimens.

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82 The questions referred to the Court were the following:
"1. Do Articles 5, 9 and 18 of Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds allow a Member State to take account, on a decreasing basis and over a specified period, of the fact that the prohibition of capturing birds for recreational purposes would compel numerous fanciers to alter their installations and to abandon certain habits where that State recognizes that breeding is possible but is not yet feasible on a large scale for that reason?
2. Do Articles 5, 9 and 18 of Directive 79/409/EEC allow Member States, and if so to what extent, to authorize the capture of birds living naturally in the wild state within European territory with a view to obviating, in bird breeding for recreational purposes, the problems of consanguinity which would result from too many endogenous crossings?"

83 The Court responded to the questions posed as follows:
"1. Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, and in particular Article 9(1)(c) thereof, must be interpreted as meaning that a Member State may not, on a decreasing basis and for a limited period, authorize the capture of certain protected species in order to enable bird fanciers to stock their aviaries, where breeding and reproduction of those species in captivity are possible but are not yet practicable on a large scale by reason of the fact that many fanciers would be compelled to alter their installations and change their habits.
2. National authorities are authorized under Directive 79/409, and in particular under Article 9(1)(c) thereof, to permit the capture of protected species with a view to obviating, in bird breeding for recreational purposes, the problems of consanguinity which would result from too many endogenous crossings, on condition that there is no other satisfactory solution, it being understood that the number of specimens which may be captured must be fixed at the level of what proves to be objectively necessary to provide a solution for those problems, subject always to observance of the maximum limit of 'small numbers' referred to in that provision."

84 The Court's reasoning includes the following: "15 It should first be pointed out that the Court has held, at paragraph 38 of its judgment in Case 262/85 Commission v Italy [1987] ECR 3073, that the capture and sale of wild birds with a view to keeping them for use as live decoys or for recreational purposes in fairs and markets may constitute judicious use authorized by Article 9(1)(c) of the Directive. 16 It cannot therefore be ruled out that the capture of certain protected species for recreational purposes, such as that intended to enable fanciers to stock their aviaries, may also constitute judicious use within the meaning of Article 9(1)(c)."
3.4.9 The Court then examined whether this other solution could be considered satisfactory, noting:
"20 In those circumstances, breeding and reproduction in captivity could be regarded as not constituting an 'other satisfactory solution' only if it were established that, were it not for the capture of birds in the wild, those activities could not prosper.
21 Consequently, the fact that the breeding and reproduction in captivity of the species concerned are not yet feasible on a large scale by reason of the installations and the inveterate habits of bird fanciers, habits which, moreover, have been encouraged by domestic rules derogating from the general scheme of the Directive, is not in itself such as to cast doubt on the satisfactory nature of the alternative solution to capturing birds in the wild."

3.4.10 It is evident from this passage as well as remarks of the Advocate General that, where another solution exists, any arguments that it is not "satisfactory" will need to be strong and robust. As the Advocate General observes: "The essential unifying characteristic of paragraphs (a), (b) and (c) of Article 9.1 is that a prohibition laid down in the Directive in the interests of bird protection may have to yield to other requirements; a derogation under this provision can therefore only be a last resort. In this context the term 'satisfactory' may be interpreted as meaning a solution which resolves the particular problem facing the national authorities, and which at the same time respects as far as possible the prohibitions laid down in the Directive; a derogation may only be allowed where no other solution which does not involve setting aside these prohibitions can be adopted."

3.4.11 It is therefore clear that another solution cannot be deemed unsatisfactory merely because it would cause greater inconvenience to or compel a change in behaviour by the beneficiaries of the derogation. The Advocate General remarks: "It is in the nature of environmental protection that certain categories of persons may be required to amend their behaviour in pursuit of a general good; in this case, the abolition, as a consequence of the Directive, of 'tenderie' or 'the capture of birds for recreational purposes', which Belgium sought so stoutly to defend in ratifying the Bern Convention, is one example. That such activities may be 'ancestral' or partake of an 'historical and cultural tradition' does not suffice to justify a derogation from the Directive."

3.4.12 On the other hand, the cautious\(^{85}\) admission by the Court of the possibility of a derogation based on the risk of consanguinity demonstrates that, under certain circumstances, the condition as to no other satisfactory alternative may be satisfied. The Advocate General observes\(^{86}\): "The determination of whether

\(^{85}\) The caution of the Court is evident in the following passage: "25 It must next be borne in mind that, as already indicated in paragraph 17 of this judgment, a derogation from Article 5(a) of the Directive may be accorded only if there is no other satisfactory solution. In particular, that condition would not be met if it were possible to obviate the problems of consanguinity by cooperation and exchanges of specimens between breeding establishments."

\(^{86}\) Opinion of Mr Advocate General Fennelly delivered on 7 November 1996, Ligue royale belge pour la protection des oiseaux ASBL and Société d'études ornithologiques AVES ASBL v Région Wallonne, Case C-10/96, paragraph 39.
another satisfactory solution exists in a given factual situation is, of course, a matter for the national court. Such a determination must, in my view, be founded on objectively verifiable factors, such as the scientific and technical considerations suggested by the Commission." Against this background, it seems reasonable to state as a general proposition that any determination that another solution is unsatisfactory should be based on objectively verifiable factors, and that close attention needs to be paid to the scientific and technical evaluation of these. In Case C-79/03, the Court focused on those factors in order to assess the compatibility of the derogations granted hunting using limed twigs in the Spanish Community of Valencia. It seems that the arguments based on the "deeply rooted tradition" of hunting practices are not sufficient in order to justify the need for derogations. In addition, in its judgement of 16 October 2003, the Court took a rigorous view with regard to the "need" and the "purpose" of a derogation. A final point is worth noting from the decision in Case C-10/96 - the need to limit a derogation to the extent necessary to resolve the problem addressed. Thus, while there might be no other satisfactory solution to the risk of consanguinity than capture of a supplementary stock of wild birds, the number of specimens involved must be "fixed at the level of what proves to be objectively necessary to provide a solution for those problems". This limitation is distinct from the limitation of "small numbers" in Article 9(1)(c), although the limitation for small numbers must be observed as an overall "cap".

"NO OTHER SATISFACTORY SOLUTION" IN RELATION TO HUNTING

3.4.13 A basic question arises as to whether, as a matter of law and fact, this condition can ever be satisfied in relation to hunting, especially proposed extensions of hunting seasons. In the case of recreational hunting, this question is inextricably linked to the question of whether such hunting can be considered a “judicious use” for purposes of Article 9(1)(c). Clarification has been provided by the Court of Justice in its judgment in Case C-182/02 Ligue pour la protection des oiseaux and others, which arose out of a preliminary reference from the French Conseil d’État. Having confirmed that recreational hunting may constitute a “judicious use” (see section 3.5 below), the Court declared that a derogation under Article 9(1)(c) could only be given where there is no other satisfactory solution.

3.4.14 The Court did not describe at length under what circumstances recreational hunting would meet the condition as to “no other satisfactory solution.”

91 Judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement, Case C-182/02.
However, in paragraph 16 of the judgement, the Court provides important clarification, noting that this condition

“cannot be considered to have been satisfied when the hunting period under a derogation coincides, without need, with periods in which the Directive aims to provide particular protection (see, to that effect, Commission v Italy, paragraph 39). There would be no such need if the sole purpose of the derogation authorising hunting were to extend the hunting periods for certain species of birds in territories which they already frequent during the hunting periods fixed in accordance with Article 7 of the Directive.”

3.4.15 The reference to “need” and “purpose” of a derogation underlines, as does the judgement in Case C-10/96, the importance of demonstrating that there are compelling reasons to justify a derogation. This approach has been confirmed by the following rulings of the Court with regard to the hunting of woodpigeons in the Spanish province of Guipúzcoa and the spring hunting in Finland.

3.4.16 Furthermore, the second sentence quoted explicitly rules out the possibility of a derogation where the sole purpose is to extend a hunting season for wild birds that are available to be hunted during a normal open season. The Court has shown itself ready to carry out an “opportunity” check (contrôle d’opportunité) for granting derogations.

3.4.17 In Case C-344/03, the Court also ruled that hunting in the autumn, or in the spring, of other species birds present "by way of replacement" cannot be regarded as another satisfactory solution within the meaning of Article 9(1)(c) of the Directive. According to the Court, "such a solution would risk rendering that provision nugatory, at least partially, because it would allow in certain territories for prohibitions on hunting certain species of birds, even though hunting in small numbers might, in theory, not jeopardise the maintenance of their populations at a satisfactory level and, therefore, constitute judicious use of those species (see, to that effect, Ligue pour la protection des oiseaux and Others, paragraph 17). Moreover, unless all bird species are considered to be equivalent for the purposes of hunting, that solution would, in any event, be a source of legal uncertainty, because the basis on which it may be considered that the hunting of a given species can replace the hunting of another species is not clear from the applicable legislation."

95 An examination of whether, in a specific set of circumstances, a derogation is justified.
96 Judgment of 15 December 2005, Commission/Finland, case C-344/03, ECR 2005, p.11033, paragraph 44.
POSSIBLE OBJECTIVELY VERIFIABLE FACTORS AND SCIENTIFIC AND TECHNICAL CONSIDERATIONS

3.4.18 In the light of the decision of the Court in Case C-182/02, it requires to be examined whether there are needs - or, to use expressions found in the Advocate General's Opinion in Case C-10/96, objectively verifiable factors and scientific and technical considerations - that would justify derogations for hunting on the basis that there is no other satisfactory solution to a specific situation.

- Hunting with a non-recreational justification

3.4.19 It is generally accepted that some hunt able bird species can jeopardise the interests referred to in Article 9(1)(a) outside of the hunting season allowed under Article 7. It is also generally accepted that, in order to safeguard these interests, there may sometimes be no satisfactory solution other than destruction of birds. In this context, it would seem reasonable that the use of hunting is a legitimate means of safeguarding the interests mentioned in Article 9(1)(a). Of course, in this instance, hunting serves a non-recreational objective (i.e. damage prevention).

3.4.20 The species for which Article 9(1)(a) are invoked are sometimes referred to as ‘pest species’. The justifications for their control include ‘to prevent serious damage to crops, livestock, forests, fisheries and water’ as well as ‘for the protection of flora and fauna’. The first justification in particular relates to a wide range of species, including members of the Corvidae, Columbidae, Sturnidae, Laridae and Anseridae. Several of the species concerned are widespread and relatively abundant and are considered to have a favourable conservation status (see Figure 5 for consideration).

- Hunting for recreational purposes

3.4.21 As regards hunting for recreation, it would seem reasonable to consider that, in terms of objectively verifiable factors and scientific and technical considerations, the findings of the Overlap Analysis (see Chapter 2) are pertinent.

3.4.22 It has already been noted from the Overlap Analysis that, to a significant extent, hunting is permitted in some Member States during periods precluded under Article 7(4), thus requiring steps to ensure alignment of hunting seasons with the requirements of the Directive.

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97 Judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement, Case C-182/02.
98 Opinion of Mr Advocate General Fennelly delivered on 7 November 1996, Ligue royale belge pour la protection des oiseaux ASBL and Société d'études ornithologiques AVES ASBL v Région Wallonne, Case C-10/96, paragraph 39.
99 This category also applies to species not listed in Annex II such as the Cormorant Phalacrocorax carbo.
3.4.23 The first and primary reaction should, of course, be to ensure compliance with Article 7(4). This would be consistent with the second sentence of paragraph 16 of the judgement in Case C-182/02\textsuperscript{100}.

3.4.24 The question that then arises is whether there are factors which merit consideration of the scope for derogations in relation to the overlaps. It would appear that, in some cases, the overlaps may be correlated to a number of biological and conservation factors and there may be arguments as to why these may merit being looked at as possible objectively verifiable factors. Whereas these factors need to be examined on a species by species basis, several broad categories of overlap emerge, which need to be considered. For individual species or populations several of the different categories may simultaneously apply.

3.4.25 It should be stressed that in considering these factors for the purpose of derogation possibilities of Article 9(1) it will always be necessary to carry out an in-depth examination of the populations of the species and to have particular regard to the circumstances. Furthermore, it again needs to be emphasised that derogations are intended to address exceptional situations and that the factors mentioned should not be seen as justifying a general, systematic extension of hunting periods for general convenience. Before any derogations is granted, an assessment on a case by case basis and based on clear scientific evidence should take place. This approach is in line with the relevant case-law of the Court\textsuperscript{101}.

To assist reflection on the matter, a number of possible situations are outlined below. It should be stressed that the presentation of these situations does not imply that the Commission accepts that they constitute grounds for derogation.

- **Species for which hunting may be impractical or inappropriate during significant parts of normal period**

3.4.26 For example, for some species, which exist in cold climates, it may not be practical or appropriate to allow for hunting during cold periods of prolonged physiological stress. Examples may include species of the Grouse family *Tetraonidae* in mountainous environments. From a conservation point of view it may be less damaging to these species to allow some limited hunting during

\textsuperscript{100} Judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement, Case C-182/02. In order to assess if France had restricted the derogation to cases in which there was no other satisfactory solution, the Court examined whether it was necessary that the hunting period under a derogation coincides, without need, with periods in which the Birds Directive aims to provide particular protection. According to the Court, “there would be no such need if the sole purpose of the derogation authorising hunting were to extend the hunting periods for certain species of birds in territories which they already frequent during the hunting periods fixed in accordance with Article 7 of the Directive.”

\textsuperscript{101} See in particular the following judgments of: Judgment of 7 March 1996, Associazione Italiana per il WWF and others v Regione Veneto, case C-118/94, ECR 1996, p.1223, paragraph 21; judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement, Case C-182/02, paragraphs 13-19.
closed periods than during the normal hunting season\textsuperscript{102}. However, any consideration given to this matter should take full account of the needs of species during the short summer to ensure successful reproduction, moult preparations for winter and be based on clear scientific evidence. Furthermore, the judgement in Case C-182/02 makes it clear that an extension for the sole purpose of extending the hunting season would be unlawful.

- **Species which may be unavailable in parts of range during most of normal hunting period**

3.4.27 The absence of species in particular regions during normal hunting periods due to migration patterns may also be a factor for consideration. In its judgement in Case C-182/02\textsuperscript{103} the Court has not excluded the possibility of hunting under derogation outside normal periods fixed in accordance with Article 7. Such hunting would be permissible in “territories” not used by birds during the normal hunting period.

3.4.28 The identification of territories to which such derogations may be applied should be done on a scale which is related to the movement and distribution of the species concerned. It should also include consideration of the opportunities for hunting the particular species within a given region. The granting of derogations on the basis of the absence of the species from ‘local’ territories within a region where such species are present during the normal hunting period would not be appropriate. This line has also been confirmed by the Court in Case C-135/04, related to the hunting of woodpigeons in the Spanish province of Guipúzcoa\textsuperscript{104}.

3.4.29 Any such derogation would need to be assessed on a case by case basis. For some migratory species that do not spend the winter in a Member State there may be consistently good opportunities for a hunting season in such territories, while the species is on post reproduction migration. This is an important factor in any consideration of allowing hunting seasons outside normal permissible periods.

3.4.30 In Case C-344/03, the Court ruled on the issue of the permissibility of hunting birds on pre-nuptial migration and conditions that should apply\textsuperscript{105}. The case concerned the following species: eider (*Somateria mollissima*), golden-eye (*Bucephala clangula*), red-breasted merganser (*Mergus serrator*), goosander (*Mergus merganser*), velvet scoter (*Melanitta fusca*) and tufted duck (*Aythya fuligula*). The Court assessed the situation species by species with a view to verifying whether the sole purpose of the derogation was to extend the hunting seasons for those species in territories which they already frequent during the hunting seasons fixed in accordance with Article 7 of the Directive. On the

\textsuperscript{102} In some Member States hunting there is a statutory suspension of hunting during periods of prolonged cold weather.

\textsuperscript{103} Judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l’Aménagement du territoire et de l’Environnement, Case C-182/02, paragraph 16.


\textsuperscript{105} Judgement of 15 December 2005, Commission/Finland, case C-344/03, ECR 2005, p.11033, paragraphs 29-46.
basis of the scientific evidence available, the Court concluded that those species could also be hunted in autumn and ruled that the derogation had not complied with the condition that there be no other satisfactory solution.

- **Species with prolonged (pre-nuptial and) reproduction periods**

3.4.31 This category refers to a relatively small number of species with prolonged breeding periods during which several clutches are produced. This may also be combined with a pre-nuptial migration period although the duration of the breeding period is the most significant factor. Examples include Anas platyrhynchos, Aythya fuligula, Columba palumbus, Streptopelia decaocto. This category applies in particular to the latter two species. Despite the fact that the Wood Pigeon Columba palumbus and Collared Dove Streptopelia decaocto have breeding seasons spread over 6-8 months the peak of breeding activity is over two months\(^{106}\). Several of these species are very plentiful and have a favourable conservation status (see Figure 5 for consideration).

3.4.32 For the majority of these species, the very late clutches are second or even third ones, or even replacement clutches. In general, the viability of late born chicks is probably very low because of climatic conditions in autumn and a lack of time to develop properly and accumulate enough food before winter. In such circumstances, they may provide a low contribution to the overall recruitment of the population. However, the production of late clutches may also be linked to availability of abundant food supply at this time and therefore represent a significant contribution to the population. For example, the breeding success of Collared Doves in eastern Germany increased throughout the season from 32% in March to 70% in August-October. It would therefore appear necessary to determine the significance of early and late breeding to overall population success.

3.4.33 Some prolonged breeding periods can also be linked to human influences (e.g. availability of cereals as late food for Columbus palumbus in the UK and Netherlands\(^{107}\)). The prolonged breeding season of the Mallard, Anas platyrhynchos, in some areas may be related to the presence of domestic strains selected for long breeding seasons\(^{108}\). This illustrates the fact that human-derived, artificial factors may superimpose on the biological pattern and distort it through prolongation of reproduction periods.

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\(^{106}\) According to a study by R.K. Murton (Bird Study, 5, 157-183. 1958) breeding peaked from late July till the end of September. A Dutch study showed a clear peak of nests with eggs at the turn of August to September (Bijlsma 1980). Birds of the Western Palearctic (1985, 325): “Considerable variation even within countries, with urban birds in Britain nesting significantly earlier (starting second half of February) than rural (starting second half of March to second half of April); peak laying period for urban birds second half of April and first half of May, and for rural first half of July to first half of September; differences dictated by food availability (Murton 1958, Cramp, S 1972. Ibis 114, 163-171).” For Collared Dove BWP (1985, 350) states merely “Prolonged throughout range.”

\(^{107}\) Murton (1958), Bijlsma (1980).

\(^{108}\) (Cramp, S and Simmons K.E.L, Birds of the Western Palearctic 1977, 516).
3.4.34 The situation for *Anas platyrhynchos*\(^{109}\) and *Columba palumbus*, which are the most problematic species in many Member States, is indicated in Figures 6 and 7. This shows that restricting the hunting season to normal periods under Article 7(4) would result in it being excluded for up to 25 of the 35 decades (i.e. periods of ten days) in the annual cycle of these species. The biological factors result in a hunting season that is 5 decades shorter than is the case for many other quarry species. There would not appear to be conservation needs requiring such a constraint, given their prolific numbers and conservation status. These species are key quarry species in many parts of the EU and central to the whole recreational hunting activity there. Furthermore, the presence of domestic strains of Mallard *Anas platyrhynchos* in different parts of its wintering range may contribute to this different behaviour as regards both pre-nuptial migration and reproduction periods, although this factor merits further scientific study and it is therefore proposed that where this highly artificial situation exists it may be partly accommodated within the framework of Article 7 of the directive (see section 2.7.11-2.7.12).

- **Species with reproduction period with prolonged parental care**

3.4.35 For several groups of birds (e.g. *Tetraonidae*, *Phasianidae*, *Laridae*, *Anseridae*) the period of dependence of the young from hatching to full fledging can be very prolonged. In fact, for young of the *Anseridae*, the period of offspring parental care can continue through to spring migration (for these species the fledging of young is considered to be the end of dependency for the purposes of Article 7(4)). For the *Tetraonidae*, an extremely precautionary approach has been taken in defining the period of dependence of the young birds, which may last for 6-9 decades after hatching. This phenomenon of a prolonged period of dependency when combined with late (replacement) clutches can result in the reproduction period extending up to the end of September for several species. Because of this late date, the viability of chicks born of these late clutches of *Tetraonidae* is uncertain owing to meteorological conditions in the mountains in autumn.

3.4.36 In considering whether objectively verifiable factors exist it may also be appropriate for the scientific and technical considerations to take some account of the beneficial consequences for the conservation of bird species that may accrue from game management linked to a contemplated exercise of the derogation. For example, hunters may take care of game habitats on a voluntary basis, nest boxes may be offered in large quantities, and supplementary food offered at proper occasions. Upland heather management and lawful predator control as a consequence of game management not only benefits Red Grouse *Lagopus lagopus* but also has wider environmental benefits\(^{110}\).

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\(^{109}\) The prolonged breeding season of the Mallard in some areas may be related to the presence of domestic strains selected for long breeding seasons (Cramp, S and Simmons K.E.L. 1977. *Birds of the Western Palearctic* p. 516. Oxford University Press).

3.5 Second Condition for Derogations: Demonstrating One of the Reasons Allowed Under Article 9(1)(a) (b) and (c)

3.5.1 As has been noted at paragraph 3.3.2, a derogation must be based on at least one of the reasons listed exhaustively in Article 9(1)(a), (b) and (c).

ARTICLE 9(1)(A) DEROGATIONS

3.5.2 Article 9(1)(a) of the Directive lists a number of reasons, which may justify the use of derogations. They are:

- 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

3.5.3 These provisions are not restricted to huntable bird species (listed in Annex II of the Directive) but apply to all bird species for which there is justification for use of the derogation. However, many of the species that are considered to pose problems under Article 9(1)(a) (so-called pest species) are listed in Annex II of the Directive and therefore can be controlled during the normal hunting period in accordance with the provisions of Article 7 of the Directive.\(^{111}\)

3.5.4 Therefore, Article 9(1)(a) would mainly apply for huntable species in situations where control measures are to be exercised during the pre-nuptial and reproduction periods. The possibilities for its use are considered below.

"In the interests of public health and safety and in the interests of air safety"

3.5.5 The first and second reason under subsection (a) concern “interests of public health and safety” and “interests of air safety” respectively. Public health and safety may be locally affected where the presence or the feeding of birds causes a demonstrable risk to human health or increases risk of accidents. In many cases habitat alterations or exclusion of birds will be appropriate solutions. For example, at many airports, management measures are taken to prevent bird strikes with aeroplanes.

3.5.6 Such solutions involve in particular habitat management (to reduce the attractiveness to birds and in particular flocks of birds) and various scaring techniques including sometimes shooting. In most cases other satisfactory solutions are available which are more effective and durable than hunting, with the exception of falconry. Therefore under Article 9 these must be used instead.

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\(^{111}\) Council Directive 94/24/EC amended Annex II of Directive 79/409/EEC to include five species of Corvidae, which can cause damage to crops, livestock and fauna and for which control measures were formerly only possible under Article 9 derogation. Their listing in Annex II facilitated balanced regulation of their populations.
‘To prevent serious damage to crops, livestock, forests, fisheries and water’

3.5.7 The third reason for derogation under subsection (a) concerns the prevention of serious damage to crops, livestock, forests, fisheries and water. This derogation, which is intended to regulate ‘damage-causing birds’, has a number of dimensions. Firstly, it clearly relates to economic interest. Secondly, it is intended to prevent damage; therefore it is not a response to already proven damage but of the strong likelihood that this will take place in the absence of action. Thirdly, there must be a basis for concluding that damage will be serious in the absence of action.

3.5.8 Bird damage is usually caused by feeding (crops, livestock, fisheries), destruction (crops, forests), and pollution (water).

3.5.9 Such bird damage concerns a wide spectrum of species, including the *Corvidae*, *Columbidae*, *Sturnus vulgaris*, *Laridae* and *Anseridae*. Of those Annex II species many are also the subject of long overlaps (over 40 days) between hunting seasons and the periods of breeding and return migration.

3.5.10 Damage to interests other than those mentioned, e.g. other forms of property or other damaging situations, is not covered.

3.5.11 The damage concerned must be serious. In this regard the European Court has noted that “the aim of this provision of the Directive is not to prevent the threat of minor damage.”112 Two aspects may be noted: the likelihood and extent of damage. The chance of the occurrence of damage does not suffice. If damage is not yet apparent, past experience should demonstrate a high probability of the occurrence of damage. Furthermore, it should concern serious damage to an economic interest, indicating that this does not cover mere nuisance and normal business risk.

3.5.12 As always with derogations, it is necessary to consider the available solutions. Hunting will not always be an effective solution. Any control method is vulnerable to the removed birds being replaced from elsewhere and shot birds will, after some time, be replaced by other birds.

3.5.13 In Case C-79/03, which related to the hunting by means of limed twigs aiming to avoid serious damages to crops in the Spanish Community of Valencia, the Court ruled on the existence of alternatives and on the relevance of this type of hunting to avoid damages113. According to the Commission, there were other satisfactory solutions for preventing the alleged serious damage caused by the thrushes to vineyards and olive groves (e.g. hunting with guns and the use of bird scarers which were successfully carried out in other autonomous communities in Spain). The Spanish authorities claimed that the hunting by means of limed twigs provided a satisfactory solution for preventing damages, as the use of bird scarers was too expensive in relation to the cost of the

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112 “The fact that a certain degree of damage is required for this derogation from the general system of protection accords with the degree of protection sought by the Directive.” (judgment of 8 July 1987, Commission/Belgium, case 247/85, ECR 1987, p.3029paragraph 56).
damage caused and their use can cause fires, while the use of guns would have entailed an increase in the number of hunting permits and an extension of the hunting season.

3.5.14 The Court observed that in other regions of Spain facing the same problems (where there was large-scale cultivation of olives and grapes and where there was also large populations of thrushes), hunting using limed twigs was not permitted, but thrushes could be shot, as a selective method of culling. The Court also noted that 80% of the limed twigs were to be found in one province for which 69.5% were in areas without olive groves or vineyards; thus, the justification based on prevention of serious damage to those crops did not appear to be consistent with such a situation. Consequently, the Court considered that hunting by means of the limed twigs was not justified under Article 9(1)(a) of the Directive114.

3.5.15 However, there will be cases where hunting of birds to control damage is justified. In order to maximise damage prevention, control measures for a species that causes damage are most likely to be effective when the population is at its seasonal minimum and when there is the least availability of replacement birds – typically this is the breeding or pre-breeding period. When devising pest control strategies, logic suggests that the first approach should be to make the control local in time and place to where the damage is occurring. However, widespread species that can cause damage over large areas, such as the Wood Pigeon Columba palumbus, may justify derogations that are more generalised in their territorial scope115.

"for the protection of flora and fauna"

3.5.16 The fourth reason for derogation under subsection (a) concerns the protection of flora and 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 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 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.

3.5.17 Birds may affect flora and fauna by predation, grazing, demolition, trampling, accumulation of droppings etc. A relatively small number of species is allegedly blamed for this; e.g. Herring Gull Larus argentatus, Crow Corvus corone, Magpie Pica pica116. A long-term impact on other populations of flora and fauna is only likely when localised occurrences are involved. Each case should be considered thoroughly and decided on advice from the conservation

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115 As regards the use of general authorisations to deal with such situations, this is discussed in more detail sections 3.6.10 to 12 in relation to Article 9(2).

116 Certain species not listed in Annex II of the directive are also involved (e.g. Cormorant Phalacrocorax carbo).
authorities. Decisions should be made on best available scientific information available. The following questions might be answered:

♦ Does it concern threatened, rare or other populations of naturally occurring species with an unfavourable conservation status?
♦ Are the ‘flora and fauna’ in question in a poorer conservation status than the species for which the derogation is sought?
♦ Does it concern other important biodiversity considerations?
♦ Is good scientific evidence available on the long-term impact on the affected population(s)?
♦ Are “other satisfactory solutions” not available, thus is population control necessary to effectively reduce or prevent the “ecological damage”?

3.5.18 With regard to “other satisfactory solutions”, the extent to which predation is directly related to habitat loss, habitat deterioration or modification (e.g. loss of vegetation cover) or other environmental factors should be considered. Where such a direct relationship exists, it may be appropriate to consider predator control in combination with habitat restoration or better management of human activities. For example, predation of colonies of tern (Sterna) species by gull (Larus) species may be related to an overall increase in gull populations linked to increased food provided by poorly managed waste disposal sites.

3.5.19 Where the case for protection is supported by compelling elements, control (which may include hunting) could be considered. It would therefore appear that only in specific situations, to be determined by the conservation authorities or their agencies, could control of birds be an appropriate management measure, at the relevant geographical level, to effectively reduce the negative impact of certain bird species on vulnerable flora and fauna.

ARTICLE 9(1)(B) DEROGATIONS

3.5.20 Article 9(1)(b) allows the possibility for use of derogations for the purposes of research and teaching, of re-population, of re-introduction and for the breeding necessary for these populations. The links between these possibilities and hunting are likely to be very limited, although it may be relevant in cases where there are breeding programmes for game species with a view to their re-population or re-introduction. There may also be cases where other hunting research projects may justify the use of this type of derogation.

ARTICLE 9(1)(C) DEROGATIONS

3.5.21 Article 9(1)(c) allows for the use of derogations for the capture, keeping or other judicious use of certain birds. Apart from general conditions, there are four specific conditions, which must be respected in order to apply a derogation under Article 9(1)(c). It must represent ‘judicious use’. It must relate to ‘small numbers’. It is only permissible if carried out under ‘supervised conditions’. Finally it must be on a ‘selective basis’. The Court ruling in Case C-60/05 clarifies several issues with regard to the conditions of
Article 9(1)(c) and the type of national administrative framework required for the effective implementation of this provision.\(^{117}\)

- **“Certain Birds”**

3.5.22 Whereas it is mentioned that this derogation can apply to “certain birds”, these are not specified in the Directive. In negotiations leading to the adoption of the Directive, there was reference to the need to provide for a derogation to allow the taking of birds of prey for falconry.\(^{118}\) However, it may be concluded that this derogation can also apply to other bird species for which judicious use is justified. In Case C-182/02, the Court stated\(^{119}\) that the condition as to “certain birds in small numbers” “cannot be satisfied if a hunting derogation does not ensure the maintenance of the population of the species concerned at a satisfactory level.” It is therefore difficult to conceive of circumstances where an Article 9(1)(c) derogation would be justified for a species that has an unfavourable conservation status.

- **Judicious Use**

3.5.23 9(1)(c) A fundamental question arises as to whether hunting can constitute a "judicious use" for the purposes of Article 9(1)(c). This question has now been answered by the Court in Case C-182/02 Ligue pour la protection des oiseaux and others. Based on previous case-law\(^ {120}\), the Court stated that:

> “It is clear from the foregoing that the hunting of wild birds for recreational purposes during the periods mentioned in Article 7(4) of the Directive may constitute a judicious use authorised by Article 9(1)(c) of that directive, as do the capture and sale of wild birds even outside the hunting season with a view to keeping them for use as live decoys or to using them for recreational purposes in fairs and markets”.\(^{121}\)

3.5.24 It is evident from the same judgment that recreational hunting does not automatically constitute a judicious use. Having noted the need for a hunting derogation to ensure the maintenance of the population concerned at a satisfactory level, the Court observed that:

\(^{117}\) Judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083.

\(^{118}\) The Economic and Social Committee in its opinion on the proposal for a Council Directive on bird conservation of 25 May 1977 (O.J. No C 152/3 of 29.6.77) stated “2.8.1. The absence of a possibility of derogating in order to take birds of prey for falconry was noted. It was pointed out to the Commission that this was a legitimate and ancient sport, which if properly controlled, harmed neither birds of prey populations nor the populations of birds pursued in the course of falconry. Some provisions should be made therefore to allow the continuation of this on a controlled basis.”

\(^{119}\) Judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l’Aménagement du territoire et de l’Environnement, Case C-182/02, paragraph 17.


\(^{121}\) See paragraph 11 of the judgment. This has been recently confirmed in the judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083, paragraph 32.
“If that condition is not fulfilled, the use of birds for recreational hunting cannot, in any event, be considered judicious and, accordingly, acceptable for the purposes of the 11th recital in the preamble to the Directive.” 32 60/05

3.5.25 Judicious use is not defined in the Directive, although it is clear from Article 9(1)(c) that it can include the capture and keeping of certain birds. It is also worth noting that, while, in the English version of the Directive, the word "use" is repeated in the phrase "wise use" in Article 7 and the phrase "judicious use" in Article 9.1(c), other language versions employ different terms in these two phrases. In many of these versions, the equivalent word for "use" in the phrase "judicious use" has an exploitative connotation. The Commission has previously stated: ‘This concept is to include activities which make a vital contribution to improving the efficiency of the general system for the protection of wild birds established by the Directive. It may also include other use provided that this does not jeopardise the general objectives of the Directive and it may include hunting using birds of prey in the context of falconry’. However, any exploitative connotation carried by the term "use" needs to be balanced by the connotations of responsibility, restraint and good judgement imparted by “judicious”. This is confirmed by the observation of the Court in Case C-182/02 referred to in paragraph 3.5.22 above.

3.5.26 Falconry provides an illustration of circumstances which amount to a non-respect of Articles 5 (prohibition on killing or capture of wild birds) and 7 (huntable species) but which, in the Commission’s view, nonetheless represent a “judicious use”. Although falconry is explicitly mentioned in Article 7(4) of the Directive, the practice is limited to huntable species listed in Annex II/1 and Annex II/2 of the Directive for the Member States concerned. In the United Kingdom, the skylark *Alauda arvensis* constitutes one of the main quarry species for the Merlin *Falco columbarius*. Falconry using merlins is practised, but the skylark is not amongst the species listed in Annex II/2 for this Member State. For this reason, the United Kingdom authorises, by way of derogation, the hunting of small numbers of skylarks by merlin. The Commission considers that this is justifiable as a “judicious use” under Article 9(1)(c) by reason of the fact that the merlin has a natural propensity to hunt skylarks. It should be noted that this is not the only instance in which hunting might be the subject of a derogation pursuant to Article 9(1)(c).

- **Small Numbers**

3.5.27 In order to meet the requirements of Article 9(1)(c) the derogations must only relate to “small numbers”. Therefore it would be appropriate to be able to determine a quantity to fix a threshold below which the derogation is automatically considered as meeting the requirements of the notion of “small numbers”.

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122 Other languages: “utilisation raisonnée” “as against “exploitation judicieux” (FR); “fornuftig udnyttelse” ,fornuftig anvendelse (DK); “saggia utilizzazione” , impieghi misurati (IT); “utilización razonable” , “explotación prudente” (ES); “förnuftig utnyttjande”, förnuftig användning (SE); "ορθολογική χρησιµοποίηση" , "ορθολογική εκμετάλλευση" (GR).

123 From Second Report on Birds Directive (pp 9-10)
3.5.28 In Case 252/85, Commission v France\textsuperscript{124}, the Court considered the issue of small numbers in the following passage: "In this respect, it is apparent from Article 2, in conjunction with the 11th recital of the preamble to the Directive, that the criterion of small quantities is not an absolute criterion but rather refers to the maintenance of the level of the total population and to the reproductive situation of the species concerned." As noted earlier, in Case C-182/02, the Court stated\textsuperscript{125} that the condition as to “certain birds in small numbers” “cannot be satisfied if a hunting derogation does not ensure the maintenance of the population of the species concerned at a satisfactory level.”

3.5.29 The Commission considers that the notion of “small numbers” is therefore necessarily relative. A size cannot be small or large except in relation to another size. It must also not be detrimental to maintenance of the population level and take full account of the conservation status of the species concerned.

In its recent judgements the Court has confirmed the Commission's approach and provided further legal clarification on the issue of small numbers\textsuperscript{126}.

**Determining the size**

3.5.30 The question arises as to the size to which “small numbers” are to be compared. Since all the cases of derogations concern the taking of birds i.e. an annual loss for the population affected, the most appropriate solution is to compare the numbers involved in this taking to the overall annual mortality, defined as the sum of deaths due to natural causes and to the taking of birds under Article 7 if applicable.

3.5.31 It is therefore proposed that the threshold of “small quantities” should be fixed as a given percentage of the total annual mortality of the population(s) concerned by the derogation.

3.5.32 For sedentary species, “population concerned” means the population of the geographical region in which the derogation is sought to be applied. For species on migration, it means the population of the regions from which the largest numbers of migratory birds come before passing through the region where the derogation is sought be applied during the period the latter is in force. During the winter period, it means the minimum wintering population present in the region where the derogation is sought to be applied. In cases where the population is shared by different Member States, there may be use of derogations on migratory birds of the same population in the different countries. In such circumstances it would be necessary to restrict the


\textsuperscript{125} Judgment of 16 October 2003, Ligue pour la protection des oiseaux and Others v Premier ministre and Ministre de l'Aménagement du territoire et de l'Environnement, Case C-182/02, paragraph 17.

\textsuperscript{126} See the following judgements: judgment of 9 December 2004, Commission/Spain, case C-79/03, ECR 2004, p.11619, paragraphs 36 and 41; judgment of 15 December 2005, Commission/Finland, case C-344/03, ECR 2005, p.11033, paragraphs 53-54; judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083, paragraphs 25-27.
population concerned to that occurring in the territory to which the derogation applies at the time when the taking takes place, so as to minimise cumulative effects.

3.5.33 There is also a temporal dimension to determining the reference population at the time of application of the derogation. For example, the taking of Wood Pigeons *Columba palumbus* in autumn, when there is a surplus of young birds will be very different from the taking of sea ducks on spring migration, when the impacts will proportionately be higher on the adult population of pre-breeder. There may also be cases where a species undergoes differential migration (e.g. Ruff *Philomachus pugnax*) and this needs to be taken into consideration in determining the reference population.

3.5.34 In order to determine an exact figure for the threshold, two approaches are possible:
- the figure must be much lower, by at least an order of size, than those figures characteristic of the taking of birds under Article 7. A figure of 1% meets this condition.
- the taking must have a negligible effect on the population dynamics of the species concerned. A figure of 1% or less meets this condition as the parameters of population dynamics are seldom known to within less than one percentage point and bird taking amounting to less than 1% can be ignored from a mathematical point of view in model studies.

3.5.35 Hunting bag statistics exist for only a few Member States and species and the data is of variable quality. Whereas hunting bags may generally be proportional to population size, hunting pressures do not necessarily provide an appropriate approach as they focus on determining a threshold for derogation on the basis of hunting take and not in terms of population size. The implication that the greater the hunting take in a region the more birds that could be hunted under derogation may also not be considered as good conservation practice. Such an approach would also discriminate against regions that may have limited hunting possibilities under normal hunting seasons.

3.5.36 The overall annual mortality is an appropriate parameter to quantify small numbers because it takes population size, status and population dynamics into account. Within this framework “small numbers” should be considered as being any taking of around 1% of the annual mortality for species which may be hunted, it being understood that conformity with Article 9 of the Directive depends in any event on compliance with the other provisions of the Article.

The Court follows the same approach as regards the application of Article 9, which is summarized in the paragraphs 25-27 of Case C-60/05:

"It is also important to note that, in exercising their powers concerning the grant of derogations, in accordance with Article 9 of the Directive the authorities of the Member States must take account of various criteria which

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127 Judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083.
relate to geographic, climatic, environmental and biological factors and, in particular, to the situation regarding the species’ reproduction and total annual mortality rate owing to natural causes.

26 As to those criteria, the Court pointed out in Case C-79/03 Commission v Spain [2004] ECR I-11619, paragraph 36, and Case C-344/03 Commission v Finland [2005] ECR I-0000, paragraph 53, that, according to the document entitled ‘Second report [of the Commission] on the application of Directive 79/409/EEC on the conservation of wild birds’ of 24 November 1993 (COM(93) 572 final), ‘small numbers’ are any sample of less than 1% of the total annual mortality rate of the population in question (average value) for those species which are not to be hunted and a sample in the order of 1% for those species which may be hunted. The Court stated in that regard that those quantities are based on the work of the ORNIS Committee for the Adaptation to Technical and Scientific Progress under the Directive, instituted under Article 16 of the latter and consisting of representatives of the Member States.

27 It is also clear from the judgments cited above in Commission v Spain, paragraph 41, and Commission v Finland, paragraph 54, that although the percentages referred to above are not legally binding, they can none the less constitute, by reason of the scientific value of the work of the ORNIS Committee and the absence before the Court of any element of scientific proof to the contrary, a basis of reference for assessing whether a derogation granted under Article 9(1)(c) of the Directive complies with that provision (see by analogy, in respect of the relevance of scientific data in the field of ornithology, Case C-3/96 Commission v Netherlands [1998] ECR I-3031, paragraphs 69 and 70, and Case C-374/98 Commission v France [2000] ECR I-10799, paragraph 25).”

Calculating annual mortality rates

3.5.37 One of the perceived difficulties in applying the annual mortality for estimating small numbers is the fact that mortality rates are described for a limited number of species and usually for only part of their populations. Whereas estimates of annual mortality vary in availability and quality, they do exist for most huntable species (see Figure 8) which summarises published mortality rates for these species in two key scientific reference sources; ‘Birds of the Western Palearctic’ and the 'Kompendium der Vögel Mitteleuropas').

3.5.38 Furthermore, it is possible to calculate, on the basis of the available scientific literature for biologically similar species estimates for species for which no data is available at present (see worked example for Rallus aquaticus in Figure 9).

3.5.39 There will be a need to refine and improve the data on annual mortality of different species and populations, including developing the use of ringing
The availability of good quality scientific information on population size and natural mortality is a prerequisite of reliable calculations. In cases where such data is lacking or incomplete there would be a need to use minimum estimates of population size and mortality rates, based on best available data. Furthermore, any application of derogations for a species must be underpinned by robust monitoring systems for the populations concerned to ensure that the taking is not detrimental to their conservation status.

**Small numbers and conservation status of species**

3.5.40 Derogations should not be granted for species or populations with an unfavourable conservation status, which are declining within the European Union (or in a Member State considering exercising such derogations), whose area of distribution (breeding or wintering) is contracting, or with very low population levels, unless it can be clearly demonstrated that use of such derogations are beneficial to the conservation status of the species/population concerned. Any consideration of use of derogations for such species should only be in the framework of a conservation management plan for them, aimed at their recovery to favourable conservation status. The Commission is of the view that this conclusion is consistent with the Court judgement in case C-182/02 (paragraph 17). In that case, the Court confirmed in paragraph 17 of its judgement that a hunting derogation will not be justified if it does not ensure the maintenance of the population of the species at a satisfactory level. The need to ensure the maintenance of the species population at a satisfactory level is not explicitly mentioned in Article 9. It seems that the Court took into account the general orientation of the Birds Directive set out in Article 2 and the 11th recital. Moreover, there is an obvious analogy with Article 16 of Directive 92/43/EEC, which states that the derogation must not be “detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range”. Therefore, the need to ensure the maintenance of the population of the species at a satisfactory level becomes a pre-condition for granting derogations. It should also be noted that Article 9(4) of directive 79/409/EEC also implies that the use of derogations must not be incompatible with the objectives of the directive.

3.5.41 A list of huntable migratory species that are considered at present to have an unfavourable conservation status at the European Union level is given in Figure 10. Member States should also take into consideration the conservation status of sedentary species within their territory. Figure 11 provides an overview for different grouse and pheasant species.

3.5.42 For abundant species with a favourable conservation status, taking in excess of the 1% threshold (up to 5% of annual mortality) may be considered following an in-depth scientific analysis by the competent authority which authorises the derogation. This would be in order to verify that the derogation is not incompatible with the objectives of the Directive.

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128 Annex V of the directive, which lists areas of research that require particular attention, includes ‘listing of data on the population levels of migratory species as shown by ringing’.
Need to ensure a consistent application of derogations in small numbers

3.5.43 In the framework of a reference for a preliminary ruling from the Tribunale amministrativo regionale per la Lombardia\(^\text{129}\), the Court provided clarification as regards the interpretation of Article 9(1)(c) of the Directive concerning the conditions for the exercise by the Member States of the derogations. The Court replied to the four questions as follows:

3.5.44 As regards the transposition requirements and the need to govern all the situations subject to the derogation system, the Court ruled that Article 9(1)(c) of Directive 79/409/EEC "requires the Member States, irrespective of the internal allocation of powers prescribed by the national legal system, upon adoption of measures implementing that provision to ensure that, in all cases of application of the derogation provided for therein and for all the protected species, authorised hunting does not exceed a ceiling consistent with the restriction on that hunting to small numbers imposed by that provision, and that ceiling must be determined on the basis of strict scientific data".

3.5.45 With regard to the level of precision which must characterise national implementing provisions in respect of the technical criteria on the basis of which a quota corresponding to ‘small numbers’ of birds may be fixed, the Court considered that "national implementing provisions concerning the ‘small numbers’ referred to in Article 9(1)(c) of Directive 79/409 must enable the authorities responsible for authorising hunting derogations in respect of birds of a given species to rely on criteria which are sufficiently precise as to the quantitative ceilings to be complied with".

3.5.46 The third question related to how the competent national authorities are to ensure that the maximum number of birds of a given species which may be hunted is not exceeded in the entire national territory. The Court replied that "upon implementation of Article 9(1)(c) of Directive 79/409, the Member States are required to ensure that, irrespective of the number and identity of the authorities within their territory responsible for applying that provision, the amount of authorised hunting derogations in respect of each protected species by each of those authorities does not exceed the ceiling compatible with the restriction on that hunting to ‘small numbers’, fixed for that species for the entire national territory".

3.5.47 Finally, as regards the control of hunting derogations, the Court ruled that "the obligation on the Member States to ensure that hunting of birds is carried out only in ‘small numbers’, in accordance with Article 9(1)(c) of Directive 79/409, requires that the administrative procedures provided for are organised in such a way that both the decisions of the competent authorities authorising hunting derogations and the manner in which those decisions are applied are subject to effective control exercised in a timely manner".

\(^{129}\) Judgement of 8 June 2006, Commission/Italy, case C-60/05, ECR 2006, p.5083.
• **Strictly Supervised and Selective Basis**

3.5.48 Having regard to the fact that all derogations must in any case comply with the precise formal conditions of Article 9.2, the express reference in Article 9(1)(c) to "under strictly supervised conditions and on a selective basis" might be argued to be redundant. However, the context suggests that, by this express reference, the legislator intended a greater level of constraint than might otherwise arise.

3.5.49 The principle of strictly supervised conditions implies that any use of this type of derogation must involve clear authorisations that must be related to particular individuals, places, times and quantities. It also implies the need for a strong element of enforcement of such derogations to ensure compliance.

3.5.50 The principle of ‘selectivity’ is also essential. It means that the activity in question must be highly specific in its effect, targeting one species (or group of closely related species), or even one gender or age class of that species (e.g. mature males only), with the exception of all others.

3.5.51 It also implies that certain technical aspects of the method used can verifiably demonstrate selectivity. There is a need to come to a view on methods which of themselves are not entirely selective (e.g. use of certain nets) unless combined with the skills and experience of the operator, or by a combination of both. In case the method of taking results in specimens being killed, the selectivity method should be at a very high level. When birds are taken alive and may then be released unharmed, there is a need to ensure that fully verifiable safeguards apply. Furthermore, this type of derogation would also relate to Article 8 of the Directive, which refers to the need to avoid large-scale and non-selective capture and killing of bird species, particularly those involving the proscribed methods in Annex IV of the Birds Directive. In this regard Case C-79/03 is a good example.\(^{130}\)

3.5.52 The issue of selectivity also implies that full regard is given to minimising the risk of confusion and risk of disturbance to species that are not the subject of the derogation.\(^ {131}\) Taking these considerations into account is consistent with the requirement to strictly interpret the grounds invoked to justify derogations. It can be argued that such an approach has already been endorsed by the Court. On several occasions\(^ {132}\), the Court has stated that Article 9 derogations from the general system of protection must be applied appropriately in order to deal with precise requirements and specific situations. In addition, with regard to derogations aiming at the prevention of serious damage, which constitutes the third reason for derogation under 9(1)(a), the Court stated that “the fact that a

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\(^{130}\) See in particular paragraphs 25-26 of the judgment of 9 December 2004 (Commission/Spain, case C-79/03, ECR 2004, p.11619). The Court compares the hunting by means of limed twigs to the hunting with guns.

\(^{131}\) See section 2.6 of the guide.

certain degree of damage is required for this derogation from the general system of protection accords with the degree of protection sought by the Directive.”

3.5.53 Case 252/85 is of assistance in examining the scope of the requirement concerning strictly supervised conditions and selectivity. The Court satisfied itself that the requirements had been met by France, which had stressed that the use of the limes and nets in question involved individual authorisations and that there were strict territorial, temporal and personal controls in order to guarantee the selective nature of the capture.

3.5.54 Against this background, it would seem reasonable to propose that the phrases "under strictly supervised conditions and on a selective basis" should be understood to imply a system of individual authorisations (or narrow-category authorisations involving a high degree of accountability), and should imply strict territorial, temporal and personal controls.

3.6 Third Condition for Derogations: Satisfying Precise Formal Conditions Set Out in Article 9(2)

3.6.1 As has been noted at paragraph 3.3.2 above, the third condition that derogations must satisfy relates to compliance with the precise formal conditions set out in Article 9(2). In the words of the Court in Case C-118/94, these formal conditions "are intended to limit derogations to what is strictly necessary and to enable the Commission to supervise them."

TAKING ACCOUNT OF EACH OF THE FORMAL CONDITIONS

3.6.2 The case-law confirms the importance of taking account of each of the formal conditions in Article 9(2). This is illustrated by Case C-247/85, Commission v Belgium. In that case, the Commission, in its fourth ground of complaint, had objected to Belgian legislation authorising certain persons to capture, kill, destroy or drive away house sparrows, tree sparrows and starlings and to destroy their eggs, nests and broods. The Court rejected a Belgian defence that the legislation complied with Article 9 inter alia noting: "Furthermore, the derogations do not comply with the criteria and conditions of Article 9(2) in so far as they mention neither the circumstances of time and place in which they may be granted nor the controls which will be carried out."

3.6.3 In relation to the derogations the following formal conditions need to be respected and specified in any licence granting derogations.

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The species, which are the subject to the derogations

3.6.4 The species concerned need to be clearly indicated. This generally implies identification at individual species level. However, there may be circumstances, which might provide for several similar species being covered by the same derogation.

The means, arrangements or methods authorised for capture or killing

3.6.5 These must clearly be specified and applications of the derogation restricted to them.

The conditions of risk and the circumstances of time and place under which such derogations may be granted

3.6.6 This should include details of the level of risk attached to the use of the method, (including how often it will be inspected etc.) as well as precise details on the timing and location of the derogation. Precautions to restrict the risk for other species may also be appropriate.

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

3.6.7 Within each Member State certain designated authorities are responsible for issuing derogations. The exact terms should be set out in the relevant legislation for each country (or region thereof). For example, in the absence of alternative solutions, an airport authority may apply for a derogation to take several species of bird that are attempting to nest on the airfield because they are in danger of interfering with aircraft safety. The application is made to a derogation authority which then issues a derogation to the airport authority permitting specific activities and specifying the methods by which they can be carried out and the species involved.

3.6.8 Where the authority to grant derogations is given at sub-national levels (e.g. by regional administration) there is a need for a co-ordinating overview of the granting of derogations at Member State level to avoid the risk that the sum of the derogations may exceed permissible levels.

The controls which will be carried out

3.6.9 A derogation authorises acts that would otherwise be an offence under the legislation transposing the Birds Directive. Therefore, there needs to be compliance with certain specified conditions that are set out in the derogation. This must be underpinned by appropriate enforcement.

Authorisations to a General Category of Person

3.6.10 A question which arises is whether, in relation to pest control derogations under Article 9(1)(a), it is possible to satisfy the formal conditions of Article
9(2) by way of general authorisations, i.e. authorisations not given to specific individuals but rather to a general category of authorised person such as landowners and their agents. While the reference to "strictly supervised conditions" in Article 9(1)(c) suggests that this is not possible for derogations based on that provision, the wording of Article 9(2) does not appear to preclude such general authorisations for derogations based on Article 9(1)(a).

3.6.11 Case 247/85, Commission v Belgium\(^{138}\) is pertinent, again in relation to the Commission's fourth ground of complaint. The Court recalled that the wording of the Belgian legislation provided that: "Occupants and hunting-right owners, their attorneys or sworn wardens and officials and servants of the water and forestry authorities shall be permitted to at any time to capture, kill, destroy or drive away the birds, as well as their eggs and broods, mentioned in Annex I to this decree." In rejecting the Belgian defence that the legislation complied with Article 9, the Court was critical of the lack of justification for a general authorisation. The Court commented:

"If the three species specified in Annex I to the royal decrees cause serious damage to crops and orchards or are responsible for pollution and noise in towns or certain regions, Belgium is in principle authorised to provide for a derogation from the general system of protection provided for in Articles 5, 6 and 7.34. However, as was stated above, a derogation under Article 9 must, according to Article 9 (1), cover specific situations and, according to Article 9(2), comply with the requirements stated therein. The general derogations provided for in Articles 4 and 6 of the royal decrees do not comply with those criteria and conditions. The Belgian rules do not indicate the reasons regarding the protection of public health or the prevention of serious damage to crops or other fields mentioned in Article 9 (1) (a) of the Directive which might necessitate the granting to such a wide category of persons of a permanent derogation, applying throughout Belgium, from the protection provided for by the Directive ".

3.6.12 Assuming of course that the derogation covers all the aspects referred to in Article 9(2), the above passage from the judgement in Case 247/85 suggests that the reasons justifying the grant of a derogation to a wide category of person should be compelling and clearly specified in the derogation. With regard to derogations under Article 9(1) c it is also important to note the specific conditions that are mentioned in it.

3.7 Article 9.3 and 4

3.7.1 The reporting obligations on the use of derogations are laid down in Article 9.3 of the directive. This requires Member States to provide an annual report to the Commission on the implementation of Article 9. The Commission and the Member States, within the framework of the ORNIS Committee, have agreed a reporting period that covers the period from January to December. In order to allow a reasonable time for compiling national reports and it has also

been agreed with Member States that reports are forwarded to the Commission by September of the following year at the latest\textsuperscript{139}.

3.7.2 Article 9.3 does not define the precise content of the national reports. It is clear that the information must be factual and relate to cover the details of Article 9(1) and (2). A scheme has been agreed between the Commission and the Member States to provide information under the following headings:
- the reasons (9.1 a to c),
- the species concerned,
- in case of 9.1.c, the numbers of individuals concerned
- the means, arrangements or method authorised for capture or killing
- the conditions of risk and the circumstances of time and place under which such derogations may be granted
- the authority empowered and number of authorisations delivered
- the controls carried out.

3.7.3 Also relevant is information on the region(s) concerned, as well as the period for which the licence is granted\textsuperscript{140}. Where pertinent it should also indicate the number of individuals taken under a derogation. This is especially important in the context of derogations granted in the context of Article 9(1)c.

3.7.4 A derogation information system has been developed by the Joint Nature Conservation Committee in the United Kingdom to facilitate data entry for derogations in a standard format by different Member States.

3.7.5 On the basis of the information provided in the derogation reports, especially that relating to Article 9(3), the Commission is required under Article 9(4) to ensure that the use of derogations does not result in consequences that are incompatible with the Directive.

3.7.6 The Commission evaluates the derogations reported in order to verify their compatibility with the directive. This involves an examination of the reported use of derogations under each of the different categories of derogations. This includes a determination for derogations granted under Article 9.1.c if the threshold of ‘small numbers’ is being exceeded, in cases where there may be concerns that this requirement is not being met.

3.7.7 In cases where the Commission concludes that the use of derogations is not in conformity with the requirements of the directive it retains the right to take legal action against the Member State concerned.

3.7.8 In accordance with its obligations under Article 9.2 of the Convention on the Conservation of European Wildlife and natural Habitats (Berne Convention) the Commission compiles a bi-annual report on the application of derogations.

\textsuperscript{139} In cases where there are serious delays of Member States in providing these annual reports the Commission can take legal action against the countries concerned under Article 226 of the Treaty.

\textsuperscript{140} A derogation information system has been developed for the Commission by the Joint Nature Conservation Committee in the United Kingdom to facilitate data entry for derogations in a standard format by different Member States. This system is presently under revision/adaptation.
by Member States, on the basis of the national reports, which it sends to the Standing Committee of the Convention.
Summary of conditions to be fulfilled for a derogation to be granted under Article 9§1 under c) of the “Birds Directive”

Is the practice in question in compliance with the provisions of Articles 5, 6, 7 and 8?

NO

Is there another satisfactory solution? (Article 9.1)

NO

Is it judicious use? (Article 9.1. c)

YES

Is it in small numbers? (Article 9.1. c)

YES

Is it under strictly supervised conditions and on a selective basis? (Article 9.1. c)

YES

Are the formal conditions satisfied? (Article 9.2)

YES

DEROGATION POSSIBLE

No derogation

YES
4 FIGURES
Common Pheasants - Acrylic painting by Pieter Verstappen
4 FIGURES

Figure 1 – Actual and potential number of huntable species in each Member State

Figure 2 – Different stages of reproduction

Figure 3 – One possible scheme for categorisation of ‘look-alike’ huntable species

Figure 4 – Questionnaire for assessing compatibility of staggered hunting seasons for Annex II species with Article 7(4) of the Directive

Figure 5 – List of huntable species with a very favourable conservation status

Figure 6 – *Columba palumbus* – WOOD PIGEON

Figure 7 – *Anas platyrhynchos* MALLARD

Figure 8 – Some published mortality rates for Annex II.1 species

Figure 9 – Example of calculation of small number for the Water Rail (*Rallus aquaticus*), species for which no mortality data is published.

Figure 10 – Huntable species (Annex II) with unfavourable conservation status

Figure 11 – Overview of different grouses and pheasant species
Figure 1: Number of actual and potentially huntable species present in each Member State including those:

a) listed in **Annex II.1** (hunting allowed in all Member States)

b) listed in **Annex II.2** (hunting only for Member States for which indicated)

c) listed in Annex II.2 (but not for Member State in question, even though present)
Figure 2: Different stages of reproduction.

- Occupation of the breeding sites
  - Courtship display
  - Construction of the nest
    - Mating
    - Laying
    - Incubation

- Nidifugous species
  - Hatching and nest departure
    - Flight
    - Independence of young

- Nidicolous species
  - Hatching
    - Flight from nest
    - Independence of young
Figure 3: One possible scheme for categorisation of ‘look-alike’ huntable species

<table>
<thead>
<tr>
<th>Groups of “look-alikes”</th>
<th>Confusuable species in groups</th>
<th>Habitats types and others criteria to be considered</th>
<th>Countries for which species are listed in annex II</th>
<th>When problems most likely to occur if staggered opening or closing dates are used to extend hunting seasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey geese</td>
<td>Anser anser</td>
<td>In winter grasslands and arable lands</td>
<td>All Member States except Greece, Ireland, Luxembourg, Netherlands and Portugal</td>
<td>End of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Anser fabalis</td>
<td>Calls distinctive</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anser brachyrhynchos</td>
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<td></td>
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<tr>
<td></td>
<td>Anser albirostris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eclipse male Female and immature dabbling ducks</td>
<td>Anas penelope</td>
<td>Wetlands</td>
<td>All Member States</td>
<td>Beginning of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Anas strepera</td>
<td>Calls often distinctive</td>
<td></td>
<td>Mostly between July and September, when the males are in eclipse and immatures have not moulted yet</td>
</tr>
<tr>
<td></td>
<td>Anas crecca</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anas platyrhyncos</td>
<td></td>
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<tr>
<td></td>
<td>Anas acuta</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Anas querquedula</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Anas cheytea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eclipse male Female and immature diving ducks</td>
<td>Aythya ferina</td>
<td>Wetlands including Marine</td>
<td>All Member States</td>
<td>Beginning of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Aythya fuligula</td>
<td></td>
<td></td>
<td>Mostly between July and September, when the males are in eclipse and immatures have not moulted yet</td>
</tr>
<tr>
<td></td>
<td>Aythya marila</td>
<td></td>
<td></td>
<td>End of the hunting period</td>
</tr>
<tr>
<td></td>
<td>(Netta rafina)</td>
<td></td>
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<tr>
<td></td>
<td>(Bucephala clangula)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoters (females and immatures)</td>
<td>Melanitta nigra</td>
<td>mainly marine</td>
<td>At Sea, mostly Baltic Sea (Dk, SW, SF)</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Melanitta fusca (Imature Somateria)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Immature Aythya marila)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female and imm. Mergus ducks</td>
<td>Mergus merganser</td>
<td>Wetlands, including coastal areas</td>
<td>Fennoscandia (DK, SW, SF)</td>
<td>End of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Mergus serrator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female and immature Lagopus Grouse</td>
<td>Lagopus lagopus scoticus</td>
<td>Heathlands, uplands</td>
<td>United-Kingdom</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Lagopus mutus</td>
<td>Species normally segregated altitudinally</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female and immature Tetrao Grouse</td>
<td>Tetrao urogallus</td>
<td>Woods, clearings, heathlands</td>
<td>Tetrao in the Alps (AT, It) and Fennoscandia (SW, SF)</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Tetrao tetrix</td>
<td>Pronounced size difference should normally facilitate identification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alectoris partridges</td>
<td>Alectoris rufa</td>
<td>For A. graeca, A. barbara and A. chukar dry rocky slopes For A. rufa and A. chukar (where introduced) arable lands, heaths, other farmlands and open lowland.</td>
<td>Where overlaps in the distribution occur (South eastern France for rufa and graeca; Thraki for graeca and chukar, southern Andalucia for barbara and rufa)</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Alectoris graeca</td>
<td></td>
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<tr>
<td></td>
<td>Alectoris chukar</td>
<td></td>
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<tr>
<td></td>
<td>Alectoris barbarra</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quail and young gamebirds</td>
<td>Coturnix coturnix</td>
<td>Arable lands, farmlands.</td>
<td>Gr, Es, Fr, It, Pt</td>
<td>Beginning of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Young Perdix or Alectoris (Young Phasianus colchicus)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large plovers and Ruff</td>
<td>Pluvialis squatarola</td>
<td>In autumn and winter P. squatarola mostly on mudflats or sea shores; P. apricaria mostly on arable land or meadows Calls and underwings are distinctive</td>
<td>Fr, Ie, UK, Pt</td>
<td>End of the hunting period for Pluvialis</td>
</tr>
<tr>
<td></td>
<td>Pluvialis apricaria</td>
<td></td>
<td></td>
<td>Beginning of the hunting period, August</td>
</tr>
<tr>
<td></td>
<td>Philomachus pugnax</td>
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</tr>
<tr>
<td>Snipes</td>
<td>Gallinago gallinago</td>
<td>Marshes and wet meadows</td>
<td>All Member States except Be, De, Lu, NL, SF</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Lymnocryptes minimus</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Godwits</td>
<td>Limosa limosa</td>
<td>In autumn and winter on mudflats and seashores</td>
<td>FR, UK, IE</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Limosa lapponica</td>
<td>Heaths, open lowlands, wet meadows, mudflats Calls are distinctive</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Numenius arquata</td>
<td></td>
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<tr>
<td></td>
<td>Numenius phaeopus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Tringa sandpipers</td>
<td>Tringa erythropus</td>
<td>Seashores, mudflats</td>
<td>Fr</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Tringa totanus</td>
<td>Calls are distinctive</td>
<td></td>
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<tr>
<td></td>
<td>Tringa nebularia</td>
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<td></td>
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<tr>
<td>Small gulls in immature and winter plumage</td>
<td>Larus ridibundus</td>
<td></td>
<td>AT, FR, ES, SW, FI</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Larus canus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large gulls immature plumages</td>
<td>Larus fuscus</td>
<td>Nearly everywhere, except high mountains and wooded areas</td>
<td>Dk, De, Es, Sw, SF</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Larus argentatus</td>
<td></td>
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<tr>
<td></td>
<td>Larus cachinnus</td>
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<tr>
<td></td>
<td>Larus marinus</td>
<td></td>
<td></td>
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<tr>
<td>Columba pigeons and doves</td>
<td>Columba livia</td>
<td>Wild C. livia in rocky habitats, domesticated form near human habitations</td>
<td>Where wild and feral C. livia occur together (Sp, Corsica, Pt…)</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td></td>
<td>Columba palumbus</td>
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<tr>
<td></td>
<td>Columba oenas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups of “look-alikes”</td>
<td>Confusable species in groups</td>
<td>Habitats types and others criteria to be considered</td>
<td>Countries for which species are listed in annex II</td>
<td>When problems most likely to occur if staggered opening or closing dates are used to extend hunting seasons</td>
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<td>--------------------------------------------------</td>
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<tr>
<td>Streptopelia doves</td>
<td>Streptopelia turtur, Streptopelia decaocto</td>
<td>Collared Dove is more prone to live in town and villages</td>
<td>At, De, Fr, It, Gr, Pt…</td>
<td>Beginning of the hunting period</td>
</tr>
<tr>
<td>Thrushes</td>
<td>Turdus merula, female, Turdus philomelos, Turdus iliacus, Turdus viscivorus, Turdus pilaris</td>
<td>Wide range of habitats, Calls distinctive</td>
<td>Gr, Es, Fr, It, Pt, Opening and closing dates are usually the same for all the species in the group, except in Italy where T. viscivorus is protected</td>
<td>Beginning and end of the hunting period</td>
</tr>
<tr>
<td>Crows</td>
<td>Corvus corone, Corvus frugilegus (Corvus monedula)</td>
<td>Wide range of habitats, Calls often distinctive</td>
<td>DK, De, Gr, Es, Fr, Lu, Pt</td>
<td>Beginning and end of the hunting period</td>
</tr>
</tbody>
</table>
Figure 4: Questionnaire For Assessing Compatibility Of Staggered Hunting Seasons For Annex II Bird Species With Article 7§4 Of Directive 79/409/EEC

1. Is the species for which a staggered hunting season is proposed, part of a ‘look-alike’ group from which at least one other species has no open season or a season that is shorter?
   - YES
   - NO

2. Does the proposed hunting season overlap with the reproduction and/or return migration periods for at least one of other species of its look-alike group for which the hunting season is not opened?
   - YES
   - NO

3. Is the hunting of this species during this “overlap” period likely to result in practice in a significant risk of confusion with at least one other species of its “look-alike” group for which the hunting season is not opened?
   - YES
   - NO

4. Is the hunting of this species during this “overlap” period likely to result in practice in a significant risk of disturbance for at least one other Annex II species for which the hunting season is not opened?
   - YES
   - NO

5. Can this disturbance be compensated by the birds affected, either through the availability of sufficient food resources, or through the presence of sufficient undisturbed areas nearby, offering feeding and roosting?
   - YES
   - NO

1 STAGGERING NOT COMPATIBLE
Figure 5: List of hunttable species with a very favourable conservation status

Criteria used to determine “very favourable status”:
- SPEC 4 (Species whose global populations are concentrated in Europe - i.e. species with more than 50% of their global population or range in Europe – but which have a favourable conservation status in Europe) or NON SPEC species and Secure European Threat Status (SPEC = species of European conservation concern) 141,
- no important declines in the breeding or wintering populations (less than 10% of the national breeding populations declining more than 20% in size; less than 2% of the national breeding populations declining more than 50% in size; less than 10% of the national breeding populations declining more than 20% in range; less than 2% of the national breeding populations declining more than 50% in range; or less than 10% of the national wintering populations declining more than 20% in size; less than 2% of the national wintering populations declining more than 50% in size)
- very large population (> 1000000 pairs),

<table>
<thead>
<tr>
<th>Species</th>
<th>Spec status</th>
<th>% of breeding population</th>
<th>% of winter. pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>size declined by &gt;20%</td>
<td>range declined by &gt;20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;50%</td>
<td>&gt;20%</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>Non Spec ;</td>
<td>9 0 7 0</td>
<td>1 1</td>
</tr>
<tr>
<td>Columba livia</td>
<td>Non Spec ;</td>
<td>1 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Columba palumbus</td>
<td>Spec 4</td>
<td>0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Turdus pilaris</td>
<td>Spec 4</td>
<td>1 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Turdus iliacus</td>
<td>Spec 4</td>
<td>0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Turdus viscivorus</td>
<td>Spec 4</td>
<td>5 0 4 0</td>
<td></td>
</tr>
<tr>
<td>Garrulus glandarius</td>
<td>non Spec</td>
<td>0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Pica pica</td>
<td>non Spec</td>
<td>0 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Corvus monedula</td>
<td>Spec 4</td>
<td>2 0 2 0</td>
<td></td>
</tr>
<tr>
<td>Corvus frugilegus</td>
<td>Non Spec</td>
<td>1 0 0 0</td>
<td></td>
</tr>
<tr>
<td>Corvus corone</td>
<td>Non Spec</td>
<td>0 0 0 0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6: Columba palumbus - WOODPIGEON

| FI    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SE    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DK    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| UK    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| IE    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DE    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NL    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| BE    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| LU    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| AT    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| FR    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ES    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PT    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
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| GR    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

- **Dark Grey**: Period of reproduction
- **Black**: Migration + reproduction
- **Light Grey**: Pre-nuptial migration

+ = potential huntable period under Article 7(4)
! = breeding + pre-nuptial migration period
Figure 7: Anas platyrhynchos MALLARD

<table>
<thead>
<tr>
<th>Jan</th>
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</table>

- **Period of reproduction**
- **Migration + reproduction**
- **Pre-nuptial migration**

+ = potential huntable period under Article 7(4)
! = breeding + pre-nuptial migration period
## Figure 8: Some published mortality rates

### Part 1: Annexe II.1 species

<table>
<thead>
<tr>
<th>Species</th>
<th>Mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anser fabalis</em></td>
<td><strong>KVM</strong> No data (Anser brachyrhynchus: ad 26%; from 4 to 16 months 42%; total of individuals &gt;4 months old 21.5%) &lt;br&gt; <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Anser anser</em></td>
<td><strong>KVM</strong> Ad (Breeding IS) 23%; Ad (Breeding DK) ca 33% &lt;br&gt; <strong>BWP</strong> Icelandic population: mean annual mortality adults 23% (ringing), over 4 months old 22% (censuses), perhaps declining from 1960 to 1971; adult life expectancy 3.8 years (Boyd and Ogilvie 1972). Mean annual mortality of birds ringed Denmark as young and adults 33%; further life expectancy of full-grown young 2.3 years and of adults 2.6 years (Paludan 1973).</td>
</tr>
<tr>
<td><em>Branta canadensis</em></td>
<td><strong>KVM</strong> Ad GB 22% &lt;br&gt; <strong>BWP</strong> England: mean annual mortality of adults 22%; life expectancy 3.9 years (Boyd 1962)</td>
</tr>
<tr>
<td><em>Anas penelope</em></td>
<td><strong>KVM</strong> Adults ringed birds: 47% &lt;br&gt; <strong>BWP</strong> Mean annual mortality adults ringed north-west Europe 47%; life expectancy 1.6 years (Boyd 1962).</td>
</tr>
<tr>
<td><em>Anas strepera</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Anas crecca</em></td>
<td><strong>KVM</strong> Ad from 47 to 60%; birds from first year with mortality rate higher than adults &lt;br&gt; <strong>BWP</strong> Annual mortality. Britain 1949–55, male 49%, female 57%; Pembrokeshire, Wales, both sexes, 64% in 1934–8, 49% in 1945–8, 65% in 1949–53, but in war years 1941–5 only 39%; about three-fifths of male losses and half of female probably attributable to man (Boyd 1957a). For both sexes, 55% France, 58% Italy and Spain; in both areas, mortality of 1st-year birds higher than that for 1–2 year olds; for 1–2 year olds, mortality Europe 47%, USSR 51% (Tamisier 1972c).</td>
</tr>
<tr>
<td><em>Anas platyrhynchos</em></td>
<td><strong>KVM</strong> CH, recoveries of adult ringed birds: 58% captive bred, 52% wild birds; DK captive bred 1st year 90.6%, following years 55% (with high hunting pressure) &lt;br&gt; <strong>BWP</strong> Mean annual mortality. Britain 1949–55, male 49%, female 57%; Pembrokeshire, Wales, both sexes, 64% in 1934–8, 49% in 1945–8, 65% in 1949–53, but in war years 1941–5 only 39%; about three-fifths of male losses and half of female probably attributable to man (Boyd 1957a). For both sexes, 55% France, 58% Italy and Spain; in both areas, mortality of 1st-year birds higher than that for 1–2 year olds; for 1–2 year olds, mortality Europe 47%, USSR 51% (Tamisier 1972c).</td>
</tr>
<tr>
<td><em>Anas acuta</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> Mean annual adult mortality, based on USSR recoveries, 48% (Boyd 1962).</td>
</tr>
<tr>
<td><em>Anas querquedula</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Anas clypeata</em></td>
<td><strong>KVM</strong> GB Ad 44% &lt;br&gt; <strong>BWP</strong> Mean annual mortality adults ringed Britain 44%; life expectancy 1.8 years (Boyd 1962).</td>
</tr>
<tr>
<td><em>Aythya ferina</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Aythya fuligula</em></td>
<td><strong>KVM</strong> Ad varies between 20-25% and 46% &lt;br&gt; <strong>BWP</strong> Mean annual mortality adults ringed northwest Europe 46%, life expectancy 1.7 years (Boyd 1962).</td>
</tr>
<tr>
<td><em>Lagopus l. scoticus</em></td>
<td><strong>BWP</strong> Scotland: annual mortality c. 65% (Jenkins et al. 1967; A Watson).</td>
</tr>
<tr>
<td><em>Lagopus mutus</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> No data</td>
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<tr>
<td><em>Alectoris graeca</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Alectoris rufa</em></td>
<td><strong>KVM</strong> No data &lt;br&gt; <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Perdix perdix</em></td>
<td><strong>BWP</strong> Surveys of data from many areas show mean population levels determined by density dependent factors, above all nest predation. Proportion of September population shot closely related to density where shooting formalized, now varying from 20 to 30% annually. Winter losses in Britain, excluding shooting, currently c. 45%, with little annual variation; not related to density and considerable evidence that weather conditions not important. Winter losses and spring dispersal of pairs contribute little to variation in mean breeding densities (G R Potts). Annual mortality rates of reared and released Danish birds after 1 April of 2nd calendar year 84.0 ± 2.8%, compared with 80.2 ± 3.8% for birds released Italy and 82.1 ± 7.2% for birds released Czechoslovakia (Paludan 1963). In Poland, mortality in 12 months after 1 September of year of birth 77.6% and 56% in following years (Olech 1971).</td>
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<tr>
<td>Species</td>
<td>Mortality rate</td>
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<tr>
<td>Phasianus colchicus</td>
<td>KVM Dk first year 84%, following years 58% (high pressure of hunting)</td>
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<td>BWP No information on wild populations. Many studies on managed populations in Europe and North America show high mortality, especially in males and 1st year birds e.g. in Denmark mean annual mortality of males 78.1%, of females 62.3%, and for all birds mortality 81.4% in 1st year of life and 58.4% in succeeding years (Paludan 1959a).</td>
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<tr>
<td>Fulica atra</td>
<td>KVM First year 76-87%; 2nd year 48-72%; NL First year 79%; following years 25%; found dead 1st year 32%; following years 22%</td>
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<td>BWP Mortality in 1st year of life in various samples from north-west Europe between 76% and 87%, and in 2nd year between 48% and 72%; probably lower limits nearer true position (Glutz et al. 1973). Recoveries of 686 birds ringed Switzerland in winter: 371 in calendar year of ringing, 125 in 2nd year, 83 in 3rd, 51 in 4th, 19 in 5th, and 36 in 6th year and after (Glutz 1964). Annual survival mortality rates of pulli ringed Netherlands, 1934–73: shot birds (sample 93) ¾2179% 1st year, 7525% later years; found dead (sample 138)/¾68) 32% 1st year, 7822% later years (Cavé 1977).</td>
</tr>
<tr>
<td>Lymnocryptes minimus</td>
<td>KVM No data</td>
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<td>BWP Limited data suggested annual mortality of 76%, but almost certainly too high (Boyd 1962).</td>
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<tr>
<td>Gallinago gallinago</td>
<td>KVM B 52-57%; Dk 47%; GB 52%;</td>
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<td>BWP Annual mortality from weighted mean of various samples 51.9 ± 5.43%, no detectable differences between rates in 1st year after fledging and later years (Boyd 1962). Belgium: mean annual mortality for birds shot 56.7% compared with 52.0% for those found dead; hunting mortality declined after 1st year (Dhondt and Van Hecke 1977). West Germany: mortality in 1st year 65% (Glutz von Blotzheim et al. 1977). Denmark: mean annual adult mortality 47.1 ± 2.80 (Fog 1978). Finland: mean annual mortality 46.9% (Pertunnen 1980c).</td>
</tr>
<tr>
<td>Scolopax rusticola</td>
<td>KVM 1st year 55-65%; following years 40-50%; higher for fennoscandinavian populations.</td>
</tr>
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<td>BWP Britain: annual mortality 54% in 1st year, 39% in succeeding years, 1 August–31 July (Kalchreuter 1975); earlier estimates (Lack 1943, Boyd 1962) gave 56% and 55% for 1st years, and 37% and 40.7% respectively in succeeding years, with annual adult mortality markedly higher in 1931–40 than in 1921–30, reasons unknown (Boyd 1962). Norway and Sweden; annual mortality 67% in 1st year, 52% in succeeding years (Kalchreuter 1979); Finland and Baltic 72% and 54% respectively (Kalchreuter 1975). Finland: mortality in 1st year 61.7%, 48.4% in succeeding years (Pertunnen 1980a). Fennos-Scandia: 65.6% in 1st year, 50.6% in succeeding years (Clausager 1974). Netherlands: annual adult mortality 50.0% (Clausager 1974).</td>
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<tr>
<td>Columba livia (1)</td>
<td>KVM No data</td>
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<td>BWP England (Salford): mortality in 1st year of life 43 ± 7.3%, annual adult mortality 33.5 ± 4.9% (Murton et al. 1972b). England (Flamborough Head): annual adult mortality from shot sample c. 30% (Murton and Clarke 1968).</td>
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<tr>
<td>Columba palumbus</td>
<td>KVM GB 35-41%, juv 60-70%; Dk juv 54.3%; Ad 41.3%; NL ca 46%</td>
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<td>BWP Britain: juvenile mortality c. 74%, annual adult mortality c. 36% (Murton 1965b). Netherlands: 1911–53 (when no bounty paid for shooting) 1st-year mortality 49%, annual adult mortality 50%; 1959–62 (bounty) 1st-year 55%, adult 61% (Doute van Troostwijk 1964a); 1911–81 1st-year and adult both 46% (Glutz and Bauer 1980). Denmark: 1st-year mortality 54.7%, adult mortality 41.3% (Søndergaard 1983). Finland: 1st-year mortality 41.7%, 2nd-year mortality 47.6%, mortality in later years 30.5% (Saari 1979b).</td>
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</tbody>
</table>

(1) the populations quoted here are wild populations of *Columba livia* and not the populations from domestic pigeons.
<table>
<thead>
<tr>
<th>Species</th>
<th>Mortality rate</th>
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<tbody>
<tr>
<td><em>Cygnus olor</em></td>
<td><strong>KVM</strong> GB 1st year: 58%; 2nd and 3rd years: 30%; 4th and 5th years 22% (Coleman &amp; Minton 1980); ca 30% after 1 year; 30% 2nd year; 25% 3rd and 4th year (Bacon 1980). <strong>BWP</strong> Britain: annual mortality 3–12 months 32.1%, 1–2 years 35.4%, 2–3 years and 3–4 years 25.0%, breeders over 4 years 18–20%; life expectancy at 4 years 4.8 years (Beer and Ogilvie 1972). Denmark: annual mortality 26% (Bloch 1971). Sweden: annual mortality 1965–70, 28.5%, but only 21.0% at most if severe winter of 1969–70 excluded (Mathiasson 1973a).</td>
</tr>
<tr>
<td><em>Anser brachyrhynchus</em></td>
<td><strong>KVM</strong> ad 26%; from 4 to 16 months 42%; total of individuals &gt; 4 months old 21.5% <strong>BWP</strong> Mean annual mortality of adults 26%, and of 4–16 months old 42% (from ringing). Mean annual mortality of all over 4 months 21.5% (from censuses), with evidence of decline in rate 1950–72 (Boyd and Ogilvie 1969).</td>
</tr>
<tr>
<td><em>Anser albifrons</em></td>
<td><strong>KVM</strong> A. a. albifrons: &gt; 1 an 30.9%; Anser a. flavirostris: 34% <strong>BWP</strong> A. a. albifrons: mean annual mortality (birds wintering Britain) 28% birds wintering Netherlands, 30.9% (Doude van Troostwijk 1974) A. a. flavirostris: mean annual mortality 34%;</td>
</tr>
<tr>
<td><em>Branta bernicla</em></td>
<td><strong>KVM</strong> Ad GB 17%, positively correlated with reproduction <strong>BWP</strong> Mean adult annual mortality of B. b. bernicla wintering Britain 14%, and B. b. hrota from Spitsbergen 17% (Boyd 1962).</td>
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<tr>
<td><em>Netta rufina</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Aythya marila</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> Mean annual mortality adults ringed Iceland 52% (Boyd 1962).</td>
</tr>
<tr>
<td><em>Somateria mollissima</em></td>
<td><strong>KVM</strong> Ad 20–40% <strong>BWP</strong> Netherlands: annual mortality of birds ringed as fledglings 1965–70 averaged 17%; femelle annual mortality ranged from 15%–61% in 1964–68 reflecting poisoning by chlorinated hydrocarbons, and 2%–8% from 1969–71 after control measures (Swennen 1972). Denmark: annual mortality 20% (Paludan 1962). Adults ringed north-west Europe: mean annual mortality 39%, life expectancy 2.1 years (Boyd 1962)</td>
</tr>
<tr>
<td><em>Clangula hyemalis</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> Mean annual mortality of adults ringed Iceland 28%; life expectancy 3.1 years (Boyd 1962).</td>
</tr>
<tr>
<td><em>Melanitta nigra</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> Birds ringed Iceland: mean annual mortality of adults 23%; life expectancy 3.8 years (Boyd 1962)</td>
</tr>
<tr>
<td><em>Melanitta fusca</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> No data</td>
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<tr>
<td><em>Bucephala clangula</em></td>
<td><strong>KVM</strong> Nesting female: 37% <strong>BWP</strong> Annual mortality (breeding femelle) Sweden: c. 37%; life expectancy ca 3 years (adult life expectancy ca 2 years, Nilsson 1971).</td>
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<tr>
<td><em>Mergus serrator</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> No data</td>
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<tr>
<td><em>Mergus merganser</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> No data</td>
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<tr>
<td><em>Bonasa bonasia</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> No data</td>
</tr>
<tr>
<td><em>Lagopus l. lagopus</em></td>
<td><strong>KVM</strong> No data <strong>BWP</strong> USSR: 60–86% for adults and 90–95% for 1st-year birds (in years 1971–5 when lemming Lemmus lemmus scarce on Bolshezemolks tundra, predatory pressures led to high mortality of (Vorgnin 1976)). (for Lagopus lagopus scoticus in Scotland: annual mortality ca 65% (Jenkins et al. 1967)). No data for EU</td>
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<tr>
<td><em>Tetrao tetrix</em></td>
<td><strong>KVM</strong> SF imm. first winter 64%; Ad population stable 47% <strong>BWP</strong> In Finland, mean annual adult mortality probably varies from 40% to 60%, with annual and local fluctuations (Helminen 1963).</td>
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</table>

142 These mortality rates are considered too high for *Anser albifrons flavirostris*. Most recent analyses for this subspecies give first year mortality of 32.2% and adult mortality of 21.5% (Fox, A.D. & Stroud, D.A. 2002. *Anser albifrons flavirostris* Greenland White Fronted Goose. BWP Update. In press).

143 According to long term data the first winter mortality rate (September to the following spring) of Capercaillie *Tetrao urogallus* is 76% and of Black Grouse *Tetrao tetrix* is 64%. In stable populations the annual mortality rates of adult Capercaillie and Black Grouse are 29% and 47% respectively. Both species present sex-related differences in juvenile mortality. Linden, H. 1981 Estimation of juvenile mortality in the Capercaillie *Tetrao urogallus* and the Black Grouse *Tetrao tetrix*, from indirect evidence. Finnish Game Research 39 : 35–51.
<table>
<thead>
<tr>
<th>Species</th>
<th>Mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tetrao urogallus</strong></td>
<td>USSR: Ad ca 54-59%; SF 30%</td>
</tr>
<tr>
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<td>USSR: in 2 areas survival mortality from hatching to 1 September 48.52% for males and 59.41% for females, in following year rates 46.54% and 33.67% and in subsequent years 54.1% and 54.46% respectively (Semenov-Tyan-Schanskii 1959).</td>
</tr>
<tr>
<td><strong>Alectoris barbara</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
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<td>BWP: No data</td>
</tr>
<tr>
<td><strong>Alectoris chukar</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
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<td>BWP: No data</td>
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<tr>
<td><strong>Colurnix coturnix</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
<td></td>
<td>BWP: No data</td>
</tr>
<tr>
<td><strong>Meleagris gallopavo</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
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<td>BWP: No data</td>
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<tr>
<td><strong>Rallus aquaticus</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
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<td>BWP: No data</td>
</tr>
<tr>
<td><strong>Gallinula chloropus</strong></td>
<td>KVM: Data from ringing (recoveries) 1st year 69%</td>
</tr>
<tr>
<td></td>
<td>BWP: Of 90 ringed West Germany, 69% died in 1st year of life and 23% in 2nd year (Glutz et al. 1973).</td>
</tr>
<tr>
<td><strong>Haematopus ostralegus</strong></td>
<td>KVM: GB from fledging to sexual maturity total mortality rate of 74-80%; imm 40%;</td>
</tr>
<tr>
<td></td>
<td>BWP: Netherlands: mean mortality in first year after fledging 36%; from 1 to 15 years old 15.9% annually (Boyd 1962). Mortality from hatching to 1 month after fledging, Wales, 84% (Harris 1969). Mortality from fledging to sexual maturity 74% and 80% calculated from Harris (Harris 1969, Harris 1970 respectively) (Glutz et al. 1975); mean annual mortality of immatures c. 40% (Harris 1967). West Germany: mean mortality from fledging to average age (5-6 years) when first caught breeding c. 62%; survival mortality rate of breeding birds 1949–63 constant for all age-groups at c. 94.6% (Schnakenwinkel 1970); in Wales, 1963–8, survival mortality rate of breeding birds 872-13–98% (Harris 1970b).</td>
</tr>
<tr>
<td><strong>Pluvialis apricaria</strong></td>
<td>KVM: 1st winter 41%, following winters 22% (Parr 1980); NL recoveries of rings 1st year 53%; following years 39%.</td>
</tr>
<tr>
<td></td>
<td>BWP: Netherlands: 123 recoveries of autumn-ringed full-grown birds showed 53% died in 1st year after ringing, thereafter 39.0 ± 5.42% annually. Iceland: 31 recoveries of nestlings and juveniles indicated mortality 66% in 1st calendar year and 46.5 ± 10.3% annually thereafter (Boyd 1962). Scotland: adult mortality c. 22% (Parr 1980).</td>
</tr>
<tr>
<td><strong>Pluvialis squatarola</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
<td></td>
<td>BWP: No data</td>
</tr>
<tr>
<td><strong>Vanellus vanellus</strong></td>
<td>KVM: 1st year (from 1 August to 31 March) GB 38%; Central Europe 40%; Scandinavia 40%, Dk 44%; following years GB 32%; Central Europe 29%; Scandinavia 33%, Dk 33%; varies from 30 to 36% between 2nd and 11th year, after that ca 43%.</td>
</tr>
<tr>
<td></td>
<td>BWP: Europe. Mortality of young from 31 August to following 31 March (thus excluding high mortality in early weeks) 39.7%, varying from 30.4% to 57.5% for birds ringed in different countries, with 37.5% in Britain and Ireland, 40.1% in central Europe, and 40.4% in Scandinavia. Thereafter, annual mortality 32.2% (33.9% Britain and Ireland, 29.4% central Europe, 33.1% Scandinavia). For further details and discussion, see Glutz et al. (Glutz et al. 1975).</td>
</tr>
<tr>
<td><strong>Calidris canutus</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
<td></td>
<td>BWP: Average annual adult mortality 32.4±3.18% (Boyd 1962)</td>
</tr>
<tr>
<td><strong>Philomachus pugnax</strong></td>
<td>KVM: Various sources (ring) 47%</td>
</tr>
<tr>
<td></td>
<td>BWP: Annual mortality 47.6 ± 3.61%, with little difference between 1st and later years; possibly sex difference not significant (Boyd 1962)</td>
</tr>
<tr>
<td><strong>Limosa limosa</strong></td>
<td>KVM: NL 1st year 38%; 2nd year 32%; 3rd and following years 37%</td>
</tr>
<tr>
<td></td>
<td>BWP: Netherlands: annual mortality in 1st year (to 15 May) 37.6%, in 2nd year 32%, and in later years average 36.9% (Glutz et al. 1977).</td>
</tr>
<tr>
<td><strong>Limosa lapponica</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
<td></td>
<td>BWP: Annual mortality rate 29.5 ± 7.9%, but apparently c. 79% in 1st calendar year after ringing* (Boyd 1962).</td>
</tr>
<tr>
<td><strong>Numenius phaeopus</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
<td></td>
<td>BWP: According to small sample (13) annual mortality 30.8 ± 9.1% (Boyd 1962).</td>
</tr>
<tr>
<td><strong>Numenius arquata</strong></td>
<td>KVM: GB 1st year (after fledging) 53%; 2nd year 37% following years 26%</td>
</tr>
<tr>
<td></td>
<td>BWP: Britain: mean annual mortality (n = 287) 53.0% in 1st year from fledging, 37.0% in 2nd year and 26.4%, subsequently (Bainbridge and Minton 1978). Netherlands: mean annual mortality (n = 137) in 1st year after ringing as pulli 66.4% and c. 28% for 2nd-4th years (Glutz et al. 1977). Finland: mean annual mortality (n = 245) 64% up to 31 December after ringing as pulli, and 55% in later years (Grenquist 1965).</td>
</tr>
<tr>
<td><strong>Tringa erythropus</strong></td>
<td>KVM: No data</td>
</tr>
<tr>
<td></td>
<td>BWP: No data</td>
</tr>
<tr>
<td>Species</td>
<td>Mortality rate</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><em>Tringa totanus</em></td>
<td>KVM: im 1st year &gt;50%; following years 20-30%</td>
</tr>
<tr>
<td></td>
<td>BWP: Mortality in 1st year after fledging 55%; calculated adult mortality varied widely in various samples from 17.7% to 56.9%, probably affected by ring loss, with best estimate probably from Swedish sample (55) at 31.5% (Boyd 1962). In German colony, calculated adult mortality 28.7% in 1st year after ringing, decreasing with age in successive years (30%, 20%, and 18%), but this based on return of adults to colony, so perhaps due to increasing nest-site loyalty with age (Grosskopf 1959; Boyd 1962).</td>
</tr>
<tr>
<td><em>Tringa nebularia</em></td>
<td>KVM: No data</td>
</tr>
<tr>
<td><em>Larus ridibundus</em></td>
<td>KVM: juveniles mortality 56% (surviving after fledging at the end of 1st year: 44%)</td>
</tr>
<tr>
<td></td>
<td>Adult ca 15 to 40 %</td>
</tr>
<tr>
<td></td>
<td>BWP: Britain and Ireland: mean mortality 1945–72, 38.3% in first 6 months, 27.5% in 2nd calendar year, and c. 24% thereafter; in north-west England 1908–24 mortality much higher (c. 60% in first 6 months) due to shooting (Flegg and Cox 1975). Camargue (France): mean annual adult mortality decreased to 16% during period of expansion, largely due to exploitation of new food sources in winter (Lebreton and Isenmann 1976).</td>
</tr>
<tr>
<td><em>Larus cachinnans</em></td>
<td>KVM: No data</td>
</tr>
<tr>
<td><em>Larus canus</em></td>
<td>KVM: Estonia 1st year 54%; 2nd year 25%, following years 26%; SF 29%; Former Eastern Germany 16%; NW 15%; Dk 26% and GB 34%</td>
</tr>
<tr>
<td></td>
<td>BWP: Average annual mortality of 347 birds over 2 years old ringed Denmark, 26.0% (Sorensen 1977). Average annual adult mortality, Estonia, c. 15% (Onno 1968b).</td>
</tr>
<tr>
<td><em>Larus fuscus</em></td>
<td>KVM: No data</td>
</tr>
<tr>
<td><em>Larus argentatus</em></td>
<td>KVM: Ad ca 10%</td>
</tr>
<tr>
<td></td>
<td>BWP: Considerable variations in published estimates for Europe and North America. Mortality in 1st year of life: Britain 17% (Chabrzyk and Coulson 1978), 30% (Brown 1967b), 18% (Harris 1970a); Denmark 22% (Paludan 1951); North America 38–62% (Paynter 1966), 27-32% (Kadlec and Drury 1968). Mortality in 2nd year of life: Britain 7.3% (Chabrzyk and Coulson 1978). Adult mortality: Britain 6.5% (Chabrzyk and Coulson 1978), 10% (Parsons 1971a), 10% (Harris 1970a); West Germany 10% (Drost et al. 1961); Denmark 15% (Paludan 1951); North America 4–9% (Kadlec and Drury 1968), but 15–20% suggested by subsequent studies (Kadlec 1976).</td>
</tr>
<tr>
<td><em>Larus marinus</em></td>
<td>KVM: No data</td>
</tr>
<tr>
<td><em>Columba oenas</em></td>
<td>KVM: 50%; GB 44-61%</td>
</tr>
<tr>
<td></td>
<td>BWP: Britain: 1st-year mortality ca 60%, adult mortality ca 46.3%, but lower in late 1950s and early 1960s (R J O'Connor and C J Mead). Finland: 1st-year mortality 57.5%, adult mortality 44.5% (Saari 1979b)</td>
</tr>
<tr>
<td><em>Streptopelia decaocto</em></td>
<td>KVM: GB 1st year ca 69%; following years 39%; D 50-75% and 35-55%</td>
</tr>
<tr>
<td><em>Streptopelia turtur</em></td>
<td>KVM: GB juv 64%; adult ca 50%</td>
</tr>
<tr>
<td></td>
<td>BWP: Britain: estimated 1st-year mortality c. 64%, annual adult mortality c. 50% (Murton 1968)</td>
</tr>
<tr>
<td><em>Alauda arvensis</em></td>
<td>KVM: Ad. 30-35%, majority in winter</td>
</tr>
<tr>
<td></td>
<td>BWP: England: average annual adult mortality 33.5%; average mortality of young during 1st year after independence 38% (Delius 1965).</td>
</tr>
<tr>
<td>Species</td>
<td>Mortality rate</td>
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<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><em>Turdus merula</em></td>
<td><strong>KVM</strong> from ringed birds: 1st year 69%; following years 40-52%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: annual mortality 58% in 1st year (from 1 August), 38% in 2nd, 50% in 3rd, 40% in 4th and 5th (Lack 1943); annual mortality 54% in 1st year of life (from 1 August), 40% in 2nd (Lack 1946b); annual mortality after end of 1st calendar year 44±1.5%, irrespective of age, with no significant sex difference; possibly lower in north; varied annually from 34% in 1933–4 to 69% in 1928–9 (Coulson 1961); at Oxford, annual juvenile mortality 59% (Snow 1958b); annual mortality decreased from c. 50% in 1951–2 to c. 32% in 1960–1, apparently not due to weather (Snow 1966b); annual adult mortality 41% in males, 60% in females (Naylor 1978), Belgium: annual adult mortality 69% (Verheyen 1958); annual adult mortality 52.2±2.3%, or 45.8±2.5% excluding those shot or otherwise killed by man; annual juvenile mortality 12.4±1.9% (Van Steenbergen 1971). France: annual urban mortality 25% in males, 33% in females (Ribaut 1964). West Germany: annual mortality 49%, for urban birds 28% (Erz 1964). Finland: annual overall mortality 58–59% (Haukioja 1969). Czechoslovakia: mortality in 1st year of life 68.4%, in 2nd year 56.3%, in 3rd year 30% (Beklová 1972); mortality in 1st year 72% (Havlín 1961).</td>
</tr>
<tr>
<td><em>Turdus pilaris</em></td>
<td><strong>KVM</strong> N ca 53% (higherr for birds of the first year); <strong>SF</strong> ca 65%; <strong>CH</strong> ca 69%</td>
</tr>
<tr>
<td><em>Turdus philomelos</em></td>
<td><strong>KVM</strong> CS 1st year 58%; following years 44%; <strong>F</strong> respectively 59% and 46%;</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: mortality in 1st year of life (from 1 August) 53%, in 2nd year 40% (Lack 1946b). Finland: annual overall mortality 54% (Haukioja 1969).</td>
</tr>
<tr>
<td><em>Turdus iliacus</em></td>
<td><strong>KVM</strong> adult ca 50%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Finland: annual overall mortality 57–58% (Haukioja 1969).</td>
</tr>
<tr>
<td><em>Turdus viscivorus</em></td>
<td><strong>KVM</strong> GB Ad 48%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: annual adult mortality 48%; mortality of fledged young to end of 1st calendar year 62% (Snow 1969a).</td>
</tr>
<tr>
<td><em>Sturnus vulgaris</em></td>
<td><strong>KVM</strong> recoveries of rings in Europe 1st year 60-73%; following years 50-68%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: mortality in 1st year of life (from 1 August) 48%, in 2nd year 48% (Lack 1946); annual mortality 52.8±1.0% (Coulson 1960). Finland: annual mortality 46% ± 4.4% (Haukioja 1969). Czechoslovakia: mortality in 1st year 68.1%, in 9th year, 22.2%, in 10th year 14.2% (Beklová 1972).</td>
</tr>
<tr>
<td><em>Garrulus glandarius</em></td>
<td><strong>KVM</strong> from recoveries of rings 1st year 61%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: mortality in 1st calendar year 40%, in 2nd year 55%, and in 3rd–5th years 41% (Holyoak 1971). Europe: mortality in 1st year of life 60.7% (Busse 1969).</td>
</tr>
<tr>
<td><em>Pica pica</em></td>
<td><strong>KVM</strong> Eur from recoveries of rings 1st year 69% GB male adult 25%, female adult 40%...</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain and Finland: mortality in 1st calendar year 46%, in 2nd year 58%, in 3rd–5th years 55% (Holyoak 1971). Urban population, Britain: mortality in 1st year after leaving nest 44%, in successive years 30%, 24%, 32%, 46%, and 86% (Tatner 1986). Finland: annual mortality based on all recoveries 61 ± 4.3%, probably too high; for breeding birds 47 ±7.9% probably a good estimate (Haukioja 1969). Europe: mortality in 1st year of life 69.0% (Busse 1969).</td>
</tr>
<tr>
<td><em>Corvus monedula</em></td>
<td><strong>KVM</strong> from recoveries of rings 1st year 46%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: mortality in 1st calendar year 38%, in 2nd year 36%, in 3rd–5th years 43% (Holyoak 1971). Finland: annual mortality 35 ± SE 3±2% (Haukioja 1969). Europe: mortality in 1st year of life 45.5% (Busse 1969).</td>
</tr>
<tr>
<td><em>Corvus frugilegus</em></td>
<td><strong>KVM</strong> from recoveries of rings 1st year 54%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain: mortality in 1st calendar year 59%, in 2nd year 51%, in 3rd–5th years 25% (Holyoak 1971). Europe: mortality in 1st year 54% (Busse 1969).</td>
</tr>
<tr>
<td><em>Corvus corone</em></td>
<td><strong>KVM</strong> from recoveries of rings 1st year 62%</td>
</tr>
<tr>
<td></td>
<td><strong>BWP</strong> Britain and Finland: mortality in 1st calendar year 61%, 2nd year 45%, 3rd–5th years 48% (Holyoak 1971). Finland: annual mortality 47 ±2.3% (Haukioja 1969). Europe: mortality in 1st year of life 62.4% (Busse 1969).</td>
</tr>
</tbody>
</table>

Legend:


Figure 9: Example of calculation of small number for the Water Rail (*Rallus aquaticus*), species for which no mortality data is published.

European population of *Rallus aquaticus* 130,000 pairs = 260,000 birds (from The EBCC ATLAS of European Breeding Birds)

a) adult mortality rate 25% ➔ survival rate = 75% survival of the adults = 195,000 birds after one year

- necessary recruitment (in the hypothesis of population stability) = 65,000 birds
- young birds mortality 50% ➔ there must be 130,000 young birds in autumn ➔ on average 1 young by pair/female
- uptake is carried out therefore on \((260,000 + 130,000)\) 390,000 birds, the mortality of which is of ca 33.33%
- 130,000 birds die, 1% of that = 1,300 birds
- 1,300 birds can be regarded as a small number (at the level of the continent)

b) if the adult mortality rate 60% ➔ average survival rate = 40% = 104,000 birds after one year

- necessary recruitment (in the hypothesis of population stability) = 156,000 birds
- young birds mortality 60% ➔ there must be 312,000 youngs in autumn ➔ on average 2.4 young by pair/female
- uptake is carried out therefore on \((260,000 + 312,000)\) 572,000 birds, the average mortality of which is ca 60%
- 343,200 birds die, 1% of that = 3,432 birds
- 3,500 birds can be regarded as a small number (at the level of the continent)

---

144 According to the data of literature 25% corresponds to the lowest mortality rate met for birds of more than one year of a Rallidae.

145 According to the data of literature 50% corresponds to a low mortality rate for birds of first year of a Rallidae.

146 According to the data of literature 60% corresponds to a high average mortality rate for one species of a Rallidae.
**Figure 10: Huntable species (Annex II) with unfavourable conservation status**

<table>
<thead>
<tr>
<th>SPEC CAT 2 Vulnerable Large decl</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Limosa limosa</em> 98 NERI</td>
<td>(Black-tailed Godwit / Barge à queue noir)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPEC CAT 2 Declining Moderate decl</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Tringa totanus</em> 98 NERI</td>
<td>(Redshank / Chevalier gambette)</td>
<td></td>
</tr>
<tr>
<td><em>Larus canus</em></td>
<td>(Common Gull / Goéland cendré)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SPEC CAT 3 Vulnerable Large decl</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Anas strepera</em> 00 WI</td>
<td>(Gadwall / Canard chipeau)</td>
<td></td>
</tr>
<tr>
<td><em>Anas acuta</em> 98 NERI</td>
<td>(Pintail / Canard pilé)</td>
<td></td>
</tr>
<tr>
<td><em>Anas querquedula</em> 98 ONC</td>
<td>(Gargany / Sarcelle d'été)</td>
<td></td>
</tr>
<tr>
<td><em>Coturnix coturnix</em> 99 ONC</td>
<td>(Quail / Caille des blés)</td>
<td></td>
</tr>
<tr>
<td><em>Lymnocryptes minimus</em> 98 NERI</td>
<td>(Jack snipe / Bécassine sourde)</td>
<td></td>
</tr>
<tr>
<td><em>Scolopax rusticola</em>, winter 98 ONC</td>
<td>(Woodcock / Bécasse des bois)¹⁴⁷</td>
<td></td>
</tr>
<tr>
<td><em>Limosa lapponica</em>, winter</td>
<td>(Bar-tailed Godwit / Barge rousse)</td>
<td></td>
</tr>
<tr>
<td><em>Alauda arvensis</em> 98 ONC</td>
<td>(Skylark Alouette des champs)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SPEC CAT 3 Vulnerable &lt;2 500 p, Localized, winter</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><em>Branta bernicla</em></td>
<td>(Brent goose / Bernache cravant)</td>
<td></td>
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<table>
<thead>
<tr>
<th>SPEC CAT 3 Declining Moderate decl</th>
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</thead>
<tbody>
<tr>
<td><em>Netta rufina</em> 99 ONC</td>
<td>(Red-crested Pochard / Nette rousse)</td>
<td></td>
</tr>
<tr>
<td><em>Numenius arquata</em>, winter 98 NERI</td>
<td>(Curlew / Courlis cendré)</td>
<td></td>
</tr>
<tr>
<td><em>Streptopelia turtur</em> 98 ONC</td>
<td>(Turtle Dove / Tourterelle des bois)</td>
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</tbody>
</table>

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<thead>
<tr>
<th>SPEC CAT 3, w Localized Localized</th>
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</thead>
<tbody>
<tr>
<td><em>Aythya ferina</em> 99 ONC</td>
<td>(Pochard / Fuligule milouinan)</td>
<td></td>
</tr>
<tr>
<td><em>Melanitta fusca</em> 00 WI</td>
<td>(Velvet Scoter / Macreuse brune)</td>
<td></td>
</tr>
<tr>
<td><em>Calidris canutus</em></td>
<td>(Knot / Bécasse maubèche)</td>
<td></td>
</tr>
<tr>
<td><em>Gallinago gallinago</em></td>
<td>(Snipe / Bécassine des marais)</td>
<td></td>
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<tr>
<td><em>Pluvialis apricaria</em></td>
<td>(Golden Plover / pluvier doré)</td>
<td></td>
</tr>
<tr>
<td><em>Vanellus vanellus</em> 99 ONC</td>
<td>(Lapwing / Vanneau huppé)</td>
<td></td>
</tr>
<tr>
<td><em>Philomachus pugnax</em></td>
<td>(Ruff / Chevalier combattant)</td>
<td></td>
</tr>
</tbody>
</table>

NERI = Danish National Environmental Research Unit
ONC = Office Nationale de la Chasse
WI = Wetlands International

**SPEC Category 2** - species whose global populations are concentrated in Europe (>50% of their global breeding or wintering populations occurs in Europe) and which have an Unfavourable Conservation Status in Europe.

**SPEC Category 3** - species whose global populations are not concentrated in Europe(<50% of their global breeding or wintering populations occurs in Europe), but which have an Unfavourable Conservation Status in Europe.

¹⁴⁷ The listing of *Scolopax rusticola* as having unfavourable conservation status in the EU has been challenged on the basis of more recent data. According to the EU draft management plan (Ferrand, Y. and F. Gossmann (2001) Elements for a Woodcock Management plan. Game and Wildlife Science, vol. 18(1), March 2001, p. 115-139) the numbers of breeding Woodcock are considered stable or increasing in Member States, with the exception of the United Kingdom. The UK population is geographically restricted and its dynamics can be separated from the other European populations. The status of wintering birds for most European countries is not known.
### Figure 11 Overview of conservation status of different grouse and pheasant species, listed in Annex II of the Birds Directive, at EU and Member State levels.

<table>
<thead>
<tr>
<th>Species</th>
<th>Annex II</th>
<th>Annex I</th>
<th>Status</th>
<th>EU</th>
<th>SE</th>
<th>FI</th>
<th>DK</th>
<th>UK</th>
<th>IE</th>
<th>NL</th>
<th>BE</th>
<th>LU</th>
<th>DE</th>
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<th>ES</th>
<th>PT</th>
<th>IT</th>
<th>GR</th>
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<tr>
<td>Alectoris barbara</td>
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<td>-1</td>
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</tr>
<tr>
<td>Alectoris chukar</td>
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<td>3 V</td>
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<td>Alectoris graeca graeca</td>
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<tr>
<td>Alectoris graeca saxatilis</td>
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Status:
2 = SPEC 2 (see figure 10)
3 = SPEC 3
E = endangered
V = vulnerable
S = secure

Population trend
+1 = small increase (20-49%)
0 = stable (with overall change <20%)
-1 = small decrease (20-49%)
-2 = large decrease (>= 50%)
F = fluctuating (with changes at least 20% but no clear trend)
? = unknown

Additional sources
(1) Iapichino & Massa (1989), The Birds of Sicily (BOU checklist 11)
(2) Rocamora & Yeatman-Berthelot (1999), Oiseaux menacés et à surveiller en France
5 ANNEX

Court case references pertinent to the guide. The details can be found on the Internet web site of the Court of Justice of the European Communities (http://curia.europa.eu/en/content/juris/index.htm)


5) Commission of the European Communities v French Republic. Failure to comply with a Directive - Conservation of wild birds. C-252/85


9) Associazione Italiana per il World Wildlife Fund and Others v. Regione Veneto, Judgement of the Court (Fifth Chamber) of 7 March 1996. C-118/94


14) Ligue pour la protection des oiseaux et autres v. République française, judgement of 16/10/2003, C-182/02, not yet published.


20) Judgment of 8 June 2006, WWF Italia and others, case C-60/05, ECR 2006, p.5083.
