Licensing the control of wild birds in England

Advice provided under the Wildlife & Countryside Act 1981

6 June 2019



Statutory basis of Advice

- 1. Pursuant to sections 16(9)(a) of the Wildlife and Countryside Act 1981 (as amended, 'the 1981 Act'), Natural England offers the Secretary of State the following advice on its draft general licence in relation to conservation. In accordance with section 16(10)(b) of the 1981 Act, Natural England also offers the Secretary of State the following advice on the two other draft general licences in relation to public health and safety and serious damage.
- 2. This advice should be read in conjunction with Natural England's advice on '*Licensing the control of wild birds in England*' dated 21 May 2019 ('Advice of 21 May 2019').

Scope

3. This advice is Natural England's reply to the following request received on 3 June 2019 from Shirley Trundle, Director Wildlife, International, Climate and Forestry.

"In accordance with s16(9)(a) of the Wildlife and Countryside Act 1981, we should be grateful if Natural England would provide advice on the draft general licence shared last week (in relation to conservation). We should also be grateful for advice on two other draft general licences (in relation to public health & safety, and serious damage) (to follow). The advice should focus in particular on any conservation issues that the Secretary of State should consider when deciding whether to grant these licences.

In seeking this advice, we appreciate that this will not include consideration of protected sites or HRAs at this stage."

In addition, following further discussion, this advice does not include consideration of Less Black Backed Gulls and Herring Gulls at this stage,

4. Owing to the urgency of this request and that copies of two of the licences and the detailed paper on non-lethal methods was received on 4 June this advice is necessarily based on a limited analysis of the licences and evidence and should not be considered to be an exhaustive assessment.

Natural England's role

5. Natural England has two roles that are relevant to this request for advice: that of statutory conservation advisor, and that of wildlife licensing authority in England. These roles are explained further in our Advice of 21 May 2019.

6. This advice is given without prejudice to Natural England's licensing function. The conduct of Natural England's licensing function is set out in the 'Agreement on Natural England's discharge of Wildlife Management Functions'.

Structure of this advice

- 7. This advice is divided into the four principal sections listed below, the first three of which follow the sequence for determining whether a licence should be issued to derogate from the protection afforded wild birds, and a final section summarising the conservation issues that we recommend the Secretary of State considers when deciding whether to grant these licences.
 - (i) Evidence
 - (ii) Licence determination
 - (iii) Licence documentation
 - (iv) Conservation issues

(i) Evidence

8. The Evidence Summaries include what is titled 'Scientific Evidence' and a summary of the evidence submitted during the public consultation held from 4 – 13 May 2019 ('Consultation Evidence').

Scientific Evidence

- 9. The Scientific Evidence summaries are high-level summaries, which include a level of confidence² attributed to the evidence reviewed. While it is not apparent what evidence was included in these reviews it is assumed for present purposes that the reviews encompassed all available published literature that is relevant to the species and conflict considered.
- 10. Overall, there is good agreement between the Scientific Evidence summaries and the conclusions of Natural England's prior assessment of the evidence, where this has been completed for a species and licensing purpose (Tables 1 3 identify the combinations for which assessments have been completed).

Consultation Evidence

11. The public consultation provides an additional source of evidence. A large number of responses were received and the key findings of these are given in the Evidence Summaries. Natural England has not seen the responses or a detailed analysis of them. The Evidence Summaries note that the distribution of responses varied markedly between species and purposes, and the additional information these provide is focused on a sub-set of the species and purposes (particularly corvids and pigeons).

12. The Consultation Evidence provides additional information which is particularly useful for species and purposes for which there is little scientific evidence. Practitioner experience can

¹ The Agreement on Natural England's discharge of Wildlife Management Functions is published at: https://webarchive.nationalarchives.gov.uk/20140305133527/http://archive.defra.gov.uk/wildlife-pets/wildlife/management/documents/wma.pdf

² The confidence levels used, in order of declining confidence, are: 'well established' (high agreement based on significant evidence) > 'established but incomplete evidence' (high agreement based on limited evidence) > 'competing explanations' (low agreement, albeit with significant evidence) > 'speculative' (low agreement based on limited evidence)

be a valuable additional source of information to understand wildlife conflicts³, although the experiential evidence commonly relates perceptions of the benefits of wildlife control or of problems caused by wildlife, rather than details of specific examples showing detected or measured effects.

13. It is evident from the summaries that there were difficulties in distinguishing evidence relevant for specific species as many respondents used collective taxonomic categories such as "corvids" or "pigeons". This is unsurprising, but it does reduce the value of the evidence for specific species. In the case of Evidence Summaries for two species it is uncertain whether consultation evidence has been correctly attributed to the relevant species⁴, which may have a bearing on the Licence Determinations.

(ii) Licence determination

General comments

- 14. Each of the Evidence Summaries concludes with a short 'Licence Determination' section that considers the justification for a general licence for each species and licensing 'purpose' combination assessed and indicates which species should be included on each licence.
- 15. The Licence Determination sections provide an assessment of whether available evidence for each species satisfies the purposes for which it is proposed to issue general licences. This addresses the requirement in section 16(1) of the 1981 Act to demonstrate a justifiable 'need' for a licence. It is, however, unclear from the documentation what criteria or thresholds have been used in these assessments⁵, and how it has been decided that a general, rather than a class or individual licence approach is most appropriate to manage conflicts.
- 16. The information available to Natural England also does not indicate how the Secretary of State has assessed:
 - a. the 'no other satisfactory solution' test (in section 16(1A)(a) of the 1981 Act); or
 - b. whether the licenced action is proportionate to the scale of the problem and whether it is expected to contribute sufficiently to resolving that problem, for each species considered for inclusion on a proposed licence; or
 - c. the effects of doing so on the conservation status of the licenced species and other species or habitats⁶.
- 17. It is recommended that the official record of licensed decisions covers the points in paragraphs 15 and 16, above, and other considerations as advised in Natural England's Advice of 21 May 2019.

³ For example: Milner, J.M. & Redpath, S.M. 2013. Building an evidence base for managing species conflict in Scotland. Scottish Natural Heritage Commissioned Report No. 611.

⁴ Evidence for **feral pigeon** and 'serious damage' appears to relate to **woodpigeon** and evidence for **woodpigeon** and 'public health and safety' may relate to **feral pigeon**. See Tables 2 and 3.

⁵ For example

What criteria are used to identify when a predator – prey relationship is so out of balance that licensed intervention is justified? See section 6, and particularly 6.7 of IGN for 'Licensing lethal control of birds for the purposes of conservation' (SD/IGN/2017/002) provided with Advice of 21 May 2019.

What criteria or thresholds are used to judge the point at which damage can be regarded as 'serious damage' as opposed to nuisance, minor damage or normal business risk?

⁶ Natural England's Advice of 21 May 2019 gave detailed guidance on undertaking licence determinations.

18. This is particularly relevant to examples where 'speculative evidence', the weakest category of Scientific Evidence (see footnote 2), combined with limited anecdotal Consultation Evidence has led to a decision to include a species on a general licence⁷.

Advice on species proposed for inclusion on new general licences

- 19. Tables 1 3 summarise the key evidence, the proposals for inclusion of species on general licences and Natural England's advice, based on its own assessments of the available evidence (including taking account of Defra's Evidence Summaries), for each species and licensing 'purpose' combination.
- 20. There is broad agreement in the potential to issue a general licence for the majority (30 of 42) of the species and licensing purpose combinations (excluding gulls); there are a further 6 combinations where Natural England is unable to give a clear view without carrying out a more detailed assessment of the evidence, and six remaining combinations where Natural England's own assessment of the evidence available, including taking account of Defra's Evidence Summaries, does not support inclusion of a species on a general licence. Conflicts involving the species in this final category of cases may still merit licensing if judged on a case-by-case basis (i.e. as individual licences) or, in certain cases, there may be sufficient evidence to justify a class licence⁸. The following section sets out Natural England's advice on these six combinations.

Jackdaw, jay, magpie and rook and 'conservation' general licence

- 21. The Scientific Evidence notes that a recent and comprehensive assessment of studies of predation found evidence that corvids limited prey populations in 1 in 7 studies, with the **carrion and hooded crows** being the most important predators. Overall, with the exception of crows, the Scientific Evidence found 'speculative' evidence (low agreement based on limited evidence) of a significant predation effect of the remaining corvid species or 'emerging evidence of competing explanations'.
- 22. The review of Scientific Evidence and Natural England's own assessments support the use of a general licence to manage predation by **carrion crow** but do not support inclusion of the other species. Based on our own assessments of the evidence available to us (including the Evidence Summaries), we have concluded that there is insufficient evidence that the **jay**, **jackdaw**, **magpie** or **rook** adversely affect wild bird populations.
- 23. Without any limitations on the licence purpose, there is a risk that a conservation licence could be used lawfully to control the listed species to benefit any flora or fauna, rather than its intended effect to protect species of conservation concern. We advise that consideration is given to how to limit use to protecting identified species or groups of species of conservation concern (e.g. those that are Amber or Red listed as species of conservation concern⁹) in situations where increased productivity is necessary to aid population growth or maintenance and there are active measures (e.g. habitat creation/enhancement) to conserve those species, so that licensed control is contributing to active conservation efforts.

Woodpigeon and magpie for public health and safety licence

24. There is very little evidence presented in the Evidence Summaries, or that we are otherwise aware of, that **woodpigeons** pose a risk to public health or public safety to justify their inclusion on a general licence. The disease transmission risk cited in Consultation Evidence

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⁷ This applies, for example, to several species of corvid in relation to the public health and safety licence.

⁸ The principal licence types are explained in Natural England's Advice of 21 May 2019 – Appendix C.

⁹ See: Eaton et al. 2015. Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708–746. Available online at: https://www.bto.org/our-science/publications/psob

- appears most likely to relate to feral pigeons, rather than woodpigeons. We recommend this evidence is checked. If it is correctly attributed, this undocumented risk provides insufficient justification to include this species on this licence.
- 25. The Scientific Evidence concluded that there is 'no or speculative' evidence of **magpies** causing a public health and safety risk, and the scant evidence from the Consultation Evidence does not specifically identify the magpie as causing or likely to cause a risk. Taking into consideration the ecology and behaviour of this species ¹⁰ it is Natural England's view that there is insufficient evidence to merit placing this species on a general licence for this purpose.

Alternatives to lethal control for managing impacts of wild birds

- 26. Due to the urgency of the request for advice, our assessment of the document 'Alternatives to lethal control for managing impacts of wild birds' has been limited. Based on an initial review, Natural England offers the following comments:
 - a. It is unclear to us whether the purpose of this paper is to be published as guidance for licence users, or if it forms part of the licence assessment carried out by the Secretary of State to determine whether there is any other satisfactory solution to licensed action (see paragraph 16, above). If the purpose is the later, Natural England recommends that Licence Determinations for each species and purpose consider whether any of these alternatives provide a satisfactory solution, either instead of, or in conjunction with, any of the proposed licensed actions. This assessment is an essential component of the licensing decision. It will also identify which (if any) alternative measures should be tried before and alongside licensed actions where a licence is deemed justified.
 - b. The paper should clearly distinguish techniques which require a licence, such as shooting to reinforce scaring and egg oiling.

(iii) Licence documentation

General Licence for conserving flora and fauna, and conserving wild birds

27. It is Natural England's advice that further amendments are required to comply with the Natural England Internal Guidance Note for 'Licensing lethal control of birds for the purposes of conservation' (SD/IGN/2017/002) and to discharge the requirement to carry out an assessment of alternatives in accordance with section 16(1A) of the 1981 Act.

Licence purpose

28. General licences by their nature do not impose limits on the intensity or frequency of the activities they permit. Without additional clarification the proposed licences may allow the killing of any of the listed wild bird species for undefined conservation purposes to protect any species of wild bird, flora or fauna. It is therefore left to the licence user's discretion to decide if their circumstances are compatible with the licence. This risks the licence being used in circumstances that are not supported by the evidence (for example in theory the licence would permit control of jays to protect red deer) or are contrary to the intended use of this purpose, which is to permit action to protect species that are rare or threatened or which otherwise merit conservation action¹¹.

¹⁰ For example, the magpie is less likely to nest in buildings than jackdaw or forage in or around food stores in significant numbers like the rook.

¹¹ See paragraphs 3.5.16-19] of the European Commission's 2008 guidance on the hunting of birds: http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/guide_en.htm

- 29. For many species, the Evidence Summaries address the impact of listed species on other wild bird species, which is in agreement with the evidence Natural England is aware of. Where this is the case, we advise the appropriate licensing purpose is 'conserving wild birds' (section 16(1)(c)) and not conserving flora and fauna (section 16(1)(cb)).
- 30. Setting out the circumstances in which this licence may legitimately be used, by including in the licence terms the conclusions of the relevant Licence Determination will not only set out the parameters of the licence clearly, but also help licence users to make a judgement on whether their specific circumstances meet the criteria of the licence. It is therefore recommended that the licence only permits control of each listed species to maintain or improve the conservation status of the specific species of flora or fauna that the relevant Licence Determination for that species concluded justified action under a general licence.
- 31. For example, the Licence Determination for the proposed new general licence for the **carrion crow** reviewed evidence of impacts on certain types of wild bird (mostly ground-nesting species) and concluded that licensed action to control crows was justified in respect to these., Use of the licence to control crows to protect other species of flora and fauna (or unspecified flora and fauna) which have not been assessed and justified through the Licence Determination, should not be permitted.

Authorised persons

- 32. The proposed licence uses the same definition as GL06 (which is the definition used in the 1981 Act) for "authorised persons". Use of this definition is not explained or justified in the Licence Determinations. Our advice is that the use of the licence should be limited to persons whose need to use the licence has been assessed as being justified.
- 33. For example, use of the licence could be limited to persons who are actively engaged in the conservation of species of wild bird(s) that the Licence Determination judged merited licensed action. We recommend that "being actively engaged" should include taking measures to improve the conservation status of the wild bird in addition to licensed action (such as habitat management).

Other satisfactory solutions

- 34. The proposed licence includes a condition requiring use of non-lethal solutions. The wording is revised from that used in GL06, and has similarities with the equivalent condition used in the general licences most recently issued by Natural England. Importantly, the condition requires 'reasonable endeavours' before relying on the licence and licence users must continue to use 'reasonable endeavours' while using the licence. Natural England supports the inclusion of such a condition in this licence. Natural England recommends consideration is given to stipulating which non-lethal measures should be used prior to, and alongside, use of the licence.
- 35. We suggest also reference to Defra's wildlife management policy¹² which recommends avoiding killing birds during the breeding season, unless control at other times or other licensed methods would not provide a satisfactory solution, so that licensed action is as humane as possible.
- 36. The proposed licences advise users to keep a record of licensed action, the issue being addressed and other methods used to resolve the problem. We support inclusion of this

¹² See: http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/wildlife-pets/wildlife/management/documents/overarch-policy.pdf

advice to help users to understand what information they may need to provide if investigated by an enforcement body¹³.

Use of traps

- 37. Regarding the use of traps, the proposed licence retains the wording of the Conditions and Information and Advice Notes used in GL06. However, the proposed licence also references 'Standard Licence Conditions for trapping wild birds and using decoys under a Natural England licence' (GL33) which was issued alongside the most recent Natural England general licences. The proposed licence refers to this document as containing 'good practice', and states that compliance is not a condition of licence use. Incorporating both is likely to lead to uncertainty as to what is compulsory and what is advice (GL33 sets out both conditions that must be adhered to, and advice). Furthermore, the Information and Advice Notes in the proposed licence are contained in GL33, some as compulsory conditions. Given the potential confusion for users, and consequent risk of welfare issues as a result of licensed trapping, Natural England recommends that the proposed licence requires compliance with GL33.
- 38. Use of the original GL06 wording on use of traps has two additional implications:
 - Range of traps permitted: Restoration of the original wording may lead licence users to believe that the use of Larsen Mate and other similar 'clam-type' traps is authorised under the licence. The use of such traps was never intended to be authorised by GL06, which Natural England clarified by specifying the trap types that are permitted in its new general licences. If the proposed licence is to be extended to allow use of these traps then we recommend that the licence includes the additional licence conditions required in Scotland for use of such traps (which are intended to monitor capture of non-target species).
 - Schedule 9 species: Currently the proposed licence requires any beaver or wild boar accidentally caught in a trap to be killed, rather than being released at the site of capture under Natural England's general licence GL22. While this might be unlikely, it is recommended that the relevant wording in the recently issued Natural England licences (which reflects the recent changes to Schedule 9 of the 1981 Act) is used in the proposed licence.

Non-native species:

39. Like GL06, the proposed licence does not require use of non-lethal alternatives before using the licence to control the listed non-native species. Natural England supports this position as a general approach to invasive species. However, we want to draw attention of the Secretary of State to the advice of the Law Commission relating specifically to Canada geese¹⁴. In its advice the Law Commission recommends that the Canada goose is treated similarly to native wild birds. If the Secretary of State agrees, a requirement to consider non-lethal alternatives may thus be considered appropriate.

Protected Sites

40. Natural England has been asked to exclude advice on protected sites from this Advice, on the understanding this is subject to consideration through the Habitats Regulation

¹³ Defra will need to consider who will be the enforcement body for breaches of General Licences which the Secretary of State may issue. Enforcement responsibilities for these Licences are not covered by the Memorandum of Understating relating to wildlife crime to which Natural England, the National Police Chiefs Council (NPCC) and the Crown Prosecution Service (CPS) – but not Defra, are signatories.

¹⁴ See paragraphs 4.36 – 4.37 of Law Commission. 2015. Wildlife Law. Volume 1. Law Com No 362. http://www.lawcom.gov.uk/app/uploads/2015/11/lc362_wildlife_vol-1.pdf Accessed 09/04/2019

Assessment ("HRA") process. The following two points are however relevant to other aspects of the licence.

- a. The shadow HRAs which Natural England is developing for the new general licences assume that the only traps permitted are Larsen traps and Multi-capture traps. Larsen Mate and similar 'clam-type' traps pose a potentially higher risk of catching non-target species and thus present a different risk to the qualifying features of a protected site. Use of these traps has not been considered in the HRAs and the latter would need to be revisited if their use is permitted (or else the use of these traps would need to be excluded from protected sites; see paragraph 38, above).
- b. To conclude 'no adverse effect' on the integrity of European protected species it may be necessary to include additional conditions in the licence relating to shooting disturbance and trap use. These conditions may also relate to functionally linked land around protected sites as well as within sites.

Additional comments

- 41. The methods listed in relation to **feral pigeon** only are not required as the proposed licence is not intended to permit control of **feral pigeon**.
- 42. The requirement in licence condition 3 relating to **Canada geese** should also relate to **Egyptian geese**.
- 43. It is recommended that the 'Important' section includes a statement that breaching conditions means the licence can no longer be used as a defence under animal welfare legislation.
- 44. The 'Important' section refers to Natural England informing users if permission to use the proposed licence is withdrawn. This should now refer to the Secretary of State as issuer of the licence.
- 45. Information and Advice Note 'l' refers to Natural England licence, whereas the proposed licence would be a Secretary of State licence.
- 46. There is an issue with how **crow** species are listed on general licences. The licences were originally drafted listing 'Crow *Corvus corone*'. This species was subsequently split into carrion crow (*Corvus corone*) and hooded crow (*Corvus cornix*). We recommend that the proposed licence lists 'Carrion crow *Corvus corone*'. We note that you have not considered hooded crow in your Licence Determination, and agree that control of this species in England is unlikely to be justified under a general licence.

General Licence for preserving public health and public safety

47. This proposed licence uses the same general approaches and wording as the proposed licence for the 'conservation' purposes. Therefore Natural England's general advice in the above section on the 'conservation licence' also apply to this licence. Additional specific advice relating to the proposed licence for the purpose of preserving public health and public safety is as follows:

Authorised persons

48. In the context of public health and safety, we agree that allowing the licence to be used by 'Authorised Persons' as defined in the Act, is appropriate.

Other satisfactory solutions and non-native species

49. In addition to the above comments on other satisfactory solutions, we note that Licence Condition 1 does not require such alternative measures for non-native species listed on this licence (although Information and Advice note d suggests otherwise). With the exception of **Canada geese** (see paragraph 39, above), we agree that alternative measures should **not** be required before or in conjunction with licensed action.

Additional comments

- 50. It is appropriate to list the methods relevant to **feral pigeon** in this licence, as it is proposed to allow the control of this species.
- 51. It is appropriate to include Licence Condition 3 as drafted, and without reference to **Egyptian geese** as it is not proposed that this licence permit control of this species.
- 52. We recommend that **jay** and **ring-necked parakeet** are removed from the list of species that may be used as decoys, as it is not proposed that this licence allows control of these species.

General Licence for preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber, fisheries or inland waters

53. This proposed licence uses the same general approaches and wording as the proposed licence for the 'conservation' purposes. Therefore our general advice in the above section on the 'conservation licence' also apply to this licence. Additional specific advice relating to the proposed licence for the purpose of preventing serious damage is as follows:

Authorised persons

54. As for the conservation purposes, the Licence Determinations do not give a justification for allowing the licence to be used by Authorised Persons as defined in the 1981 Act. It is Natural England's view that the use of the licence should be limited to persons whose need to use the licence has been assessed as justified in the Licence Determination.

Other satisfactory solutions and non-native species

55. In addition to the above comments on other satisfactory solutions, we note that Licence Condition 1 does not require such alternative measures for non-native species listed on this licence (although Information and Advice note d suggests otherwise). With the exception of **Canada geese** (see paragraph 39, above), we agree that alternative measures should **not** be required before or in conjunction with licensed action.

Additional comments

- 56. It is appropriate to list the methods relevant to **feral pigeon** in this licence, as it is proposed to allow the control of this species.
- 57. We recommend that **jay** is removed from the list of species that may be used as decoys, as it is not proposed that this licence allows control of this species.

(iv) Conservation issues

58. There are merits to authorising the lethal control of protected species to benefit the conservation of other species of flora and fauna so long as there is clear justification and evidence, and that action is targeted to protect specific threatened species as part of a wider conservation strategy, including, for example habitat restoration and management of other predators.

- 59. Permitting the control of protected native species must not threaten the conservation status of those species. The seven native species (carrion crow, feral pigeon, jackdaw, jay, magpie, rook and wood pigeon, excluding the two gull species which are not covered by this advice) proposed for continued inclusion on the general licences are Green listed as birds of least conservation concern. The other six species are non-native to which the conservation status requirement in the Wild Birds Directive does not apply (Canada goose, Egyptian goose, Indian house crow, monk parakeet, ring-necked parakeet and sacred ibis)¹⁵.
- 60. Continued licensed control of the green-listed species is unlikely to pose a conservation risk. Despite many years of control under the general licences the population status of these species have remained largely favourable. However, this is not to say that this may not change in future, so the ability to review the species included on general licences is important. With this in mind the Secretary of State is advised to consider how to monitor the effects licensed control on populations of the species listed under the proposed general licences.
- 61. There are no concerns in relation to the non-native species and lethal control of these birds may in fact benefit the conservation of certain native species.

END

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¹⁵ See paragraph 44 in relation to the Canada goose.

Table 1: Summary of Defra's assessment for the inclusion of species on a new General Licence for 'conserving flora and fauna' and Natural England's advice. Instances where Natural England's recommendation and the Defra proposal potentially differ are highlighted in red.

| General Licence f | General Licence for the purposes of conserving flora and fauna, and conserving wild birds | | | | | | |
|--------------------------|---|--|--|---------------------------------|--|--|--|
| Summary of | Listed | Defra assessments and dec | Natural Englan | d advice | | | |
| assessments Species | revoked General | Scientific Evidence (from Evidence Summaries) | Consultation evidence that is additional to Scientific Evidence ¹⁶ | Include in new general licence? | Separate detailed assessment undertaken? | Recommendation (see footnote) ¹⁷ . Potential candidate for a general licence? | |
| Pigeons & doves | | | | | | | |
| Collared dove | No | No evidence of impact | Disease transmission risk claimed | No | No | No | |
| Feral pigeon (rock dove) | Yes | No evidence of impact | No evidence provided | No | No | No | |
| Woodpigeon | No | Not reviewed | No evidence provided | No | No | No | |
| Corvids | | | | | | | |
| Carrion crow | Yes | Speculative for breeding bird population impact Established but incomplete for seabirds Competing explanations for game birds, ducks, waders, raptors and owls, and some passerines. | Considerable experiential evidence of use of GL06 to manage corvids for conserving bird species and strongly held perception of benefits of predator control (in | Yes | Yes | Yes | |

¹⁶ Highlighting any evidence that is unlikely to have been included in the review of 'Scientific Evidence'.

¹⁷ A 'yes' response in this column indicates that Natural England is satisfied, based on its own detailed assessment of available evidence (where available) and its consideration of the Defra Evidence Summaries, that a general licence may be issued for this species and this purpose so long as the licence authorises action to address only the specific problem(s) that the Licence Determination considered and concluded justified licensed action. Where Natural England has not yet undertaken a detailed assessment this recommendation is a provisional view only.

| | | Emerging evidence for competing explanations for local population effects on some other species | general) and / or of 'corvid' control on various, mostly groundnesting, bird species. Some experiential evidence that other measures are ineffective. Little or no crow specific evidence | | | |
|------------------|-----|--|---|-----|-----|-----|
| Jackdaw | Yes | Assessed collectively as | See above. Little or no | Yes | No | No |
| Jay | Yes | corvids' Speculative for breeding | species specific evidence presented. | Yes | Yes | No |
| Magpie | Yes | population impact on wild birds. Speculative for post-breeding game bird population impact. Emerging evidence for competing explanations for local population effects on some other species. | | Yes | Yes | No |
| Rook | Yes | | | Yes | No | No |
| Non-native speci | es | | | | | |
| Canada goose | Yes | Speculative, low risk for hybridization, competition and habitat modification | Some anecdotal experiential evidence of competition / displacement impacts | Yes | Yes | Yes |
| Egyptian goose | Yes | Well established for aggression / competition Speculative for eutrophication of water | Some anecdotal experiential evidence of competition impacts | Yes | No | Yes |

| Indian house crow | Yes | Well established for predation | No evidence provided | Yes | No | Yes |
|----------------------|-----|---|----------------------|-----|-----|-----|
| Monk parakeet | Yes | Speculative, low risk for competition Speculative, low risk for damage to trees | No evidence provided | Yes | Yes | Yes |
| Ring-necked parakeet | Yes | Established but incomplete for competition for feeding areas and nesting sites (birds and bats) | No evidence provided | Yes | No | Yes |
| Sacred ibis | Yes | Established but incomplete for predation | No evidence provided | Yes | No | Yes |

Table 2: Summary of Defra's assessment for the inclusion of species on a new General Licence for 'preserving public health and public safety' and Natural England's advice. Instances where Natural England's recommendation and the Defra proposal potentially differ are highlighted in red.

| Summary of | | Defra assessments and decision | ns | | Natural Englar | nd advice |
|-----------------------------|---------------------------------------|---|--|---------------------------------------|---|---|
| assessments Species | revoked General Licence GL05 | Scientific Evidence (from Evidence Summaries) | Consultation evidence that is additional to Scientific Evidence ¹⁸ | Include in new general licence? | Separate detailed assessment undertaken? | Recommendation (see footnote) ¹⁹ . Potential candidate for a general licence? |
| Pigeons & doves | 5 | | | | | |
| Collared dove | Yes | Speculative for risk to public health | Disease transmission risk claimed | No | No | No |
| Feral pigeon (rock dove) | Yes | Well established for harbouring pathogens, but well established that risk low Established but incomplete of safety risk from slipping | A range of examples of risks from disease transmission from direct and indirect sources | Yes | Yes | Yes |
| Woodpigeon | Yes | No evidence of transmission risk to humans or accessing food stores. Speculative that is host to diseases | Disease transmission risk claimed, although evidence may relate to feral pigeon | Yes | No | No |

¹⁸ Highlighting any evidence that is unlikely to have been included in the review of 'Scientific Evidence'.

¹⁹ A 'yes' response in this column indicates that Natural England is satisfied, based on its own detailed assessment of available evidence (where available) and its consideration of the Defra Evidence Summaries, that a general licence may be issued for this species and this purpose so long as the licence authorises action to address only the specific problem(s) that the Licence Determination considered and concluded justified licensed action. Where Natural England has not yet undertaken a detailed assessment this recommendation is a provisional view only.

| Carrion crow | Yes | Speculative for public health; very low likelihood of transmission | Disease transmission risk claimed. Fouling foodstuffs by corvids reported | Yes | No | Uncertain. Requires assessment |
|----------------------|-----|--|---|-----|-----|--------------------------------|
| Jackdaw | Yes | No or speculative of impact | Nesting in chimney risk to safety. | Yes | No | Uncertain. Requires assessment |
| Jay | Yes | No evidence | Fouling foodstuffs by corvids reported | No | No | No |
| Magpie | Yes | No or speculative of impact | Fouling foodstuffs by corvids reported | Yes | No | No |
| Rook | Yes | No or speculative of impact | Fouling foodstuffs by corvids reported | Yes | No | Uncertain. Requires assessment |
| Non-native spec | ies | | | | | |
| Canada goose | Yes | Well established as host of diseases but speculative low agreement for transmission Anecdotal for aggression and slip risk | Concerns about disease, aggressive behaviour and fouling | Yes | Yes | Yes |
| Egyptian goose | No | Not reviewed | Disease transmission risk claimed, but unlikely in UK | No | No | No |
| Indian house crow | No | Potential to cause problems identified | No evidence provided | No | No | No |
| Monk parakeet | Yes | Well established for nests affecting electricity infrastructure | No evidence provided | Yes | Yes | Yes |
| Ring-necked parakeet | No | Not reviewed | No evidence provided | No | No | Uncertain. Requires assessment |
| Sacred ibis | No | Not reviewed | No evidence provided | No | No | No |

Table 3: Summary of Defra's assessment for the inclusion of species on a new General Licence for 'preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber, fisheries or inland waters' and Natural England's advice. Instances where Natural England's recommendation and the Defra proposal potentially differ are highlighted in red.

| General Licence for the purposes of preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber, fisheries or inland waters | | | | | | | | |
|--|---------------------------------------|--|---|---------------------------------------|--|--|--|--|
| Summary of | Listed on | Defra assessments and decisions | | | Natural Englan | d advice | | |
| assessments Species | revoked General Licence GL04 | Scientific Evidence (from Evidence Summaries) | Consultation evidence that is additional to Scientific Evidence ²⁰ | Include in new general licence? | Separate detailed assessment undertaken? | Recommendation (see footnote) ²¹ . Potential candidate for a general licence? | | |
| Pigeons & doves | Pigeons & doves | | | | | | | |
| Collared dove | Yes | Established but incomplete for low risk to crops, crop storage and poultry | Limited evidence of impacts of disease risk to livestock and to grain storage | No | No | No | | |
| Feral pigeon (rock dove) | Yes | Well established for impacts on stored feed Established but incomplete for crops | Claims of impacts on crops, although some evidence may relate to woodpigeon | Yes | No | Yes | | |
| Woodpigeon | Yes | Well established for impact on crops | Extensive evidence provided of crop losses and stored foodstuffs | Yes | Yes | Yes | | |

²⁰ Highlighting any evidence that is unlikely to have been included in the review of 'Scientific Evidence'.

²¹ A 'yes' response in this column indicates that Natural England is satisfied, based on its own detailed assessment of available evidence (where available) and its consideration of the Defra Evidence Summaries, that a general licence may be issued for this species and this purpose so long as the licence authorises action to address only the specific problem(s) that the Licence Determination considered and concluded justified licensed action. Where Natural England has not yet undertaken a detailed assessment this recommendation is a provisional view only.

| Corvids | | | | | | |
|-----------------|------|--|---|-----|-----|--------------------------------|
| Carrion crow | Yes | Competing explanations for crop damage and impacts on game birds and livestock | Multiple responses citing threat and some evidence of damage to livestock and game birds as well as to crops and stored feed. | Yes | Yes | Yes |
| Jackdaw | Yes | Speculative for crop damage and impacts on game birds and livestock | Some responses citing threat and evidence of damage to crops and livestock | Yes | No | Uncertain. Requires assessment |
| Jay | Yes | Speculative for crop damage and impacts on game birds and livestock | No specific reference to jays causing problems | No | No | No |
| Magpie | Yes | Speculative for crop damage and impacts on game birds and livestock | Some claims and evidence of damage to livestock and stored feed | Yes | No | Uncertain. Requires assessment |
| Rook | Yes | Competing explanations for crop damage | Multiple responses citing threat and some evidence of damage to crops and stored feed, as well as livestock and game birds | Yes | Yes | Yes |
| Non-native spec | cies | | | | | |
| Canada goose | Yes | Well established for impacts on crops, grassland and parkland | Good anecdotal experiential evidence of grazing impacts | Yes | Yes | Yes |
| Egyptian goose | Yes | Established but incomplete for impact on crops | Some anecdotal experiential evidence of impact on crops | Yes | No | Yes |

| Indian house crow | No | Not reviewed | No evidence provided | No | No | No |
|----------------------|-----|--|---------------------------------|-----|-----|-----|
| Monk parakeet | Yes | Well established for damage to crops | Limited evidence of crop damage | Yes | Yes | Yes |
| Ring-necked parakeet | Yes | Well established for damage to crops and fruit | No evidence provided | Yes | No | Yes |
| Sacred ibis | No | Not reviewed | No evidence provided | No | No | No |