

# Review of Section 40 of the Wildlife Act: Burning/Cutting Controls

# BirdWatch Ireland Submission to the Department of Arts, Heritage and the Gaeltacht

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#### Summary

In the farmed landscape, **hedgerows are amongst the richest habitats for biodiversity**. They are essential components in a range of ecosystems, and provide valuable services to agricultural activities, such as habitats for pollinators and the predators of pest species, prevention of soil erosion and interception of water flows, and they sequester carbon. They are a quintessential feature of Irish rural landscapes, providing shelter to stock and crops, as well as nesting and feeding opportunities for many farmland birds, some of which are becoming increasingly threatened in an otherwise intensively-managed landscape. In upland areas, scrub habitats are just as important, offering similar benefits. Appropriate management of all these habitats is of benefit to both biodiversity and farmers.

In this submission BirdWatch Ireland addresses all the questions raised within the consultation documentation. However, further issues surrounding Section 40 of the Wildlife Acts should also be considered that are not addressed by the questions outlined in the Consultation documentation. These relate to the exemptions to the closed period for hedges and to the prescribed best-practice for both hedge cutting and the burning of vegetation which have been developed and published in the literature in recent years, and are specific to Ireland. In addition, the **protection of scrub habitats must be addressed through the Wildlife Acts** as this can be impacted both through cutting (much as for hedges) and also burning.

In this submission we present a significant volume of data that is available for relevant species, we identify a number of significant concerns and make a number of recommendations.

To determine the appropriate season for management of hedgerows (through cutting) and upland habitats (through burning), there is a need to consider early nesting species as well as the nest building period in advance of egg-laying. In Ireland there is a critical lack of phenological data of this type, and this knowledge gap must be urgently addressed. Much of the data presented in this submission relates to UK data, therefore the potentially earlier nesting season in Ireland must also be considered. It is clear that without Irish data and associated scientific analysis, a precautionary approach must be adopted as a change in dates could significantly affect some bird populations

Nevertheless, these data indicate that a date no later than 1<sup>st</sup> March remains an appropriate time to stop hedgerow cutting for nesting birds. Additionally, it is clear from the data presented that many hedgerow species nest well into August. These include Amber-listed species of conservation concern such as Greenfinch and Linnet. Additionally, the data indicate that the Red-listed Yellowhammer continues to nest into September. In Yellowhammer areas hedgerow cutting should not be permitted until at least mid-September. These areas could be defined on a county-by-county basis from the recent Bird Atlas 2007-11. If such a regional approach could be applied, hedge cutting outside of Yellowhammer areas could proceed from 1<sup>st</sup> September.

All hedgerow management actions must follow best practice guidelines to maintain the value of the hedge. Hedge-cutting contractors must be properly trained and, in the case of those operating on public roads, must hold appropriate certification. Cutting in the closed season should continue to be permitted for health and safety, but appropriate management prior to the closed season must have been undertaken to minimise negative impact on the hedge. In particular, such an exemption must not be seen as a carte blanche to destroy hedges during the closed season. The legislation must be fully and properly enforced, with appropriate resources allocated to ensure this happens.

In addition, all hedges should be protected throughout the year, with full evaluations through planning and environmental legislation in cases where hedgerow removal is sought Appropriate mitigation measures must be put in place to address any losses in the hedgerow resource.

For the burning of vegetation, non-burning alternatives must be considered (such as cutting or flailing). Where burning is determined to be the most appropriate management method, all burning must adhere the prescribed burning code of contact and, all burning activities should be licensed.

To protect some of our most threatened bird species, **no burning should be permitted after 1**<sup>st</sup> March. The close season for burning should extend until at least 1<sup>st</sup> September except in Hen Harrier sites, when burning must not be permitted prior to 1<sup>st</sup> October.

#### Introduction

This submission is made in response to a pubic consultation being undertaken by the Minister for Arts. Heritage and Gaeltacht in relation to reviewing legislative controls set out in Section 40 of the Wildlife Acts 1976 to 2012 governing the control of burning and hedge cutting.

BirdWatch Ireland welcomes the opportunity to input into a review of these controls, which should be undertaken on a periodic basis and as updated information and research comes to light. However, a more thorough review of all wildlife legislation and particularly the Wildlife Acts 1976 to 2012 is urgently required, along with an assessment of the effectiveness of Ireland's transposition of the Birds Directive and Habitats Directive.

BirdWatch Ireland welcomes the emphasis placed within the public consultation on the protection of biodiversity, and in particular is re-assured by the statements "that any changes must be in line with Ireland's obligations to protect and enhance our habitats, birds and other species and not to increase the threat to them" and that "this will be an overriding consideration in any proposals for change".

## Background to this submission

As indicated within the Consultation documentation, two issues covered by Section 40 of the Wildlife Acts 1978 to 2012 are being dealt with in this submission – cutting of hedges and burning of vegetation. BirdWatch Ireland would support the view that these two issues are dealt with separately, as there are different aspects to the two issues involved – they cover different habitats and species, are typically associated with different management requirements, and are subject to differing external pressures and forces. The body of this submission therefore separates hedge cutting and burning of vegetation.

This submission seeks to answer all the questions raised within the consultation documentation. However, further issues surrounding Section 40 of the Wildlife Acts should also be considered but are not addressed by the questions. These relate to the exemptions to the closed period for hedges and to the prescribed best-practice for both hedge cutting and the burning of vegetation which have been developed and published in the literature in recent years, and are specific to Ireland. In addition, the protection of scrub habitats must be addressed as this can be impacted both through cutting (much as for hedges) and also burning.

Hedgerows and uplands habitats offer a range of important habitats for a variety of species, and also valuable ecosystem services However, the focus of this submission is specifically in relation to likely impacts on bird populations.

#### Bird nesting data

It is our view that until an appropriate monitoring programme exists in Ireland (and bearing in mind the requirement to ensure that any changes to the legislation must not increase the level of threat to species) a cautionary approach should be adopted when deciding upon cutting season dates. Due to the lack of comprehensive data for Ireland, dates for bird nesting periods have been sourced from the British Trust for Ornithology's Nest Record Scheme (NRS). Although this scheme includes Ireland, less than 1% of records within that database relate to Irish records. Nevertheless, it remains the most relevant source of data currently available. The data used are from records from the period 2000-2009, and contain c.35-45,000 records per annum.

However, certain caveats need to be borne in mind when applying these data to Ireland. The main consideration relates to the onset of the nesting season. Due to our milder climate, it is likely that the average nesting season in Ireland will be earlier than that in the UK as a whole. This will be especially emphasized for upland species which are typically nesting at both higher altitudes and latitudes in the UK than is the case in Ireland. As a result, it is likely that the nesting dates derived from the NRS for these upland breeding bird species in particular will be later than those encountered in Ireland given the NRS provides overall UK laying dates as opposed to laying dates across regions Until an appropriate monitoring programme exists in Ireland (and bearing in mind the requirement to ensure that any changes to the legislation must not increase the level of threat to species), a cautionary approach should be adopted when deciding upon cutting season dates.

# Hedges

Hedgerows are widely accepted as one of the most biodiversity-rich habitats in an intensively-farmed landscape<sup>12</sup>. A substantial volume of literature on hedgerow management in Ireland already exists<sup>3</sup>, and in Ireland hedgerows have been shown to be particularly important for birds. Several studies conducted on birds on Irish farmland have focused on the interaction between hedgerows and breeding bird populations. Generalist species occurring in hedgerows, such as Wren, Robin, Dunnock, Blackbird and Chaffinch tend to dominate the bird communities utilising farmed landscapes<sup>45678</sup>, and often at higher densities than is seen in the UK. This is partly due to the country's limited native broadleaf woodland cover<sup>9</sup>, but also linked to a high density in Ireland of tall, wide and unmanaged hedgerows, which are favoured breeding habitat for these species.

Hedgerow volume (expressed as a density, comprising elements of hedgerow height, width, length and 'gappiness') and the number of hedgerow trees were together shown to be the best positive predictor of bird occurrence in 122 farms surveyed throughout Ireland<sup>8</sup>. Species with strong positive associations with hedgerows included Wren, Dunnock, Robin, Blackbird, Song Thrush, Chaffinch, Greenfinch, Goldfinch, Bullfinch and Yellowhammer. It has also been shown that increased hedgerow density (i.e. landscapes with smaller fields divided by more hedgerows) has a positive impact on bird populations due to the increased number of hedgerow intersections<sup>10</sup>.

### Scrub

In addition to hedges, consideration must also be given to other habitats where there is a need for management. Scrub mosaics can support rich communities of wildlife, including insects and birds<sup>1112</sup>. Studies in the UK have shown the importance of scrub habitats to many threatened bird species<sup>13</sup> also occurring in Ireland, including Merlin, Whinchat, Grasshopper Warbler, Linnet and Yellowhammer. However, abandonment of farming can lead to scrub developing on important, species-rich and semi-natural grassland habitats, which are of huge value to birds that require treeless landscapes, including breeding waders such as Curlew and Lapwing, or nesting Skylarks. Decisions on optimal management of scrub habitats therefore needs to taken on a case-by-case basis<sup>12</sup>.

In undertaking any scrub management regime, it is essential that works minimise negative impacts on biodiversity (through habitat loss, disturbance, etc). Active scrub management is predominantly undertaken by rotational cutting, and is therefore included here. The principal exception is gorse management for which burning, as well as cutting, is used (this is dealt with in under the "Burning of Vegetation" section). Although not often used as a tool to remove scrub, grazing is widely used to prevent scrub growth in open habitats<sup>12</sup>.

<sup>&</sup>lt;sup>1</sup> O'Connor, R.J. and Shrubb, M. 1986. *Farming and Birds*. Cambridge University Press.

<sup>&</sup>lt;sup>2</sup> Parish, T, Lakhani, K.H. and Sparks, T.H. 1995. Modelling the relationship between bird population variables and hedgerow, and other field margin attributes. II. Abundance of individual species and groups of similar species. *Journal of Applied Ecology* **32**: 362-371.

<sup>&</sup>lt;sup>3</sup> Hickie, D. 2004. *Irish Hedgerows: Networks for Nature*. Networks for Nature, Dublin 14.

<sup>&</sup>lt;sup>4</sup> Lysaght, L.S. 1989. Breeding bird populations on farmland in mid-west Ireland in 1987. *Bird Study* **36**: 91-98.

<sup>&</sup>lt;sup>5</sup> Moles, R.T. and Breen, J. 1995. Long-term change within lowland farmland bird communities in relation to field boundary attributes. *and Environment: Proceedings of the Royal Irish Academy* **95B**: 203-215.

<sup>&</sup>lt;sup>6</sup> Flynn, M. 2002. The Impact of REPS on Biodiversity: the contribution of hedgerow structure to the value of REPS farms for breeding birds. In: *Delivering for Farming and The Environment: Proceedings National REPS Conference*. Teagasc, Dublin.

<sup>&</sup>lt;sup>7</sup> Fennessy, G.J. and Kelly, T.C. 2006. Breeding densities of Robin *Erithracus rubecula* in different habitats: the importance of hedgerow structure. *Bird Study* 53: 97-104.

<sup>&</sup>lt;sup>8</sup> Copland, A.S. & O'Halloran, J. 2010. Agri-environment impacts and opportunities for summer bird communities on lowland Irish farmland. Aspects of Applied Biology **100**, Agri-environment schemes - what have they achieved and where do we go from here?, pp. 77-87.

<sup>&</sup>lt;sup>9</sup> Pithon, J.A., Moles, R. and O'Halloran, J. 2005. The influence of coniferous afforestation on lowland farmland bird communities in Ireland: different season and contexts. *Landscape and Urban Planning* **71**: 91-103.

<sup>&</sup>lt;sup>10</sup> Lack, P.C. 1988. Hedge intersections and breeding bird distribution in farmland. *Bird Study* **35**: 133-136

<sup>&</sup>lt;sup>11</sup> English Nature. 2003. The Scrub Management Handbook: Guidance on the management of scrub on nature conservation sites. English Nature, Wetherby.

<sup>&</sup>lt;sup>12</sup> Gough, S.J. & Fuller, R.J. 1998. *Scrub Management for Conservation in Lowland England: Practices, Problems and Possibilities*. BTO Research Report No. 194. BTO, Thetford, Norfolk.

<sup>&</sup>lt;sup>13</sup> Fuller, R.J., Atkinson, P.W., Garnett, M.C., Conway, G.C., Bibby, C.J. & Johnstone, I.G. 2006. Breeding bird communities in the upland margins (ffridd) of Wales in the mid-1980s. *Bird Study* 53: 177-186

## Start of the bird nesting season for hedgerow birds

Figure 1 shows the first egg (laying) dates for a range of common and widespread hedgerow species. Of the list of species, Yellowhammer is Red-listed as a Bird of Conservation Concern in Ireland<sup>14</sup>, whilst Robin, Greenfinch and Linnet are Amber-listed. Two dates are represented – the date when egg laying commences in 1% of nests for each species and the date when laying commences in 5% of nests (as derived from data held on the British Trust for Ornithology's Nest Record Scheme database). It is important to note that these dates do not represent the start of the nesting season, as nests have to be constructed before eggs can be laid! The duration of nest building for most open-nesting (non-nest box) species is poorly known, but additional time to allow nest-site selection and nest building should be considered when reviewing the bird nesting period.





First egg (laying) dates for common and widespread hedgerow bird species. The data are derived from the British Trust for Ornithology's Nest Record Scheme. The blue bar indicates the first egg date for 1% of nests within that database, with the red bar indicating the date by which 5% of nests have had eggs laid.

# End of the nesting season for hedgerow birds

Figure 2 shows the fledging dates for a range of common and widespread hedgerow species. Two dates are represented – the date when 95% of chicks fledge from nests for each species and the fledging date for 99% of nests (as derived from data held on the British Trust for Ornithology's Nest Record Scheme database).

# Hedge Cutting season

The current close period for hedgerow cutting starts on 1<sup>st</sup> March. From the data presented above, this would indicate that only very early nesting Blackbird and Robin are likely to be impacted. However, these two species can nest very early, with records of both species nesting in January (or even December) becoming annual. However, the note about the need to consider a nest building period in advance of egg-laying, along with the potentially earlier nesting season in Ireland, indicate that 1<sup>st</sup> March remains an appropriate time to stop hedgerow cutting for nesting birds.

<sup>&</sup>lt;sup>14</sup> Colhoun K. & Cummins, S. 2013 Birds of Conservation Concern in Ireland 2014-19. *Irish Birds* **9**:523-544





Suggestions (as presented within the public consultation documentation) that "landowners should have clear power to cut roadside hedges from the end of July on the basis that birds will generally have left their nest by then" raise very serious concerns. It is clear from the data presented above that many hedgerow species nest well into August. These include Amber-listed species of conservation concern<sup>15</sup> such as Greenfinch and Linnet, and the Red-listed Yellowhammer.

The situation with Yellowhammer, the species with the latest fledging dates, is worthy of special mention. It is Red-listed due to both short and long-term population declines<sup>15</sup> and has also experienced a substantial range contraction over recent years<sup>16</sup>. The current legislation permits hedges to be cut from 1<sup>st</sup> September, at which time c.5% of Yellowhammers may still have chicks in the nest. In Yellowhammer areas (which could be defined on a county-by-county basis form the recent Bird Atlas 2007-11), hedgerow cutting should not be permitted until at least mid-September.

#### **Hedgerow Management**

A well-managed hedgerow not only provides a valuable habitat for birds, but also a stock-proof barrier that offers shelter to animals. Managing hedges to achieve these objectives is therefore of benefit to both biodiversity and farmers. There has been substantial literature produced on the most appropriate hedgerow management for Ireland<sup>17</sup> in terms of hedgerow shape, timing of cutting, types of equipment, etc, which are not repeated here. These represent best practice and should be followed as a matter of course when undertaking hedgerow management.

In particular, any contractors doing such work, and particularly those contracted to public bodies that are cutting roads-de hedgerows during the "closed" season, must be appropriately trained and licensed or certified (e.g. through Teagasc training centres<sup>18</sup>) to ensure that such best practice is adhered to.

<sup>&</sup>lt;sup>15</sup> Colhoun K. & Cummins, S. 2013 Birds of Conservation Concern in Ireland 2014-19. *Irish Birds* **9**:523-544

<sup>&</sup>lt;sup>16</sup> Balmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. and Fuller, R.J. 2013. *Bird Atlas 2007-11: the breeding and* wintering birds of Britain and Ireland. BTO Books, Thetford. <sup>17</sup> Hickie, D. 2004. Irish Hedgerows: Networks for Nature. Networks for Nature, Dublin 14.

<sup>&</sup>lt;sup>18</sup> Teagasc Course Prospectus 2014. <u>www.teagasc.ie/publications/2013/2899/CourseProspectus2014.pdf</u>

#### **Hedgerow Protection**

Despite the high value of hedgerows to biodiversity, landscape, hydrology, soils and other ecosystem services, at present there is no protection of hedgerows outside of the closed period. Even within this closed period there is an allowance to destroy hedgerows if the land is subsequently cultivated. Section 40 of the Wildlife Acts must be amended to ensure that this is no longer permitted.

Furthermore, outside the closed season, due to the huge value that hedges offer, the removal of any hedgerows for any reason must be considered an offence except in situations of over-riding public interest. Even when the removal a hedgerow can be justified, such removal must be subject to full and proper planning considerations. Furthermore, as a bare minimum, if consent is granted to remove any hedgerow, then an equal length of hedgerow must be planted as close to the removed section as possible before any removal can take place.

For roadside hedgerows, although cutting should be permitted during the closed season for health and safety reason (as is currently the case), this exemption should only be applied where an actual threat exists and where other measures have been tried in advance. Best practice would dictate that, for roadside hedgerows, they should be trimmed in late winter (e.g. February) before the close season. If further trimming is required on, and only on, the grounds of sight for traffic to ensure public health and safety, then only light trimming would be required and should be permitted (i.e. removal only of that season's growth). The majority of birds will nest in thicker woody vegetation created by previous years' growth, so trimming of current season growth is unlikely to impact upon nesting birds.

## **Burning of vegetation**

Uncontrolled and illegal fires, particularly in spring (March –April), can damage large areas of scrub and peatland habitats such as blanket bog, raised bog or heath. Many of these habitats are afforded protection in their own right (such as Raised Bog and Blanket Bog)<sup>19</sup> and all support bird species that are suffering significant declines in population size and range as identified in Birds of Conservation Concern in Ireland 2014-19<sup>20</sup> and are listed as protected under the EU Birds Directive<sup>21</sup>. Burning to improve grazing for sheep or deer involves more extreme fires and is not rotational. Burning can have direct impacts on wild birds, and on ground-nesting birds in particular, causing disturbance of breeding birds and/or destruction of nests or young during the breeding season and knock-on effects on food and habitat availability<sup>2223242526</sup>.

The appropriate management of heather through grazing regimes and other vegetation management practices such as flailing and 'managed' strip/patch burning (where necessary) can benefit Red Grouse<sup>24</sup> and with more mixed outcomes for other upland breeding birds such as Merlin, Meadow pipit, Skylark, Snipe, Golden Plover, Dunlin and Curlew<sup>2224262728</sup>. Additionally, burning activities, particularly on peat soils, need to be assessed in the context of climate change<sup>29</sup> and the need to ensure the reduction of greenhouse gas emissions<sup>30</sup>.

<sup>&</sup>lt;sup>19</sup> Habitats Directive - Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

<sup>&</sup>lt;sup>20</sup> Colhoun K. & Cummins, S. 2013 Birds of Conservation Concern in Ireland 2014-19. *Irish Birds* **9**:523-544

 $<sup>^{21}</sup>$  Birds Directive - Directive of 30<sup>th</sup> November 2009 on the conservation of wild birds (2009/147/EC)

<sup>&</sup>lt;sup>22</sup> Amar, A., Grant, M, Buchanan, G., Sim, I., Wilson, J, Pearce-Higgins, J.W. & Redpath, S. 2011. Exploring the relationships between wader declines and current land-use in the British uplands. *Bird Study* 58: 13-26

<sup>&</sup>lt;sup>23</sup> Henderson, I.G., Fuller, R.J., Conway, G.J. & Gough, S.J. 2004. Evidence for declines in populations of grassland-associated birds in marginal upland areas of Britain. *Bird Study* **51**: 12-19

<sup>&</sup>lt;sup>24</sup> Moss, D., Joys, A.C., Clark, J.A., Kirby, A., Smith, A., Baines, D. & Crick, H.Q.P. 2005. *Timing of breeding of moorland birds*. BTO Research Report, 362. Thetford

<sup>&</sup>lt;sup>25</sup> Smith. A. A, Redpath. S. M, Campbell S.T, Thirgood. S. J. 2001. Meadow pipits, red grouse and the habitat characteristics of managed grouse moors. *Journal of Applied Ecology* **38**: 390-400

<sup>&</sup>lt;sup>26</sup> Tharme. A. P, Green. R. E, Baines. D, Bainbridge I. P, O'Brien M. 2001. The effect of management for red grouse shooting on the population density of breeding birds on heather dominated moorland. *Journal of Applied Ecology* **38**: 439-457

<sup>&</sup>lt;sup>27</sup> Carr, G. & Middleton, P. 2004. *Breeding bird survey of the Peak District Moorlands*. Moors for the Future Report No 1

<sup>&</sup>lt;sup>28</sup> Haworth, P.F. & Thompson, D.B.A. 1990. Factors associated with the breeding distribution of upland birds in the south Pennines, England. *Journal of Applied Ecology* 27: 562-577

<sup>&</sup>lt;sup>29</sup> European Climate Change Programme (ECCP). <u>http://ec.europa.eu/clima/policies/eccp/index\_en.htm</u>

<sup>&</sup>lt;sup>30</sup> Healthy peatlands act as a sink for greenhouse gasses, while degraded peatlands act as a large source of carbon dioxide with concerns for the carbon implications of burning.

BirdWatch Ireland has significant concerns about the loss of and damage to valuable habitats for wild birds through scrub clearance and uncontrolled burning activities. While the loss of habitats for wild birds is a concern already highlighted by the European Court of Justice in a ruling against Ireland<sup>31</sup>, a proactive and coherent approach to habitat protection for wild birds both within and outside of designated areas is still urgently needed and particularly lacking in Ireland.

Additionally, BirdWatch Ireland has significant concerns regarding uncontrolled burning of vegetation<sup>32</sup>, in particular when burning occurs outside the legal period for doing so. Illegal and uncontrolled burning can irreparably damage priority habitats such as Blanket bog and habitats that are important for birds and other wildlife. Such breaches of legislation are a crime which needs urgent redress through the Irish courts and consideration under environmental legislation including the Environmental Liability Directive<sup>33</sup>. For legitimate burning, the prescribed burning code of practice<sup>34</sup> outlines not only where but when burning can be carried out and its detailed guidelines should be followed in all cases.

# Start of the bird nesting season for upland birds

Figure 3 shows the first egg (laying) dates for selected upland bird species. All the species listed are of conservation concern, with Curlew, Golden Plover and Meadow Pipit on the Red List, and the remaining species Amber-listed<sup>35</sup>. Two dates are represented – the date when egg laying commences in 1% of nests for each species and the date when laying commences in 5% of nests (as derived from data held on the British Trust for Ornithology's Nest Record Scheme database). As indicated for hedgerow birds, it is important to note that these dates do not include time for nest construction. An additional period should therefore be allowed for nest-site selection and nest building when reviewing the bird nesting period. Again, as noted earlier, further fundamental information on wild bird breeding seasons and breeding activity is required in an Irish context in advance of any changes to existing legal burning dates. This is of particular importance for upland birds, for which the seasons may vary substantially from the UK data presented here. Without accurate information, extending the burning period risks contravening the requirements of both national and EU wildlife legislation and lacks a precautionary approach.

# End of the nesting season for upland birds

Figure 4 shows the fledging dates for selected upland bird species. Two dates are represented – the date when 95% of chicks fledge from nests for each species and the fledging date for 99% of nests (as derived from data held on the British Trust for Ornithology's Nest Record Scheme database).

# Vegetation burning season

The current close period for vegetation cutting starts on 1<sup>st</sup> March. Although egg laying for most species (except Stonechat) do not commence until early April, Stonechat is Amber-listed, and protection of nesting areas from 1<sup>st</sup> March continues to be justified, particularly when bearing in mind the need for birds to locate suitable nesting sites and construct nests and uphold territories in many cases. However, it is worth reinforcing the lack of specific data for Irish upland species in this regard, which needs to be urgently addressed.

<sup>&</sup>lt;sup>31</sup> ECJ - European Court of Justice ruling in case C-418/04: Commission v. Ireland

<sup>&</sup>lt;sup>32</sup> Worall, F., Clay, G., Marrs, R. & Reed, M. 2010. Impacts of Burning Management on Peatlands. IUCN UK Peatland Programmes Commission of Inquiry into Peatland Restoration

<sup>&</sup>lt;sup>33</sup> Environmental Liability Directive (2004/ 35/ EC) includes direct or indirect damage to species and natural habitats protected at Community level by the 1979 "Birds" Directive or by the 1992 "Habitats" Directive

<sup>&</sup>lt;sup>34</sup> Forest Service, Department of Agriculture, Food and the Marine. 2012. Prescribed Burning Code of Practice – Ireland. http://www.hsa.ie/eng/Topics/Fire/CofPPrescribedBurningFinal90212.pdf

<sup>&</sup>lt;sup>35</sup> Colhoun K. & Cummins, S. 2013 Birds of Conservation Concern in Ireland 2014-19. *Irish Birds* **9**:523-544



Figure 3 First egg (laying) dates for upland bird species. The data are derived from the British Trust for Ornithology's Nest Record Scheme. The blue bar indicates the first egg date for 1% of nests within that database, with the red bar indicating the first egg date for 5% of nests recorded.



Figure 4 Fledging dates for upland bird species. The data are derived from the British Trust for Ornithology's Nest Record Scheme. The blue bar indicates when 95% of nests within that database have fledged, with the red bar indicating the fledging date for 99% of nests recorded.

The date to permit burning in the autumn is currently  $1^{st}$  September. This would appear to be a suitable date for all species, except for Hen Harrier, which may well still have unfledged chicks in the nest into late September. As the location of Hen Harrier nesting sites is well known, burning in these areas must not be permitted prior to  $1^{st}$  October.