

# **Hunting and the Conservation of Habitat in the Republic of Ireland**

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## **Abstract**

In recent decades, European and Irish government policies have increasingly focused on environmental issues such as the loss of biodiversity on agricultural land. Under current European Union (EU) rural development regulation, Irish rural policy aims to integrate the management of agricultural systems and encourage farm diversification through the multifunctional use of farmland. The release of Ireland's Rural Development Programme (2007-2013), for example, has brought with it significant emphasis on improving the environment through support for land management. Within current Irish rural development policy however, hunting activities occupy an interesting position for they are rarely mentioned in policy on the leading issues of agriculture, environmental protection, and recreation.

In this context, this paper examines the effects of hunting activities to the conservation of habitat in the Republic of Ireland. The paper begins by discussing the development of land use and agricultural policy over recent decades in Ireland. The paper then presents the results of a questionnaire-based survey of the organisers of hunting activities to illustrate the habitat conservation effects of hunting in Ireland. The results indicate that the organisers of hunting activities are responsible for creating and conserving a variety of habitats on agricultural land. The results of this research can be used to promote rural development and legislative and financial support for natural resource-related recreation activities in Ireland.

## Land Use and Agricultural Development in Ireland

Ireland has undergone significant land use change and agricultural development in recent decades. This modernization process accelerated in 1973 with Ireland's entry into to what is now the European Union (EU) and with the integration of the Common Agricultural Policy (CAP). The objectives of the CAP were characterized by guaranteed price support, creating incentives for farmers and landowners to increase production. The CAP as a price support policy led to polarisation in farming with larger farmers being better supported and growing apace, often at the expense of smaller farmers. This modernization process brought with it substantial economic growth but also associated detrimental impacts on the rural environment (Teagasc, 2005).

The land use philosophy which marginalised nature conservation within the CAP has been widely documented throughout Europe. Numerous authors have described this intensification process as being damaging to wildlife (e.g. Baldock, 1989; Pain and Piensowksi, 1997; Donald *et al.*, 2000; Donald *et al.*, 2002.). Increased mechanisation, along with land drainage, resulted in a change in field structure, with a reduction in boundary features and increased field size. More use of chemicals, fertilizers and pesticides has also resulted in a net loss in both plant and animal diversity (Pain and Piensowksi, 1997).

Coinciding with the intensification of agriculture, the populations of farmland birds in Europe declined markedly during the last quarter of the 20<sup>th</sup> century, representing a severe threat to biodiversity (Donald *et al.*, 2000). Two native Irish game-birds - the grey partridge (*perdix perdix*) and the red grouse (*lagopus scoticus hibernicus*) - declined considerably coinciding with this period. The decline in the grey partridge has been due to decades of agricultural intensification, the effects of which resulted in their decline to a single breeding population fragmented across 12 square kilometres of cut away bog in the Irish midlands, Boora, County Offaly (Buckley, 2007). The heather habitat of the Irish red grouse has been subject to erosional damage by the overgrazing of sheep on blanket and peat bogs - the numbers of which increased greatly with headage payments and other EU subsidy and price incentives (Emerson and Gillmor, 1999). The availability of subsidies which encouraged the planting of coniferous plantations also played a significant role in the destruction of heather habitat in Ireland. The corncrake (*crex crex*) has also undergone a substantial long-term decline in population and range, starting in the early years of the 20<sup>th</sup> century (O'Meara, 1979). Green and Stowe (1993) suggest that changes in grassland management, including trends towards silage-making from hay-making, mowing earlier in the season and the conversion of hay meadows to sheep pasture, had adversely affected corncrakes both by reducing the area of vegetation tall enough to hold them and by increasing the losses of adults, nests and chicks during mowing.

The decline of habitat as a result of the intensification of agriculture in Ireland has been widely documented. Many wetlands and turloughs were drained along with the loss of hedgerows and habitat diversity, and the loss of nesting sites for many bird species (Taylor and O'Halloran, 1999). Habitat loss on farmland occurred as a greater proportion of the land was brought into agricultural production e.g., small woodland and wetlands were destroyed.

## **The Development of Environmental Policy in Ireland**

As the CAP progressed, a number of economic and environmental concerns emerged. The increase in output could not be absorbed by the natural growth in demand and thus, the EU which was initially a deficit producer of many agricultural products, became a net exporter (O'Hagan and Newman, 2006). Many concerns also began to emerge in relation to the impact of the price support policy on the environment and biodiversity. In 1993, the process of reforming the CAP was initiated by Agricultural Commissioner, Ray MacSharry. The MacSharry reforms set out a number of measures to reduce production support prices for the first time. Compensation for price reductions was provided along with the introduction of set-aside land and new agri-environment measures such as forestry and early retirement schemes. More reductions in support prices followed after negotiations on Agenda 2000 commenced, whereby increased compensation was provided to farmers through direct payments.

The MacSharry reforms and the Agenda 2000 reforms saw the introduction of rural development policy through the second pillar of the CAP. This reinforced the process of shifting the emphasis from support for agricultural production to income support. The EU took a big step to integrate environmental considerations into the CAP with the launch of an agri-environment scheme. In response to these requirements, the Department of Agriculture, Food and Forestry established the Rural Environmental Protection Scheme (REPS) in 1994. REPS is designed to reward farmers for carrying out their farming activities in an environmentally friendly manner and to bring about environmental improvement on existing farms.

REPS began against the backdrop of limited Irish agri-environmental policy. The introduction of REPS represented a major advancement in the integration of agricultural and environmental policy in the Republic of Ireland (Emerson and Gillmor, 1999). The latest version of the Rural Environment Protection Scheme, REPS 4, runs until 2013 and encourages farmers to enhance the environment through a range of actions including reduced use of fertilizers and pesticides contributing to lower greenhouse gas emissions as well as improved water quality. The scheme also assists in maintaining existing hedgerows and planting new ones as well as growing crops to provide food for wild birds (Dept of Agriculture, 2008). At present, 51% of Irish farmers are involved in the scheme.

Following the shifting of Ireland's agricultural industry from production to post-production support, rural development policy has increasingly focused on diversification and set-aside land use in an attempt to support environmental methods of farming. In addition to REPS, countryside recreation activities have recently been considered as possible land use diversification alternatives. The launch of Ireland's Countryside Recreation Strategy in 2004, set out in detail a range of actions and tasks to develop countryside recreation, incorporating a range of government and non-government agencies. The principals underpinning this strategy include recognising the value of countryside recreation in terms of improving quality of life, and delivering economic, social, and environmental benefits. The report also aims to encourage farmers and other landowners to provide for outdoor recreation and to develop rural enterprises based on outdoor recreation activities, thereby providing them with the opportunity to benefit financially (Department of Community, Rural and Gaeltacht Affairs, 2004).

## **Hunting and Habitat Conservation**

Although little is known about the effects of hunting activities to the conservation of habitat in Ireland, recent work has shown that many parts of the UK countryside are subject to special habitat management practises to improve shooting and hunting activities in certain areas (e.g. Cox *et al.*, 1996; Macdonald and Johnson, 2000; Swan, 1991). It has also been argued that hunting activities have the potential to introduce both diversity and resource use to the farmland landscape (Stoat, 2002; Ewald *et al.*, 2006). For example, Oldfield *et al.*, (2003) suggest that some landowners voluntarily conserve biodiversity-rich habitat through the incentives of participating in hunting activities. Similarly, MacDonald and Johnson (2000) have concluded that landowners participating in hunting activities maintain the largest areas of established woodland and have planted more woodland and hedgerows than land owners and managers of land who do not participate in the activities.

## **Methodology**

The project mainly employed quantitative methods of research and analysis to examine the extent to which special management practises are undertaken to create habitats for hunting activities in the Republic of Ireland. Preliminary steps of the methodology involved collating background information for a national questionnaire-based survey of the organisers of hunting examining their habitat conservation impacts. The questionnaires outlined a variety of different habitat types and respondents were asked to state how they managed the habitats within their hunting/shooting areas.

The questionnaire survey was devised following consultation with a range of other recreation studies and was preceded by a pilot exercise. National geographic coverage was achieved and special care was taken to survey representative samples of the sports' organisers. The generated data was evaluated using Excel in order to reach useful conclusions from the data.

## **Results - Hunting with hounds**

The objective of hunt management is to improve the hunting experience by providing the quarry<sup>1</sup> with suitable habitat and cover away from human disturbance but where they are still assessable (Hobson, 2000). At present, there are approximately 300 hunts in the Republic of Ireland. Of these, 169 are registered with specific organisations which regulate and govern the various hunting activities. Of the 169 hunts clubs surveyed, 132 (78 percent) returned the questionnaire with 76 providing adequate information on their habitat management activities. Table 1 outlines the results of the 76 hunts that provided information regarding their habitat management activities.

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<sup>1</sup> Quarry relates to any species which can be legally shot or hunted that has an open season.

**Table 1. The habitat management activities reported by the 76 hunts**

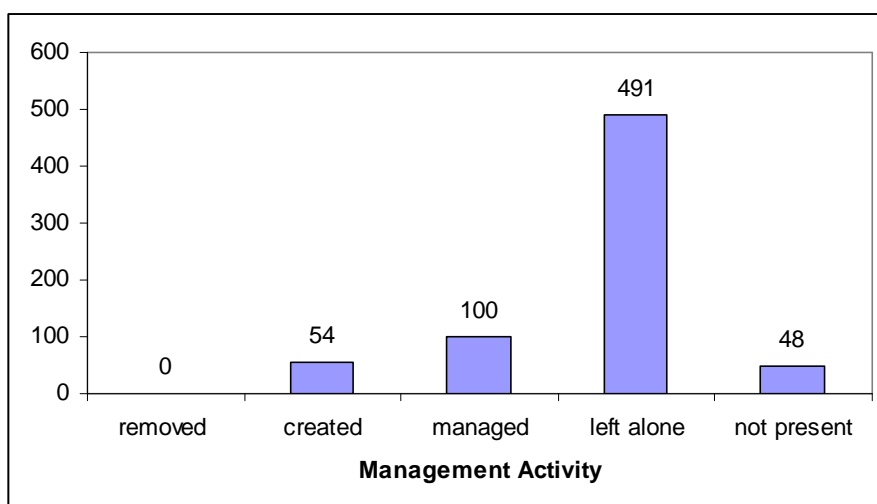
Habitat Type	Removed	<i>Encouraged</i>		Left alone	Not present
		Created	Managed		
Hedgerows	0	11	14	47	0
Field margins	0	5	9	47	0
Field Corner Spinneys (1)	0	8	5	45	3
Woodland	0	14	14	43	0
Scrubland and Coverts (2)	0	4	19	42	0
Water and marshland	0	1	5	44	13
Reed Beds	0	3	2	36	13
Copses (3)	0	4	10	41	3
Arable and grassland	0	2	11	40	0
Upland habitats	0	0	4	37	12
Bogland	0	2	6	48	3
Other	0	0	1	21	1
<b>Total</b>	<b>0</b>	<b>54</b>	<b>100</b>	<b>491</b>	<b>48</b>

<sup>1</sup> A small thicket of hedge / scrub or a growth of bushes

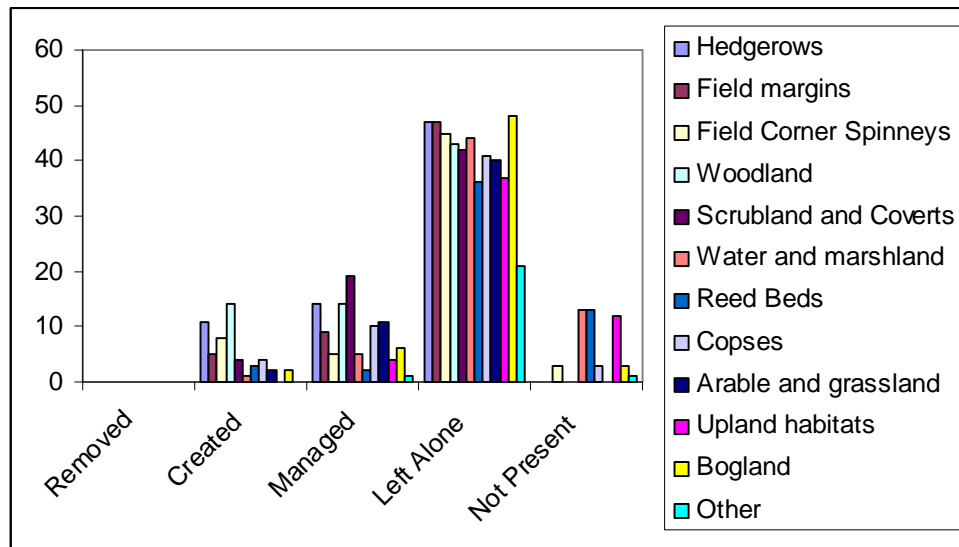
<sup>2</sup> Thick underbrush or woodland affording cover for game/foxes

<sup>3</sup> A thicket of small trees or shrubs usually maintained by periodic cutting or pruning to encourage growth

**Figure 1. The amount of habitat managed by the 76 hunts**



**Figure 2. The variety of habitats managed by the 76 hunts**



As can be seen from Table 1, Figure 1, and Figure 2 hunts manage a wide variety of habitats in Ireland. The main habitats created by those involved in hunting are hedgerows and woodland. Woodland management usually involved planting new woodland or re-planting existing woodland with saplings usually in small woodlands.

As Figure 2 outlines, hunts also manage woodland and coverts. Management in this regard usually involves small scale coppicing, open skylighting, and ride maintenance to encourage cover on the woodland floor or by clearing rides to allow access on both foot and horseback (Ewald *et al.*, 2006). Hedgerows were also both planted and managed by the majority of hunts surveyed. Follow-up discussions with hunt staff emphasised the importance of well-managed hedgerows especially for the hunts which have mounted followers. Figure 2 also reveals that hunts manage scrubland and coverts. Interviews with hunt masters revealed that the majority of covert planting took place in the 18<sup>th</sup> and 19<sup>th</sup> centuries in Ireland. At present, the majority of existing coverts are managed by coppicing and perimeter management.

### Results - Game Shooting

The majority of game shooting in Ireland is undertaken through the structure of local gun clubs affiliated to the National Association of Regional Game Councils (NARGC). At present, there are 27,000 members registered with the NARGC and over 840 gun clubs. There are also approximately 40 large syndicate/private shoots throughout Ireland affiliated to the Irish Game Protection Association (IGPA).

Other forms of shooting include deer and vermin shooting<sup>2</sup>. Although there are usually no direct habitat management activities undertaken for the purpose of deer or vermin shooting, it is widely accepted that these forms of shooting are important in the protection of certain natural and agricultural habitats including woodland, crops, arable, and grassland habitats.

Similar to the examination of hunting, the organisers of game shooting were sent a questionnaire investigating their various habitat management practises. In total, 280 game shooting organisers were asked to complete postal questionnaires which sought to ascertain the various habitat management activities undertaken to improve shooting. The sample was designed to be as representative as possible through a means of geographical distribution. A total of 82 game shooting organisers returned the questionnaire giving a satisfactory 29% response rate.

**Table 2. The habitat management activities reported by the 82 shoot organisers**

Habitat Type	Removed	<i>Encouraged</i>		Left alone	Not present
		Created	Managed		
Hedgerows	0	6	8	3	0
Field margins	0	4	6	5	2
Field Corner Spinneys (1)	0	5	6	5	1
Woodland	0	6	6	4	0
Scrubland and Coverts (2)	0	3	2	5	2
Water and marshland	0	3	4	5	1
Reed Beds	0	0	2	4	2
Copses (3)	0	0	4	3	4
Arable and grassland	0	1	6	3	1
Upland habitats	0	0	0	3	8
Bogland	0	0	0	6	1
Other	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>28</b>	<b>44</b>	<b>48</b>	<b>30</b>

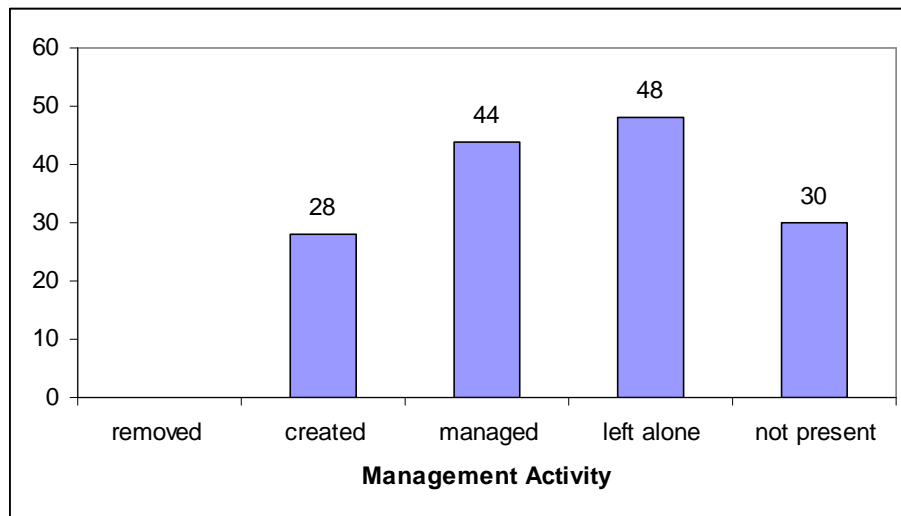
<sup>1</sup> A small thicket of hedge / scrub or a growth of bushes

<sup>2</sup> Thick underbrush or woodland affording cover for game/foxes

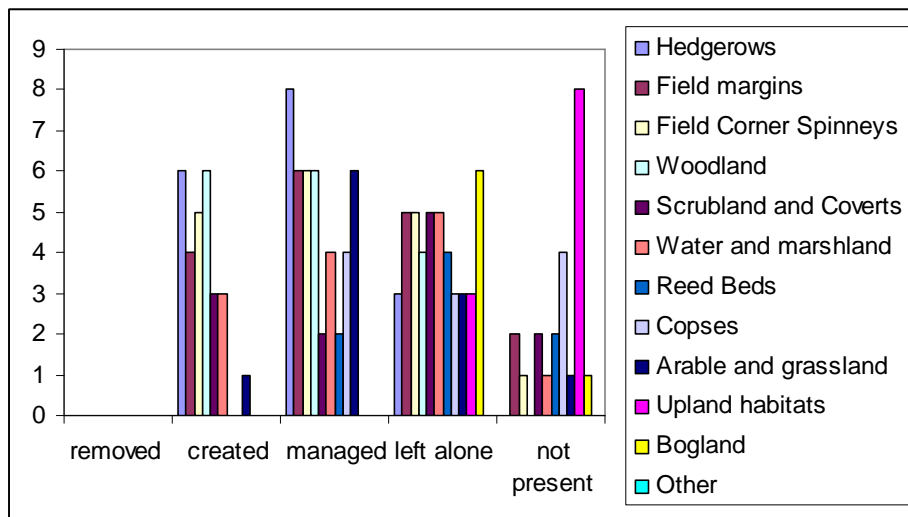
<sup>3</sup> A thicket of small trees or shrubs usually maintained by periodic cutting or pruning to encourage growth

<sup>2</sup> Vermin is a term given to animals or birds which are considered by some people to be pests or nuisances. They are usually not protected by any season and include species such as pigeon, mink, fox, grey crow, magpie, rat, grey squirrel etc.

**Figure 3. The amount of habitat managed by the 82 game shooting organisers**



**Figure 4. The various habitats managed by the 82 shoot organisers**



As Table 2, Figure 3, and Figure 4 outline, there is a wide variety of habitat conserved by those involved in game shooting in Ireland. The data provided relates specifically to the 82 game shooting organisers who returned the questionnaire. Given the large sample size and the response rate, it should provide an accurate outline of the extent of the habitat management activities practised by those involved in game shooting in Ireland.

As Figure 4 outlines, the main habitats created by those involved in game shooting are hedgerows and woodland. It was evident that the driven shoot organisers were significantly more involved in habitat management in comparison to the gun clubs. Game shooting organisers were also asked a series of questions regarding the amount of game crop planted to improve shooting. In total, game crops were planted by 42 shoot organisers. In addition to new planting, the research indicates that the shooting organisers who release pheasants are more likely to plant game crops.

## **Discussion**

This study set out to examine the habitat conservation role of hunting activities in the Republic of Ireland. The results indicate that the organisers of hunting activities are responsible for creating and conserving a variety of habitats on agricultural land in Ireland. Research by Dover *et al.*, (1997) has illustrated that the habitats conserved by those involved in hunting with hounds such as hedgerows have positive impacts on biodiversity. McMahon and Whelan (2006) similarly outline the importance of hedgerows to farmland bird populations which are also created by the organisers of hunting. Research by Ó hUallacháin (2005) has illustrated that the habitats conserved by those involved in game shooting such as set-aside/bird crops have positive impacts on biodiversity through analysis of farmland bird species. In certain situations these habitat management activities are linked to strategies to improve an area for economic reasons. The driven shoots for example, which operate on a commercial basis create habitat which encourage and attract game with the overall aim of improving the economics of the shoot.

The results of this research can be used to promote rural development and legislative and financial support for natural resource-related recreational activities in Ireland. Policy-makers should consider ensuring that future land-use policies are developed with objectives whereby the hunting community can avail of subsidies to enhance habitat on agricultural land. Such measures could be contained within the Rural Environment Protection Scheme (REPS) as a means to encourage wider participation in habitat development for natural resource-related recreation. Similarly, policy-makers should recognise the wider habitat conservation impacts of hunting activities when allocating limited wildlife-related funds and when considering future rural development plans.

## Bibliography

Baldock, D. (1989) *Agriculture and Habitat Loss in Europe*, WWF International CAP Discussion Paper No. 3.

Buckley, K. (2007) *National Grey Partridge Conservation Project*, Annual Report, Technical Report of the National Parks and Wildlife Service Liaison Officer - Habitat and Species management, 6 Sandford Road, Ranelagh, Dublin 6, Ireland.

Cox, G., Watkins, C. and Winter, M. (1996) *Game Management in England, Implications for Public Access, the Rural Economy and the Environment*, Countryside and Community Research Unit, Cheltenham, Glos, UK.

Department of Community, Rural and Gaeltacht Affairs (2004) *National Countryside Recreation Strategy*, Comhairle na Tuaithe, Dublin.

Dept of Agriculture, Fisheries and Food (2008) *REPS and Irish Farming*, (<http://www.agriculture.gov.ie/index.jsp?file=schemes/reps.xml>), Accessed on 12, July, 2008

Donald, P. F., Green, R.E. and Heath, M.F. (2000). Agricultural intensification and the collapse of Europe's farmland bird populations. *Proceedings of the Royal Society* **268** (1462): 25-29.

Donald, P. F., Rayment, M.D., Pain, D.J. and Pisano, G. (2002) The Common Agricultural Policy, EU enlargement and the conservation of Europe's farmland birds. *Agriculture, Ecosystems & Environment* **89** (3): 167-182.

Dover, J.W., Sparks, T.H. and Davis, J.N. (1997) The importance of shelter beds for butterflies in open landscapes, *Journal of Insect Conservation*, 1, pp. 89-97.

Emerson, H. J. and Gillmor, D.A. (1999) The Rural Environment Protection Scheme of the Republic of Ireland. *Land Use Policy* **16**: 235-245.

Ewald, J.A. Callegari, S.E., Kingdon, N.G. and Graham, N.A. (2006) Fox hunting in England and Wales: its contribution to the management of woodland and other habitats, *Biodiversity and Conservation*, **15**: 4309-4334.

Green, R.E. and Stowe, T.J. (1993). The decline of the corncrake *Crex crex* in Britain and Ireland in relation to habitat change. *Journal of Applied Ecology* **30**: 689-695.

Hobson, D. (2000) *Hunting with Dogs: Conservation and Environment*, Submission to the Committee of Inquiry into Hunting with Dogs in England and Wales.

Macdonald, D.W. and Johnson, P.J. (2000) Farmers and the Custody of the Countryside: Trends in Loss and Conservation of Non-Productive Habitats 1981-1998. *Biological Conservation*, **94**, 221-234.

McMahon, B.J. and Whelan, J. (2006) Individual field boundary elevation and grading system attributes and Irish farmland birds, *Irish Journal of agri-environmental research*, **5**, 29-42.

Ó hUallacháin, D. (2005) *The use of planted set-aside by farmland birds*, Unpublished report, November 2005.

O'Hagan, J. and Newman, C. (1999) *The Economy of Ireland: National and Sectoral Policy Issues*, (9<sup>th</sup> Ed.), Gill and MacMillan Ltd.

Oldfield, T.E.E., Smith, J.R., Harrop, S.R. and Leader-Williams, N. (2003) *Field Sports and Conservation in the United Kingdom*, *Letters to Nature*, **25** (6): 551-533.

Pain, D. J. and Pienkowski, M.W. (1997) *Farming and Birds in Europe: The Common Agricultural Policy and its Implications for Bird Conservation*, Academic Press, Great Britain.

Stoate, C. (2002) Multifunctional use of a Natural Resource on Farmland: Wild Pheasant *Phasianus colchicus* Management and the Conservation of Farmland Passerines. *Biodiversity and Conservation* **11**, 561-573.

Swan, M. (1991) *Rough Shooting*, Swan Hill Press, England.

Taylor, A. J. and J. O'Halloran (1999) *The Decline Of The Corn Bunting (Miliaria Calandra) In The Republic Of Ireland, With Reference To Other Seed Eating Farmland Birds*. Cork Report to the Heritage Council, November 1999, Department of Zoology and Animal Ecology, UCC.

Teagasc, (2005) *Agriculture in Ireland: Land Use and Farm Structure*, ([www.teagasc.ie/publications/2005/20051208/index.htm](http://www.teagasc.ie/publications/2005/20051208/index.htm)) Accessed on the 28 September, 2007.