



All-Ireland Species Action Plan

Irish Hare

Lepus timidus hibernicus



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1. Current status

- 1.1. The Irish hare is considered to be a sub-species of *Lepus timidus* (L.) and is endemic to Ireland. It is found in many different habitats including unimproved, semi-improved and improved grassland, upland habitats such as heather-dominated heaths and bogs and in coastal habitats including sand-dunes and even on the sea shore. They also tend to occur on modified grassland habitats such as golf courses and airfields (Fairley, 2001; Dingerkus & Montgomery, 1997).
- 1.2. Historically, the Irish hare was widespread and common throughout Ireland, though populations are thought to have undergone a substantial decline in the last 15-25 years. A day-time survey carried out in 1994/1995 indicated that the Northern Ireland population although widespread may have been as low as 8,250, occurring at low densities of around 1-2 per km² (Dingerkus, 1997). Population levels may have fallen to critical levels in some areas. Evidence from game bag records suggest that densities in at least some areas were much higher in the last century (Dingerkus & Montgomery, 2002).
- 1.3. A night-time survey carried out in 2002 estimated the Northern Irish hare population to be between 7,000 and 25,200, indicating that hare numbers had not changed significantly since the previous survey (Preston *et al.*, 2002).
- 1.4. Repeat night-time surveys were undertaken in spring 2004 and spring 2005. In 2004, the population was estimated as being between 59,700 and 86,900 (5.1 hares per km²) and between 35,000 and 54,400 (3.1 hares per km²) in 2005. It is concluded from these results that the hare population decreased between 2004 and 2005, but remains higher than 2002 (Tosh *et al.*, 2005).
- 1.5. In the Republic of Ireland, anecdotal evidence supports the impression of a decline in Irish hare populations in the past couple of decades. However, until a comprehensive survey is carried out, it is impossible to draw any conclusions.
- 1.6. There are believed to be small populations of the brown hare *Lepus europaeus* (L.) in the northern half of Ireland, having been widely introduced throughout Ireland in the nineteenth century. This species is known to have declined throughout Europe and is the subject of a UK Species Action Plan in Great Britain. However, due to its recent introduction to Ireland, it is not regarded as a species of particular conservation importance. The impacts of brown hare populations, if any, on the endemic Irish hare are unknown.
- 1.7. The Irish hare is a quarry species and has limited protection under domestic legislation. In January 2004, following public consultation, the Northern Ireland Environment Minister introduced a 12 month ban on the taking, selling or killing of Irish hares under the Game Preservation Act (Northern Ireland) 1928. A second ban, covering January 2005 to March 2005 was also introduced.
- 1.8. *Lepus timidus* is listed under Annex V (a) of the EU Directive 92/43/EEC (Habitats Directive). This Annex lists animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures.
- 1.9. In the Irish Red Data book the Irish hare is listed as internationally important (Whilde, 1993).

2. Current factors causing loss or decline

Threats to this species are generally poorly understood, but the following factors are thought to have a negative effect on hare populations (in no particular order).

- 2.1. Loss of refuge areas for daytime lie-up sites, particularly rushes and good quality hedgerows (Dingerkus, 1997, Tapper & Barnes, 1986)
- 2.2. Habitat change and changes in farming practice, such as conversion of species-rich grassland to ryegrass (*Lolium* spp.) and clover mixes (Dingerkus, 1997), the switch from spring to winter cereals and the change from hay to silage making.
- 2.3. Habitat fragmentation (Dingerkus, 1997)
- 2.4. Increased levels of disturbance due mainly to high livestock stocking densities on farms, increased use of farm machinery, peat cutting machines and disturbance by cats and dogs (Smith *et al.*, 2005; Dingerkus, 1997; Jeffrey, 1997; Pielowski, 1976).
- 2.5. Increased mortality resulting from highly efficient mechanised harvesting of agricultural crops. (Dingerkus, 1997).
- 2.6. Increased levels of predation on leverets (Dingerkus, 1997).
- 2.7. Illegal taking of hares (Dingerkus, 1997).
- 2.8. Unsustainable taking of hares for sporting purposes.
- 2.9. Direct grazing competition with sheep in upland areas.

3. Current action

- 3.1. Research carried out between 1994 and 1997 by The Queen's University of Belfast examined the distribution of the Irish hare in Northern Ireland, as well as some aspects of the ecology of the species. The results indicated that the Irish hare is widely distributed especially in areas with semi-natural grassland, heath or bog, although at generally low densities (about 1 per km²) and there was evidence of a reduction in both population and range.
- 3.2. Three surveys have been recently carried out in Northern Ireland (2002, 2004, 2005) using similar methodologies. For the two most recent surveys, the methodology has been refined in order to enhance their ability to detect population trends (Tosh *et al.*, 2005).
- 3.3. Research carried out at University College Dublin on the genetics of the species in Ireland (Hamill, 2001) has been followed up by ongoing research at Queen's University of Belfast. This is providing useful information on population structure of the Irish hare as well as indicating the relationship between the Irish hare and other *Lepus* taxa.
- 3.4. A PhD study into the ecology and conservation of the Irish hare and the species' response to agricultural change was commissioned by EHS in 2003.
- 3.5. Research is being carried at Aberdeen University into aspects of the Scottish mountain hare *Lepus timidus scoticus*, and at Uppsala University, Sweden on the genetics of both *Lepus timidus* and *Lepus europaeus* (Thulin *et al.*, 1997). Genetic research in Iberia has shed light on post ice-age dispersal of *Lepus timidus* through the region.

- 3.6. Various aspects of brown hare ecology are being studied at Bristol University and at the Game Conservancy Trust as well as in several centres in mainland Europe (e.g. Vaughan *et al.*, 2003).
- 3.7. Voluntary agri-environment schemes, such as the Rural Environment Protection Scheme (REPS) in the Republic of Ireland, and the Environmentally Sensitive Areas (ESAs) and Countryside Management (CMS) Schemes in Northern Ireland can make an important contribution to the maintenance and enhancement of suitable hare habitat. Approximately 40,000 farmers in the Republic of Ireland are participants in REPS and this figure is expected to rise to 59,000 by 2006. In Northern Ireland, 7,000 farms are participating in agri-environment schemes.
- 3.8. Closed (or park) hare coursing has undergone significant changes in terms of regulation and compliance. Hare mortality appears to have fallen as dogs are now muzzled. Licences stipulate that hares caught for coursing must be returned to their place of capture. There are 92 registered coursing clubs in the Republic of Ireland and two in Northern Ireland, all affiliated to the Irish Coursing Club. Radio tracking of hares released following coursing in Northern Ireland has provided some information on the dispersal and longevity of hares after release.
- 3.9. A Statutory Hare Reserve was established on the North Slob in Co. Wexford in 1989.
- 3.10. A conference and a research seminar were held in autumn 2003, focusing on the Irish hare and sharing up to date research into both Irish and brown hares.

4. Action plan targets

- 4.1. Maintain the existing range of Irish hares in Ireland.
- 4.2. Demonstrate a population increase by 2010.
- 4.3. Maintain and increase the area and quality of suitable hare habitat.

5. Proposed action with lead agencies

The provision of refuge areas, adequate and varied food supply and freedom from disturbance are essential if Irish hare numbers are to be maintained at present levels. If hare numbers are to be increased then habitat improvements must also be a priority. Further research is required in order to improve the current understanding of threats to hares and habitat use by hares. Monitoring of hare numbers is also required.

A range of Government Departments are likely to be involved in the delivery of this action plan. The principal drivers will be Environment and Heritage Service (EHS) in Northern Ireland and National Parks and Wildlife Service (NPWS) in the Republic of Ireland. Both Agriculture Departments (Department of Agriculture and Rural Development (DARD) in Northern Ireland and Department of Agriculture and Food (DAF) in the Republic of Ireland) have a role to play in terms of managing the farmed countryside especially through agri-environment schemes. Other Departments and Agencies will have differing roles, such as provision of grant-aid for research projects, sensitive management of state-owned land and development of policy towards species protection.

5.1. Policy and legislation

5.1.1. Take account of the requirements of Irish hares when reviewing or developing agri-environment schemes and environmental cross-compliance measures linked to agricultural subsidies. Particular consideration should be given to reducing stocking levels, varying sward composition and encouraging good hedgerow management.

(ACTION: DARD, DAF)

5.1.2. Consider the requirements of the Irish hare in the implementation of agri-environment and environmental cross-compliance programmes.

(ACTION: DARD, DAF, Teagasc)

5.1.3. Review and if necessary, increase the level of protection given to the Irish hare in the Wildlife (NI) Order 1985 and the Wildlife Act 1976.

(ACTION: EHS, DOE, NPWS, DEHLG)

5.2. Site safeguard and management

5.2.1. Ensure that state and semi-state-owned lands are managed, where appropriate, with a view to conservation of Irish hares.

(ACTION: All Government departments, local authorities and state-sponsored bodies)

5.2.2. Establish hare sanctuaries and/or hare reserves at suitable locations.

(ACTION: EHS, Water Service, DARD, MOD, Prison Service, NPWS)

5.3. Species management and protection

5.3.1. Seek to develop a strategy for the conservation and monitoring of the Irish hare (possibly as part of a wider UK mammal strategy or on an all-Ireland basis).

(ACTION: EHS, JNCC, NPWS, DEHLG)

5.4. Advisory

5.4.1. By 2007, prepare and distribute publications containing information and management advice about hares. Distribute to landowners / land managers, farmers, golf courses, airports and other known hare localities.

(ACTION: EHS, DARD, NPWS, DAF, Teagasc)

5.4.2. Ensure that relevant staff in DARD, Teagasc and NPWS are sufficiently trained and informed to advise on management for the Irish hare.

(ACTION: DARD, Teagasc, NPWS)

5.4.3. Ensure that relevant information on Irish hares is included in REPS farm advisory talks, by 2007.

(ACTION: NPWS)

5.5. Future research and monitoring

5.5.1. Promote general research into the biology, ecology and population dynamics of the Irish hare.

(ACTION: EHS, DARD, NPWS)

5.5.2. Conduct a base-line survey to determine the current population of the Irish hare in the Republic of Ireland, by 2007.

(ACTION: NPWS, EHS)

- 5.5.3. Repeat surveys throughout Ireland at intervals of 3-5 years until 2015 to calibrate other less-detailed surveys and to measure the success of the action plan.
(ACTION: EHS, NPWS)
- 5.5.4. Carry out repeatable monitoring surveys at regular intervals to determine population and range change throughout Ireland.
(ACTION: EHS, NPWS)
- 5.5.5. Establish the status of the brown hare in Ireland and investigate its impact on Irish hare populations, by 2007.
(ACTION: EHS, NPWS)
- 5.5.6. Investigate the relative importance of hares in terms of economic damage to crops, to assist farmers and foresters to make informed choices in hare management.
(ACTION: DARD, DAF, Forest Service (NI), Forest Service (RoI))
- 5.5.7. Conduct research into possible effects of hare coursing and beagling on the population dynamics of the Irish hare.
(ACTION: Bord na gCon, DAST, NPWS, EHS)
- 5.5.8. Ensure that information gathered in surveys is passed to national biological recording centres.
(ACTION: EHS, NPWS)

5.6. Communication and publicity

- 5.6.1. Inform local authorities and statutory agencies of the presence of Irish hare in their areas of responsibility and ensure that they are aware of the potential risks to Irish hare that could be caused through inappropriate land management or development.
(ACTION: EHS, NPWS)
- 5.6.2. Ensure that the conservation needs of the Irish hare are publicised and use salient points as examples of how land management practices can benefit hare populations.
(ACTION: EHS, NPWS, DARD, DAF)
- 5.6.3. Encourage public participation in appropriate survey work and encourage the reporting of incidental sightings to relevant bodies. By 2007, produce leaflets so that the public can easily tell the difference between Irish hares, brown hares and rabbits.
(ACTION: EHS, NPWS)

6. Links with other action plans

Northern Ireland Habitat Action Plans

- Lowland meadow
- Purple moorgrass and rush pasture
- Coastal and floodplain grazing marsh
- Species-rich hedgerows
- Lowland wood-pasture and parkland
- Upland heathland
- Lowland heathland
- Lowland Raised Bog
- Blanket Bog

Northern Ireland Species Action Plans

- Curlew

All-Ireland Species Action Plans

- Corncrake

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