

NORFOLK BIODIVERSITY ACTION PLAN

BROWN HARE (*Lepus europaeus*)

This is a large hare that can weigh up to seven kilograms. In addition to its large size, other characteristic features of the species include long, black-tipped ears and a bi-coloured tail (black above and white below). It inhabits open fields, agricultural areas and woodlands, and is often conspicuous.

Ref 1/S2	Tranche 1	Species Action Plan 2
Plan Author:	Natural England	
Plan Co-ordinator:	Farmland BAP Topic Group	
Plan Leader:	Norfolk County Council	
Date:	Stage:	
31 Dec 1998	Final Draft	
January 2006	Revised Final Draft	

1. CURRENT STATUS

National Status

- The brown hare was probably introduced to Britain by the Romans. Although it is widespread and common in some agricultural areas, it is in serious decline in others, particularly pastoral areas.
- Population trends are available, derived from the National Game Bag Census by the Game Conservancy Trust. At the turn of the century, the species was abundant throughout England, Scotland and Wales except on higher parts of mountains. After the late 1920s, numbers declined until the later half of the Second World War. Numbers then increased until 1960 and then declined steadily during the following two decades. The national population has been more or less stable for the past decade.
- A mid-winter estimate of the population, at the start of the breeding season but before the onset of the main hare-culling season, is 817,500: 572,250 in England, 187,250 in Scotland and 58,000 in Wales.
- Hares may be shot by occupiers of land throughout the year. The Hares Preservation Act 1892 prohibits the sale (but not the killing or taking of hares) during March-July inclusive.

Norfolk Status

- Brown hares are more numerous in Norfolk than in most other counties and therefore Norfolk has a particular responsibility for safeguarding its population. They are found throughout the county and are relatively abundant in some areas, such as north Norfolk. Hares are generally common on arable land throughout the county and on grazing marshes in the Broads area. However, as with the national situation, numbers are lower than they were in the 1960s. Numbers fluctuate locally but probably increase in years with warm springs and warm late-summers. Data from the National Game Bag Census indicates peak numbers of up to 50/100ha in Norfolk in 1911, a steady decline to a trough of about 10/100ha through 1940-1955, rising again to about 22/100ha in 1961. There then followed a rapid decline to about 5/100ha over the last 30 years, with only the slightest sign of recovery more recently.

2. CURRENT FACTORS CAUSING LOSS OR DECLINE IN NORFOLK

- Changes in farming practices, in particular the adoption of break crops instead of grass leys and an overall drop in farm diversity associated with an increase in field size, have probably led to the overall decline since the 1960s.

- A change to more intensive grass management, particularly regular cutting of grass with forage harvesters and inappropriately timed cutting of setaside will have increased leveret mortality.
- An increase in the numbers of foxes and large avian predators in Norfolk is likely to have an impact on hare numbers as they are the main predators of leverets.
- Local disease outbreaks can have an impact. In particular, populations can be affected by coccidiosis, yersiniosis and European brown hare syndrome, though this is highly variable.
- Shooting can reduce numbers and organised hare shoots may reduce spring populations by over 50%. However, organised shoots normally only take place in areas where hares are numerous and likely to cause agricultural damage and are not in most cases a significant threat to the species.
- Rabbit numbers have now largely recovered since myxomatosis and hares certainly profited when rabbit numbers were lower.

3. CURRENT ACTION IN NORFOLK

- The Game Conservancy Trust monitors hare numbers shot on a number of farms and estates in Norfolk as part of their Game Bag Census.

4. ACTION PLAN OBJECTIVES AND TARGETS

National

- Maintain existing populations.
- Expand existing populations, doubling spring numbers in Britain by 2010.

Norfolk

- Maintain and where possible enhance the current numbers in Norfolk.

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.1 5.1.1	Policy and Legislation Review the use of legislation pertaining to shooting and selling of hares in the light of research findings on the seasonality of reproduction.	Consider the needs of brown hare when promoting and targeting agri-environment schemes.	NE	
5.2 5.2.1	Site Safeguard and Management No action proposed.	<p>Promote suitable set-aside management and appropriate management in agri-environment schemes.</p> <p>Promote uptake of organic farming options.</p> <p>Promote Natural England agri-environment schemes.</p> <p>Where hare numbers are low seek to improve management for hares of appropriate farmland.</p>	<p>NE</p> <p>NE</p> <p>NE, FWAG</p> <p>FWAG</p>	<p>Farmers and Landowners</p> <p>Farmers and Landowners</p> <p>Farmers and Landowners</p> <p>Farmers and Landowners</p>
5.3 5.3.1	Species Management and Protection Seek to develop a strategy for the conservation and monitoring of the brown hare (possibly as part of a wider mammals strategy).	<p>Seek to encourage landowners and farmers to cull hares only to the extent necessary to reduce damage to crops to an acceptable level or reduce likelihood of disease outbreak.</p> <p>Seek to raise awareness in the farming community that reducing hare populations to below 4 animals/100ha significantly increases the risk of local extinctions.</p>	<p>FWAG, NE, GCT</p> <p>FWAG, NE, GCT</p>	<p>Farmers and Landowners</p> <p>Farmers and Landowners</p>
5.4	Advisory			

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.4.1	Prepare and distribute a management advisory booklet for hares.	Continue to provide information and advice on appropriate land management through conservation and shooting advisers. Circulate GCT leaflet on Brown Hare Conservation.	FWAG, GCT, NE, NWT, Farmland BAP Topic Group	Farmers and Landowners
5.5	Future Research and Monitoring			
5.5.1	Promote further research to assess the effects of different agricultural practices (eg crops planted, cutting dates and cutting methods) on brown hare populations.	Encourage local surveys and research, especially when linked to agricultural practices. Support continued monitoring of the species in the county by Game Conservancy Trust.	BTO, Mammal Society Farmland BAP Topic Group	NNNS GCT
5.5.2	Pass information gathered during survey and monitoring of this species to Joint Nature Conservation Committee in order that it can be incorporated into a national database and contribute to the maintenance of an up-to-date Red List.	Pass information gathered during survey and monitoring of this species to the Norfolk Biological Records Centre and other appropriate data repositories.	BTO, Mammal Society, GCT, NNNS, Farmland BAP Topic Group	
5.6	Communications and Publicity			
5.6.1	Use the popularity of hares to highlight the impact on biodiversity of modern agricultural practices and loss of mixed farms.	Ensure that agricultural courses include management for brown hares.	Easton College	

NORFOLK DISTRIBUTION

MANAGEMENT GUIDANCE

(This guidance is a general summary; for more detailed information or advice, please consult the references or contacts below.)

- Hares like a 'patchwork quilt' farmland. Break up large blocks of cereal as much as possible.
- Use set-aside as a wildlife habitat. A series of 20-metre strips is ideal if it is planted under the Wild Bird Cover Option.
- On arable farms, mown grass strips will provide summer grazing. Run them across open fields rather than alongside hedgerows where predators may lie in wait.
- Hares need quiet, undisturbed cover for raising leverets. On livestock farms leave some areas of grass uncut and ungrazed for leverets to hide in.
- When making silage, cut the field from the centre outwards rather than from the outside in, so that hares can escape the machinery into neighbouring fields.
- Planting game crops for pheasants will provide cover and food for hares.
- Don't use herbicides such as paraquat, which are known to kill hares.
- Don't shoot hares in late winter unless you are sure crops are being damaged. A February hare shoot can remove 60% of the breeding stock.
- Don't let poaching jeopardise the hare population. Contact the local police Wildlife Liaison Officer to get help on this.

(Extracted from the GCT publication, *Conserving the Brown Hare*, by Tapper and Hobson, 2006).

CONTACTS

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REFERENCES

Tapper, S. and Hobson, D. (2006). *Conserving the Brown Hare*. Fordingbridge: The Game Conservancy Trust.