BROWN HARE (Lepus europaeus)

DESCRIPTION

General Ecology

A widespread farmland animal which lives entirely above ground. It was probably introduced into Britain by the Romans. The animals are most conspicuous in spring during their territorial and mating behaviour.



Key Habitats

Brown hares require extensive areas of open grassland. They are typically associated with agricultural land including semi-natural grasslands, pasture and spring-sown arable.

Management Requirements

They favour areas with mixed arable and livestock farming and require tall vegetation as cover, particularly during the breeding season.

CURRENT STATUS

International

The species has a widespread distribution across temperate parts of Europe and Asia. In the colder climes of the north it is replaced by mountain hare. In Iberian and hotter climates to the south it is replaced by African hare and other similar species.

National

Brown hares occur throughout most of Britain except parts of North and West Scotland and some mountain locations. It has declined considerably since the 19th Century. A national survey in 1991 to 1993 estimated the UK population at least 817,500, only about 20% of the 1880 population.

Greater Manchester Resource and Distribution

Brown hare has been recorded in all ten Boroughs of Greater Manchester. The species is fairly widespread in the Pennine fringe and also occurs locally in the lowland of west and south of the County. The current distribution and population trends are not precisely known. A survey in 1996 of Oldham found populations in three areas of the Borough. There was also some anecdotal evidence of decline in Greater Manchester. A strong population also exists at Woodford Aerodrome, Stockport.

The mountain hare was introduced into the Peak District in the 19th Century and is now well established. In Greater Manchester there is a sharp demarcation between the distribution of brown hare and mountain hare (which occupies higher moorland).

Legal

The species receives limited legal protection under the Ground Gain Act (1880) and the Hare Protection Act (1911). They may not be offered for sale between the 1st March and 31st July. Otherwise they are unprotected.

CURRENT FACTORS AFFECTING THE SPECIES

International

Changes in agricultural management are probably a major cause of decline in other countries.

National

- Conversion of grassland to arable.
- Loss of habitat diversity in the agricultural landscape.
- Changes in planting and cropping regimes, such as a move from hay to silage and autumn planting of cereals.

Greater Manchester

In addition to the above factors affecting brown hare, those listed below are particularly relevant to the Greater Manchester area. The negative factors are those that are thought to contribute to the decline of brown hare populations. The positive factors are those measures that may already be assisting in the conservation of the species:

Positive factors	Negative factors	
Studies are being planned to establish brown hare	Road fatalities, especially in spring.	
populations and their conservation requirements.		
	Illegal hunting especially lamping at night-time.	
	Predation from foxes and other natural predators.	
	Disturbance from domestic dogs.	
	Fragmentation and isolation of populations	
	Habitat changes due to changing agricultural	
	techniques described in the "National" section	
	above	

LONG TERM TRENDS AND POTENTIAL THREATS

- Long term effects of climate change affecting brown hare habitats
- Changes in farming practices

CURRENT ACTION

International

Unknown

National

- JNCC have commissioned various research projects.
- A species action plan has been prepared for brown hare as part of the UK Biodiversity Action Plan.
- The Wildlife Trust for Lancashire, Greater Manchester & North Merseyside plan to establish a standard and repeatable methodology for brown hare survey and carry out surveys in a number of 1 km² quadrats.
- BTO have been considering incorporating mammal surveys into their existing initiatives.

Greater Manchester

- 1996 survey carrie d out by Oldham Museum.
- Biodiversity Action for Oldham produced 2000 (including an action plan for brown hare).
- Liaison with Police Wildlife Officers in Oldham.
- Oldham Biodiversity Group in conjunction with Oldham Countryside Service are carrying out a pilot survey of brown hare in 2002. It is hoped a standard and repeatable methodology will be established. This and future annual surveys will establish a baseline of hare numbers and work towards increasing hare numbers in this area.
- The Wildlife Trust for Lancashire, Greater Manchester & North Merseyside has conducted a postal survey of farmland (covering some farms in Greater Manchester) to increase knowledge of hare distribution.
- Lancashire Bird Group is incorporating hare survey into their bird surveys.

OBJECTIVES

National

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

Greater Manchester

In Greater Manchester, national targets and local aspirations have been translated into the following broad objectives:

Objective	Targets
Determine the current distribution and	Collect and collate records of brown hare
abundance of brown hares in Greater	and produce distribution map by 2004.
Manchester	
	Establish up-to-date baseline through
	survey.

Objective	Targets	
Maintain the distribution and range of	Maintain populations at least at numbers	
brown hare populations and habitats in	identified through survey.	
Greater Manchester and prevent further		
losses and fragmentation	Set targets for increasing brown hare	
_	distribution and abundance in future years.	
Increase the distribution and abundance	Identify the potential range for expansion	
of brown hare and suitable habitats in	by the end of 2006.	
Greater Manchester without reducing		
the area of other valuable habitats and	Increase the distribution (tetrads recorded)	
species	in Greater Manchester by 10% by 2010.	

PROPOSED ACTION

Action	Lead Body	Timetable for Action
1. Policy		TOT FICTION
Ensure the importance of brown hare and their associated habitat is recognised and protection policies are included in appropriate plans and strategies. Eg: UDP, supplementary planning guidance, Red Rose Forest Strategy, Pennine Edge Forest, nature conservation/wildlife strategies.	EN/LAs, GMEU/ RRF/PEF/ WTs	2006
Ensure all planning applications are adequately assessed in relation to their impact on brown hare habitat: that loss or damage is avoided and that opportunities are taken for enhancement.	LA's/GMEU/ WTs	Ongoing
Ensure that UDPs take full account of the UK Biodiversity Action Plan, A Biodiversity Audit for North West England and the Greater Manchester Biodiversity Action Plan.	LAs/EN/ GMEU	2006
Ensure brown hare is recognised and promoted as a priority species when setting targets for Countryside Stewardship and other agri-environmental schemes	DEFRA/ WAG/WTs	Ongoing
2. Site and Species Safeguard		
Identify and safeguard key sites for brown hare. The wide distribution of the species over agricultural land means designations such as SBI or Nature Reserve status are not effective tools for conservation. The main population does, however, occur on land which is designated as Greenbelt. Consideration to strengthening protection against development in these areas should be incorporated into policies as above.	LAs/GMEU/ WTs/ Countryside Services	2007
Identify and secure areas for potential expansion of brown hare habitat (to reduce isolation and fragmentation of sites)	All BAP Partners	2006

Action	Lead Body	Timetable for Action
Contribute to the implementation of relevant species and habitat action plans associated with brown hare.	All BAP partners	Ongoing
Encourage landowners/managers to participate in agrienvironment and other schemes to fund management and habitat creation.	All BAP Partners	Ongoing
3. Land management		
Promote and encourage positive management of brown hare where the species is known to occur with landowners, occupiers and voluntary conservation bodies through long-term conservation management plans or agreements.	All BAP Partners	Ongoing
Complete or update existing conservation management plans to promote long-term positive management of brown hare habitat with land owners/occupiers and voluntary conservation bodies.	All BAP Partners	Ongoing
4. Species Management		
Encourage Police Wildlife Officers to pursue reports of illegal lamping in all boroughs in Greater Manchester.	All BAP Partners	Ongoing
5. Advisory		
JNCC is to produce a National Management Advisory Booklet for hares. Distribute copies of this in Greater Manchester when available.	Biodiversity Project Officer	When available
Develop and promote best practice for brown hare habitat management, particularly the integration of conservation management into agricultural practice. Ensure guidelines widely available and accessible to interested parties.	EN/DEFRA, FWAG/LAs/ GM Biodiversity Project	2006
Establish demonstration sites to show good conservation and management practice of brown hare habitats.	LA's/WTs/ Identified by GM Biodiversity Project	2008
Provide advice to landowners/occupiers where brown hare occur on appropriate management regimes sympathetic to the conservation of brown hare.	All BAP partners	Ongoing
6. Future Research and Monitoring		
Collate existing records (historic and recent) and identify gaps in knowledge of brown hare.	Relevant GMBAP Working Group	2004
2. If necessary, undertake survey of brown hare using standardised and repeatable methodology.	All BAP Partners	Start 2004

Action	Lead Body	Timetable for Action
Establish and maintain a central database of all brown hare sites including details of condition of associated habitats and potential expansion areas. Make this information available to key partners.	GMEU/ Bolton Museum	2004
Develop standard and repeatable methods of establishing the condition of brown hare habitats and consider the effectiveness of conservation management. Use knowledge to supplement database, management plans, etc.	Relevant GMBAP Working Group	2005
Contribute to increasing information on UK brown hare by submitting information from GM brown hare database to National Biodiversity Network web based catalogue of survey information. Such information should also be widely available locally.	Biodiversity Project Officer	When established
Submit details of relevant conservation achievements to the national biodiversity reporting system, BARS, to meet requested deadlines.	Biodiversity Project Officer	2003 onwards
Develop and implement appropriate surveillance and monitoring programmes to assess progress towards action plan targets.	Biodiversity Steering Group	2004
Produce tetrad distribution map of Greater Manchester.	Relevant GMBAP Working Group	2004
Develop links with universities and encourage research on brown hare and associated flora and fauna.	Relevant GMBAP Working Group /Academic Institutions	2003 onwards
Establish and monitor boundary between brown and mountain hares.	Oldham BAP Group	Trial plots to begin in 2003
7. Communication and Publicity		
Seek opportunities to raise the profile of brown hare in the media and improve public awareness of its wildlife and conservation value. Eg: Include information on brown hare BAP in Local Authority and museum websites.	All BAP partners	Ongoing
Encourage public involvement in conservation initiatives and promote access to demonstration sites.	All BAP partners	Ongoing
Publicise existing sites demonstrating good practice in the management and conservation of brown hare and their habitats ensuring information widely available to landowners/managers.	All BAP partners	Ongoing

Action	Lead Body	Timetable
		for Action
Use brown hares to front a publicity awareness	Relevant	2004
campaign to highlight the impact on biodiversity of	GMBAP	
modern agricultural practice and loss of mixed farms.	Working	
	Group	

Abbreviations

DEFRA Department for Environment, Food & Rural Affairs

EN English Nature FC Forestry Commission

GMEU Greater Manchester Ecology Unit

LAS Local Authorities
LNR Local Nature Reserve
PEF Pennine Edge Forest
RRF Red Rose Forest

SBI Site of Biological Importance SSSI Site of Special Scientific Interest

WAG Wildlife Advisory Group

WTs Wildlife Trusts

RESOURCE IMPLICATIONS

UK BAPs

Principally agri-environment schemes

Greater Manchester

There will be considerable costs involved in undertaking survey and monitoring to provide up to date information on the distribution of brown hare, although some surveys may be undertaken by volunteers and could be co-ordinated between counties (ie: Lancashire and Cheshire) or districts.

- Establishment and maintenance of a central database
- Promotion of positive management
- Establishment of monitoring programme
- Raising public awareness
- Staff and volunteer time
- Fuel and equipment costs for surveys
- Training costs.

Possible Sources of Funding

Central government including DEFRA, EN. Countryside Stewardship (DEFRA) Local government including UDP/LA21. Landfill tax.

RELATED ACTION PLANS

UK BAPs

Upland meadows, Lowland meadows, Grey partridge, Skylark.

Greater Manchester BAPs

Acid, neutral and marsh/marshy grassland, Twite

Proposed for 2nd Tranche of GMBAP: Boundary features (hedgerows), Woodland, Lowland and upland heath, Farmland/farmland birds.

Other BAPs

Bolton BAP: Lowland dry acid grassland, lowland heathland, unimproved neutral

grassland, hedgerows, semi improved grassland.

Cheshire BAP: Brown hare, Ancient/species rich Hedgerows, Cereal field margins
Lancashire BAP: Brown hare, skylark, arable farmland, species rich neutral grassland
North Merseyside BAP: Acid grassland, lowland heath, brown hare, skylark and grey partridge

Oldham BAP: Brown hare

CONFLICTS WITH OTHER ACTION PLANS

Lowland broadleaved woodland

CONTACTS FOR BROWN HARE BAP GROUP:

Organisation	Contact	Tel. Number
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Environment Agency Chairman Stockport & Tameside	Prof. George Beaumont	01923 840000
District CWT	<u> </u>	

PROPOSED REVIEW OF THE PLAN

The Biodiversity Action Plan for Brown Hare will be reviewed in 2008, and thereafter every five years.

REFERENCES

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- English Nature (1998) "UK Biodiversity Group Tranche 2 Action Plans"
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- RSPB (1995). Biodiversity Challenge "An Agenda For Conservation In The UK". 2nd Edition.
- Stubbs, F.J. (1905). A List of the Mammals of the Oldham District