

Current Status - UK and local

UK Biodiversity Status: Conservation Concern

LBAP Partnership area Status: Local Priority Species

The Brown Hare, probably introduced by the Romans to Britain around 2000 years ago, is associated with farmland and is now considered an integral part of our mammalian fauna.

This species is listed in the Mammal Society Red Data Book as common but declining, although the Game Conservancy Trust (GCT) has indicated that they believe the numbers are stable. It was included as only one of nine species of mammal (and the only non-native mammal) classified as 'vulnerable, or rapidly declining' for which a Biodiversity Action Plan was written as part of the UK Biodiversity Steering Group Report (1995).

The Brown Hare is widespread on farmland throughout England, Wales and in lowland areas of Scotland, but absent from the northwest and western Highlands. It is found in its native range across most of central Europe. Population densities in the UK are estimated to be 1 hare for every 2-4 hectares of land. Previously considered abundant, the species seems to have experienced a considerable loss in population since the early 1960s, with total numbers in Britain now estimated between 817,500 and 1,250,000. Arable areas are believed to support 46% of the population with 24%, 13% and 17% resident in pastoral, marginal upland and upland areas respectively.

Past recording of the species in the Partnership area has been insufficient to make a quantitative assessment of status change, but some local naturalists believe that a considerable decline has occurred throughout the LBAP area since the 1960s. This has perhaps been more pronounced in the west; it is said to have been possible in the 1970s to see as many as a dozen or more Brown Hares in one field in certain parts of the Strathgryfe, for example, whereas in recent years one or two is the norm.

Reasons for the local decline are unknown, but may be related to changes in agricultural practice including a local arable decline. In addition, long-established and relatively herb-rich pastures have largely been replaced with improved grassland and leys, often with associated drainage measures which occurred during the period of substantial EEC grants in the 1970s. Brown Hares in the LBAP area now appear to be more abundant on marginal agricultural land, and are perhaps more associated with grasslands alongside rivers and open woodland edge. As part of the action plan process, it is important to survey the species throughout the LBAP area.



Ecology and Management

Although found mainly on agricultural land including rough pasture up to the limit of cultivation, the Brown Hare can also be associated with heather moorland and upland unimproved grassland habitats. Road casualties of hares peak in summer to autumn whereas sightings of live animals peak in the spring, due mainly to the "Mad March Hare" syndrome, which is actually a male fighting off rivals from his female. Adults occupy home ranges of between 20ha and 40ha. These are usually shared with other hares, although individuals may concentrate on particular patches within their home range.

Anecdotal evidence indicates that the decline in the Brown Hare population since the 1960s cannot be attributed solely to recent changes in farming practices. Its status as a game species means that numbers can be monitored through the game bag. This information indicates that numbers in pastoral areas have been declining slowly since the last century up to the present day. However, populations in arable areas did not show such a pronounced decline until later. Arable production postwar increased markedly, with hare populations increasing accordingly. A couple of severe winters in the 1960s had a detrimental impact on the population, as have hunting, disease and predation.

Brown hares have two to three young a year which are called leverets, and these stay in a resting place called a 'form' which can be a shallow, dug out depression in an open field or under cover of long grass, scrub or hedgerow. Brown Hares are usually solitary animals, occasionally seen in small groups.

Factors Causing Loss or Decline

Incidental mortality is primarily through road deaths, with other current contributory factors being:

- ★ Loss of habitat due to agricultural improvements. In particular the loss of mixed habitat and a greater reliance on silage rather than later cut hay, and the application of herbicides, have had a significant and cumulative impact. Where there is now continuous cereal production, without pastures or grass leys, hares have declined because cereals become too tall and woody in summer to be edible. Brown Hares appear to have a requirement for short grass and a diversity of crops at different growth stages throughout the year.
- ★ Disease and predation, mainly by foxes on leverets, may have contributed to local population crashes. The disease *coccidiosis* affects young hares and *yersiniosis* affects adults in the winter. Illegal hare coursing with dogs possibly causes local declines.



Inverclyde
Renfrewshire
East Renfrewshire
LBAP



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Brown Hare (Lepus europaeus)

Brown Hares are larger than rabbits, with longer limbs and a loping gait. They have black-tipped ears that are equal in length to the head.

Head and body length: 48-70cm, Weight: 3-5kg.

The tail is held down when running, showing its black dorsal surface. The fur moults in spring and autumn, the summer coat being a little lighter than the reddish winter coat.

Brown Hares are the fastest land animals in the UK.

Opportunities and Current Action

The national Brown Hare Species Action Plan, prepared as part of the UK Biodiversity Action Plan, seeks to maintain and expand existing populations (i.e. aims to double spring numbers in Britain by 2010) and includes an action for the Joint Nature Conservancy Council (JNCC) to prepare a management advisory booklet for Brown Hares. At the time of writing, no action has been taken in the LBAP Partnership area to conserve the Brown Hare; however, the Paisley Biological Records Centre has in the past collected records of sightings.

The Brown Hare is a game species and so has limited protection through the Ground Game Act 1880 and the Hare Protection Act 1911. The Game Conservancy Trust is of the opinion that the Brown Hare should remain a game species because this encourages their conservation. However the limited amount of protection provided under current legislation may not be enough to restore Brown Hare populations. Hares can still be shot as pests, quite legitimately by some arable farmers and woodland managers, and this may limit their recovery.

Some of the information required to carry out a detailed survey of the LBAP Partnership area, to assess the present day population and distribution, may be available from The National Hare Survey, carried out by R Temple *et al*, University of Bristol.

It may be possible to encourage landowners to introduce management practices that would benefit the conservation of local Brown Hare populations, using the Rural Stewardship Scheme.

Action Plan

The main aim is to increase the Brown Hare population in the LBAP Partnership area back to pre-1960s numbers. To enable the achievement of this aim, key priorities are to protect the Brown Hare through land management agreements and ensure yearly population monitoring is carried out.

Objectives and Targets

- Objective 1 Maintain and enhance the current Brown Hare population and distribution in the LBAP area.
- Objective 2 Restore the Brown Hare population and distribution to their former (pre 1960s) status throughout the LBAP area by 2010.
- Objective 3 Ensure management of arable landscapes, heather moorland and upland unimproved grassland habitats, which will maintain and enhance hare populations.
- Objective 4 Initiate a survey in the LBAP area to determine the status of the Brown Hare.
- Objective 5 Ensure that all relevant landowners and /or tenants are aware of Brown Hares on their land and what they can do to help them.
- Objective 6 Review this plan on an annual basis, beginning in 2005.

We will achieve these objectives by:

Action	Actioned by	Timescale
Ensuring no net loss of the species numbers or range	LAs FWAG CMRP, Landowners	2004/07
Developing policies which promote management practices that enhance and restore suitable habitat for Brown Hare	LAs FWAG	2004/07
Encouraging sympathetic, site-specific management regimes	FWAG	2004/07
Recording known and reported sites and carrying out a survey of the population	CMRP SNH	2004/05
Promoting an appreciation of the value of Brown Hares to local communities and land owners	LAs FWAG Countryside Ranger Service	2004/07
Monitoring and recording actions towards these objectives	LBAP Steering Group LBAP Officer Local Records Centre	Ongoing / annual

Links with Other Action Plans

Broadleaved & Mixed Woodland, Dwarf Shrub Heath, Mires, Unimproved Grassland.

Further Information can be obtained from The Biodiversity Officer 0141 842 5281

