A Strategy for the Conservation of Horseshoe Bats in the Wye Valley and Forest of Dean

This strategy reviews, updates and extends the 1997 "Strategy for the Conservation of Lesser and Greater Horseshoe bats in the Forest of Dean and Wye Valley[1]"

1. Introduction

1.1 This strategy has been developed in collaboration with a range of organisations relevant to bat conservation in the cross border Wye Valley and Forest of Dean area, including Gloucestershire Wildlife Trust (GWT), Forest of Dean District Council (FODDC), Natural England (NE, formerly English Nature), Natural Resources Wales (NRW, formerly Countryside Council for Wales (CCW)), Forestry Commission (FC), Monmouthshire County Council (MCC) and Monmouthshire and Gloucestershire Bat Groups. A list of representatives is given in Appendix 1. The reasons for the strategy are set out below, and members of the organisations mentioned above currently form an informal steering group to oversee the implementation of the strategy.

2. The Wye Valley and Forest of Dean

2.1 The Wye Valley and Forest of Dean is an important area for lesser and greater horseshoe bats, supporting the greatest concentration of lesser horseshoe bats in the UK (and probably in Europe). The area supports approximately 26% of the UK population of this species, and about 6% of the UK population of greater horseshoe bats[2]. Almost all greater horseshoe maternity colonies in Britain with 50 or more adult bats have been designated as Sites of Special Scientific Interest (SSSI)[3]. These currently number 16[4], of which two are located within the Wye Valley and Forest of Dean areas, at Newton Court (Monmouthshire) and Dean Hall (Gloucestershire).

2.2 A number of sites within the Wye Valley and Forest of Dean were notified during the late 1980's and 1990s as SSSIs (3 in Wales (though one SSSI consists of 4 roosts) and 4 in England) for their importance as maternity roosts of horseshoe bats.

2.3 These SSSI roosts give protection to a significant proportion of the Wye Valley and Forest of Dean breeding population of lesser horseshoe bats. In an international context they are recognised by their inclusion in the Wye Valley and Forest of Dean Bat Sites Special Area of Conservation (SAC), which was designated in December 2004 (Wales) and April 2005 (England)[5]. There are also 5 hibernation sites, or "complexes" of sites in

[1] Strategy for the Conservation of Lesser and Greater Horseshoe Bats in the Forest of Dean and wye Valley. August 1997 English Nature
[2] Wye Valley and Forest of Dean Bat Sites SAC citation
[3] JNCC Common Standards Monitoring Guidance for Mammals, Aug 2004
[4] http://www.bats.org.uk/pages/-greater_horseshoe_bat-800.html#Distribution
[5] publications.naturalengland.org.uk/file/5725464458952704

England and one in Wales designated as SSSI following the compilation of a database of sites in 1997. A map showing the sites covered by the above designations is given in Appendix 2.

2.4 Other features within the Wye Valley and Forest of Dean area that have no designation but which nonetheless regularly contain high numbers of lesser and greater horseshoe bats include the hibernation sites in the old iron ore mines, caves, adits, scowles and disused railway tunnels. The extensive mosaic of deciduous and coniferous woodland, together with extensively grazed habitats (including pasture and unenclosed land) linked by hedgerows, stone walls and strips of riparian woodland provides a major feeding resource for both horseshoe bat species. The land topography also allows sheltered feeding under different wind directions and conditions.

2.5 It is known from long term ringing studies that the Forest of Dean hibernacula attract greater horseshoe bays from Woodchester Mansion SSSI east of the River Severn. Due to the paucity of known hibernacula in Monmouthshire, it is also highly probable that many of the Monmouthshire horseshoe bats also use Forest of Dean hibernacula.

3. The need for a Strategy

3.1 While European designation of the larger roosts should ensure that their protection as a whole is delivered through mechanisms such as Habitats Regulation Assessments of plans and projects, the overall security of the wider area used by the SAC bat populations, including other important satellite and night roosts, and feeding habitat, is less easy to maintain and therefore bat populations remain vulnerable to activity which may not be considered to be having a direct impact on designated sites. Potential threats in the wider area around the SAC component sites include built development, increased urbanisation, intrusive lighting, exploration for or extraction of gas, habitat fragmentation, loss of suitable night roosts, and changes in land use practices, particularly grazing regimes (e.g. the reduction in sheep grazing within the Public Forest Estate since Foot and Mouth Disease in 2001). The greater horseshoe bat population is particularly vulnerable as only two known maternity sites exist in the area and, as greater horseshoe bats are more dependent on favourable conditions relating to the density of grazing animals, are less adaptable to change than lesser horseshoe bats.

3.2 Lesser horseshoe bats have a very low body mass with small fat reserves and they are particularly vulnerable to starvation in spring, autumn and in the summer during poor weather. At such times populations disperse widely using underground sites, chimneys, outbuildings, farm buildings, etc. Although numbers at each site may then be small and transient, this wide choice is necessary to support the large concentrated populations of this SAC. Thus the aggregate importance of occasional roosts is considered to be significant for this species.

3.3 The statutory designation of sites therefore needs to be supported by a number of co-ordinated wider countryside measures designed to secure more favourable conditions for the survival of these important populations of bats throughout their life cycle. Of particular concern is the retention and positive management of flight routes between roosts and productive feeding areas, with a landscape scale approach considered the most effective means of achieving this. The retention of good connectivity in the immediate vicinity of roost sites is critical in order to maintain the option for a range of dispersal routes to be utilised.

4. The Strategy

4.1 The strategy, which has been developed in collaboration with a range of organisations relevant to bat conservation in the cross border Wye Valley and Forest of Dean area, is composed of a number of objectives framed to support the current SSSI and SAC populations in the long term through enhanced knowledge of the bats, positive management of their habitats, increased protection of sites not currently designated, and provision of new and enhanced roosting opportunities within the wider area.

4.2 The strategy encompasses elements of direct conservation action, data collation and education and seeks the active involvement of various organisations/authorities, particularly with regard to their relevant policies and practices where this affects bats and their habitats. In addition, the strategy will continue to seek to overcome difficulties arising from cross-county and cross-country differences in approach to, and responsibility for, wildlife protection, as these relate to the effective conservation of horseshoe bats.

5. Update on the status of the 1997 Bat Strategy Objectives

1997 Bat Strategy Objective	**Current status 2016**
SSSI notification of most important breeding roosts and hibernacula	English Nature and CCW undertook the original notification but it would benefit from an update as other important breeding roosts and hibernacula have been located.
Possible SAC designation of principal breeding roosts and hibernacula	Both principal breeding roosts and hibernacula were designated by English Nature and CCW as a SAC in 2004/5. If further designations of SSSIs are made these should be considered for addition to the SAC when next reviewed.
Agreement of SSSI/SAC management practices	Site management statements in England are now old and would benefit from an update. However, legal agreements with owners and managers have been established under these existing consents

1997 Bat Strategy Objective	Current status 2016
	within the framework set out by the Wildlife & Countryside Act 1981. Currently there is formal and informal liaison with landowners over management issues and opportunities. FC has a formally agreed bat SSSI management plan that includes management of the woodland around SSSI roosts[6].
Establishment of planning consultation areas	Every SSSI has an Impact Risk Zone in England which varies depending on the nature of the site.
Establishment of forestry consultation area	FC Forest Plans are subject to public consultation and should be the mechanism for incorporating the needs of bats into forestry management.
Establishment of Tree Preservation Orders (TPOs)	The ability to make such Orders is restricted to trees with high public amenity value only. TPOs cannot be served on trees on land owned by FC. As such TPOs alone are unlikely to prove an effective mechanism for conserving trees important to bats, but they do have a role.
Positive management of critical feeding areas and principal flight routes	Natural England carried out some targeting of Higher Level Stewardship (HLS) and is taking this forward into the new Countryside Stewardship scheme. Investigation of flight lines and foraging areas around key maternity roosts is a currently proposed project as part of the Heritage Lottery Fund programme.[7]
Continued monitoring of roost and hibernacula use	This has mainly been carried out on a voluntary basis by members of the Gloucestershire Bat Group. The recent increase in size of Gloucestershire Bat

[6] Forest of Dean Bat SSSI Management Plan 2011-2021. Forestry Commission 2011

[7] Foresters' Forest is an HLF Landscape Partnership Scheme currently in the Development Stage which is due to be submitted for Delivery Stage approval in November 2016.

1997 Bat Strategy Objective	Current status 2016
	Group underground section needs to be maintained. More familiarisation of hibernacula route visits needed to sustain work in the long-term. Flight routes to hibernacula are currently unknown.
Agreement of a joint working statement between English Nature and the Gloucestershire Bat Group	Explored by Natural England but decision taken for relationship to remain on an informal basis.
Agreement of joint working statement between English Nature, Forest Enterprise and the Deputy Gaveller's Office of the Forestry Commission	Explored but decision taken for relationship to remain on an informal basis.
Development of a code of practice for underground visitors	A permit system is in place for Gales owned by the Deputy Gaveller and is currently operated by the Forest of Dean Caving Conservation and Access Group (FODCCAG).
Establishment of a bat site inventory for use in consultation	Last update provided to NE in March 2013. Due to the large number of sites and voluntary nature of surveying work, many sites have not been visited since the late 1980's.
Promotion of importance of bats through Natural Area (and Character Area) projects and production of information packs for partners and landowners	Included in last update of Natural England's National Character Area in 2012. A Natural England leaflet on Management of Landscapes for greater horseshoe bats exists.
Integration between English Nature and Countryside Council for Wales (now Natural England and Natural Resources Wales) and respective bat groups	Good officer level working between NRW & NE.

6. Summary aims, objectives and actions

- To secure and enhance the favourable conservation status and resilience of Forest of Dean horseshoe bat populations by safeguarding and strengthening the full

range of their ecological requirements (including breeding, hibernating, feeding, flight lines, occasional roosts and night roosts) and ensure that existing land management practices and changes and especially the planning process (including mineral plans), are compatible with the needs of horseshoe bats;

- To seek to implement this strategy in conjunction with other stakeholders and the opportunity presented by the Forester's Forest HLF Landscape Partnership Scheme or other funding initiatives, and to work in partnership with Natural Resources Wales to achieve the same aims in the neighbouring county of Monmouthshire;
- To recognise, encourage and support the on-going voluntary monitoring and research work currently being carried out;
- To seek additional sources of funding to further these objectives and;
- To raise public awareness of the European importance of the area, and public engagement in recording/research.

7. 2015 Bat Strategy aims, objectives and actions (not in priority order)

Objective 1. Collation of research and knowledge on population size and roost number and location.

Aim: To identify data deficiencies and produce a plan to fill gaps in knowledge
Action:

a. Seek to define the area to be covered by this strategy in terms of key roost sites as a meta-population and associated foraging areas;
b. Collate and review current data;
c. Identify gaps in data;
d. Plan for and instigate the collection of data to fill these gaps by identifying specific projects;
e. Identify changes in the bat populations since the 1997 strategy, positive or negative;
f. Consider the current and future impacts of climate change.

Objective 2. Positive management and protection of critical flight lines and feeding grounds

Aim: To identify, maintain and enhance forage areas (core sustenance zones) and flight lines around key roost sites

Action:

a. Map (from latest satellite images) hedgerows, walls, woodland edge, rides, and potential foraging areas in the immediate vicinity of all lesser horseshoe bat maternity roosts;
b. Using a thorough review of current knowledge of lesser horseshoe bat behaviour and ecology, predict potential flight lines and foraging areas from the mapping work (HLF project);
c. Use agri-environment schemes to help maintain and enhance hedgerows and woodlands as flight lines and habitat to provide food for bats;

d. Identify local site specific sensitivities and use information gained, together with limited already carried out for greater horseshoe bats, to better inform and build into SSSI and key roosts Impact Risk Zones;
e. In broader policy terms assume all hedgerows have a value as bat flight lines;
f. Promote research projects with academic institutions.

Objective 3. Protecting hibernacula

Aim: To secure maintain and enhance the integrity of the mines, tunnels and caves for hibernating bats (e.g, infilling, airflow, disturbance, etc.)

Actions:

a. Work with Caving Clubs, Bat Groups and FoDCCAG to minimise disturbance in winter;
b. Identify non-SSSI sites which are important to the SAC;
c. Look at further SSSI notification;
d. Amend SSSI designations for all SSSI sites with qualifying numbers of horseshoe bats (taking account of swarming and use by other rare species;
e. Where appropriate, grill cave entrances to reduce disturbance and/or for safety, and;
f. Seek to protect or replace hibernacula that are at risk from development, disturbance or collapse.

Objective 4. Protecting Maternity, Night and Occasional Roosts

Aim: To maintain and increase the available suite of maternity, night and occasional roosts

Action:

a. Determine the current status and vulnerability or otherwise of known existing roosts;
b. Carry out a comprehensive review of roosting requirements of greater horseshoe bats, including discussion with local and other experts and literature review;
c. Seek to locate possible additional unidentified greater horseshoe bat maternity roosts particularly in the Chepstow area;
d. Review existing occasional roosts to see whether any could be enhanced to create alternative maternity/day roosts;
e. Develop a clear vision/spatial strategy for the creation of additional roosts;
f. Identify locations for and construct purpose built roosts elsewhere (for vulnerable site replacements) and explore where they could be placed on partner organisation's land (or secure private land);
g. Place occasional roosts in locations that could be beneficial as backups to maternity roosts e.g. at Huntley;

h. Explore opportunities for enhancement measures on barns; enhancement or adaptation of existing buildings (e.g. Princess Royal Colliery).

Objective 5. Monitoring, Evaluation and Review

Aim: To establish on-going monitoring, evaluation and review of strategy
Action:

a. Set up method for monitoring and evaluation by key partners who have drawn up the strategy and;
b. Review delivery of the strategy every 5 years and update as appropriate.

Objective 6. Raise public awareness of the importance of the Wye Valley and Forest of Dean horseshoe bat populations

a. Update literature relating to horseshoe bats and make widely accessible;
b. Develop a project to promote public engagement with horseshoe bats as part of the Foresters' Forest HLF project.

Produced by a Steering Group consisting of Gloucestershire Wildlife Trust, Forest of Dean District Council, Natural England, Natural Resources Wales, Forestry Commission, Monmouthshire Council and Monmouthshire and Gloucestershire bat groups.

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Appendix 1. Steering Group Members

Natural England	Peter Holmes/Juliet Hynes/Sarah Howells
Gloucestershire Wildlife Trust	Colin Studholme
Forest of Dean District Council	Sarah Ayling
Natural Resources Wales	Jane Garner/Karen Wilkinson/Robert Bacon
Forestry Commission	Rebecca Wilson
Monmouthshire County Council	Kate Stinchcombe
Gloucestershire Bat Group	David Priddis
Monmouthshire Bat Group	Stephen Davison

Appendix 2. SAC and SSSI Horseshoe Bat Roosts in the Strategy Area