PEMBROKESHIRE BIODIVERSITY PARTNERSHIP

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Grouped Species Action Plan: Bats

Introduction

Scope

This plan covers all species of bats that are known or are thought to occur in Pembrokeshire. These are as follows:

Vespertilionidae ("Vesper" bats-mostly crevice-dwelling bats)

Barbastelle bat, *Barbastella barbastellus* ^{1;6} Bechstein's bat, *Myotis bechsteinii* ^{1;3} Natterer's bat, *Myotis nattereri* Daubenton's bat, *Myotis nattereri* Daubenton's bat, *Myotis daubentonii* ² Whiskered bat, *Myotis mystacinus* Brandt's bat, *Myotis brandtii* Alcathoe's bat, *Myotis alcathoe* ³ Noctule bat, *Nyctalus noctula* ¹ Leisler's bat, *Nyctalus noctula* ¹ Leisler's bat, *Nyctalus noctula* ¹ Serotine bat, *Eptesicus serotonii* ^{5;7} Brown long-eared bat, *Plecotus auritus* Grey long-eared bat, *Plecotus austriacus* ^{3;4;5} Common pipistrelle, *Pipistrellus pipistrellus* Soprano pipistrelle, *Pipistrellus pygmaeus* Nathusius pipistrelle, *Pipistrellus nathusii* ^{3;8}

Rhinolophidae-Horseshoe bats

Greater horseshoe bat, *Rhinolophus ferrumequinum*⁶ Lesser horseshoe bat, *Rhinolophus hipposideros*⁶

Notes

¹ These species are particularly associated with woodlands and trees (e.g. veteran trees);

² Daubenton's bat is closely associated with water e.g. lakes, large ponds and slow-moving rivers and streams;

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³ These are very rare species that have been recorded at least once in Pembrokeshire although their current status is unknown. They may be a vagrant and very rare;

⁴ Grey long-eared bat has been recorded at a location near the Carmarthenshire border: this may have been a one-off occurrence and the status of the species in Pembrokeshire is unknown;

⁵ These species are vagrant: not thought to be breeding residents in the County;

⁶ Barbastelle bat is a feature of the North Pembrokeshire Woodlands SAC; greater horseshoe and lesser horseshoe bats are features of the Pembrokeshire Bat Sites & Bosherston Lakes SAC and greater horseshoe bat is a feature of the Limestone Cliffs of South-West Wales SAC.

⁷ Serotines are increasingly recorded in the County.

⁸ Nathusius pipistrelles were recorded at Stackpole in the 1990s. Not much is known about them – probably present in small numbers.

Vision Statement

The vision for this grouped species action plan is that in Pembrokeshire all bats and their roosts are properly protected, and that the County's natural (and, where appropriate, built) resources are capable of supporting healthy, stable or expanding populations of the species that are already established as resident breeding species and provide opportunities for new species such as grey long-eared bat to become established and hence expand their UK range in response to factors such as long-term climate change.

Description of Species

All bats have similar annual life cycles and share the same basic requirements as follows:

- Safe, secure day, night and hibernation roosts that are free from disturbance;
- Reliable and productive foraging habitats within reasonable commuting distance of the roosts;
- Good ecological connectivity (flight lines) between the different roosts and between roosts and foraging areas. These often follow dark, sheltered linear features such as hedgerows, tree lines, tracks, lanes or river corridors.

Bats have a wide range of habitat requirements which they depend on to forage, roost and commute between roosts and foraging areas. Bats commonly make use of trees, buildings or caves as roosts, although specific

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requirements for roost type vary between species. All British bats are insectivorous and all species in the Country either hibernate or enter a period of extended torpor in the winter months.

A total of 17 species of bats have been recorded at least once in Pembrokeshire. Of these, 11 (nine "vesper" bats and the two horseshoe bat species) are resident, breeding species whilst two species (Serotine and Leisler's bats) are vagrants that are only occasionally recorded and are not known to be breeding in the County. Three species (Bechstein's, Alcathoe's and Nathusius pipistrelle bats) are very rare and their distribution and status in Pembrokeshire are unknown. Some species are at the northern or western limit of their range in Pembrokeshire and may therefore not thrive.

There is a single record (derived from DNA analysis of droppings) of a grey long-eared bat from a site near the border with Carmarthenshire. This may have been a one-off record, however landscape modelling suggests that Pembrokeshire is capable of supporting a population of grey long-eared bats, which elsewhere in the UK are restricted to the southern- most English counties such as Dorset and Hampshire. This is one species that could potentially benefit from long-term trends towards milder winters and warmer summers.

Resident species in the County range from rare species such as the forest dwelling barbastelle and Bechstein's bats to the common and soprano pipistrelle bats which are perhaps the most ubiquitous species in urban and suburban environments. Very little is known about noctule and myotis bats in the County.

Some species such as greater horseshoe, noctule and barbastelle bats cover large areas of the open countryside in order to feed, making use of traditional flight lines and night roosts. Others such as common pipistrelle and brown long-eared bat generally forage within a radius of 1 km of their day roosts. Daubenton's bat forages almost exclusively over water (lakes, large ponds and slow-moving water courses) and soprano pipistrelle bats are also closely associated with riparian (river) corridors.

In Pembrokeshire, the greater horseshoe bat population has staged a recovery during the past 20 years and is now at record levels in terms of number of breeding females attending the maternity roosts and the number of babies born. This recovery has been helped by the mild winters that have characterised much of the past decade as well as by factors such as improved protection and awareness of their conservation requirements.

Bats provide valuable ecosystem services such as pest control, and the air of mystery surrounding them, due to their nocturnal habits, adds to the sense of wonder often expressed at public engagement events such as evening bat walks. Healthy populations of bats can be seen as indicators of healthy, functioning ecosystems.

Conservation Status

All British bats and their places of rest (roosts) are protected under UK and European law. The level of protection restricts works that may disturb, damage or destroy a roost or harm a bat. When applied to planning applications or works carried out under Permitted Development rights this rarely prevents development but the applicant would need to take steps to secure the protection of the species and ensure they comply with the legislation and licensing. Licences are issued by Natural Resources Wales to permit activities that would otherwise be deemed illegal under the Habitats Regulations.

Threats

During the 20th century, bat populations declined dramatically in the UK, and they continue to be under threat. In some species, population declines were especially marked, for example greater horseshoe bat which suffered serious declines in numbers and a contraction in range during the 1960 s and 1970 s in particular. This decline coincided with major changes in agriculture, most notably a switch from traditionally managed hay meadows to silage, increased use of pesticides and increased field size (loss of hedgerows) resulting in the widespread loss of reliable insect-rich foraging habitat and loss of, damage to, or disturbance of roosts and other important habitat features.

Threats to bats in Pembrokeshire include the following:

- Loss and/or degradation of roosts (all types)
- Loss and/or degradation of foraging habitats as a result of changes in land management and development in the open countryside including changes in lighting and pollution.
- Loss or disruption of ecological connectivity as a result of direct loss or degradation of linear features such as hedge banks, riparian corridors and woodland edges.
- Disturbance and/or deliberate persecution.
- Natural factors such as short term weather events and long-term climate change which could affect winter survival; productivity; food supply. Long-term climate change may also offer new opportunities for range-expansion of climate-sensitive species.
- Disease including pathogenic fungal infections of trees which could result in major if only temporary changes in the landscape (example: ash die-back, *Chalara fraxinea*).
- Changes in building design limiting potential new roosting opportunities.

• For several species, conservation action may be hampered by a lack of knowledge and understanding of their status and ecological requirements in Pembrokeshire.

Related Plans, Policies and Guidance

Other relevant plans, policies and guidance include the following:

- Pembrokeshire LBAP: All Habitat Action Plans; Available at: <u>http://ukbars.defra.gov.uk/project/show/36376</u>
- Pembrokeshire Bat Sites and Bosherston Lakes Special Area of Conservation Core Management Plan. Countryside Council for Wales, 2008.
- Cleddau Rivers Special Area of Conservation Core Management Plan. Countryside Council for Wales, 2008.
- Pembrokeshire Coast National Park Authority Local Development Plan. Available at: <u>http://www.pembrokeshirecoast.org.uk/default.asp?PID=178</u>
- Pembrokeshire Coast National Park Authority Supplementary Planning Guidance. Available at: <u>http://www.pembrokeshirecoast.org.uk/default.asp?PID=183</u>
- Pembrokeshire County Council Local Development Plan. Available at: <u>http://www.pembrokeshire.gov.uk/content.asp?nav=1626,109,141,1014</u> <u>&id=28946&language</u>
- Pembrokeshire County Council Supplementary Planning Guidance (Renewables and Biodiversity). Available at: <u>http://www.pembrokeshire.gov.uk/content.asp?nav=1626,109,141&par</u> ent_directory_id=646&id=21476
- The Bat Workers' Manual 3rd Edition, published by JNNC, 2004
- Bats and Lighting in the UK. Bat Conservation Trust. Available at: <u>http://www.bats.org.uk/pages/bats_and_lighting.html</u>
- Bat Surveys Good Practice Guidelines (2nd Edition) published by the Bat Conservation Trust in 2012; Available at: <u>http://www.bats.org.uk/pages/batsurveyguide.html</u>
- A Review and Synthesis of Published Information and Practical Experience on Bat Conservation within a Fragmented Landscape. An

occasional report by the three Welsh National Parks, Pembrokeshire County Council and the Countryside Council for Wales, 2005

- North Pembrokeshire Woodlands Special Area of Conservation Core Management Plan. Available at: <u>http://www.ccgc.gov.uk/landscape--</u> wildlife/protecting-our-landscape/special-sites-project/north-to-rhossac-list/north-pembs-woodlands-sac.aspx
- Technical Advice Note 5, Nature Conservation and Planning. Welsh Government, 2009. Available at: <u>http://wales.gov.uk/topics/planning/policy/tans/tan5/?lang=en</u>
- Habitat Management for Woodland Bats. R. A. Mayle, Forestry Commission Research Information Note 165
- Habitat Management for Bats: A Guide for Land Managers, Land Owners and their Advisors. Joint Nature Conservation Committee, 2001. Available at: <u>http://jncc.defra.gov.uk/pdf/Habitat_Management_for_bats.pdf</u>
- Natural England Technical Information Note TIN051 Second edition 29 February 2012; Bats and onshore wind turbines Interim guidance www.naturalengland.org.uk
- Woodland Management for Bats: A good practice guide. Available at: <u>http://www.forestry.gov.uk/forestry/INFOD-6K3CXY;</u>
- Guidance on managing woodlands with bats in England Version 3, 2013. Forest Research, Forestry Commission (England) and Corporate & Forestry Support Division and Natural England. Available at: <u>http://www.forestry.gov.uk/pdf/england-protected-speciesbats.pdf/\$FILE/england-protectedspecies-bats.pdf</u>
- Bat Mitigation Guidelines. A.J. Mitchell-Jones, English Nature 2004
- The lesser horseshoe bat Conservation Handbook. H. W. Schofield, The Vincent Wildlife Trust, 2008
- Woodland Management in the presence of bat species Guidance for compliance with The Conservation (Natural Habitats, &c.) (England and Wales) Regulations 1994 as amended by The Conservation (Natural Habitats, &c.) (England and Wales) (Amendment) Regulations 2007 (the Habitats Regulations). http://www.forestry.gov.uk/pdf/batswalesv4.pdf/\$FILE/batswalesv4.pdf

Aims

For most species, a paucity of baseline data makes the setting of prescriptive targets for maintaining/expanding population size/range impossible. The focus below is therefore on providing suitable areas of habitat for species to thrive in the long term.

No	Aim/objective	Deadline	Comments
BAT01	Improve knowledge and understanding of species included in this	Date of	
	plan.	next	
		review	
BAT02	Maintain/expand area of quality foraging habitats.	Date of	
		next	
		review	
BAT03	Seek opportunities to improve and extend ecological connectivity	Date of	
	between foraging areas and roosts on a large (i.e. Pembrokeshire-	next	
	wide) scale.	review	
BAT04	Seek to protect all bats and their places of rest (roosts) from	Date of	
	disturbance, deterioration or out-right loss e.g. through the	next	
	Development Management system.	review	
BAT05	Raising awareness and understanding and sharing best practice	Date of	
	amongst professionals and the public.	next	
		review	

Action

Code	Action	Report By		Progress / Additional Information
POLG1.01	To ensure adequate provision for the conservation of habitats and species within the Pembrokeshire County Council and National Park Local Development Plans,		PBP	Partially addresses BAT02 &04

	including biodiversity outside of designated sites.		
POLG1.03	Through the implementation of Pembrokeshire's Biodiversity Supplementary Planning Guidance, ensure all Planning applications are assessed for possible effects on biodiversity resources. Ensure that planning applications which affect LBAP Habitats and Species are addressed and include full ecological surveys which are properly considered, and mitigation measures which significantly address potential negative impacts.	PBP	Partially addresses BAT02 &04