



## **European Site Conservation Objectives: Supplementary advice on conserving and restoring site features**

**Briddlesford Copses Special Area of Conservation (SAC)  
Site Code: UK0030328**



Bechstein's bat. © Davidson-Watts Ecology.

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## **About this document**

This document provides Natural England's supplementary advice about the European Site Conservation Objectives relating to Briddlesford Copses SAC.

This advice should therefore be read together with the SAC Conservation Objectives available [here](#).

You should use the Conservation Objectives, this Supplementary Advice and any case-specific advice given by Natural England when developing, proposing or assessing an activity, plan or project that may affect this site.

This Supplementary Advice to the Conservation Objectives presents attributes which are ecological characteristics of the designated species and habitats within a site. The listed attributes are considered to be those that best describe the site's ecological integrity and which, if safeguarded, will enable achievement of the Conservation Objectives. Each attribute has a target which is either quantified or qualitative depending on the available evidence. The target identifies as far as possible the desired state to be achieved for the attribute.

The tables provided below bring together the findings of the best available scientific evidence relating to the site's qualifying features, which may be updated or supplemented in further publications from Natural England and other sources. The local evidence used in preparing this supplementary advice has been cited. The references to the national evidence used are available on request. Where evidence and references have not been indicated, Natural England has applied ecological knowledge and expert judgement. You may decide to use other additional sources of information.

In many cases, the attribute targets shown in the tables indicate whether the current objective is to 'maintain' or 'restore' the attribute. This is based on the best available information, including that gathered during monitoring of the feature's current condition. As new information on feature condition becomes available, this will be added so that the advice remains up to date.

The targets given for each attribute do not represent thresholds to assess the significance of any given impact in Habitats Regulations Assessments. You will need to assess this on a case-by-case basis using the most current information available.

Some, but not all, of these attributes can also be used for regular monitoring of the actual condition of the designated features. The attributes selected for monitoring the features, and the standards used to assess their condition, are listed in separate monitoring documents, which will be available from Natural England.

These tables do not give advice about SSSI features or other legally protected species which may also be present within the European Site.

**If you have any comments or queries about this Supplementary Advice document please contact your local Natural England adviser or email [HDIRConservationObjectivesNE@naturalengland.org.uk](mailto:HDIRConservationObjectivesNE@naturalengland.org.uk)**

## About this site

### European Site information

<b>Name of European Site</b>	Briddlesford Copses Special Area of Conservation (SAC)
<b>Location</b>	Hampshire
<b>Site Map</b>	The designated boundary of this site can be viewed <a href="#">here</a> on the MAGIC website.
<b>Designation Date</b>	01 April 2005
<b>Qualifying Features</b>	See section below
<b>Designation Area</b>	167.22 hectares
<b>Designation Changes</b>	Not applicable
<b>Feature Condition Status</b>	Details of the feature condition assessments made at this site can be found using Natural England's <a href="#">Designated Sites System</a>
<b>Names of component Sites of Special Scientific Interest (SSSIs)</b>	Briddlesford Copses SSSI. The SSSI and SAC boundary are the same.
<b>Relationship with other European or International Site designations</b>	None

### Site background and geography

The Briddlesford Copses complex of woodlands represents the most varied, structurally diverse and species-rich cluster of ancient broadleaved woodland on the Isle of Wight and supports an important breeding population of the rare Bechstein's bat *Myotis bechsteinii*. The bats use holes and crevices in mature trees for roosting and the interconnecting woodlands for feeding. The majority of the Briddlesford Copses and much of its neighbour Firestone Copse have a coppice with standards structure. The remainder of the site consists of high forest.

The rare barbastelle bat *Barbastella barbastellus* also uses the woodlands for roosting and feeding. A total of 12 bat species have been recorded in the woodlands. Numbers of both dormouse *Muscardinus avellanarius* and red squirrel *Sciurus vulgaris* are also found within the site, and together with the bat species form a mammal assemblage not known elsewhere in the UK.

Briddlesford Copses SAC falls within the Isle of Wight National Character Area ([NCA 127](#)). Primarily, this site is a relatively undisturbed complex of woodlands with little public access provision. It is predominately ancient semi-natural woodland and ancient replanted woodland, of mostly broad-leaved deciduous woodland (90%) and mixed woodland (5%) with minor estuary, mud flat lagoon (1%), and salt marsh (4%) habitats.

The Bechstein's bat is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended), making it a 'European Protected Species'. A [Licence](#) may therefore be required for any activities likely to harm or disturb Bechstein's bats.

## About the qualifying features of the SAC

The following section gives you additional, site-specific information about this SAC's qualifying features. These are the natural habitats and/or species for which this SAC has been designated.

### Qualifying habitats:

None

### Qualifying Species:

- **S1323 Bechstein's bat *Myotis bechsteinii***

Bechstein's bat is a medium-sized species, measuring 4.3-5.3cm in length, and a wingspan of 25-30cm. This bat has very long ears and a long, pointed, bare, pink face. It has shaggy light-to reddish-brown fur on its back and contrasting greyish white-tipped fur on its underside. Bechstein's primarily feed on invertebrates such as spiders and day-flying insects that are picked from branches and leaves. The species is closely associated with mature deciduous woodland and appears to select old woodpecker holes or rot holes in trees for breeding. It also occurs in coniferous woodland in some areas. Maternity colonies may move between suitable crevices within a small area, such as a piece of woodland. It is believed to hibernate in hollow trees and sometimes in underground localities.

It is one of the UK's rarest mammals, recorded from only a small number of sites in southern England and Wales. Very few maternity roosts are currently known, one of which is in a bat-box. The great majority of other records come from caves or abandoned mines, which are important hibernation sites for a range of bat species.

It is also one of the rarest bats in western Europe, and is regarded as endangered in several countries. A population decrease has been reported over most of its European range. The species occurs from the Iberian Peninsula east to the Ukraine and Moldova. Local populations in southern England, Wales, southern Sweden and Bornholm mark the northern border of the range.

## Site-specific seasonality of SAC features

The table below highlights in grey those months in which significant numbers of each mobile qualifying feature are most likely to be present at the SAC during a typical calendar year. This table is provided as a general guide only.

Unless otherwise indicated, the months shown below are primarily based on information relating to the general months of occurrence of the feature in the UK. Where site-based evidence is available and has been used to indicate below that significant numbers of the feature are typically present at this SAC outside of the general period, the site-specific references have been added to indicate this.

Applicants considering projects and plans scheduled in the periods highlighted in grey would benefit from early consultation with Natural England given the greater scope for there to be likely significant effects that require consideration of mitigation to minimise impacts to qualifying features during the principal periods of site usage by those features. The months which are not highlighted in grey are not ones in which the features are necessarily absent, rather that features may be present in less significant numbers in typical years. Furthermore, in any given year, features may occur in significant numbers in months in which typically they do not. Thus, applicants should not conclude that projects or plans scheduled in months not highlighted in grey cannot have a significant effect on the features. There may be a lower likelihood of significant effects in those months which nonetheless will also require prior consideration.

Any assessment of potential impacts on the features must be based on up-to-date count data and take account of population trends evident from these data and any other available information.

Feature	Season	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bechstein's bat, <i>Myotis bechsteini</i>	Breeding												

**Table 1: Supplementary Advice for Qualifying Features: S1323. *Myotis bechsteinii*; Bechstein’s bat**

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
<b>Population (of the feature)</b>	<b>Population abundance - maternity colony</b>	Maintain the abundance of the breeding population at a level which is above a minimum of 75 individual adult females, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.	<p>This will ensure there is a viable population of the feature which is being maintained at or increased to a level that contributes as appropriate to its Favourable Conservation Status across its natural range in the UK. Due to the dynamic nature of population change, the target-value given for the population size or presence of this feature is considered to be the minimum standard for conservation/restoration measures to achieve. This minimum-value may be revised where there is evidence to show that a population’s size or presence has significantly changed as a result of natural factors or management measures and has been stable at or above a new level over a considerable period (generally at least 10 years). The values given here may also be updated in future to reflect any strategic objectives which may be set at a national level for this feature.</p> <p>Given the likely fluctuations in numbers over time, any impact-assessments should focus on the current size of the site’s population, as derived from the latest known or estimated level established using the best available data. This advice accords with the obligation to avoid deterioration of the site or significant disturbance of the species for which the site is designated, and seeks to avoid plans or projects that may affect the site giving rise to the risk of deterioration. Similarly, where there is evidence to show that a feature has historically been more abundant than the stated minimum target and its current level, the ongoing capacity of the site to accommodate the feature at such higher levels in future should also be taken into account in any assessment.</p> <p>Unless otherwise stated, the population size or presence will be that measured using standard methods, such as peak mean counts or breeding surveys. This value is also provided recognising there will be inherent variability as a result of natural fluctuations and margins of error during data collection. Whilst we will endeavour to keep these values as up to date as possible, local Natural England staff can advise whether the</p>	DAVIDSON-WATTS, I.F. 2005. <i>Bat Survey Of Briddlesford Copse, Isle Of Wight</i> . Report prepared by ID Wildlife Ltd for Peoples Trust for Endangered Species.

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			<p>figures stated are the best available.</p> <p>The population target is derived from survey soon after the SAC designation.</p>	
<b>Supporting habitat: extent and distribution</b>	<b>Extent of supporting habitat</b>	Restore the total extent of the habitats which support the feature to 167.22 ha	<p>In order to contribute towards the objective of achieving an overall favourable conservation status of the feature at a UK level, it is important to maintain or if appropriate restore the extent of supporting habitats and their range within this SAC. The information available on the extent and distribution of supporting habitat used by the feature may be approximate depending on the nature, age and accuracy of data collection, and may be subject to periodic review in light of improvements in data.</p> <p>Target set to Restore because there are areas of conifer plantation within the site which do not provide optimum habitat for Bechstein's bat.</p> <p>Bechstein's are known to use Dunnage Copse (3.83ha, SSSI unit 20), Vicarage Copse (2.56ha, SSSI unit 22), Briddlesford/Main Copse (17.74ha, SSSI unit 11), and Six Acre Copse (3.9ha, SSSI unit 10).</p> <p>Maintaining connectivity to the surrounding wetland areas within the SAC would increase the extent of foraging habitat. This is also likely to benefit male bats which tend to range more widely and spend more time outside of the site.</p>	<p>DAVIDSON-WATTS, I.F. 2005. <i>Bat Survey Of Briddlesford Copse, Isle Of Wight</i>. Report prepared by ID Wildlife Ltd for Peoples Trust for Endangered Species.</p> <p>NATURAL ENGLAND, 2014. <i>European Site Conservation Objectives for Briddlesford Copses SAC (UK0030328)</i>. Available at: <a href="http://publications.naturalengland.org.uk/publication/4805699678765056">http://publications.naturalengland.org.uk/publication/4805699678765056</a></p>
<b>Supporting habitat: extent and distribution</b>	<b>Distribution of supporting habitat</b>	Restore the distribution and continuity of the feature and its supporting habitat, including where applicable its component vegetation types and associated transitional vegetation types, across the site	<p>A contraction in the range, or geographic spread, of the feature (and its component vegetation) across the site will reduce its overall area, the local diversity and variations in its structure and composition, and may undermine its resilience to adapt to future environmental changes. Contraction may also reduce and break up the continuity of a habitat within a site and how well the species feature is able to occupy and use habitat within the site. Such fragmentation may have a greater amount of open edge habitat which will differ in the amount of light, temperature, wind, and even noise that it receives compared to its interior. These conditions may not be suitable for this feature and this may affect its viability.</p> <p>Target set to Restore because there are areas of conifer</p>	

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			plantation within the site which do not provide optimum habitat for Bechstein's bat.	
<b>Supporting habitat: structure/function</b>	<b>Supporting off-site habitat (flightlines)</b>	Restore the presence, structure and quality of any linear landscape features which function as flightlines. Flightlines should remain unlit, functioning as dark corridors.	<p>Bechstein's bats don't tend to range far from their roosts, generally up to a maximum distance of 1-2.5km, usually closer to 1km (Dietz <i>et al.</i> 2009). Though, a few breeding females may choose to roost in hedgerow trees, which have connections to the main woodland habitat. Generally forages within deciduous woodland which contain water bodies, occasionally feeding along woodland edge, treelines and hedgerows.</p> <p>Bechstein's bat generally commutes along linear landscape features such as woodland edge, hedgerows, however, they will cross open fields to reach roost sites and foraging areas. Flightlines will extend beyond the designated site boundary into the wider local landscape.</p> <p>Connectivity to Firestone Copse should be maintained as bats from Briddlesford Copses use the wetland between the two sites for foraging. Management should focus on connecting undesignated hedgerows and maintaining shaw woodland and Jigsaw plantings (FC funded connectivity plantings for the benefit of red squirrels).</p>	<p>DAVIDSON-WATTS, I.F. 2013. <i>The Isle of Wight Woodland Bat Project - Final Report</i>. Report prepared by ID Wildlife Ltd for Peoples Trust for Endangered Species.</p> <p>DIETZ, C., VON HELVERSEN, O. &amp; NILL, D. 2009. <i>Handbook of the Bats of Europe and northwest Africa</i>. A &amp; C Black.</p>
<b>Supporting habitat: structure/function</b>	<b>Supporting off-site habitat (foraging areas)</b>	Maintain any core areas of feeding habitat outside of the SAC boundary that are critical to Bechstein's bats during their breeding period	<p>Roost choice, and the presence of bats within the SAC, is likely to be influenced by the site's ability to provide bats with food and shelter. Key feeding areas around a roost, and the commuting routes (or flight-lines) between them, will be an important element of sustaining the SAC population.</p> <p>Flightlines will extend beyond the designated site boundary into the wider local landscape.</p> <p>It is important to maintain the intervening undesignated grassland because it provides a foraging area as well as improved connectivity between other areas/habitats.</p>	
<b>Supporting habitat: structure/function</b>	<b>Roost access</b>	Maintain the number of access points to the roosts at an optimal size and in an unlit and unobstructed state, with surrounding vegetation providing sheltered flyways without	<p>This will prevent any negative internal climatic changes within the roost and maintain the ability of bats to freely enter and leave the roost as necessary.</p> <p>A well-developed woodland understorey, such as hazel coppice, should be maintained around roost sites to ensure</p>	<p>ENGLISH NATURE, 2003. <i>A statement of English Nature's views about the management of Briddlesford Copses Site of Special Scientific Interest (SSSI)</i>. Available at:</p>



Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
		obstructing accesses.	humidity and other microclimate attributes are conserved and to provide foraging habitat.	<a href="https://designatedsites.naturalengland.org.uk/PDFsForWeb/VAM/1000554.pdf">https://designatedsites.naturalengland.org.uk/PDFsForWeb/VAM/1000554.pdf</a>
<b>Supporting habitat: structure/function</b>	<b>Soils, substrate and nutrient cycling</b>	Maintain the properties of the underlying soil types, including structure, bulk density, total carbon, pH, soil nutrient status and fungal: bacterial ratio, within typical values for the supporting habitat	Soil supports basic ecosystem function and is a vital part of the natural environment. Its properties strongly influence the colonisation, growth and distribution of those plant species which together form vegetation types, and therefore provides a habitat used by a wide range of organisms. Soil biodiversity has a vital role to recycle organic matter. Changes to natural soil properties may therefore affect the ecological structure, function and processes associated with the supporting habitat of this Annex II feature.	
<b>Supporting habitat: structure/function</b>	<b>Woodland site - maternity colony</b>	Restore the extent and structural diversity of supporting woodland habitat used for feeding and foraging	<p>The structural diversity of supporting habitat will be important to maintain optimal feeding and foraging conditions in close proximity to maternity roosts; key aspects of woodland structure will include good canopy cover (typically 50-90%), an abundance of standing and fallen dead wood, areas of permanent and open space and the retention of open water and/or wetland features.</p> <p>Target set to Restore because there are areas of conifer plantation within the site which do not provide optimum habitat for Bechstein's bat.</p> <p>Davidson-Watts (2013) considers the Briddlesford Copses (and other woodlands across the Isle of Wight) as one of the most important areas for woodland bat species in Europe, and identifies the Isle of Wight as the UK's best county for these species.</p>	DAVIDSON-WATTS, I.F. 2013. <i>The Isle of Wight Woodland Bat Project - Final Report</i> . Report prepared by ID Wildlife Ltd for Peoples Trust for Endangered Species.
<b>Supporting processes (on which the feature and/or its supporting habitat relies)</b>	<b>Adaptation and resilience</b>	Maintain the feature's ability, and that of its supporting habitat, to adapt or evolve to wider environmental change, either within or external to the site	This recognises the increasing likelihood of supporting habitat features to absorb or adapt to wider environmental changes. Resilience may be described as the ability of an ecological system to cope with, and adapt to environmental stress and change whilst retaining the same basic structure and ways of functioning. Such environmental changes may include changes in sea levels, precipitation and temperature for example, which are likely to affect the extent, distribution, composition and functioning of a feature within a site. The vulnerability and response of features to such changes will vary. Using best available information, any necessary or likely adaptation or adjustment by the feature and its management in	NATURAL ENGLAND, 2015. <i>Climate Change Theme Plan and supporting NBCCV Assessments for SACs and SPAs</i> . Available at: <a href="http://publications.naturalengland.org.uk/publication/4954594591375360">http://publications.naturalengland.org.uk/publication/4954594591375360</a> .

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			<p>response to actual or expected climatic change should be allowed for, as far as practicable, in order to ensure the feature's long-term viability.</p> <p>The overall vulnerability of this SAC to climate change has been assessed by Natural England (2015) as being low, taking into account the sensitivity, fragmentation, topography and management of its supporting habitats. This means that this site is considered to be vulnerable overall but is a lower priority for further assessment and action. Individual species may be more or less vulnerable than their supporting habitat itself. In many cases, change will be inevitable so appropriate monitoring would be advisable.</p> <p>Ash die back, which is establishing in the woodland, raises concern over the maintenance of the maternity colonies which are in mature ash standards. This tree condition needs monitoring and a contingency plan for their loss and provision of replacement habitat is necessary.</p>	
<b>Supporting processes (on which the feature and/or its supporting habitat relies)</b>	<b>Air quality</b>	Restore concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System ( <a href="http://www.apis.ac.uk">www.apis.ac.uk</a> ).	<p>The supporting habitat of this feature is considered sensitive to changes in air quality. Exceedance of these critical values for air pollutants may modify the chemical status of its substrate, accelerating or damaging plant growth, altering its vegetation structure and composition (including food-plants) and reducing supporting habitat quality and population viability of this feature. Critical Loads and Levels are recognised thresholds below which such harmful effects on sensitive UK habitats will not occur to a significant level, according to current levels of scientific understanding. There are critical levels for ammonia (NH<sub>3</sub>), oxides of nitrogen (NO<sub>x</sub>) and sulphur dioxide (SO<sub>2</sub>), and critical loads for nutrient nitrogen deposition and acid deposition. There are currently no critical loads or levels for other pollutants such as Halogens, Heavy Metals, POPs, VOCs or Dusts. These should be considered as appropriate on a case-by-case basis. Ground level ozone is regionally important as a toxic air pollutant but flux-based critical levels for the protection of semi-natural habitats are still under development. It is recognised that achieving this target may be subject to the development, availability and effectiveness of abatement technology and measures to tackle diffuse air pollution, within realistic timescales.</p>	More information about site-relevant Critical Loads and Levels for this SAC is available by using the 'search by site' tool on the Air Pollution Information System ( <a href="http://www.apis.ac.uk">www.apis.ac.uk</a> ).

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
			Target set to Restore because current levels of nitrogen deposition (APIS accessed 8 January 2019) exceed the critical load (i.e. over threshold of 10-20kg/ha/yr) for broadleaved deciduous woodland supporting habitat.	
<b>Supporting processes (on which the feature and/or its supporting habitat relies)</b>	<b>Conservation measures</b>	Maintain the management measures (either within and/or outside the site boundary as appropriate) which are necessary to Maintain and where possible enhance the structure, functions and supporting processes associated with the feature and/or its supporting habitats.	<p>Active and ongoing conservation management is needed to protect, maintain or restore this feature at this site. Further details about the necessary conservation measures for this site can be provided by contacting Natural England. This information will typically be found within, where applicable, supporting documents such as Natura 2000 Site Improvement Plan, site management strategies or plans, the Views about Management Statement for the underpinning SSSI and/or management agreements.</p> <p>The maternity roosts of Bechstein's bats occur in deep tree cavities, usually in ash in old woodpecker holes (with rot holes and splits also known to be used elsewhere outside the SAC). Colonies require several suitable roosts within their territory and switch roosts regularly, often splitting into groups to occupy a number of smaller sites. Individual roost sites can be long-lived and used over many years, but in the long term a supply of roost sites is required to replace those that become unsuitable. It is likely that trees within the SAC are also used by Bechstein's bats during the winter.</p> <p>Woodland management within the designated site boundary reflects the current understanding of the feeding and roosting ecology of the bat population.</p> <p>Grassland adjacent to roost sites and foraged over by Bechstein's Bats (See Davidson-Watts, 2013) is managed in a way that enables a continued abundance of prey species.</p>	DAVIDSON-WATTS, I.F. 2013. <i>The Isle of Wight Woodland Bat Project - Final Report</i> . Report prepared by ID Wildlife Ltd for Peoples Trust for Endangered Species.
<b>Supporting processes (on which the feature and/or its supporting habitat relies)</b>	<b>Disturbance from human activity</b>	Control and minimise human access to roost sites	<p>Site should be secured against unauthorised access, which can result in disturbance to bats at critical times of year and which can affect their population viability and use of the site.</p> <p>Where roosts are known then access should not be encouraged in their immediate surroundings.</p>	
<b>Supporting processes</b>	<b>Water quantity/</b>	Where the feature or its supporting habitat is dependent	For many SAC features which are dependent on wetland habitats supported by surface and/or ground water, maintaining	DAVIDSON-WATTS, I.F. 2013. <i>The Isle of Wight Woodland Bat</i>

Attributes		Targets	Supporting and Explanatory Notes	Sources of site-based evidence (where available)
(on which the feature and/or its supporting habitat relies)	quality	on surface water and/or groundwater, Maintain water quality and quantity to a standard which provides the necessary conditions to support the feature.	<p>the quality and quantity of water supply will be critical, especially at certain times of year. Poor water quality and inadequate quantities of water can adversely affect the structure and function of this habitat type. Typically, meeting the surface water and groundwater environmental standards set out by the Water Framework Directive (WFD 2000/60/EC) will also be sufficient to support the achievement of SAC Conservation Objectives but in some cases more stringent standards may be needed to reflect the ecological needs of the species feature. Further site-specific investigations may be required to establish appropriate water quality standards for the SAC.</p> <p>Radio tracked bats have been recorded flying over (presumed feeding) the wetland areas of the SAC site (SSSI units 3, 5, 6 and 7). There are not currently known to be any issues with water quality or quantity. However, the hydrology of the wetlands is not well understood.</p>	<i>Project - Final Report</i> . Report prepared by ID Wildlife Ltd for Peoples Trust for Endangered Species.
<b>Version Control</b> Advice last updated: N/A				
<b>Variations from national feature-framework of integrity-guidance:</b> Attributes associated with buildings have been removed because the maternity roosts are in trees and there are no buildings present in the SAC.				