# Back from the Brink – Species summary
## *Bechstein's Bat*

**BftB project:** IP01 Dorset's Heathland Heart

**Project lead organisation:** Plantlife

**Contact:** enquiries@plantlife.org.uk

**Partner organisation for species:** Bat Conservation Trust enquiries@bats.org.uk

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| **Species name – common & scientific** | **Bechstein's Bat *Myotis bechstenii*** |
| **Photograph** | <br>*© Hugh Clark (BCT) / Back from the Brink* |
| **Taxon group** | Mammal - bat |
| **Conservation status** | NERC S41, W&C Act sch. 5, Hab Dir Annex 2, IUCN - Near Threatened. |
| **UK distribution** | Found within the southern part of England from west Kent to east Devon and the Isle of Wight. Further north it has been found in Gloucestershire, Worcestershire, and Herefordshire, with a few records in south Wales. |
| **Habitat associations** | Generally strongly associated with ancient broadleaved woodland, in particular woods that contain oak and ash. The population studied is anomalous in being associated with a small strip of broadleaved woodland surrounded by heathland, coniferous plantation, and grassland. |
| **BftB work carried out:** | |
| **Survey & Monitoring** | Radio-tracking of a total of 15 female Bechstein's Bats was carried out over two weeks in 2018 and a third week in 2019. Trapping was carried out using harp traps, mist nets, Sussex Autobat lures and AT100 Ultrasonic Transmitters and biometric data were also recorded. |

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| **Sites habitat management works** | Work for this species centred on radio-tracking to obtain information about apparently anomalous habitat use by the species within the Dorset Heaths to provide recommendations for site habitat management works. |
| **Technical advice provision** | Local guidance has been produced by Bat Conservation Trust based on the research carried out by the Dorset Bat Group and circulated to the landowners and managers. This identifies suitable remedial action for the Dorset Heaths Bechstein's Bat population. |
| **Wider engagement & advocacy activities?** | Awareness was raised about Bechstein's Bat through a public talk about the work by Dorset Bat Group as part of the Dorset's Heathland Heart 2019 winter talk series plus a training workshop run for volunteers interested in helping with radio-tracking. |
| **BftB results obtained:** | |
| **Recorded Distribution** (in BftB focal areas) | Surveys by Flanders 2006-7 provided initial data on Purbeck populations - present in 5 woods out of 23 surveyed, 35 individuals in 2 trees at project site<br>Radio-tracking as part of BFTB project has provided evidence for the population at the one site considered in this project |
| **Recorded Abundance of species populations** | Up to 27 individuals using 12 roosting trees at the site studied. |
| **Other results documented?** | Radio-tracking indicated the use of 3-4 foraging areas |
| **Species Recovery Curve progress made** | 1 – 5 Pressures & remedial action identified (*fully*). Guidance will ensure that the landowner/leaseholder are advised on correct management practices that will benefit Bechstein's Bat, and protect any known coniferous commuting routes, foraging areas and known roost areas (ensuring buffers around known roost trees, retaining understorey, limit disturbance). |
| **Recommendations for future work:-** | Forestry management and heathland restoration in the areas should safeguard the roosting habitat and ensure woodland corridors that provide commuting routes to foraging areas are retained and ideally buffered. Replacement of conifers with broadleaved trees should be considered, or underplanting with broadleaved species carried out if thinned coniferous canopies are retained. |

# Back from the Brink – Species summary
## *Bechstein's Bat*

**BftB project:** IP02 Ancients of the Future

**Project lead organisation:** Buglife

**Contact:** info@buglife.org.uk

**Partner organisation for species:** Bat Conservation Trust

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| **Species name – common & scientific** | Bechstein's bat (Myotis bechsteinii) |
| **Photograph** | <br>*© Hugh Clark, BCT / Back from the Brink* |
| **Taxon group** | Mammals - Chiroptera |
| **Conservation status** | IUCN Red List (GB: LC; England: [LC]; Scotland: n/a; Wales: [EN]; Global: NT.).<br>National Conservation Status (Article 17 overall assessment 2013. Annex II and IV; UK: Unknown; England: Unknown; Scotland: n/a; Wales: Unknown). |
| **UK distribution** | Taken from A Review of the Population and Conservation Status of British Mammals: Technical Summary.<br>MATHEWS, F., KUBASIEWICZ, L. M., GURNELL, J., HARROWER, C., MCDONALD, R. A. & SHORE, R. F. 2018. A review of the population and conservation status of British Mammals. A report by The Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage. |

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| | **Species' distribution**<br><br>**Figure 10.6a** Current range of the Bechstein's bat in Britain. Range is based on presence data collected between 1995 and 2016. Areas that contain very isolated records may not have been included in the area of distribution — see Methods, Section 2.5, for more details. |
| **Habitat associations** | Bechstein's bat typically roost in deciduous semi-natural or ancient woodlands with a diversity of tree ages and vegetative structure but will roost in veteran trees, deadwood, hedgerow trees and orchard trees. Roost woodlands are often greater than 25ha and have a high proportion of oak in the canopy mix with a well-developed understorey. A woodland considered particularly favourable for a maternity roost of Bechstein's bats would have the following characteristics:<br><br>- An unevenly aged, deciduous woodland<br>- With a high number of mature oaks<br>- Above 25 hectares in size<br>- Semi-natural or ancient woodland<br>- A high degree of canopy cover consisting of native species<br>- Containing numerous woodpecker holes<br>- Mixed native species understory<br>- Streams/ponds or ditches retaining water within the wood.<br><br>Bechstein's bats typically roost in deep tree cavities which can be either on the main stem or branches. Woodpecker holes appear most favoured, with rot holes and splits also used. The majority of recorded roosts are in oak, though favoured features in several other tree species including beech, ash, birch, poplar, and willow have been recorded. |
| **BftB work carried out:** | |
| **Survey & Monitoring** | The Bechstein's bat is difficult to survey using standard monitoring techniques like acoustic monitoring or transect surveys because it is difficult to identify this species from its echolocation calls alone. Advanced survey techniques involving the use of acoustic lures, traps, and mist nets, so bats can be caught, tagged and radio-tracked to their roosts by licensed bat workers is the best survey method. This type of survey was outside the scope of the project. However, where myotis calls are recorded, if the site is within the range of the Bechstein's bat, the acoustic data collected will provide hot spots of Myotis activity and further surveys by licensed bat workers can be carried out in the future. |

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| **Sites habitat management works** | Though nothing directly has been trialled for the Bechstein's bat, the remedial actions trialled for other target species is likely to also benefit the Bechstein's bat. Veteranisation techniques (woodpecker holes, splits, cracks) trialled for invertebrates, may in the long term also benefit Bechstein's bats, who prefer some of the features that will develop over time. Pollarding work on young field maples at Knepp and oaks at Moccas Park for other target species will extend the life of the tree, potentially producing future mature trees that will support potential roost features that may be used by Bechstein's bats. Habitat work (planting specimen nectar-source shrubs such as hawthorn, with the crate-like guards in Repton Park and along the River Andur river corridor) carried out at Knepp Estate will also benefit the Bechstein's bat by improving foraging resources and will provide safe cover long term. Planting of nectar-rich shrubs will lead to greater insect diversity at Moccas Park and will provide an important foraging resource for the Bechstein's bat. |
| **Technical advice provision** | Cross taxa advice, workshops and guidance provided advice. |
| **Links made with other taxa / conservation work?** | Linked into other work on other primary target taxa through the Ancients of the Future Project. |
| **Wider engagement & advocacy activities?** | • Bats and Arbs (scoping survey) training was provided to arborists and land managers at Lanhydrock, Windsor and Knepp Estate.<br>• Five Cross Taxa workshops were delivered online by the Ancients team during 2020 |
| **BftB results obtained:** | |
| **Species Recovery Curve progress made** | Stayed at a score of 4. The score reflects that recovery solutions were trailed for other species and not specifically for the Bechstein's bat, even though there is a likelihood that these recovery solutions will be of benefit. In addition, advanced surveys were out of the scope of the project, which meant Bechstein's bat's distribution was not recorded in BftB focal areas. |
| **Other measures of species recovery progress?** e.g. FCS | Recovery solutions were only recently trialled and were carried out for other species. They will take many years to establish, so we currently don't know if and how they benefit the Bechstein's bat. |
| **Recommendations for future work:-** | Where myotis calls are recorded, if the site is within the range of the Bechstein's bat, the acoustic data collected will provide hot spots of *Myotis* activity and further surveys by licensed bat workers can be carried out in the future. If the nine primary sites would like to determine what species of Myotis bats are using the reserve, further surveys under a licence with experienced bat workers to catch the bats and identify these species in the hand would need to be carried out. |