

Back From The Brink: Grey long-eared bat species recovery project

Precis of talk given to Salcombe-Kingsbridge & Avon Estuary Forums Sept/Oct'17 by Craig Dunton, Bat Conservation Trust

Project is focused on the grey long-eared bat and is part of the '**Back from the Brink**' programme

- Partnership of the country's leading conservation organisations – lead by Natural England
- Funded by the Heritage Lottery Fund awarded £4.6m to carry out work until 2020
- Focused on England's most threatened species and habitats
- 19 projects throughout England

Why bats matter?

- "Bio-indicator" - healthy bats = healthy landscape
- Ecosystem services
 - Resource protection
 - Predator of agricultural pests
- Inherent value – bats are good news!



Back From The Brink partners



Bat Conservation Trust



Grey long-eared bats

- Medium sized bat (wingspan 25-30cm)
- Very long ears!
- Very similar to brown long-eared – but larger and greyer!
- Weighs about 12g – (same as a £2 coin)
- Favourite foods are noctuid moths and crane flies (adult leatherjackets) – an agricultural pest
- Echolocate very quietly at around 30khz – thought to avoid moths from hearing them coming – nature's arms race! Hence the massive ears to hear the quiet echo – can also hear insects simply moving over leaves. Need to be within 5m to detect them on 'bat detectors'.
- Cf. Brown LE - have different tragus and thumb measurements – but DNA is the only definite way to establish which one it is.

Roosting sites –

Summer maternity – big open roof spaces, usually large old buildings, barns, churches, manor houses

Winter hibernation – Underground environments – caves, mines. But no-one really knows where they go. All GLE are reasonably close to the coast so there is a theory about sea caves.

Foraging sites -

Species rich grasslands – these have declined by over 90% in the past 100 years – and GLE have followed that trend.

Marshy grassland – also lost habitat due to post war intensification

Woodland edge – generally used when the weather is poor

Connectivity -

To enable movement between roosting sites and foraging sites, all bats need linear habitats throughout the landscape. These linear habitats also provide foraging opportunities

Hedgerows – species rich are best, extensively managed

Watercourses – rivers, streams with mature vegetation

Margins/buffer strips in agricultural land

Woodland edges

Range - In Europe – Greece and Bulgaria in the South west, extending to Spain, Portugal and down to Madeira in the South East.

Extends to Germany, Poland and England in the North.

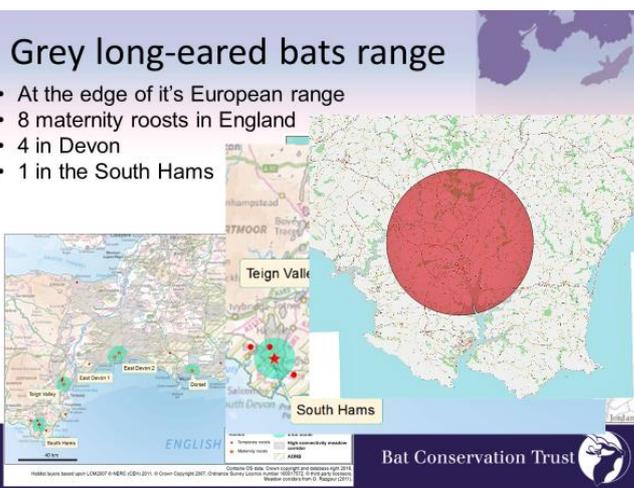
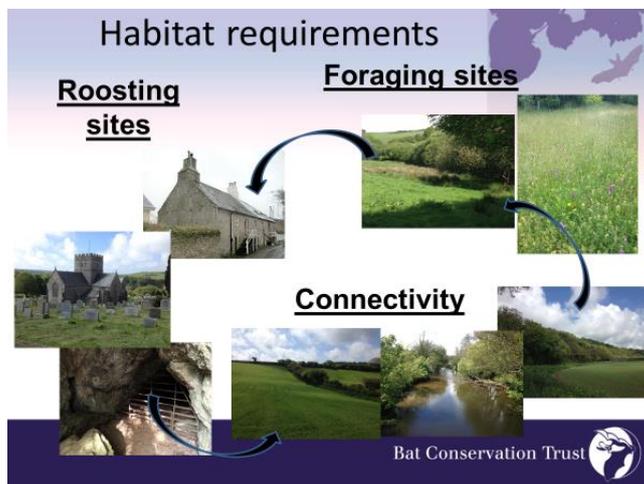
This northern most population is extremely important. As climate change progresses, species ranges will shift. It is generally believed that many species ranges will shift northwards and 'uphill'. This assumes that there is suitable habitat – if there isn't, this species will be squeezed at both ends of its range.

In England (there has been one single record in Wales, possibly the start of its range shifting) there are 8 maternity roosts - 4 of these are in Devon, where my work will be focused - 1 is in the South Hams

Barriers to conservation

Roosts are generally in large roof spaces, often barns – the number of barns converted into accommodation has definitely had an impact

There is also the difficulties of cryptic species - the similarities between BLE and GLE means that GLE roosts are not always identified and appropriate mitigation may not be recommended. Bat boxes are often used for mitigation and GLE don't use bat boxes.



Barriers to conservation

Loss of roosts

- Building improvements
- Renovation and redevelopment



Loss of foraging habitat

- Loss of unimproved grassland
- Increased field and farm sizes
- Loss of habitat 'matrix'
- Increased pesticide use = loss of prey



Agricultural intensification has resulted in...

Loss of unimproved grassland – through ploughing up or more intensive grazing

Increased field and farm sizes resulting in a loss of hedgerows and 'scruffy' corners. Wildlife likes edge habitats – these are lost when farm sizes grow.

Loss of habitat matrix. Hedgerows, scrub, ponds, ditches, margins, streams, woodland

Increased pesticide use has resulted in a loss of prey – neonicotinoids likely to affect a broad range of arthropods

Countryside Stewardship options

Some easy options for an average S. Devon mixed farm in mid-tier:

Grassland

GS1 Take field corners out of management

GS2 Permanent grassland with very low inputs

GS17 Lenient grazing supplement

Hedgerows

BE3 Management of hedgerows

Arable

AB1 Nectar flower mix

AB8 Flower rich margins and plots

SW1 4-6m buffer strip



Aims of the project:

- Habitat mapping
- Engage with landowners
- Secure better monitoring of roosts
- Engage with the community to encourage interest in bats and other wildlife
- Train volunteers to monitor roosts

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Sept/Oct'17

