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The priority BAP species associated with hedgerows and implications for delivery of the hedgerows habitat action plan



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Outline

- BAP Species and Hedgerows
- Anatomy of a hedgerow
 - Species associations
- Hedgerows at the landscape scale
- HAPS and SAPs
 - Proposed Flagship Species
- Case Study: PTES Hedgerows for Dormice



BAP species and hedgerows

- Biodiversity Action Plan species linked to hedgerows (Wolton 2009)
- 125 priority UKBAP species linked to hedgerows
 - Loss or decline of hedgerows impact on population
 - 88 (70%) widespread species across 8 taxa
 - England 125; Wales 102; Scotland 80; N.Ireland 59
- Other species of conservation concern also linked to hedgerows E.g. Small eggar moth, stoat

Anatomy of a hedgerow

Species associated with different parts of the hedgerow

All parts present in a hedgerow in good condition

Good management is key



Hedgerow tree

Shrubby component

Hedge Base

Hedge Margin



Hedgerow Trees

Features

mature and veteran trees
decline

Uses

substrate-mosses and lichens
rot holes
feeding habitat
lekking grounds
singing and display
nesting holes

BAP species

Plymouth pear *Pyrus cordata*
hoverfly *Callicera spinolae*
yellowhammer *Emberiza citrinella*

Features

Diversity of native species
Structural integrity
Good management

Uses

foraging habitat
nesting site
shelter/Predation avoidance
dispersal/commuting corridor

Shrubby Component

BAP species

brown hairstreak *Thecla betulae*
linnet *Carduelis cannabina*
cirl bunting *Emberiza cirlus*
pale shining brown moth *Polia bombycina*

dormice *Muscardinus avellanarius*
pipistrelles *Pipistrellus* spp
greater horseshoe bat *Rhinolophus ferrumequinum*

Hedge Bottom.....I mean Base

Features

herb layer-open or dense?
dead wood
leaf litter
coppice base
bank

Uses

foraging
predator avoidance
breeding
hibernation/ over-wintering

BAP species

great crested newt *Triturus cristatus*
reed bunting *Emberiza schoeniclus*
hazel dormouse *Muscardinus
avellanarius*
hedgehog *Erinaceus europaeus*
sandy stilt puffball *Battarrea
phalloides*



Hedge Margin

Features

plant diversity
food resources
nectar
pollen
seed

Uses

foraging
breeding

BAP species

yellowhammer
grey partridge *Perdix perdix*
song thrush *Turdus philomelos*
harvest mice *Micromys minutus*

Hedgerows- The Landscape Scale



Features

connectivity
semi-natural habitat

Uses

dispersal routes
foraging
breeding
post-breeding
habitat- and climate-
change related
refuge for woodland
species

BAP species

- hazel dormouse
- hedgehog
- bats
- polecat



Proposed flagship species

- 1150 species on revised BAP priority list
- More responsibility for species in HAPs
 - Requirements of species associated with hedgerows
- Widespread species
 - National Hedgerow BAP lead with local BAP support
 - 10 PROPOSED Flagship Species
 - Collectively cover all hedgerow features
- Rare/ restricted range species
 - Local BAP lead



Orange-Fruited Elm-lichen *Caloplaca luteoalba*

Viable tree population structure including veteran trees

Lichens and mosses that grow on mature tree trunks



Purple Ramping-fumitory *Fumaria purpurea*

Herbaceous flora in favourable condition

Shade-intolerant vascular plants and fungi that grow at the base of hedges





Large (Moss) Carder bee *Bombus Muscorum*

Pollen and nectar-rich herbaceous margins

Invertebrates that feed on flowers in hedgerow margins and shrubs



Brown hairstreak *Thecla betulae*

Favourable hedgerow dimensions, structure and cutting frequency

Invertebrates that require thick, shrubby hedges that are cut but infrequently so





Bullfinch *Pyrrhula pyrrhula*

Favourable hedgerow dimensions,
structure and cutting frequency

Farmland or woodland birds that require
dense hedges for nesting and seeds/
berries/ insects for food



Tree sparrow *Passer montanus*

Viable tree population structure, including
veteran trees



Species dependent on mature/ veteran trees
or dead wood



Yellowhammer *Emberiza citrinella*

Presence of undisturbed ground and favourable herbaceous flora

Ground-nesting/ feeding farmland birds taking seeds/ plant material/ invertebrates

Soprano pipistrelle *Pipistrellus pygmaeus*

Continuity of hedgerows at individual and landscape levels

Animals that require intact hedges and well hedged landscapes e.g. bats/moths





Hedgehog *Erinaceus europaeus*

Undisturbed ground, favourable herbaceous flora, landscape continuity

Ground-living insectivores or other species in hedgerow bases, species requiring continuity of foraging habitat at landscape scale



Hazel dormouse *Muscardinus avellanarius*

Favourable hedgerow dimensions, structure and cutting frequency, landscape continuity

Species requiring rich source of flowers/ berries/ nuts, dense cover for nesting, continuity of hedgerows at individual and landscape level



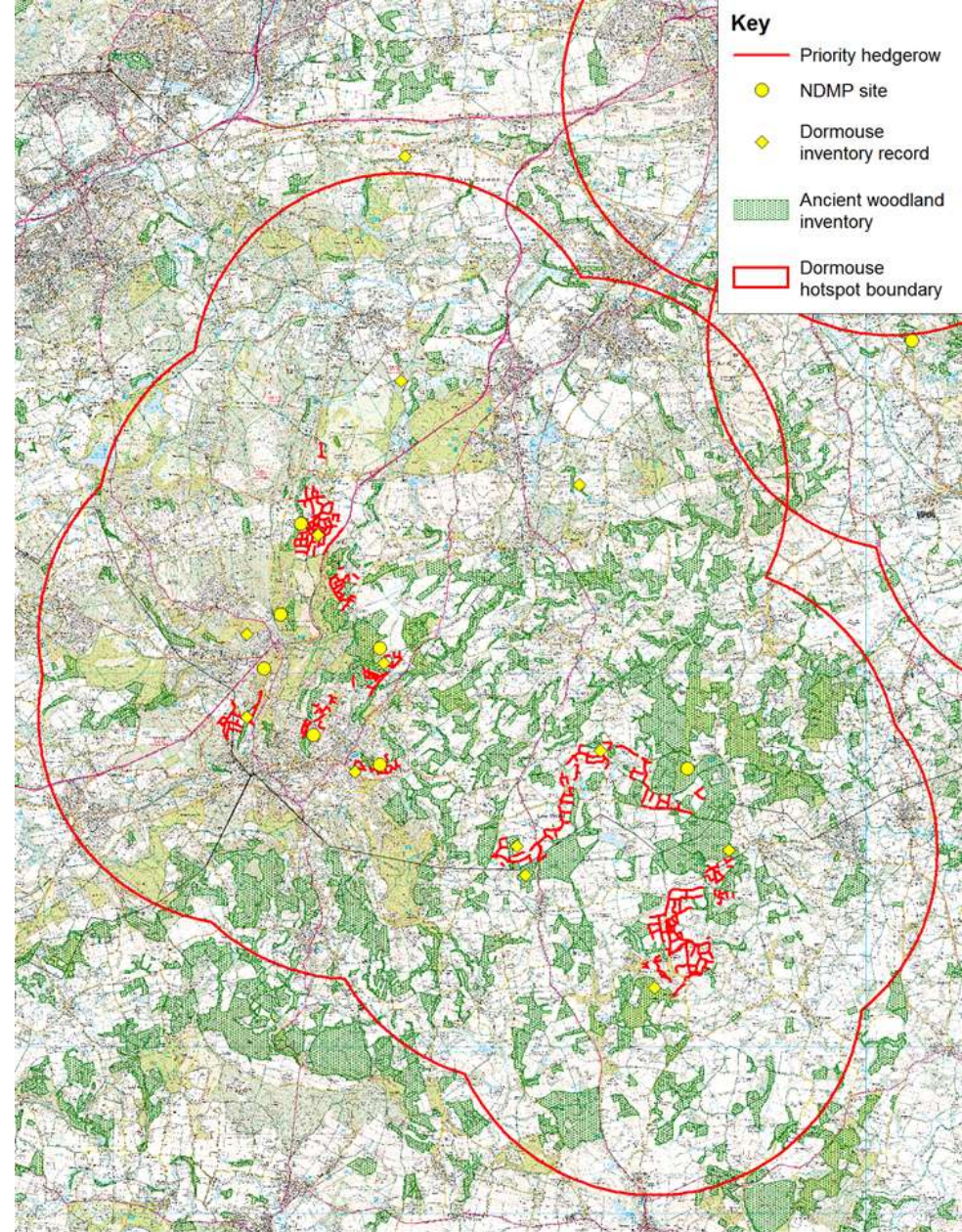
A close-up photograph of a dormouse curled up in a nest of dry leaves and twigs. The dormouse has brown fur and its eyes are closed. The background is a dense layer of brown, dried leaves and twigs, creating a natural, textured environment.

Case Study: PTES Hedgerows for Dormice

- **Hedgerows provide habitat for dormice**
 - 64% decline since 70s
 - Hedge structure and integrity crucial
 - Sympathetic hedge management vital
- **Planting and maintaining hedgerows is good for dormice**
 - Meets hazel dormice BAP and Hedgerow HAP targets

Case Study: HfD

- Mapping the presence and quality of hedgerows around dormouse “hotspots”
- Establishing a network of dormouse dispersal routes and potential habitat
- Engaging in practical work to plant and restore hedgerows and provide the basis for management plans



Priority Hedgerows -
Surrey Hotspot No. 1

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COUNTDOWN
2010
Meet the team of conservation

NATURAL
ENGLAND



Case Study: HFD

- Landscape planning using national datasets
- Focus at county level
 - Hedgerow survey workshops
 - Hedgerow management workshops
 - Targeted practical hedgerow management
- Partnership working
 - Essex Biodiversity Partnership, Surrey Wildlife Trust
 - Local knowledge, local volunteers



Summary

- Hedgerows key habitat for BAP species
- More responsibility for Hedgerow BAP/ LBAPs in species conservation
- Proposed Flagship Species to conserve key hedgerow features
- Effective action for species conservation possible at the national and local level

