Lavant watershed Biodiversity Opportunity Area

Joint Character Area  South Downs

Geology  Chalk (Seaford, Lewes, New Pit, Holywell, Newhaven, Tarrant). Clay, silt, sand and gravel deposits including alluvium

Lavant watershed has been recognised as a Biodiversity Opportunity Area (BOA) as it represents a priority area for the delivery of Biodiversity Action Plan (BAP) targets. This is one of 75 such areas across Sussex. The BOA covers approximately 1686 hectares.

The Lavant is an important chalk stream in Sussex. Despite heavy modifications due to its proximity to urban areas, there is a great deal of potential for its enhancement. The Lavant supports known populations of Water Vole. As a watershed area, it is likely to be an important route for the migration of species between the western Rother and Lavant/Chichester Coastal Plain. The Watershed covers the West Dean Estate, Hayes Down and the Trundle and to the north of the chalk river it heads east to Singleton and Levin Down.
BAP Habitat

Lowland calcareous grassland
Lowland heathland
Reedbed
Wood-pasture and parkland
Woodland

BAP Species 55 species recorded, with the following in the last ten years:

<table>
<thead>
<tr>
<th>Species</th>
<th>Habitat Requirements</th>
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<tbody>
<tr>
<td>Knot Grass <em>Acronicta rumicis</em></td>
<td>Meadows, gardens and hedgerows, larvae feed on a range of herbs</td>
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<tr>
<td>Slow-worm <em>Anguis fragilis</em></td>
<td>Open habitats, gardens, heathland, cliff, mixed deciduous woodland, structural variation, hedgerows</td>
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<tr>
<td>Rest Harrow <em>Aplasta ononaria</em></td>
<td>Coastal areas especially cliffs, slopes and sand dunes, in sheltered locations, larval feed on Common Restharrow</td>
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<tr>
<td>Water Vole <em>Arvica terrestris</em></td>
<td>Rivers, ponds, canals and drainage ditches, reedbeds, fens, grazing marsh, banks, slow-lying waters</td>
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<tr>
<td>Common Toad <em>Bufo bufo</em></td>
<td>Scrub, rough grassland, fens, reedbed and wet woodland, dense ground vegetation or litter, ponds, large water bodies, hedgerows</td>
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<tr>
<td>Lesser Redpoll <em>Carduelis cabaret</em></td>
<td>Birch and Alder woods, most common in the north in the summer</td>
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<tr>
<td>Hawfinch <em>Coccothraustes coccobraustes</em></td>
<td>Woodland, good supplies of fruit, seeds and keys, drinking pools</td>
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<tr>
<td>Frog Orchid <em>Coeloglossum viride</em></td>
<td>Chalk grassland, meadows</td>
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<tr>
<td>Cuckoo <em>Cuculus canorus</em></td>
<td>Woodland, scrub, marshes, heathland, reedbed</td>
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<tr>
<td>Small Blue <em>Cupido minusminus</em></td>
<td>Chalk grassland, chalk cliffs, Kidney Vetch, sheltered conditions, mosaic of short and tall vegetation with scrub</td>
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<tr>
<td>Yellowhammer <em>Emberiza citrinella</em></td>
<td>Open countryside, scrubby areas, woodland edges, hedgerows, insect-rich grassland, seed-rich areas</td>
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<tr>
<td>Juniper <em>Juniperus communis</em></td>
<td>Chalk grassland, heathland, maritime cliffs, exposed areas, rocky slopes, unshaded locations</td>
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<tr>
<td>White Admiral <em>Limenitis camilla</em></td>
<td>Woodlands, sunny glades, Bramble, Honeysuckle, partially-shaded locations</td>
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<td>Grasshopper Warbler <em>Locustella naevia</em></td>
<td>Scrub, thick grassland, reedbeds, forestry and gravel pits</td>
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<td>Stag Beetle <em>Lucanus cervus</em></td>
<td>Broadleaved woodland, parkland, hedgerows, gardens, dead and decaying wood</td>
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<tr>
<td>Hazel Dormouse <em>Muscardinus avellanarius</em></td>
<td>Woodland, overgrown hedgerows, Honeysuckle, Bramble, Hazel and Ash, well-structured woodland with a well-developed understorey and scrubby areas</td>
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<tr>
<td>Spotted Flycatcher <em>Muscicapa striata</em></td>
<td>Open woodland and woodland edges, parks and gardens</td>
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<tr>
<td>Bechstein's Bat <em>Myotis bechsteinii</em></td>
<td>Closed canopy woodland, wooded streams, hedgerows</td>
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<tr>
<td>Grass Snake <em>Natrix natrix</em></td>
<td>Water, reedbed, ponds, heathland, hedgerows, grazing marsh, gardens, fish, amphibians</td>
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<tr>
<td>Curlew <em>Numenius arquata</em></td>
<td>Reedbeds, estuaries, damp grassland, heathland, mosaic of tall vegetation for nesting with short vegetation and open habitats for feeding</td>
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</tbody>
</table>
House Sparrow *Passer domesticus*  
Urban areas, farmland, hedgerows

Wood Warbler *Phylloscopus sibilatrix*  
Mixed deciduous woodland, even age-canopy, little understorey, patchy ground cover

Brown Long-eared Bat *Plecotus auritus*  
A widespread bat of open woodlands, hedgerows, parks and gardens, it roosts in old buildings and trees in the summer, moving to caves and underground sites in the winter.

Greater Horseshoe Bat *Rhinolophus ferrumequinum*  
A bat of woodland, meadows and traditionally managed farmland, they tend to roost in old buildings in the summer, turning to underground sites and caves in the winter

Striped Lychnis *Sthargacucullia lychnitis*  
Chalk grassland, woodland and disturbed ground, larvae feed on Dark Mullein

Turtle Dove *Streptopelia turtur*  
Woodland edges, hedgerows and open land with scattered bushes

Brown Hairstreak *Thecla betulae*  
Hedgerows and woodland with abundant Blackthorn

Spreading Hedge-parsley *Torilis arvensis*  
Arable fields, autumn-sown cereals

Great Crested Newt *Triturus cristatus*  
Breeding sites are mainly medium-sized ponds, although ditches and other waterbodies may be used, ponds with ample aquatic vegetation, do not require very high water quality, but usually a neutral pH. Hedgerows, mixed deciduous woodland

a lichen *Usnea florida*  
Woodland and hedgerow trees in well-lit situations, usually found on twigs and branches in the canopy

Lapwing *Vanellus vanellus*  
Farmland, grazing marsh, wet meadows, seeds and insects

Adder *Vipera berus*  
Open heathland, woodland and moors, fens, cliff

Common Lizard *Zootoca vivipara*  
Open woodland, moorland, heathland, fens, sand dunes, rocks, gardens and cliffs

**Invasive Non-native Species** 12 species recorded, with the following in the last ten years:

Three-cornered Leek *Allium triquetrum*  
Red Valerian *Centranthus ruber*  
Wall Cotoneaster *Cotoneaster horizontalis*  
New Zealand Pigmyweed *Crassula helmsii*  
Japanese Knotweed *Fallopia japonica*  
Hybrid Bluebell *Hyacinthoides non-scripta x hispanica = H. x massartiana*  
Muntjac *Muntiacus reevesi*  
Parrot’s-feather *Myriophyllum aquaticum*  
Winter Heliotrope *Petasites fragrans*  
Cherry Laurel *Prunus laurocerasus*  
Rhododendron *Rhododendron ponticum*

**Designated Sites**

Singleton and Cocking Tunnels SAC constitute the most important sites for hibernating bats in the region in particular the rare Barbastelle and Bechstein’s, and this is the only known location in Britain for the Greater Mouse-eared Bat.
Levin Down SSSI comprises of species-rich chalk grassland on a south-facing slope. As well as a good range of chalk herbs and grasses, the site contains an area of chalk heath and patches of Juniper scrub. The Juniper colony is one of the largest in Sussex and supports a number of specialist invertebrates.

Chills Down SNCI is exceptionally good remnant chalk grassland on a steep west-facing slope. The site is botanically rich including Kidney Vetch and Cowslip, and colonies of Adonis Blue and Small Blue are supported.

The River Lavant SNCI consists of a shallow, fast flowing chalk stream with a rich aquatic flora including Stream Water-crowfoot which is rare in the county. Water Voles can be found in the southern part of the river.

The Trundle (St. Roche’s Hill) and Chalkpit Lane SNCI is a herb-rich chalk grassland site with importance for invertebrates including the Glow-worm. The site also consists of arable fields which contain several important arable plants including Prickly Poppy and Narrow-fruitied Cornsalad.

The Valdoe SNCI is ancient semi-natural woodland consisting mostly of Pedunculate Oak and Hazel, with some mature Beech and planted Sweet Chestnut. Notable ground flora includes Spurge Laurel and Common Cow-wheat, and many glades support a calcareous flora including Wild Basil and Salad Burnet.

West Dean Railway Tunnel SNCI is designated for its importance as a bat hibernaculum, with five species recorded including Bechstein’s Bat.

Opportunities Identified

- Chalk grassland management, restoration and creation
- Wetland habitat management, restoration and creation
- Policy integration
- Ecological networks
- Farmland bird interest
- Water quality improvement