Brighton & Hove Local Wildlife Sites Project

Selection Criteria

The Local Wildlife Site Selection panels will use these criteria to guide the selection of Local Wildlife Sites and proposed Local Nature Reserves in Brighton and Hove. They have been agreed by a steering group with representatives from Natural England, the South Downs National Park, the Sussex Wildlife Trust and the RSPB to ensure all the sites chosen will stand up to independent scrutiny.

Please do not be put off by all the detail! The selection criteria are for guidance only – each decision is ultimately down to the selection panels, based on their knowledge and experience of the natural environment in and around Brighton and Hove.

KEY

Mandatory requirement
Contributory feature
Descriptive feature

Criteria	Local Wildlife Sites*	Local Nature Reserves*
1. Size	Site contains habitats which meet or exceed the size thresholds set out in Annex 1	
2. Diversity	Site contains habitats which meet or exceed the diversity thresholds set out in Annex 1	
3. Rare or Exceptional feature	The site contains species which meet or exceed the thresholds set out in Annex 2	
	A nature conservation feature (other than an important species or group of species) which is rare or unusual in Brighton and Hove	
4. Naturalness	a. Presence of 'edge' habitats b. Diverse habitat structure c. Vegetation predominantly comprises native species	
5. Fragility	Features recognised as being of nature conservation importance are known to be vulnerable to damage or under threat on the site (the threat must be described with evidence)	
6. Typicalness	A good example of a natural habitat listed in Annex 1 in the Brighton and Hove context. In identifying good examples, attention will be paid to habitat structure, management, typical and unusual species in conjunction with the criteria set out in Annex 1.	
7. Recorded history and cultural associations	The site is associated with the historical development of Brighton and Hove or has a notable history	
8. Connectivity within the	a. Although mathematical models exist for measuring habitat connectivity, they are beyond the scope of this study. Instead, sites within 200m of an	

landscape	important habitat will be deemed to have high connectivity.	
9. Appreciation of nature	a. Site used by the public for quiet recreation (describe evidence)	
10. Ecosystem Services	Site likely to offer ecosystem service benefits by virtue of its location, vegetation, degree of public access or management	
10. Value for learning	a. Site has educational visits from local schools, clubs or societies specifically to appreciate nature OR	a. Site has educational visits from local schools, clubs or societies specifically to appreciate nature OR
	b. The site has a realistic potential of educational visits from local schools, clubs or societies specifically to appreciate nature (the mechanism for delivery must be described).	b. The site has a realistic potential of educational visits from local schools, clubs or societies specifically to appreciate nature (the mechanism for delivery must be described).
11. Management	a. The site is subject to a long term management agreement and is being managed in a way which conserves its nature conservation interest OR	a. The site is subject to a long term management agreement and is being managed in a way which conserves its nature conservation interest OR
	b. The site has a realistic potential of being subject to a long term management agreement and being managed for its nature conservation interest (the mechanism for delivery must be described).	b. The site has a realistic potential of being subject to a long term management agreement and being managed for its nature conservation interest (the mechanism for delivery must be described).

In Brighton and Hove Local Nature Reserves differ from Local Wildlife Sites in having a distinct role for education / appreciation of nature and in being managed long term specifically for wildlife conservation.

Annex 1: Minimum thresholds for important habitats in Brighton and Hove

Important Habitats	See note number	Minimum threshold for Local Wildlife Site selection
Ancient woodland	1	All identified ancient woodland
'Veteran' trees	1	All veteran trees, when combined with other qualifying features
Arable fields and their margins	2	Single field
Coastal vegetated shingle	3	All sites which meet the qualifying criteria
Hedgerows	4	All hedgerows which meet the qualifying criteria
Intertidal chalk	5	N/A

Lowland calcareous (chalk) grassland	6	0.1 ha
Lowland mixed deciduous woodland	7	All lowland mixed deciduous woodland over 0.25 ha + smaller blocks of woodland which meet the qualifying criteria
Maritime cliff and slope	8	N/A
Open Mosaic Habitats on Previously Developed Land	9	0.1 ha
Ponds	10	All ponds which meet the qualifying criteria
Saline lagoons	11	No minimum size
Traditional Orchards	12	No minimum size
Scrub Communities	13	All Structurally diverse and species-rich scrub over 1 ha All gorse scrub over 1 ha Smaller blocks of scrub which meet the qualifying criteria
Mosaic habitats	14	Any size which meets the qualifying criteria

Notes for Annex 1

1. ANCIENT WOODLAND AND 'VETERAN' TREES

Ancient woodland is defined as woodland which as been under continuous tree cover (other than temporary clearance as a part of normal woodland management) since at least 1600 AD.

The Government's Planning Policy Statement 9 states that ancient woodland is 'a valuable biodiversity resource both for its diversity of species and for its longevity as woodland' ((paragraph 10). Local authorities are encouraged to protect it.

According to Natural England[1], a veteran tree can be defined as: 'a tree that is of interest biologically, culturally or aesthetically because of its age, size or condition'. Some trees are instantly recognisable as veterans but many are less obvious. The girth of a tree is not a reliable way of assessing a veteran tree because different species and individuals of tree have very different life spans and grow at different rates.

A revision of the ancient woodland inventory of Brighton and Hove was published by the Weald and Downs Ancient Woodland Survey[2]. The survey mapped just under 94 hectares of ancient woodland in the city.

The following should be selected as Local Wildlife Sites:

- All ancient woodland

[1] Natural England IN13 - Veteran Trees: A guide to good management
[2] Weald and Downs Ancient Woodland Survey 'A revision of the Ancient Woodland Inventory for Brighton and Hove' January 2010

- Designation will be supported by the presence of a veteran tree.
- Veteran trees with substantive nature conservation value (as defined by these Local Wildlife Site selection criteria) will be designated.

2. ARABLE FIELDS AND THEIR MARGINS

The downland around Brighton and Hove has been traditionally managed as 'mixed farmland' with a combination of permanent pasture and arable, for hundreds, if not thousands of years. The 2009 biodiversity audit of the city recorded over 1,670 hectares arable land.

Various species have become associated with the arable habitat, including specialist plants, invertebrates, some mammals (such as brown hare (*Lepus europaeus*)) and several species of nesting and over-wintering birds, such as skylark (*Aluada arvensis*), grey partridge (*Perdix perdix*) and lapwing (*Vanellus vanellus*).

The biodiversity of arable fields generally has seriously declined, mainly as a result of changing management practices, the use of selective herbicides, seed-cleaning techniques and competitive crop variants.

Identifying the most important remaining arable fields for biodiversity can be difficult, because most species associated with arable are highly mobile. Arable annual plants are the exception, in that they often reoccur at the same location year after year, normally at the margins of fields which have escaped pesticide applications. For this reason, the presence of arable annuals will be used as the benchmark for assessing potential Local Wildlife Sites on arable land.

The following should be selected as Local Wildlife Sites:

- Single fields with boundaries that contain 8 or more of the arable annual species listed in Table 1.
- Designation may be supported by the presence of associated invertebrates, birds and mammals.

Table 1. Indicator Species for Arable fields and their margins (from http://www.arableplants.org.uk)

Pheasant's-eye	(*Adonis annua*)
Blue Pimpernel	(*Anagallis arvensis ssp.foemina*)
Corn Chamomile	(*Anthemis arvensis*)
Annual Vernal-grass	(*Anthoxanthum aristum*)
Loose Silky-bent	(*Apera spica-venti*)
Thale Cress	(*Arabidopsis thaliana*)
Rye Brome	(*Bromus secalinus*)
Cornflower	(*Centaurea cyanus*)
Small Toadflax	(*Chaenorhinum minus*)
Corn Marigold	(*Chrysanthemum segetum*)
Dwarf Spurge	(*Euphorbia exigua*)
Sun Spurge	(*Euphorbia helioscopa*)
Broad-leaved Spurge	(*Euphorbia platyphyllos*)
Black-bindweed	(*Fallopia convolvulus*)
Red-tipped Cudweed	(*Filago lutescens*)
Dense-flowered Fumitory	(*Fumaria densiflora*)

Common Ramping-fumitory	(*Fumaria muralis ssp.boraei*)
Common Fumitory	(*Fumaria officinalis*)
Red Hemp-nettle	(*Galeopsis angustifolia*)
Smooth Cat's-ear	(*Hypochaeris glabra*)
Sharp-leaved Fluellen	(*Kickxia elatine*)
Round-leaved Fluellen	(*Kickxia spuria*)
Henbit Dead-nettle	(*Lamium amplexicaule*)
Cut-leaved Dead-nettle	(*Lamium hybridum*)
Yellow Vetchling	(*Lathyrus aphaca*)
Venus's-looking-glass	(*Legousia hybrida*)
Field Gromwell	(*Lithospermum arvense*)
Weasel's-snout	(*Misopates orontium*)
Mousetail	(*Myosurus minimus*)
Prickly Poppy	(*Papaver argemone*)
Long-headed Poppy	(*Papaver dubium*)
Babington's Poppy	(*Papaver dubium ssp. lecoqii*)
Rough Poppy	(*Papaver hybridum*)
Common Poppy	(*Papaver rhoeas*)
Corn Parsley	(*Petroselinum segetum*)
Cornfield Knotgrass	(*Polygonum rurivagum*)
Corn Buttercup	(*Ranunculus arvensis*)
Small-flowered Buttercup	(*Ranunculus parviflorus*)
Hairy Buttercup	(*Ranunculus sardous*)
Shepherd's-needle	(*Scandix pecten-veneris*)
Field Madder	(*Sherardia arvensis*)
Night-flowering Catchfly	(*Silene noctiflora*)
Corn Spurrey	(*Spergula arvensis*)
Field Woundwort	(*Stachys arvensis*)
Field Penny-cress	(*Thlaspi arvense*)
Spreading Hedge-parsley	(*Torilis arvensis*)
Knotted Hedge-parsley	(*Torilis nodosa*)
Keeled-fruited Cornsalad	(*Valerianella carinata*)
Narrow-fruited Cornsalad	(*Valerianella dentata*)
Common Cornsalad	(*Valerianella locusta*)
Green Field-speedwell	(*Veronica agrestis*)
Grey Field-speedwell	(*Veronica polita*)
Field Pansy	(*Viola arvensis*)
Wild Pansy	(*Viola tricolor*)

3. COASTAL VEGETATED SHINGLE

Coastal vegetated shingle is both a national and Sussex BAP habitat and listed in Annex 1 of the EC Habitats Directive.

Due to the intensive amenity use of the beaches in Brighton and Hove, very few areas of coastal shingle retain natural vegetation. The 2009 biodiversity audit of the city recorded just 0.8 ha of the habitat. These remaining fragments are nevertheless of high nature conservation value.

The Joint Nature Conservation Committee has defined three foreshore stability classes, based on the length of time over which the shingle is undisturbed by environmental factors:

- Where the shingle beach is stable from spring to autumn, the presence of the yellow horned-poppy *Glaucium flavum* and sea-kale *Crambe maritima*, all species that can tolerate periodic movement, is significant.

- If the beach is stable for more than 3 years, short-lived perennials can establish (e.g. *Glaucium flavum*, *Rumex crispus*, *Beta maritima, Silene vulgaris* ssp*. maritima*).

- On more stable shingle above this zone, where sea spray is blown over the shingle, plant communities with a high frequency of salt-tolerant species such as sea campion *Silene vulgaris* ssp. *maritima* occur. These may exist in a matrix with abundant lichens. These formations can progress to grasslands where *Arrhenatherum elatius*, *Festuca rubra* or *Agrostis stolonifera* are dominant and which are rich in herbs such as *Galium verum*, *Silene maritima*, *Vicia sativa*, *Lotus corniculatus* or *Centaurea nigra.* Where there is a greater saline influence, *Plantago maritima* may be common.

All sites which meet the following qualifying criteria should be selected as Local Wildlife Sites:

- Coastal vegetated shingle supporting 4 or more of the indicator species listed in Table 1.
- Designation may be supported by the presence of associated invertebrates, birds and mammals.

Table 1. local Indicator Species for Coastal Vegetated Shingle (from 'Common Standards Monitoring Guidance for Vegetated Coastal Shingle Habitats' Version August 2004, Joint Nature Conservation Committee).

Atriplex glabriuscula,	maritime spear-leaved orache
Atriplex laciniata	frosted orache
Atriplex prostrate	spear leaved orache
Beta vulgaris maritima,	sea beet
Crambe maritima,	sea kale
Galium aparine,	cleavers
Glaucium flavum	yellow-horned poppy
Matricaria maritima,	sea mayweed
Picris echioides	bristley oxtongue
Rumex crispus	curled dock
Silene uniflora	sea campion

4. HEDGEROWS

Brighton and Hove has remarkably few hedgerows. The landscape has been traditionally open and unenclosed for many centuries, particularly when compared with adjacent areas such as the High Weald. Nevertheless, hedgerows are nationally recognised as being of biodiversity importance and are included in the UK list of priority habitats. 'Important hedgerows' are also protected under the Hedgerow Regulations 1997.

Hedgerows can be of critical value both as linear habitats and as habitat corridors, supporting very large and diverse populations of flora and fauna, and providing an important linking function between other valuable habitats. For species such as

dormouse and great crested newts, and as foraging corridors for bats, hedgerows can be vital in maintaining habitat connectivity. This connectivity role can be particularly important in areas of lower species diversity e.g. agriculturally improved landscapes or urban environments.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

All hedgerows consisting of:

- a boundary line of trees or shrubs over 20m long and less than 5m wide, where
- any gaps between the trees or shrub species are less than 20m wide and
- the hedge consists predominantly (i.e. 80% or more cover) of at least one woody UK native species.
- Designation may be supported by the presence of associated species.

This definition conforms with the UK BAP definition of the hedgerow priority habitat. Any bank, wall, ditch or tree within 2m of the centre of the hedgerow is considered to be part of the hedgerow habitat, as is the herbaceous vegetation within 2m of the centre of the hedgerow.

5. INTERTIDAL CHALK

The Intertidal chalk habitat is defined by the UK BAP as the gently-sloping intertidal platforms between the vertical chalk cliffs and the low water mark. They support a range of micro-habitats of biological importance.

In Brighton and Hove, intertidal chalk is confined to the coast between Brighton Marina and the eastern boundary of the city. This entire stretch of coast is designated a Site of Special Scientific Interest. The 2006 Defra guidance on Local Wildlife Sites specifically precludes 'double designation' of SSSI land as Local Wildlife Site, therefore this habitat is not included in the qualification criteria for Local Wildlife Sites in Brighton and Hove.

6. LOWLAND CALCAREOUS (CHALK) GRASSLAND

Unimproved calcareous grasslands are an internationally important habitat type with a stronghold on the South Downs. Brighton and Hove has an international responsibility to conserve remaining examples. The habitat includes a characteristic suit of species such as upright brome (*Bromus erectus)* and sheep's fescue (*Festuca ovina agg.*) together with characteristic herbs such as Wild Thyme (*Thymus polytrichus*), Rockrose (*Helianthemum nummularium*), Lady's Bedstraw (*Galium verum*), Fairy Flax (*Linum catharticum*), and Salad Burnet (*Sanguisorba minor*).

'Semi-improved' calcareous grassland includes those swards which have been degraded by agricultural management but which retain a range of calcareous specialist species and are still recognisably derived from calcareous grassland.

The 2009 Habitat Audit of Brighton and Hove identified just under 300 ha of calcareous grassland, although only a third of this can confidently be described as

'unimproved'. Most of the habitat is fragmented over small patches of 0.1 ha or more, on the steeper, less accessible slopes.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- All examples of unimproved or semi-improved calcareous grassland over 0.1 ha.

- Smaller areas (less than 0.1 ha) of species-rich calcareous grassland if they form an integral part of a larger complex of habitat mosaics or fulfil a strategic linking function.

To be defined as unimproved or semi-improved calcareous grassland, grasslands must have at least 8 species present from the list of species indicative of calcareous grasslands in Table 1.

Table 1. Indicator Species for Calcareous Grasslands

Scientific Name	**Common Name**
Anacamptis pyramidalis	pyramidal orchid
Anthyllis vulneraria	kidney vetch
Asperula cynanchica	squincywort
Blackstonia perfoliata	yellow-wort
Brachypodium pinnatum	tor grass
Briza media	quaking grass
Bromopsis erecta	upright brome
Campanula rotundiflora	harebell
Carex flacca	glaucous sedge
Carlina vulgaris	carline thistle
Centaurea nigra	common knapweed
Centaurea scabiosa	greater knapweed
Centaurium erythraea	common centuary
Cirsium acaule	dwarf thistle
Clinopodium acinos	basil thyme
Clinopodium vulgare	wild basil
Crepis biennis	rough hawk's-beard
Daucus carota	wild carrot
Echium vulgare	viper's-bugloss
Festuca ovina agg.	sheep's fescue
Galium verum	lady's bedstraw
Gentianella amarella	autumn gentian
Helianthemum nummularium	common rock-rose
Hippocrepis comosa	horseshoe vetch
Hypericum perforatum	perforate St John's-Wort
Inula conyzae	ploughman's spikenard
Knautia arvensis	field scabious
Leontodon hispidus	rough hawkbit
Leontodon saxatilis	lesser hawkbit
Linum catharticum	fairy flax
Listera ovata	twayblade
Lotus corniculatus	common bird's-foot trefoil
Medicago lupulina	black medick
Ononis repens	common restharrow

Ophrys apifera	bee orchid
Orchis mascula	early-purple orchid
Origanum vulgare	wild majoram
Pastinaca sativa	wild parsnip
Pilosella officinarum	mouse-ear hawkweed
Pimpinella saxifraga	burnet-saxifrage
Plantago media	hoary plantain
Polygala vulgaris	common milkwort
Primula veris	cowslip
Ranunculus bulbosus	bulbous buttercup
Sanguisorba minor	salad burnet
Scabiosa columbaria	small scabious
Spiranthes spiralis	autumn lady's-tresses
Thymus polytrichus	wild thyme
Thymus pulegioides	large thyme
Trisetum flavescens	yellow oat-grass
Viola hirta	hairy violet
Viola riviniana	common dog-violet

7. LOWLAND MIXED DECIDUOUS WOODLAND

The UK BAP definition of the Lowland mixed deciduous woodland priority habitat type includes woodland growing on the full range of soil conditions, from very acidic to base-rich, and takes in most semi-natural woodland in the UK.

The total amount of all woodland (ancient and recent) within Brighton and Hove, as recorded in the Forestry Commission's National Inventory of Woodland and Trees (2000), is 305 ha. This is slightly more than the amount recorded by the 2009 Biodiversity Audit of the city, which records just under 280 ha. The difference is probably attributable to differences in distinguishing mature scrub from woodland. The Biodiversity Audit figure amounts to 3.4% of the area of the city, which is below the England average of 8.4%[3].

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- All semi-natural woodlands over 0.25 ha which although not ancient, support at least one semi-natural ancient woodland plant species (see Table 1)

- Smaller areas (less than 0.25 ha) of semi-natural woodland if they either particularly species-rich, or if they form part of a larger site, or complex of habitats, or fulfil a strategic linking function.

Table 1: semi-natural ancient woodland plant species in Brighton and Hove[4]

Holly	*Ilex aquifolium*
Bluebell	*Hyacinthoides non-scripta*
Field Maple	*Acer campestre*
Box	*Buxus sempervirens*

[3] See 'A revision of the Ancient Woodland Inventory for Brighton and Hove. Report and Inventory Maps, January 2010' Weald and Downs Ancient Woodland Inventory.

Red Currant	*Ribes rubrum*
Sanicle	*Sanicula europaea*
Early Dog-Violet	*Viola reichenbachiana*
Yellow Archangel	*Lamiastrum galeobdolon*
Hart's-Tongue	*Phyllitis scolopendrium*
Wood-Sedge	*Carex sylvatica*
Spurge-Laurel	*Daphne laureola*
Primrose	*Primula vulgaris*
Ramsons	*Allium ursinum*
Hairy Brome	*Bromopsis ramosa*
Pendulus Sedge	*Carex pendula*
Daffodil	*Narcissus pseudonarcissus*
Black Bryony	*Tamus communis*
Wood Speedwell	*Veronica montana*
Stinking Iris	*Iris foetidissima*
Wood Melick	*Melica uniflora*
Hard Shield-Fern	*Polystichum aculeatum*
Barren Strawberry	*Potentilla sterilis*
Butcher's-Broom	*Ruscus aculeatus*
Wood Anemone	*Anemone nemorosa*
Hornbeam	*Carpinus betulus*
Alder Buckthorn	*Frangula alnus*
Three-Nerved Sandwort	*Moehringia trinervia*
Wood-Sorrel	*Oxalis acetosella*
Wild Cherry	*Prunus avium*
Pignut	*Conopodium majus*
Midland Hawthorn	*Crataegus laevigata*
Scaly Male Fern	*Dryopteris affinis*
Wood Spurge	*Euphorbia amygdaloides*
Creeping Soft-Grass	*Holcus mollis*
Early-Purple Orchid	*Orchis mascula*
Solomon's-Seal	*Polygonatum multiflorum*
Soft Shield-Fern	*Polystichum setiferum*
Goldilocks Buttercup	*Ranunculus auricomus*
Field Rose	*Rosa arvensis*
Guelder-Rose	*Viburnum opulus*

8. MARITIME CLIFF AND SLOPE

The Maritime cliff and slope habitat is defined by the UK BAP as the sloping to vertical faces on the coastline where a break in slope is formed by slippage and/or coastal erosion.

In Brighton and Hove, Maritime cliff and slope is confined to the coast between Brighton Marina and the eastern boundary of the city. This entire stretch of coast is designated a Site of Special Scientific Interest. The 2006 Defra guidance on Local Wildlife Sites specifically precludes ‘double designation’ of SSSI land as Local Wildlife Site, therefore this habitat is not included in the qualification criteria for Local Wildlife Sites in Brighton and Hove.

9. OPEN MOSAIC HABITATS ON PREVIOUSLY DEVELOPED LAND

According to the UK BAP, this habitat comprises mosaics of bare ground with, typically, very early pioneer communities on skeletal substrates, more established open grasslands, usually dominated by fine-leaved grasses with many herbs, areas of bare ground, scrub and patches of other habitats such as heathland, swamp, ephemeral pools and inundation grasslands.

These are generally primary successions, and as such unusual in the British landscape, especially the lowlands. In Brighton and Hove, where there has been considerable development pressure on 'brownfield' land for many years, the biodiversity audit did not identify any surviving examples of this habitat.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- All examples of Open Mosaic Habitats on Previously Developed Land

10. PONDS

In the Brighton and Hove context, ponds, for the purpose of UK BAP priority habitat classification, are defined as permanent and seasonal standing water bodies up to 2 ha in extent, with species of high conservation importance: Ponds supporting Red Data Book species, UK BAP species, species fully protected under the Wildlife and Countryside Act Schedule 5 and 8, Habitats Directive Annex II species, a Nationally Scarce wetland plant species, or three Nationally Scarce aquatic invertebrate species.

The Brighton & Hove biodiversity audit identified just over 4 hectares of open, freshwater habitat, all of it divided into small ponds normally under 50m2. Some of these may qualify as UK BAP priority habitat.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- All examples of ponds which have largely unmodified, semi-natural beds and banks, good water quality and/or which support good aquatic, emergent or bank side plant communities.
- All ponds which qualify under individual relevant Species Criteria (flora, invertebrates, amphibians, or birds). See Annex 2 for more information.
- All less valuable ponds if they occur as integral features of a larger mosaic of habitats.

'Good' aquatic, emergent or bank side communities are taken in this context to mean a range of aquatic plant species dominated by combinations of characteristic native species.

Designation will include an appropriate area of terrestrial habitat around any selected ponds and lakes, which would be sufficient to protect the water body from acute pollution incidents or disturbance. This should typically be a minimum of 10m wide from the water's edge.

11. SALINE LAGOONS

According to the UK BAP, lagoons in the UK are essentially bodies, natural or artificial, of salinewater partially separated from the adjacent sea. They retain a proportion of their seawater at low tide and may develop as brackish, full saline or hyper-saline water bodies. Lagoons can contain a variety of substrata, often soft sediments which in turn may support tasselweeds and stoneworts as well as filamentous green and brown algae. In addition lagoons contain invertebrates rarely found elsewhere.

In Brighton and Hove, the inner harbour of Brighton Marina could be described as an artificial lagoon. It is separated from the open sea by a sea lock.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- All examples of saline lagoons where the presence of characteristic saline lagoon species can be demonstrated.

12. TRADITIONAL ORCHARDS

According to the UK BAP, traditional orchards comprise open-grown trees set in herbaceous vegetation. The species composition of the trees comprises primarily the family Rosaceae but include plantings for nuts, principally hazelnuts, but also walnuts. Orchards are usually small scale and cultivated for fruit and nut production, usually achieved through activities such as grafting and pruning. Grazing or cutting of herbaceous vegetation is also integral to orchard management.

Traditional orchards are hotspots for biodiversity in the countryside, supporting a wide range of wildlife and containing UK BAP priority habitats and species, as well as an array of Nationally Rare and Nationally Scarce species.

There are hardly any traditional orchards remaining in Brighton and Hove. The biodiversity audit identifies just 0.6 ha.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- All examples of traditional orchards where the presence of characteristic orchard species can be demonstrated.

13. SCRUB COMMUNITIES

Scrub communities are not included in the UKBAP list of priority habitats, but they can nevertheless be an important biodiversity resource. In Brighton and Hove scrub occupies over 181 ha.

The most important scrub for biodiversity is normally that which supports a mix of native woody species with good structural diversity (a varied range of shrub ages and canopy heights, mature trees, the presence of small rides and clearings, good gradations in edge habitats and varied ground flora).

Most scrub communities comprise common and ubiquitous woody species and are widespread in the UK. However, scrub habitats are extremely variable in form and composition, and even some of the common communities may be exceptionally rich in species. Larger stands may also support nationally protected species such as dormouse (*Muscardinus avellanarius*), as is the case in Brighton and Hove.

Large stands of gorse (*Ulex europaeus*), support a distinctive faunal community, with characteristic species such as stonechat, linnet and Dartford warbler, along with a high invertebrate diversity. The complex rigid structure of gorse bushes is such that it is a noted habitat for spiders, for instance and green hairstreak butterflies are often associated with stands of gorse.

In addition to the above, scrub communities may also be selected where they form linking habitats between other features of interest, or form a peripheral part of another habitat of interest (i.e. as part of a mosaic site), or under the species criteria, where they support species of significance.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- Structurally diverse and species-rich mixed scrub sites of 1 ha or more in size.

- Significant stands of gorse (over 1 ha in size) and/or stands which support key associated species

- Smaller stands of scrub (including less species-rich areas) if they form an integral part of a larger site or complex habitat mosaics or fulfil a strategic linking function.

14. MOSAIC HABITATS

Mosaic sites, comprising of complex mixtures of semi-natural habitats, are not included in the UK BAP list of priority habitats but are nevertheless of biodiversity importance in Brighton and Hove.

Local Wildlife Sites with mosaic habitats will support a variety of different habitat types, of which the largest or most species-rich would often qualify on individual habitat criteria. Smaller areas of habitat, and/or areas of less species-rich habitat, will be included where they form an integral part of the ecological functioning of the site, fulfil a linking role or represent important habitat areas for key species.

Parks and golf courses can support mosaics of comparatively undisturbed habitats. As a general rule, it is desirable to aggregate individually qualifying habitats together into single sites where the habitats are adjacent and/or intimately associated.

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

- Any coherent site, which comprises at least 3 distinct habitat types, where at least 1 habitat is approaching SINC selection status in its own right, providing that improved, species-poor or degraded elements of

low or negligible conservation interest do not form a significant proportion (>25%) of the total area.

- The designation of mosaic SINCs may be supported by the presence of associated species.

Annex 2: Species Criteria for selecting Local Wildlife Sites

All sites which meet the following selection criteria qualify for selection as Local Wildlife Sites:

For all the species listed in Table 3 (below):

All sites supporting breeding (or probable breeding) populations, or that are critical for nesting, hibernating, foraging, territorial or other significant use, will be selected.

Table 3 comprises species recorded in Brighton and Hove which are listed under Section 42 of the Natural Environment and Rural Communities Act 2006 or which are statutorily protected.

Invertebrates:

- Any site which supports a species of invertebrate listed in the UK Red Data Book

- Any site which supports an important assemblage or population(s) of 'Nationally Scarce' species

Fungi

- All grassland sites supporting 6 or more species of waxcap (*Hygrocybe* spp.)

This threshold has been set using the conservation value for regional importance of 6 – 10 *Hygrocybe* species during a single visit per site (ref. Boertmann, David (1995) *The genus Hygrocybe. Fungi of Northern Europe 1*.)

Table 3: Important Species Brighton and Hove

Table 3 is a list of local species which are also listed in BAPs either nationally or in Sussex, or which have special legal protection. It does not include all locally occurring species listed in the national Red Data Books or which may otherwise be regarded as of local nature conservation value.

Latin Name	English Name
Helianthemum oelandicum subsp. levigatum	a rock-rose

Vipera berus	Adder
Lysandra bellargus	Adonis Blue butterfly
Stercorarius parasiticus	Arctic Skua
Ennomos quercinaria	August Thorn
Eugnorisma glareosa	Autumnal Rustic
Meles meles	Badger
Puffinus mauretanicus	Balearic Shearwater
Tyto alba	Barn Owl
Trichopteryx polycommata	Barred Tooth-striped
Clinopodium acinos	Basil Thyme
Vespertilionidae and Rhinolophidae	*Bats – all species*
Agrochola lychnidis	Beaded Chestnut
Agrotera nemoralis	Beautiful Pearl
Myotis bechsteinii	Bechstein's Bat
Entoloma bloxamii	Big Blue Pinkgill
Botaurus stellaris	Bittern
Phoenicurus ochruros	Black Redstart
Formica pratensis	Black-backed Meadow Ant
Gavia arctica	Black-throated Diver
Timandra comae	Blood-Vein
Lycia hirtaria	Brindled Beauty
Valerianella rimosa	Broad-fruited Cornsalad
Melanchra pisi	Broom Moth
Thecla betulae	Brown Hairstreak
Lepus europaeus	Brown Hare
Plecotus auritus	Brown Long-eared Bat
Bombus humilis	Brown-banded Carder Bee
Agrochola litura	Brown-spot Pinion
Spilosoma luteum	Buff Ermine
Pyrrhula pyrrhula subsp. pileata	Bullfinch
Orchis ustulata	Burnt Orchid
Atethmia centrago	Centre-barred Sallow
Scotopteryx bipunctaria	Chalk Carpet
Scotopteryx bipunctaria subsp. cretata	Chalk Carpet
Euphrasia pseudokerneri	Chalk Eyebright
Eurysa douglasi	Chalk Planthopper
Chamaemelum nobile	Chamomile
Tyria jacobaeae	Cinnabar
Zootoca vivipara	Common Lizard
Melanitta nigra	Common Scoter
Bufo bufo	Common Toad
Emberiza calandra subsp. calandra/clanceyi	Corn Bunting
Ranunculus arvensis	Corn Buttercup
Galium tricornutum	Corn Cleavers
Centaurea cyanus	Cornflower
Celaena leucostigma	Crescent
Melampyrum cristatum	Crested Cow-wheat
Cuculus canorus	Cuckoo
Numenius arquata	Curlew
Weissia condensa	Curly Beardless-moss
Lampronia capitella	Currant-shoot Borer
Xanthorhoe ferrugata	Dark-barred Twin-spot Carpet
Aporophyla lutulenta	Deep-brown Dart
Erynnis tages subsp. tages	Dingy Skipper
Carex divisa	Divided Sedge
Melanchra persicariae	Dot Moth
Prunella modularis subsp. occidentalis	Dunnock (Hedge Accentor)

Apamea remissa	Dusky Brocade
Ennomos fuscantaria	Dusky Thorn
Amphipoea oculea	Ear Moth
Gentianella anglica	Early Gentian
Ophrys sphegodes	Early Spider Orchid
Ulmus procera	English Elm[4]
Caprimulgus europaeus	European Nightjar
Arvicola terrestris	European Water Vole
Tholera decimalis	Feathered Gothic
Tephroseris integrifolia subsp. integrifolia	Field Fleawort
Gentianella campestris	Field Gentian
Diloba caeruleocephala	Figure of Eight
Minuartia hybrida	Fine-leaved Sandwort
Regulus ignicapillus	Firecrest
Blysmus compressus	Flat-sedge
Luronium natans	Floating Water-plantain
Agrochola helvola	Flounced Chestnut
Ophrys insectifera	Fly Orchid
Adscita statices	Forester
Coeloglossum viride	Frog Orchid
Epirrhoe galiata	Galium Carpet
Euxoa nigricans	Garden Dart
Arctia caja	Garden Tiger
Hepialus humuli	Ghost Moth
Teloschistes flavicans	Golden Hair-lichen
Muscari neglectum	Grape-hyacinth
Natrix natrix	Grass Snake
Locustella naevia	Grasshopper Warbler
Hipparchia semele	Grayling
Triturus cristatus	Great Crested Newt
Rhinolophus ferrumequinum	Greater Horseshoe Bat
Allophyes oxyacanthae	Green-brindled Crescent
Acronicta psi	Grey Dagger
Perdix perdix	Grey Partridge
Pyrgus malvae	Grizzled Skipper
Micromys minutus	Harvest Mouse
Coccothraustes coccothraustes	Hawfinch
Muscardinus avellanarius	Hazel Dormouse
Erinaceus europaeus	Hedgehog
Larus argentatus subsp. argenteus	Herring Gull
Argynnis adippe	High Brown Fritillary
Nemophora fasciella	Horehound Long-horn
Asilus crabroniformis	Hornet robberfly
Passer domesticus	House Sparrow
Doros profuges	Hoverfly
Juniperus communis	Juniper
Acronicta rumicis	Knot Grass
Malacosoma neustria	Lackey
Vanellus vanellus	Lapwing
Rhinolophus hipposideros	Lesser Horseshoe Bat
Carduelis cabaret	Lesser Redpoll
Carduelis cannabina subsp. autochthona/cannabina	Linnet
Anisus vorticulus	Little Whirlpool Ramshorn Snail

[4] English Elm is not listed in the UK BAP or Sussex BAP but is protected in Brighton and Hove under The Dutch Elm Disease (Local Authorities) (Amendment) Order 1988

Aceras anthropophorum	Man Orchid
Stellaria palustris	Marsh Stitchwort
Salvia pratensis	Meadow Clary
Ophonus (Metophonus) melletii	Mellet's Downy-back
Brachylomia viminalis	Minor Shoulder-knot
Caradrina morpheus	Mottled Rustic
Amphipyra tragopoginis	Mouse Moth
Scopula marginepunctata	Mullein Wave
Herminium monorchis	Musk Orchid
Cephalanthera longifolia	Narrow-leaved Helleborine
Nyctalus noctula	Noctule Bat
Watsonalla binaria	Oak Hook-tip
Trichiura crataegi	Pale Eggar
Boloria euphrosyne	Pearl-bordered Fritillary
Mentha pulegium	Pennyroyal
Falco peregrinus	Peregrine
Adonis annua	Pheasant's-eye
Orthosia gracilis	Powdered Quaker
Melanthia procellata	Pretty Chalk Carpet
Salsola kali subsp. kali	Prickly Saltwort
Galeopsis angustifolia	Red Hemp-nettle
Centaurea calcitrapa	Red Star-thistle
Lanius collurio	Red-backed Shrike
Emberiza schoeniclus	Reed Bunting
Turdus torquatus	Ring Ouzel
Sterna dougallii	Roseate Tern
Mesoligia literosa	Rosy Minor
Hydraecia micacea	Rosy Rustic
Hoplodrina blanda	Rustic
Xanthia icteritia	Sallow
Squamarina lentigera	Scaly Breck-lichen
Aythya marila	Scaup
Fulgensia fulgens	Scrambled-egg Lichen
Hordeum marinum	Sea Barley
Polygonum maritimum	Sea Knotgrass
Ennomos erosaria	September Thorn
Ophonus (Metophonus) laticollis	Set-aside Downy-back
Scotopteryx chenopodiata	Shaded Broad-bar
Scandix pecten-veneris	Shepherd's-needle
Segmentina nitida	Shining Ram's-horn Snail
Hippocampus hippocampus	Short-snouted Seahorse
Mythimna comma	Shoulder-striped Wainscot
Alauda arvensis subsp. arvensis	Sky Lark
Syncopacma albipalpella	Slate Sober
Galium pumilum	Slender Bedstraw
Bupleurum tenuissimum	Slender Hare's-ear
Anguis fragilis	Slow-worm
Cupido minimus	Small Blue
Hemistola chrysoprasaria	Small Emerald
Coenonympha pamphilus	Small Heath
Boloria selene	Small Pearl-bordered Fritillary
Ecliptopera silaceata	Small Phoenix
Diarsia rubi	Small Square-spot
Turdus philomelos subsp. clarkei	Song Thrush
Pipistrellus pygmaeus	Soprano Pipstrelle (55 kHz)
Eulithis mellinata	Spinach
Muscicapa striata	Spotted Flycatcher
Asteroscopus sphinx	Sprawler

Torilis arvensis	Spreading Hedge-parsley
Lucanus cervus	Stag Beetle
Sturnus vulgaris subsp. vulgaris	Starling
Buellia asterella	Starry Breck-lichen
Weissia sterilis	Sterile Beardless-moss
Crepis foetida	Stinking Hawk's-beard
Ribautodelphax imitans	Tall Fescue Planthopper
Bupleurum rotundifolium	Thorow-wax
Arabis glabra	Tower Mustard
Hericium erinaceum	Tree Hedgehog fungus
Anthus trivialis	Tree Pipit
Passer montanus	Tree Sparrow
Carex vulpina	True Fox-sedge
Oenanthe fistulosa	Tubular Water-dropwort
Streptopelia turtur	Turtle Dove
Chenopodium urbicum	Upright Goosefoot
Lasiommata megera	Wall
Decticus verrucivorus	Wart-biter
Barbastella barbastellus	Western Barbastelle
Limenitis camilla	White Admiral
Spilosoma lubricipeda	White Ermine
Cephalanthera damasonium	White Helleborine
Satyrium w-album	White-letter Hairstreak
Euxoa tritici	White-line Dart
Phylloscopus sibilatrix	Wood Warbler
Leptidea sinapis	Wood White
Lullula arborea	Woodlark
Jynx torquilla	Wryneck
Cicendia filiformis	Yellow Centaury
Pogonus luridipennis	Yellow Pogonus
Emberiza citrinella	Yellowhammer