

GUIDELINES FOR THE SELECTION OF LOCAL WILIFE SITES IN THE TEES VALLEY

1. INTRODUCTION

These guidelines have been agreed by the Tees Valley Biodiversity Steering Group in its capacity as the Local Wildlife Sites Partnership for the Tees Valley. They have been developed in full consultation with members of the group and also in order to comply with government guidelines as set out in PPS 9 Nature Conservation and Defra's Local Sites Guidance. They provide the basis by which land with nature conservation value can be assessed for designation as a non-statutory Local Wildlife Site (LWS).

The guidelines allow sites to be assessed against Habitat and / or Species Guidelines. While the intention has been to make these guidelines as specific as possible, it is recognised that current knowledge of the ecology of the area is not perfect and cannot always be up-to-date. A precautionary approach has been taken that allows the importance of known sites to be recognised and which places a strong emphasis on further survey and investigation of any site where an activity is proposed that might potentially impact on its ecological interest.

Inevitably the guidelines reflect both our current understanding of the ecology of the area and the health and distribution of habitats and species both locally and elsewhere. The guidelines are therefore subject to regular review to reflect any changes that occur.

2. HABITAT GUIDELINES

Habitat types have been selected to include:

- a) A characteristic representation for Tees Valley
- b) Habitats that are rare, scarce or rapidly declining regionally, nationally and / or internationally (i.e. UK BAP and local BAP key habitats).

Guidelines have been written for Woodlands, Hedgerows, Grasslands, Heath and Moor, Wetlands, Coastal Habitats and Artificial Habitats.

2.1 Woodlands

The following habitat definitions identify sites which merit designation as SNCI. Other areas of woodland or scrub habitats may be selected on notable species grounds, according to species guidelines within this document.

- W1 Ancient Woodland – all woodland on the county inventory of Ancient Woodland as carrying a semi-natural canopy, unless post-inventory survey has shown this record to be erroneous, or has revealed severe degradation.
- W2 Broad-leaved Woodland and Re-planted Ancient Woodland (woodland recorded on the provisional county inventory as carrying a replanted coniferous or broad-leaved crop, which is shown to retain restorable elements of its previous semi-natural character, and other extant features of wildlife interest). These should include both the presence of at least 10 of

the woodland species given at Appendix 1 and significant features such as herb-rich rides, glades, or pockets of semi-natural canopy, and meet all of the following qualifications.

- a) It is not irreversibly degraded by grazing, domination by invasive and/or non-native species or by other means;
- b) The features of value are present in at least 50% of the woodland area;
- c) Is 0.5ha or greater

Note - Guidelines have not yet been developed to identify good examples of Lowland Wood Pasture, Wet Woodland and Parkland, all of which are UK Biodiversity Priority Habitats. Guidelines will be developed if appropriate sites are found in the area, which are not identified through other criteria or designations.

2.2 Hedgerows

Despite being strictly man-made features, hedgerows have become very important habitats and for the purpose of SNCI designation have been accorded the same status as semi-natural habitats.

- H1 All established hedgerows (i.e. more than 30 years old), greater or equal to 100 metres in length (gaps are not counted as part of the hedge), which contain at least 4 woody species on average in a 30-metre length and at least 4 ancient woodland indicator species (Appendix 1).
- H2 All hedgerows as described above which are less than 100m in length but which fulfil a strategic function by linking wildlife sites to produce an enhanced ecological unit.
- H3 All ancient or established hedgerows with associated veteran trees and at least 4 ancient woodland indicator species (Appendix 1).

2.3 Grasslands

Species rich grasslands have suffered significant national declines during the past 50 years. High quality grasslands are particularly scarce in the Tees Valley.

- G1 Neutral Grasslands – grasslands supporting at least 3 grass and 5 herb species from the list at Appendix 2
- G2 Calcareous Grasslands – grasslands supporting at least 1 grass and 3 herb species from the list at Appendix 3

Sites should normally be 0.2 ha or greater.

2.4 Heath and Moor

Lowland habitats are defined as those lying below an altitude of 250m. Lowland Heath and Moor is taken to include associated patches of acid grassland.

- L1 All lowland heathland sites unless severely degraded.

2.5 Wetlands

The boundaries of wetland sites may be drawn to encompass the appropriate hydrological catchment in order to safeguard the habitat.

- E1 All examples of fens, flushes, seepages, springs etc, with 5 or more species from the list in Appendix 4.
- E2 All examples of reed beds. Site should normally be 0.1ha or greater.
- E3 All examples of basin mire and valley mire, unless severely degraded.

Note - Guidelines have not yet been developed to identify quality ponds, lakes, gravel pits, reservoirs, rivers or streams on the basis of their botanical interest. Guidelines will be developed if appropriate sites are found in the area, which are not identified through other criteria (e.g. for mammals, birds, amphibians or invertebrates).

Discrete sections of rivers and streams will be designated where they have clear and definable conservation interest such as populations of water voles, sand martin colonies or kingfisher nest sites.

2.6 Coastal Habitats

While this encompasses a range of valuable habitat types, definitions have not been provided for coastal grazing marsh and maritime cliff/slope, which should be designated where it meets the criteria for grasslands or birds, and the foreshore (including mudflats) which should be designated, when appropriate, under the criteria for birds.

- C1 All examples of saltmarsh, unless severely degraded.
- C2 Coastal grasslands – grasslands supporting at least 5 herb species from the list at Appendix 5
- C3 All examples of saline lagoons, unless severely degraded.

2.7 Artificial Habitats

Urban green spaces that do not qualify under other habitat or species guidelines may still make a significant contribution to nature conservation. Their position within an urban context allows many more people to experience and interact with nature and this considerably enhances their importance. The Local Nature Reserve designation both protects and establishes appropriate management schemes for such sites.

Other habitats that can be found in the area have developed as a result of human activity, but make an important contribution to the area's biodiversity.

- U1 Urban grasslands – grasslands that have developed on urban sites, often on substrates comprised of waste materials such as steelworks slag. Grasslands should be designated where they support at least 10 herb species from the list at Appendix 6.

- U2 Disused quarries – these will usually be assessed on other guidelines, but sites which demonstrate particularly good examples of active succession from bare ground towards wildlife-rich grassland, heathland or woodland communities or those that may qualify on species grounds will be included. Such sites should normally be 0.5 ha or greater.
- U3 Linear features such as roadside verges and railway track-sides that meet other guidelines except in terms of minimum size will normally be selected where they are 100m in length or greater.

2.8 Habitat Mosaics

Sites with 2 or more adjacent semi-natural habitats in mosaic may warrant recognition as SNCI where individually one or more of the habitats may fail to qualify on single habitat or notable species grounds.

Where mosaics occur, in order to qualify, at least one of the habitats in the mosaic should be considered a borderline site. This component should constitute a significant proportion of the whole mosaic, usually 25% or more.

3. SPECIES GUIDELINES

Sites will be selected for the presence of rare or notable species, or outstanding assemblages of species, where those species are known to occur naturally and are not introduced, unless part of a species recovery programme. The species listed are currently known, or are likely to occur in Tees Valley, but should other nationally rare or scarce species be recorded then these would also be eligible.

Site boundaries will generally be selected to encompass the feature of wildlife interest i.e. the total area thought to support the species as far as it can be determined, unless otherwise stated in the guidelines. However, many species listed in these guidelines are indicators of good habitat quality and therefore, these sites may qualify for designation under habitat guidelines. In these instances boundaries will be drawn up according to the habitat qualification (species qualification will still be noted.)

Once a qualifying species has been recorded at a site, the designation will remain in place unless it can be reasonably assumed on the basis of habitat degradation or loss, or from surveys, that the species is no longer present.

3.1 Vascular Plants

- V1 All sites where one or more nationally rare or scarce species, as listed in the national Red Data Book, occur (Stewart et al, 1994; Wigginton, 1999).
- V2 All sites where one or more UK BAP priority species occur.

3.2 Bryophytes, Lichens and Fungi

- B1 Sites where one or more nationally rare or scarce species have been recorded. (Hill et al, 1991, 1992, 1994).

B2 Sites where one or more UK BAP priority species have been recorded.

3.3 Mammals

M1 Dormouse (*Muscardinus avellanarius*) – All sites with dormouse confirmed, usually with associated semi-natural habitat selected under other criteria.

M2 Red Squirrel (*Sciurus vulgaris*) – All sites where red squirrel has been confirmed as present.

M3 Harvest Mouse (*Micromys minutus*) – All sites with harvest mouse, usually with associated semi-natural habitat selected under other criteria.

M4 Water Vole (*Arvicola terrestris*) – All sites where a good population of water vole is present, including areas of suitable habitat that link good populations even when these areas are not currently occupied.

M5 Pine Marten – any woodland known to support breeding pine martens.

Notes Badger (*Meles meles*) – Setts should be recorded separately from the SNCI system. Badger setts, on their own, will not justify SNCI status.

Bat roosts are protected through legislation and the designation of roost sites, many of which are likely to be in private buildings or other man-made structures, is thought to be inappropriate under this system.

3.4 Birds

Sites should only be designated where there is a clear conservation advantage in doing so. This will normally be where there is a need to protect or manage the habitat where the birds display and/or feed or in the vicinity of their nest site or as part of migratory behaviour

O1 Wintering populations – All sites regularly holding more than 0.1% of the national population of any wintering or passage species and all sites regularly holding more than 5% of the cited bird interest of the Teesmouth SPA (this to include 5% of a cited individual bird population or of the combined water bird population)

O2 Breeding Populations – All sites regularly holding more than 0.1% of the national breeding population of native species.

O3 Any site regularly holding significantly high numbers of a key breeding or wintering species or unique features of a species or assemblage on a Tees Valley basis

3.5 Amphibians and Reptiles

- A1 All sites that support breeding populations of Great Crested Newt (*Triturus cristatus*). Site boundaries will encompass both aquatic and terrestrial habitats used by the species.
- A2 All sites where four native amphibian species have been recorded.
- A3 All sites that support exceptional populations of any species of amphibian (see appendix 7).
- A4 All sites that support good populations of 3 or more amphibian species (see Appendix 7).
- A5 All sites where the Slow Worm (*Anguis fragilis*) species has been recorded.

3.7 Invertebrates

- I1 All sites where one or more UK BAP priority species occur.

3.7.1 Butterflies

- I2 All sites that regularly support Green Hairstreak (*Callophrys rubi*) or White-letter Hairstreak (*Satyrus w-album*) or a significant population (i.e. 10 individuals) of Dingy Skipper (*Erynnis tages*)
- I3 All sites that regularly support 15 or more species of butterfly

3.7.2 Moths

- I4 All sites that support the following species:
Forester (*Adscita statices*) – regionally scarce

3.7.3 Odonata

- I4 All sites that support the following species of dragonfly, which are currently rare in the Tees Valley:
Banded Demoiselle (*Calopteryx splendens*)
Emperor Dragonfly (*Anax imperator*)
Black-tailed Skimmer (*Orthetrum cancellatum*)
- I5 All sites with assemblages of 7 or more species of dragonfly.

Appendix 1: Woodland Flora

Ten species required for SNCI status.

Scientific Name	Common Name
<i>Adoxa moschatellina</i>	Moschatel
<i>Ajuga reptans</i>	Bugle
<i>Allium ursinum</i>	Ramsons
<i>Anemone nemorosa</i>	Wood Anemone
<i>Arum maculatum</i>	Lords-and-ladies
<i>Athyrium filix-femina</i>	Lady-fern
<i>Blechnum spicant</i>	Hard-fern
<i>Brachypodium sylvaticum</i>	False Brome
<i>Campanula latifolia</i>	Giant Bellflower
<i>Campanula trachelium</i>	Nettle-leaved Bellflower
<i>Carex pendula</i>	Pendulous Sedge
<i>Carex remota</i>	Remote Sedge
<i>Carex sylvatica</i>	Wood-sedge
<i>Chrysplenium alternifolium</i>	Alternate-leaved Golden-saxifrage
<i>Chrysplenium oppositifolium</i>	Opposite-leaved Golden-saxifrage
<i>Circaea lutetiana</i>	Enchanter's-nightshade
<i>Epipactis helleborine</i>	Broad-leaved Helleborine
<i>Equisetum sylvaticum</i>	Wood Horsetail
<i>Festuca gigantea</i>	Giant Fescue
<i>Fragaria vesca</i>	Wild Strawberry
<i>Gagea lutea</i>	Yellow Star-of-Bethlehem
<i>Galium odoratum</i>	Woodruff
<i>Hordelymus europaeus</i>	Wood Barley
<i>Hyacinthoides non-scripta</i>	Bluebell
<i>Lathraea squamaria</i>	Toothwort
<i>Luzula pilosa</i>	Hairy Wood-rush
<i>Luzula sylvatica</i>	Great Wood-rush
<i>Lysimachia nemorum</i>	Yellow Pimpernel
<i>Melampyrum pratense</i>	Common Cow-wheat
<i>Melica uniflora</i>	Wood Melick

<i>Mercurialis perennis</i>	Dog's Mercury
<i>Millium effusum</i>	Wood Millet
<i>Myosotis sylvatica</i>	Wood Forget-me-not
<i>Orchis mascula</i>	Early-purple Orchid
<i>Oxalis acetosella</i>	Wood Sorrel
<i>Paris quadrifolia</i>	Herb-Paris
<i>Phyllitis scolopendrium</i>	Hart's-tongue
<i>Poa nemoralis</i>	Wood Meadow-grass
<i>Polystichum aculeatum</i>	Hard Shield-fern
<i>Polystichum setiferum</i>	Soft Shield-fern
<i>Primula vulgaris</i>	Primrose
<i>Ranunculus auricomus</i>	Goldilocks Buttercup
<i>Sanicula europaea</i>	Sanicle
<i>Stellaria nemorum</i>	Wood Stitchwort
<i>Teucrium scorodonia</i>	Wood Sage
<i>Veronica montana</i>	Wood Speedwell
<i>Viburnum opulus</i>	Guelder-rose
<i>Vicia sylvatica</i>	Wood Vetch
<i>Viola odorata</i>	Sweet Violet
<i>Viola reichenbachiana</i>	Early Dog-violet

Appendix 2 : Neutral Grassland Flora

Three grasses and five herbs required for SNCI status.

Scientific Name	Common Name
<u>Grasses</u>	
<i>Agrostis capillaris</i>	Common Bent
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Briza media</i>	Quaking Grass
<i>Cynosurus cristatus</i>	Crested Dog's-tail
<i>Danthonia decumbens</i>	Heath Grass
<i>Helictotrichon pratense</i>	Oat Grass
<i>Trisetum flavescens</i>	Yellow Oat-grass
<u>Herbs</u>	
<i>Achillea millefolium</i>	Yarrow
<i>Agrimonia eupatoria</i>	Agrimony
<i>Alchemilla vulgaris agg.</i>	Lady's-mantle
<i>Campanula rotundifolia</i>	Harebell
<i>Centaurea nigra</i>	Common Knapweed
<i>Conopodium majus</i>	Pignut
<i>Dactylorhiza fuchsii</i>	Common Spotted-orchid
<i>Euphrasia spp.</i>	Eyebright
<i>Hypochaeris radicata</i>	Cat's-ear
<i>Lathyrus pratensis</i>	Meadow Vetchling
<i>Leontodon autumnalis</i>	Autumn Hawkbit

<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil
<i>Ononis spinosa</i>	Spiny Restharrow
<i>Pimpinella saxifraga</i>	Burnet-saxifrage
<i>Primula veris</i>	Cowslip
<i>Prunella vulgaris</i>	Selfheal
<i>Ranunculus bulbosus</i>	Bulbous Buttercup
<i>Rhinanthus minor</i>	Yellow rattle
<i>Rumex acetosa</i>	Common Sorrel
<i>Sanguisorba minor ssp. minor</i>	Salad Burnet
<i>Sanguisorba officinalis</i>	Great Burnet
<i>Saxifraga granulata</i>	Meadow Saxifrage
<i>Silaum silaus</i>	Pepper-saxifrage
<i>Stachys officinalis</i>	Betony
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Trifolium medium</i>	Zigzag Clover
<i>Trifolium pratense (not cult. var.)</i>	Red Clover

Appendix 3 : Calcareous Grassland Flora

One grass and three herb species required for SSCI status

Grasses

<i>Festuca ovina</i>	Sheep's-fescue
<i>Helictotrichon pratense</i>	Meadow Oat-grass
<i>Helictotrichon pubescens</i>	Hairy Oat-grass
<i>Koeleria macrantha</i>	Crested hair grass

Herbs

<i>Anacamptis pyramidalis</i>	Pyramidal Orchid
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Gentianella amarella</i>	Autumn gentian
<i>Geranium sanguineum</i>	Bloody Crane's-bill
<i>Helianthemum nummularium</i>	Common Rock-rose
<i>Knautia arvensis</i>	Field Scabious
<i>Pimpinella saxifraga</i>	Burnet-saxifrage
<i>Sanguisorba minor</i>	Salad Burnet
<i>Scabiosa columbaria</i>	Small Scabious
<i>Serratula tinctoria</i>	Saw-wort
<i>Thymus polytrichus</i>	Wild Thyme

Appendix 4 : Marshy Grassland/Flushes Flora

Five species required for SSCI status

<i>Achillea ptarmica</i>	Sneezewort
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<i>Caltha palustris</i>	Marsh Marigold
<i>Cardamine pratensis</i>	Cuckooflower
<i>Dactylorhiza fuchsii</i>	Common Spotted-orchid
<i>Dactylorhiza purpurella</i>	Northern Marsh-orchid
<i>Hydrocotyle vulgaris</i>	Marsh pennywort
<i>Iris pseudacorus</i>	Yellow Iris
<i>Lathyrus pratensis</i>	Meadow Vetchling
<i>Lotus pedunculatus</i>	Greater Bird's-foot-trefoil
<i>Lychnis flos-cuculi</i>	Ragged Robin
<i>Persicaria amphibia</i>	Amphibious Bistort
<i>Sanguisorba officinalis</i>	Great Burnet
<i>Valeriana dioica</i>	Marsh Valerian
<i>Sphagnum spp.</i>	Sphagnum moss

Appendix 5 : Sand Dune / Coastal Grassland Flora

Five species required for SNCI status

<i>Astragalus danicus</i>	Purple Milk-vetch
<i>Campanula rotundifolia</i>	Harebell
<i>Carex arenaria</i>	Sand Sedge
<i>Centaureum erythraea</i>	Common Centaury
<i>Euphrasia nemorosa</i>	Eyebright
<i>Galium verum</i>	Lady's Bedstraw
<i>Geranium sanguineum</i>	Bloody Crane's-bill
<i>Glaux maritima</i>	Sea-milkwort
<i>Helianthemum nummularium</i>	Common Rock-rose
<i>Leontodon saxatilis</i>	Lesser Hawkbit
<i>Ononis repens</i>	Common Restharrow
<i>Ononis spinosa</i>	Spiny Restharrow
<i>Phleum arenarium</i>	Sand Cat's-tail
<i>Plantago maritima</i>	Sea Plantain
<i>Plantago media</i>	Hoary Plantain
<i>Rhinanthus minor</i>	Yellow-rattle
<i>Thalictrum minus</i>	Lesser Meadow-rue
<i>Thymus polytrichus</i>	Wild Thyme

Appendix 6 : Urban Grassland Flora

Ten species required for SNCI status.

In general, habitats with rare plants have these species as well (rare plants are not included on this list).

Scientific Name	Common Name
<i>Aira caryophyllea</i>	Silver Hair-grass
<i>Anisantha sterilis</i>	Barren Brome
<i>Anthyllis vulneraria</i>	Kidney Vetch

<i>Artemisia vulgaris</i>	Mugwort
<i>Aster novi-belgii</i>	Confused Michaelmas-daisy
<i>Blackstonia perfoliata</i>	Yellow-wort
<i>Bromopsis erecta</i>	Upright Brome
<i>Bromus hordeaceus</i>	Soft-brome
<i>Carlina vulgaris</i>	Carlina Thistle
<i>Centaurium erythraea</i>	Common Centaury
<i>Conyza canadensis</i>	Canadian Fleabane
<i>Crepis biennis</i>	Rough Hawk's-beard
<i>Crepis vesicaria</i>	Beaked Hawk's-beard
<i>Daucus carota carota</i>	Wild Carrot
<i>Diplotaxis tenuifolia</i>	Perennial Wall-rocket
<i>Echium vulgare</i>	Viper's Bugloss
<i>Euphrasia nemorosa</i>	Eyebright
<i>Geranium pyrenaicum</i>	Hedgerow Crane's-bill
<i>Hieracium vagum</i>	Shrubby Hawkweed
<i>Hieracium vulgatum</i>	Common Hawkweed
<i>Hirschfeldia incana</i>	Hoary Mustard
<i>Lactuca virosa</i>	Greater Lettuce
<i>Linaria purpurea</i>	Purple Toadflax
<i>Linaria vulgaris</i>	Common Toadflax
<i>Linum catharticum</i>	Fairy Flax
<i>Melilotus altissimus</i>	Tall Melilot
<i>Oenothera biennis</i>	Common Evening-primrose
<i>Pastinaca sativa</i>	Wild Parsnip
<i>Reseda lutea</i>	Wild Mignonette
<i>Reseda luteola</i>	Weld
<i>Sedum sp.</i>	Stonecrop sp.
<i>Senecio squalidus</i>	Oxford Ragwort
<i>Sisymbrium altissimum</i>	Tall Rocket
<i>Sisymbrium officinale</i>	Hedge Mustard
<i>Sisymbrium orientale</i>	Eastern Rocket
<i>Tanacetum vulgare</i>	Tansy
<i>Vulpia myuros</i>	Rat's-tail Fescue

Appendix 7

"A scoring system for the selection of sites with assemblages of amphibians"

Table 29, *Guidelines for the selection of biological SSSI's* (1989) Nature Conservancy Council

		Low Population	Good Population	Exceptional Population
Smooth Newt	Netted in day	<10	10-100	>100
Palmate Newt	Netted in day	<10	10-100	>100

Counted at night

Common Toad	Estimated	<500	500-5000	>5000
	Counted	<100	100-1000	>1000
Common Frog	Spawn clumps counted	<50	50-500	>500

Scores are for breeding sites, during the breeding season

Daytime netting should be made during a 15 minute period for sites with less than 50 metres of water's edge, for 30 minutes for sites with 50-100 metres etc