



Extended Phase One Habitat Survey of land near Saunderson Road in Penistone

Living Ecosystems was commissioned by the architects Nicol Thomas in September 2012 to carry out an Extended Phase One Habitat Survey on land in the vicinity of Saunderson Road in Penistone.

Planning Proposal

The current planning application is for the provision of 22 social housing units on behalf of Yorkshire Housing Ltd.



Habitat Survey Methodology

A detailed habitat survey of the site was undertaken on the 26th September 2012 during mild but very wet weather. The survey was carried out by Richard Parkinson a suitably experienced Ecologist.

All habitats were mapped and each habitat was separated where possible into compartments with a list of the plant species found in each.

Objective(s) of the botanical survey

The objectives of the survey were to assess the habitats and plant assemblages on site:-

- 1) Undertake a habitat survey of the site and the surrounding environs;
- 2) Identify the habitat and plant assemblages on the site.
- 3) Determine the likely presence/absence of any protected plant species or habitats on the site.

Site Location

The area surveyed consisted of former pasture, playing fields, woodland and a cemetery in the vicinity of Saunderson Road in Penistone.



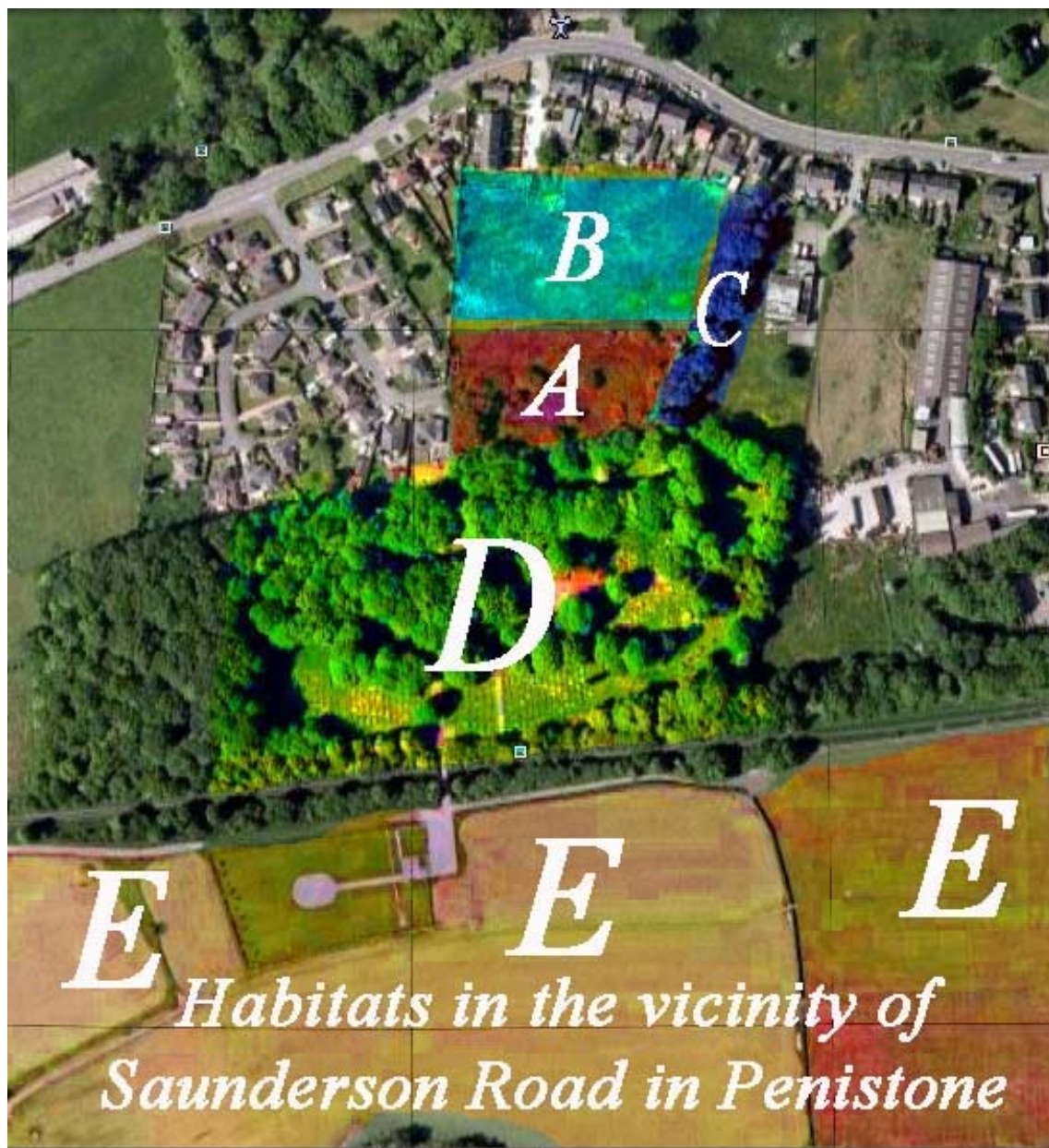
Location of the site off Saunderson Road in Penistone.

Habitat Survey Results

The following section presents the findings of the habitat survey. The habitats have been split into compartments and are shown on the map below. A detailed species list is included for each compartment using the DAFOR rating below.

DAFOR frequency ratings have used as follows :

- ☐ Dominant: the species appears at most (>60%) stops and it covers more than 50% of each sampling unit;
- ☐ Abundant: species occurs regularly throughout a stand, at most (>60%) stops and its cover is less than 50% of each sampling unit;
- ☐ Frequent: species recorded from 31-60% of stops;
- ☐ Occasional: species recorded from 11-30% of stops;
- ☐ Rare: species recorded from up to 10% of stops.



Habitat compartments on site adjacent to Saunderson Road, Penistone.

Compartment A – Abandoned smallholding

Compartment A is bounded by a dry stone wall about one metre tall to the south, and by fences to the east and west and by a stony bank about 1.5 metres tall to the north separating it from the adjacent cemetery. The northern portion of the compartment is clearly a disused and abandoned smallholding, a derelict shed/small wooden Dutch barn is present as are the remains of some disused animal pens and vegetable plots; all long abandoned and colonised by grasses and plant species typical of waste sites. The dominant habitat is rank grassland [Yorkshire fog and cocksfoot grasses predominating] forming well developed tussocks in some places. There are a variety of other species mostly typical of waste sites. The two most interesting plant species were ling [*Calluna vulgaris* - a heather] which occurs in the south of the compartment, and sneezewort [*Achillea ptarmica*] which occurs very rarely in the north of the compartment. There was some limited evidence for field voles in compartment A. Such evidence included tracks, burrows and resting places. This type of habitat does provide good foraging habitat for barn owls, kestrels and other rodent predators. There are however no nesting opportunities for barn owls on the site. There are no large trees on the site but there is a small quantity of goat-willow scrub and a few ash and elder saplings.



Compartment A



Compartment A



Ling [*Calluna vulgaris*] in compartment A

Common name	Latin name	Frequency
Japanese knotweed	<i>Fallopia japonica</i>	R
Cocksfoot grass	<i>Dactylis glomerata</i>	A
Common bent	<i>Agrostis capillaris</i>	O
Yorkshire fog grass	<i>Holcus lanatus</i>	A
False oat grass	<i>Arrhenatherum elatius</i>	F
Rosebay willowherb	<i>Chamaerion angustifolium</i>	O
Teasel	<i>Dipsacus fullonum</i>	O
Greater burdock	<i>Arctium lappa</i>	O
Soft rush	<i>Juncus effusus</i>	O
Red clover	<i>Trifolium pratense</i>	O
Birds foot trefoil	<i>Lotus corniculatus</i>	O
Hogweed	<i>Heracleum sphondylium</i>	O
Meadow vetchling	<i>Lathyrus pratensis</i>	O
Creeping thistle	<i>Cirsium arvense</i>	F
Stinging nettle	<i>Urtica dioica</i>	F
Bush vetch	<i>Vicia sepium</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Common sorrel	<i>Rumex acetosa</i>	F
Bramble	<i>Rubus fruticosus</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	O
Curled dock	<i>Rumex crispus</i>	O
Dandelion	<i>Teraxacum officinale</i>	O
Ribwort plantain	<i>Plantago lanceolata</i>	O
Field horsetail	<i>Equisetum campestre</i>	F
Sneezewort	<i>Achilea ptarmica</i>	R
Ash	<i>Fraxinus excelsior</i>	R
Hoary willowherb	<i>Epilobium parviflorum</i>	R
Wild raspberry	<i>Rubus idaeus</i>	R
Wild rose	<i>Rosa sp</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	R
Elder	<i>Sambucus nigra</i>	R
Goat willow	<i>Salix caprea</i>	R

Ling	<i>Calluna vulgaris</i>	R
Relative Abundance: D Dominant; A Abundant; F Frequent; O Occasional; R Rare; L Locally		

Compartment B – Tussock grass.

The compartment is bounded by a continuous dry stone wall about one metre tall. The dominant habitat is rank grassland [Yorkshire fog and cocksfoot grasses predominating] forming well developed tussocks. There are a variety of other species mostly typical of waste sites. The most interesting plant species is sneezewort [*Achillea ptarmica*] which was thinly scattered throughout the compartment. Once again there is evidence for field voles this time much more significant and indicating a large and thriving population. Such evidence included tracks, burrows and resting places. This type of habitat does provide good foraging habitat for barn owls, kestrels and other rodent predators. There are no nesting opportunities for barn owls on the site itself. There are no large trees on the site but there is a few ash and elder saplings. There was a small but very dense stand of wild raspberry canes in the northern portion of the compartment.



Compartment B



Dense stand of raspberry canes



Tussock grass



Vole burrow

Common name	Latin name	Frequency
Cocksfoot grass	<i>Dactylis glomerata</i>	A
Common bent	<i>Agrostis capillaris</i>	O
Yorkshire fog grass	<i>Holcus lanatus</i>	A
False oat grass	<i>Arrhenatherum elatius</i>	F
Reed canary grass	<i>Phalaris arundinacea</i>	O
Red clover	<i>Trifolium pratense</i>	O
Birds foot trefoil	<i>Lotus corniculatus</i>	O
Hogweed	<i>Heracleum sphondylium</i>	O
Meadow vetchling	<i>Lathyrus pratensis</i>	O
Creeping thistle	<i>Cirsium arvense</i>	F
Stinging nettle	<i>Urtica dioica</i>	F
Bush vetch	<i>Vicia sepium</i>	O
Creeping buttercup	<i>Ranunculus repens</i>	O
Common sorrel	<i>Rumex acetosa</i>	F
Bramble	<i>Rubus fruticosus</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	O
Curled dock	<i>Rumex crispus</i>	O
Dandelion	<i>Teraxacum officinale</i>	O

Ribwort plantain	<i>Plantago lanceolata</i>	O
Field horsetail	<i>Equisetum campestre</i>	F
Sneezewort	<i>Achillea ptarmica</i>	O
Ash	<i>Fraxinus excelsior</i>	R
Goat willow	<i>Salix caprea</i>	R
Hoary willowherb	<i>Epilobium parviflorum</i>	R
Wild raspberry	<i>Rubus idaeus</i>	R
Wild rose	<i>Rosa sp</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	R
Elder	<i>Sambucus nigra</i>	R
Relative Abundance: D Dominant; A Abundant; F Frequent; O Occasional; R Rare; L Locally		

Compartment C - Avenue of Trees

The road to the cemetery is flanked by a double row of mature sycamore trees [*Acer pseudoplatanus*] forming an impressive avenue. The avenue also contains smaller numbers of English yew [*Taxus baccata*] and small leaved lime trees [*Tilia cordata*] with occasional rhododendrons [*Rhododendron ponticum*].



Avenue of sycamores leading to the cemetery

Compartment D - The cemetery

The cemetery is a mixture of close mown turf and scattered trees. Grey squirrels and a range of common song bird species were plentiful but no protected species though lesser spotted woodpeckers are a possibility, but this should not affect any development on the neighbouring site.



Between the cemetery and the playing fields is a disused railway track running from east to west.



Beyond the cemetery and the railway track are playing fields with little ecological value.

Common name	Latin name	Frequency
Close mown turf	<i>Various grass species</i>	D
Beech	<i>Fagus sylvatica</i>	O
Bramble	<i>Rubus fruticosus</i>	O
Rosebay willowherb	<i>Chamerion angustifolium</i>	R
Cocks foot grass	<i>Dactylus conglomerata</i>	O
Elder	<i>Sambucus nigra</i>	O
Rhododendron	<i>Rhododendron ponticum</i>	O
Horse chestnut	<i>Aesculus hippocastanum</i>	O
Holly	<i>Ilex aquifolium</i>	O
Stinging nettle	<i>Urtica dioica</i>	O
Lime	<i>Tilia cordata</i>	F
Hoary willowherb	<i>Epilobium parviflorum</i>	O
Sycamore	<i>Acer psuedoplatanus</i>	F
Hogweed	<i>Heracleum sphondylium</i>	O
Ivy	<i>Hedera helix</i>	O
Irish yew	<i>Taxus baccata 'Fastigiata'</i>	R
Black pine	<i>Pinus nigra</i>	R
Relative Abundance: D Dominant; A Abundant; F Frequent; O Occasional; R Rare; L Locally		

Compartment E – Playing Fields

Compartment D comprises a large expanse of close mown amenity turf with hybrid ryegrasses dominating [*Lolium sp.*].



Alien species

There is a small stand of Japanese knotweed [*Fallopia japonica*] in compartment A [see figure below for location]. Measures should be taken to eradicate this before it spreads. At this early stage, two or three targeted treatments with a glyphosate based systemic herbicide during the growing season can be effective. Digging up the rhizomes is a common solution where the land is to be developed, as this is quicker than the use of herbicides, but disposal of the plant material is difficult. Japanese Knotweed material including soil containing rhizomes and rootlets is regarded as 'controlled waste' in the UK and not disposing of it properly would be an offence under the Environmental Protection Act, 1990. Japanese knotweed is extremely invasive and rootlets as small as 1 centimetre long can regenerate into new plants. For this reason control of the plant using this method should only be carried out by licensed operatives or contractors. In the UK, it is an offence under section 14(2) of the Wildlife and Countryside act 1981 to "plant or otherwise cause to grow in the wild" any plant listed in Schedule nine, Part II to the Act, which includes Japanese knotweed. Over £150m is spent annually in the UK on Japanese knotweed control.





The stand of Japanese knotweed on the site.

Reptile and amphibian potential

Some piles of rubble from a demolished garage could provide a possible resting place for reptiles; but far more significant is the dry stone wall encircling the site. This contains many voids and has real potential to provide resting and hibernation opportunities for reptiles and particularly common lizards if they are present on the site. I would recommend a reptile survey in this case. The site is ideal for smooth newts and common frogs, but not ideal for great crested newts [GCNs]. I was not able to find any ponds on or near the site despite looking, but need to do little more work to discount any ponds within a 500 metre radius for any GCNs to breed in. I cannot yet definitively discount their presence but it seems unlikely.



Piles of rubble from a demolished garage. This could provide a possible resting place for reptiles.



A dry stone wall surrounds the site. This is suitable for common lizards if present.



Standing water on the site. Keeping in mind this is after a month's rain in two days it is reasonable to suppose this is temporary. There were no aquatic plants which imply that the water dries out regularly.

The habitats on the site are summarized below.

- Compartment A- Abandoned smallholding waste ground.
- Compartment B –Rank tussock grass
- Compartment C – Avenue of trees
- Compartment D – Cemetery – turf and trees.
- Compartment E – Playing fields.

Impacts and recommendations

Only compartment A would be directly impacted by the proposed development. Any ecological impact on the other habitat compartments would be temporary or negligible. No protected or notable plant species were discovered during the course of the survey. However the habitat in compartment A supports a small population of field voles and may therefore be suitable as barn owl foraging habitat [Also kestrels and other predators of rodents]. Compartment B to the north supports a much larger and denser vole population of voles and will not be impacted by the proposals. The dry stone walls may be suitable as resting/hibernation sites for lizards. A reptile survey is recommended in this case. There is nesting potential for some birds species and particularly for ground nesting varieties in compartments B and A eg skylark. Ideally any works to clear vegetation **should not** be carried out during the breeding bird season which is March to August inclusive. If such clearance is essential during this period a breeding bird survey should take place immediately [ie a few days only] prior to any vegetation clearance or tree felling operation and further actions should be guided by the results. There appear to be no ponds within a 500 metre radius which are suitable as great crested newt breeding sites so no great crested newt impacts are anticipated. Common frogs and smooth newts are likely to be present but these are not specifically protected. Action should be taken to eradicate the stand of Japanese knotweed in compartment A, using a licensed knotweed contractor. The open woodland in the cemetery known as Stottercliffe wood provides very significant foraging opportunities for bats; and the strip of woodland at the edge of the cemetery neighbouring compartment A, could be used as a geographical marker by transiting bats. The edge of the woodland in the cemetery may also provide some additional foraging opportunities for bats in conjunction with the willow scrub in the northern portion of compartment A.

Other Impacts

Trees

Trees that are to be retained that are located outside the development site, but overhang the working area should have their root systems protected during development works. Tree protection works should extend 1 metre from the edge of the canopy and be in accordance with BS 5837:1980 Trees in relation to construction, guidelines.

Breeding Birds

The site has potential for a range of bird species including some significant ground nesting species such as skylark. It is also suitable as foraging habitat for barn owls. Works to clear vegetation **should not** be during the breeding bird season which is

March to August inclusive. Immediately [ie a few days only] prior to any vegetation clearance or tree felling operation during the nesting bird season a breeding bird survey should take place. If an active nest is identified this area should be left undisturbed until nesting activity has finished. It is an offence to disturb any nesting bird or its nest.

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