

**WILDLIFE SURVEY**  
**GRAVEYARD OF WAINSGATE BAPTIST CHAPEL**  
**AND**  
**WILCROFT DAM**

**Undertaken for the Wadsworth Environmental Society**

**April to November 2006**

**Charles Flynn**

**With valuable assistance from Colin Duke.**



## EVALUATION OF SURVEYS

The species identified in these surveys are listed under three main headings. These are dealt with separately below.

### Fauna

The birds, butterflies, grasshoppers and dragonflies have been thoroughly recorded on both sites. Many of the other invertebrates require specialists to identify them and with the exception of the aquatic species in Wilcroft Dam, where pond dipping was undertaken, this has not been attempted. Recording all the mammals on both sites would need frequent visits at night as well as during the day and Longworth traps would have to be set to identify and release the smaller species.

### Flora

The plants are the most exhaustively recorded species on these two sites and it is unlikely that many have been missed. However, almost a quarter of all the species in the graveyard have been planted and it is highly probable that some of these will disappear and be replaced by others. The composition of the flora on the Wilcroft Dam site is probably fairly stable, although changes to grazing levels and drainage measures would inevitably alter the structure of the plant communities and the relative status of the some of the species. Some of the plants could actually become locally extinct.

### Fungi and Lichens

It is almost impossible to say when a fungi survey is finished. However frequently a site is visited, new species, albeit in diminishing numbers, will continue to be found for ten to twenty years. This is largely because most of the fungal organism is invisible; all you can normally see is the spore producing structure ( fruit-body, sporocarp or sporophore ). Not all fungi produce these every year and some of them only last a few days, so it is often a matter of luck whether the recorders are in the right place at the right time to see them.

For this survey only the macrofungi have been recorded. The microfungi ( rusts, smuts etc. ) need special resources and often a lot of time to be identified.

With the exception of one *Cladonia* and one *Xanthoria* species, only the foliose and fruticose lichens have been identified. Most crustose lichens can only be identified by microscopic characteristics and often only certainly on the basis of their reaction to certain chemicals, some of which are dangerous. For an explanation of these terms see the second paragraph in the next section.

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## IMPORTANT CONSERVATION SPECIES IN THE GRAVEYARD

Two of the lichens in the graveyard, *Evernia prunastri* and *Usnea subfloridana*, are of local conservation importance. On this site they are mostly found on the line of sycamores along the wall that separates the graveyard from Moor End, although there are a few more on the trees amongst the graves above the chapel. As far as possible damage or destruction of these two species should be avoided.

There is as yet no systematic order in which lichens should be listed and even the most comprehensive identification guides present them alphabetically according to their scientific names. ( There are still no recognised English names ). However, lichens can be divided into three basic categories corresponding to their habit of growth. These are crustose ( encrusting ), foliose ( leafy ) and fruticose ( shrubby / bushy ). Those in the last category are most affected by air pollution and until well after the clean air legislation they were very rare in Calderdale. *Evernia* and *Usnea* are much commoner and more widespread in the area than they were even a few years ago, but they are still much rarer than the

foliose and crustose species. Their distinctive growth habits make them easily distinguishable from those in the other two categories.

Among the fungi the waxcaps and earthtongues are of greatest significance. They are confined to unimproved grassland, which is by no means a common habitat in Calderdale or Britain in general. Their exact requirements are still not very well understood and no attempt to cultivate waxcaps has yet been successful. In the graveyard these species have only been found amongst the grass close to the chapel entrance. It is consequently important that this small patch of habitat is not altered. None of the grassland species are common in rank grass, so mowing or grazing should be part of the management.

None of the plants in the graveyard are rare, although Cowberry is uncommon in Calderdale. It has a very scattered distribution and should therefore be preserved. The heathland area in general is quality habitat for a range of invertebrates and should as far as possible be kept as it is. Further invasion by trees is undesirable in this part of the graveyard and some management may be necessary to prevent it.

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## **WILDLIFE SURVEY**

### **GRAVEYARD OF WAINSGATE BAPTIST CHURCH**

**Charles Flynn**

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Grid Ref. SD 997.287    Area: c 0.6 ha

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#### **Description**

The site is approximately 290m above sea level and close to Midgley Moor. Most of the land is on a low gradient west facing slope, although the area nearest to Wainsgate Lane is almost flat. It is bounded by railings along the western side and by dry stone walls along the others. None of it is waterlogged and most of it appears to be fairly well drained. The presence of Cowberry and absence of liverworts are indicative of this.

Sycamores have been planted in lines in front of the main entrance to the chapel and along the boundary wall with Moor End and some self seeded trees have grown up amongst the grave stones. This tree was introduced from the Balkans in Tudor times and is now widely naturalised, especially in the north-west of England. There is also a Privet hedge along part of the railings and some other non-native bushes have been planted. However, in its present condition the vegetation on the site can be considered at least semi-natural. More than a quarter of the site presently consists of quality heathland. This is on the higher ground and is not dissimilar to the vegetation on the other side of the wall.

From an ecological viewpoint the graveyard can be divided into four habitat types: heath, mown grass, bushes and trees, and bare rock. I will deal with these individually.

The heath is the most natural of these habitats. Heather and Bilberry are co-dominants and there is a significant amount of Cowberry. The first two are widespread in Calderdale, but Cowberry has a very scattered distribution here. It is very rare on the moorland and is only generally found on better drained and often rocky ground, frequently as an under-shrub with bilberry. It is an evergreen and best found

in winter or spring before bilberry is in leaf. There is a small amount of Purple Moor-Grass, but this part of the site is generally too dry to be described as moor and is better regarded as heathland.

To the right of the gate there is a small area of mown grass with no graves or other features. This is probably of the least ecological interest, although it will be used by feeding birds. Interesting fungi were only found in the area nearest to the chapel.

The area where most of the graves are situated is developing into scrub and would eventually become woodland, if left to nature. In its present condition it probably harbours more biodiversity than any other part of the site.

The bare rock is almost entirely a man made habitat comprising the dry stone walls and the gravestones themselves. Much of it is quite densely covered with lichen and moss. Some of the lichens are probably several decades old.

70 species of vascular plants have been identified, of which 13 are planted or self-sown aliens. However, native herbs, shrubs and mosses cover most of the ground and make up nearly all the vegetation. The only ecologically significant alien species are the Sycamores and Rhododendrons.

As has already been mentioned, the Sycamore is a long established part of Britain's flora and although not always desirable, it provides habitat for mosses and lichens as well as aphids and other invertebrates, which are in turn a food source for birds. Rhododendrons on the other hand support practically no other wildlife.

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### **Organisation of the Species Lists**

The animals are all listed under Fauna as birds, mammals and insects. No reptiles or amphibians were found and no invertebrates other than insects were identified. However, molluscs (snails, slugs etc.) and arachnids (spiders, harvestmen and mites) can be assumed to be here.

Under Flora I have listed the trees and bushes separately. There is no botanical reason for doing this, but given their comparative size and influence on the structure of the habitat, it is usually convenient to separate them from the rest of the species.

Fungi and lichens appear together in their own list. Lichens are now regarded as basically fungi in a mutually beneficial relationship (symbiosis) with an alga, a bacterium or both. Fungi used to be regarded as plants, but they are different in almost every respect and are now placed in a different kingdom.

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### **Dates and Weather**

16/04/06: cloudy with sunny spells, fresh westerly wind, mild to warm, c 13° C.

10/06/06: bright, but cloud developing, fresh to strong westerly wind, warm, c 17° C.

24/06/06: bright and warm, light breeze.

15/07/06: bright and warm, light easterly breeze, c 21° C.

10/09/06: bright and warm, light south-easterly breeze, c 21° C.

17/09/06: bright and sunny, slowly clouding over, light westerly breeze, warm, c 20° C.

23/09/06: overcast, misty, light southeasterly breeze, cool.

16/10/06: overcast, misty, light southeasterly breeze, cool.

04/11/06: overcast, low cloud and slight drizzle at times, light westerly breeze, cool, c 10° C.

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## Species Lists

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### Section 1 - Fauna

#### Abbreviations

| ♂ - male ♀ - female ≥ - at least c - approximately

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#### Birds

Three species in this list, buzzard, rook and raven, were only seen in the air over the graveyard and they are unlikely to land, hunt, or forage here.

*Buteo buteo* - Common Buzzard

17/09: 2 soaring over the graveyard, rose to great height.

*Accipiter nisus* - Sparrowhawk

17/09: 1♀ soaring over graveyard.

| *Phasianus colchicus* - Pheasant

| 16/04 & 10/06: ≥ 2♂ calling, 1 seen.

| *Hirundo rustica* - Swallow

| 16/04 & 10/06: ≥ 2 hawking overhead.

*Prunella modularis* - Dunnock

16/04 & 10/06: 2 in Wainsgate Lane and foraging in the graveyard hedge.

| *Troglodytes troglodytes* - Wren

| 16/04 & 10/06:  $\geq 2$  in the graveyard, 1 singing, probably breeding.

| *Turdus merula* - Blackbird

16/04 & 10/06: 2 ( $\delta & \varphi$ ), male singing, probably breeding here or nearby. 16/07: c 6 in the graveyard, feeding on bilberries.

*Turdus iliacus* - Redwing

04/11: 8 flew at tree top height over the graveyard - may have landed later.

*Turdus viscivorus* - Mistle Thrush

04/11: 1 in trees.

*Turdus pilaris* - Fieldfare

04/11: 4 landed briefly in sycamores.

| *Erithacus rubecula* - Robin

16/04: 1 flying into a holly tree was probably feeding young. 10/06: 1 singing. 10/09: 2 singing.

*Sylvia atricapilla* - Blackcap

10/06: 1 singing - breeding possible.

*Phylloscopus trochilus* - Willow Warbler

15/07: 2 foraging in scrub. Not seen or heard earlier in year, so probably did not breed in area.

| *Parus major* - Great Tit

16/04 & 10/06:  $\geq 2$  in the graveyard. 16/07: several, probably including this year's brood. 10/09: several.

*Certhia familiaris* - Treecreeper

Reported by resident at Moor End

| *Garrulus glandarius* - Jay

16/04: 1 in the area.

*Corvus corax* - Raven

17/09: 1 flying with the buzzards, calling continuously.

| *Corvus frugilegus* - Rook

**Deleted:**

16/04: 6 birds flew over the graveyard to feeding areas on farmland, probably came from rookeries in Hebden Bridge and unlikely to use the churchyard. 16/09: c 10 in area.

| *Fringilla coelebs* - Chaffinch

16/04, 10/06: 1♂ singing in and around the graveyard. 15/07: 1♂ present. No female was seen, so breeding status is unclear.

| *Carduelis chloris* - Greenfinch

16/04, 10/06 & 15/07: ≥ 6 birds in and around the graveyard, ≥ 2 singing. Obviously breed nearby and forage in the graveyard.

| *Carduelis carduelis* - Goldfinch

10/06: 1 singing from cables over the heath in the churchyard.

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## **Mammals**

*Sciurus carolinensis* - Grey Squirrel

23/09: 1 in the graveyard.

*Apodemus sylvaticus* - Woodmouse

10/09: a hole by one of the paths was almost certainly made by this species.

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## **Insects**

**Odonata** ( damsel and dragonflies )

*Pyrrhosoma nymphula* - Large Red Damselfly

10/06: c 6 in the graveyard, some mating, others in Wainsgate Lane. The larvae live in water, so this species cannot have bred in the graveyard. There must be a pond somewhere nearby.

**Orthoptera** ( grasshoppers, crickets etc. )

*Omocetrus viridulus* - Common Green Grasshopper

10/09: several stridulating.

**Lepidoptera** ( butterflies and moths )

*Pieris napi* - Green-veined White

10/06: ≥ 1. 10/09: 1.

*Inachis io* - Peacock Butterfly

16/04: 1 overwintered adult in good condition Deleted:

*Polygona c-album* - Comma

17/09: 1 opposite graveyard in Wainsgate Lane.

*Lycaena phlaeas* - Small Copper

10 & 17/09: 1.

*Lasiommata megera* - Wall Brown

10/09: ≥ 1.

*Pararge aegeria* - Speckled Wood

10/09: ≥ 2. 17/09: 3. 24/09: 1.

*Ematurga atomaria* - Common Heath (Moth)

10/06: frequent around bilberry and heather

*Xanthorhoe montanata* - Silver-Ground Carpet

10/06: 1 geometer moth seen in the graveyard was probably this species.

*Autographa gamma* - Silver Y

10/09: ≥ 1.

**Hymenoptera** ( bees, ants, sawflies etc. )

| *Bombus terrestris* - Buff-tailed Bumblebee 

**Deleted:** ..

16/04: 1 queen. 10/06: c 2 queens and workers. Workers seen on all subsequent visits.

Ichneumonidae - A parasitic wasp

10/06: 1, could not be identified to species.

#### **Diptera ( all true flies )**

Craneflies and Hoverflies were abundant 10/09/06, but it needs specialists to identify them.

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## **Section 2 - Flora**

### **Abbreviations**

d - dominant a - abundant f - frequent o - occasional r - rare l - local(ly) v - very

sp - species cult - cultivar P - planted

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### **Bryophyta: Mosses (and Liverworts) [ 9 spp.]**

Note: all these plants are mosses; no liverworts were found.

<i>Polytrichum commune</i>	Common Haircap	vlf
<i>Atrichum undulatum</i>	Common Smoothcap	r.
<i>Bryum capillare</i>	Capillary Thread-Moss	vlf
<i>Tortula muralis</i>	Wall Screw-Moss	o.
<i>Grimmia pulvinata</i>	Grey Cushion Grimmia	lf
<i>Ulota bruchii</i>	Bruch's Pincushion	vlf
<i>Thuidium tamariscinum</i>	Common Tamarisk-Moss	f-la
<i>Brachythecium rutabulum</i>	Rough-stalked Feather-Moss	a.
<i>Rhytidiodelphus squarrosus</i>	Springy Turf-Moss	f-la

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### **Pterophyta: Horsetails and Ferns etc. [ 4 spp.]**

<i>Equisetum arvense</i>	Field Horsetail	o-lf
<i>Athyrium filix-femina</i>	Lady Fern	f.
<i>Dryopteris dilatata</i>	Broad Buckler-Fern	vl
<i>D. filix-mas</i>	Male fern	o-lf

### Gymnospermae: Conifers etc. [ 1 sp. ]

<i>Cupressus sp</i>	Cypress sp	r.	P
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### Dicotyledons 1: Trees and Bushes [ 10 spp. ]

<i>Betula pendula</i>	Silver Birch	r
<i>B. pubescens</i>	Downy Birch	o-lf
<i>Quercus petraea</i>	Durmast (Sessile) Oak	r
<i>Sambucus nigra</i>	Elder	o
<i>Fraxinus excelsior</i>	Ash	r
<i>Sorbus aucuparia</i>	Rowan	lf
<i>Acer pseudoplatanus</i>	Sycamore	f
<i>Ilex aquifolium</i>	Holly	o
<i>Ligustrum ovalifolium</i>	Garden Privet	o
<i>Rhododendron ponticum</i>	Rhododendron	vlf

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### Dicotyledons 2: Herbs and Shrubs [ 38 spp. ]

<i>Ranunculus acris</i>	Meadow Buttercup	lf
<i>R. repens</i>	Creeping Buttercup	lf
<i>Mecanopsis cambrica</i>	Welsh Poppy	vl
<i>Urtica dioica</i>	Common (Stinging) Nettle	o-lf
<i>Cerastium fontanum</i>	Common Mouse-ear	r.
<i>Rumex acetosa</i>	Common Sorrel	lf
<i>Cardamine flexuosa</i>	Wavy Bittercress	r.
<i>Calluna vulgaris</i>	Heather	ld
<i>Vaccinium myrtillus</i>	Bilberry	ld
<i>V. vitis-idaea</i>	Cowberry	lf

<i>Saxifraga x urbium</i>	London Pride	o.	P
<i>Rosa canina</i>	Dog Rose	r.	
<i>Rubus fruticosus</i>	Bramble	lf	
<i>R. idaeus</i>	Raspberry	lf	
<i>Potentilla erecta</i>	Tormentil	lf	
<i>Lathyrus pratensis</i>	Meadow Vetchling	r.	
<i>Vicia cracca</i>	Tufted Vetch	r.	
<i>Epilobium montanum</i>	Broad-leaved Willowherb	f.	
<i>Chamerion angustifolium</i>	Rosebay Willowherb	lf	
<i>Hedera helix</i>	Ivy	lf	
<i>Ribes rubrum</i>	Redcurrant	r.	
<i>Geranium endressii</i>	French Cranesbill	r.	P
<i>Heracleum sphondylium</i>	Hogweed	lf	
<i>Conopodium majus</i>	Pignut	r	
<i>Heracleum sphondylium</i>	Hogweed	lf	
<i>Pulmonaria longifolia</i> cult.	Mawson's Blue Lungwort	r.	P
<i>Digitalis purpurea</i>	Foxglove	vlf	
<i>Veronica chamaedrys</i>	Germander Speedwell	vlf	
<i>Plantago lanceolata</i>	Ribwort Plantain	f.	
<i>Galium saxatile</i>	Heath bedstraw	o-la	
<i>Lonicera periclymenum</i>	Honeysuckle	r.	
<i>Bellis perennis</i>	Daisy	o.	
<i>Senecio jacobaea</i>	Common Ragwort	o.	
<i>Taraxacum officinale</i> agg	Common Dandelion	o.	
<i>Hypochaeris radicata</i>	Common Catsear	vlf	
<i>Hieracium sabaudum</i>	A Leafy Hawkweed	vlf	
<i>Pilosella aurantica</i>	Orange Hawkweed / Fox and Cubs	vlf	P
<i>P. officinarum</i>	Mouse-ear Hawkweed	lf	

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### Monocotyledons: all herbs [ 17 spp.]

<i>Hyacinthoides non-scriptus</i>	Garden (Spanish) Bluebell	lf	P
<i>Narcissus pseudonarcissus</i>	Daffodil	o.	P
<i>Lilium pyrenaicum</i>	Pyrenean Lily	o.	P
<i>Convallaria majalis</i>	Lily of the Valley	o.	P
<i>Crocus x stellaris</i>	Dutch Crocus	r	P
<i>Luzula multiflora</i>	Heath Wood-Rush	r.	
<i>Festuca ovina</i>	Sheep's Fescue	lf	
<i>F. rubra</i>	Red Fescue	lf	
<i>Poa pratensis</i>	Smooth Meadow-Grass	f.	
<i>P. trivialis</i>	Rough Meadow-Grass	lf	
<i>Dactylis glomerata</i>	Cocksfoot	lf	
<i>Anthoxanthum odoratum</i>	Sweet Vernal-Grass	lf	
<i>Holcus mollis</i>	Creeping Soft-Grass	o-lf	
<i>Deschampsia flexuosa</i>	Wavy Hair-Grass	lf	
<i>Agrostis capillaris</i>	Common Bent	f	
<i>Molinia caerulea</i>	Purple Moor-Grass	f.	
<i>Nardus stricta</i>	Mat-Grass	r.	

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### Section 3 - Fungi and Lichens

**Fungi** ( 21 spp. ) The identification of some of these species was confirmed by Colin Duke.

Note: all are associated with trees or dead wood unless otherwise stated.

<i>Leccium versipelle</i>	Orange Birch-Bolete	r
<i>Amanita muscaria</i>	Fly Agaric	o.
<i>Collybia confluens</i>	Clustered Toughshank	lf.
<i>C. dryophila</i>	Russet Toughshank	o.
<i>C. peronata</i>	Wood Woollyfoot	lf.
<i>Mycena filopes</i>	Iodine Bonnet	r.

<i>Hygrocybe chlorophana</i>	Golden Waxcap	r & l
grass		
<i>H. psittacina</i>	Parrot Waxcap	r & l
grass		
<i>H. russocoriacea</i>	Cedarwood Waxcap	r & l
grass		
<i>H. virginea ( nivea )</i>	Snowy Waxcap	r & l
grass		
<i>Russula atropurpurea</i>	Purple Brittlegill	o.
<i>Entoloma chalybaeum</i>	Indigo Pinkgill	r.
grass		
<i>E. conferendum</i>	Star Pinkgill	o.
grass		
<i>Galerina pumila</i>	Dwarf Bell	o.
moss		
<i>Bolbitius vitellinus</i>	Yellow Fieldcap	r.
grass		
<i>Paxillus involutus</i>	Brown Rollrim	lf
<i>Inocybe cookei</i>	Straw Fibrecap	vlf      litter
<i>Psathyrella hydrophila</i>	A Britlestem	vlf
<i>Piptoporus betulinus</i>	Birch Polypore	vlf
<i>Cordyceps militaris</i>	Scarlet Caterpillarclub	r.
pupae *		
<i>Rhytisma acerinum</i>	Tar Spot [on Sycamore leaves]	a.
<i>Claviceps purpurea</i>	Ergot [on grass flowers]	r.

\* grows on buried dead moth pupae

*Cortinarius stillatitius* ( syn. *C. pseudosalor* ) Purple Stocking Webcap: two colonies were found 19/09/06 in the rear garden of Moor End and identified as this species by Colin Duke. The graveyard had just been mown and this would have destroyed these fungi. They may well appear here later.

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**Lichens ( 9 spp. )**

**Fruticose ( shrubby ) Species**

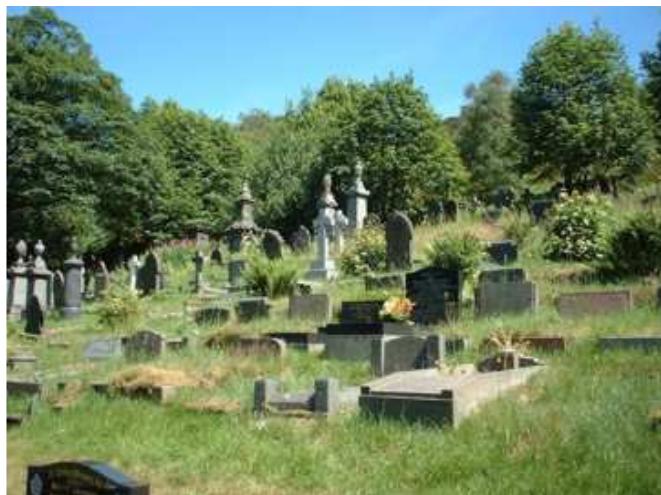
<i>Evernia prunastri</i>	o-lf
<i>Usnea subfloridana</i>	o.

**Foliose ( leafy ) Species**

<i>Hypogymnia tubulosa</i>	o-lf
<i>Parmelia caperata</i>	o.
<i>P. saxatilis</i>	f-la
<i>P. sulcata</i>	lf
<i>Peltigera polydactyla</i>	r.
<i>Platismatia glauca</i>	o.

#### Crustose ( encrusting ) Species

<i>Xanthoria parietina</i>	o.
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Wainsgate Graveyard



Cowberry 2, Wainsgate Graveyard



Cowberry, Wainsgate Graveyard



Wainsgate Graveyard

[\*\*Wildlife Survey\*\*](#)

[\*\*WILCROFT DAM\*\*](#)

[\*\*Charles Flynn\*\*](#)

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**Grid Ref. SD 999.302 Area 2.75 ha**  
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## **Description**

The site is approximately 360 m above sea level with a slight to moderate gradient towards the south-west, and consists of a small field enclosed by dry stone walls, within which there is a small pool known as Wilcroft Dam. There is improved pasture on three sides, although sheep grazed moorland lies beyond the upper wall. It is marked as access land on Ordnance Survey Explorer Map OL21 and appears to have been regarded as an extension of Midgley Moor.

## **The Field**

The vegetation is fairly typical of upland grassland ( NVC\* U4 ) in Calderdale, although White Clover may well have been sown at some time in the past. There are also some natural damp hollows with Bog-Mosses, Sedges and Cross-leaved Heath ( NVC U6 ) on the higher part of the field and some small areas of marsh, with Soft Rush, Marsh Foxtail, Marsh Willowherb and Marsh Thistle ( NVC MG10 & 13 ) towards the lower end and along the south-eastern edge. There are no rare plants here, but some of the fungi are confined to unimproved grassland and therefore of conservation importance.

Natural water courses have been manipulated using heavy machinery and some parts of the field currently look very untidy. However, there is little evidence of serious overgrazing ( the rushes have not often been eaten and Mat-Grass is rare ), but some places have been heavily trampled by cattle.

## **The Pool**

This is situated near the upper end of the field and was created by damming a small stream which runs off the moor proper. It is more or less rectangular and has an approximate surface area of 1,900 m<sup>2</sup>. The water is quite acidic with a pH of about 5 and the colour of the stream suggests it is carrying iron leached out of the bedrock. However, the range of invertebrates found in the pool by Colin Duke and myself 23/09/06 indicates that there is no significant organic pollution or eutrophication. These species are emerald and common blue damselflies, common backswimmer, lesser water boatman, 2 caddis fly larvae, and a water beetle. They are all listed with their scientific names under Fauna. Although they were not found, water fleas must also be in the pool, because these are the main prey of the water bugs. More species might have been found if we had used grab samplers. These would be mainly detritus feeders, but the bottom of the pool is mainly gravel and Colin Duke does not think there would have been very many of them.

\* National Vegetation Classification

## **Organisation of the Species Lists**

The animals are all listed under Fauna as vertebrates and invertebrates. The vertebrates are all listed together, because there are not enough species to justify dividing the list into sub-categories. The invertebrates are divided into crustaceans ( one species ) and insects, which are further divided into families. No other invertebrates were identified, but molluscs ( snails, slugs etc. ) and arachnids ( spiders, harvestmen and mites ) can be assumed to be here.

All the plants are listed under Flora and the lichens appear under Fungi. For an explanation of this see the equivalent section in the graveyard survey.

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## **Dates and Weather**

10/06/06: bright, but cloud developing, fresh to strong westerly wind, warm, c 17° C.

15/07/06: bright and warm, light easterly breeze, c 21° C.

10/09/06: bright and warm, light southeasterly breeze, c 21° C.

17/09/06: overcast, westerly breeze strengthening, still, warm.

23/09/06: overcast, light southeasterly breeze, cool, gradually brightening and becoming warm.

16/10/06: overcast, misty, brightening slowly, fresh easterly breeze. Mild out of the wind.

04/11/06: overcast, low cloud and slight drizzle at times, light westerly breeze, cool, c 10° C.

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## **Species Lists**

### **Section 1 - Fauna**

#### **Abbreviations**

| ♂ - male ♀ - female ≥ - at least c - approximately sp. - species

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#### **Invertebrates** ( not all are identified to species )

##### **Crustaceans**

Cladocera - Water Fleas

23/09/06: not found, but main prey of water bugs so must be here.

##### **Insects**

##### **Odonata** ( damsel and dragonflies )

*Lestes sponsa* - Emerald Damselfly

15/07/06: 2 seen, both resting in rushes by the pool. 24/09: 1 old insect found.

*Enallagma cyathigerum* - Common Blue Damselfly

15/07/06: ≥ 8 around the pool.

*Aeshna juncea* - Common Hawker

Reported by the grazier.

**Orthoptera** ( grasshoppers, crickets etc )

*Omocestrus viridulus* - Common Green Grasshopper

15/07/06: several stridulating, common in the area. 09/09/06: several stridulating.

**Hemiptera** ( bugs )

*Notonecta glauca* - Common Backswimmer / Water Boatman

24/09/06: frequent in the pool ( 17 caught and released ).

*Corixa* sp. - Lesser Water Boatmen

24/09/06: frequent in the pool ( 12 caught and released ).

**Trichoptera** ( caddis flies )

*Grammotaulinus nigropunctatus* - Caddis Fly sp.

24/09/06: 3 caught in the pool and released.

*Phryningia grandis* - Caddis Fly sp.

24/09/06: 1 caught in the pool and released.

**Lepidoptera** ( butterflies and moths )

*Pieris napi* - Green-veined White

15/07/06: 1 in flight. 10/09/09: 1 in flight.

*Lycaena phlaeas* - Small Copper

09/09/06: 1 feeding at heather flowers

*Maniola jurtina* - Meadow Brown

15/07/06: c 10 in the field, common in the area.

*Coenonympha pamphilus* - Small Heath

15/07/06: c 6 in the field, common in the area.

*Melanchra pisi* - Broom Moth

23/09/06: 1 large, rather torpid caterpillar found on the ground – probably about to pupate.

*Autograophha gamma* - Silver Y

09/09/06: ≥ 2.

**Coleoptera** ( beetles )

*Ilybius ater* - Water Beetle sp. ( Dytiscidae ) a mud dweller found in peaty water.

24/09/06: 4 caught in the pool and released.

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### Vertebrates

*Rana temporaria* - Common (Grass) Frog

15/07/06: 1 large animal by the dam.

*Lacerta vivipera* - Common Lizard

15/07/06: 1♂ climbing on the wall near the style.

*Branta canadensis* - Canada Goose .

10/06/06 & 15/07/06: 3 around the dam and on the water.

*Vanellus vanellus* - Lapwing

15/07/06: 2 landed by the dam and stayed briefly.

*Larus ridibundus* - Black-headed Gull

04/11/06: 2 on the pool.

*Anthus pratensis* - Meadow Pipit

10/06/06: 1 on the grass. 09/09/06: 8. 17/09/06: 1. 24/09/06: 2. 16/10/06: 1. 04/11/06: 2.

*Montacilla alba* - Pied Wagtail

15/07/06: 1♂ feeding briefly.

*Carduelis flavirostris* - Twite

16/10/06: 1 flew over.

*Oryctolagus cuniculus* - Wild Rabbit

15/07/06: 1 adult in the field. A small warren was also found, but did not appear to be in use. Young animals were in fields nearby. 09/09/06: 2 flushed and ran into neighbouring field. 17/09/06: as 09/09. 16/10/06: 4 flushed. 01/11/06: 1.

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## Section 2. Flora

### Abbreviations

d - dominant a - abundant f - frequent o - occasional r - rare l - local(ly) v - very

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### Bryophyta ( mosses and liverworts ) 7 spp.

<i>Polytrichum commune</i>	Common Haircap	o-lf
<i>Sphagnum denticulatum</i>	Cowhorn Bog-Moss	o-lf
<i>Dicranella heteromalla</i>	Silky Forklet-Moss	o. stone
<i>Grimmia trichophylla</i>	Hair-pointed Grimmia	o. stone
<i>Tortula muralis</i>	Wall Screw-Moss	o. stone
<i>Pleurozium scheberi</i>	Red-stemmed Feather-Moss	o-lf
<i>Scapania undulata</i>	Water Earwort	vlf becks

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### Pteridophyta ( ferns etc. ) 2 spp.

<i>Athyrium filix-femina</i>	Lady Fern	vl
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<i>Dryopteris dilatata</i>	Broad Buckler Fern	vlf
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**Dicotyledons ( all herbs and shrubs ) 17 spp**

<i>Stellaria media</i>	Common Chickweed	o-vlf
<i>Cerastium fontanum</i>	Common Mouse-ear	o.
<i>Ranunculus acris</i>	Meadow Buttercup	f.
<i>R. repens</i>	Creeping Buttercup	o-lf
<i>Calluna vulgaris</i>	Heather / Ling	lf
<i>Erica tetralix</i>	Cross-leaved Heath	r & l
<i>Vaccinium myrtillus</i>	Bilberry	lf
<i>Trifolium pratense</i>	Red Clover	o.
<i>T. repens</i>	White Clover	f. P?
<i>Epilobium palustre</i>	Marsh Willowherb	o-vlf
<i>Fraxinus excelsior</i>	Ash	r (1)
<i>Prunella vulgaris</i>	Self-Heal	o.
<i>Galium saxatile</i>	Heath Bedstraw	f.
<i>Senecio jacobaea</i>	Common Ragwort	o.
<i>Cirsium arvense</i>	Creeping Thistle	o-vld
<i>C. palustre</i>	Marsh Thistle	r.
<i>C. vulgare</i>	Spear Thistle	o.

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**Monocotyledons ( all herbs ) 15 spp.**

<i>Juncus bulbosus</i>	Bulbous Rush	vlf
<i>J. effusus</i>	Soft Rush	f-lf
<i>J. squarrosum</i>	Heath Rush	o-lf
<i>Luzula campestris</i>	Field Wood-Rush	o.
<i>Trichophorum cespitosum</i>	Deersedge	o-lf
<i>Eriophorum vaginatum</i>	Harestail Cotton-Sedge	lf
<i>Carex nigra</i>	Common Sedge	o-lf
<i>Festuca ovina</i>	Sheep's Fescue	o-lf
<i>Anthoxanthum odoratum</i>	Sweet Vernal-Grass	o.

<i>Holcus lanatus</i>	Yorkshire Fog	o.
<i>Deschampsia flexuosa</i>	Wavy Hair-Grass	f.
<i>Agrostis capillaris</i>	Common Bent	f.
<i>Alopecurus geniculatus</i>	Marsh Foxtail	vlf
<i>Molinia caerulea</i>	Purple Moor-Grass	f.
<i>Nardus stricta</i>	Mat-Grass	r.

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### Section 3 - Fungi and Lichens

**Fungi** ( 23 spp ) The identification of some of these species was confirmed by Colin Duke.

Note: all species were found with the grasses unless stated otherwise.

<i>Marasmius androsaceus</i>	Horsehair Parachute	o.
<i>Mycena epityrygia</i>	Yellowleg Bonnet	o.
<i>M. leucogala</i>	Bonnet sp.	o.
<i>M. megaspora</i> syn. <i>M. uracea</i>	Bonnet sp.	o. heather
<i>Rickenella fibula</i>	Orange Mosscap	o. moss
<i>Hygrocybe reidii</i>	Honey Waxcap	o.
<i>Hygrophoropsis aurantiaca</i>	False Chanterelle	r.
<i>Tephrocybe palustris</i>	Sphagnum Greylings	r. moss
<i>Entoloma chalybaeum</i>	Indigo Pinkgill	lf
<i>E. conferendum</i>	Star Pinkgill	lf
<i>E. porphyrophaeum</i>	Lilac Pinkgill	o.
<i>E. serrulatum</i>	Blue-edge Pinkgill	o.
<i>Galerina pumila</i>	Dwarf Bell	o. moss
<i>Hypholoma udum</i>	Peat Brownie	o-lf
<i>Stropharia semiglobata</i>	Dung Roundhead	lf dung
<i>Psilocybe semilanceata</i>	Liberty Cap / Magic Mushroom	o.
<i>Coprinus niveus</i>	Snowy Inkcap	o. dung
<i>C. patouillardii</i>	Inkcap sp.	lf dung

<i>Panaeolus papilonaceus ( sphinctrinus )</i>	Fringed Mottlegill	lf	dung
<i>P. papilonaceus</i> var. <i>parvisporus</i>	Bell-shaped Mottlegill	lf	dung
<i>P. semiglobata</i>	Egghead Mottlegill	lf	dung
<i>Vascellum pratense</i>	Meadow Puffball	o.	
<i>Trichoglossum hirsutum</i>	Hairy Earthtongue	r.	
<b>Lichen ( 1 sp. )</b>			
<i>Cladonia chlorophaea</i>		r	stone



Cross-leaved Heath, Wilcroft Dam



Lilac Pinkgill, Wilcroft Dam



Snowy Inkcap, Wilcroft Dam

## Wildlife Seen in the Surrounding Area

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### Butterflies

*Lycaena phlaeas* - Small Copper

10/09/06: ≥ 2 along the lane to Plumpton Cottage.

*Polygona c-album* - Comma

17 & 23/09/06: 1 on brambles opposite the graveyard in Wainsgate Lane.

*Vanessa atalanta* - Red Admiral

15/07, 10/09, 13/09 & 16/10/06: ≥ 1 between the two survey sites.

*Aglais urtica* - Small Tortoiseshell

10/06/06: 1 near Plumpton Cottage. 10/09/06: 1 in Slack House Lane

*Lasiomata megera* - Wall Brown

15/07/06: 1 in Wainsgate Lane

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### Birds

*Buteo buteo* - Common Buzzard

10/06/06: 1 flying fast in the wind, outpaced curlews trying to mob it. Disappeared in the direction of Crimsworth Dean.

*Falco tinnunculus* - Kestrel

10/09/06: 1♀ hunting near Slack Farm.

*Pluvialis apricaria* - Golden Plover

18/03/06: ≥ 20 feeding on the field immediately north of Wilcroft Dam. This was before the surveys started.

*Columba livia* - Stock Dove

10/06 & 15/07: 2 flew fast and low past Plumpton Cottage.

*Apus apus* - Swift

10/06/06: 2 in the area.

*Alauda arvensis* - Skylark

Birds singing over the moor in spring and early summer.

*Hirundo rustica* - Swallow

16/04/06: 2, 10/06/06:  $\geq 6$ , 10/09/06: 14 - mainly over farmland.

*Turdus iliacus* - Redwing

18/03/06: c 12 on fields by Akroyd Lane. This was before the surveys started.

*Corvus monedula* - Jackdaw

Feeding flocks often seen on farmland.

*Sturnus vulgaris* - Starling

10/09/06:  $\geq 70$  with jackdaws on fields near the dam.

*Carduelis carduelis* - Goldfinch

17/09/06: 3 feeding by the lane to Delf End Farm.

*Carduelis flavirostris* - Twite

10/09: 47 & 17/09/06: 24 on cables and on the ground at Slack Farm.

17 & 23/09/06: c 30 near the Mount Skip Pub.

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