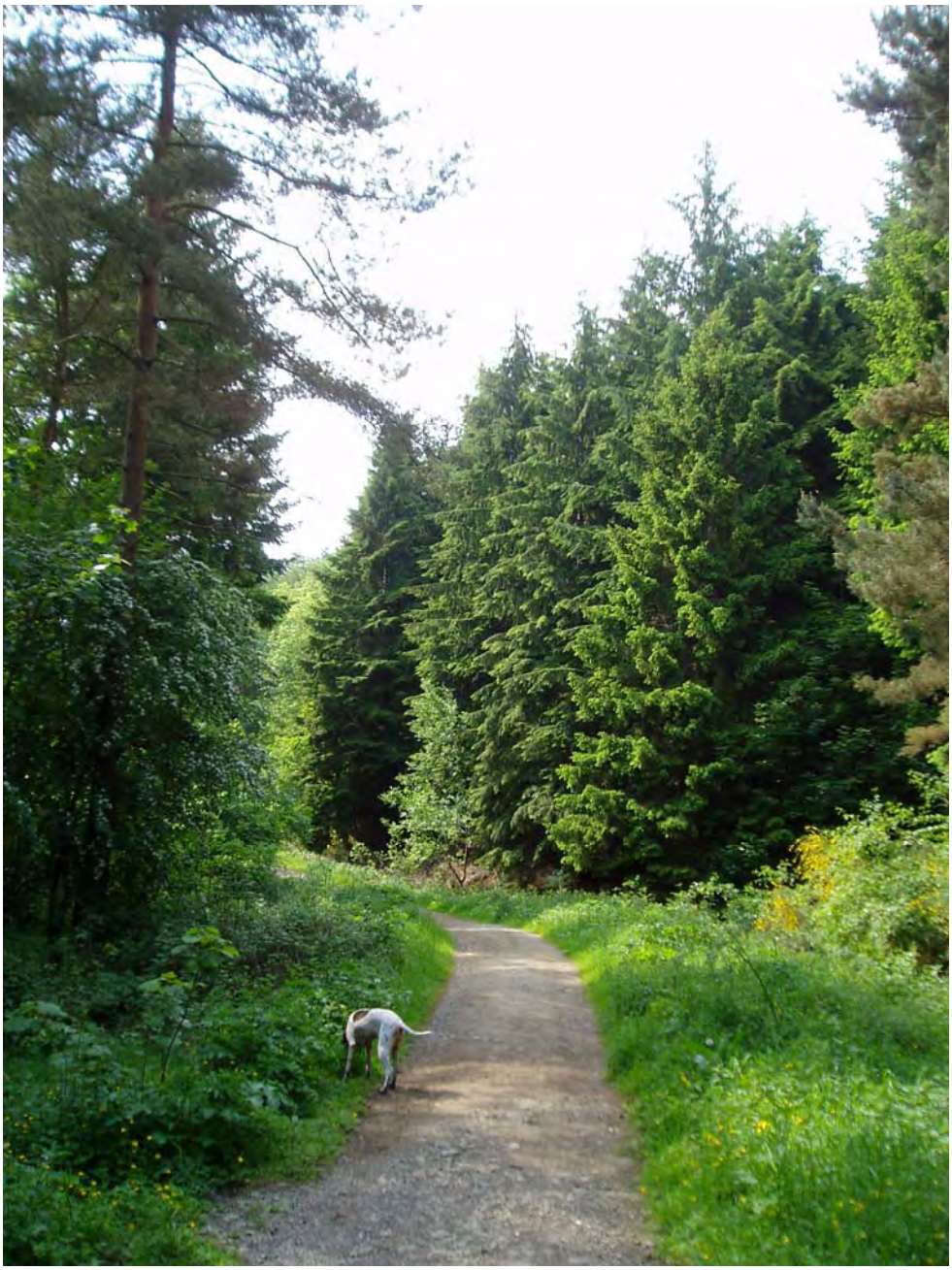
Milkwellburn Wood

Baseline Flora 2010



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The Botanical Society of the British Isles

The BSBI is for everyone who is interested in the flora of Britain and Ireland. The society traces its origins back to 1836, when it was founded as the Botanical Society of London. From its earliest days it has welcomed both professional and amateur members, and it remains the biggest and most active organisation devoted to the study of botany in the British Isles.

The BSBI produces national Atlases and local county Floras for the distribution of plants, and produces guides to the identification of more difficult plant groups. It publishes a scientific journal, the “New Journal of Botany”, which includes studies of British and Irish vascular plants, their taxonomy, biosystematics, ecology, distribution and conservation. BSBI also organises field and indoor meetings as well as conferences on botany.

Members are kept informed by a newsletter (BSBI News) three times a year and are invited to make use of our system of county recorders and national referees who can help with the identification of plants.

An education programme supported by the society brings high quality botanical training within the reach of all, from A Level students to professional development and postgraduate courses.

Scientific research on British botany is supported through grants awarded by the Science & Research Committee and through the work of the Plant Unit.

For more information go to www.bsbi.org.uk and the north east flora website at www.botanicalkeys.co.uk/northumbria/

Scented Violet, *Viola odorata*, beside the main gate at Blackhall Mill.

Introduction

Milkwellburn Wood is a 100ha (240 acre) wood at Blackhall Mill in the Derwent Valley. It is an ancient semi-natural wood, that is, it has been continuously wooded since at least 1600. In the twentieth century, most of the wood has been used for growing conifers. This has reduced the original flora and fauna considerably over large parts of the wood, though there are a number of small areas where the original native woodland survives intact.

In 2010 the main area, 80 hectares (200 acres) of the wood came up for sale at a reasonable price, and the Durham Wildlife Trust decided to try to raise the funds to buy it. Thanks to the generosity of Trust members, the public, Gateshead Council, County Durham Environment Trust, and Biffaward, the Wildlife Trust was able to raise enough money to purchase and to manage the wood for wildlife.

The Trust's objective is to manage the woodland for its wildlife and for people to enjoy its wildlife. The conifers will be gradually removed, and replaced by native broadleaf trees, ideally by natural regeneration from the wood's own stock. More detailed management will be targeted at improving the patches of surviving native woodland. This will probably include, for example, reversing the past management of draining the woodland soils, allowing some areas to return to being wet woodland and providing small ponds here and there. A detailed management plan is being drawn up, to cover management both for nature conservation and for public access.

The purpose of this document is to summarise the survey work that has been done during the fund-raising period, and to establish a baseline to record the botanical state of the wood in 2010. It will be interesting to see how the flora changes as the Trust gradually improves the wood, and, though initial changes will be slow, a repeated Flora in 2020 will hopefully document considerable improvements in the range and numbers of plant species.

The text is based on just over 2200 records collected by John Durkin, Andy McLay and Stephen Westerberg. Most of these records were made in 2009 and 2010.

The report is in three main parts-

- An account of the "best" habitats, the richest areas that characterise the wood.
- An account of the most important plant species found so far.
- A checklist of the species recorded so far, with an indication of how frequent they were in the wood in 2010.

Durham Wildlife Trust

The Durham Wildlife Trust owns several other woods in the county, including-

- Hawthorn Dene SSSI, which is one of the coastal denes.
- Witton-le-Wear SSSI, extensive alder woods.
- Baal Hill Wood SSSI, oak woodland in Weardale.
- Rabbit Bank Wood.
- Edmondsley Wood.
- Hesleden Dene, part of another coastal dene.
- High Wood, Hamsterley, not far from Milkwellburn.

There are details of these woodlands and the Trust's other reserves on the DWT website, at http://durhamwt.myzen.co.uk/wp/

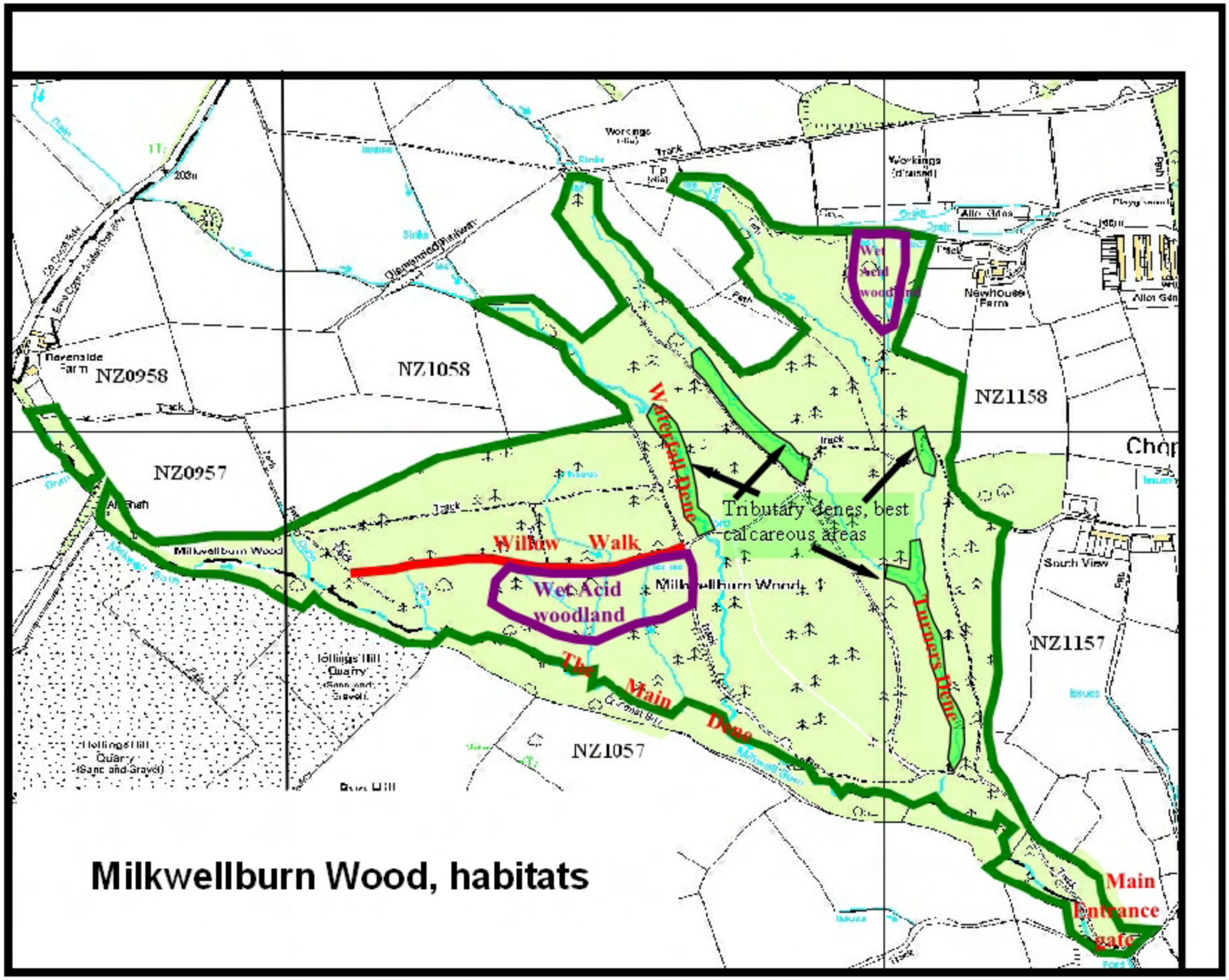
Habitats

Main dene

The main dene runs for two kilometres along the southern edge of the wood. The Milkwell Burn forms the boundary between Gateshead and Northumberland here. The main dene has acidic soils, mainly supporting Oak and Birch woodland, with most of the streamside areas unaffected by conifers. The most interesting areas for plants are the small areas of flat, wet ground along the burn. These support Alder woodland with Meadowsweet, Angelica, Valerian, Opposite-leaved Golden Saxifrage, Bugle and Moschatel, which is especially abundant here.

The burn often dries out in summer, apart from the lower section. The main footpath through the wood (see cover picture) runs close to the burn, with several small tracks leading down to it.

Moschatel, best seen in the main dene in early spring.



Milkwellburn Wood, habitats

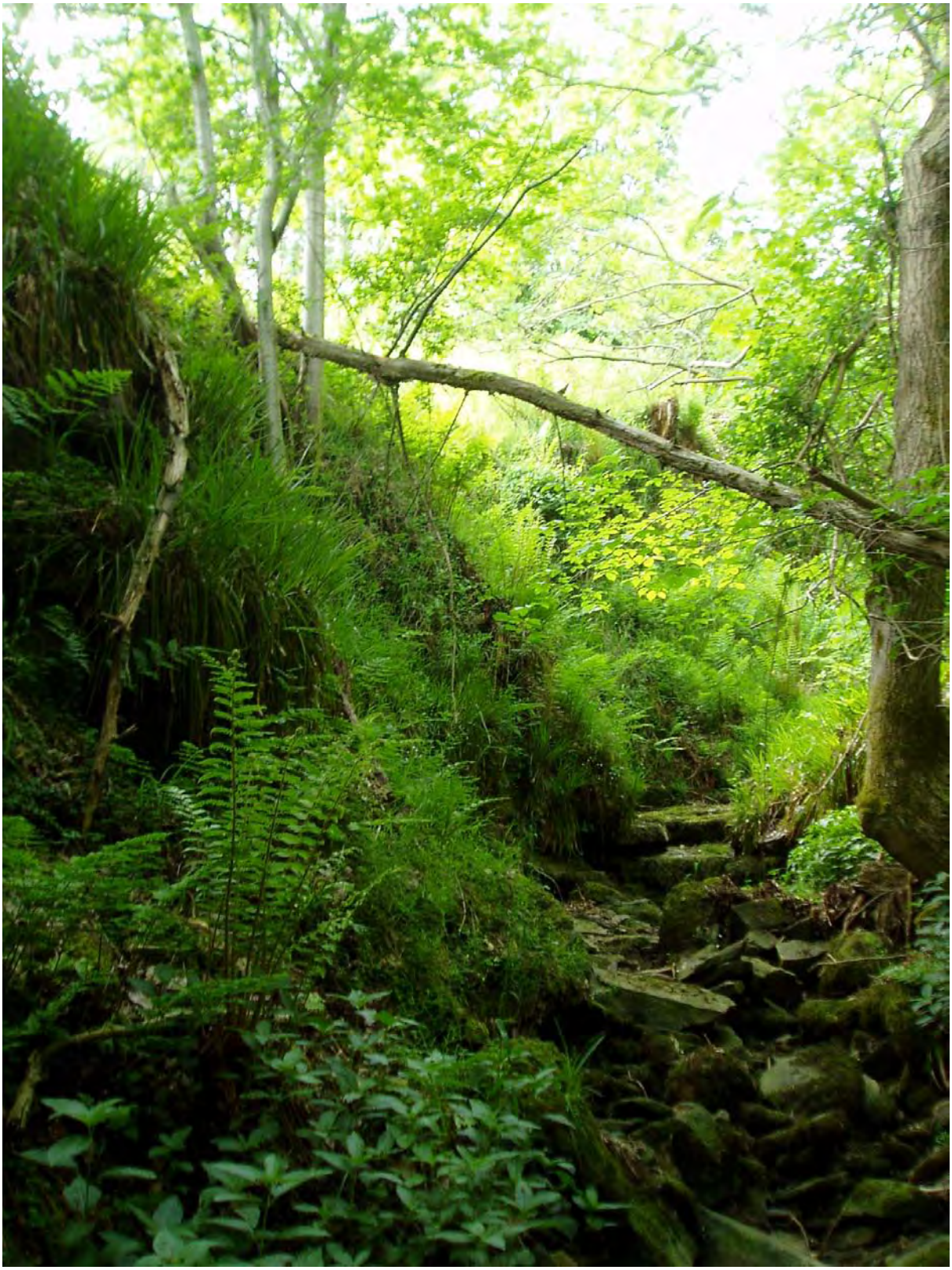
Tributary denes

Several tributary denes join the Milkwell Burn from the north. These are different in character to the Milkwell Burn, as they cut across the coal measures strata and have exposed sandstone and shale here and there in their beds. The shale is slightly calcareous, and supports plants not found on the acid soils that predominate in the Derwent Valley woodlands. Woodland plants such as Sanicle and Dog's Mercury prefer these calcareous soils, as do several ferns, such as Polypody, Hart's Tongue, Hard Shield Fern and Soft Shield Fern. The most striking plant of this habitat, though, is a tree, Small-leaved Lime. There are three groups of these in the tributary denes.

In the deepest, steepest parts of the denes the shade, humidity and exposed rocks support a number of scarce plants, including Oak Fern, Mountain Melick and Wood Fescue. The best area is in part of the fairly inaccessible "Waterfall Dene".

Access to all of these habitats is difficult. There is a footpath alongside the lower section of Turners Dene, and the northernmost group of Small-leaved Limes can be seen from the footpath that parallels West Turners Dene. Otherwise, access is very rough going.

Large sections of the tributary denes are dark and overgrown with conifers, and so have lost most of their original flora. The best remaining areas are marked on the habitats map. Future management will aim to restore all of these denes to native woodland.



Tributary Dene, native flora.

Wet, acid woodland

This habitat was probably a major original feature of the wood. Drainage ditches have dried some of it out, but one large area and several small patches have survived. They support heather, bilberry and other acid soil loving plants such as ferns and sedges. The sedges include Green-ribbed Sedge, Pale Sedge and Smooth-stalked Sedge, and the ferns are typified by Broad Buckler Fern and its scarcer relative, Narrow Buckler Fern. There are several peaty pools with sphagnum moss.

This habitat will be restored by blocking any unnecessary drainage and by removing some of the conifers.

Access into these areas is relatively easy, though wet under foot.

Peaty pool with sphagnum, rushes and ferns.

Hazel coppice

Though much of the wood has been planted with conifers, there are extensive areas where an excellent shrub layer of Hazel and Holly survives. These may be places where hazel coppice has been deliberately managed in the past, for the production of sticks and staves. Hazel coppice will be a strong feature of the restored woodland, and one of the easiest habitats to restore. It is very important for small woodland mammals and birds.

Where the shrubs and ground flora have disappeared under the dark conifers, restoration of the native woodland will take some time, as felling may be followed by an abundant growth of brambles and bracken, which will dominate for a few years until other species grow through. Under the hazels, though, brambles will be suppressed and the native flora will re-appear much more quickly.

Tracksides

The tracksides are important habitats, because these are places where light has always penetrated and the ground flora has survived well. All of the main tracks have a good variety of interesting plants. Just inside the gate from Blackhall Mill, there are Scented Violets and Primroses in the spring. The track that runs east-west across the middle of the wood, marked as “Willow Walk” on the habitats map, has Melancholy Thistle, Tea-leaved, Dark-leaved, Purple and Bay Willows. At a crossroads on this track there is a large patch of Cow Wheat and some Betony, which are otherwise scarce in this wood.

Common spring flowers, clockwise from above, Cuckoo Pint, Wood Anemone, Snowdrops, Wood Sorrel, Wood Violet.

Ancient trees

There are few surviving veteran or ancient trees in Milkwellburn Wood, because of the past management for conifer crops. The small-leaved limes are very old, but are not large trees, as they tend to fall over and then re-grow new trunks from the base. Some of the alders in the main dene and in the upper parts of Turners Dene are quite old, and about as large as alders get. There are sizable cherry trees and beeches trees here and there in the wood, particularly in the northern part. A particular favourite is the ancient holly tree illustrated below, which is probably the largest holly in the county. It probably marks an old track-way or boundary within the wood, or possibly the edge of the wood hundreds of years ago.

These ancient trees, though few in number, are very important to insects and fungi.

Ancient Holly Tree. The dog is Labrador-sized.

The species accounts

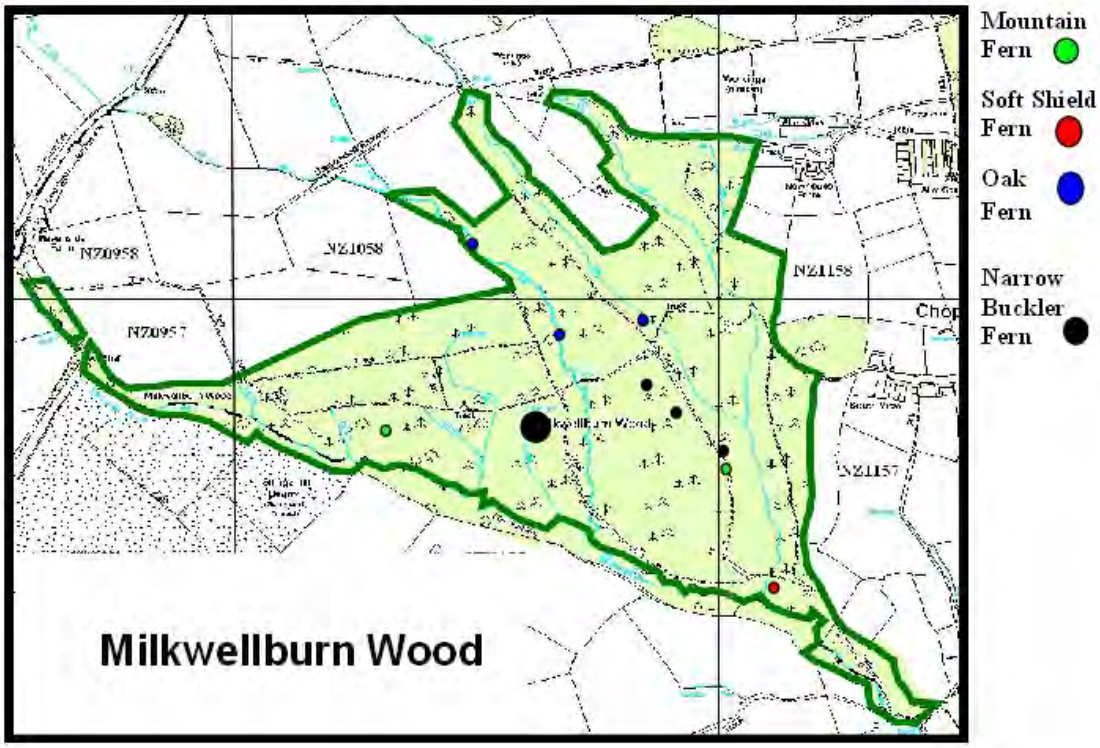
The species covered here are those that are rare or scarce either nationally or in the Durham Biodiversity Partnership area. They are listed in taxonomic order, using "Stace 3" names.
For each species, there is a brief account of its distribution at Milkwellburn Wood, in the county and nationally. The number of kilometre squares (out of 3000) in which the species has been recorded in the county since 1990 is used as a measure of local rarity. The maps show the locations of each species.

Definitions of rarity.
Nationally Rare is as defined in "British Red Data Books 1, Vascular Plants", as occurring in less than 15 ten kilometre grid squares.

Nationally Scarce is as defined in "Scarce Plants in Britain" as occurring in between 16 and 99 ten kilometre grid squares.

Rare in the Durham BAP area is defined as being recorded since 1900 in 3 or less one kilometre squares. (less than 0.1% of the squares in the county).

Scarce in the Durham BAP area is defined as being recorded since 1900 in 30 or less one kilometre squares. (less than 1% of the squares in the county).



Oreopteris limbosperma **Mountain Fern**
Scarce in lowland Durham.

This fern is most frequent by moorland burns in the upper Pennine dales, but is found almost at sea level in the Derwent Valley. It is sometimes called Lemon-scented Fern, because the leaves have a pleasant citrous scent.

There are about 8 plants at Milkwellburn Wood, in two groups, with other heathland species. They like light and moisture, so they are usually found in trackside ditches, usually growing with Hard Fern.

This fern should benefit from the extra light after conifers are felled.

Young plants of Mountain Fern, fronds narrowing towards the base.

Polystichum setiferum **Soft Shield Fern**
Scarce in Durham BAP area, 27 kilometre squares.

Only one plant has been found, at the lower end of Turners Dene. This fern likes moisture and calcareous soils. It is spreading rapidly in the county, possibly due to global warming, so it is expected to spread at Milkwellburn. Young plants will probably appear at the edges of the burn, within a few metres to the original.

The only plant of Soft Shield Fern in the wood.

Dryopteris carthusiana **Narrow Buckler Fern**
Scarce in Durham BAP area, 30 kilometre squares.

This is the most frequent of the scarce ferns in the wood, present wherever there is consistently wet ground under deciduous trees. It avoids the banks of streams, though, probably because there is too much competition from other ferns, particularly Lady Fern. Its hybrid *Dryopteris x deweveri* with the more common Broad Buckler Fern *Dryopteris dilatata* is often present alongside it, and can also be found under conifers, where the hybrid survives better than its parent species.

Narrow Buckler Fern is a lighter green than Broad Buckler, and doesn't form the classic fern "shuttlecock" of fronds. Instead, it spreads through the soft wet ground by stolons, sending up fronds at intervals.

The tall, thin, upright, separate stems of Narrow Buckler Fern

Gymnocarpium dryopteris **Oak Fern**
Scarce in Durham BAP area, 26 kilometre squares.

The triangular fronds of Oak Fern have wire-thin stems.

Oak Fern is mainly a species of upland woods. At Milkwellburn it has been found in three places in the tributary denes, always close to the burn, on a steep, mossy, north-facing bank. It needs air which has a high moisture content, so it grows near waterfalls or where the burn tumbles over rocks, sending up some spray.

With its strict habitat requirements, Oak Fern will not benefit from woodland management for many years, until these precise conditions are restored in parts of the denes that have conifers at present.

Ceratocapnos claviculata **Climbing Corydalis**
Scarce in Durham BAP area, 30 kilometre squares.

Quite abundant in small areas of the northern parts of the wood, this scrambling plant seems to favour PAWS (conifer planted ancient woodlands) in North-east England. This plant actually prefers to grow under mature conifers, scrambling over bracken and brambles where light penetrates to the ground. Retaining suitable areas of this habitat where the plant is found will ensure that it remains present in the wood.

Climbing Corydalis

Salix myrsinifolia **Dark-leaved Willow**
Scarce in Durham BAP area, 16 kilometre squares

Salix phyllicifolia **Tea Leaved Willow**
Scarce in Durham BAP area, 28 kilometre squares

These shrub-sized willows have a disjointed distribution in the Durham area, being present in the Derwent Valley, Upper Teesdale, and in the southern half of the magnesian limestone area. Dark-leaved Willow has more lowland sites, Tea-leaved Willow is more restricted to the uplands.

At Milkwellburn Wood, there are several bushes along the “Willow Walk”, particularly next to the bracken clearing, and others grow beside the main track and on the eastern edge of the wood.

The two species can be difficult to tell apart, and they also hybridise, so some of the bushes cannot be easily assigned to one species or the other. Dark-leaved Willow doesn’t have particularly dark leaves- the name comes from the way the leaves turn black when dried.

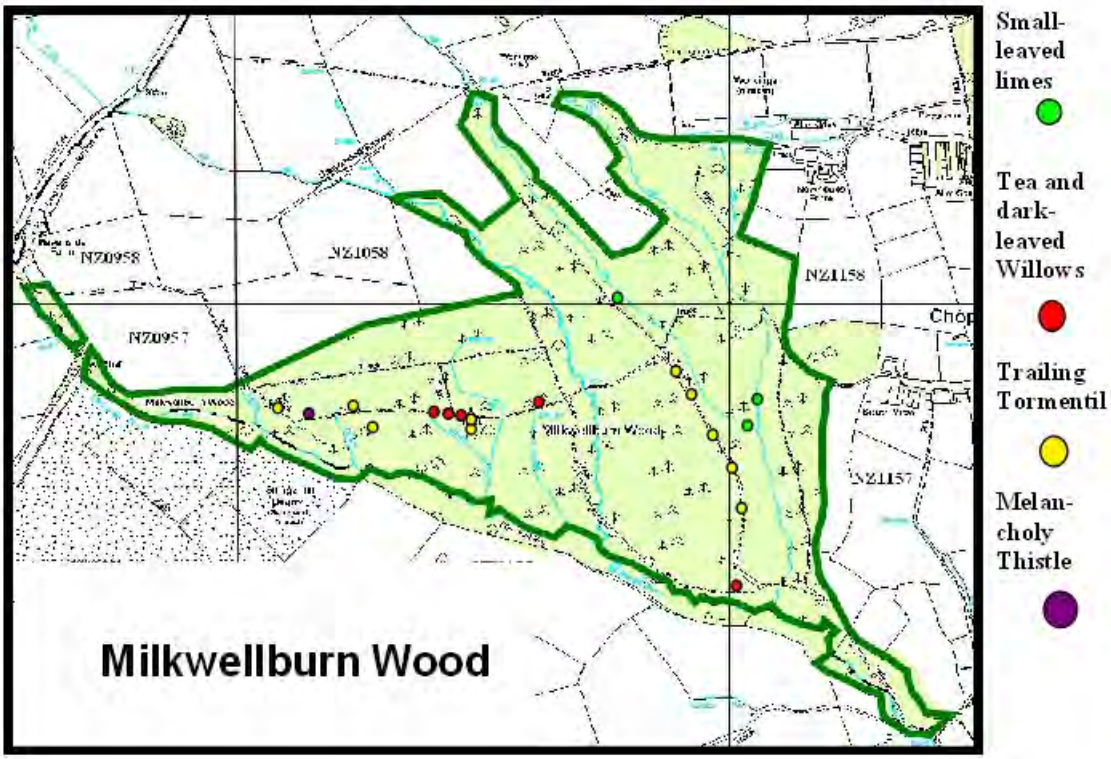
Cirsium heterophyllum
Melancholy Thistle
Scarce in lowland Durham
Melancholy Thistle is another plant that has its main distribution in the dales. At Milkwellburn, there are 4 or 5 plants beside the Willow Walk and in the adjacent woods. None of these flowered in 2010, probably because light levels are too low. Woodland management to cut back some of the trees overhanging the rides might change this. The thistle can survive for many years without flowering, instead it can spread by stolons from existing rosettes.
This species might do very well from the restoration of the wood.

This is the only picture not taken at Milkwellburn- this flowering plant is at Hollinside, in the Derwent Walk Country Park.

Potentilla anglica
Trailing Tormentil
Scarce in the Durham BAP area
Present at several sites, mostly on heathy trackside banks, and often with Tormentil *Potentilla erecta,* which is very common in Milkwellburn Wood. The hybrid *P. x mixta* grows with it in several places, and is sometimes more common than *P. anglica*.

These three can be difficult plants to separate. At first glance, a good guide is that Tormentil usually has 4 petals, and Trailing Tormentil sometimes has 4 but often has 5 or a mixture of 4 and 5 petalled flowers. Some of the Milkwellburn *P. erecta* have a mixture of 4 and 6 petals. Once you find a “mixed” plant, you can check the finer details of the leaves and stipules with a good plant key.

This group of plants should benefit enormously from the woodland management. They spread very rapidly when conditions are favourable.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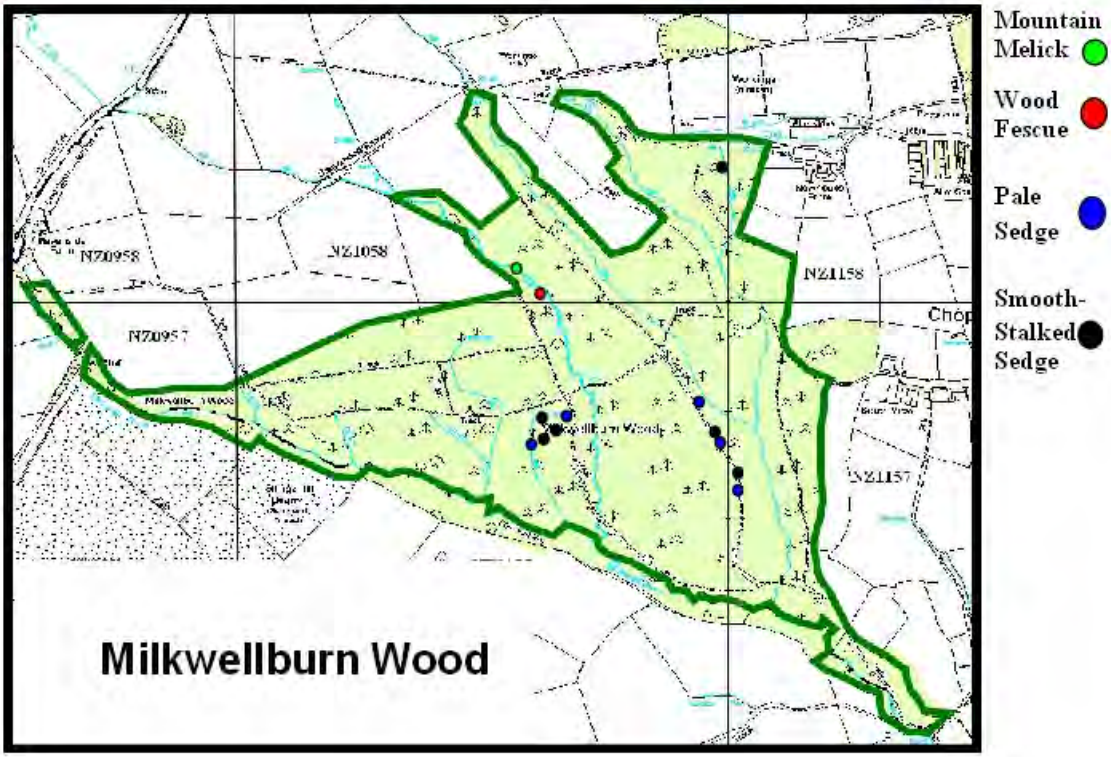
Milkwellburn Wood
Small-leaved limes
Tea and dark-leaved Willows
Trailing Tormentil
Melan-choly Thistle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Milkwellburn Wood
Mountain Melick
Wood Fescue
Pale Sedge
Smooth-Stalked Sedge

Parietaria judaica **Pellitory-of-the-wall**
Scarce in Durham BAP area, 21 kilometre squares.

Pellitory, growing on the wall beside the Blackhall Mill entrance gate.

This plant is appropriately named, as it is always found growing on walls, often in Dales villages. At Milkwellburn, it can be found on the stone wall outside the main gate at Blackhall Mill. It has been known here for at least 50 years. It may require a little “weeding” to remove competing plants.

Pellitory is one of a number of plants that grow on mortared walls and are doing well in Durham in recent years. Possibly because of cleaner air, they have spread from the Dales to the back lanes of terraced streets on Tyneside and Sunderland. Pellitory now has one its main centres of distribution in the streets close to Sunderland city centre.

Tilia cordata **Small-leaved Lime**
Scarce in Durham BAP area 25 kilometre squares
This tree is close to its northern limit here in Milkwellburn Wood. There is a single, multi-stemmed tree in the east branch of Turners Dene, which has been “coppiced” when the last conifer crop was felled. There are 4 trees in West Turners Dene, just above the confluence of the East and West Denes. One of these is a very weak tree, and needs some TLC. The most accessible trees are the 4 higher up in West Turners Dene, which can be seen from the trackside alongside the dene.

These trees do not set seed in the north of England, maintaining their population vegetatively. They are hundreds, and possibly thousands of years old.

Coppiced small-leaved lime, East Turners Dene

Carex pallescens **Pale Sedge**
Scarce in Durham BAP area, 28 kilometre squares
This sedge is quite frequent at Milkwellburn, usually in trackside ditches, and often growing in a species-rich community with Smooth-stalked, Remote and Wood sedges.

Carex laevigata **Smooth-stalked Sedge**
Scarce in Durham BAP area, 15 kilometre squares
As with Pale Sedge, this sedge is quite frequent at Milkwellburn, where it favours trackside ditches and very wet woodland.

Smooth-stalked Sedge on the side of a ditch

Festuca altissima **Wood Fescue**
Scarce in Durham BAP area, 8 kilometre squares
A very scarce plant at Milkwellburn, found so far only in the rocky “Waterfall Dene”, where it grows on steep shaded banks close to the burn, often with Hard Shield Fern. Access to the habitats of this grass is hazardous.

Melica nutans **Mountain Melick**
Scarce in the Durham BAP area, 11 kilometre squares
Growing close to Wood Fescue in the same habitat and locations, but slightly more widespread. The inaccessibility of its craggy habitats and the presence of large quantities of Wood Melick *Melica uniflora* make an assessment of the numbers of this plant quite difficult. A hand lens is essential to distinguish this grass from its more common relative, Wood Melick, which is found occasionally throughout the wood.

False oxlip, Primula veris x vulgaris, near the Blackhall Mill gate

“Missing Species”

There are several species that are present in similar habitats elsewhere in the Derwent Valley, but have not yet been recorded from Milkwellburn Wood. These may well be found in future, as the woodland is restored, probably in the habitats suggested. Common Wintergreen was recorded in 1925 from a “wood near Chopwell”, which might have been Milkwellburn Wood.

Scuttelaria minor	Lesser Skullcap	On a track side.
Lathraea squamaria	Toothwort	Woodland
Pyrola minor	Common Wintergreen	On a trackside
Hordelymus europaeus	Wood Barley	On a trackside
Ribes spicatum	Downy Currant	On calcareous soil.
Ranunculus auricomus	Goldilocks	Woodland

There are also two species recorded by Professor George Swan from the Northumberland part of the wood which have not been found in the reserve area, and may possibly still be found-

Eupatorium cannabinum	Hemp-agrimony	1970
Listera ovata	Twayblade	1976

Cow Wheat *Melampyrum pratense*

Species list.

Green indicates “Ancient woodland indicator species”

Scientific name	English name	
Acer pseudoplatanus	Sycamore	
Aconitum napellus sens. lat.	Monk's-hood	Rare
Adoxa moschatellina	Moschatel	Frequent
Aegopodium podagraria	Ground-elder	
Aesculus hippocastanum	Horse-chestnut	Rare
Agrostis capillaris	Common Bent	
Agrostis stolonifera	Creeping Bent	
Ajuga reptans	Bugle	
Alchemilla glabra	Smooth Lady's-mantle	Rare
Alchemilla vulgaris agg.	Lady's-mantle	Rare
Alchemilla xanthochlora	Intermediate Lady's-mantle	Rare
Alliaria petiolata	Garlic Mustard	
Allium ursinum	Ramsons	Frequent
Alnus glutinosa	Alder	
Alnus incana	Grey Alder	Rare
Alopecurus geniculatus	Marsh Foxtail	
Alopecurus pratensis	Meadow Foxtail	
Anemone nemorosa	Wood Anemone	Frequent
Angelica sylvestris	Wild Angelica	
Anthoxanthum odoratum	Sweet Vernal-grass	
Anthriscus sylvestris	Cow Parsley	
Aphanes arvensis	Parsley-piert	Rare
Aquilegia vulgaris	Columbine	Rare
Arctium minus	Lesser Burdock	
Arctium nemorosum	Wood Burdock	
Arrhenatherum elatius	False Oat-Grass	
Artemisia vulgaris	Mugwort	
Athyrium filix-femina	Lady-fern	
Bellis perennis	Daisy	
Betula pendula	Silver Birch	
Betula pubescens	Downy Birch	
Blechnum spicant	Hard-fern	
Brachypodium sylvaticum	False-brome	
Bromopsis ramosa	Hairy-brome	
Bromus hordeaceus	Soft-brome	
Bromus hordeaceus subsp. hordeaceus	Common Soft-brome	
Callitriche sp.	a water-starwort	Rare
Callitriche stagnalis	Common Water-starwort	Rare
Calluna vulgaris	Heather	
Caltha palustris	Marsh-marigold	
Campanula latifolia	Giant Bellflower	Rare

Scientific name	English name	
Cardamine amara	Large Bitter-cress	
Cardamine flexuosa	Wavy Bitter-cress	
Cardamine hirsuta	Hairy Bitter-cress	
Cardamine pratensis	Cuckooflower	
Carex flacca	Glaucous Sedge	
Carex laevigata	Smooth-stalked Sedge	Occasional
Carex nigra	Common Sedge	
Carex ovalis	Oval Sedge	Rare
Carex pallescens	Pale Sedge	Occasional
Carex pendula	Pendulous Sedge	Rare
Carex pilulifera	Pill Sedge	Rare
Carex remota	Remote Sedge	Occasional
Carex sylvatica	Wood-sedge	Occasional
Carex viridula subsp. oedocarpa	Common Yellow-sedge	Rare
Castanea sativa	Sweet Chestnut	Rare
Centaurea nigra	Common Knapweed	
Cerastium fontanum	Common Mouse-ear	
Ceratocapnos claviculata	Climbing Corydalis	Occasional
Chaerophyllum temulum	Rough Chervil	
Chamerion angustifolium	Rosebay Willowherb	
Chrysosplenium oppositifolium	Opposite-leaved Golden-saxifrage	
Circaea lutetiana	Enchanter's-nightshade	
Cirsium arvense	Creeping Thistle	
Cirsium palustre	Marsh Thistle	
Cirsium vulgare	Spear Thistle	
Conopodium majus	Pignut	
Corylus avellana	Hazel	
Crataegus monogyna	Hawthorn	
Crepis paludosa	Marsh Hawk's-beard	Occasional
Cruciata laevipes	Crosswort	
Cynosurus cristatus	Crested Dog's-tail	
Cytisus scoparius	Broom	
Dactylis glomerata	Cock's-foot	
Dactylorhiza fuchsii	Common Spotted-orchid	Rare
Deschampsia cespitosa	Tufted Hair-grass	
Deschampsia flexuosa	Wavy Hair-grass	
Digitalis purpurea	Foxglove	
Dryopteris affinis subsp. affinis	Scaly Male-fern	Rare
Dryopteris affinis subsp. borreri	Scaly Male-fern	
Dryopteris affinis subsp. cambrensis	Scaly Male-fern	Rare
Dryopteris carthusiana	Narrow Buckler-Fern	Occasional
Dryopteris dilatata	Broad Buckler-fern	
Dryopteris filix-mas	Male-fern	
Dryopteris x deweveri	D. carthusiana x dilatata	Occasional
Epilobium hirsutum	Great Willowherb	

Scientific name	English name	
Epilobium montanum	Broad-leaved Willowherb	
Epipactis helleborine	Broad-leaved Helleborine	Rare
Equisetum arvense	Field Horsetail	
Equisetum palustre	Marsh Horsetail	Rare
Equisetum sylvaticum	Wood Horsetail	Occasional
Erica tetralix	Cross-leaved Heath	Rare
Erophila verna	Common Whitlowgrass	Rare
Euphrasia nemorosa	Eyebright	Rare
Fagus sylvatica	Beech	
Festuca altissima	Wood Fescue	Rare
Festuca arundinacea	Tall Fescue	
Festuca gigantea	Giant Fescue	
Festuca ovina agg.	Sheep's-fescue	
Festuca rubra	Red Fescue	
Filipendula ulmaria	Meadowsweet	
Fragaria vesca	Wild Strawberry	
Fraxinus excelsior	Ash	
Galanthus nivalis	Snowdrop	Rare
Galeopsis bifida	Bifid Hemp-nettle	
Galeopsis tetrahit	Common Hemp-nettle	
Galium aparine	Cleavers	
Galium odoratum	Woodruff	Occasional
Galium palustre	Marsh-bedstraw	
Galium saxatile	Heath Bedstraw	
Galium uliginosum	Fen Bedstraw	
Geranium dissectum	Cut-leaved Crane's-bill	Rare
Geranium robertianum	Herb-Robert	
Geranium sylvaticum	Wood Crane's-bill	Occasional
Geum rivale	Water Avens	Rare
Geum urbanum	Wood Avens	
Glechoma hederacea	Ground-ivy	
Glyceria fluitans	Floating Sweet-grass	Rare
Glyceria x pedicellata	G. fluitans x notata	Rare
Gymnocarpium dryopteris	Oak Fern	Rare
Hedera helix	Common Ivy	
Hedera helix subsp. helix	Common Ivy	
Heracleum sphondylium	Hogweed	
Hieracium agg.	Hawkweed	
Hieracium sp.	a hawkweed	
Holcus lanatus	Yorkshire-fog	
Holcus mollis	Creeping Soft-grass	
Hyacinthoides hispanica	Spanish Bluebell	Rare
Hyacinthoides non-scripta	Bluebell	Occasional
Hypericum maculatum	Imperforate St John's-wort	
Hypericum perforatum	Perforate St John's-wort	

Scientific name	English name	
Hypericum pulchrum	Slender St John's-wort	Rare
Hypericum tetrapterum	Square-stalked St John's-wort	Rare
Hypochaeris radicata	Cat's-ear	
Ilex aquifolium	Holly	
Iris pseudacorus	Yellow Iris	Rare
Isolepis setacea	Bristle Club-rush	Rare
Juncus articulatus	Jointed Rush	
Juncus bufonius	Toad Rush	
Juncus bulbosus	Bulbous Rush	
Juncus conglomeratus	Compact Rush	
Juncus effusus	Soft-rush	
Lapsana communis	Nipplewort	
Larix decidua	European Larch	
Larix kaempferi	Japanese Larch	
Larix x marschlinsii	Hybrid Larch (L. decidua x kaempferi)	
Lathyrus linifolius	Bitter-vetch	
Lathyrus pratensis	Meadow Vetchling	
Lemna minor	Common Duckweed	Rare
Leucanthemum vulgare	Oxeye Daisy	Rare
Leucanthemum x superbum	Shasta Daisy	Rare
Ligustrum vulgare	Wild Privet	Rare
Lolium perenne	Perennial Rye-grass	
Lonicera periclymenum	Honeysuckle	
Lotus corniculatus	Common Bird's-foot-trefoil	
Lotus pedunculatus	Greater Bird's-foot-trefoil	Occasional
Luzula campestris	Field Wood-rush	Occasional
Luzula multiflora	Heath Wood-rush	Occasional
Luzula pilosa	Hairy Wood-rush	Occasional
Luzula sylvatica	Great Wood-rush	Frequent
Lychnis flos-cuculi	Ragged-Robin	Rare
Lysimachia nemorum	Yellow Pimpernel	
Lysimachia vulgaris	Yellow Loosestrife	Rare
Malus domestica	Crab Apple	Rare
Malus sylvestris sens. lat.	Apple	Rare
Medicago lupulina	Black Medick	
Melampyrum pratense	Common Cow-wheat	Rare
Melica nutans	Mountain Melick	Rare
Melica uniflora	Wood Melick	Occasional
Mentha arvensis	Corn Mint	Rare
Mercurialis perennis	Dog's Mercury	Frequent
Milium effusum	Wood Millet	Rare
Moehringia trinervia	Three-nerved Sandwort	
Molinia caerulea	Purple Moor-grass	Rare
Mycelis muralis	Wall Lettuce	Rare
Myosotis arvensis	Field Forget-me-not	

Scientific name	English name	
Narcissus pseudonarcissus	Daffodil	Rare
Oreopteris limbosperma	Lemon-scented Fern	Rare
Oxalis acetosella	Wood-sorrel	Frequent
Parietaria judaica	Pellitory-of-the-Wall	Rare
Phleum pratense	Timothy	
Phyllitis scolopendrium	Hart's-tongue	Rare
Picea abies	Norway Spruce	
Picea sitchensis	Sitka Spruce	
Pilosella officinarum	Mouse-ear-hawkweed	
Pinus nigra subsp. laricio	Corsican Pine	
Pinus sylvestris	Scots Pine	
Plantago lanceolata	Ribwort Plantain	
Plantago major	Greater Plantain	
Poa annua	Annual Meadow-grass	
Poa nemoralis	Wood Meadow-grass	
Poa pratensis sens. lat.	Smooth Meadow-grass	
Poa trivialis	Rough Meadow-grass	
Polygala serpyllifolia	Heath Milkwort	Rare
Polygonum aviculare	Knotgrass	
Polypodium vulgare	Polypody	Occasional
Polystichum aculeatum	Hard Shield-fern	Occasional
Polystichum setiferum	Soft Shield-fern	Rare
Populus sp.	a poplar	Occasional
Populus tremula	Aspen	Occasional
Populus x Canadensis	Hybrid Black-poplar	Occasional
Potentilla anglica	Trailing Tormentil	Occasional
Potentilla anserina	Silverweed	
Potentilla erecta	Tormentil	Frequent
Potentilla reptans	Creeping Cinquefoil	
Potentilla sterilis	Barren Strawberry	
Primula vulgaris	Primrose	Occasional
Primula x polyantha	False Oxlip (P. veris x vulgaris)	Rare
Prunella vulgaris	Selfheal	
Prunus avium	Wild Cherry	Occasional
Prunus padus	Bird Cherry	Occasional
Prunus spinosa	Blackthorn	
Pseudotsuga menziesii	Douglas Fir	
Pteridium aquilinum	Bracken	
Quercus petraea	Sessile Oak	
Quercus sp.	an oak	
Quercus x rosacea	Q. petraea x robur	
Ranunculus acris	Meadow Buttercup	
Ranunculus bulbosus	Bulbous Buttercup	
Ranunculus ficaria	Lesser Celandine	Frequent
Ranunculus flammula	Lesser Spearwort	

Scientific name	English name	
Ranunculus repens	Creeping Buttercup	
Rhinanthus minor	Yellow-rattle	Rare
Ribes nigrum	Black Currant	Rare
Ribes rubrum	Red Currant	Rare
Ribes uva-crispa	Gooseberry	Rare
Rorippa nasturtium-aquaticum	Water-cress	
Rosa canina	Dog-rose	
Rosa rugosa	Japanese Rose	Rare
Rubus fruticosus agg.	Bramble	
Rubus idaeus	Raspberry	
Rumex acetosa	Common Sorrel	
Rumex acetosella	Sheep's Sorrel	
Rumex crispus	Curled Dock	
Rumex obtusifolius	Broad-leaved Dock	
Rumex sanguineus	Wood Dock	
Sagina procumbens	Procumbent Pearlwort	
Salix aurita	Eared Willow	
Salix caprea	Goat Willow	
Salix cinerea subsp. oleifolia	Rusty Willow	
Salix fragilis	Crack-willow	Rare
Salix myrsinifolia	Dark-leaved Willow	Rare
Salix pentandra	Bay Willow	Rare
Salix phylicifolia	Tea-leaved Willow	Rare
Salix purpurea	Purple Willow	Rare
Sambucus nigra	Elder	
Sanguisorba officinalis	Great Burnet	Rare
Sanicula europaea	Sanicle	Occasional
Scrophularia auriculata	Water Figwort	Rare
Scrophularia nodosa	Common Figwort	Occasional
Senecio jacobaea	Common Ragwort	
Senecio sylvaticus	Heath Groundsel	Occasional
Silene dioica	Red Campion	Frequent
Sisymbrium officinale	Hedge Mustard	
Solidago virgaurea	Goldenrod	Occasional
Sonchus asper	Prickly Sow-thistle	
Sonchus oleraceus	Smooth Sow-thistle	
Sorbus aucuparia	Rowan	Occasional
Sorbus intermedia	Swedish Whitebeam	Rare
Stachys officinalis	Betony	Rare
Stachys palustris	Marsh Woundwort	Rare
Stachys sylvatica	Hedge Woundwort	Frequent
Stellaria graminea	Lesser Stitchwort	
Stellaria holostea	Greater Stitchwort	
Stellaria media	Common Chickweed	
Stellaria nemorum	Wood Stitchwort	

Scientific name	English name	
Stellaria uliginosa	Bog Stitchwort	Rare
Succisa pratensis	Devil's-bit Scabious	Occasional
Symphytum x uplandicum	Russian Comfrey (S. asperum x officinale)	Rare
Syringa vulgaris	Lilac	Rare
Taraxacum agg.	Dandelion	
Teucrium scorodonia	Wood Sage	Occasional
Tilia cordata	Small-leaved Lime	Rare
Tilia x europaea	Lime	Rare
Torilis japonica	Upright Hedge-parsley	
Trifolium campestre	Hop Trefoil	
Trifolium dubium	Lesser Trefoil	
Trifolium medium	Zigzag Clover	
Trifolium pratense	Red Clover	
Trifolium repens	White Clover	
Trisetum flavescens	Yellow Oat-grass	
Tussilago farfara	Colt's-foot	
Typha latifolia	Bulrush	Rare
Ulex europaeus	Gorse	
Ulmus glabra	Wych Elm	
Urtica dioica	Common Nettle	
Vaccinium myrtillus	Bilberry	Occasional
Valeriana dioica	Marsh Valerian	Rare
Valeriana officinalis	Common Valerian	Occasional
Verbascum thapsus	Great Mullein	Rare
Veronica beccabunga	Brooklime	Rare
Veronica chamaedrys	Germander Speedwell	
Veronica montana	Wood Speedwell	Occasional
Veronica officinalis	Heath Speedwell	
Veronica serpyllifolia subsp. serpyllifolia	Thyme-leaved Speedwell	
Viburnum opulus	Guelder-rose	Occasional
Vicia cracca	Tufted Vetch	
Vicia sativa	Common Vetch	
Vicia sepium	Bush Vetch	
Vinca minor	Lesser Periwinkle	Rare
Viola odorata	Sweet Violet	Rare
Viola riviniana	Common Dog-violet	Frequent