



**Biodiversity Duty:
Vascular Plant Survey
of National Wool Museum,
Drefach**



**Tim Rich
Department of Biodiversity & Systematic Biology**

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Introduction

From 1 October 2006, all public authorities in England and Wales have a duty to have regard to the conservation of biodiversity in exercising their functions (Section 40 of the Natural Environment and Rural Communities Act 2006). As part of the Museum's response to this legislation, biodiversity audits are being carried out at a series of its sites.

In this report, a draft vascular plant list is presented from a survey of the grounds of the National Wool Museum, Drefach in 2009.

Methods

The survey was carried out by Tim Rich on 2 April, 8 May and 9 September 2009 in fine weather. The area surveyed is shown in Figure 1. A few specimens of taxa difficult to identify were collected for later determination. Obviously planted taxa such as the Garden roses were not recorded, with a few exceptions. Nomenclature follows C.A. Stace (1997), *New Flora of the British Isles*, Cambridge University Press.

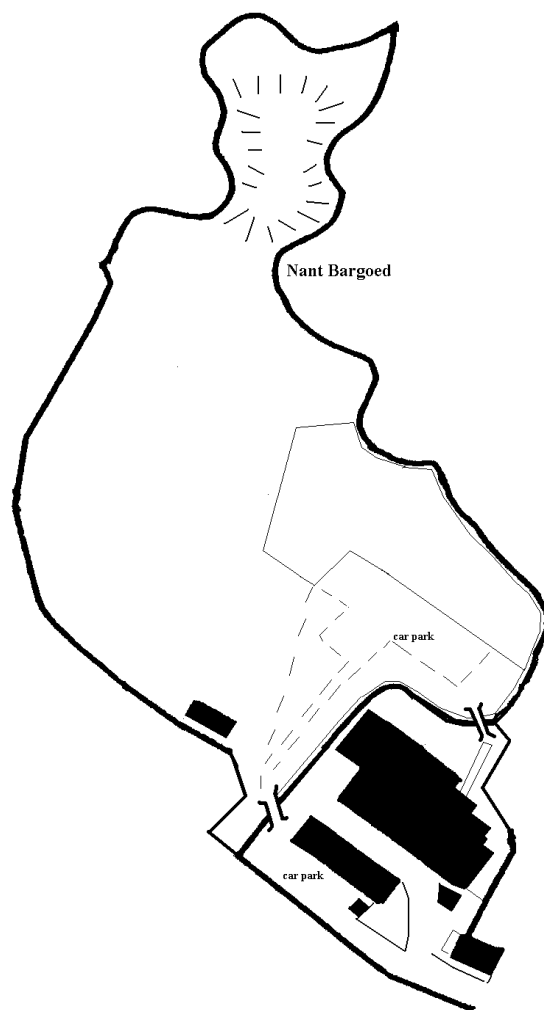


Figure 1. Boundary of area surveyed, National Wool Museum.

Results

The plant species recorded are listed in Table 1.

TABLE 1. VASCULAR PLANTS RECORDED AT DREFACH 2009.

Alien species not native in the British Isles or introduced at this site are marked with an asterisk *.

<i>Latin name</i>	<i>Vernacular name</i>	<i>Notes</i>
<i>Acer pseudoplatanus</i> *	Sycamore	Rare as tree by Nant Bargod and occasional seedlings
<i>Achillea millefolium</i>	Yarrow	Occasional in meadow and on riverside rocks by vehicle bridge, by front entrance
<i>Adoxa moschatellina</i>	Moschatel	Rare on bank of Nant Bargod by footbridge
<i>Aesculus hippocastanum</i> *	Horse Chestnut	Sapling 1m tall in meadow, south edge
<i>Agrostis canina</i>	Velvet Bent	Damp patch on side of meadow
<i>Agrostis capillaris</i>	Common Bent	Dryer part of meadow
<i>Agrostis gigantea</i>	Black Bent	Common on tummock, probably elsewhere too
<i>Agrostis stolonifera</i>	Creeping Bent	Wetter part of old overflow channel in meadow
<i>Ajuga reptans</i>	Bugle	Occasional in grassland
<i>Alliaria petiolata</i>	Garlic Mustard	Occasional on shaded banks by Nant Bargod
<i>Allium ursinum</i>	Ransoms	Frequent on shaded banks by Nant Bargod and in flower beds by entrance
<i>Alnus glutinosa</i>	Alder	Frequent by Nant Bargod
<i>Alopecurus pratensis</i>	Meadow Foxtail	Frequent in meadow and sheep field
<i>Anemone nemorosa</i>	Wood Anemone	Frequent on banks of Nant Bargod
<i>Angelica sylvestris</i>	Wild Angelica	Damp areas of meadow, and on northern tummock
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	Frequent
<i>Anthriscus sylvestris</i>	Cow Parsley	Occasional on banks of Nant Bargod, rare on edge of meadow
<i>Apium nodiflorum</i>	Fool's Watercress	Small patch in mill leat
<i>Arctium minus</i>	Burdock	Rare on banks of Nant Bargod
<i>Arrhenatherum elatius</i>	False Oat-grass	Occasional in meadow and by Nant Bargod
<i>Asplenium trichomanes</i>	Maidenhair Spleenwort	Occasional; building by vehicle bridge, rocks by Nant Bargod, wall of kitchen garden, mill leat wall
<i>Athyrium filix-femina</i>	Lady Fern	1 clump on Nant Bargod at corner below footbridge, and by vehicle bridge, and grassland on north side of buildings
<i>Atriplex</i> sp.	Orache	Young plants on shingle below footbridge, gone by autumn
<i>Barbarea vulgaris</i>	Wintercress	Path by car park
<i>Bellis perennis</i>	Daisy	Occasional in lawns and meadow
<i>Berberis thunbergii</i> *	Thunberg's Burberry	Hedges at entrance
<i>Bromopsis ramosa</i>	Wood-brome	Bank of Nant Bargod by footbridge
<i>Buddleja davidii</i> *	Butterfly Bush	One clump on bank of Nant Bargod by vehicle bridge (cut down in summer), one west of footbridge
<i>Callitriche brutia</i>	Intermediate Water -starwort	Mill Lent
<i>Callitriche</i> sp.	Water-starwort	Abundant in mill leat
<i>Calystegia cf sepium</i>	Hedge Bindweed	Many vegetative plants in meadow
<i>Calystegia pulchra</i> *	Hairy Bindweed	Fence near footbridge
<i>Calystegia</i> sp.	Bindweed	Vegetative plants frequent in meadow
<i>Cardamine flexuosa</i>	Wavy Bittercress	Occasional in meadow and on banks of Nant Bargod
<i>Cardamine hirsuta</i>	Hairy Bittercress	Occasional, near buildings
<i>Cardamine pratensis</i>	Cuckoo Flower	Frequent in meadow, especially in wet areas

<i>Carex flacca</i>	Glaucous Sedge	Occasional in wet meadow
<i>Carex ovalis</i>	Brown Sedge	Rare in overflow channel
<i>Carex pendula</i>	Pendulous Sedge	One large clump on bank of Nant Bargod below vehicle bridge
<i>Carex remota</i>	Remote Sedge	Rare, on bank of Nant Bargod and top west edge of meadow
<i>Centaurea nigra</i>	Knapweed	Occasional in meadow
<i>Cerastium fontanum</i>	Mouse-ear	Rare on bank of Nant Bargod
<i>Cerastium glomeratum</i>	Sticky Mouse-ear	Banks of Nant Bargod by vehicle bridge
<i>Chrysosplenium oppositifolium</i>	Opposite-leaved Golden Saxifrage	Rare on banks of Nant Bargod
<i>Circaea lutetiana</i>	Enchanter's Nightshade	Bank of Nant Bargod near footbridge
<i>Cirsium arvense</i>	Creeping Thistle	Occasional in meadow, one large area by Nant Bargod
<i>Cirsium palustre</i>	Marsh Thistle	Frequent in meadow
<i>Cirsium vulgare</i>	Spear Thistle	Rare in meadow, and entrance drive
<i>Conyza</i> sp. *	Fleabane	Seedling
<i>Corylus avellana</i>	Hazel	Occasional by Nant Bargod and in hedge by car park
<i>Crataegus monogyna</i>	Hawthorn	Hedge by car park, and occasional by Nant Bargod and in meadow hedges
<i>Crocsmia x crocosmiiflora</i> *	Montbretia	1 clump by Nant Bargod by footbridge
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	Rock by Nant Bargod and bank of leat
<i>Dactylis glomerata</i>	Cock's-foot grass	Frequent
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	Rare on western edge of meadow
<i>Digitalis purpurea</i>	Foxglove	Rare in hedge by drying hut, and by Nant Bargod
<i>Dipsacus fullonum</i>	Teasel	Frequent around buildings, rare in meadow
<i>Dryopteris affinis</i>	Scaly Male Fern	Bank of Nant Bargod by mill
<i>Dryopteris dilatata</i>	Broad Buckler-fern	Rare by Nant Bargod (2 clumps), 1 clump on bank by drying hut
<i>Dryopteris filix-mas</i>	Male Fern	1 clump in hedge by car park, 1 clump on meadow edge near drying hut
<i>Epilobium ciliatum</i> *	American Willowherb	Rare by Nant Bargod and in main meadow
<i>Epilobium hirsutum</i>	Great Willowherb	Rare on seepage zone at western edge of meadow, and by Nant Bargod
<i>Epilobium montanum</i>	Broad-leaved Willowherb	Kitchen Garden
<i>Epilobium obscurum</i>	Short-fruited Willowherb	Occasional in main meadow
<i>Epilobium parviflorum</i>	Hoary Willowherb	Occasional in grassland
<i>Erophila verna</i> sensu stricto	Whitlowgrass	Rare on path by footbridge
<i>Eupatorium cannabinum</i>	Hemp Agrimony	Rare by Nant Bargod and in main meadow
<i>Euphorbia peplis</i>	Pretty Spurge	Path by footbridge
<i>Fallopia japonica</i> *	Japanese Knotweed	Occasional clumps by Nant Bargod
<i>Festuca rubra</i>	Red Fescue	Occasional in grassland
<i>Filipendula ulmaria</i>	Meadowsweet	Occasional in wetter areas of meadow
<i>Fraxinus excelsior</i>	Ash	Occasional in hedges and by Nant Bargod
<i>Galanthus nivalis</i> *	Snowdrop	Frequent by Nant Bargod in spring
<i>Galeopsis tetrahit</i> sensu stricto	Hemp Nettle	Rare on tummock
<i>Galium aparine</i>	Goosegrass	Occasional by Nant Bargod, and hedge by car park
<i>Galium palustre</i>	Marsh Bedstraw	Occasional in wetter parts of meadow, and front lawn
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	Bank of Nant Bargod near vehicle bridge
<i>Geranium robertianum</i>	Herb Robert	Occasional, near buildings
<i>Geum urbanum</i>	Herb Bennett	Occasional by Nant Bargod and near buildings
<i>Glechoma hederacea</i>	Ground Ivy	Occasional in grassland and by Nant Bargod

<i>Glyceria fluitans</i>	Sweet-grass	Damp patches in meadow
<i>Gnaphalium uliginosum</i>	Marsh Cudweed	Muddy ground in sheep meadow
<i>Hedera helix</i> subsp. <i>helix</i>	Ivy	Frequent in hedges, by Nant Bargod, etc.
<i>Heracleum sphondylium</i>	Hogweed	Rare in meadow
<i>Hesperis matronalis</i> *	Dame's Violet	Bank of Nant Bargod by sheep field
<i>Holcus lanatus</i>	Yorkshire Fog	Frequent in meadow
<i>Hyacinthoides hispanica</i> x <i>non-scripta</i> *	Hybrid Bluebell	By Nant Bargod (including white-flowered plants) and flower bed by entrance
<i>Hyacinthoides non-scripta</i>	Bluebell	Hedges and by Nant Bargod Flower bed by entrance
<i>Hypericum maculatum</i>	Square-stalked St John's-wort	Rare on northern tummock, and by Nant Bargod
<i>Hypochaeris radicata</i>	Cat's-ear	Rare in lawn
<i>Ilex aquifolium</i>	Holly	Rare in hedge
<i>Impatiens glandulifera</i> *	Himalayan Balsam	Abundant along Nant Bargod
<i>Juncus articulatus</i>	Articulated Rush	Rare in main meadow
<i>Juncus bufonius</i>	Toad Rush	Paving of road by bridge
<i>Juncus conglomeratus</i>	Clustered Rush	Rare in overflow channel
<i>Juncus effusus</i>	Soft Rush	Locally abundant in meadow
<i>Juncus inflexus</i>	Hard Rush	Banks of Nant Bargod by vehicle bridge
<i>Lapsana communis</i>	Nipplewort	Rare near buildings and by Nant Bargod
<i>Lathyrus pratensis</i>	Meadow Vetchling	Rare in main meadow
<i>Lemna minor</i>	Duckweed	Mill Leat, abundant
<i>Leontodon autumnalis</i>	Autumn Hawkbit	Bridge of leat
<i>Ligustrum ovalifolium</i> *	Garden Privet	Hedge by Nant Bargod
<i>Lolium perenne</i>	Rye Grass	Occasional in grassland
<i>Lotus pedunculatus</i>	Greater Bird's-foot-trefoil	Rare in main meadow
<i>Luzula campestris</i>	Field Woodrush	Rare by Nant Bargod
<i>Lychnis flos-cuculi</i>	Ragged Robin	Rare in overflow channel
<i>Lysimachia nemorum</i>	Yellow Pimpernel	Bank of leat
<i>Lythrum salicaria</i>	Purple Loosestrife	Rare in main meadow near seepage zone
<i>Matricaria discoidea</i> *	Pineappleweed	Muddy ground in sheep meadow
<i>Mentha arvensis</i>	Field Mint	Overflow channel in meadow
<i>Mercurialis perennis</i>	Dog's Mercury	Occasional by Nant Bargod, by front drive
<i>Moehringia trinervia</i>	Three-veined Sandwort	Occasional by Nant Bargod
<i>Montia fontana</i>	Blinks	Shingle below footbridge
<i>Myosotis arvensis</i>	Field Speedwell	Bank of Nant Bargod
<i>Myosotis sylvatica</i> var. <i>culta</i> *	Garden Forget-me-not	Bank of Nant Bargod below vehicle bridge
<i>Narcissus pseudonarcissus</i> subsp. <i>pseudonarcissus</i> cultivar *	Daffodil	Cultivated daffodils washed down Nant Bargod
<i>Narcissus x incomparabilis</i> *	Nonesuch Daffodil	1 clump on bank of Nant Bargod near corner below footbridge
<i>Odontites verna</i>	Red Bartsia	Rare in overflow channel
<i>Oenanthe crocata</i>	Hemlock Water-dropwort	Occasional in and by Nant Bargod
<i>Persicaria bistorta</i>	Bistort	Rare in main meadow
<i>Persicaria maculosa</i>	Redshank	Shingle by Nant Bargod
<i>Persicaria hydropiper</i>	Water-pepper	Frequent by Nant Bargod and in damp patches
<i>Phalaris arundinacea</i>	Reed Canary-grass	Rare on unshaded sides at Nant Bargod
<i>Phalaris arundinacea</i> var. <i>picta</i> *	Gardener's Garters	Large clump on banks of Nant Bargod
<i>Phleum pratense</i>	Timothy	Occasional in main meadow
<i>Phyllitis scolopendrium</i>	Hart's-tongue Fern	Rare on rocks by Nant Bargod, wall by kitchen garden and by Mill Leat
<i>Picea abies</i> *	Norway Spruce	2 planted trees
<i>Plantago lanceolata</i>	Ribwort Plantain	Frequent in Meadow
<i>Plantago major</i>	Broad-leaved Plantain	Rare in meadow car park

<i>Poa annua</i>	Annual Meadow-grass	Occasional in grassland
<i>Poa trivialis</i>	Rough-stalked Meadow-grass	Frequent in meadow
<i>Polypodium interjectum</i>	Intermediate Polypody	Frequent on wall by car park, rare by Nant Bargod
<i>Polystichum setiferum</i>	Soft Shield-fern	Banks of Nant Bargod by vehicle bridge
<i>Potentilla anserina</i>	Silverweed	Occasional in wetter parts of meadow
<i>Potentilla cf. anglica</i>	Trading Tormentil	Bank of Nant Bargod
<i>Potentilla reptans</i>	Creeping Cinquefoil	Rare by Nant Bargod, and on northern tummock
<i>Potentilla sterilis</i>	Barren Strawberry	Rare by Nant Bargod, front garden
<i>Potentilla x mixta</i>	Hybrid Cinquefoil	Small tummock
<i>Primula vulgaris</i>	Primrose	Planted in garden, rare by overflow channel and in western hedge
<i>Prunella vulgaris</i>	Self-heal	Occasional in grassland and by Nant Bargod
<i>Prunus domestica</i> *	Plum	Frequent in hedge by drying hut
<i>Prunus spinosa</i>	Blackthorn	Hedges around meadow
<i>Pulicaria dysenterica</i>	Fleabane	Sheep meadow and main meadow, several patches
<i>Pulmonaria officinalis</i> *	Lungwort	Top of drainage channel
<i>Quercus robur</i>	Oak	Rare in hedges, occasional seedlings present in grassland
<i>Ranunculus acris</i>	Meadow Buttercup	Occasional in meadow
<i>Ranunculus ficaria</i>	Lesser Celandine	Locally abundant in spring by Nant Bargod and in meadow
<i>Ranunculus repens</i>	Creeping Buttercup	Abundant in grassland
<i>Ribes rubrum</i>	Red Current	Two clumps by Nant Bargod
<i>Ribes uva-crispa</i> *	Gooseberry	1 clump on rocks of Nant Bargod by mill
<i>Rosa arvensis</i>	Field Rose	Rare by Nant Bargod
<i>Rosa canina</i>	Dog Rose	Rare by Nant Bargod and on northern tummock
<i>Rubus fruticosus</i>	Bramble	Frequent by hedges and Nant Bargod
<i>Rubus idaeus</i>	Raspberry	1 clump on bank of Nant Bargod by vehicle bridge, and another near footbridge
<i>Rumex acetosa</i>	Sorrel	Occasional in meadow
<i>Rumex crispus</i>	Curled Dock	Rare in Meadow
<i>Rumex obtusifolius</i>	Broad-leaved Dock	Frequent in meadow, abundant in sheep field
<i>Rumex sanguineus</i>	Wood Dock	Occasional by Nant Bargod
<i>Sagina procumbens</i>	Pearlwort	Occasional near buildings
<i>Salix caprea</i>	Goat Willow	Fence near vehicle bridge
<i>Salix cinerea</i>	Grey Willow	Occasional on banks of Nant Bargod
<i>Sambucus nigra</i>	Elder	Rare by footbridge, and hedge at front
<i>Scrophularia auriculata</i>	Water Figwort	Rare by electricity box
<i>Scrophularia nodosa</i>	Figwort	Fence near vehicle bridge, and in meadow
<i>Senecio aquaticus</i>	Marsh Ragwort	Occasional in grassland
<i>Senecio jacobaea</i>	Ragwort	Occasional in grassland
<i>Senecio vulgaris</i>	Groundsel	Rare near buildings
<i>Silene dioica</i>	Red Campion	Frequent by Nant Bargod
<i>Solanum dulcamara</i>	Woody Nightshade	Banks of Nant Bargod by vehicle bridge, and by western hedge
<i>Sonchus asper</i>	Prickly Sowthistle	Rare by Nant Bargod
<i>Sonchus oleraceus</i>	Sowthistle	Rare near buildings
<i>Stachys palustris</i>	Marsh Woundwort	Overflow channel
<i>Stachys sylvatica</i>	Hedge Woundwort	Rare by Nant Bargod
<i>Stellaria graminea</i>	Lesser Stitchwort	Occasional in grassland
<i>Stellaria holostea</i>	Greater Stitchwort	Bank of Nant Bargod by sheep field
<i>Stellaria media</i>	Chickweed	Rare by Nant Bargod
<i>Stellaria uliginosa</i>	Bog Stitchwort	Damp grassland
<i>Tanacetum vulgare</i>	Tansy	Frequent in meadow and by Nant Bargod

<i>Taraxacum</i> spp.	Dandelion	Frequent; material awaits determination
<i>Trifolium dubium</i>	Lesser Hop-trefoil	Occasional in grassland
<i>Trifolium pratense</i>	Red Clover	Rare in meadow
<i>Trifolium repens</i>	White Clover	Occasional in grassland
<i>Tussilago farfara</i>	Colt's-foot	Rare by top of overflow channel
<i>Umbilicus rupestris</i>	Navelwort	Front car park wall
<i>Urtica dioica</i>	Nettle	Occasional, abundant at north end of tummock
<i>Valeriana officinalis</i>	Valerian	Rare in wet meadow
<i>Veronica arvensis</i>	Field Speedwell	Bank of Nant Bargod near vehicle bridge
<i>Veronica beccabunga</i>	Brooklime	Occasional by Nant Bargod
<i>Veronica chamaedrys</i>	Germander Speedwell	Bank of Nant Bargod
<i>Veronica filiformis</i>	Slender Speedwell	Occasional by Nant Bargod
<i>Veronica hederifolia</i> subsp. <i>lucorum</i>	Ivy-leaved Speedwell	Frequent by Nant Bargod
<i>Veronica montana</i>	Wood Speedwell	Rare by Nant Bargod
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	Rare by Nant Bargod, grass by car park
<i>Vicia segetalis</i>	Common Vetch	Rare in kitchen garden
<i>Vinca major</i> *	Greater Periwinkle	1 clump on rocks by Nant Bargod by mill

Discussion

A total of 195 species have been recorded to date, of which 24 (12%) are not native to the British Isles. Dandelion species await determination.

Overall the sites is quite diverse with a nice woodland flora along the stream, and some nice developing wetland and grassland flora in the meadow. Most of the plants are relatively common and widespread, and there are no species of particular conservation importance.

The main improvement to the flora of the site would be removal of the invasive alien species Japanese Knotweed and Himalayan Balsam. Japanese Knotweed is currently only a small problem with a few clumps along the Nant Bargod, but could soon become well established and difficult to eradicate. Himalayan Balsam is already dominant along the Nant Bargod and may be excluding other species; it could be reduced by repeatedly pulling up young plants in the spring before they seed, but it would re-establish from seed elsewhere along the riverbanks in the area.



An abundance of Himalayan Balsam along the riverbank

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