



**Biodiversity Duty:
Vascular Plant Survey of National Museum Wales,
Cathays Park, Cardiff**



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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 vascular plant list is presented from a survey of the grounds of the National Museum Cardiff in Spring and early Summer 2008.

Methods

Surveys were carried out on 10 April, 8 May, 14 May, 4 June and 3 July 2008 coupled with a few records noted whilst coming to and from work. In 2009 surveys were carried out on 19 March, 8 April, and regularly in May to sample dandelions.

The area surveyed is shown in Figure 1. No surveys were carried out on the roof of the building as this has been recently replaced. Surveys were carried out by walking around the grounds. A few specimens of taxa difficult to identify were collected for later determination. Obviously planted taxa such as the Ginkgo trees were not recorded. Nomenclature follows C.A. Stace (1997), *New Flora of the British Isles*, Cambridge University Press.



Figure 1. Boundary of area surveyed, National Museum Wales, Cardiff.

Results

The species recorded are listed in Table 1. The species list for the grasslands are likely to be incomplete due to regular mowing which makes vegetative grass identification difficult.

TABLE 1. VASCULAR PLANTS RECORDED AT CATHAYS PARK.
Alien species not native in the British Isles are marked with an asterisk *.

Species		Notes
<i>Acer platanoides</i> *	Norwegian Maple	Rare, one seedling in lower car park
<i>Acer pseudoplatanus</i> *	Sycamore	Occasional seedlings in shrubbery and grassland from park trees; these rarely survive
<i>Achillea millefolium</i>	Yarrow	Rare, on front SW lawn
<i>Aesculus hippocastanum</i> *	Horse-chestnut	Rare, planted or self-sown in hedge at back of car park
<i>Agrimonia eupatorium</i>	Agrimony	Rare, in gutters in car park
<i>Agrostis stolonifera</i>	Creeping bent	Rare, on bank on east side of car park
<i>Alliaria petiolata</i>	Garlic mustard	Rare, several plants by old toilets
<i>Bellis perennis</i>	Daisy	Frequent, in grassland on west side
<i>Bidens frondosa</i>	Beggarticks	One plant occurred above the lower car park in 2007 but has not reappeared.
<i>Brassica napus</i> *	Oil-seed rape	2 young plants in grassland at back of toilet; did not survive to flowering
<i>Bryonia dioica</i>	White bryony	Rare, seedling in car park
<i>Buddleja davidii</i> *	Buddleja	Rare, scattered around rear of museum mainly as seedlings/young plants
<i>Calystegia sepium</i>	Bindweed	Rare, in hedge at back of car park
<i>Capsella bursa-pastoris</i>	Shepherd's Purse	Rare, in open patches around car park
<i>Cardamine flexuosa</i>	Wavy bittercress	Occasional, mainly at rear of museum
<i>Cardamine hirsuta</i>	Hairy bittercress	Occasional, on bare patches
<i>Cardamine pratensis</i>	Cuckoo flower	Rare, on bank on east side of car park
<i>Catapodium rigidum</i> subsp. <i>majus</i>	Fern grass	Rare, mainly on cobbles above west side of lower car park
<i>Cerastium fontanum</i>	Mouse-ear	Rare in grassland in west side
<i>Cerastium glomeratum</i>	Sticky mouse-ear	Occasional, on barer ground and frequent in new turf
<i>Centaurea nigra</i>	Hardheads	Rare in grassland at SE corner
<i>Circaea lutetiana</i>	Enchanter's nightshade	Rare, gutters in car park
<i>Cirsium vulgare</i>	Spear thistle	Rare, as rosette on front lawn and on lawn on west side
<i>Cochlearia danica</i>	Danish scurvygrass	Rare, scattered on east side of lower car park
<i>Conyza sumatrensis</i> *	Guernsey fleabane	Rare, scattered around rear of museum
<i>Coronopus didymus</i> *	Lesser swinecress	Rare, scattered around rear of museum
<i>Crepis vesicaria</i> *	Beaked Hawk's-beard	Rare, single plants scattered around car park and in lawn
<i>Cymbalaria muralis</i> *	Ivey-leaved toadflax	Abundant, on cobbles above lower car park, and scattered around edges
<i>Dactylis glomerata</i>	Cocksfoot grass	Rare, on bank on east side of car park, and grassland at front
<i>Epilobium ciliatum</i>	Willowherb	Rare, in lower car park
<i>Epilobium hirsutum</i>	Great willowherb	Rare, as rosettes on cobbles by Reardon Smith. Subsequently removed
<i>Epilobium lanceolatum</i>	Spear-leaved willowherb	Rare in verges of ramp, first seen 2009 and sprayed with weedkiller shortly after.
<i>Epilobium montanum</i>	Broad-leaved willowherb	Rare, on cobbles above lower car park

<i>Epilobium parviflorum</i>	Hoary willowherb	Rare, one plant on cobbles above lower car park
<i>Epilobium roseum</i>	Pale willowherb	Scattered around back of museum
<i>Erophila glabrescens</i>	Glabrous whitlowgrass	Occasional, scattered around car park and outside Reardon Smith on cobbles
<i>Festuca rubra</i>	Red Fescue	Abundant in newly sown grass
<i>Fraxinus excelsior</i>	Ash	Rare, planted or self-sown in hedge at back of car park
<i>Galium aparine</i>	Goosegrass	Rare, in hedge at back of car park
<i>Geranium robertianum</i>	Herb Robert	Rare, on east side of lower car park
<i>Geum urbanum</i>	Herb Bennett	Rare, in open patches around car park
<i>Hedera helix</i>	Ivy	Occasional, in hedge at back of car park
<i>Heracleum sphondylium</i>	Hogweed	Rare, in gutters in car park
<i>Holcus lanatus</i>	Yorkshire fog	Rare, on bank on east side of car park
<i>Hypochaeris radicata</i>	Cat's-ear	Rare, in lawns on west side
<i>Juncus effusus</i>	Soft Rush	Rare weed in shrubbery on east side
<i>Lapsana communis</i>	Nipplewort	Rare, in gutters in car park
<i>Lolium perenne</i>	Rye grass	Abundant in lawns
<i>Luzula campestris</i>	Field woodrush	Rare, in lawns on west side
<i>Medicago lupulina</i>	Black medic	Rare, shaded grass by old toilet
<i>Malus</i> sp.	Apple	Seedling in pavement crack
<i>Mycelis muralis</i>	Wall lettuce	Occasional, in Porters Lodge area
<i>Phyllitis scolopendrium</i>	Hart's-tongue fern	Rare, 2 plants on brickwork
<i>Pisum sativum</i> *	Pea	Casual in new grass
<i>Plantago lanceolata</i>	Ribwort plantain	Rare, on bank on east side of car park
<i>Plantago major</i>	Greater plantain	Rare, on bank on east side of car park and rare in lawns
<i>Poa annua</i>	Annual meadowgrass	Frequent, scattered in lawns
<i>Poa pratensis</i> agg.	Meadowgrass	Rare, in grass on west side
<i>Poa trivialis</i>	Rough-stalked meadowgrass	Frequent, in new turf on east side
<i>Polygonum aviculare</i>	Knotgrass	Occasional, around car park and lodge
<i>Potentilla reptans</i>	Creeping cinquefoil	Rare, weed in new grass on east side
<i>Prunella vulgaris</i>	Self-heal	Occasional, in lawns on west side
<i>Quercus cerris</i> *	Turkey oak	Rare, planted or self-sown in hedge at back of car park
<i>Quercus ilex</i> *	Evergreen oak	Rare, planted or self-sown in hedge at back of car park
<i>Quercus robur</i>	Common oak	Rare, planted or self-sown in hedge at back of car park
<i>Ranunculus acris</i>	Meadow buttercup	Rare, weed in new grass on east side and on grass near toilet
<i>Ranunculus bulbosus</i>	Bulbous Buttercup	Rare, in old grass on west side
<i>Ranunculus ficaria</i> subsp. <i>ficaria</i>	Lesser Celandine	Rare, in grassland around museum and gutters of car park
<i>Ranunculus ficaria</i> subsp. <i>bulbilifer</i>	Lesser Celandine	Large clumps on bank of east side of car park
<i>Ranunculus repens</i>	Creeping Buttercup	Occasional, scattered in new and old grassland
<i>Rubus</i> sp.	Bramble	Rare, in hedge at back of car park
<i>Rumex acetosa</i>	Sorrel	Rare, in lawns on west side
<i>Rumex crispus</i>	Curled dock	Rare, weed in new grass on east side
<i>Rumex obtusifolius</i>	Broad-leaved dock	Rare, weed in new grass on east side
<i>Rumex sanguineus</i>	Wood dock	Rare, on bank on east side of car park
<i>Sagina apetala</i>	Annual pearlwort	Occasional on west side of lower car park

<i>Sagina procumbens</i>	Pearlwort	Frequent, on bare edges
<i>Salix cinerea</i>	Grey willow	Rare, sapling on cobbles above lower car park
<i>Sedum acre</i>	Biting stonecrop	Rare, on cobbles above lower car park, edges of car park etc
<i>Sedum album</i> *	White stonecrop	Rare, on cobbles above lower car park
<i>Senecio jacobaea</i>	Ragwort	Rare, in lawns on west side
<i>Senecio squalidus</i> *	Oxford ragwort	Rare, on cobbles above lower car park
<i>Senecio vulgaris</i>	Groundsel	Occasional, scattered on bare edges mainly at rear of museum
<i>Solanum dulcamara</i>	Woody nightshade	Rare, one plant by old toilets
<i>Solanum nigrum</i>	Black nightshade	Rare, young plant outside Reardon-Smith
<i>Sonchus oleraceus</i>	Common sowthistle	Occasional, around car park and lodge
<i>Sonchus asper</i>	Prickly sowthistle	Rare weed at front SE corner
<i>Stellaria media</i>	Chickweed	Frequent, shaded grassland by old toilet, car park edge, shrub borders etc.
<i>Taraxacum "anceps"</i> Ollgard ined.	Dandelion	Rare, on grassland at back of car park (NMW, det. A. J. Richards), and grassland on west side
<i>Taraxacum boeckmanii</i>	Dandelion	Rare, on bank on east side of car park and on occasional on lawn on west side (NMW, det. A. J. Richards)
<i>Taraxacum britannicum</i>	Dandelion	Rare, on bank on east side of car park (NMW, det. A. J. Richards), and grassland on west side
<i>Taraxacum hamatulum</i>	Dandelion	Occasional on SE lawn (NMW, det. A. J. Richards)
* <i>Taraxacum intumescens</i>	Dandelion	Rare, by back steps (NMW, det. A. J. Richards), lawn by ramp
* <i>Taraxacum lacerifolium</i>	Dandelion	Rare, on lawn (NMW, det. A. J. Richards)
* <i>Taraxacum multicolorans</i>	Dandelion	Lawn on west side of museum, and grassland by car park (NMW, det. A. J. Richards)
<i>Taraxacum pseudohamatum</i>	Dandelion	Occasional, in grassland
<i>Taraxacum xanthostigma</i>	Dandelion	Rare, on front lawn behind museum sign (NMW, det. A. J. Richards), and on west side
<i>Tilia x vulgaris</i>	Common Lime	Occasional seedlings in shrubbery and grassland from park trees; rarely survive for long
<i>Trifolium dubium</i>	Hop trefoil	Frequent, in lawns on west side
<i>Trifolium pratensis</i>	Red clover	Occasional, in lawns on west side
<i>Trifolium repens</i>	White clover	Occasional, in lawns on west side
<i>Veronica arvensis</i>	Field speedwell	Rare, on stone edges on SW corner
<i>Veronica filiformis</i>	Creeping speedwell	Rare, on bank on east side of car park
<i>Veronica hederifolia</i> subsp. <i>hederifolia</i>	Ivy-leaved speedwell	Frequent, along hedge by old toilets, rarer on bank on east side of car park. A few plants tending towards subsp. <i>lucorum</i>
<i>Veronica polita</i>	Grey Field-speedwell	Scattered on lawn edges
<i>Veronica serpyllifolia</i>	Thyme-leaved speedwell	Rare, on bank on east side of car park, and grassland on west side
<i>Vicia segetalis</i>	Common vetch	Rare, on grass by old toilet

Discussion

A total of 108 species have been recorded to June 2009 recorded, of which 16 were not native to the British Isles. Most of the plants are common and widespread and of little interest, but two are worthy of note:

1. *Catapodium rigidum* subsp. *majus* is a rare grass which has been persistent, despite herbicide treatment, on the cobbles above the west side of the lower car park since at least 1997 (Figure 2).
2. *Erophila glabrescens*; a locally distributed species once abundant on the cobbles outside the Reardon Smith and probably introduced with them in c. 2000, but recently much reduced in quantity following the extensive roof works in 2007-8 (Figure 3). It is also regularly sprayed with herbicide as part of the grounds maintenance.

The most interesting area is the unimproved grassland along the west side of the building (see Phase 1 habitat survey report).

Figure 2. *Erophila glabrescens* on the cobbles outside the Reardon Smith.



Figure 3. *Catapodium rigidum* subsp. *majus* above lower car park.

