



**Biodiversity Duty:
Vascular Plant Survey of
National Waterfront Museum, Swansea**



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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 all of its sites. In this report, a vascular plant list is presented from a survey of the grounds of the Waterfront Museum, Swansea, in spring and autumn 2009.

Methods

Surveys were carried out on 3 April, 6 May and 7 September 2009.

The area surveyed is shown in Figure 1. 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 usually not recorded, unless they were likely sources of seedlings and saplings. Nomenclature follows C.A. Stace (1997), *New Flora of the British Isles*, Cambridge University Press.

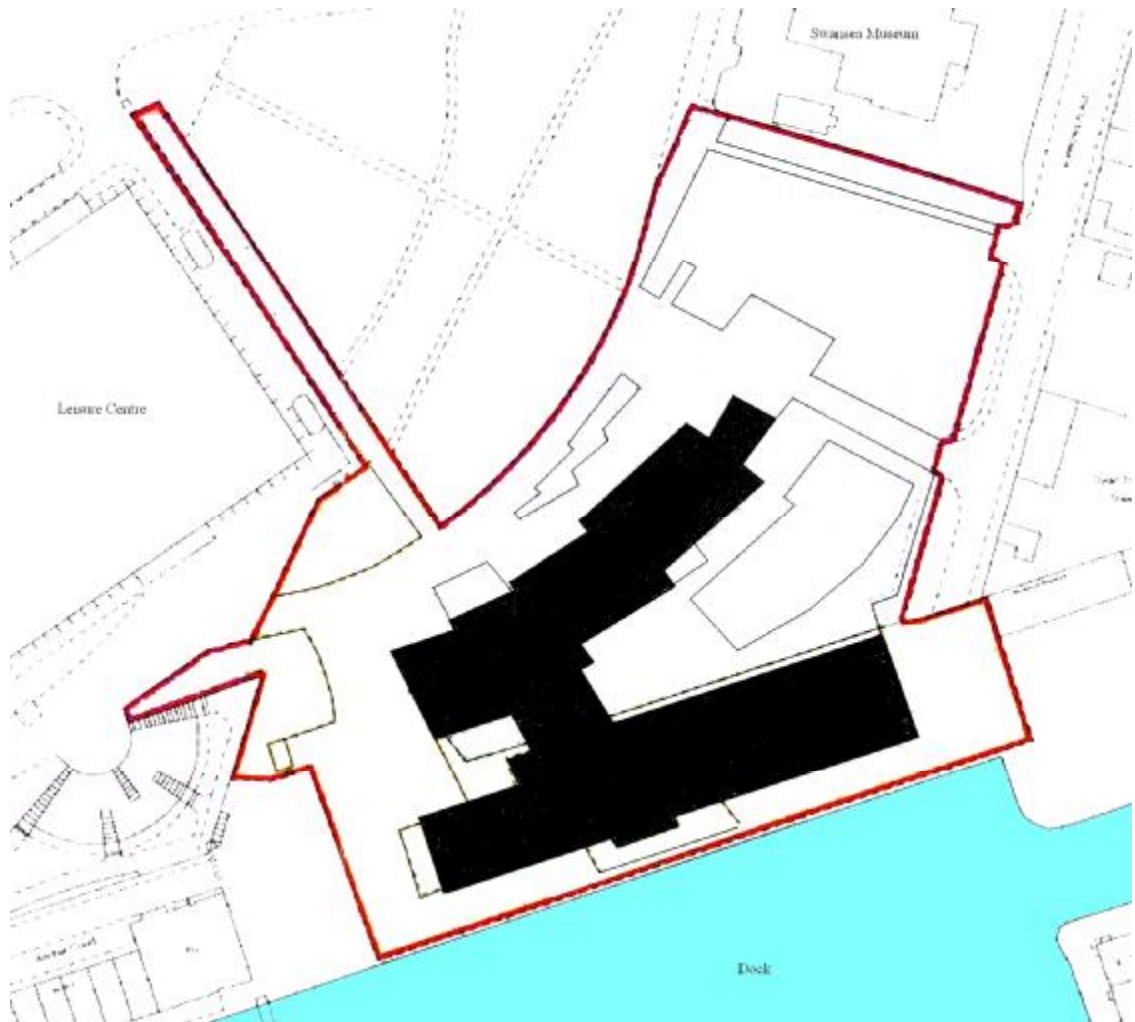


Figure 1. Boundary of area surveyed in red.

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 SWANSEA.
Alien species not native in the British Isles are marked with an asterisk *.

Latin name	Vernacular name	Notes
<i>Acer platanoides</i>	Norway Maple	Rare, seedling under trees by Leisure Centre
<i>Agrostis gigantea</i>	Black Bent	Rare in flower beds, possibly more widespread
<i>Agrostis stolonifera</i>	Creeping Bent	Occasional in grassland and in shrubbery
<i>Anagallis arvensis</i>	Scarlet Pimpernel	Rare, in flower beds and by wall of Swansea Museum
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	Courtyard and shrubbery
<i>Arabidopsis thaliana</i>	Thale Cress	Rare on paving, waterfront
<i>Arrhenatherum elatius</i>	False Oat-grass	Rare in shrubbery
<i>Atriplex</i> sp.	Orache	Seedling in grassland
<i>Bellis perennis</i>	Daisy	Occasional in grassland
<i>Buddleja davidii</i>	Butterfly Bush	Many seedlings and young plants around the site on block paving and shrubberies
<i>Calystegia sepium</i> subsp. <i>sepium</i>	Hedge Bindweed	Occasional in shrubbery by theatre and fence of courtyard
<i>Capsella bursa-pastoris</i>	Shepherd's Purse	Rare at wall base, waterfront
<i>Cardamine flexuosa</i>	Wavy Bittercress	Shrubbery near Theatre
<i>Cardamine hirsuta</i>	Hairy Bittercress	Frequent on paving, rare in grassland
<i>Centaurea nigra</i>	Knapweed	Rare in grass by Swansea Museum, courtyard
<i>Cerastium diffusum</i>	Sea Mouse-ear	Rare at wall base, waterfront
<i>Cerastium fontanum</i>	Mouse-ear	Grassland, occasional
<i>Cerastium glomeratum</i>	Sticky Mouse-ear	Frequent in grassland
<i>Chamerion angustifolium</i>	Rosebay Willowherb	Rare, one clump under trees near Leisure Centre
<i>Cirsium vulgare</i>	Spear Thistle	Rare on bank by Swansea Museum
<i>Conyza canadensis</i>	Canadian Fleabane	One rosette in grassland
<i>Conyza sumatrensis</i>	Guernsey Fleabane	Frequent weed in shrubbery by theatre
<i>Coronopus didymus</i>	Lesser Swinecress	Rare weed in paving
<i>Coronopus squamatus</i>	Swine-cress	Rare on bank by Swansea Museum
<i>Crepis vesicaria</i>	Beaked Hawk's-bit	Frequent weed on paving and in grass
<i>Cymbalaria muralis</i>	Ivy-leaved Toadflax	Rare on ground in courtyard, and by waterfront
<i>Daucus carota</i>	Carrot	Rare in courtyard and bank by Swansea Museum
<i>Dryopteris dilatata</i>	Broad Buckler-fern	One young plant on wall of museum at SE corner
<i>Echium vulgare</i>	Viper's Bugloss	One rosette in grassland, eastern corner
<i>Elytrigia repens</i>	Couch-grass	Rare in amenity grassland
<i>Epilobium ciliatum</i>	American Willowherb	Frequent weed on block paving
<i>Epilobium montanum</i>	Broad-leaved Willowherb	Rare in flower bed at front of Museum and in shrubbery by theatre
<i>Epilobium parviflorum</i>	Hoary Willowherb	Cracks in paving, waterfront
<i>Epilobium roseum</i>	Pale Willowherb	Paving in courtyard
<i>Erophila glabrescens</i>	Glabrous Whitlowgrass	Cracks in paving, waterfront

<i>Fallopia convolvulus</i>	Black Bindweed	Rare, one plant in gravel in grassland
<i>Festuca rubra</i>	Red Fescue	Dominant in grassland
<i>Fraxinus excelsior</i>	Ash	Rare, 1.5m sapling in shrubbery by theatre
<i>Geranium molle</i>	Soft Crane's-bill	A few rosettes in grassland
<i>Hedera hibernica</i>	Irish Ivy	Local in flower beds and on fence of courtyard; this plant is of cultivated origin and seems to be closer to <i>H. hibernica</i> than <i>H. helix</i> .
<i>Holcus lanatus</i>	Yorkshire Fog	Rare in shrubbery, courtyard
<i>Hypochaeris radicata</i>	Cat's-ear	Rare in grassland
<i>Juncus articulatus</i>	Articulated Rush	Rare in shrubbery by theatre
<i>Juncus bufonius</i>	Toad Rush	Rare in courtyard grassland
<i>Juncus effusus</i>	Soft Rush	Rare in courtyard grassland
<i>Lactuca serriola</i>	Prickly Lettuce	Rare in shrubbery by theatre
<i>Lathyrus pratensis</i>	Meadow Vetchling	Rare on bank by Swansea Museum
<i>Leontodon autumnalis</i>	Autumn Hawkbit	Rare in grassland
<i>Leontodon hispidus</i>	Rough Hawk's-bit	Grassy bank by Swansea Museum
<i>Leycesteria formosa</i>	Himalayan Honeysuckle	Seedling by wall of Swansea Museum
<i>Lolium perenne</i>	Rye-grass	Occasional in grassland
<i>Lotus corniculatus</i>	Bird's-foot trefoil	Rare in grassland and gravel
<i>Matricaria discoidea</i>	Pineappleweed	Rare in trampled grass
<i>Medicago lupulina</i>	Black Medick	Grassy bank by Swansea Museum
<i>Mentha requienii</i>	Corsican Mint	A few plants in block paving in courtyard in spring, not seen in autumn
<i>Persicaria hydropiper</i>	Water-pepper	Rare in shrubbery by theatre
<i>Persicaria maculosa</i>	Redshank	Rare in shrubbery by theatre
<i>Phyllitis scolopendrium</i>	Hart's-tongue Fern	Rare under drainpipe, waterfront
<i>Plantago coronopus</i>	Buck's-horn Plantain	Sandy grassland near Swansea Museum
<i>Plantago lanceolata</i>	Ribwort Plantain	Rare in grassland, courtyard
<i>Plantago major</i>	Greater Plantain	Rare on amenity grassland
<i>Poa annua</i>	Annual Meadow-grass	Frequent in grassland and paving
<i>Poa pratensis</i> agg.	Meadow-grass	Rare in grassland near Swansea Museum
<i>Poa trivialis</i>	Rough-stalked Meadow-grass	Occasional in grassland
<i>Polygonum aviculare</i>	Knotweed	Rare in trampled grass and on gravel
<i>Polypodium interjectum</i>	Polypody	Rare on tree in shrubbery, and immature plants on west side of museum
<i>Potentilla anserina</i>	Silverweed	Rare on bank by Swansea Museum, courtyard
<i>Prunella vulgaris</i>	Self-heal	Rare on bank by Swansea Museum
<i>Pulicaria dysenterica</i>	Fleabane	Grassy bank by Swansea Museum and by leisure centre
<i>Quercus ilex</i>	Holm Oak	Rare, sapling outside fence of courtyard by disabled parking
<i>Quercus robur</i>	Pedunculate Oak	Planted row of trees and one seedling in courtyard shrubbery
<i>Ranunculus acris</i>	Meadow Buttercup	Grassland, courtyard
<i>Ranunculus bulbosus</i>	Bulbous Buttercup	Rare on bank by Swansea Museum, courtyard
<i>Ranunculus repens</i>	Creeping Buttercup	Frequent in grassland
<i>Rubus fruticosus</i> agg.	Bramble	Rare in flower bed at front of Museum
<i>Rumex crispus</i>	Curled Dock	Rare in grassland
<i>Rumex obtusifolius</i>	Broad-leaved Dock	Occasional in grassland
<i>Sagina apetala</i>	Annual Pearlwort	Rare against walls, waterfront, courtyard

<i>Sagina procumbens</i>	Pearlwort	Frequent on paving, rarer in grassland
<i>Salix caprea</i>	Goat willow	Saplings and young tree in shrubbery
<i>Salix cinerea</i>	Grey-leaved Willow	One seedling in courtyard
<i>Senecio jacobaea</i>	Ragwort	Occasional in grassland and shrubbery
<i>Senecio squalidus</i>	Oxford Ragwort	Rare in flower bed
<i>Senecio vulgaris</i>	Groundsel	Frequent weed on paving etc.
<i>Sisymbrium officinale</i>	Hedge Mustard	Rare in shrubbery by theatre
<i>Sonchus asper</i>	Prickly Sowthistle	Weed in courtyard
<i>Sonchus oleraceus</i>	Sowthistle	Weed scattered around site
<i>Sorbus intermedia</i>	Swedish Whitebeam	2 sampling in shrubbery
<i>Stellaria media</i>	Chickweed	Rare in courtyard grassland
<i>Taraxacum</i> cf. <i>latissimum</i>	Dandelion	Shrubbery near theatre
<i>Taraxacum</i> species	Dandelions	Frequent in grassland, at least 5 species present including <i>T. lamprophyllum</i>
<i>Trifolium dubium</i>	Hop-trefoil	Rare in grassland and in courtyard
<i>Trifolium pratense</i>	Red Clover	Rare on bank by Swansea Museum, courtyard
<i>Trifolium repens</i>	White Clover	Frequent in grassland
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	Rare in flower bed near Swansea Museum
<i>Urtica dioica</i>	Nettle	A few scattered plants in courtyard
<i>Veronica arvensis</i>	Wall Speedwell	Rare at wall base, waterfront, courtyard
<i>Veronica chamaedrys</i>	Germander Speedwell	Shrubbery near theatre
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	Rare in shrubbery, courtyard
<i>Vicia segetalis</i>	Common Vetch	Rare in shrubbery, courtyard
<i>Vicia sepium</i>	Tufted Vetch	Rare in shrubbery by theatre

Discussion

A total of 101 species were recorded to date, of which 14 (14%) were not native to the British Isles, the fairly high figure of aliens reflecting the urban location. Some *Taraxacum* specimens await confirmation.

All of the plants are common and widespread, and the site is of little interest. The low diversity is due to the recent origin of most of the site, and it being managed intensively as part of the urban landscape. Significant areas of the site are paved and weeds managed by spraying.

There are no recommendations for management for vascular plants.

Acknowledgements

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