



**Biodiversity Duty:  
Phase 1 Habitat Survey of  
National Roman Legion Museum**

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## Introduction

Biodiversity is a core component of sustainable development, underpinning economic development and prosperity, and has an important role to play in developing locally distinctive and sustainable communities. 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. The Duty aims to raise the profile and visibility of biodiversity, clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision making. The Duty is set out in Section 40 of the Natural Environment and Rural Communities Act (NERC) 2006 which states: *“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”*.

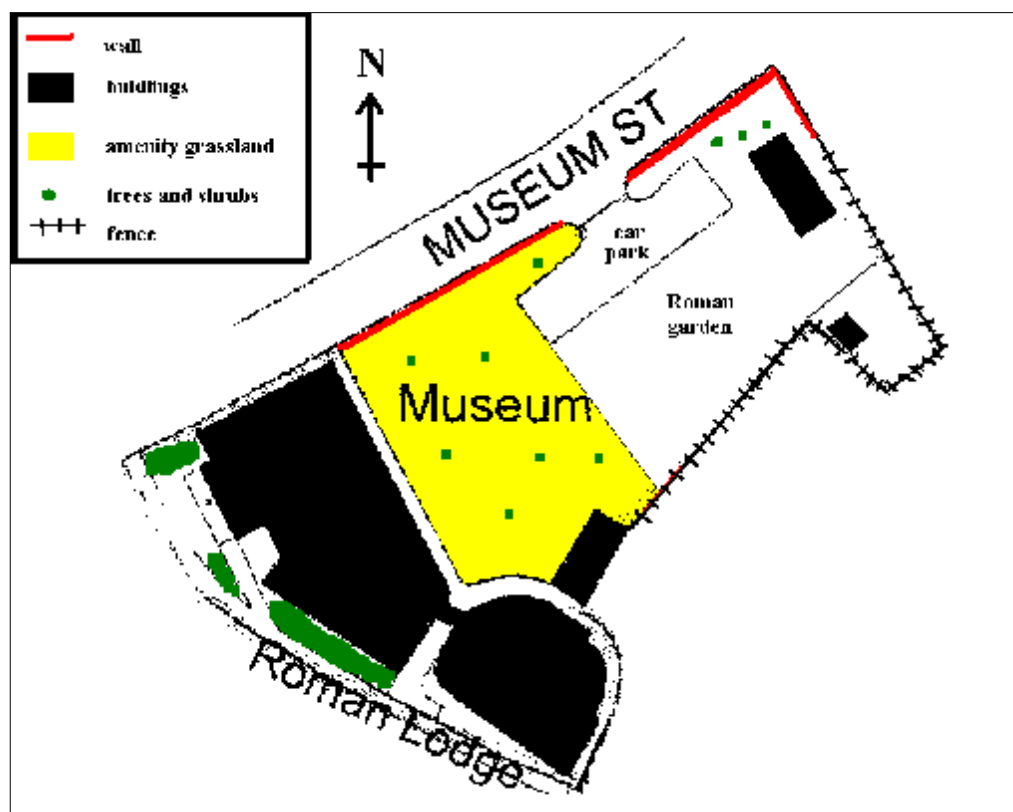
A part of the museum's response to the legislation, biodiversity audits are being carried out at its sites. In this report, a Phase 1 habitat survey of the National Roman Legion Museum, Caerleon, a small museum with gardens in an urban setting, is presented. The Phase 1 habitat survey technique is the standard system for classifying and mapping wildlife habitats (including urban areas) in Britain (Nature Conservancy Council 1989; Wyatt 1991). The aim of the survey is to provide information about the nature, location and extent of semi-natural habitats to direct decision making and conservation effort effectively. Sites are mapped reasonably rapidly by visiting each parcel of land and mapping the vegetation, usually at the scale of 1:10,000, according to about ninety specific habitat types using standard colour codes. More detailed notes ("target notes") are made on areas of interest. The surveys can then be used to determine areas for more detailed survey, to indicate areas of value for nature conservation, and to provide a simple baseline for monitoring change in the future.

## Methods

The museum grounds were mapped on 18 September April 2008 in good weather following the survey manual (Nature Conservancy Council 1989). The area surveyed is shown in Figure 1; the scale is larger than normal for Phase 1 due to the small size of the site.

All 'wild' plant species seen were listed (deliberately planted species were not noted).

Figure 1. Phase 1 habitat survey of site.



## Results

The only Phase 1 habitat type present was J.3 Built up areas (i.e. buildings and gardens). Within this, there were several sub-habitats:

### 1. Lawn

The lawn (Figure 2) was a typical, relatively species-poor, regularly mown lawn with a few planted trees (e.g. *Pyrus*, *Magnolia*, *Acer*, *Betula*, *Ilex* and 2 conifers). The grass is dominated by Rye Grass *Lolium perenne*, with the following species scattered through it:

<i>Agrostis stolonifera</i>	Creeping Bent	Rare
<i>Ballota nigra</i>	Black Horehound	Rare
<i>Bellis perennis</i>	Daisy	Frequent
<i>Coronopus didymus</i>	Lesser Swinecress	Rare
<i>Festuca rubra</i>	Red fescue	Rare, mainly at edges
<i>Plantago lanceolata</i>	Ribwort plantain	Rare
<i>Plantago major</i>	Broad-leaved plantain	Scattered
<i>Poa annua</i>	Annual Meadow-grass	Scattered
<i>Potentilla reptans</i>	Creeping Cinquefoil	Scattered, mainly at edges
<i>Prunella vulgaris</i>	Self-heal	Rare
<i>Ranunculus acris</i>	Meadow Buttercup	Rare at Edge
<i>Ranunculus repens</i>	Creeping Buttercup	Rare
<i>Rumex obtusifolius</i>	Broad-leaved dock	Scattered
<i>Sagina procumbens</i>	Pearlwort	Rare
<i>Sonchus oleraceus</i>	Smooth Sowthistle	Rare
<i>Taraxacum</i> spp.	Dandelion	At least 3 species present
<i>Trifolium repens</i>	White Clover	Frequent
<i>Veronica chamaedrys</i>	Germander Speedwell	Rare
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	Occasional

Figure 2. Lawn with planted trees.



## 2. Flower Beds

The flower beds have recently been redeveloped as a Roman Garden (Figure 3), and there are very few weeds!

<i>Cardamine flexuosa</i>	Wavy Bittercress	Rare
<i>Epilobium</i> sp.	Willowherb	Young plants, difficult to name
<i>Euphorbia peplis</i>	Pretty Spurge	Rare
<i>Poa annua</i>	Annual Meadowgrass	Rare
<i>Veronica agrestis</i>	Green Speedwell	Rare
<i>Veronica persica</i>	Persian Speedwell	Rare

Figure 3. Roman garden with few weeds in flower bed!



## 3. Gravel edges around garden

A few weeds occur on ground and edges.

<i>Agrostis stolonifera</i>	Creeping Bent	Rare
<i>Arrhenatherum elatius</i>	False oat-grass	Rare
<i>Epilobium ciliatum</i>	American Willowherb	Rare
<i>Epilobium montanum</i>	Broad-leaved Willowherb	Rare
<i>Epilobium roseum</i>	Pale Willowherb	Rare
<i>Polygonum arenastrum</i>	Equal-leaved Knotgrass	
<i>Stachys sylvatica</i>	Hedge Woundwort	Rare



#### 4. Fences and hedges

A few species occur along the fences and hedges (composed of garden shrubs, not real hedges). At the eastern and northern sides of the site the following occurred with seedlings of *Acer* and *Ilex* trees:

<i>Calystegia sylvatica</i>	Greater Bindweed	Frequent
<i>Circaea lutetiana</i>	Enchanter's Nightshade	Rare
<i>Hedera helix</i>	Ivy	Occasional
<i>Potentilla sterilis</i>	Barren Strawberry	Rare

#### 5. Walls

The walls (Figure 4) are generally well re-pointed or cement with few plants.

<i>Asplenium ruta-muraria</i>	Wall rue	Rare (outside)
<i>Asplenium trichomanes</i> subsp. <i>quadrialeans</i>	Maidenhair spleenwort	Rare at NW corner
<i>Cymbalaria muralis</i>	Ivy-leaved toadflax	Rare
<i>Hedera helix</i>	Ivy	Rare except at North edge
<i>Poa compressa</i>	Flat-stalked meadow-grass	Rare on wall at end

Figure 4. Wall at rear of museum with ferns and ivy.



The gardens at the front of the museum have planted shrubs and a few extra species.

<i>Arabidopsis thaliana</i>	Thale Cress	Rare
<i>Cardamine hirsute</i>	Bittercress	Rare
<i>Geum urbanum</i>	Herb Bennett	Rare
<i>Mycelis muralis</i>	Wall Lettuce	Rare
<i>Senecio vulgaris</i>	Groundsel	Rare
<i>Stellaria media</i>	Chickweed	Rare
<i>Urtica dioica</i>	Nettle	Rare

## Discussion

As expected for an urban site with small grounds, there are no habitats or plant species of note. The management is either regular mowing of the lawns, or weeding of the flower beds. A total of 45 'wild' plants were recorded, which is fairly typical of gardens. A few Cabbage White butterflies were seen during the survey (caterpillars feed on turnips in the Roman garden), and a few birds (robin, blackbird), etc.

The grounds are an integral part of the museum and its displays, and the site is not of any importance for wildlife nor potential for significant enhancement.

## References

- Nature Conservancy Council (1990). *Handbook for Phase 1 habitat survey - a technique for environmental audit*. England Field Unit, Nature Conservancy Council, Peterborough.
- Wyatt, G. (1991). *A review of Phase 1 habitat survey in England*. England Field Unit, Nature Conservancy Council, Peterborough.