



**Biodiversity Duty:  
Phase 1 Habitat Survey of  
National Museum Cardiff**



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## Introduction

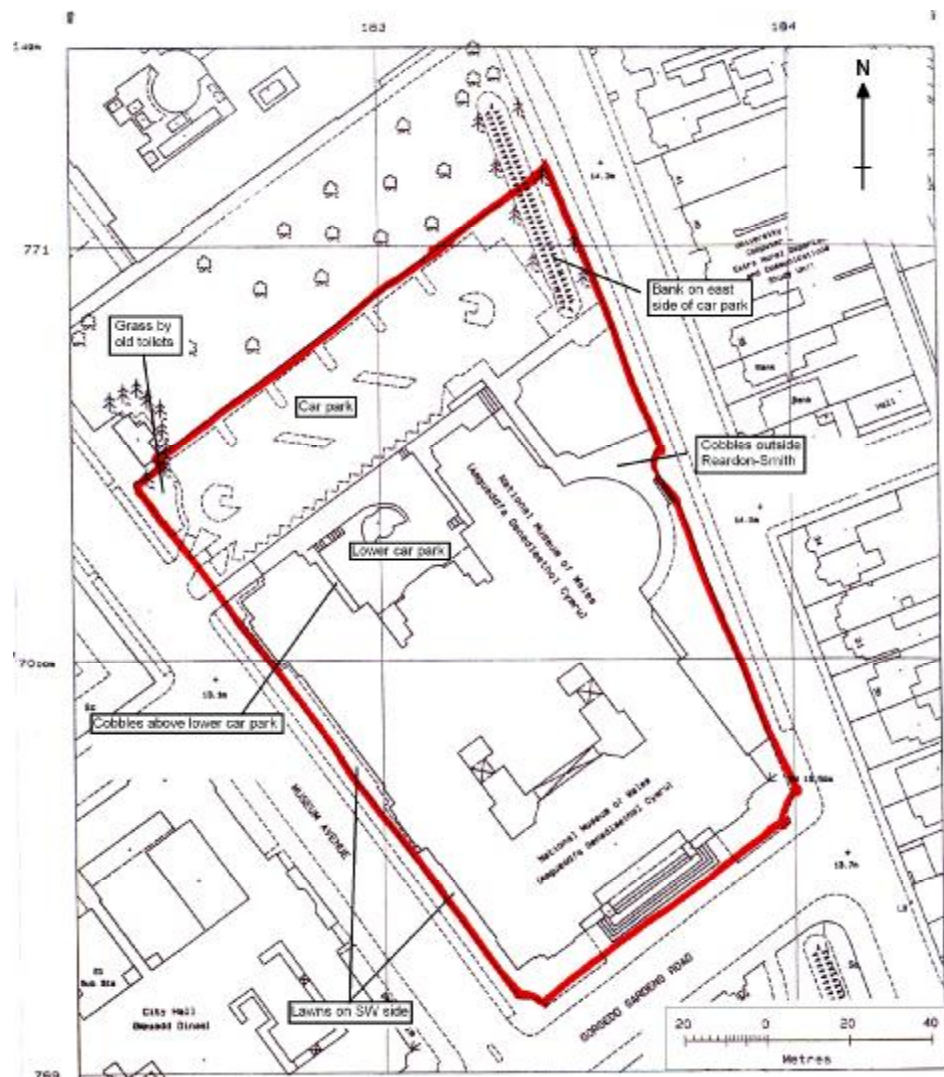
Biodiversity is a core component of sustainable development, underpinning economic development and prosperity, and has an important role to play in developing locally distinctive and sustainable communities. From 1 October 2006, all public authorities in England and Wales have a Duty to have regard to 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 Museum Cardiff 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 10 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.

Figure 1. Area surveyed. The site boundary is shown in solid red. Places mentioned in the text are also shown.



## Results

The following habitats were present (Figure 2):

- A.3.3 Mixed Parkland/scattered trees. This occurred around the bank on the east side of the car park (Figure 2, Target note 5; Figure 3).
- B.2.1 Unimproved neutral grassland. The old lawns on the south-west side of the museum were recorded as this habitat type rather than amenity grassland due to their relatively species-rich diverse nature (Figure 2, Target note 2; Figures 4 and 5).
- J.1.2 Amenity grassland. The new mown lawns on the north-east and at the front of the building were recorded as this (Figure 2, Target note 4; Figure 6).
- J.1.3 Ephemeral/short perennial vegetation, of varied composition occurred on bare open cobbles by the Reardon Smith or on the French Drain above the lower car park (Figure 2, Target note 2; Figures 7-9).
- J.1.4 Introduced shrub. Species of evergreen shrub have been planted around the car park (Figure 2, Target note 3; Figure 9).
- J.2.2 Species-poor hedge. This planted Beech hedge occurred along the north-west edge of the car park, sometimes with a few trees standards in places (Figure 2; Figure 9).

Target notes (Figure 2)

- 1. Cobbles above west side of lower car park (French drain). Ephemeral/short perennial vegetation dominated by *Cymbalaria muralis*. Main site for *Catapodium rigidum* subsp. *majus*. 2 plants of *Phyllitis scolopendrium* also present on walls. At least 3 *Taraxacum* species present. This area is regularly sprayed with herbicide but not so far in 2008.
- 2. Species-rich neutral grassland with relatively diverse sward. Mixed *Agrostis*, *Lolium*, *Bellis*, *Trifolium*, *Taraxacum* and other herbs. Regularly mown short.
- 3. Car park. Scattered ephemeral/short perennial vegetation in gutters with a range of species, though few maturing. Shrubberies with evergreen shrubs and Ginkgo trees.
- 4. Amenity grassland. Species-poor new turf of *Lolium* and *Agrostis* with a few weeds, laid March 2008.
- 5. Bank on east side of Car park. Planted trees including *Tilia x vulgaris*, *Sequoiadendron giganteum* and *Araucaria araucana* over regularly mown grass with planted Daffodils. At least 4 *Taraxacum* species present.



Figure 2. Phase 1 habitat map. The site boundary is shown in solid red.

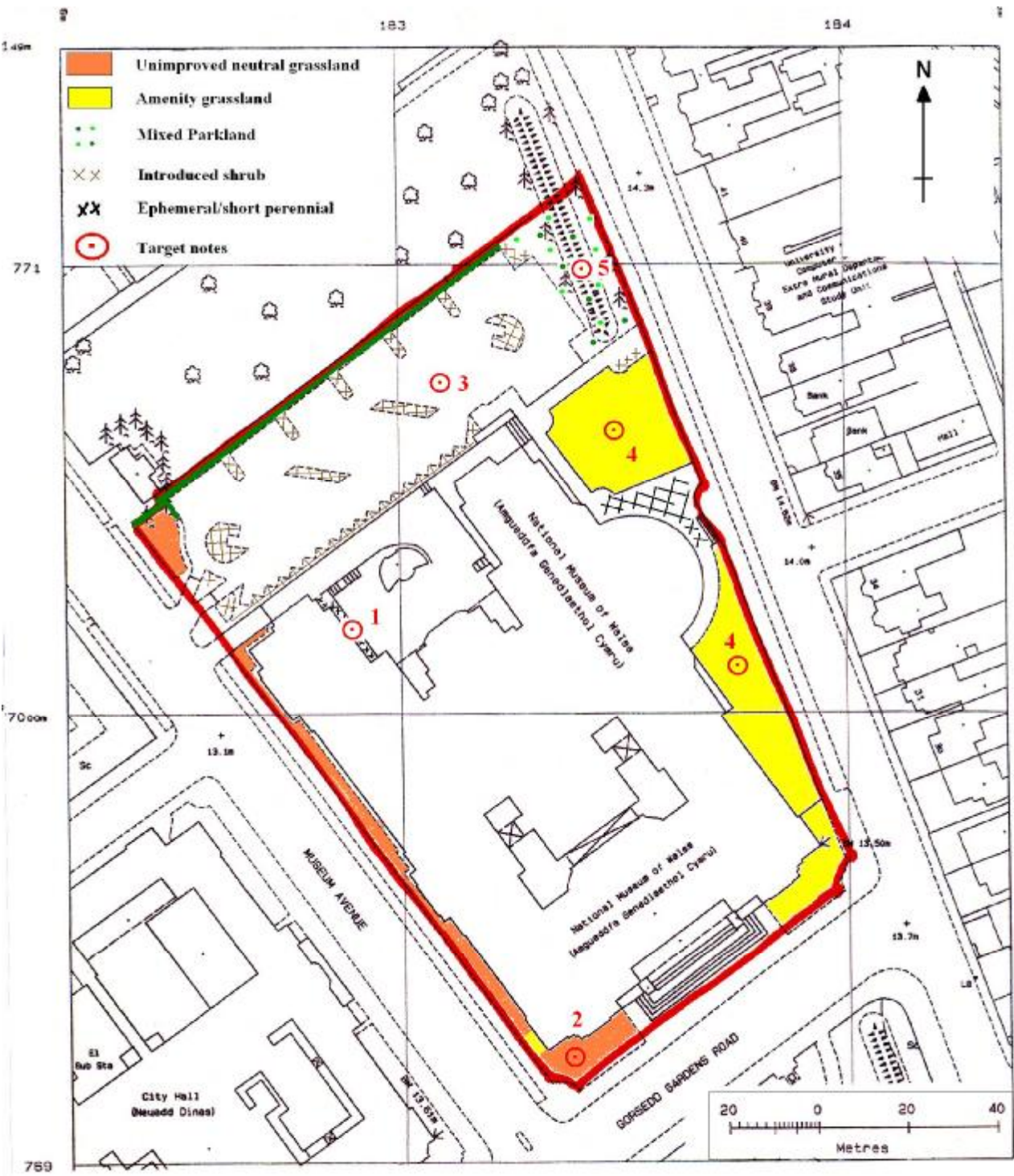




Figure 3. Grassy bank on east side of car park.



Figure 4. Species-rich neutral grassland by car park (west side).





Figure 5. Species-rich neutral grassland on south-west side of museum.



Figure 6. The species-poor new grassland on north-east side of museum.



Figure 7. Ephemeral vegetation around Reardon Smith



Figure 8. Ephemeral vegetation on French drain above lower car park.





Figure 9. Ephemeral vegetation in drains in car park. The beech hedge at the back of the car park and the introduced shrubs can also be seen.



## Discussion

As expected for a city-centre building with limited grounds surrounded by amenity grassland, there is relatively little interesting habitat present on the museum site, and all is of man-made origin. The management is either regular mowing of the lawns, or weeding and herbicide treatment of the weedy ephemeral vegetation. Neither currently is optimum for maintaining or enhancing biodiversity.

The most interesting habitat is the presence of species-rich neutral grassland on the south-west side of the museum – these are the old lawns which may have been regularly mown for 80 years or so. Unfortunately the lawns on the north-east side of the building were replaced in 2008 following the museum re-roofing works, and may have been equally rich; they are now uniform, species-poor grassland.

The short ephemeral vegetation is diverse, supporting two locally distributed taxa, *Catapodium rigidum* subsp. *majus* and *Erophila glabrescens*, and at least seven different *Taraxacum* species.

## 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.