



**Biodiversity Duty:
Bryophyte Biodiversity of
The Collections Centre, Nantgarw**



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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 bryophyte list is presented from a survey of the grounds of Amgueddfa Cymru's Collections Centre at Nantgarw in 2009.

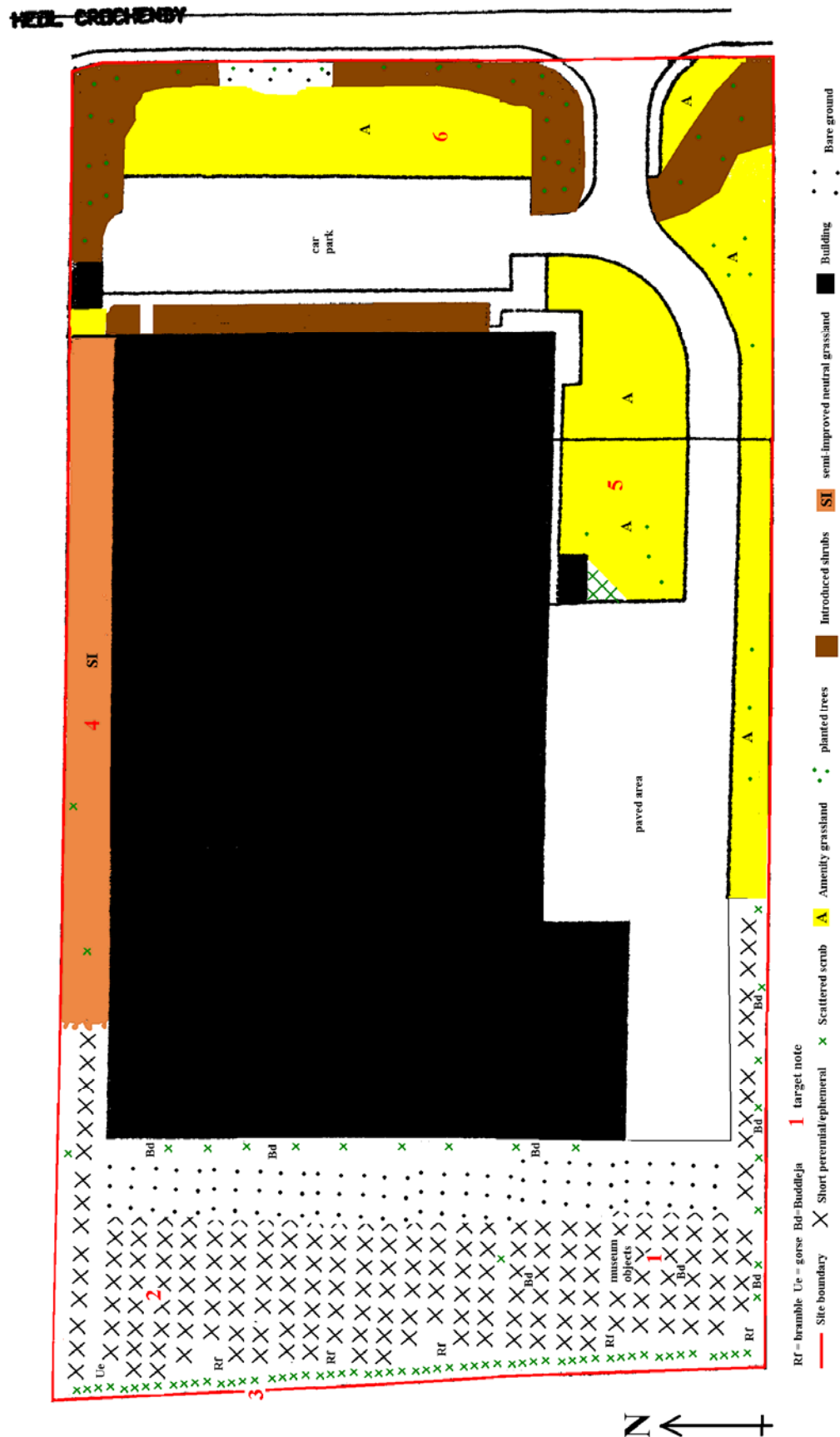
Method

One trip was made to the site on 1st October 2009. A brief survey was done, targeting the different habitats to get a general view of the bryophyte flora. The roofs of buildings were not surveyed for bryophytes. Identifications were done using Smith (2004), Paton (1999) and the unpublished draft version of the British Bryological Society Field Guide, with determinations where needed confirmed by Alan Orange.

Results

The results of the bryophyte survey should be used in conjunction with the Phase 1 habitat survey map, figure 1, page 3.

Figure 1. Phase 1 habitat map of the Collections Centre, Nantgarw.



Target Notes from Vascular survey (Figure 1)

1. Area at SW corner of grounds
Made ground at rear of museum, used in part for storage of museum industrial artefacts. Stony base, occasional weeds, 90% bare ground between objects. Main weeds present are butterfly bush, willowherb, thistle, ragwort.
2. Area at NW corner of grounds
Grassy/moss area grazed by rabbits, with some damp patches, on made ground, 90% vegetation cover. Main species present are hard rush, ragwort, moss, creeping bent, spear thistle.
3. Security fence
2 m high metal fence around site. Brambles, butterfly bush and occasionally gorse along west and south sides, clearer along north side.
4. North side of building
A narrow strip c. 8 m wide along the north side of the building, with rank vegetation 30-130 cm tall, 100% cover. Main species present are false oat-grass, docks, ragwort, pendulous sedge, wild parsnip, hard rush. Occasional willows and butterfly bush colonising. Rat control measures in place.
5. South side of building
Mown grassland with a few planted trees (alder, acer) and small clump of hawthorn. Grassland quite rich and mossy, with violets, woodrush, yarrow, daisy, self-heal, white clover, red clover, ox-eye daisy, etc.
6. Front car park area
An area of mown amenity grassland by car park with shrubberies and planted trees. Grassland area pretty much same as the South Side (area 5) with abundant woodrush, creeping buttercup, moss, white clover, etc. One bare area of flower bed with a few weeds (evening primrose, thale cress). Planted daffodils in grass on SE side of building.

Annotated Species List

1. *Pellia epiphylla* – On soil.
2. *Orthotrichum affine* – On birch tree trunk
3. *Orthotrichum diaphanum* – On birch tree trunk
4. *Grimmia pulvinata* – On rock in shade
5. *Frullania tamarisci* – On birch tree trunk
6. *Pellia endiviifolia* – In damp hollow on soil by amenity grass
7. *Bryum argenteum* – On old wood of machinery
8. *Bryum capillare* - On old wood of machinery
9. *Rhytidiadelphus squarrosus* – On soil and lawn
10. *Brachythecium rutabulum* – Common in lawn
11. *Atrichum undulatum* – On damp soil bank
12. *Racomitrium heterostichum/affine* – On rusty machinery
13. *Calliergonella cuspidata* – In lawn
14. *Pleuridium acuminatum* – In gravel.
15. *Tortula truncata* – In gravel.
16. *Barbula convoluta* – Abundant in gravel.
17. *Pseudoscleropodium purum* – Abundant on gravel
18. *Cratoneuron filicinum* – gravel and amongst gravel and grass on the shady north side of the building.
19. *Funaria hygrometrica* – gravel
20. *Hypnum jutlandicum* – gravel
21. *Didymodon vinealis?* – On the shady north side of the building.

Habitats

Gravel

Damp Soil

Tarmac

Grass Areas

Trees

Birch trees are planted throughout the site and maintain small populations of common mosses, such as *Frullania tamarisci*, *Orthotrichum affine* and *Orthotrichum diaphanum*.

Recommendations

References

Paton (1999) The Liverwort Flora of the British Isles. Harley Books.

Smith A.J.E. (2004) The Moss Flora of Britain and Ireland. Second Edition. Cambridge University Press.