

**Biodiversity Duty:
Arachnida (spiders and harvestmen) Survey of
National Museum Cardiff.**



Theridion melanurum (female; body length approx. 3.5mm) is a locally distributed spider in Wales and found in large numbers on the Cathays Park building

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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 list of species of arachnid (spiders and harvestmen) is presented from a survey of the grounds of the National Museum Cardiff site during June 2009. However it must be remembered that most species of spider are seasonal and that they also have a wide range of lifestyles. Thus this brief survey can only provide an indication of the species present on the site.

Methods

The National Museum Cardiff site survey was carried out on the 15/06/2009. Approximately 3 hours was spent collecting random samples at the sides and rear of the building using vacuum sampling (Stewart and Wright, 1995), with additional sweep netting on the larger vegetation and visual searches where appropriate. Each sample was visually sorted and all arachnids removed and preserved for later identification. Species were identified using the keys of Roberts (1985 and 1987) for the spiders and Hillyard (2005) for the harvestmen.

Results

This brief survey identified 19 species of arachnid on the site. Table 1 lists the species found. Most of these are common and ubiquitous, and are typical for the vegetation structure found on the site as described in the Phase 1 habitat survey (Rich 2009). A few species of more local or uncommon distribution were found. The two *Theridion* species found both have a local distribution in Wales. *T. tinctum* is on the western edge of its distribution in the UK and was found in the low vegetation around the rear carpark while *T. melanurum* was found in large numbers on the museum building (see frontpiece photo). The tiny linyphid spider *Pelecopsis nemoralis* is the most uncommon of the species found. Typically it occurs in woodland leaf litter or moss and is an unusual find on such an inner city site.

Table 1: List of the species recorded by the survey.

Class	Family	Species	Notes
Araneae	Clubionidae	<i>Clubiona terrestris</i>	Common ground spider found in leaf litter and detritus.
	Theridiidae	<i>Theridion tinctum</i>	Locally common (western edge of distribution in UK). Found in low vegetation.
		<i>Enoplognatha ovata</i>	Extremely abundant. Found on low vegetation
		<i>Theridion melanurum</i>	Locally distributed in Wales. Found in numbers on the building.
	Agelenidae	<i>Tegenaria sp</i>	Plenty of immature specimens on the building.
	Araneidae	<i>Zygiella x-notata</i>	Common and often found on buildings and street furniture.
		<i>Araneus diadematus</i>	Common on many types of vegetation.
	Dysderidae	<i>Harpactea hombergi</i>	Common. Found under stones and dry litter.
	Linyphiidae	<i>Erigone atra</i>	Very common. Found in low vegetation.
		<i>Erigone dentipalpis</i>	Very common. Found in low vegetation.
		<i>Lepthyphantes flavipes</i>	Common in leaf litter and undergrowth
		<i>Oedothorax fuscus</i>	Common. Found in a variety of grasslands.
		<i>Lepthyphantes tenuis</i>	Very common and found in many habitats.
		<i>Gongylidium rufipes</i>	Common in undergrowth and bushes.
		<i>Lepthyphantes minutus</i>	Common in broad leaved woodlands
		<i>Pelecopsis nemoralis</i>	Local and uncommon. Found in leaf litter and moss
	Thomisidae	<i>Xysticus cristatus</i>	Common in a wide range of habitats.
Opiliones	Phalangiidae	<i>Paroligolophus agrestis</i>	Very common
	Leiobunidae	<i>Leiobunum blackwalli</i>	Common in deciduous woodlands

Discussion

Due to the limited nature of the habitats surrounding the National Museum Cardiff site the species found were, as expected, limited. Nevertheless some less common species were found, one of which, *Theridion melanurum*, was using the building itself as its habitat. Enhancing the biodiversity would require improving the habitat around the site through improvements in the diversity of the flora. This could include improving the species poor grassland on the east side and the planting of native shrubs and trees around the carpark area.

References

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