

**Biodiversity Duty:
Arachnida (spiders and harvestmen) Survey of
St Fagans, National History Museum.**



Lacinius ephippiatus (body length approx. 4.5mm) is a widespread but rarely abundant harvestman found in the ground layer of deciduous woodlands, marshes and meadows.

**Julian Carter
Department of Biodiversity and Systematic Biology,
Amgueddfa Cymru - National Museum Wales
October 2009**

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 St Fagans; National History Museum site during July 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 St Fagans site survey was carried out over two visits during July 2009. Areas for sample collecting were identified using the Phase 1 habitat survey (Rich 2008). Samples were collected using vacuum sampling (Stewart and Wright, 1995) and sweep netting. Samples were visually sorted in the field and all arachnids removed and preserved for later identification. In addition two groups of pitfall traps were placed on the first visit and left in place for 3 weeks. Figure 1 shows the areas of main collecting activity and the approximate positions of the pitfall traps. 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 30 species of arachnid on the site. Table 1 lists the species found with brief notes as to their status and their typical habitats. Most of the species found were common and typical to the main habitats found at St Fagans although a few species of note were found;

- *Hylyphantes graminicola*: Local in its UK distribution. Found in shrubs close to open water.
- *Hypomma cornutum*: Local in its distribution in Wales and a characteristic woodland species.
- *Ostearius melanopygius*: Local in Wales. Tends to be found in rubbish heaps and in gardens.
- *Theridion tinctum*: Local in Wales where it is on the western limit of its UK distribution. Found on low vegetation.
- *Lacinius ephippiatus*: See front-piece image. Whilst widespread in the UK, it is rarely abundant and more local in distribution in Wales.

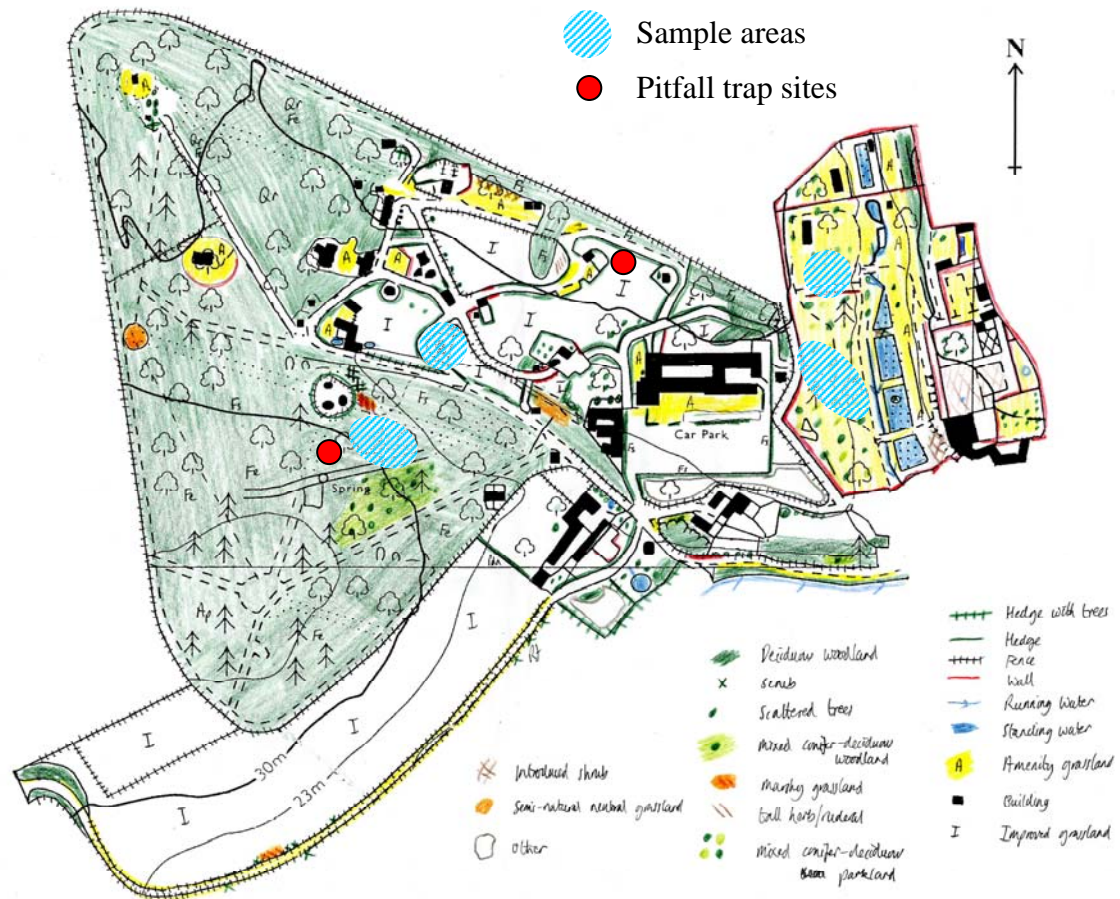


Figure 1. The Phase 1 habitat survey of the site by Rich (2009) showing the main areas sampled for the arachnid survey.

Table 1: List of species found

Class/Family	Species	Notes
Araneae		
Araneidae	<i>Araneus diadematus</i>	Common.
Linyphiidae	<i>Bathyphantes gracilis</i>	Common. Grassland and undergrowth
	<i>Diplocephalus picinus</i>	Common. Woodland litter.
	<i>Erigone atra</i>	Common. Ground level on low vegetation
	<i>Hylyphantes graminicola</i>	Local. Shrubs close to open water.
	<i>Hypomma cornutum</i>	Local in Wales. Woodland
	<i>Lepthyphantes tenuis</i>	Common. Variety of habitats
	<i>Lepthyphantes zimmermanni</i>	Common. Variety of habitats
	<i>Lepthyphantes flavipes</i>	Common. Variety of habitats
	<i>Maso sundevalli</i>	Common. Variety of habitats
	<i>Micrargus herbigradus</i>	Common. Variety of habitats
	<i>Microneta viaria</i>	Common. Leaf litter.
	<i>Neriere peltata</i>	Common. Low vegetation and bushes
	<i>Oedothorax retusus</i>	Common. Most abundant in grassland
	<i>Oedothorax fuscus</i>	Common. Variety of grassland habitats
	<i>Ostearius melanopygius</i>	Local in Wales. Rubbish heaps and gardens
	<i>Pocadicnemis pumila</i>	Common in south. Open habitats
	<i>Saaristoa abnormis</i>	Common. Variety of habitats
	<i>Savignia frontata</i>	Common. Variety of habitats
Tetragnathidae	<i>Metellina menzei</i>	Common. Variety of habitats
	<i>Tetragnatha montana</i>	Common. Trees, bushes and low vegetation
Theridiidae	<i>Enoplognatha ovata</i>	Extremely abundant
	<i>Paidiscura pallens</i>	Common. Shrubs and trees
	<i>Theridion tinctum</i>	Local in Wales. Low vegetation
Thomisidae	<i>Xysticus cristatus</i>	Common. Variety of habitats
Opiliones		
Leiobunidae	<i>Dicranopalpus ramosus</i>	Mostly synanthropic. Range expanding.
	<i>Leiobunum blackwalli</i>	Common. Woodland species
Nemastomatidae	<i>Nemastoma bimaculatum</i>	Very common. Variety of habitats
Phalangidae	<i>Lacinius ephippiatus</i>	Local. Deciduous woodlands.
	<i>Platybunus triangularis</i>	Common. Ground layer of woodlands

Discussion

Collecting focused on the main habitat areas within the main museum site, namely the grassland around the orchard, mixed conifer deciduous parkland next to the lakes, the deciduous woodland and hedges along field boundaries. The species found reflected these habitat areas and tended to be common and widespread. Considering the size of the St Fagans site and the range of habitats present, the number of species of spider identified was limited in number, especially in the region of the deciduous woodland sampled. However factors such as time and weather limited the collecting effort and this would have limited the species found during the survey. Further collecting would be worthwhile covering the northern end of the woodland, the improved grasslands and the river corridor. Management practise to maintain and enhance habitat diversity would benefit the diversity of all invertebrate animal groups on the site.

References

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