

New spider species records for the Isle of Mull, UK (Araneae)

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Abstract: Thirty-eight spider species were collected in pitfall traps from the Isle of Mull, UK. The following 24 species are new records for Mull: *Clubiona compta* (Clubionidae); *Drassodes cupreus* (Gnaphosidae); *Pardosa nigriceps*, *Pirata hygrophilus* (Lycosidae); *Xysticus erraticus* (Thomisidae); *Agyneta ramosa*, *Ceratinella brevipes*, *C. brevis*, *Dicymbium nigrum*, *D. tibiale*, *Evansia merens*, *Gongylidiellum vivum*, *Hypselistes jacksoni*, *Micrargus herbigradus*, *Monocephalus fuscipes*, *Palliduphantes ericaeus*, *Peponocranium ludicrum*, *Pocadicnemis pumila*, *Tenuiphantes alacris*, *T. cristatus*, *Walckenaeria cuspidata*, *W. nudipalpis*, *W. unicornis* (Linyphiidae); *Zora spinimana* (Zoridae). Thirteen genera and two families (Gnaphosidae and Zoridae) are new records. More than 60% of the species collected were new records making a new total of 72, an increase of 50%. Such a large number of new records from a small sample size demonstrates the island's araneofauna is poorly known and warrants further investigation.

Key words: Clubionidae, Gnaphosidae, Linyphiidae, Lycosidae, Thomisidae, Zoridae

Introduction

CODDINGTON, LEVI (1991) considered the spider fauna of Western Europe (especially England) the most completely known when compared to other regions of the world. The British spider fauna consists of in excess of 620 species in 33 families (HARVEY *et al.* 2002). Although spider distributions in Great Britain are relatively well known, some remote regions remain understudied. This is particularly true of some off-shore islands, such as the Isle of Mull off the west coast of Scotland (Fig. 1). At the south-western tip of the island is an area of conservation interest called the Tireragan estate, which comprises hazel and birch woodland. The area has been deer-fenced for the last ten years to encourage natural regeneration and the consequences of this management practice for the existing arthropod communities is not known. Moreover, there is relatively little known about the baseline communities of spiders prior to the implementation of this conservation method. Therefore, it is important to inventory the species present in order to anticipate and assess future changes in the araneofauna, which may come about as a result of changes in management strategy.

Methods

Sampling consisted of 64 pitfall traps set in hazel and birch woodlands of the Tireragan estate for a period of four days during May 2004. Each trap consisted of a plastic cup 6.5 cm diameter × 9.5 cm deep containing 50 ml of 70% ethanol. Spiders were identified under ethanol using a Wild M8 zoom stereo-microscope and ROBERTS (1993); taxonomy follows PLATNICK (2006).

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Results and discussion



Fig. 1. UK mainland; arrow points to the Isle of Mull.

A total of 413 identified individuals, belonging to 38 species (Table 1) were captured. Linyphiidae constituted 71% of the total species, and more than 50% of the total individuals caught. In their provisional atlas of spider distribution throughout the British Isles, HARVEY *et al.* (2002) listed 48 species recorded for the island. Of the 38 species identified in this survey, 24 had not been recorded previously. This equates to 63% of the species collected and generates a new total of 72 species for the island.

Furthermore, 13 genera and two families (Gnaphosidae, Zoridae) were recorded for the first time. Based on the distribution maps in HARVEY *et al.* (2002), none of the new species records are remarkable finds, because they are all widely distributed throughout the UK. However, an increase of 50% in the known spider fauna for the island based on such a limited sampling effort demonstrates a paucity of arachnologi-

cal faunistic knowledge for this region. Additional sampling using a range of techniques will surely yield many more species and until this is undertaken this region of the UK must be considered poorly studied from an arachnological viewpoint.

Table 1. Complete list of spider species known from the Isle of Mull. * = new species record, ** = previously known species collected again in this study.

<p>Segestriidae <i>Segestria senoculata</i> (LINNAEUS, 1758)</p> <p>Theridiidae <i>Enoplognatha ovata</i> (CLERCK, 1757) **<i>Robertus lividus</i> (BLACKWALL, 1836)</p> <p>Linyphiidae *<i>Agyneta ramosa</i> JACKSON, 1912 <i>Centromerus prudens</i> (O. P. - CAMBRIDGE, 1873) *<i>Ceratinella brevipes</i> (WESTRING, 1851) *<i>Ceratinella brevis</i> (WIDER, 1834) *<i>Dicymbium nigrum</i> (BLACKWALL, 1834) *<i>Dicymbium tibiale</i> (BLACKWALL, 1836) <i>Diplostyla concolor</i> (WIDER, 1834) <i>Erigone arctica</i> (WHITE, 1852)</p>	<p><i>Erigonella hiemalis</i> (BLACKWALL, 1834) *<i>Evansia merens</i> O. P. - CAMBRIDGE, 1900 **<i>Gonatium rubens</i> (BLACKWALL, 1833) *<i>Gongylidiellum vivum</i> O. P. - CAMBRIDGE, 1875) <i>Hilaira frigida</i> (THORELL, 1872) <i>Hypomma cornutum</i> (BLACKWALL, 1833) *<i>Hypselistes jacksoni</i> (O. P. - CAMBRIDGE, 1902) *<i>Micrargus herbigradus</i> (BLACKWALL, 1854) <i>Microlinyphia pusilla</i> (SUNDEVALL, 1830) *<i>Monocephalus fuscipes</i> (BLACKWALL, 1836) <i>Oedothroax agrestis</i> (BLACKWALL, 1853) <i>Oedothorax gibbosus</i> (BLACKWALL, 1841) <i>Oreonetides vaginatus</i> (BLACKWALL, 1872) <i>Meioneta nigripes</i> (SIMON, 1884)</p>
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Table 1. Continued.

<p>*<i>Palliduphantes ericaeus</i> (BLACKWALL, 1853) **<i>Palliduphantes pallidus</i> (O. P. - CAMBRIDGE, 1871) *<i>Peponocranium ludicrum</i> (O. P. - CAMBRIDGE, 1861) *<i>Pocadicnemis pumila</i> (BLACKWALL, 1841) **<i>Saaristoa abnormis</i> (BLACKWALL, 1841) <i>Tapinopa longidens</i> (WIDER, 1834) *<i>Tenuiphantes alacris</i> (BLACKWALL, 1853) *<i>Tenuiphantes cristatus</i> (MENGE, 1866) **<i>Tenuiphantes mengei</i> (KULCZYŃSKI, 1887) **<i>Tenuiphantes tenebricola</i> (WIDER, 1834) **<i>Tenuiphantes zimmermanni</i> (BERTKAU, 1890) *<i>Walckenaeria cuspidata</i> BLACKWALL, 1833 <i>Walckenaeria antica</i> (WIDER, 1834) **<i>Walckenaeria acuminata</i> BLACKWALL, 1833 *<i>Walckenaeria nudipalpis</i> (WESTRING, 1851) *<i>Walckenaeria unicornis</i> O. P. - CAMBRIDGE, 1861</p> <p>Tetragnathidae **<i>Pachygnatha degeeri</i> SUNDEVALL, 1830 **<i>Pachygnatha clercki</i> SUNDEVALL, 1823 <i>Metellina mengei</i> (BLACKWALL, 1869) <i>Metellina merianae</i> (SCOPOLI, 1763) <i>Metallina segmentata</i> (CLERCK, 1757) <i>Tetragnatha extensa</i> (LINNAEUS, 1758) <i>Zygiella x-notata</i> (CLERCK, 1757)</p> <p>Araneidae <i>Araneus diadematus</i> (CLERCK, 1757) <i>Larinioides cornutus</i> (CLERCK, 1757)</p>	<p>Lycosidae <i>Alopecosa pulverulenta</i> (CLERCK, 1757) <i>Arctosa perita</i> (LATREILLE, 1799) <i>Pardosa amentata</i> (CLERCK, 1757) <i>Pardosa monticola</i> (CLERCK, 1757) *<i>Pardosa nigriceps</i> (THORELL, 1856) **<i>Pardosa pullata</i> (CLERCK, 1757) *<i>Pirata hygrophilus</i> THORELL, 1872 **<i>Trochosa terricola</i> THORELL, 1856</p> <p>Pisauridae <i>Pisaura mirabilis</i> (CLERCK, 1757)</p> <p>Agelenidae <i>Textrix denticulata</i> (OLIVER, 1789)</p> <p>Hahnidae <i>Antistea elegans</i> (BLACKWALL, 1841) **<i>Cryphoea silvicola</i> (C. L. KOCH, 1834)</p> <p>Amaurobiidae <i>Amaurobius similis</i> (BLACKWALL, 1861)</p> <p>Zoridae *<i>Zora spinimana</i> (SUNDEVALL, 1833)</p> <p>Philodromidae <i>Tibellus oblongus</i> (WALCKENAER, 1802)</p> <p>Thomisidae **<i>Ozyptila trux</i> (BLACKWALL, 1846) <i>Xysticus cristatus</i> (CLERCK, 1757) *<i>Xysticus erraticus</i> (BLACKWALL, 1834)</p>
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Нови данни за паяците (Araneae) от остров Мъл (Великобритания)

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(Резюме)

Статията представя резултатите от проучване на аранеофауната на шотландския остров Мъл. Уловени са 38 вида паяци, от които семействата Gnaphosidae и Zoridae, тринадесет рода и следните 24 вида (повече от 60% от всички установени при изследването): *Clubiona compta* (Clubionidae); *Drassodes cupreus* (Gnaphosidae); *Pardosa nigriceps*, *Pirata hygrophilus* (Lycosidae); *Xysticus erraticus* (Thomisidae); *Agyneta ramosa*, *Ceratinella brevipes*, *C. brevis*, *Dicymbium nigrum*, *D. tibiale*, *Evansia merens*, *Gongylidiellum vivum*, *Hypselistes jacksoni*, *Micrargus herbigradus*, *Monocephalus fuscipes*, *Palliduphantes ericaeus*, *Peponocranium ludicrum*, *Pocadicnemis pumila*, *Tenuiphantes alacris*, *T. cristatus*, *Walckenaeria cuspidata*, *W. nudipalpis*, *W. unicornis* (Linyphiidae); *Zora spinimana* (Zoridae), са нови за острова. С настоящото изследване броят на обитаващите острова паяци достига 72 вида, което представлява увеличение от 50%. Тези данни показват, че аранеофауната на Мъл е все още слабо проучена и са необходими допълнителни изследвания в бъдеще.