

Theridiosoma is certainly not restricted to using the water surface. Ray spiders do build webs in vegetation above or away from standing water in damp habitats. That is where we normally find them after all. Maybe hunting at the water surface is a speciality of these spiders and more important in their ecology than has been realised just because it is difficult to observe. It may help to explain their remarkably small size. Being so tiny allows the use of the small forces of surface tension web connections. There may be a particular niche at the water surface not exploited by other web-building spiders. Such a niche would be available in typical aquatic habitats and also on wet forest floor environments, where the thinnest of water films would be enough for the very tiny juvenile spiders to construct semi-aquatic webs.

Current guides to freshwater life usually have a spider section including *Argyroneta*, *Pirata*, *Dolomedes* and even *Tetragnatha*. Perhaps they really ought to have *Theridiosoma* too, and in pride of place! Gluing the bottom half of your web to the water and catching pond surface insects should be enough to get you a mention in a pond-life book even if you are tiny!

Postscript 2nd October 2011

I visited an ancient woodland with a pond in West Sussex yesterday and although a lot of *Theridiosoma* were found within damp areas without standing water, on the pond itself many spiders had used the leaves in a patch of Bogbean (*Menyanthes*) as a top anchor with lower half of the web on the water. The webs are effectively invisible, but the raised meniscus where each line is anchored stands out if one looks carefully and sometimes the reflection of the tiny suspended spider against the sky! This really looks like a special adaptation to me rather than just coincidental. Maybe others may want to keep a lookout in similar habitats?

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Eric Duffey's Spider Collection in the Manchester Museum

by Dmitri Logunov

I am pleased to notify all fellow arachnologists that the fine spider collection of Eric Duffey has been donated by the owner to the Manchester Museum. On the 21st July 2011, the collection and a substantial set of arachnological reprints were safely moved to the Museum (accession number G7512), where they will be permanently deposited henceforth. This spider collection contains 138 jars with about 5700 sample tubes, representing some 560 British and 110 foreign (mostly French and Spanish) spider species. The collection is now being re-curated and amalgamated with the main taxonomic spider collection of the Museum, of which a full report will be provided by myself in due course (hopefully by the end of 2012). Any enquires about Eric Duffey's collection, including requests for loans, should be directed to myself by email: dmitri.v.logunov@manchester.ac.uk; the collection will soon be databased and fully accessible.

On behalf of the Manchester Museum I thank Eric for his generous gift. His spider collection will be re-curated and then properly maintained, and I do hope that it will be used by both British and foreign arachnologists for many years to come.

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On a Small Spider (Araneae) Collection From the Pirin Mountains, Bulgaria

by Dmitri Logunov

While recurating the spider collection of the Manchester Museum, I have come across a small collection brought by Dr Paul Buckland (Sheffield University, UK) from NW Bulgaria. The collection was donated to the Museum by Dr Buckland in July 2005 (accession number G7513). All spiders were collected by pitfall traps from two main localities on the Pirin Mt. Range: [1] c.8 km N of Bansko; [2] c.8 km N of Gotse Deltshev, nr. peak Orelek. However, each sample was taken at different elevations, habitats and dates during the period of 12th July – 2nd August 1996 (as specified below). The collection contains 19 species representing 6 families; see below for a list. Spiders of the families Agelenidae, Amaurobiidae, Hahniidae and Linyphiidae were identified by Dr Christo Deltshev (Sofia, Bulgaria), who is cordially thanked for his kind help. In the following list of species, numbers given in square brackets refer to the two aforementioned localities.

Agelenidae (1)

Malthonica montana Deltshev, 1993: 1♂ [1], 1850 m a.s.l., under pine forest, 18.07.1996.

Amaurobiidae (1)

Callobius balcanicus (Drensky, 1940): 1♂ [2], 1500 m a.s.l., under pine forest (*Pinus nigra*), 30.07.1996.

Gnaphosidae (3)

Callilepis nocturna (Linnaeus, 1758): 1♂ [1], 2450 m a.s.l., nr. *Juniperus* patch, 17.07.1996.

Haplodrassus signifer (C. L. Koch, 1839): 1♂ [1], 1900 m a.s.l., overgrazed meadow, 17.07.1996.

Zelotes similis (Kulczyński, 1887): 1♂ [1], 1575 m a.s.l., sandy and stony area, 21.07.1996.

Hahniidae (1)

Cryphoea silvicola (C.L. Koch, 1834): 1♂ [1], 1700 m a.s.l., barren ground and pine needles, 21.07.1996.

Linyphiidae (6)

Araeoncus anguineus (L. Koch, 1869): 3♂ [1], 2450 m a.s.l., *Juniperus* patch, 17.07.1996.

Diplostyla concolor (Wider, 1834): 1♀ [1], 2200 m a.s.l., *Pinus mugo* patch, 29.07.1996.

Erigone dentipalpis (Wider, 1834): 2♂ [1], 1900 m a.s.l., *Juniperus* patch, 17.07.1996.

Gonatium paradoxum (L. Koch, 1869): 1♀ [1], 2200 m a.s.l., *Pinus mugo* patch, 29.07.1996.

Meioneta rurestris (C.L. Koch, 1836): 2♂ [1], 2450 m a.s.l., *Juniperus* patch, 17.07.1996.

Tenuiphantes tenebricola (Wider, 1834): 1♂ [1], 1700 m a.s.l., under pine forest, 18.07.1996.

Lycosidae (7)

Alopecosa accentuata (Latreille, 1817): 1♀ [2], 2000 m a.s.l., overgrazed alpine meadow, 29.07.1996.

Alopecosa trabalis (Clerck, 1757): 1♂ [1], 2200 m a.s.l., *Pinus mugo* patch, 29.07.1996; 1♀ [2], 1750 m a.s.l., dense meadow of *Urtica*, *Cirsium* etc., 2.08.1996.

Pardosa alacris (C. L. Koch, 1833): 9♂1♀ [1], 1850 m a.s.l., under pine forest, 14–21.07.1996; 1♂ [1], 1900 m a.s.l., overgrazed meadow, 17.07.1996; 1♂ [1], 1575 m a.s.l., sandy and stony area, 12.07.1996.

Pardosa blanda (C.L. Koch, 1833): 3♂3♀ [1], 1575 m a.s.l., sandy and stony area, 18–20.07.1996; 2♂ [1], 1900 m a.s.l., overgrazed meadow, 17.07.1996; 2♂6♀ [1], 2200 m a.s.l., *Pinus mugo* patch, 29.07.1996; 1♂ [1], 2450 m a.s.l., *Juniperus* patch, 17.07.1996; 1♂4♀ [2], 1750 m a.s.l., dense meadow of *Urtica*, *Cirsium* etc., 30.07–2.08.1996.

Pardosa mixta (Kulczyński, 1887): 2♂ [1], 2450 m a.s.l., *Juniperus* patch, 17.07.1996.

Trochosa terricola Thorell, 1856: 1♂ [1], 1850 m a.s.l., under pine forest, 14.07.1996.

Xerolycosa nemoralis (Westring, 1861): 1♀ [1], 1575 m a.s.l., sandy and stony area, 18.07.1996.

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Some Notes on the Development of the Young and Parasites of *Eusparassus walckenaeri* (Audouin, 1826) Collected in Turkey (Araneae, Sparassidae)

by Ray Gabriel

Introduction

Two adult female *Eusparassus walckenaeri* (Audouin, 1826) with their egg-sacs were collected from under large stones during a one week vacation to Dalyan, Turkey, from the 10th–17th August 2008. During consecutive months records of the development of the young spiders and three parasites were documented.

Female 1 one was found on the 12th August near the ruins of Caunos. When turning the stone a large sealed



Figure 1. *Eusparassus walckenaeri* cocoon.
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Figure 2. *Eusparassus walckenaeri* female-1.
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area of web was discovered, roughly 5 cm by 9cm at its widest points (Fig. 1). On breaking the outer web, the female was found with her sealed egg-sac inside the outer web (Fig. 2). The female was quite protective of the egg-sac, but after some coaxing to try to get her into a collecting jar she bolted; while recapturing her she lost two of her legs. The silk surrounding the egg-sac was quite flimsy compared with the silk which made the outer protective layer, and ripped quite easily exposing some eggs and pre-larvae. The basal layer of silk which the egg-sac had been laid upon was much firmer, so the basal layer and the egg-sac were collected and placed inside a dark ventilated (by a single central hole in the lid c. 1 mm) film pot. The film pot was checked on a daily basis, the female was offered food in the form of small moths which came to light in the hotel, but all food items were refused.

Female 2 was also found under a large stone on the roadside near Lake Köyceğiz Gölü in a similar structure to the first female. Both the female and the egg-sac were removed for further study. The egg-sac was opened and the young found to be at a similar stage of development to the first egg-sac, with no visible eggs, the egg-sac being placed into a dark ventilated film pot and the female into a large clear cylindrical container. The film pot was checked on a daily basis and the female offered small moths, which although not taken immediately, were found to have been eaten the next day.



Figure 3. Salticid found in sparassid egg-sac.
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