

Spider Recording Scheme News Summer 2017, No. 88

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SRS website: <http://srs.britishspiders.org.uk>

My thanks to those who have contributed to this issue. S.R.S. News No. 89 will be published in Autumn 2017. Please send contributions by the end of September at the latest to Peter Harvey, 32 Lodge Lane, GRAYS, Essex, RM16 2YP; e-mail: srs@britishspiders.org.uk or grayspeterharvey@gmail.com. The newsletter depends on your contributions!

Editorial

As always, thank you to the contributors who have provided articles for this issue. **Please help future issues by providing articles**, short or longer, on interesting discoveries and observations.

We are very grateful to Helen Smith for providing an account for 'easily recognised spider' *Misumena vatia* to add to the ones available for any user to submit records to the recording scheme.

Area Organiser changes

Bill Parker has taken over as Area Organiser for Bucks. VC24. His contact details are: 13 Greenfields, Adstock, BUCKINGHAM, Bucks MK18 2JA; email: billjoparker@btinternet.com.

Helen Read used to be AO for Bucks. and many thanks go to her for all her work in the role in the past.

The tropical tent-web spider *Cyrtophora citricola* (Araneidae) in North Yorkshire: A touch of the Mediterranean

by Geoff Oxford

Vertigro plant nursery, on the outskirts of York, has yielded some surprising arachnological records over the past few years: *Neoscona adianta*, *Synema globosum* (Oxford, 2011) and, more recently, the first North Yorkshire record of a breeding population of *Agelena labyrinthica*. On 1st July, while drifting round re-checking on the *Agelena*, I noticed an extremely large web of a construction I had never seen before.

The web was built in the large conical cavity (90 cm deep by 60 cm maximum diameter) formed among the stiff leaves of a Japanese Sago Palm *Cycas revoluta*, situated just within the entrance of an unheated poly-tunnel. The volume of the cavity was entirely filled with extremely strong, randomly criss-crossed threads which extended to the sides of the poly-tunnel above the plant. Near the top of the webbing were several horizontal sheets that each resembled the shallow, conical roof of a circular tent. These sheets were constructed of a very regular mesh with square/rectangular holes between the silk strands. Sitting above each horizontal web was a spider, of a size that reflected the diameter of the sheet beneath. The largest spider seen was a mature female of about 10-11 mm in length, black but with white patterning. Next to this particular palm were four others, each of which housed a number of spiders. Because of

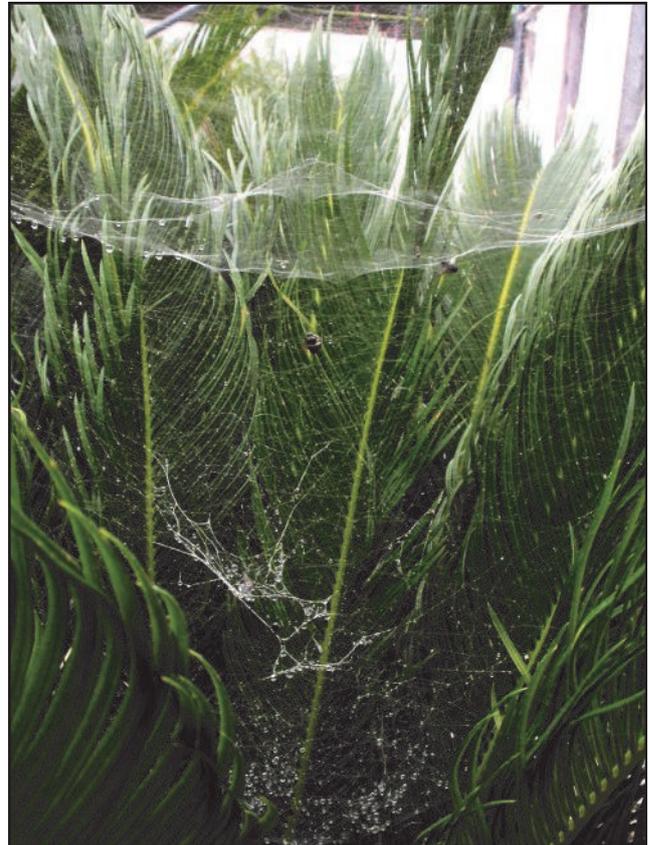


Figure 1. Web of *Cyrtophora citricola* among the leaves of a Japanese Sago Palm. Photograph © Geoff Oxford

the way the plants were arranged it was difficult to access then all, but I estimate there were at least 10 to 12 spiders in total, ranging in size from 2-3 mm to the mature female mentioned above.



Figure 2. Spider with detail of the horizontal silk mesh. Photograph © Geoff Oxford

A mature female was captured and identified as a Tropical Tent-web Spider *Cyrtophora citricola* (Forskål 1775) (Araneidae), a species well known for living in loose, social groups. The specimen was later returned.



Figure 3. Ventral view of female showing the epigyne. Photograph © Geoff Oxford



Figure 4. Mature female *Cyrtophora citricola* (not photographed in situ). Note the pair of 'paddles' at the rear of the abdomen. Photograph © Geoff Oxford

This species shows a marked sexual dimorphism for size, with males only about 3 mm in length, and great variability in coloration. Both sexes can change the background colour of the abdomen from very pale to very dark (Blanke 1972), and indeed can undergo instantaneous colour change under some circumstances (Blanke, 1975). The specimens seen at Vertigro all seemed to be black with white spotting. When disturbed in the web, the spider rapidly vibrates, like *Araneus*

diadematus. For more information on the biology of *C. citricola* see: http://entnemdept.ufl.edu/creatures/MISC/SPIDERS/Cyrtophora_citricola.htm

The species is widespread in parts of subtropical and tropical Asia, Africa and Australia, and in the warm coastal Mediterranean areas of Europe (Blanke 1972; Leborgne *et al.* 1998; https://araneae.unibe.ch/data/3879/Cyrtophora_citricola). It has more recently been recorded in Costa Rica, Hispaniola, Columbia, Cuba and North America (Florida).

The Japanese Sago Palms at Vertigro were imported in March 2017, directly from Italy; presumably the origin of the spiders. The presence of individual *C. citricola* of varying sizes seems to preclude the population originating from a single egg-sac. The poly-tunnels are closed and heated during the winter and so it remains to be seen whether the species will survive into next year. Blanke (1972) found that *Cyrtophora citricola* could not survive temperatures below -1 °C.

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A record of *Synema globosum* imported to the UK in fresh produce

by Duncan Allen & Paul Taylor

On Wednesday 5th of July Paul Taylor discovered a female specimen of the fantastic looking thomisid *Synema globosum*, also sometimes known as the "Napoleon spider" due to the markings looking like a silhouette of the infamous military and political leader on its abdomen. The spider had been found that morning in a punnet of *Vaccinium* from Italy that Paul had purchased.

After consulting the SRS website we saw there were only 4 records thus far, and that it was not yet known if: "the specimens captured in Britain represent casual introductions or whether the species is or will become established in this country" (<http://srs.britishspiders.org.uk/portal/p/Summary/s/Synema+globosum> 2017). While this record does not shed any light on whether the species may become established or not, it does highlight a possible introduction pathway for this species into the UK via commodities such as *Vaccinium* from the continent.



Figures 1-3. *Synema globosum* imported in a punnet of *Vaccinium*. Photograph © Duncan Allen & Paul Taylor

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Coelotes terrestris (Wider) in West Norfolk (VC38)

by Steve A. Lane

On 1st April 2016, I was looking for Coleoptera under bark and logs, on the west side of the A134 at Lynford Stag (TL812917) in the Norfolk Breckland (VC28), when I found a large dark amaurobiid spider in the base of a large disintegrating pine log on the woodland floor. I later identified this as *Coelotes terrestris* (Wider) based on the form of the epigyne. Realising that this was somewhat

outside of the known range for the species, I retained the specimen in 70% ethanol, with the intention of returning it at a later date.

The habitat at the Lynford Stag site is of quite open woodland (Fig. 1), comprising pine with relatively young beech trees in a broad swathe that runs parallel to the road and borders on dense pine plantation further west. The ground layer at the time of the visit consisted mainly of leaf litter. Logs were present from fallen and felled timber.



Figure 1. Immediate habitat at Lynford Stag site. Photograph © Steve Lane

I sent the specimen to Pip Collyer in February 2017 and he agreed with my identification. However, as he had never seen the species before, he forwarded it to Peter Harvey who kindly confirmed the identification by comparison with his reference specimens. This would appear to be the first record for the East Anglian region.

On 3rd March 2017 I returned to the site at Lynford Stag and found a further two female *Coelotes terrestris*. They were both in crevices within web cells, inside a large pine log on the woodland floor, only some 20 metres distance from the 2016 specimen. The spiders were both found within minutes of arriving at the site. This second record, almost a year after the first, gives a strong indication that the species is established at the site.

Most occurrences of *Coelotes terrestris* in Britain are restricted to southern England south of an imaginary line connecting the Severn and Thames estuaries. There are a few isolated recent records from south Scotland and from Wales, but these may represent introduced outlier populations that may or may not be established. It will be interesting to research the true distribution of the species in the Norfolk Breck and to perhaps gain some insight as to whether this population is also an introduction or whether it is a relic population within a former, more extensive distribution range.

Acknowledgements

I would like to thank Pip Collyer and Peter Harvey for confirming the identification of the specimen and Pip for encouraging me to publish the record.

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Some rare spiders from a stand of Western hemlock (*Tsuga heterophylla*) in North Devon

by Mike Towns

Over the past two years I have been pitfall trapping in various woodland habitats at Arlington Court, a National Trust estate in North Devon. One of the trap sites was in a stand of mature Western hemlock (*Tsuga heterophylla*) planted c. 50–60 years ago. This woodland is very heavily shaded; there is no ground vegetation; and the leaf litter is deep, moist and friable. There is some scattered dead wood on the woodland floor and a few well rotted tree stumps present, possibly from an early thinning episode or initial clearance for the Western hemlock planting (see Fig. 1). The woodland sits on a moderately steep north-facing slope.



Figure 1. Stand of mature Western hemlock.
Photograph © Mike Towns

From a literature search it appears that very little ecological exploration of Western hemlock has been carried out in the UK, and as it is generally regarded as a very poor species for wildlife I had not expected to find very much of interest. In the event, 22 species of spiders were taken, a number of them being regionally rare or uncommon. These were *Walckenaeria dysderoides*, *Walckenaeria cucullata*, *Tapinocyba pallens*, *Porrhomma pallidum*, *Minyriolus pusillus*, and *Saloca diceros*. I was puzzled as to why an apparently unpromising habitat composed entirely of a non-native species would support so many uncommon species. Is it possible that the dense shade generated by the closed canopy of the Western hemlock creates conditions of high humidity and promotes a rich humus under these trees? (see Fig. 2). Does the tight litter of small pine needles with complex interstitial spaces have some similarity to the peat and humus litter that accumulates in relatively slow decomposition habitats such as in peat and bog? Exploring the habitat selections of these species seems to lend some support for this surmise.

Duffey (2010) showed that individual species of spiders can exploit one or more seemingly contrasting habitats, and the various species' habitat data pie charts on the Spider Recording Scheme (SRS) website similarly



Figure 2. Rich humus under these trees.
Photograph © Mike Towns

show this diversity of habitat selection. Looking at the habitat pie charts for the rarities recorded from the Western hemlock, as well as favouring woodland, they appear to have a strong secondary association with heath/heather, moor or bog.

Walckenaeria dysderoides is very rare in the south-west of England, and is thought to be declining: the Arlington record is the first for Devon. It appears to have a preference for heathland and calcareous grassland but has been taken frequently in woodland, including conifer plantations. *Walckenaeria cucullata*, another Devon and south-west England 'first', is a woodland-favouring species that prefers damp conditions and is particularly common in conifer woods, but also utilises heathland as a secondary habitat. *Tapinocyba pallens* is a predominantly northern species and until now has been recorded in the west of England only from Somerset. It prefers woodland, especially conifer, but is also found in *Sphagnum* bogs, and has been recorded from heathland as a secondary habitat. *Porrhomma pallidum* is a shade-tolerant species of woodland and also occurs in wetlands and raised bogs. *Minyriolus pusillus* is a regional rarity with a preference for woodland, including conifer, but there are records from heath, moor and wetland. *Saloca diceros*, while probably under-recorded, is rare in the south-west of England and is a first for Devon. It has a preference for damp/wet conditions, wet woodland litter and mossy woodland floors, both deciduous and coniferous. The SRS website summary for this species states that one of the threats to *S. diceros* is the loss of damp broadleaved woodland to commercial forestry. However, at Arlington it was taken only in Western hemlock and Norway spruce litter, not from the three broadleaved habitats sampled. Mature, stable, damp coniferous habitats may be worth exploring to establish whether this species is distributed more generally in this habitat than might be expected.

It is quite likely that many, if not most, of the species taken in Western hemlock are under-recorded and are not necessarily as rare as they appear. Even so, this cluster of

uncommon species is possibly quite unusual. So, until a better picture of the presence and distribution of these species is built up, both regionally and locally, I have recommended to the National Trust managers that for the foreseeable future they retain this parcel of Western hemlock intact. It was previously scheduled for removal as part of an ongoing programme to reduce the coniferous content in the woodlands on the estate.

My thanks to Peter Harvey for confirming the identity of the species mentioned.

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A private moment in the life of a Garden Spider

by Tone Killick

We see spider activity around us daily, spiders hunting, spider courtship and the numerous egg sacs but what we don't see is that moment the female spider releases her eggs before encasing them in silk. Back in July 2016 I managed to photographically document the tiny pirate spider *Ero furcata* producing eggs and the photos were featured in the Autumn edition of the British Arachnological Society's Newsletter. I was over the moon to observe this spider behaviour and never in my wildest dreams believed I would capture it again. How wrong was I! So it was, on the 20th November 2016 I had the privileged to view and record this special and quite unseen moment in a spider's life.... AGAIN!

I'd been observing a female Garden Spider *Araneus diadematus* for a few weeks as she was located on a potted shrub in the garden. When I first found her, she was at rest with no web in sight and by the size of her, I was fairly certain she was gravid. I set up a polythene shield around the shrub to keep the birds away from her and basically kept my fingers crossed that she didn't wait until the early hours to deposit her eggs and I got lucky. After creating a substantial silk mat to lay her eggs, which lasted nearly 3 hours, she rested for a while before depositing the eggs. The actual process of depositing the



With silk mat 20/11/2016

eggs was fairly fast, taking 25 mins max. Watching her physically deflate was an absolute marvel. Encasing the eggs in silk took a lot longer, starting at 10:30pm and finishing at 5:49am the next morning. Over seven hours meticulously extruding the silk covering must of been exhausting.



Laying eggs 20/11/2016



With eggsac 20/11/2016



With silk matt 20/11/2016



Deceased 28/11/2016

Seven days later on 28th November 2016 I found her deceased still hanging onto the egg sac.

I've kept the polythene in place around the shrub and was hopeful that the coming Spring, the spiderlings would emerge and mother's hard work wasn't in vain. It was to be just over four months later that on the 29th March 2017 I came home from work early at around 2:30pm and noticed a slight separation from the main egg sac. I had a closer look under a hand lens and lo and behold, 3 small spiderlings slowly emerging. I really couldn't describe my excitement at that moment, pretty overwhelming to say the least. Over the next few days several more spiderlings started to emerge but progress was slow.



Spiderlings 29/03/2017



Spiderlings 08/04/2017

It was around 11 days later that I noticed the distinctive dorsal triangles were starting to appear. On the 15th April behaviour had become frenetic to say the least as the spiderlings scramble this way and that, making their very own silk roads. The spiderlings were also starting to congregate. This communal behaviour possibly offers protection against predators and there is no better sensory device than these *Araneus diadematus* balls. Touch one with your finger and the explosion is instantaneous with little spiderlings shooting off in all directions.

Now I need to back track a month. In February I noticed that half the egg sac had started to darken and I believe that for whatever reason the eggs had gone bad and were decomposing. I don't think my assumption has been far wrong because since the first spiderlings emerged on 29th March less than 100 are the total by the 22nd April. This seems a very low number of young for *Araneus diadematus*. Looking at the egg sac, it seems all



Spiderlings 22/04/2017

the young have emerged from the light area and I can quite easily see the cast of exoskeletons, the dark area is just dark with no evidence of spiderlings. By the 29th of April, all the spiderlings had ballooned off to pastures new and this gave me a chance to investigate the egg sac. As I opened it, old exoskeletons fell out but also, black rotten eggs. Many more eggs that had rotted were clumped together in the silken sac. I will never know why only half of the eggs proved fertile but it's been a fulfilling experience following this special moment in the life of a Garden Spider, *Araneus diadematus*.



Opened eggsac showing rotted infertile eggs 01/05/2017.

All photographs © Tone Killick

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