

Spider Recording Scheme News

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My thanks to those who have contributed to this issue. S.R.S. News No. 54 will be published in March 2006. Please send contributions by the end of January at the latest to Peter Harvey, 32, Lodge Lane, GRAYS, Essex, RM16 2YP; e-mail: grays@peterharvey.freemove.co.uk

Editorial

Progress towards an update of spider distribution maps

Thank you very much indeed to everyone who has been sending in their data. By the end of 2005 we should have a considerable amount of new data with which to update the maps and undertake a national status review using the IUCN criteria. We hope to provide the new maps on the internet via the NBN Gateway and as a downloadable PDF file. We will also be able to provide hard copies for the cost of printing and posting. We should also be able to start to use these data to help clarify the ecology and phenology of our species, although there is still a long way to go in getting detailed habitat and other data from a wide enough area of the country to adequately examine many of the most interesting questions phase 2 of the recording scheme sets out to address.

Please continue to send in your records. In particular if you hold computerised records with adult male/female and/or habitat information that you have not already provided, please send it in for inclusion even if the distributional data were already submitted for the atlas. Duplication of distributional information is not a major problem if you can add phenology or any other phase 2 ecological information to data previously submitted.

The post-atlas card total now stands at 1682, of which 1168 are the old RA65 cards, 377 new RA65 cards and the remainder GEN7, 13 and 14 cards. Gavin Broad at B.R.C. Monks Wood included the computerisation of the old RA65 and GEN cards into their 2005 schedule, and the backlog was sent to B.R.C. in March for entry. These were all done by the middle of August, and an important set received in August was turned around within a week! I would like to thank Gavin Broad and Val Burton very much indeed for this work. The cards and print-outs of the data entry are now in the process of being checked by volunteers from the B.A.S. Council, to whom I am also very grateful.

It will almost certainly not now be practical to undertake computerisation of any new cards for inclusion in the maps, but computerised data can be accepted until the deadline, especially if submitted as MapMate sync files. In any case, don't stop sending in records after the deadline. Although we will use the new distributional data for the new maps and the status review, it will take longer to start to use new phenology and habitat information, so new data are always going to be important.

The text of the new RA65 cards is too small for B.R.C. to enter and I will attempt to enter all these data into MapMate during the autumn. I also have a substantial amount of new data that has been provided in spreadsheet or tabular form, together with a backlog of files that need to be put into consistent format and imported into MapMate or Access, and I will endeavour to do all these during the autumn.

MapMate

Since MapMate is the only software that adequately addresses what we want to record in phase 2 of the recording scheme, we would like as many spider recorders to use it as possible. We intend to provide one or more MapMate sessions at the A.G.M., hopefully with hands-on workshops, to introduce the software to members and show some of the things that can be achieved.

Although the software is not expensive at £24.99 for a single user, there are nowadays additional costs, currently £12 a year for a single user, for continued support, checklist updates and free software updates to enable continued development of the software. However, bulk purchase of MapMate is considerably cheaper. For example, a 25x bulk purchase costs £375 (i.e. £15 each) and 50x bulk purchase £625 (i.e. £12.50 each). In these cases, continued licence extensions cost £100 per year for 25 users (£4 per year) and £160 per year for 50 users (just over £3 per year). In addition, MapMate would create a B.A.S. 'group' which any existing user may choose to join and gain update benefits in future.

We would therefore like to investigate the demand from recorders for: (1) new copies of MapMate and (2) existing users who would want to join the B.A.S. group and gain the support cost benefits. If you are seriously interested in either of these options please e-mail me by the end of December. We will then know the level of demand and I can get back to interested parties in the New Year with costs.

UK Status review

The status review of spiders using the IUCN criteria is now scheduled for early 2006, making use of the new data. Funding from JNCC to aid this process has been agreed and we have a deadline of early June 2006 to complete the review. The UKBAP review process has been very helpful in clarifying some of the concepts involved in criteria such as 'decline' and 'international importance'. As soon as all the new data are added to the atlas dataset, various analyses will be undertaken to evaluate possible declines and areas of occupancy. We will carry out a preliminary exercise to assign draft IUCN statuses which, if time allows, will be published in the March Newsletter to invite comment from the membership before a final version is submitted to the JNCC.

Three Spiders New to Dorset

by Robert Cumming

Neon robustus Lohmander, 1945 on Portland: I found one male of *N. robustus* on 8th May 2004, and on 7th June 2005, one female and a (likely) immature male which did not survive to adulthood. These were all taken on the tumble of grassland, scree, scrub and disused quarries at Southwell Landslip which overlooks the sea on the east side of the island. The 2004 male was found on the underside of a flat stone sitting across a footpath, immediately surrounded by grassland. I found *Phrurolithus festivus* nearby. The 2005 specimens were taken on a planned visit to confirm the species' local presence. Both were in silken cells under hand-sized stones among sparse grasses and herbs. They were collected late on a cold evening. Their stones were close to a badly-eroded path up a nearby slope, and were heavily shaded by this slope from the south and west – an inauspicious-seeming spot, the first I checked that evening and the only one to yield anything of interest. This immediate area has yielded *Dysdera erythrina*, *Amaurobius ferox* and *Textrix denticulata* on other visits. In the medium term these sites may be subject to increasing erosion (by people) and scrub species could encroach on the grassy areas. But *N. robustus* might be thriving in stable screes and mature scrub, habitat which is widespread on Portland. Searching these areas is less easy than turning over stones on grassland.

Episinus maculipes Cavanna, 1876 at Lyme Regis: On 25th June 2005 I joined a group of volunteers surveying Ware Cliff at Lyme. This is a soft cliff and this valuable habitat is the subject of a survey by Buglife – the Invertebrate Conservation Trust (Whitehouse, 2005). Ware Cliff is very soft fossiliferous black shale. I found *E. maculipes* while standing on the beach at the point where a grove of willows on the slumped cliff gave way to patchy scrub and then a short bank of exposed soil. I put a sheet at the base of this bank of soil and beat the grass, scrub and herbs overhanging its lip. An *E. maculipes* female quickly appeared. I didn't recognise it, except that I knew I had not seen it before – a beautiful mottled grey colour in life. Also found at this point on the cliff were female *Synageles venator*, a male *Dictyna latens*, and representing the riff-raff element, a female *Metellina mengei*. Elsewhere on the cliff I found *Episinus truncatus* males, further *S. venator* and *D. latens*, and a female *Zelotes apricorum*. Quite a good day.

Dipoena erythropus (Simon, 1881) on Portland: On 11th July 2005 I found a female of this species under a rock at King Barrow Quarry, a new Dorset Wildlife Trust nature reserve. This is an RDB2 species living in an unexpected place. I took it to be a linyphiid at first glance. The site is very promising; finds within 50 m of the *D. erythropus* so far include *D. inornata* (one female from a grassy area), *Zelotes subterraneus*, *Z. latreillei*, *Alopecosa barbipes*, and large numbers of *Dysdera erythrina* and *Textrix denticulata*.

The immediate vicinity of the specimen features exposed rock, fine scree, and larger boulders. A conspicuous feature of the area is a prostrate *Cotoneaster* species which grows over the rock and sparse soil in

extensive mats. There are also patches of grass, and scrub species such as privet. The whole site teems with ants.

I returned to the quarry on 23rd July 2005 with Rowley and Elaine Snazell. We found no further *D. erythropus*, although Rowley added a few species to the site list, including *Trichoncus saxicola* and *Zelotes apricorum*.

Extensive areas of the reserve have been disturbed by off-road motorcyclists, and the disturbed areas show few species of spider. The place where I found *D. erythropus* is relatively free of this disturbance, and the problem is being reduced by concerted action by DWT and the police.

These three species have been conspicuously easy to find. I am still quite new to spiders; it seems that a bit of leg-work at likely looking sites yields rarities quite readily. I'm sure that west Dorset has a few more surprises to uncover! My thanks to Rowley Snazell and Peter Merrett for checking identifications.

Reference

Whitehouse, A. (2005) Living on the Edge – the importance of maritime soft cliffs and slopes for insect conservation. *Antenna (Bull. Royal Ent. Soc.)* 29 (3): 179–185.

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Nigma walckenaeri Plays a Mating Game

by Paul Prince

I am lucky enough to have a small population of these beautiful and notable spiders in my garden. Their distribution is mainly confined to London and south Essex, although there are records from Gloucestershire. In this West London garden they have taken up residence on ivy which in turn has consumed the fence, adjacent to the ivy is a rose bush and *Fatsia japonica* – the spiders can be found here too and they seem to be very keen to set up shop on the latter. I have tried to photograph them before with little success as the spiders are quite small (3–4 mm) and the leaves on which they reside are very reflective.

On a late August morning I spotted a male wandering around the *F. japonica* leaves in search of a female. I'm sorry to say that I missed any courtship between the pair as I had rushed in the house to retrieve my camera and upon my return I found the couple embraced. The male appeared to lift the female free from the leaf surface and in this position the couple remained for a period of 5–10 minutes. At the end of their copulation there was a brief struggle with the pair dancing around the leaf before the embrace was ended. Curiously, the male stayed put, occupying his mate's web, whilst she ran away onto another leaf. The male remained alone in her web for a period of 24 hours, after this time he was gone. I found it odd that the female ran away leaving the male in her web. I have witnessed this phenomenon on two separate occasions, however, and I have also seen a male and female sharing a web, although whether mating had taken place in the latter case is not known.

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Nigma walckenaeri embrace. © Paul Prince.

Prey Capture by *Hyptiotes paradoxus*

by Stephen Dalton

A few months ago I attended a field studies course at Juniper Hall, Box Hill on spiders. The weeklong session was run by spider guru Tony Russell-Smith, president of the British Arachnological Society.

Here I joined seven other spider enthusiasts and learned all about the extraordinary lives of these fascinating albeit maligned creatures, including their physiology, classification, evolution and perhaps most important to field naturalists their identification. Spiders can be notoriously difficult to identify, frequently involving peering at their privates through stereo microscopes – indeed many species are impossible to identify unless sexually mature.

At regular intervals we were marched up Box Hill equipped with collecting nets, beating trays and a copious supply of glass tubes into which our specimens were deposited. Later in the day we took our collection back to the lab for identification, which for spider novices such as myself often proved a long drawn out process using the microscopes

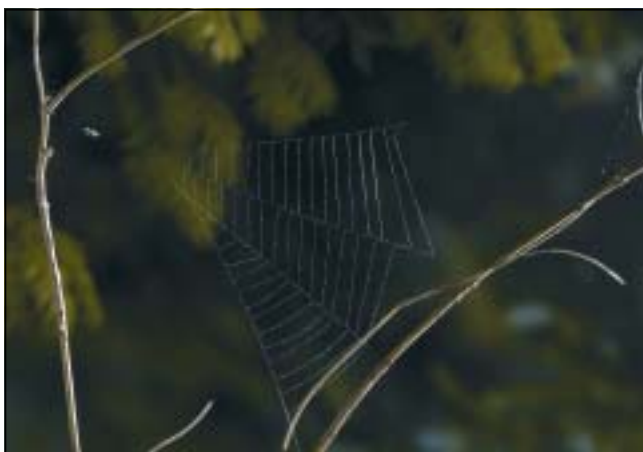
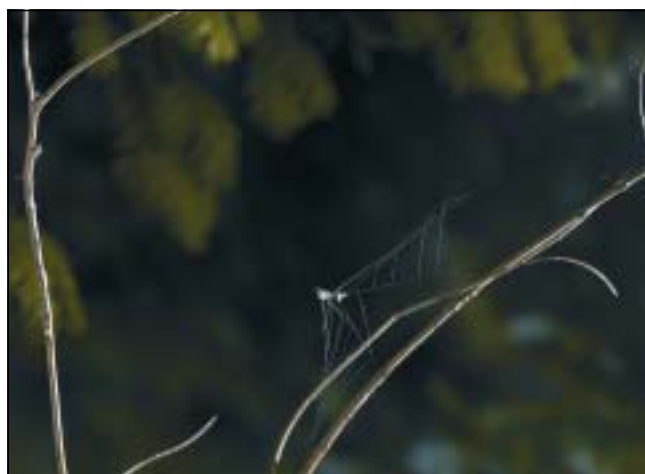
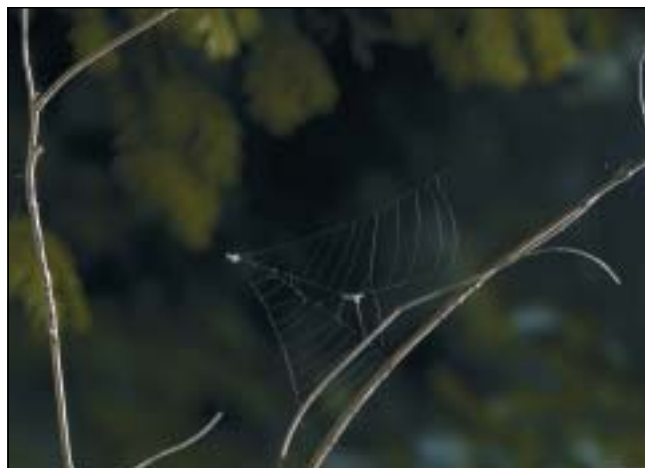


Figure 1. *Hyptiotes paradoxus* male in triangle web. © Stephen Dalton.



Figures 2 & 3. *Hyptiotes paradoxus* collapsing web on prey. © Stephen Dalton.

and complex keys, the sessions frequently running on until ten in the evening. We were an enthusiastic bunch!

Box Hill is particularly rich in all sorts of animals and plants and can boast a number of rare and unusual spiders. Among these are the Purse Web Spider, *Atypus affinis*, our only representative of the ‘bird-eating spiders’ and another sinister looking species the Cellar Spider *Meta menardi* that is found in insalubrious surroundings such as sewers, caves, ice-houses and other dark, damp habitats. But my favourite was the minute *Hyptiotes paradoxus*, sometimes referred to as the Triangle Spider.

Hyptiotes is a rare 3–4 mm long spider found in a handful of locations in England that spends its life in the middle and upper branches of yew and sometimes box trees. Apart from its memorable scientific name that slips so readily off the tongue it has a curious unspider-like appearance resembling a fragment of leaf litter. It never spreads out its eight legs like a proper spider, preferring to keep them bundled up close to the body giving it a hunch-back look. To add to this strange form, *Hyptiotes* is blessed with enormous out of proportion balloon-like palps that are as large as the already bulky cephalothorax. Also unlike most other spiders, *Hyptiotes*, together with other European members of its family the Uloboridae, does not possess poison glands.

In retrospect it seems a miracle that our one and only specimen, a male was spotted at all, which was only



Figure 4. *Hyptiotes paradoxus* male recycling web.
© Stephen Dalton.

discovered after a six man afternoon-long hunt amidst the gloom of yew trees. Once found though the little creature's future seemed bleak as unfortunately the serious study of spiders requires microscopic examination while immersed in alcohol. Although not unduly sentimental, I have a reverential approach to all living things and the mind blowing evolutionary forces that have led to each one of them. Moreover knowing the technique used by *Hyptiotes* to catch prey I was determined to photograph the phenomenon for others to also wonder at. Thus with some difficulty I succeeded in persuading my fellow spider fans to part with their specimen and allow me to take the creature back alive to my studio.

Perhaps the most intriguing thing about spiders is the diverse range of strategies that different families have evolved for catching prey. As well as devising all manner of ingenious traps in the form of webs, spiders employ a host of other devious methods including jumping, chasing, ambushing, spitting, fishing, masquerading as other animals and even attracting prey by mimicking the prey's pheromones. *Hyptiotes* uses a web but in an unconventional way.

It constructs about 1/6th of an orb in the shape of a triangle. The web is tensioned by the spider which sits at the apex holding out a stretched loop with its front feet. When a fly strikes the web, *Hyptiotes* releases the loop partially collapsing the web and further entrapping the fly. This action is done several times, the spider letting out more silk from its spinnerets while gradually advancing towards the struggling prey. The series of photographs here show the operation clearly.

To obtain the pictures (Figs. 1–4) the spider had to be persuaded to build its web, which it only did after three weeks and after I had constructed a large net enclosure with a yew branch and placed it under a yew tree in the garden. Finally after the photography was complete I released the spider back to its old home among the yew trees of Box Hill. However I was left wondering whether the environmental costs of the fuel used for the journey were justified!

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Variation in Numbers of *Philodromus albidus* in Wiltshire

by Martin Askins

In Peter Merrett's review of nationally notable spiders (1990) *Philodromus albidus* is described as "Fairly widespread in southern England, but local and never very numerous." However, in the Provisional Atlas (2002) Peter Harvey points out that in Essex it is widespread and frequent and that Ian Dawson has found it "in numbers" in Huntingdonshire. Recently in Wiltshire I've found *P. albidus* frequently and it has even been the most numerous philodromid found at some sites. I had the impression that when I started recording in Wiltshire *P. albidus* had been infrequent and, if recorded, only found in ones or twos. Though I don't record actual numbers of individual spiders seen, I do differentiate between when I have seen one or several of a species. Looking back at my records, numbers of *P. albidus* do appear to have 'taken off' in 2000 (Figure 1). Even when crudely adjusting for the number of days spent recording each year (in the period April – July when the spider is found) the trend is the same or even emphasised. Doing a similar exercise on other spiders which would be collected by the same methods as *P. albidus* does not produce the same result. The total numbers involved here are actually small and the results are hardly conclusive, but has anyone else noted such an increase in *P. albidus*?

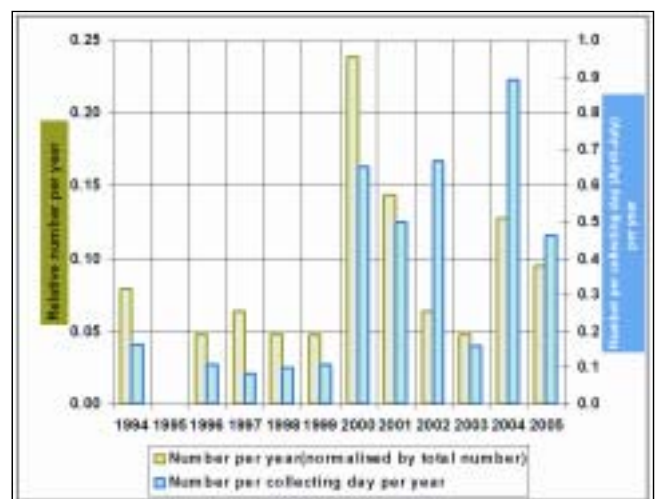


Figure 1. Variation in relative numbers of *Philodromus albidus* with year.



Figure 2. Gravid *P. albidus* female. © M. Askins.

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- Harvey, P. R., Nellist, D. R. & Telfer, M. G. 2002, Provisional Atlas of British Spiders. Huntingdon: Biological Records Centre.
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Some Casual Observations on *Arctosa fulvolineata* (Lucas, 1846) from North Kent Saltmarshes

by A. Russell-Smith

Arctosa fulvolineata is a rare saltmarsh lycosid in Britain, currently listed as RDB3 and recorded from only nine sites on the East and South coasts, from north Norfolk to Hampshire. In Kent, the only previous records are from saltmarsh sites on the north coast at Faversham and Milton near Sittingbourne.

During 2004 the author collected on a small patch of saltmarsh in the Oare Marshes LNR, just west of Faversham (TR010649) on the 15th May. While turning bricks dumped in the upper saltmarsh (*Halimione portulacoides* zone), two male lycosids were collected which somewhat resembled a *Trochosa* sp. but with a conspicuous orange stripe along the dorsal surface of the abdomen. Two females of what were considered to be the same species were also seen but not collected as they were carrying egg-sacs. Under the microscope, the males proved to be *Arctosa fulvolineata*. The following day, I collected on saltmarsh at Conyer, near Teynham (TQ963654) which is about 4 km to the West of Oare Marshes. Here two males and two females of *A. fulvolineata* were collected under bricks in exactly the same upper saltmarsh zone. In addition, at least three other females carrying egg-sacs were seen but not collected. In all cases, the females were in small voids in the mud beneath the bricks. It was noted that *A. fulvolineata* was never present beneath bricks where amphipods ("sand-hoppers") were very abundant. In fact, the most common associate of the spider was the small, pale carabid beetle *Dicheirotrichus obsoletus* (Dejean) which is a nationally notable B species. Finally on the 25th May 2004, I visited the Swale Marshes NNR on the Isle of Sheppey

(TR052682) about 5 km N.E. of Oare Marshes. Here, a single male of *A. fulvolineata* was collected from under rubbish on upper saltmarsh, just below the seawall at the north-western corner of the reserve.

In 2005, the site where this species was collected in Oare Marshes was revisited on the 18th May. Nearly all the bricks on the patch of upper saltmarsh had been swept away, presumably by winter storms. However, a single female *A. fulvolineata* was seen but not collected close to where it had been found in 2004. Another visit was paid to the Conyer site on the 12th October 2005 without any expectation of finding adult lycosids. To the author's surprise, a single adult female of *A. fulvolineata* was taken under a brick in the same upper saltmarsh area. Even more surprising, two females of this species were seen but not collected from under bricks in an earthen bank (part of the spoil from an adjacent disused brickworks) which was about 2 feet higher than the normal high tide mark at this point on the coast. One of these females was found in a silken burrow similar to those made by other *Arctosa* species.

It would seem that *Arctosa fulvolineata* is more common than previous records would suggest, at least along this short stretch of the North Kent coast. The common factor in finding specimens was the presence of bricks or other rubbish on areas of upper saltmarsh. Harvey (2001) reports finding this species at Foulness, on the Essex coast, in exactly the same microhabitat. While the habit of dumping rubbish on saltmarsh sites is certainly not to be condoned, in this instance it may make finding a rare species that much easier! Indeed, if a systematic survey for *A. fulvolineata* was required, placing bricks or concrete slabs on areas of upper saltmarsh might provide a way of doing so, provided of course they were removed once the survey was completed. The other intriguing observation was to find females of this species well above the high-tide mark in autumn. It raises the possibility that some females over-winter and that there may be seasonal movement up the shoreline, possibly to avoid inundation during spring tides. However, these casual observations are based on very few specimens and a much more intensive and organised survey would be required to establish whether this is indeed the case.

Reference

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A First for Sussex and a Strange Location for *Meta menardi* at Beachy Head

by Richard Price

During the excellent B.A.S. spider identification and biology week at Juniper Hall, I was lucky enough to be shown *Meta menardi* in the ice house of the Field Studies Centre.

Two weeks after the course I was walking from Eastbourne to Peacehaven. Adjacent to the path at TV59177 95662 I noticed a hole, and in the middle of the



Beachy Head path. © Richard Price.

hole I spied a huge spider. It was in the middle of a web eating a woodlouse (*Armadillidium vulgare*). I was amazed as it was a large specimen of *M. menardi*. I searched for a pot but only had small tubes and nothing big enough to collect it.

This was a surprising location to find such a spectacular spider as it was very near to the Beachy Head viewpoint in an area very often visited by the public, but no one had recorded it before. I contacted Dr Tony Russell-Smith to tell him of my discovery and he said that I should get a specimen because *M. menardi* could be confused with *M. bourneti*. Peter Harvey of the recording scheme pointed out that most spider records require a voucher specimen to be available and pointed out that the retention of a voucher specimen is unlikely to impact on a population, with natural predation having a vastly greater effect. I vowed to keep an eye out for the spider next time I walked along the path.

On the 17th August I walked again over Beachy Head and investigated the hole. Nothing was immediately visible but I had a large pot and I reached my hand in and ran the pot on the underside of the hole. Into the pot dropped *M. menardi*. She was a huge female. I took the spider home and took a photograph of it before taking it to Evan Jones for confirmation. After spending a few nights with the spider, I was somewhat attached to it! It was large and beautiful and I did not want to kill it. Evan agreed that it could be identified and released so we built a shallow spy pot using cling film and viewed the epigyne under a microscope. Evan confirmed that it was *M. menardi*.

I took Evan to the location where the spider had been found and we released it back into the hole and then took a walk around the vicinity to search for more holes and more *M. menardi*. There are numerous fissures throughout the cliff top. After releasing the specimen Evan and I walked and whilst looking in these fissures, found three more *M. menardi* including one male in the same hole as the returned spider. We did not take these to examine the epigyne but concluded that there is a colony present.

On 4th September I again searched the holes. I got some strange looks from passers-by as I poked my head down the holes in the ground! I saw a possible *M. menardi* down a hole but it was too deep to reach. I caught a smaller spider that I thought might be *M. menardi* but when I checked the epigyne it turned out to be *Metellina merianae*. I believe that these spiders are nearer to the entrances of the fissures when conditions are fairly damp.

M. menardi is normally found in cellars and caves and in the Provisional Atlas of British spiders (Harvey *et al.*, 2002) it is stated that they are probably under-recorded due to their habitat preferences. These spiders were found in fissures on the cliff top just down from the view point at Beachy Head. The cliff top is very exposed and gets a lot of sun. Some of the holes are quite shallow whilst others are very deep. Evan said that underneath the cliffs at Beachy Head there exists a complex of caves that have been used during wars and have since been sealed. Perhaps these fissures are connected to the caves. It would be interesting if the B.A.S. could persuade someone to open the caves so that they could be investigated for their spider fauna.

I have briefly searched the Internet for information about Beachy Head and its caves and found that the website of the Kent Underground Research Group (2005) states that caves can form when large masses of rock resting on unstable clay simply move apart and leave what is in effect a large crack. "These are known as 'tectonic' or fissure caves and are often associated with landslips. A good example in chalk is Beachy Head Fissure near the lighthouse situated on the cliff top above a landslip. It consists of a 50 ft shaft leading to a tall natural passage, descending to a depth of about 70 ft." I wonder how many *M. menardi* specimens might be found down this shaft?

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