

Spider Recording Scheme News

March 2010, No. 66

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My thanks to those who have contributed to this issue. S.R.S. News No. 67 will be published in July 2010. Please send contributions by the end of May at the latest to Peter Harvey, 32 Lodge Lane, GRAYS, Essex, RM16 2YP; e-mail: srs@britishspiders.org.uk or grays@peterharvey.freemove.co.uk

Editorial

As usual I am very grateful to all the contributors who have provided articles for this issue. Please keep providing articles.

Work on a Spider Recording Scheme website was delayed by hiccups in the OPAL grant process and the timeslot originally set aside for the work has had to be reorganised. Work should now be completed by the end of May this year.

As always many thanks are due to those Area Organisers, MapMate users and other recorders who have provided their records to the scheme during 2009 and early this year. All these data will become available to all BAS members and SRS recorders through the new website.

The new national status review for spiders was finally completed and provided to JNCC in November 2009. We hope that it will be published by JNCC as soon as possible.

Area Organiser change

Richard Wilson has taken over the Area Organiser role for VC64 (York Mid West) & VC65 (York North West) from Jennifer Newton. Many thanks indeed for all the work Jennifer has done over the years in these two Vice Counties. Jennifer remains AO for VC60 (Lancashire West), VC69 (Westmorland North) and VC70 (Cumberland).

Richard would be happy to hear from other active/inactive arachnologists or receive specimens, especially if these are from parts of the county distant from Leeds. Please contact Richard at Richard Wilson, 161 Burley Wood Crescent, LEEDS, West Yorkshire LS4 2QJ
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Dicranopalpus ramosus (Simon) in Scotland

by Mike Davidson

This distinctive and easily identified harvestman was first recorded in Britain at Bournemouth in 1957 (Sankey & Storey, 1969). It is most likely to be an accidental introduction and Hillyard (2005) gives its normal distribution as being Morocco (type locality Mogador), Portugal, Spain and SW France, occurring from sea level to 1000m. Over the last 50 years it has spread northwards through England, Wales and also occurs in Ireland. The most recent Opiliones Recording Scheme map (Hillyard, 2005) shows the distribution extending north to Cumbria.

Hillyard noted that it had been recorded at Edinburgh. This was not mapped, but probably refers to a record from the Lothian Wildlife Information Centre 'Secret Garden Survey'. The species was found in Haddington, to the east of Edinburgh and south of the Firth of Forth in October 1995 (pers. comm. Bob Saville). These records appear on the National Biodiversity Network Gateway.

D. ramosus is generally synanthropic and is common in gardens where it can be beaten from hedges and trees, especially conifers. However many peoples' first experience of this species will be of seeing it spread-eagled on a wall (especially if the wall is whitewashed – as in my first encounter in Dorset in 1978). It characteristically sits flat against the wall with all four pairs of legs straight out to each side (see Fig. 1). The other striking character is the obviously bifid palp which can be seen by eye or at low magnification (zoom in on a digital photo).



Fig. 1. *Dicranopalpus ramosus*
Photograph © Mike Davidson 2009

The 1995 Haddington record remained the only Scottish locality until 2009. On 22nd July, while surveying the spider fauna of the yew trees in a cemetery in Perth (NO111233), I was fortunate to collect an immature specimen - easily recognised by the distinctive form of the palp. I returned to the cemetery on 8th September 2009 and fairly quickly found an adult *D. ramosus* on the side of a gravestone, on the perimeter wall. Also found in the same micro-site were *Leiobunum rotundum* (Latreille) and *Opilio parietinus* (De Geer).

Coincidentally I received a photographic record of *D. ramosus* from a colleague, Iain Lawrie, who had photographed it on a house wall at Earlsferry in Fife (NT484100) on 30th August 2009, after it was spotted by his daughter Catriona.

I imagine *Dicranopalpus* is spreading through the horticultural trade and it will be interesting to see how far north it gets over the next few years.

Thanks to Catriona Lawrie for finding the Fife specimen and Iain Lawrie for supplying the details.

References

- Hillyard, P.D., 2005. Synopses of the British Fauna (New Series) No.4 (3rd Edition): Harvestmen. Field Studies Council, Shrewsbury.
- Sankey, J.H.P. & Story, H.W. 1969., *Dicranopalpus caudatus* Dresco: first record in Britain and France. *Entomologist's Mon. Mag.*, **105**, 106-107.

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Spiders of lowland heathland in southern England

by A. Russell-Smith

Introduction

From an invertebrate perspective, lowland heaths are among the richest and most threatened of all habitats in Britain. In the six southern counties of England from Cornwall in the West to Sussex in the East, they cover a little over 40,000 ha of land, of which just under half lies in Hampshire with a further 17% in Dorset. This represents a small fraction, perhaps only a tenth, of the total area at the outset of the 19th century. Loss of heathland was due initially to agricultural improvement to allow arable cropping. However, far greater threats came in the 20th century with major urban expansion into heathland areas on the one hand and a massive increase in forestry plantation on heathlands on the other. The expansion of forest plantations was particularly rapid from between the two world wars until the 1960s, when a policy of self-sufficiency in timber production operated by the Forestry Commission saw thousands of hectares of heathland planted to conifers. In many cases, further loss has been caused by lack of management resulting in scrub and woodland invasion on former heathland. While the outlook for heathland survival is now slightly better, with a large proportion of current heathlands afforded protection at either national or local level and the national forestry policy of planting on heathlands effectively reversed, there is no room for complacency. In particular, the fragmentation of heathland into numerous small, often widely separated, patches has placed populations of many rare heathland invertebrates and plants at risk of local extinction or loss of genetic viability.

Lowland heathland is perhaps the richest habitat for spiders in Britain and provides a home to an exceptional array of rare and endangered species. During survey work carried out in the 1960s and 1970s, Peter Merrett and Rowley Snazell recorded 267 species from southern heathlands, 40% of the total known British fauna. Work at Chobham Common in Surrey by John and Frances Murphy produced a list of over 300 spider species from this one site alone. Among the species characteristic of this habitat, 47 will be accorded Red Data Book status

according to IUCN criteria in the upcoming national status review and a further 32 will be ranked as nationally notable. Some of these species are not confined to lowland heathlands but all of them have a stronghold in this type of habitat. More significantly 11 of these species (Table 1) have recently been added by the Government to the UK list of priority species that require Biodiversity Action Plans (BAPs), making 12 in total. Hopefully, this means that funds are likely to be made available for conservation of these species as part of a wider strategy targeting heathland invertebrates. However, for effective conservation, a proper understanding of both the current status and the ecological requirements of BAP species is essential. While our knowledge of the distribution and status of heathland spiders in southern England during the 1960s and 1970s was fairly sound, there has been no consistent monitoring of changes since that time. Given that there have been major changes in both the extent and quality of heathland vegetation in the region over this period, it is important that further surveying is carried out to ensure both well designed action plans and as a sound basis for future management decisions.

Table 1. Spiders characteristic of lowland heathland which

Family	Species	Status
Dictynidae	<i>Altella lucida</i>	pCR
Eresidae	<i>Eresus sandaliatus</i> *	pEN
Gnaphosidae	<i>Haplodrassus dalmatensis</i>	pNa
Linyphiidae	<i>Glyphesis cottonae</i>	pVU
Linyphiidae	<i>Mecopisthes peusi</i>	pNa
Linyphiidae	<i>Notioscopus sarcinatus</i>	pVU
Linyphiidae	<i>Saaristoa firma</i>	pVU
Linyphiidae	<i>Tapinocyba mitis</i>	pEN
Linyphiidae	<i>Walckenaeria corniculans</i>	pCR
Lycosidae	<i>Alopecosa fabrilis</i>	pCR
Salticidae	<i>Sitticus caricis</i>	pVU
Theridiidae	<i>Dipoena inornata</i>	pVU

either have an existing BAP (*) or for which an action plan is required. Abbreviations: CR = Critically endangered, EN = Endangered, VU = Vulnerable, NT = Near threatened, Na = Notable A. Note that these are provisional categories, pending publication of the definitive species review by JNCC.

The original heathland survey

Over the period 1968 to 1971, Peter Merrett and Rowley Snazell carried out a survey of spiders on lowland heathlands stretching from Cornwall in the West to Sussex in the East. This provides an important information baseline from which subsequent changes in the status of heathland spiders can be measured. Pitfall trapping was carried out at 124 sites, of which 25 were in Cornwall, 26 in Hampshire, 20 in Devon, 18 in Sussex, 17 in Dorset with only 9 each in Somerset & Surrey. The main aim of the survey was to investigate the potential value of these sites for the Nature Conservation Review by sampling the spiders across as wide a range of locations as possible. Within each major area, sites were selected in a range of different vegetation types, from tall mature dry heathland to younger shorter heather, with some sites in open stony

areas or recently burnt heathland, and some on wet heathland (but not bog). At each site, eight pitfall traps were used, placed in a single line about 10 paces apart. They were operated continuously for approximately twelve months but were emptied rather irregularly, as time allowed. All spiders collected were identified and totalled for each site and species over the twelve months.

The full results of this survey will be published elsewhere and only a few highlights are mentioned here. In terms of species diversity, the richest heathlands were in Dorset (mean species number 60) and Surrey (mean no. 58) and the least rich in the western counties of Cornwall (29) and Devon (34) with the other three counties having intermediate values. However, these aggregate figures conceal very considerable variations between individual sites. For example, in Dorset alone, values for individual sites range from 53 to 72 and the differences between all but the most rich and least rich counties are unlikely to be statistically significant. Indeed, it would be expected that the species richness of individual sites would be affected by factors other than simple geographical position, including microhabitat diversity, structure of the vegetation and age of the heathland, to mention just a few. Hopefully, further analysis of the survey data will shed some light on which factors are most important for heathland spider diversity.

It is also interesting to examine the results of this survey with respect to the BAP species listed in Table 1. Two of the species, *Eresus sandaliatus* and *Altella lucida*, have only been recorded in modern times from a single site each in Britain, but the latter was represented by a single individual from its site at Morden Bog in Dorset. Three further BAP species, *Notioscopus sarcinatus*, *Walckenaeria corniculans* and *Alopecosa fabrilis* were only recorded from a single site each. The first of these is characteristic of extremely wet, boggy sites and would not normally be caught in pitfall traps. *Walckenaeria corniculans* has only been recorded from six 10 km squares in Britain on very few occasions and is perhaps more characteristic of woodlands than heathlands while *Alopecosa fabrilis* has been recorded from only two 10 km squares. Three species, *Haplodrassus dalmatensis*, *Mecopisthes peusi* and *Tapinocyba mitis*, were recorded from between 25 and 38 sites in the survey and are clearly heathland spiders which are adequately sampled using pitfall traps. Interestingly, the four remaining BAP species, *Glyphesis cottonae*, *Sitticus caricis*, and *Dipoena inornata* were not collected at all in this survey. *Glyphesis cottonae* and *Sitticus caricis* are, like *N. sarcinatus*, species of wet boggy conditions and were not recorded for that reason. Overall, the results from the study do suggest that monitoring heathland spiders will require a combination of different sampling techniques and that, for some of the rarest species at least, dedicated surveys will be needed.

Proposed new survey work

An important first step in developing action plans for the BAP species listed in Table 1 will be to establish their current distribution and status as well as further clarifying their precise ecological requirements. Following discussions between the BAS and Buglife, it has been agreed that initially BAS will organise a series of exploratory one-day surveys on sites in Dorset and Hampshire in 2010 and further that BAS and Buglife will

jointly apply for funding to DEFRA for a more intensive two year survey of southern heathlands. The latter will be from a funding source entitled "Understanding the status, taxonomy and ecology of UK Biodiversity Action Plan Priority Species" which covers a broad range of groups from lower plants, through freshwater and terrestrial invertebrates to amphibians and reptiles.

1) Preliminary work in 2010

Survey work will focus on 6 to 8 sites in Dorset and Hampshire and will be coordinated by Chris Spilling. The aim of these surveys is threefold:

- To provide information on the current status of all spider species at the sites visited
- To explore suitable survey techniques that can be used to compare the spider fauna of different heathland sites and contribute to a protocol for the wider research project
- To allow participants both to experience first hand the diverse spider fauna of southern heathlands and contribute to developing methodologies for future surveys.

While the participants will be free to spend the majority of the time at each site collecting in any way they choose, they will be asked to spend one hour on timed hand-collecting in a defined area of habitat. This technique, pioneered by Eric Duffey in the fenlands of E. Anglia, allows comparison of the fauna of different sites by providing a more or less standardised unit of collecting effort in each. In addition, the use of a vacuum suction sampler at each site will be considered but this will clearly depend on the availability of equipment and time to sort and identify catches. Experienced participants will be expected to sort and identify their own collections but some assistance will be provided to less experienced collectors with identification of difficult or critical species. All participants will be asked to provide a copy of their lists to Chris Spilling, who in turn will feed the combined results of the surveys into the SRS database. In addition an account of the survey will be prepared for the BAS Newsletter.

Subject to favourable weather conditions, the following dates have been provisionally identified for field work:

May: Tuesday 11th, Sunday 16th, Sunday 23rd and Tuesday 25th

September: Sunday 26th

October: Tuesday 5th

If any member is interested in attending one or more of these field visits they should contact Chris directly either by e-mail chrissp@btinternet.com or by telephone (01929 426699). He will then keep them informed of locations, meeting points and times as well as of any changes to the schedule.

2) Future work

The BAS and Buglife have agreed to seek funding to continue these studies. If we are successful, funding will be used to expand survey to a much larger number of sites and to deploy a wider range of survey methods, including

pitfall trapping. The latter technique is particularly effective for small ground-active species which include two-thirds of those listed in Table 1. In addition, some ecological studies will be undertaken on a few species for which reasonable populations can be identified.

1, Bailiffs Cottage, Doddington, Sittingbourne, Kent ME9 0JU

More northern lamp-light on *Larinioides sclopetarius*

by Mike Davidson

Since I last shinned up a lamp-post in Kelso in 2007 (Davidson, 2008), I have discovered another population of *Larinioides sclopetarius*, also around lamp-posts, further north in the Fair City of Perth (NO121231 on 21st May 2009). The location was far more vertiginous than the rather modest structure in Kelso, around a lamp on a railway footbridge high over the River Tay. My retrospective risk assessment confirmed that standing on the handrail and using my umbrella to dislodge the spider was perfectly safe, given the lateness of the hour.

Heiling & Herberstein (1998) cite similar situations in Vienna, with these nocturnally active spiders concentrating around light sources in urban habitats, such as along bridge railings which are equipped with light tubes. In Perth, it was late evening following heavy rain (hence the umbrella) and all the lights along the bridge, river embankment and on adjacent road signs were festooned with webs of this species.

Of course sampling the population at Perth may be considerably safer than visiting David Beaumont's 1988 site at Ardeer Explosives Factory, at Stevenston in Ayrshire! Other Scottish records are from Castle Semple (1990) in Renfrewshire and Langholm (1998) in Dumfriesshire, as well as my record from Kelso in 2007.

The Perth record would appear to be a recent extension of its range and further searching around similar railway river crossings further north may well be fruitful.

References

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- Heiling, A.M. & Herberstein, M.E. (1998). Activity patterns in different developmental stages and sexes of *Larinioides sclopetarius* (Clerk) (Araneae, Araneidae). In Selden, P.A. (1998). *Proceedings of the 17th European Colloquium of Arachnology*. Edinburgh.

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Agroeca cuprea Menge in Scotland

by Mike Davidson

The Spider Recording Scheme provisional atlas¹ shows *Agroeca cuprea* as restricted to a few sand-dune and dry grassland sites on the south coast of England, along with a

small Breckland cluster, a recent (2007) Cumbrian coastal site and one Scottish location at St. Cyrus National Nature Reserve in Kincardineshire (see Fig. 1). As noted by Jennifer Newton², most of the records for this Biodiversity Action Plan species are from before 1980, and this prompted the Grampian Spider Group (GSG) to undertake some survey work in 2009 to confirm *A. cuprea*'s continued presence at St. Cyrus NNR.



Fig. 1. St. Cyrus NNR. Photograph © Mike Davidson 2009

St. Cyrus NNR has a relatively mild climate for these latitudes, and fertile soils derived from the lavas and sedimentary rocks of the lower old red sandstone which form the cliffs behind the sand-dunes (Fig.1). It is well known for its unusual flora and invertebrate fauna with several species at or near their northern limit here.

The original record of *A. cuprea* was attributed to John Murphy, who very kindly provided additional details of his single female specimen, caught on a wet day in July 1971 at about NO7564. It was collected from an area of grass or low plants, growing at the base of the sandy cliff/bank at the back of the beach.

Nagging memories that I had seen this species before proved correct and, after I trawled through notebooks and old reports, I realised that a male specimen had been collected by a previous incarnation of the GSG at St. Cyrus (NO7463) on 18th August 1991. Identification had been confirmed by M.J. Roberts.

The first 2009 visit, on 3rd May, produced a good list of spiders but unfortunately no sign of *A. cuprea*. On advice from Peter Harvey, pitfall traps were put out and harvested twice over a period of a month, from 5th September to 4th October. The pitfall traps did not produce any specimens of *A. cuprea*, however on 20th September a single female (Fig. 2) was found in moss on the dunes (NO751644), near the pitfalls. This was in roughly the same area, at the base of the cliff, as was searched by John Murphy nearly four decades ago. *A. cuprea* was one of 50 species found during the 2009 surveys, out of a total list for this site of about 90 species. Additions to the list in 2009 include *Agroeca proxima*, *Harpactea hombergi*, *Micrargus herbigradus*, *Oonops pulcher*, *Walckenaeria antica*; and from pitfall traps only: *Leptorhoptrum robustum* and *Pelecopsis mengei*.

It is reassuring that *Agroeca cuprea* continues to survive at St. Cyrus NNR and hopefully we will eventually understand more about its ecology and habitat requirements and locate other sites. The main threats at St.



Fig. 2. *Agroeca cuprea*. Photograph © Mike Davidson 2009

Cyrus are likely to be people pressure, site management for other groups and ultimately sea level rise. The main threats to arachnologists are very large falling rocks!

I am grateful to John Murphy and Peter Harvey for advice on finding this species and to Scottish Natural Heritage for permission to carry out the survey.

References

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- Newton, J. 2008. A new site for *Agroeca cuprea* Menge, 1873 on Britain's west coast in VC69, Cumbria. *Newsl. Br. arachnol. Soc.* 111.

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2009 - A Scottish miscellany

by Mike Davidson

2009 threw up three interesting records which are worth mentioning briefly. My visit to the Island of Raasay in July (which will be reported separately) produced a female *Agraeina striata* in an area of wetland, on coastal shingle at Brochel (NG585462). From my northern perspective this is a southern species, with the provisional atlas (Harvey *et al.*, 2002) describing it as confined to south of a line from the Wash to Cardigan Bay – apart

from a few records from SW Scotland and the Isle of Man. The Raasay site is therefore a long way north of its previous range and, given its remoteness, it probably occurs more widely in Scottish coastal wetland habitats.

Another *striata*, this time a female *Tetragnatha striata*, turned up in a tiny area of reed-bed on the shore of Loirston Loch, on the south edge of Aberdeen (NJ936010). Again, this is largely a southern species with the only previous Scottish record at the Loch of the Lowes in Perthshire (Aug. 1999). Loirston Loch is heavily used and “managed” by anglers and is adjacent to the proposed location for a new football stadium.

The third species, *Theridion tinctum*, is perhaps more common than the previous two, but again has a southern UK distribution (up to Yorkshire) with two previous Scottish outliers at Balnaguard Glen (NN940514, Aug. 1995) and Invervack (NN840658, July 1991), both in the Tay catchment. The new record was also from the Tay, on the embankment in Perth (NO120236) in May 2009. Although this species is noted as occurring on low vegetation, especially yew, it has not so far turned up in my surveys of yew in Perth and elsewhere.

Scotland is regularly noted as being under recorded, but there seems to be a desperate need for more Spider Recording in Northern England!

Thanks to Peter Harvey for verifying these specimens.

References:

- Harvey, P.R., Nellist, D.R. & Telfer, M.G. (eds) 2002. *Provisional atlas of British spiders (Arachnida, Araneae), Volume 2*. Huntingdon: Biological Records Centre.

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Wan Fell SSSI, VC70, Cumbria

by Jennifer Newton

Wan Fell SSSI consists of 305 hectares of lowland heath bisected by a valley mire, with scattered birches and some areas of planted conifers. It lies between 180 and 250m altitude on the western flank of the Eden valley, about 5km north of Penrith, NY53. It is a privately owned site with no public rights of way, little in the way of footpaths, and very little nearby car parking space. It became Open Access a few years ago, but is still difficult to walk across and appears little visited.

The Provisional Atlas (Peter Harvey, pers. comm.) shows 94 species, listed by Harry Britten (1912) in his account of the Arachnids of Cumberland. Britten was a very active naturalist in the early years of the twentieth century, a gamekeeper on the nearby Nunwick Hall Estate, Great Salkeld, before becoming Assistant Keeper of Entomology at Manchester Museum¹.

The Atlas gives no further records until 1999 when *Tetragnatha extensa* was added. This century the site has been visited by Simon Warmingham, who added 3 new species in 2008, and by Dave Blackledge and myself in September this year, when 11 more species were added. A total of 55 species were recorded on the 2 visits, leaving



Fig. 1. Wan Fell. Photograph © Jennifer Newton

53 of the 1912 records still to be refound. Considering that we have looked at a tiny fraction of the site, a small piece of lowland heath and a small section of the mire on the northern side, on only 2 days (July and September) it is remarkable how many species were found. Dave's vacuum sampler was by far the most productive method, though sweeping/beating the heather was also rewarding. Small disused quarries provided further species under rocks.

The new species are a curious mixture of very common and rarer species. It is hard to believe that *Tetragnatha extensa*, *Metellina meriana*, *Pirata piraticus*, *Theridion sisyphium*, *Pachygnatha clercki* and *Philodromus cespitum* were not present before 1912, and maybe they were considered too common to note (though plenty of very common and widespread species are listed). *Philodromus cespitum* was abundant in September 2009 (mostly immature but with a female on eggs) and it is possible that it was mistakenly listed as *Philodromus histrio*, the only *Philodromus* given by Britten. Surprisingly *Larinioides cornutus*, found in 1999 (and 1912), was not refound in 2008 or 2009. It seemed typical *Larinioides* habitat at an appropriate time of year, but while plenty of *Metellina segmentata*, *Araneus quadratus* and *A. diadematus* were seen there was no sign of *Larinioides*.

Centromerus arcanus, *Meioneta mossica*, *Sintula corniger*, *Episinus angulatus*, *Neottiura bimaculata*, and *Drapetisca socialis* are among the most notable new finds, while *Bathyphantes setiger*, *Hypselistes jacksoni*, *Drepanotylus uncatulus*, *Walckenaeria kochi*, and *Aphileta misera* are important refinds of species of some level of conservation concern. However there are plenty of important species still to be refound, and the site will certainly repay further visits.

References:

- Britten, H (1912) The Arachnids of Cumberland.
Trans. Carlisle Nat. Hist. Soc. Vol. II: 30-65.
¹ Tullie House Museum website: <http://www.tulliehouse.co.uk>

Wann Fell list

Taxon	First Recorded	Last Recorded
<i>Segestria senoculata</i>	1912	1912
<i>Oonops pulcher</i>	1912	1912
<i>Episinus angulatus</i>	2009	2009
<i>Theridion sisyphium</i>	2009	2009
<i>Theridion impressum</i>	1912	2009
<i>Theridion pictum</i>	1912	1912
<i>Neottiura bimaculata</i>	2009	2009
<i>Robertus lividus</i>	1912	1912
<i>Robertus arundineti</i>	1912	1912
<i>Pholcomma gibbum</i>	1912	1912
<i>Theonoe minutissima</i>	1912	1912
<i>Ceratinella brevipes</i>	1912	2009
<i>Ceratinella brevis</i>	1912	1912
<i>Walckenaeria acuminata</i>	1912	1912
<i>Walckenaeria antica</i>	1912	1912
<i>Walckenaeria nudipalpis</i>	1912	1912
<i>Walckenaeria kochi</i>	1910	2009
<i>Walckenaeria vigilax</i>	1912	1912
<i>Hypomma bituberculatum</i>	1912	1912
<i>Gonatium rubens</i>	1912	2009
<i>Peponocranium ludicrum</i>	2009	2009
<i>Pocadicnemis pumila sens. str.</i>	2009	2009
<i>Hypselistes jacksoni</i>	1908	2009
<i>Oedothorax gibbosus</i>	1912	1912
<i>Oedothorax fuscus</i>	1912	1912
<i>Oedothorax agrestis</i>	1912	1912
<i>Pelecopsis mengei</i>	1912	1912
<i>Evansia merens</i>	1912	1912
<i>Tiso vagans</i>	1912	1912
<i>Minyriolus pusillus</i>	1912	1912
<i>Tapinocyba pallens</i>	1912	1912
<i>Satilatlas britteni</i>	1911	1912
<i>Monocephalus fuscipes</i>	1912	1912
<i>Micrargus herbigradus sens. str.</i>	1912	2009
<i>Savignia frontata</i>	1912	2009
<i>Erigone atra</i>	1912	2009
<i>Drepanotylus uncatulus</i>	1912	2009
<i>Aphileta misera</i>	1912	2009
<i>Porrhomma pygmaeum</i>	1912	2009
<i>Meioneta rurestris</i>	1912	2009
<i>Meioneta mossica</i>	2009	2009
<i>Meioneta beata</i>	1912	1912
<i>Centromerus arcanus</i>	2008	2009
<i>Tallusia experta</i>	1912	2009
<i>Centromerita bicolor</i>	1912	1912
<i>Centromerita concinna</i>	1912	2009
<i>Sintula corniger</i>	2009	2009
<i>Saaristoia abnormis</i>	1912	2008
<i>Bathyphantes approximatus</i>	1912	1912
<i>Bathyphantes gracilis</i>	1912	2009
<i>Bathyphantes nigrinus</i>	1912	1912
<i>Bathyphantes setiger</i>	1910	2009
<i>Poecilonea variegata</i>	1912	1912
<i>Drapetisca socialis</i>	2009	2009
<i>Tapinopa longidens</i>	1912	2009
<i>Floronia bucculenta</i>	1912	1912
<i>Labulla thoracica</i>	1912	1912
<i>Stemonyphantes lineatus</i>	1912	1912

Taxon	First Recorded	Last Recorded
<i>Bolyphantes luteolus</i>	1912	2009
<i>Lepthyphantes tenuis</i>	1912	1912
<i>Lepthyphantes zimmermanni</i>	1912	2009
<i>Lepthyphantes cristatus</i>	1912	1912
<i>Lepthyphantes mengei</i>	1912	2009
<i>Lepthyphantes ericaeus</i>	1912	2009
<i>Linyphia triangularis</i>	1912	2009
<i>Neriere montana</i>	1912	1912
<i>Microlinyphia pusilla</i>	1912	2009
<i>Tetragnatha extensa</i>	1999	2009
<i>Tetragnatha montana</i>	1912	1912
<i>Pachygnatha clercki</i>	2009	2009
<i>Metellina segmentata sens. str.</i>	1912	2009
<i>Metellina merianae</i>	2009	2009
<i>Araneus diadematus</i>	1912	2009
<i>Araneus quadratus</i>	1912	2009
<i>Larinioides cornutus</i>	1912	1999
<i>Nuctenea umbratica</i>	1912	1912
<i>Araniella cucurbitina sens. str.</i>	1912	1912
<i>Hypsosinga albovittata</i>	1910	1910
<i>Zygiella atrica</i>	1912	2009
<i>Pardosa palustris</i>	1912	1912
<i>Pardosa pullata</i>	1912	2009
<i>Pardosa amentata</i>	1912	1912
<i>Pardosa nigriceps</i>	1912	2009
<i>Alopecosa pulverulenta</i>	1912	2009
<i>Alopecosa barbipes</i>	1912	1912
<i>Trochosa terricola</i>	1912	2009
<i>Pirata piraticus</i>	2008	2009
<i>Pisaura mirabilis</i>	1912	1912
<i>Textrix denticulata</i>	1912	2009
<i>Tegenaria domestica</i>	1912	1912
<i>Argyroneta aquatica</i>	1912	1912
<i>Antistea elegans</i>	1912	1912
<i>Dictyna arundinacea</i>	1912	2009
<i>Cryphoeca silvicola</i>	1912	1912
<i>Amaurobius fenestralis</i>	1912	2009
<i>Clubiona trivialis</i>	1912	2009
<i>Clubiona diversa</i>	1912	1912
<i>Cheiracanthium erraticum</i>	1912	2009
<i>Cheiracanthium virescens</i>	1908	1908
<i>Drassodes cupreus</i>	1912	1912
<i>Gnaphosa leporina</i>	1912	1912
<i>Micaria pulicaria</i>	1912	1912
<i>Philodromus cespitum</i>	2008	2009
<i>Philodromus hystrix</i>	1912	1912
<i>Xysticus cristatus</i>	1912	2009
<i>Xysticus sabulosus</i>	1910	1912
<i>Ozyptila trux</i>	1912	2009
<i>Ozyptila atomaria</i>	1912	2008
<i>Neon reticulatus</i>	2009	2009

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Philodromus margaritatus in Glen Moriston, Inverness-shire: 2009 update

by Jane Bowman

Having recorded and monitored a female *Philodromus margaritatus* found on a bee hive last summer in Glen Moriston (BRS Newsletter 113 Nov.2008), I was left disappointed not to have seen her spiderlings or to have found a subsequent spider in order to photograph in a more aesthetically pleasing situation.

My reward came on Sept. 18th 2009 when in ancient woodland on Dundreggan Estate, a couple of miles west of last year's sighting, three females were found during an official Spider Survey which I was attending as 'guide'. This particular small wooded area (see Fig. 1), covering approx. 7 hectares, is predominately birch with a few rowan trees adjoining an established Sitka plantation to the east. It is on a steep, north-facing, craggy slope at 400m isolated from the bulk of the Estate's ancient birch and Scots pine above the River Moriston. To the north and west lies higher, very exposed open moorland. The wood is extremely cold in the winter and only on late spring, summer and early autumn days does sun penetrate, due to the high crags rather than the tree canopy. Dense bilberry and crowberry with outcrops of heather, carpet the woodland floor, interspersed by wet flushes. The wood is a popular shelter and feeding ground for Black Grouse.



Fig. 1. The 7 hectare wood area.
Photograph © Jane Bowman

The first birch branch to be beaten on the periphery of the wood during the survey revealed a female *Philodromus margaritatus* in the beating tray, followed by two other females from another birch tree slightly further into the wood. Releasing one spider back onto her tree she scuttled about until coming to rest amongst Cudbear lichen camouflaging her perfectly. Interested to see if she could be encouraged to move, I gently poked her but she refused to budge. I propped my walking pole against the tree to mark her position, realising that by taking my eyes off her to prepare the camera, it would then be virtually impossible to spot her!

Returning alone a couple of days later in good weather to see if I could find any spiders purely by observation of branches or tree trunks, but to no avail, though due to the

improved weather I realised these outer trees would receive summer sunshine. It will be interesting this year to search deeper into the wood where less sunshine penetrates and search again. I was delighted however, to find an isolated birch tree whose lower trunk was riddled with Goat Moth (BAP species) caterpillars.

A week later I was visiting another Goat Moth birch tree I'd recently discovered and decided to eat my lunch at a nearby burn. Admiring the rocky outcrops and the range of colours among the rowan berries, I **fortunately** tripped and grabbed a convenient birch branch to avoid falling. Steadying myself I was aware of a pair of spider legs wafting in the air next to my hand and astonished to realise they belonged to another *Philodromus margaritatus*, presumably annoyed at the intrusion and threat to her welfare! She subsequently settled down enabling me to photograph her beautiful markings. As an interesting colour variant to the other females I could afford to take my eyes off her briefly as the camouflage was less subtle. Initially I assumed this colour variation indicated a male spider, but thanks to Peter Harvey for suggesting that from what could be seen of the palps in the photograph, the spider was most likely a female.

This birch tree was 2km from the previous week's females and at the western edge of the south-facing native ancient woodland, an area of approx.100 hectares at 200-300m above the River Moriston (see Fig. 2). The woodland is predominately birch, good stands of Scots Pine and a few ancient oaks. A very open situation benefiting from continual sunshine, including winter sun, though very exposed to westerly winds.



Fig. 2. The 100 hectare wood area.
Photograph © Jane Bowman

I felt very privileged (as I did with last year's female) to have spotted her through observation. However, without my mishap resulting in the leg waving, I'm sure her camouflage amongst the variety of lush lichens would normally make these wonderful spiders extremely difficult and time-consuming to find simply by looking.

This year's target is of course a male and spiderlings!



Fig. 3. Two of the three *Philodromus margaritatus* individuals found. Photograph © Jane Bowman

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Norfolk Spiders 2009

Peter Nicholson, County Recorder

One of the main spider projects, started in 2008 and continued through 2009, was a survey to find the whereabouts of the fen raft spider *Dolomedes plantarius* (Clerck) in United Kingdom. As you might be aware we are fortunate to have one of the three known UK populations of this charismatic spider in our county as well as its family member *Dolomedes fimbriatus*. The survey is to establish whether there are any *D. plantarius* populations that have been overlooked, or misidentified as *D. fimbriatus*.. The spin off of these surveys in Norfolk was the chance for local spider recorders to capitalise on the chance to find other species in areas not often visited.

It was through the endeavours of Dr Helen Smith a leading researcher in *D. plantarius* that these surveys have been undertaken, supported by keen local arachnologists all over the country. I should draw your attention to the

Dolomedes website (<http://www.dolomedes.org.uk/>) which explains the *D. plantarius* monitoring and recovery programme, funded by Natural England (formerly English Nature) at Redgrave and Lopham Fen NNR, since 1992. Helen now runs the translocation programme on behalf of Natural England. Whether or not translocations go ahead is based in part on establishing positively or negatively the possibility of any other resident populations.

The present outcome of these surveys in Norfolk has shown no new *D. plantarius* sites but those of you venturing out again next year in Norfolk are asked to be vigilant for the possibility of its presence in the Broads. To help those not sure of what they are looking for, the Broads Authority have produced small ID cards which can be obtained by emailing Helen Smith via the *Dolomedes* website.

The surveys may not have produced *D. plantarius* but in August 2008 *Clubiona juvenis* was found by David Hewitt west of the Catfield Hall estate in an area owned by Butterfly Conservation. This was a pleasant surprise as this is generally thought rare and confined to a very few marshy localities in the south and east of England, the Broads and Fens of Norfolk being one of these areas. It was also remarkable that it was not found during the surveys undertaken in previous years on Catfield Hall estate given its proximity and similarity of habitat. The results of this survey are being celebrated and published in N&NN Societies latest Occasional Publication (No. 11).

Sutton Fen came under scrutiny during the year where Pip Collyer found *Philodromus collinus* in the lower branches of mature oak trees (*Quercus* spp): it is uncommon in Britain and recorded from sites in the south and south east of Britain. It has also been recorded in Norfolk pre 1983 mainly in the Santon Downham area on heath and heather, also Thompson Common and Weeting Heath.

Another species of interest which is rare in Britain but frequently found in the fens and broads of East Anglia was *Marpissa radiata* from the Salticidae family, commonly known as jumping spiders. These are to be found in the reed heads and require careful examination before the spider reveals itself.

The Wasp Spider *Argiope bruennichi* has been drawing comment over the last few years as it has moved up along the coast from Suffolk. Although few actual records are coming in at present it seems to be gathering a presence in the county. There are healthy populations now being recorded as far round as Horsey Mill on the north coast of Norfolk with the odd report from within the county.

A visit to RSPB Strumpshaw Fen at the invitation of Tim Strudwick, Senior Warden, resulted in *Meta bourneti* being recorded from their macerator. It is the rarer of two Tetragnathidae species which are often confused, the other being *Meta menardi*. Both species drawing attention to themselves by being 12-15mm in length and both associated with total darkness such as the deep interiors of caves, culverts, sewers and Nissen huts. These two species are often recorded incorrectly due to an assumption that the spiders are *M. menardi* rather than examining specimens fully.

Strumpshaw also turned up another species not often recorded by arachnologists due to its unique life style and that is the Water Spider *Argyroneta aquatica*. This species spends most of its time submerged and requires a net and

is more likely to be found by those people who pond dip or those clearing weed from ponds and dykes. Please pass these records on, with a photo, if you see this species. This species is not normally found skating on the water surface.

An incidental record passed to me by a vigilant observer Shane Allen, who found *Ero tuberculata* in the Fakenham area. This species being uncommon for Britain and only having four records to its credit in Norfolk, these being pre-1991 and located at Grimes Graves, Scole and Catfield Common. This attractive creature is of the family Mimetidae which is represented by only four species of this genus in Britain. They are commonly referred to as 'pirate spiders' for they prey on other spiders in their own webs.

Lastly due to a *Dolomedes* survey just over the border in Suffolk on the Waveney marshes near Barnby, Pip Collyer and Helen Smith discovered *Enoplognatha tecta* a very rare and under recorded species with only two records from Dorset, in 1974 and 1888. A report of this finding was published in the British Arachnological Society Newsletter in November 2009.

A visit to Blakeney point was undertaken recently on behalf of the National Trust and a report on this will be published soon.

To finish I would like to welcome back from France, to Norfolk, the well known and distinguished arachnologist Eric Duffey.

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***Araneus angulatus* Clerck (Araneidae), *Theridiosoma gemmosum* (L.Koch) (Theridiosomatidae) & *Enoplognatha mordax* (Thorell) (Theridiidae) from the Isle of Wight**

by Jonty Denton

I took a single male *Enoplognatha mordax* from saltmarsh edge on eastern edge of the Yar Estuary (SZ355886) on 23rd June 2009. This appears to be the first record of this Nationally Scarce A spider from VC10.

On 25th June I spent a day sampling the tall herb rich fen habitats at Freshwater Marshes (SZ346862) and beat a single immature *Araneus angulatus* from bushes growing amongst tall herbs in fen, and found several adult female *Theridiosoma gemmosum* at base of emergent stems of *Glyceria*, *Phalaris* etc. The later appears to be particularly under-recorded. It is a species I rarely fail to find in any half decent wetland habitats in central southern England, maybe because many specimens were found in my pond net, into which it was dislodged from its very low web. Recent records come from an isolated balancing pond beside the M25 dating from mid 1980s, and a small pond in a Sussex Wood, also created in the 1980s.

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***Tegenaria picta* Simon, 1870 (Araneae: Agelenidae) – a spider new to Surrey [VC 17]**

by Scotty Dodd

Tegenaria picta Simon, 1870 was first recorded in Britain from a chalk pit in West Sussex [VC 13] during 1982 (Jones, 1984; Roberts, 1996) with further records from the same locality during the 1990s. The species was discovered at a new West Sussex site in 1990 and it has also been recorded from East Hampshire (Harvey *et al.*, 2002). The current conservation status of *T. picta* is RDBK – Insufficiently Known.

Tegenaria picta is reported here as new for Surrey [VC 17] based upon a single adult female collected and identified by the author and confirmed from the voucher specimen by Peter Harvey. It was collected using a suction sampler on an area of chalk downland during survey work at Surrey Wildlife Trust's Quarry Hangers (SSSI) nature reserve near Merstham, Surrey (TQ3153) on the 12.vi.2009. The area sampled was sparsely vegetated rabbit grazed turf on a steep south-facing slope.

The elongate posterior spinners are rather longer and more conspicuous than in other British *Tegenaria* (Roberts, 1987), reminiscent of *Agelena*, and its small size could easily lead to the spider being overlooked as a juvenile (P. Harvey, pers. comm.). Thus far British records of adult *T. picta* have been made in the months of June and September.

Acknowledgements

Many thanks to Peter Harvey for kindly offering to verify the voucher specimen and for providing current information on national distribution. Thanks also to Surrey Wildlife Trust for supporting invertebrate survey work on their nature reserves.

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***Hilaira excisa* (O.P.-Cambridge, 1871) (Araneae: Linyphiidae) – rediscovered in Surrey [VC 17] after a gap of 21 years**by Scotty Dodd¹ & Jonty Denton²

Hilaira excisa (O.P.-Cambridge, 1871) is regarded as widespread but uncommon in northern and western parts of Britain, being almost absent from the southeast of England (Harvey *et al.*, 2002). It is a wetland species, occurring in a range of damp habitats, including upland moors (Roberts, 1993). There is no published national status but *H. excisa* may be regarded as a regional rarity in southeast England.

Hilaira excisa is reported here as a significant rediscovery for Surrey [VC 17] after a period of 21 years. There are three previous records of *H. excisa* in Surrey, representing two localities in Haslemere (1961) and Godstone (1987, 1988) (Harvey, pers. comm., 2009). A new Surrey locality is given here.

Hilaira excisa was collected using a suction sampler in an area of wet woodland during survey work at a site in Bramley, Surrey (TQ0142), on behalf of Surrey Wildlife Trust, on 11.vi.2009. One male and several females were collected by SD and subsequently determined by JD. The area sampled was a low lying wet flush with a running brook and a ground flora dominated by carpets of Opposite Leaved Golden Saxifrage *Chrysosplenium oppositifolium* L. and tussocks of rush *Juncus* spp. *Theridiosoma gemmosum* (L.Koch, 1877) (Araneae: Theridiosomatidae) [Nb] was also taken in the same sample.

Acknowledgements.

Many thanks to Peter Harvey for comments on the status of *Hilaira excisa* in Surrey and The Birtley House Group Ltd. via Surrey Wildlife Trust Consultancy for supporting this invertebrate survey work.

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Spiders in Kent, 2008-2009

by Tony Russell-Smith¹ & Greg Hitchcock²

2008

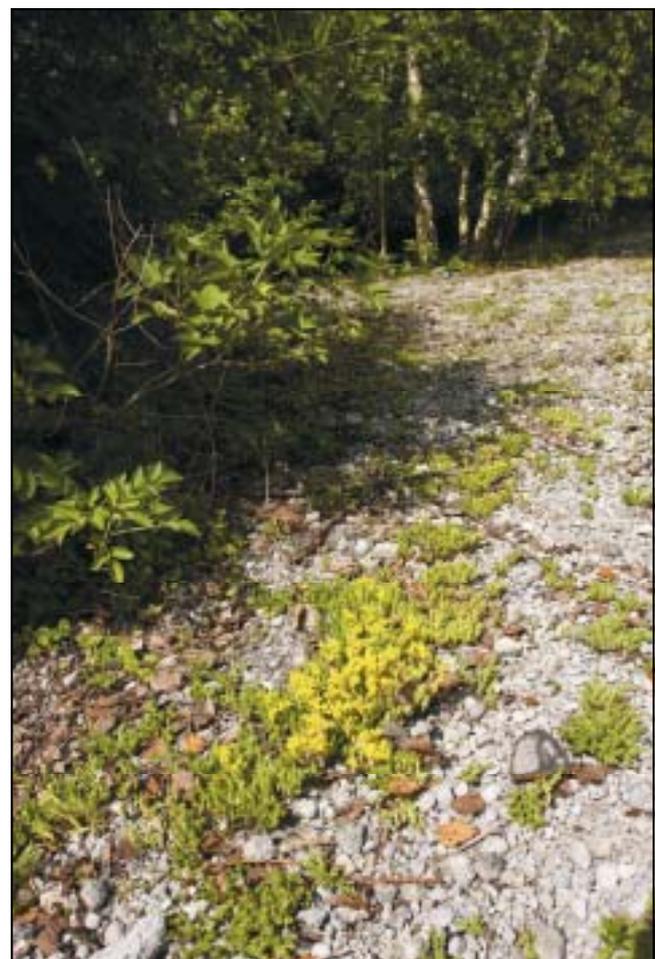
In many respects, 2008 was a poor year for collecting spiders, with an exceptionally wet period from June to August. Despite this, a number of interesting records were made in Kent, including one species new to Britain.

On the first day of June, TRS was joined by Richard Price from Sussex and David Carr, Peter Harvey and Ken Hill from Essex, to visit Fowlmead Country Park near Deal (TR 365538). This is a new country park created on what was originally the coal spoil heap for Betteshanger Colliery which ceased operation in 1989. TRS had visited the site two years earlier, prior to the formal opening of the park, and had recorded a number of interesting species. It was good to be able to confirm the continued presence of some of these, including *Arctosa perita* and both sexes of *Haplodrassus dalmatensis*. It is assumed that both these species have colonised the bare coal shale areas of the site from the nearby sand dunes of Sandwich & Pegwell Bay National Nature Reserve (NNR), which lies about one mile N.E. of Fowlmead. We also collected *Alopecosa barbipes*, an uncommon, mainly coastal species in Kent. However, the most significant find was by Richard Price with his suction sampler. Samples taken from an area with short grasses and bird's-foot trefoil (*Lotus corniculatus*) produced a single male of what subsequently proved to be *Diplocephalus graecus*, a species new to Britain (Price & Russell-Smith, 2008). The suction samples also produced a single male of the small salticid *Sitticus saltator*, another species characteristic of sand dunes but which was also collected by TRS on a second colliery tip in Kent ten days later, at Snowdown (TR 249509). A final list of 69 species collected at Fowlmead suggests the potential richness of post-industrial sites of this sort. Unfortunately, a second visit on 27th September failed to reveal any other specimens of *D. graecus*. It was therefore pleasing to hear that a second male was collected at Farnham Heath in Surrey in early June 2009 (I. Dawson, pers. comm.). This is not totally surprising as the species has been spreading northward in Europe from its original range in the Mediterranean for a number of years, and is quite likely to turn up more frequently in the future.

During a visit to Oare Marshes LNR near Faversham (TR 006653) on the 16th June, TRS collected two relatively scarce saltmarsh spiders, *Enoplognatha mordax* (both sexes) and *Arctosa fulvolineata* (male). Both species have been recorded from the upper saltmarsh on this site previously but it was good to see that they were both still present. A week later, he visited the sand dunes at Greatstone-on-Sea (TR 082228). As well as recording the typical sand dune species *Ceratinopsis romana*, *Marpissa nivoyi*, *Xerolycosa miniata* and *Zelotes electus*, he also collected three females of *Maso gallicus*. This is the first record for the species from this excellent nature reserve, part of the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI). Despite its small size, it has a list of spiders almost as long as that for the much more widely known Sandwich Bay NNR. *M. gallicus* is now known from a range of habitats along a stretch of the south Kent coast from Folkestone to Sandwich, including chalk grassland, sand dunes, shingle and even one post-

industrial site.

Also in June 2008, GH surveyed a post-industrial site on Holborough Marshes (TQ 710627), see Figs. 1 & 2. Here he collected a male of *Salticus zebraneus* from a fence and a female on cinders on the ground beneath birch trees. This is a rare species in Kent, normally taken on trunks of either pine or oak, with earlier records for Kent from only three other sites. This site also produced *Xerolycosa nemoralis* in good numbers, *Myrmarachne formicaria* and *Trachyzelotes pedestris*. He collected two further males of *S. zebraneus* on 28th June at Monkery Farm, Wissenden (TQ 914417), on this occasion on the trunk of a large oak. It seems possible that this species has been overlooked in Kent and would be well worth searching for in other areas.



Figs. 1 & 2. Post industrial area at Holborough Marshes. Photographs © Greg Hitchcock

2009

The weather in 2009 was an improvement on the previous year, with warmer temperatures in spring and summer but with some periods of heavy rain. A prolonged dry period in September meant that spiders were difficult to find in the autumn.

The apparent spread of the money spider *Megalephyphantes* sp. n. in the South-East has been documented elsewhere (Russell-Smith, 2006). On 16th March 2009, TRS visited Robin Rigby at his house in Prospect Row, Gillingham and was shown several adult specimens of this species in his small garden, where females produced webs along a wall supporting a garden bed. Photos taken the previous summer by Robin suggested that the garden also harboured a number of other interesting spiders, including *Ballus chalybeius*, a species not normally associated with urban gardens!

Towards the end of May 2009, the authors gained permission to visit Peters Pit SSSI, Wouldham (TQ 717628), an abandoned chalk quarry and Special Area of Conservation (for Great Crested Newts) managed by Kent Wildlife Trust. Although we did not find anything outstanding, the list of 48 species included *Arctosa perita*, *Myrmarachne formicaria*, *Trachyzelotes pedestris*, *Trichoncus saxicola* and *Zodarion italicum*. This site would certainly repay further survey, particularly as it is only a few miles from Upper Great Culand Pit, Burham, the only known site in Britain for the tiny crab spider *Ozyptila pullata*. This species appears to prefer very sparsely vegetated chalk, a feature the two quarries share.

On the 6th June, a group comprising those who had visited Fowlmead the previous year together with GH, Michelle Fountain and Robin Rigby gathered at Pegwell Bay to survey the hoverport (TR 350639). Abandoned in 1987, the concrete hard standing for the hovercraft and demolished buildings now provide plenty of sparsely vegetated habitats for warmth-loving spiders (see Figs. 3 & 4). In the event, the spider fauna proved an interesting mixture of species one might expect from such a site and

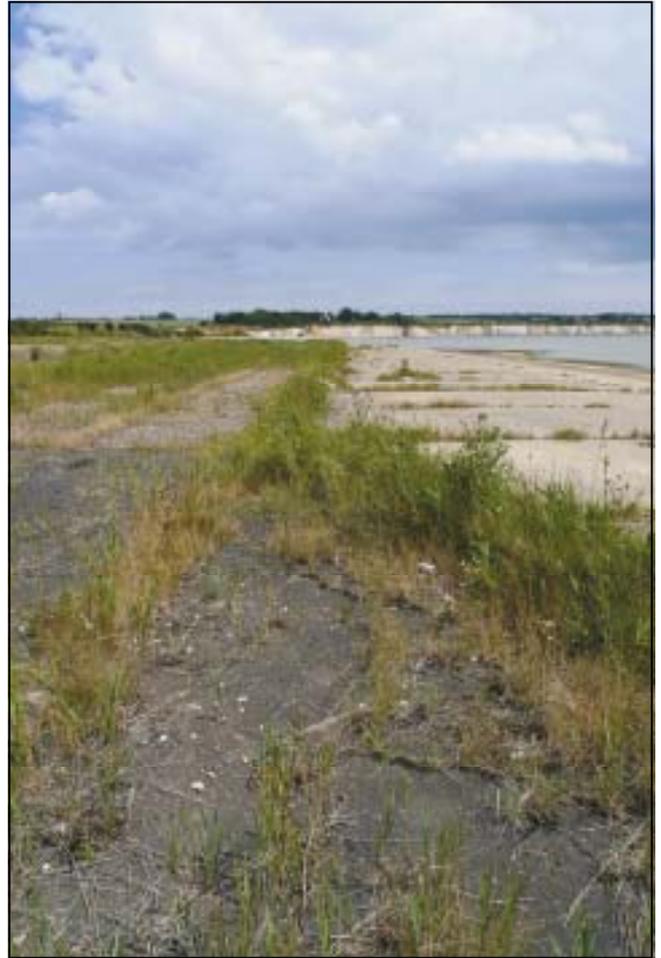


Fig. 4. Old hoverport site at Pegwell Bay
Photograph © Greg Hitchcock

those characteristic of maritime habitats. For example, both species of *Xerolycosa* were recorded. *X. nemoralis* can often be found on post-industrial sites as well as in



Fig. 3. Old hoverport site at Pegwell Bay. Photograph © Greg Hitchcock

woodland clearings but *X. miniata* is a characteristic sand dune species. Likewise, *Argemma subnigra* occurs in a range of open, dry habitats, including post-industrial sites but *A. patula* is a characteristic saltmarsh species. Other interesting species included *Zelotes electus*, *Thanatus striatus* and *Maso gallicus*. Since all three species are found on sand dunes in Kent and there are dunes fairly close to the site, this is presumably where these species originated.

The hoverport was revisited by GH with the Kent Field Club on the 5th July. He was sweeping a small patch of reed that had colonised the site when he took a female of *Synageles venator*, a species new to Kent. This is a scarce southern spider, normally associated with coastal sand dunes but recently found in two old brick pits near Peterborough, a pulverised fly-ash lagoon and two other brownfield sites in Essex. It seems therefore to be another species occurring on dunes that can, at times, exploit suitable post-industrial sites. On the same visit, GH collected a juvenile male of the sand dune salticid, *Marpissa nivoyi*. The overall total of 53 species collected in June was not particularly high but the site would again repay further work.

Michelle Fountain, who moved to Kent relatively recently, invited the same group to visit Ditton Quarry Local Nature Reserve (TQ716572) on the 13th June (see Figs. 5 & 6). Michelle acts as a voluntary warden for the reserve and wanted to increase the number of spider species recorded from this abandoned Kentish ragstone quarry. As at Peters Pit, there were no outstanding rarities recorded but the total of 57 species was quite respectable for a single day. Among the more interesting species were *Tetragnatha nigrita* and *Philodromus albidus*, both beaten from shrubs and the tiny salticid, *Talavera aequipes* collected in sparse, stony grassland. Subsequently, TRS identified spiders collected by Michelle from the same site in pitfall traps during 2007. The more interesting species trapped included the notable thomisid, *Ozyptila*

sanctuarina which is rather uncommon in Kent, the salticid, *Bianor aurocinctus*, which is reasonably widespread but infrequent in warm habitats throughout the county, *Trachyzelotes pusillus* and *Panamomops sulcifrons*. Currently, 84 species have been recorded from this site but this number will certainly increase with further collecting.

In August, TRS was sent a small female theridiid collected by Phil Bance, Sussex Wildlife Trust recorder at Bewl Water, on the Sussex-Kent border. He thought the specimen, collected from a pine tree on woodland edge at Hazel Street near Horsmonden in VC16 (TQ 696389), might be *Theridion impressum*. On examination TRS thought it could be *Theridion pinastri* but, not having collected this species himself, sent it to Peter Harvey who duly confirmed the identification. This is only the second time the species has been taken in a Kent vice-county, the first being at Bexley by Peter Harvey in 1998.

It will probably not have escaped readers notice that practically all the places mentioned in this account are in fact post-industrial sites. In a county such as Kent, where much of the semi-natural vegetation other than woodland has been replaced either by intensive agriculture or by urban development, such habitats are of particular importance for warmth-loving invertebrates of open ground habitats which benefit from the sparse vegetation cover. A good example of this is the post industrial site at Holborough Marshes, where the (calcareous) waste products from the long-vanished cement works provide a surrogate habitat for species more typical of chalk grassland. Many of our more interesting spider species require these types of habitats and it seems likely that such post-industrial sites will become increasingly important for their conservation as time passes; at least one of our species, *Sitticus distinguendus*, is only known from two post-industrial areas, both under threat by development. More attention needs to be given to the conservation of biodiversity-rich post-industrial sites, which all too often



Fig. 5. Ditton Court Quarry. Photograph © Greg Hitchcock

are seen by local councils simply as waste-ground ripe for redevelopment.



Fig. 6. Ditton Court Quarry.
Photograph © Greg Hitchcock

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In my garden at Little Comberton, Worcestershire (VC37 SO94 30 m O.D.) on 7th September 2009, I observed a horizontal web 32 cms wide fixed to the roof of an outbuilding and the front of a car by suspension strands 3.01m long. The web was composed of 25 circumferential strands in 11 cms. The first circumferential strand commenced 5 cms from the centre of the web-hub; the web diameter was therefore 32 cms. It occupied a position more or less mid-way between the car and the building; from a distance the spider appeared to be unconnected to anything around it.

At Broadway, Worcestershire (VC37 SP13 101 m O.D.) on 15th September 2009 another large *A. diadematus* web was strung obliquely from the top corner of a carport to a point on its concrete floor, the suspension webs being 2.45 m in length. Another spider *Zygiella x-notata* (Clerck, 1757) built its own substantial web by linking it to the *A. diadematus* web and to the floor beneath it. When cars used the space, the *A. diadematus* attached replacement webs to those. Similarly large highly exposed webs were observed in gardens in the Widcombe area of Bath, Somerset (VC6 ST76 95 m O.D.) on 13th September 2009. One of these was linked to a boundary fence and to a shrub in a central position. That web spanned 3.1 m.

A character of all of these webs was their considerable tensile strength, certainly stronger than an average *A. diadematus* web, and almost beginning to approach those of some of the big *Araneus* spp. found in exposure in the Alps and to the south. This may be a response to the distance covered by the webs.

It might be presumed that these large strong webs resulted from a proliferation of suitable prey and that the spiders were doing well. This however, may not be the case. Witt *et al.* (1968) showed that over time, increasingly hungry *Z. x-notata* spiders might increase their web area significantly. The observations cited here may support that, for there was certainly no local surfeit of muscid flies during the autumn of 2009, and some of these *A. diadematus* were rather on the lean side. Although Vollrath & Samu (1997) came to somewhat different conclusions based on laboratory studies of *A. quadratus* webs, both studies confirmed that web parameters change in line with prey abundance.

References

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Did prey scarcity influence orb-web parameters in England during the autumn of 2009?

by Paul F. Whitehead

During the autumn of 2009 it became apparent in many places that female *Araneus diadematus* Clerck, 1757 were constructing large orb-webs in some unusually exposed places the like of which I could not readily recall.

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