Spider Recording Scheme News
Summer 2015, No. 82

Editor: Peter Harvey; srs@britishspiders.org.uk **SRS website:** http://srs.britishspiders.org.uk

My thanks to those who have contributed to this issue. S.R.S. News No. 83 will be published in Autumn 2015. 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 grays@peterharvey.freeserve.co.uk. 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.

Spider news

We continue to live in interesting times, with two males and one female of a new *Tegenaria* species in Britain, *Tegenaria hasperi,* being collected in pitfall traps on a green roof in the Olympic Park in July 2014. More detail will be published in due course.

Pip Collyer reports on a new British linyphiid spider *Syedra myrmicarum* found on Winterton Dunes in Norfolk and Jonty Denton reports on a new *Clubiona* species for Britain, *Clubiona leucaspis,* found in numbers near Guildford in Surrey.

Tom Thomas has found a female *Anyphaena sabina* in the Natural History Museum gardens, so this is clearly now established in the London area and is a species we can increasingly expect to find further afield - we can no longer assume an *Anyphaena* will automatically be *A. accentuata*! A note will appear in the next issue.

I have collected *Philodromus rufus* sens. str. from two more sites in south Essex so again this is a spider likely to increasingly be found in hot sunny sites in southern England - but please note the need for confirmation and the guidance that the species really is generally markedly more rufous on the whole body and legs than *P. albidus*, and females will require dissection.

As readers will see from the following article, Allan Neilson has been finding *Hypsosinga heri* to be widespread at Radipole Lake in Dorset and Lodmoor, a short way to the east.

We regularly and perhaps increasingly receive reports of the handsome males of the southern European jumping spider *Philaeus chrysops*, and one has to wonder whether even this spider might soon become established in this country.

Area Organiser changes

New address details for Richard Wilson are: 29 Primley Park Lane, Alwoodley, Leeds, West Yorkshire LS17 7JE.

Please note that all Area Organiser details are available to logged-on members on the Spider and Harvestman Recording Scheme website.

Hypsosinga heri found at the RSPB reserves, Weymouth

by Allan Neilson, RSPB volunteer

It is remarkable what other creatures you can find when few butterflies are flying and you scour the vegetation for resting individuals to increase your survey-count and make your efforts worthwhile.

On 28th May 2014 Sara Cookson, Jacquie Rayner and I were close to the end of a survey at the Radipole Lake reserve and had yet to record a butterfly. By the riverside path that leads to the North Hide we saw a very small brightly-coloured spider at about waist height on Hemp Agrimony. None of us had seen anything like it before. The closest match in my Collins Field Guide seemed to be a *Hypsosinga* sp. and I posted side and ventral views on the SRS forum asking for confirmation of the ID. I received a prompt reply from Peter Harvey. At first he thought it would turn out to be a juvenile *Araniella*, which are often reddish and can have variable spotting, but the more he looked at the images the more he thought it must be *Hypsosinga heri*, which has been considered extinct in Britain with no records since 1912. A specimen would be needed for examination. Could we find it again or another? We couldn't, I filed the images under "unconfirmed" and went off to Scotland for a month's holiday.

As reported in the April 2015 edition of British Wildlife (page 287), expert arachnologists visited Radipole in June and July 2014, found the spider at the second attempt and confirmed the identity as *Hypsosinga heri*. So a spider with earlier records only in 1898 and 1912, and on the point of being deleted from the British list, had been found again about 180 miles from its former principal site at Wicken Fen near Ely. Had we been busy counting many butterflies that day we may well not have noticed it.

On 7th May 2015 Sara and I were nearing the end of another disappointing butterfly count at Radipole when Sara saw a very small spider glinting like a jewel in the sunlight. It looked almost identical to the one seen in 2014 and I sent a photo (Figure 1) to Peter Harvey who confirmed it was indeed *H. heri* and probably another juvenile female.

Fig. 1. *Hypsosinga heri* (07-May-2015)
Photograph © Allan Neilson

The spider was at about knee-height on top of Hemlock Water Dropwort by the path to North Hide but some 215m before the 2014 location and on the opposite side of the River Wey. The path-side vegetation (Figure 2) is a strip of herbs and grasses bounding a reed-bed. Hemlock Water Dropwort is the dominant plant but other umbellifers such as Angelica and Cow Parsley, plus other herbs such as Common Comfrey, Hemp Agrimony, willowherb, Common Fleabane and Michaelmas Daisies appear in succession.

This section of path has the largest number of Southern Marsh Orchids on the reserve and the verge is usually trimmed regularly to give the best show after a strim to ground level at the end of winter. In winter the path is often closed because of flooding and occasionally in summer after heavy rain. Management of reed-beds on the reserve during autumn and winter often results in the verges being run over by tracked-vehicles. Somehow this tiny spider has survived all that.

On 17th May, during a Wetland Bird Survey, I found a candidate immature female on Common Comfrey some 615m away. She was in a lush growth of nettles on a track between two reed-beds in a conservation area off-limits to the general public and about as remote from the river as is possible on the reserve.

And the sightings at Radipole have continued. At the beginning of June a regular visitor to the reserve found a female on herbs by the path to North Hide not far from the 2014 location and photographed another on Comfrey in low reeds not far from the start of the boardwalk to the hide. This second female was being approached by a slightly smaller spider with a uniformly brown abdomen and Peter Harvey confirmed this as a male. All vegetation by the boardwalk is fresh growth: the area was clear-cut during the winter as part of the reed management programme and was still waterlogged in March and early April.

On 14th June Matt Prince and others from a Pan-Species-Lister group found 6 females alongside the boardwalk with one likely to be that photographed earlier in the month. During a butterfly transect on 18th June, Sara Cookson found another female about 35m along the path from that on 7th May. That gave a total of 12 individuals found to date at Radipole: 11 during 2015.

Fig. 2. General location of *H. heri*, 07-May-2015
Photograph © Allan Neilson

The locations, numbered in the order found, are overlaid on an aerial photograph taken in spring 2011 following an extensive programme of reed-bed restoration starting in winter 2009/10 (Figure 3).

Fig. 3. Locations of *H. heri* at RSPB Radipole Lake.
(aerial photo copyright RSPB)

On 24th May, I found a remarkable 18 candidate spiders at the nearby Lodmoor reserve (see Figure 4). Fifteen were on various herbs beside a 175m stretch of reserve-footpath alongside a former landfill-site. The path and borders are narrower than at Radipole and the outer edges are supported by shuttering to prevent the soil collapsing into wet reeds. I found another 3 spiders on a single clump of Hemp Agrimony about 120m away beside a wider public-footpath and cycleway crossing the Lorton Valley and linking large housing estates with Weymouth town-centre. Here the borders are relatively wide and slope naturally into wet reeds. Flooding occurs during the winter but generally less frequently and to a lesser depth than on the path to the North Hide at Radipole.

Once again Peter Harvey confirmed the ID from my photographs: all were likely to be still-immature females. The abdomens had variable widths of dark and light banding and the carapaces were orange with variable amounts of dark brown / black: some just around the eyes and some with the entire head region darkened. Extreme examples are shown in Figure 5.

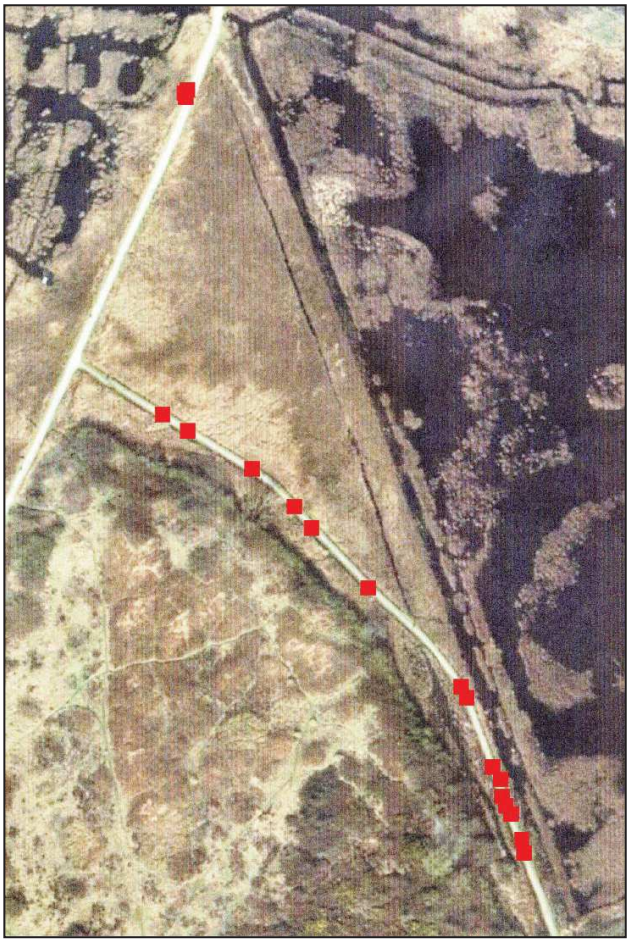


Fig. 4. Locations of *H. heri* at RSPB Lodmoor, 24-May-2015. (map Crown Copyright by licence to RSPB)

So within two years the UK status of *Hypsosinga heri* has changed from "presumed extinct" to having two apparently-viable populations on the RSPB reserves at Weymouth where a metapopulation clearly exists in the area. The herb-rich waterside habitats in which they were found are not unique to Lodmoor and Radipole Lake where they have been created by management actions during the past 20-40 years. Other colonies may live upstream by the River Wey and possibly inland beyond the ridge of chalk downs in the much larger catchment of the River Frome and its tributaries.

Fig. 5. Variations in juvenile *H. heri* at RSPB Lodmoor, 24-May-2015. Photographs © Allan Neilson

Peter Harvey suggests that the spider and other invertebrate fauna at these locations may hold many more rare and scarce species, and deserves a thorough study.

allann450@hotmail.com

Syedra myrmicarum: a new species record for the UK

by Pip Collyer

During 2014, at the request of Natural England, the Norfolk and Norwich Naturalists Society carried out a survey of Winterton Dunes NNR on the east coast of the county. Whilst the spiders of the site have been well recorded in past years with visits by John Murphy, Eric Duffey, John Parker and Peter Merrett to name but a few, I took the opportunity presented to visit the dunes in all seasons. In order to supplement hand methods of collection, the county beetle recorder and I took it in turns to set and service pitfall traps, the locations of which were selected to try to cover the different habitats offered by the site.

The Dunes extend to 109 hectares and provide good coastal habitat succession from open sand and shingle beach through embryo and fixed dunes to acid heathland and low lying wet dune slacks, with areas of scattered scrub.

By late September with the onset of colder weather I was ready to call it a day at servicing the traps but my namesake, Martin Collier the county beetle recorder is made of sterner stuff and carried on until the end of December. It is therefore thanks to him that a small male linyphiid was collected which I could not find in Roberts. It was sent to Peter Harvey and duly ended up with Peter Merrett who identified it as *Syedra myrmicarum*, a rare spider recorded from central Europe which, as the name implies, is associated with ant nests. The trap in question was located on a westerly facing slope of a large dune, supporting relatively short vegetation, about 100 metres back from the beach.

Despite continuing to set the traps in the immediate area into February this year and carrying out further hand searching and vacuum sampling, no further specimens were found so I shall be re-visiting the site in the hope of finding a female.

A total of 90 species were recorded during the year which included a number of new records for the site. One interesting one is *Micaria silesiaca*, a small ant mimic which is present in good numbers particularly on the short rabbit grazed areas. According to the SRS map for the species, it would appear to be the most northerly record for this spider in the UK. Other new records included *Araeoncus humilis, Pelecopsis nemoralioides* (both forms *locketi* and *mediocris* in the males), *Porrhomma microphthalmum, Walckenaeria alticeps and Centromerus dilutus.*

I am grateful to Peter Merrett for identifying *Syedra myrmicarum* and Peter Harvey for his advice and research into the species.

9 Lowther Road, NORWICH NR4 6QN.
Email pipcollyer@yahoo.co.uk

Clubiona leucaspis Simon established in Surrey

by Jonty Denton

On 11th May 2015 I visited Cathedral Hill Industrial Park, Guildford (SU9850), to look for exotic bugs on the screening/amenity planting here which include numerous Black pines *Pinus nigra*, having found the first Surrey colony of the mirid bug *Phytocoris pini*, and the second Surrey site for *Macaroeris nidicolens* (Walckenaer) (Salticidae) in 2013.

I beat a pale unfamiliar looking clubionid with a distinctive pale pattern on the abdomen. A quick search on the internet (**http://www.araneae.unibe.ch/data/705/Clubiona_leucaspis)** yielded a perfect match for the palps with *C. leucaspis.* I revisited the site the next day to try to find more and caught 3 adult females. Thus the spiders are established and breeding, and at first glance could be passed over as immature *Anyphaena accentuata*, but the pale spot on the dorsal surface of the abdomen is very distinctive.

The habitat is manicured shrubberies (mostly *Ceanothus*) beneath pines, and other exotic bushes including Red-Osier Dogwood, and surrounded by extensive hard surfaces (car parks, roads). The community is diverse with *C. comta, C. terrestris, Theridion blackwalli, Zilla diodia, Gibbaranea gibbosa, Araneus sturmi, Philodromus albidus* etc. *C. leucaspis* is widespread in Western Europe, and the above website gives 'common in citrus groves'.

Given the presence of other exotics, it seems likely that *C. leucaspis* was also accidentally imported amongst the amenity plantings.

31 Thorn Lane, Four Marks, Hampshire, GU34 5BX. Email: JontyDenton@aol.com

Trachyzelotes pedestris (C.L.Koch) breeding on a manure heap

by Jonty Denton

As part of an extensive survey of Langley Vale near Epsom, Surrey (TQ2156), I sieved the margins of a large manure/spoil heap surrounded by extensive arable fields. Amongst loose drying remains of old rotten straw bales I found adults of what turned out to be *Trachyzelotes pedestris*, and associated immatures. The heaps were due to be removed in summer of 2015, so the Woodland Trust supported a rescue effort for the spiders. I revisited the site on 9th April and 11th May and on both occasions found more than 40 adult *T. pedestris* (mostly females), and other juveniles which were probably of that species. They were commonest around exposed lumps of drying baled straw, where several could be disturbed at a time. By May the ground was being covered over by large clumps of chickweed, cleavers and hemlock, and spiders were scarce or absent from the larger basal rosettes. The more extensive areas of open fine gravel chipping were

also searched but here only *Pardosa* and *Trochosa* were found.

These were collected and released on more 'typical' habitat of sparsely vegetated chalky soil on field margins left as arable weed strips.

31 Thorn Lane, Four Marks, Hampshire, GU34 5BX. Email: JontyDenton@aol.com

Identification of Species in the Genus *Dictyna* (Dictynidae)

Currently there are five species in the genus *Dictyna* which you might encounter in Britain. These are small cribellate spiders with adults ranging in size from 1.5-3.5mm. Some have distinctive abdominal patterns when in good condition. But because their appearance depends on both the underlying colour of their skin (which darkens as they age) and the colour and reflectivity of their pale scales and hairs, a selection of individuals from the same species can vary considerably. There is also overlap in their normal habitats across herb/shrub/tree layers.

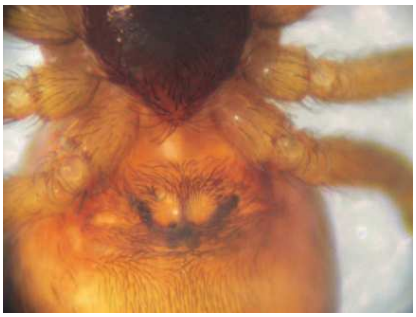
General characteristics - They belong to a family (Dictynidae) known as small mesh weavers which trap their small prey in irregular tangles of fluffy silk, very often in the dead flower heads of grasses, heather, gorse, juniper and pine. The spiders are to be found within these tangles often at the axils of flowers or leaves/needles.

In general, due to the lack of reliable field characters, confident identification of these species will require microscopic examination of adult specimens.

Male palps can be examined with the whole animal immersed in preservative. For ease of comparison, the left palp (while still on the spider or detached) should be examined in the same orientation as shown in the diagrams. You should be able to see the same structures. You can now refer to the diagram of a *Dictyna* palp on the following page and use the tabular key to identify your male spider.

Female spiders - initially the females can be examined in preservative, with the plane of the epigyne perpendicular to the angle of view. Your specimen can be compared with the illustrations on the following pages.

Differences in the internal plumbing (adnexae) behind the epigyne provide easy separation of the species. Examination of this is likely to be essential for confirmation of *Dictyna pusilla* and where the epigyne and underlying organs are obscured in other species. In recently matured specimens the integument may still be sufficiently transparent for these to be visible, but in many specimens the epigyne will have to be cleared by immersion in a fluid with a low refractive index which can soak into the tissues. With such small spiders the whole animal can be submerged in 100% alcohol to remove most of the remaining water and then immersed in the clearing fluid until the structures become visible. Easily available substances like clove oil or oil of wintergreen can be used but ethylene glycol does a quicker job with no smell. Please refer to the tabular key and illustrations of the adnexae.

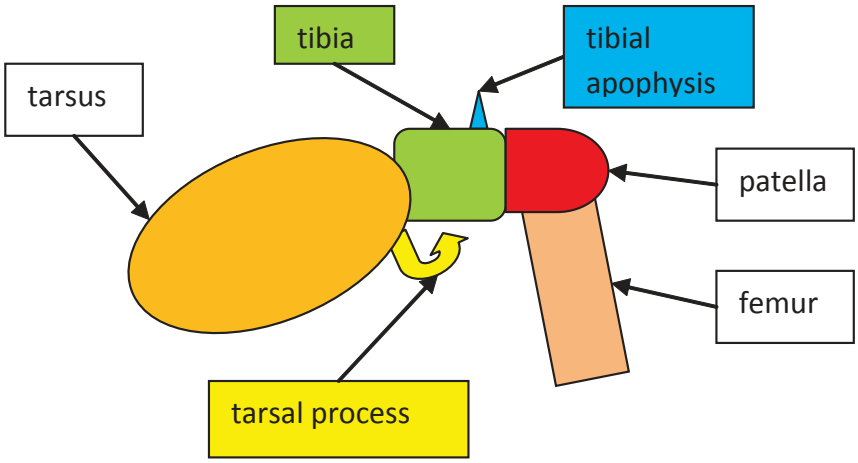


***Dictyna pusilla* female - adnexae note U-shaped ducts**

***Dictyna pusilla* female**

***Dictyna arundinacea* female**

Key features of the *Dictyna* palp:
Terminology: The femur attaches (via two short segments) to the spider. The patella has no outgrowths in *Dictyna*. The tarsus is the terminal segment of the palp developed with various structures to assist in mating and insemination. In *Dictyna* the robust tarsal process is useful for identification by considering shape and orientation. The tibial apophysis is a bifid structure on the upper side of the tibia. The shape of the tibia is also useful, especially for separating *D. arundinacea* and *D. pusilla*.

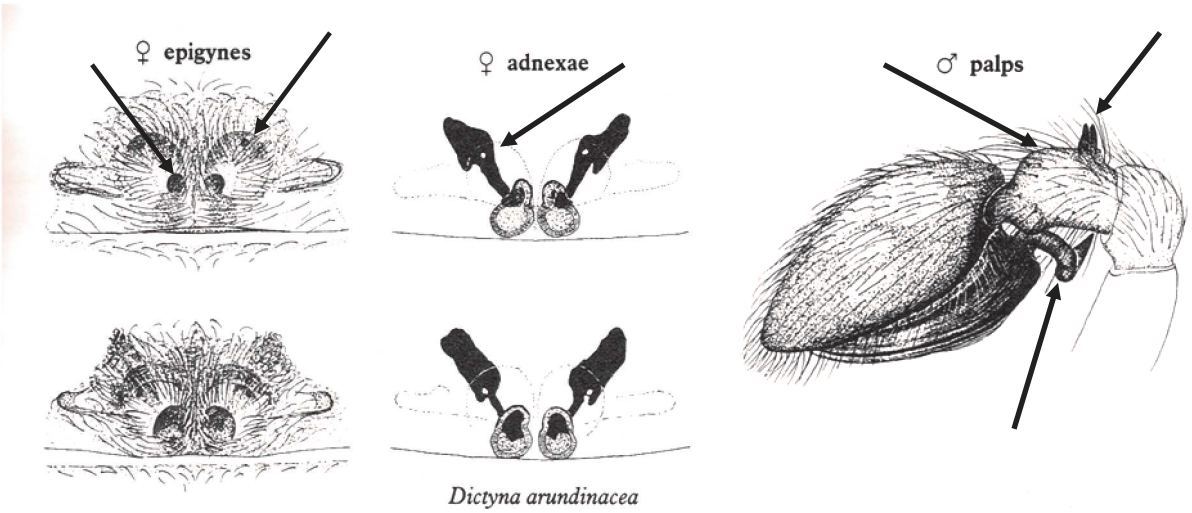


Tabular key for *Dictyna* spp.

	Features of male palps			**Females**
Species	Tarsal Process	Shape of Tibia	Tibial Apophysis	Cleared adnexae
D. arundinacea	Curled and pointing up to tibia	Oblong	Bifid and removed from the patella joint	Ducts pointing upwards at 45° with thick upper section
D. pusilla	Curled and pointing up to tibia	Almost triangular looking like a cat's head in profile*	Bifid and forming the apex of the triangular tibia	Ducts U-shaped with upper sections curving outwards
D. uncinata	Curved and pointing down	Oblong with ventral extension at tarsal joint	Very long bifid process at patella joint	Like a pair of desk lamps or flowers curving up and outwards
D. major	Curved and pointing down	Oblong	Slightly curved apophysis with twin spurs	Thick structures at 45° with thinner "beaks" pointing down and in to centre
D. latens	Almost straight and pointing backwards	Oblong	Very small apophysis near middle of tibia	Indistinct circular structures

*the shape of the tibia in *D. pusilla* is not accurately represented in Locket & Millidge (1951). This may explain some of the difficulty in separating *D. pusilla* and *D. arundinacea*.

Dictyna arundinacea



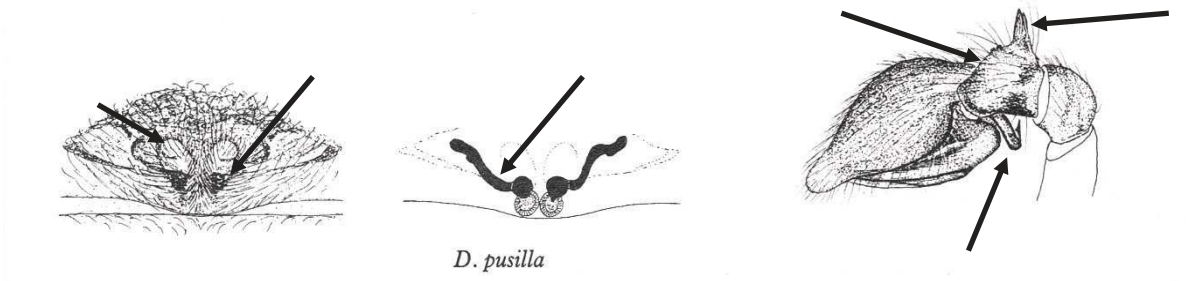
Dictyna arundinacea

This is the commonest species of *Dictyna*, found throughout the British Isles, making its tangled web and making its egg sacs in the heads of grasses and heather stems.

Male Palp - the tarsal process curls up towards the tibia. The tibia is oblong with a distinct bifid apophysis. This species is easily confused with *D. pusilla* - which is smaller and has a more triangular tibia (see below).

The epigyne has the paired openings of the ducts close together within two large circular areas giving the appearance of a cross-eyed owl. The cleared adnexae are set at about a 45° angle starting thin and becoming abruptly thick. Two examples of the epigyne and adnexae are illustrated above.

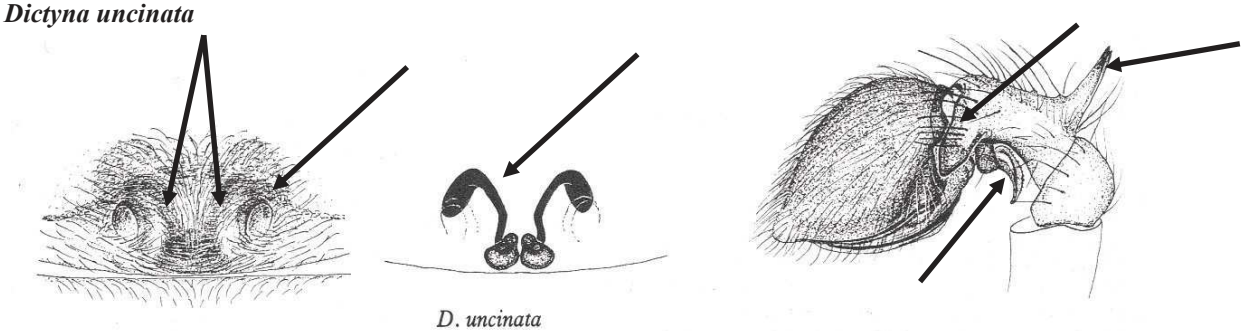
Dictyna pusilla



D. pusilla

This species has been most commonly found in NE Scotland (with scattered records elsewhere) where it can be abundant on juniper, gorse, yew and pine, making its web in the axils of the needles or spines, often binding dead flowers into the structure. It is also found in grasses and heather, perhaps as a secondary habitat. The male palps are similar to, but smaller than, those of *D. arundinacea* - but the tibia is almost triangular in shape - perhaps like the profile of a cat's head. In the epigyne the paired dark openings of the ducts are set in smaller oval areas compared with *D. arundinacea*. The cleared ducts are fairly uniform in thickness and form a U-shape' curving upwards and then outwards. This may be visible in recently matured specimens.

Dictyna uncinata



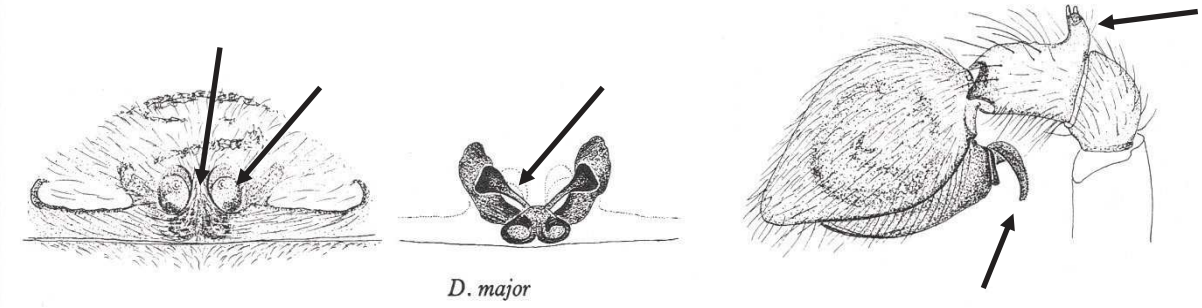
D. uncinata

This species is often found by beating bushes and trees but also occurs on lower vegetation in dead flower heads. It has been found on railings by the River Tay.

The openings on the epigyne are well separated (see arrows) compared with the previous species, with a broad ridge between them. The cleared adnexae look like a pair of droopy flower heads or desk lamps with the shades turned out and down.

The palp has a downward curving tarsal process (as in *D. major*) and a long, slender bifid tibial apophysis. The tibia also has a broad, sword-like downward projection (see left hand arrow in palp illustration).

Dictyna major

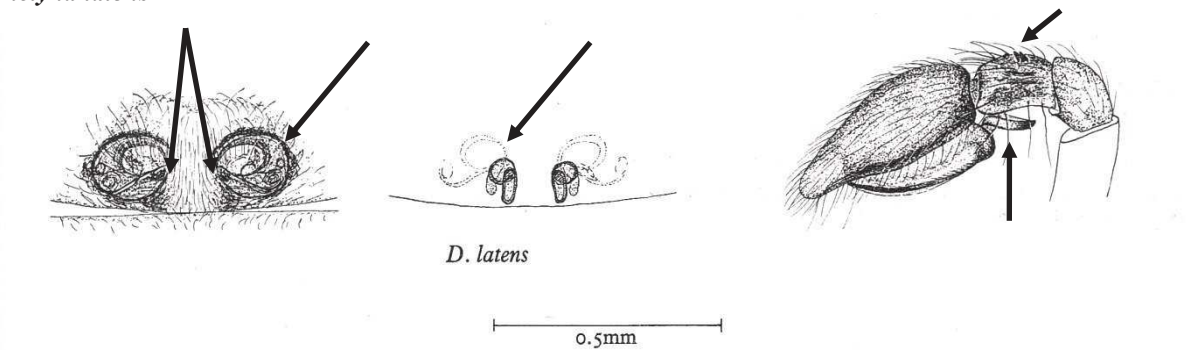


This is a rare species associated with freshwater and coastal shoreline debris and sand dunes in Scotland. It is under threat from habitat loss and human pressures on shores. They make their egg sacs amongst strandline debris and the adults can be found wandering over the sand dunes/shore in late spring and early summer.

This species does have a distinctive and fairly reliable three pointed cardiac mark on its abdomen. The palp, with its downward curving tarsal process and bent tibial apophysis with a pair of tubercles is easily recognised. Compare with *D. uncinata* which has a similar tarsal process.

The epigyne is perhaps most similar to *D. pusilla* but the adnexae have thick V-shaped structures, with thinner "beaks" pointing down to the centre. Like a pair of storks arguing over a delivery!

Dictyna latens



This is a species of grassland, heath and scrub - usually found on heather and gorse. Widely distributed in southern Britain but only reaching SW Scotland.

The epigyne has fairly distinctive circular structures separated by a broad ridge (double arrows). The adnexae are indistinct circular structures and should not be confused with any of the other species.

The palp, at first sight, is lacking a tibial apophysis - but it is very small and near the centre of the upper surface. The tarsal process is backward pointing.

In life the spider is dark with distinctive white hairs and examination of palp or epigyne should make it readily identifiable.

Acknowledgements

I am grateful to Michael Roberts for permission to use his excellent B&W illustrations of *Dictyna* palps and epigynes.

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Author: M.B. Davidson, 77 Mile-End Avenue, ABERDEEN AB15 5PS