

Spider Recording Scheme News Spring 2019, No. 93

Editor: Peter Harvey; grayspeterharvey@gmail.com

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

S.R.S. News No. 94 will be published in Summer 2019. Please send contributions by the end of the first week of June at the latest to Peter Harvey, 32 Lodge Lane, GRAYS, Essex, RM16 2YP; e-mail: grayspeterharvey@gmail.com.

Editorial

Please help future issues by providing articles, short or longer, on interesting discoveries and observations. **The newsletter depends on your contributions!**

I am enormously grateful to Richard Burkmar for developing the means to replace google maps on the SRS website with Leaflet mapping, which offers a number of mapping options including Bing and MapBox aerial and road maps, Ordnance Survey and Open Streetmap. This includes a Leaflet replacement for the Boundary Digitizer so that logged-on users can continue to draw a polygon for any site of arachnid interest which they have entered on the website.

Many thanks are also due to those Area Organisers and recorders who have continued to send in their records to the recording scheme. An updated summary of the numbers of records in the scheme for different Vice Counties is provided overleaf. If you have a backlog of data to submit, please do send them in. The maps and autecological information available on the website is only as up-to-date as the data provided.

Hasarius adansoni (Salticidae) in North Yorkshire

by Geoff Oxford

In the last SRS News, Tone Killick reported an Adanson's house jumper *Hasarius adansoni*, which was found in Bath, Somerset (Killick, 2018). Another has now turned up in North Yorkshire at Dean's Garden Centre, Stockton on the Forest, near York (SE646552).

Anthony Freeman, who works in the house plant section at the Garden Centre, has an interest in spiders and is on the look-out for interesting specimens. In mid-November he contacted me with the news he had found two 'odd-looking' spiders. One was a mature male *Hasarius* (Figure 1). As Tone pointed out, this species, which is of African origin, is now established worldwide and in temperate regions is found in glasshouses and similar. It is, of course, speculation where this specimen came from but many of the house plants are, of course, imported from The Netherlands, and so that is the most likely source. As Richard Wilson has argued (Wilson, 2011; 2012), cataloguing imported species is important because they could, in the future, become established. *Uloborus plumipes* is an example of a relatively recently imported species brought in on house plants from The Netherlands. It is now well established and widespread in garden centres across Britain (SRS, 2018).

The other specimen from Deans was probably

Steatoda nobilis (mature male) but it unfortunately escaped while being photographed!



Figure 1. A male *Hasarius adansoni* from North Yorkshire (length 7 mm). Photo credit: Geoff Oxford.

I thank Tone Killick for instantly identifying a photograph of the *Hasarius* specimen.

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Department of Biology, University of York, York YO10 5DD; Email: geoff.oxford@york.ac.uk

An update of VC record totals

The table below gives an update on VC totals for each VC, based on numbers of records currently in the recording scheme. Many thanks go to Area Organisers, and especially those who have regularly provided records to the recording scheme. If you have records to send in, please do so so that our distribution maps and autecological data remain up-to-date. Data in any form are gratefully received, but unfortunately these will go into a backlog if in a user- and database-unfriendly format.

VC	Total	2000-on	2010-on	2015-on	VC	Total	2000-on	2010-on	2015-on
1	2921	613	217	136	57	15999	3644	466	128
2	2046	716	261	179	58	11305	1315	1283	987
3	11438	5876	3226	1943	59	15600	4293	2538	1431
4	5007	2646	2462	1172	60	18467	9442	1571	250
5	5382	1495	222	41	61	7727	1066	267	69
6	5167	857	397	228	62	10172	1270	820	157
7	14308	2624	171	97	63	21873	7186	1386	346
8	13317	3044	124	94	64	12579	3899	1573	318
9	22412	10268	4103	1051	65	2773	1251	899	390
10	2545	1878	78	60	66	3312	359	241	28
11	19410	6266	1734	336	67	5572	762	716	241
12	11638	5799	2725	997	68	1300	103	76	6
13	9425	4614	2340	1320	69	12469	5822	557	338
14	11553	7639	3096	1309	70	15498	6926	2437	892
15	24201	14704	4134	1494	71	3980	17	17	15
16	13533	6449	1529	295	72	5712	3464	2403	2392
17	47007	25154	9946	1469	73	10770	2939	2821	2702
18	82199	34168	13261	8454	74	2068	989	912	826
19	55132	6743	2270	1115	75	2245	128	117	106
20	14457	4046	408	98	76	2289	76	54	14
21	14358	4105	1252	486	77	3570	798	671	107
22	7775	4352	887	162	78	1024	169	160	108
23	5041	1026	105	57	79	470	54	43	9
24	4879	826	460	207	80	714	45	44	8
25	23994	8788	2274	581	81	827	37	27	
26	10527	6445	1997	520	82	3344	1112	1074	224
27	19300	6785	1411	322	83	5237	218	106	48
28	13184	8668	7679	6467	84	928	27	4	3
29	8733	3147	1108	27	85	5094	769	552	269
30	30223	8889	1158	41	86	6583	431	123	
31	10379	5984	2406	19	87	2684	1010	283	15
32	9297	1225	92	19	88	6742	1919	1437	9
33	4012	1275	137	65	89	3195	522	282	48
34	4496	926	116	57	90	8155	383	143	7
35	3195	587	105	31	91	2494	1328	507	37
36	4154	940	88	6	92	5661	2504	1390	69
37	11329	5159	645	206	93	3430	1614	436	66
38	7876	1503	218	36	94	1119	337	191	1
39	25771	831	159	94	95	6609	5423	1648	131
40	12380	3798	1969	409	96	17084	12622	3462	157
41	6216	1775	897	293	97	1623	495	86	33
42	2195	463	187	48	98	1777	202	97	7
43	1547	104	25	9	99	2441	44	34	2
44	3591	73	21	8	100	1157	379	279	269
45	10940	2105	111	28	101	918	246	221	
46	12096	2400	544	142	102	2055	667	347	
47	2368	143	23	16	103	716	580	119	115
48	6115	1415	716	286	104	2164	820	288	175
49	14258	4557	2214	1393	105	2256	359	274	1
50	7529	1490	1048	659	106	3017	2121	1124	7
51	5516	514	442	156	107	6282	5437	3236	
52	6660	1357	943	211	108	1739	352	122	18
53	6016	2591	910	363	109	22226	6494	25	2
54	14565	4791	1057	561	110	959	133	101	73
55	39364	12067	229	78	111	2128	1539	260	213
56	12241	6710	1831	317	112	525	24	1	1

Some new spider records from Berkshire heathland

by Scotty G. Dodd¹ & Jonty Denton²

Sampling in Beaufort Park (SU8466) on a mosaic of mature heath and acid grassland areas, yielded a rich spider fauna with *Laseola (Dipoena) tristis* (Hahn) which may be the first for VC22, and other records of note include *Neoscona adianta* (Walckenaer) (first this Century, and first with accurate locality data), *Hypsosinga albobittata* (Westring) (second ever, first this Century), and *Thyreosthenius biovatus* (O.P.-Cambridge), and *Simitidion simile* (C.L. Koch) both second modern county records.

Micaria subopaca Westring is locally frequent on pines on the heaths of Surrey so its appearance in similar conditions in Berkshire was long overdue. Adults were present on sunlit mature scot's pine *Pinus sylvestris* in the company of *Lasius* workers at the Hideout (SU8466) in July-August 2018.

¹ 11 Knowles Meadow, Hill Brow, Hants, GU33 7QW

² 31 Thorn Lane, Four Marks, Hampshire, GU34 5BX

Donacochara speciosa (Thorell) (Linyphiidae) in Middlesex

by Jonty Denton

I collected an unfamiliar pallid spider from suspended litter in a reed bed alongside the eastern shore of the Long Water of the Serpentine in Hyde Park (TQ268803) on the 1st August 2018. This was a male *D. speciosa* which appears to be the first for Middlesex and Greater London.

31 Thorn Lane, Four Marks, Hampshire, GU34 5BX

First record of the dictynid spider *Nigma walckenaeri* (Roewer, 1951) in Yorkshire

by Duncan Allen Fera Science Ltd

On Saturday the 20th of October I spotted a small, vivid, green spider on a black motorcycle cover in my garden in Yorkshire (Full Sutton). After collecting and examining the spider, I was fairly certain I had a male specimen of *Nigma walckenaeri* (fig 1). I was a little unsure of the initial identification as to my knowledge it was the first record for this species in Yorkshire and would also be quite a shift north from its more familiar range. The spider did however conform to the descriptions in Roberts (1993) and matched figures from the species page on the Spiders of Europe website (araneae.nmbe.ch, 2018) (Fig 2). To further aid my identification, I posted some photos from my initial examination on Twitter (Fig 3) and directed

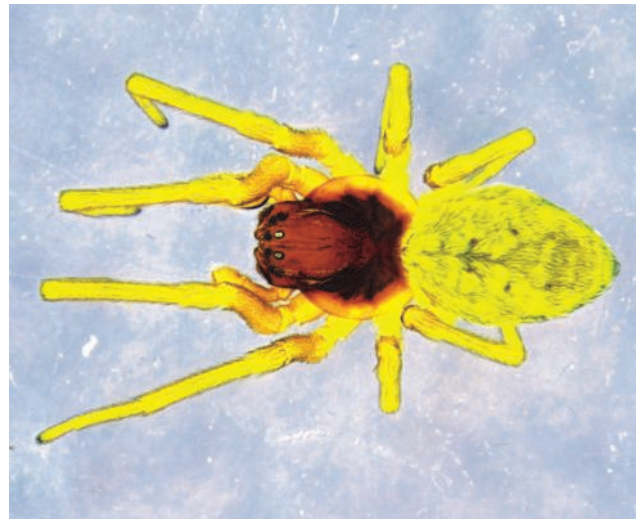


Figure 1. Dorsal view of Male *Nigma walckenaeri*.
Photo credit: Duncan Allen

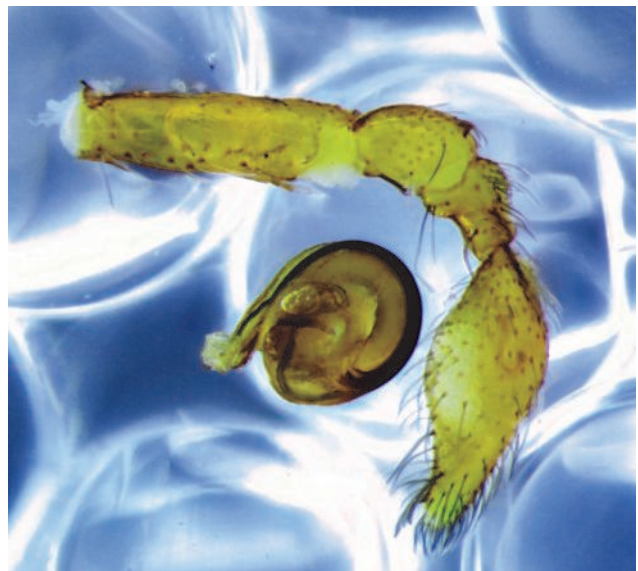


Figure 2. Dissected pedipalp of *Nigma walckenaeri*.
Photo credit: Duncan Allen

photos at the BAS (British Arachnological Society) and Chris Cathrine of Caledonian Conservation Ltd. who were both able to confirm my provisional identification.

Nigma walckenaeri usually has a southerly distribution in the UK with most records for this species centring around the Thames valley in Essex, East Berkshire, Middlesex, Surrey (and London) while it has also been collected in the Severn valley in Gloucestershire, Worcestershire and Warwickshire. (srs.britishspiders.org.uk, 2018). The finding of this specimen in Yorkshire is thus far the most northerly record of this spider in the UK and a first for Yorkshire.

Acknowledgments

I would just like to acknowledge and thank Chris Cathrine of Caledonian conservation Ltd and the BAS for their help with confirming my identification.

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Figure 3. Tweet of photos from initial examination. Photo credit: Duncan Allen

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Fera Science Ltd, National Agri-food Innovation Campus, Sand Hutton, YO41 1LZ. duncan.allen@fera.co.uk

First record of *Nigma puella* (Araneae: Dictynidae) from Scotland, found at Flanders Moss lowland raised bog (VC87 West Perthshire)

by Chris Cathrine

Nigma puella (bleeding-heart spider) was recorded for the first time in Scotland in 2018, at Flanders Moss (Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR)) (VC87 West Perthshire). The nearest previous record of this species in the UK is 380 km south east, at Clumber Park in England (VC56 Nottinghamshire) (recorded by A. Binding in 2008).

A single female was collected by Chris Cathrine on 15 July 2018 using bugvac (vacuum sampling) on heather and birch (*Betula* sp.) regeneration at NS649980, while searching for *Heliophanus dampfi* (bog sun-jumper spider) to be filmed as part of Chris Packham's We Want Wildlife UK Bioblitz (with permission from Scottish

Natural Heritage (SNH)). Dictynid webs were noted on the birch regeneration during sampling, although *Dictyna arundinacea* is common throughout Flanders Moss. *N. puella* is a highly distinctive genus and species can be separated reliably by female markings as well as microscopic examination of female epigyne or male palps, but particular care was taken in identification given the atypical habitat (in a UK context) and distance from nearest record. The spider from Flanders Moss was compared closely against diagrams in Roberts (1993), photographs in Bee *et al.* (2017), and a reference specimen collected in Axmouth (VC3 South Devon) provided by Matt Prince for verification, all of which confirmed its identity as *Nigma puella*.

UK literature indicates that *N. puella* builds a cribellate web on the leaves of bushes and trees in gardens, parks and occasionally scrub and woodland (Roberts, 1996; Bee *et al.*, 2017). However, *N. puella* has been recorded on a lowland blanket bog in Kerry, Ireland (Oxbrough *et al.*, 2006; Oxbrough, 2007; Martin *et al.*, 2010). The birch regeneration at Flanders Moss, as well as the edge of the mixed woodland surrounding the bog, appears to offer suitable web-building habitat for this species. It should be noted that the specimen was collected within close proximity to the boardwalk which allows safe public access to a limited area of Flanders Moss reserve, and so it is also possible that it had been transported to the site by visitors. Future recording may help clarify the status of *N. puella* in Scotland.

Flanders Moss is the largest remaining lowland raised bog in Britain and the most intact in Europe (Cloy *et al.* 2005). It is managed by SNH as a flagship site for peatland restoration. Ongoing restoration works aim to rewet the bog, and considerable progress has been made in this regard already. Over time this is likely to reduce the available habitat for *N. puella* on the moss itself as trees and scrub are lost, although the interface between the bog and the birch-dominated semi-natural broadleaved woodland is likely to remain suitable. Flanders Moss supports populations of other notable spider species, including *H. dampfi* (which is a qualifying feature of the SSSI) and *Araneus alsine* (strawberry orb-weaver – for which this bog is the most southerly site known in Scotland) (Cathrine, 2018).

Nigma puella is Nationally Scarce but not assessed as qualifying for an IUCN threat category in the latest status review (Harvey *et al.*, 2017).

Acknowledgements

The author would like to thank David Pickett (Reserve Manager for Flanders Moss, SNH) for the invitation to assist with Chris Packham's We Want Wildlife UK Bioblitz at this site, and permission to collect invertebrate specimens on Flanders Moss SSSI. The author is also grateful to Matt Prince for so generously providing a female *Nigma puella* reference specimen with which to verify the identification of the spider collected at Flanders Moss.

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Corresponding author details

Caledonian Conservation Ltd, Office 2 and 3, Craigmarnhall, Bridge of Allan, Stirling, FK9 4NG
E-mail: chris.cathrine@caledonianconservation.co.uk

Arctosa perita on lowland peat in the North West

by Richard Burkmar

In 2009 I visited a lowland bog called Cadishead Moss which had recently been acquired by the Lancashire Wildlife Trust. At around 9.5 hectares, Cadishead Moss (SJ700951) is a small fragment of the once vast Chat Moss in the Irlam area of Greater Manchester, west of Salford. Lowland bogs in this area have been greatly damaged and modified, frequently by conversion to agriculture but also by cutting for peat, often on an industrial scale.

When I visited the bog in May, July and September in 2009. The spider fauna was quite impoverished – I recorded only 17 species over all visits. However, a wolf spider running on bare peat caught my eye. I first assumed it to be *Arctosa leopardus*, but on closer inspection I realised it was an exceptionally dark *Arctosa perita*.

It wasn't so much the colouration of the spider which caught me out – I have seen the variability in *A. perita* colouration ranging from exceptionally light ones on Lancashire's Sefton Coast to darker ones at inland sand

quarries elsewhere in the UK – but rather the peatland habitat. I had never before seen *A. perita* on a peat bog and neither had I heard of them being found in this habitat.



Figure 1. *Arctosa perita* on dry, oxidising peat at Cadishead Moss in 2009. Photograph © Richard Burkmar

The bog at Cadishead was degraded. Cutting for peat over most of the site had ceased some years earlier and scrub was invading the dry bog. There were also areas of bare dry peat which was where I found *A. perita*. The spiders were making their burrows directly in this dry, friable oxidising peat. This I think was the key to their presence – I doubt that they would survive in healthier, wet peat.

Almost ten years later, in 2018, I visited the site again. Thanks to rewetting work and scrub control by the Lancashire Wildlife Trust, the condition of the bog had increased markedly and in a couple of short visits I added 28 species to the site list including *Robertus arundineti* – a first for VC59 – and the Nationally Scarce *Euryopis flavomaculata*. However, of *A. perita* there was no trace.

In the intervening years the Lancashire Wildlife Trust also purchased an adjoining area of peat called Little Woolden Moss. This much larger 100 hectare site was, until recently, a bare moonscape of industrially milled peat. A few metres depth of peat remain on the site and the Lancashire Wildlife Trust have taken on the exciting, if somewhat daunting, task of rewetting and restoring it. Initial results have been remarkable with planted and naturally invading Cotton Grass (*Eriophorum* sp) covering large areas within a few years. Significant numbers of wading birds are already breeding there and in a couple of short visits I recorded 18 species of spiders in large numbers (no doubt providing food for many wader chicks). With large areas of dry oxidising peat currently remaining, it was no great surprise to me that *A. perita* occurs in large numbers.

Arctosa perita at peatland sites can probably be regarded as an indicator of *degraded* habitat since it is likely the friable, dry peat that is probably responsible for their presence. As the peat is rewetted the spider is likely to find it less to its liking and gradually disappear. So whilst this is an interesting example of post-industrial adaptation by a species (perhaps with parallels to that of the Peppered Moth, *Biston betularia*) we should not

worry about trying to preserve this species on our peatland sites and could, arguably, regard its future disappearance as a milestone in the restoration of the bog!



Figure 2. An area of dry, oxidising peat where *Arctosa perita* was found at Cadishead Moss in 2009. Photograph © Richard Burkmar



Figure 3. A comparison of the colour of *Arctosa perita* from specimens taken at the Sefton Coast (left) and Cadishead Moss (right) in 2009. Photograph © Richard Burkmar

Email: rich.burkmar@gmail.com

Cryptachaea blattea (Urquhart, 1886) recorded for the first time in North Wales

by Richard C. Gallon

The theridiid *Cryptachaea blattea* (Urquhart, 1886) was first reported from Britain in 2011 when Doug Marriott swept a female specimen from a garden on the Isle of Wight (Marriott, 2012). Subsequent British records have come from South Devon (2014 & 2017; Matt Prince SRS), Middlesex (2015; Thomas, 2015), East Gloucestershire (2016; Killick, 2016), East Cornwall (2017; Tylan Berry SRS), Pembrokeshire (2017; Tylan Berry SRS) and South Lancashire (2018; Steve McWilliam SRS). I have also been told that Chris Felton has found this species in Liverpool recently (T. Hunter, Pers. Comm.).

I recall Doug Marriott showing me his original specimen at the 2013 B.A.S. A.G.M. Weekend and thinking that it was one of those species I was unlikely to encounter. However, last year when Rich Burkmar and Tony Hunter mentioned that *C. blattea* had turned up in South Lancashire I promised to keep an eye out for it.



Figure 1. Adult female *Cryptachaea blattea* (Urquhart, 1886) from Llandudno, dorsal view. Scale 1 mm. Photograph © Richard Gallon.



Figure 2. Adult female *Cryptachaea blattea* (Urquhart, 1886) from Llandudno, ventral view. Scale 1 mm. Photograph © Richard Gallon.

On the 6th January 2019 I spotted a small, strange looking dark female theridiid clinging to the downstairs toilet wall, just below the hand basin. Its high abdominal profile suggested it was something different to the usual

Theridion species which enter my home. The specimen was collected, and a microscopic examination revealed the distinctive single abdominal tubercle typical of *C. blattea* (Figs. 1–4).

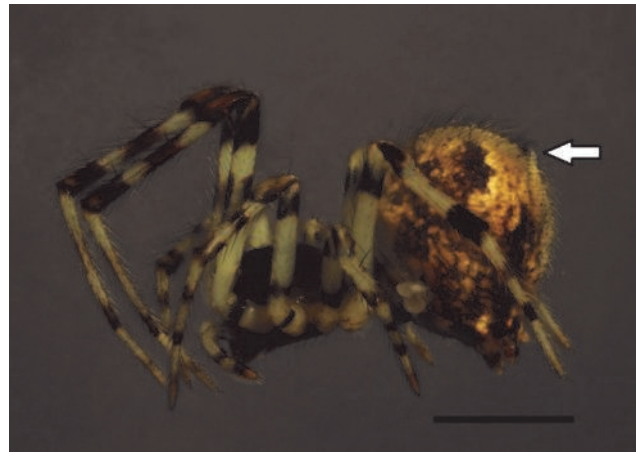


Figure 3. Adult female *Cryptachaea blattea* (Urquhart, 1886) from Llandudno, lateral view showing the single abdominal tubercle (arrowed). Scale 1 mm. Photograph © Richard Gallon.



Figure 4. Adult female *Cryptachaea blattea* (Urquhart, 1886) from Llandudno, posterior view showing the single central abdominal tubercle. Scale 1 mm. Photograph © Richard Gallon.

This Llandudno record (SH79718143) represents the second Welsh record for *C. blattea* and the first record for Caernarvonshire (Vice county 49) and North Wales.

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Honorary Research Associate, Hope Entomological Collections, Oxford University Museum of Natural History, Parks Road, OXFORD, OX1 3PW.

Harvestman Recording Scheme Newsletter

Spring 2019 Editor: Mike Davidson

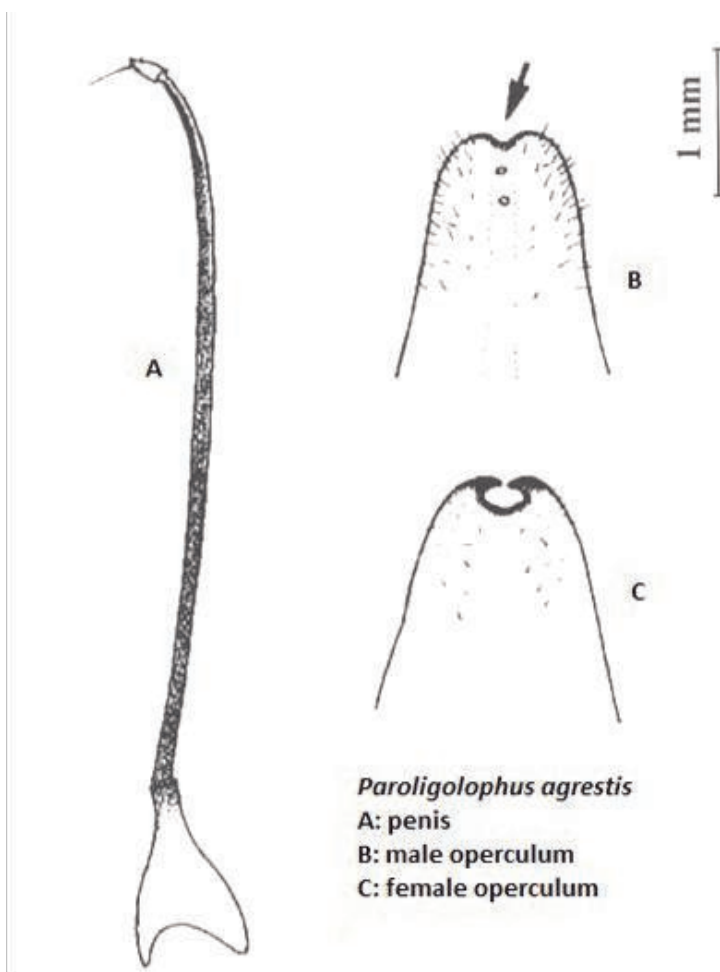
The Harvestman Recording Scheme is steadily accumulating new records and we are grateful to everyone who has tidied up their backlog and sent theirs in. Due to a technical glitch I'm not able to give a precise total but we have currently in excess of 47,600 records. So let's all have a big push to get up to our next target of 50,000 records by 2021!

In this issue Richard Burkmar tells us about FSC's impressive online harvestman ID resource. In the next issue we hope to start a new series of Harvestman Crib Sheets. This series is intended to bring together new or dispersed information to aid in harvestman identification. The sheets will be published periodically in the BAS Newsletter and also made available in pdf format on the Spider & Harvestman Recording Schemes website. Feedback is encouraged and the sheets will be updated as necessary. We will start with Oligolophine species in the genera *Paroligolophus*, *Oligolophus* and *Lacinius* and I would welcome your suggestions of useful ID characters and tips. Are there any species we can confidently identify in larval stages?

Harvestman DNA Barcoding Project: During 2019 we hope to run a project to barcode all British species, with a good geographic spread of specimens. We would very much like to hear from anyone who would be interested in helping with the collection of specimens or has specimens of the rarer species from which we could harvest DNA, if necessary. More information will be available on the website in due course, but for now please let us know if you are interested in participating.

How The Harvestman got its Notch

It is interesting that *Paroligolophus agrestis* is most easily identified in its adult female form. This is due to the distinctive notch on the end of its genital operculum - the hatch which, in most species, opens to allow the entry of the male's penis and exit of the female's ovipositor when egg laying. The male's notch is but a minor dent in comparison and often difficult to see (figs A-C).



But why does it have a notch and why do almost none of the standard texts mention its function? I suppose it's a bit like the shape of the continents - anyone who had looked at their shape on a globe or atlas could see the shapes fitted together. However it took a long time for the reason to be spoken of in polite circles and plate tectonics to be accepted.

Sometime in the 1990s, having satisfied myself that the measurements worked, I juxtaposed the relevant organs on a microscope slide and took a photo to demonstrate that the male's remarkably slim but heavily chitinised penis did indeed fit through the notch in the female's operculum. It seemed obvious that this was how it worked, but I failed to obtain a satisfactory photograph of this happening in life. More recently, photographs of mating *P. agrestis*, taken by Jürgen Peters, were used by Hay Wijnhoven (2008) to support the idea that the female operculum remained closed during mating and that access was via the notch.

Based on this series of lateral photos, Wijnhoven discusses the likely mating process. No other Oligolophine species would be able to pick this reproductive lock so the female is left to select which males of its own species to mate with and which sperm to select for fertilising her eggs. Wijnhoven suggests that the male is potentially able to by-pass the seminal receptacles but no doubt the female has the last

word. Presumably the modification of the operculum evolved from a simple notch in each sex helping to guide the male's organ into the correct position. The evolution of the female's notch, perhaps, is replayed in its gradual development in successive larval instars and final moult to the adult phase. However more

observations of mating in this and other species are needed as well as that definitive photo of *P. agrestis* mating to confirm the theory. Did the operculum move, dear, or was it just the continental plate slipping?

Reference

Wijnhoven, H., 2008. Some Notes On The Mating Behaviour Of The Harvestman *Paroligolophus agrestis* (Opiliones, Phalangidae). *Nieuwsbrief SPINED* 24.

Call for articles I look forward to receiving more material for future issues.

Mike Davidson hrs@britishspiders.org.uk

Online interactive ID resources for Harvestmen of Britain and Ireland

by Richard Burkmar

The website 'Harvestmen of Britain and Ireland', <https://harvestmen.fscbiodiversity.uk/>, is an online identification resource created with the FSC Identikit (<https://www.fscbiodiversity.uk/identikit>). It features a number of different ID resources including multi-access keys, a side-by-side comparison tool and species accounts which concentrate on field identification.

Multi-access keys are so called because they allow the user to enter values for character states, e.g. presence or absence of a trident, body length etc, in any order they like; in other words they can be accessed at multiple points. This contrasts to a traditional dichotomous key, such as those in Hillyard and Sankey (1989) and Wijnhoven (2009), which dictate the order in which characters must be examined and generally have a single point of entry – couplet one! Multi-access keys allow the user to consider as many or as few characters as they like, but being less prescriptive than dichotomous keys, the output must be considered especially critically. Using a multi-access key effectively takes at least as much practice as using a dichotomous key.

Multi-access keys needn't be delivered via computers. For example the table of characters on the reverse side of the FSC foldout chart for Harvestmen (Richards, 2010) is effectively a multi-access key. Sometimes when laid out in a tabular format like this they are known as 'lateral keys'. The advantage of delivering them as computer-based resources are manifold, including the ability to incorporate more characters, illustrations, species accounts etc. Interactive computer-based resources also offer the opportunity to provide engaging interfaces and can potentially be carried into the field on mobile devices like smartphones.

FSC Identikit Species Comparisons Keys ▾ Info & help ▾ Links ▾

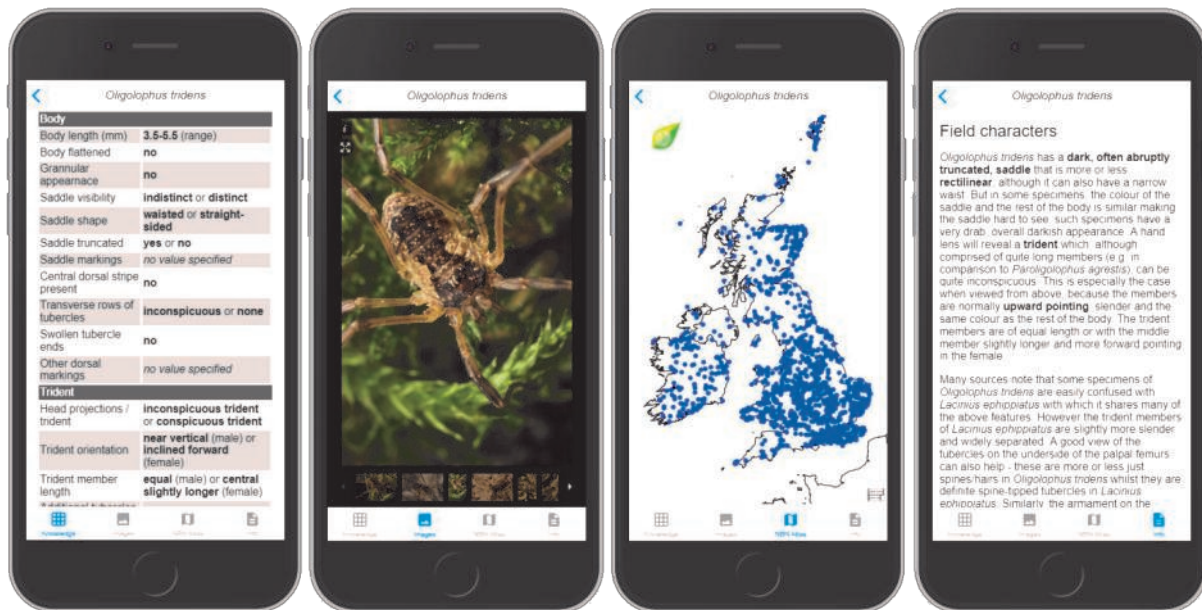
Harvestmen of Britain and Ireland

An interactive guide from the Field Studies Council

This two-column visualisation of the multi-access key displays taxa in two columns. Those on the left contain the most likely matches to the character values you specify. Those on the right are less likely matches. Its a nice simple visualisation of the multi-access key.

	Head projections / trident	Evidence balance positive	Evidence balance negative
All	conspicuous trident ✕	<i>Oligolophus tridens</i> 0.8	<i>Nemastoma bimaculatum</i> -0.8
Sex	inconspicuous trident ✕	<i>Oligolophus hanseni</i> 0.8	<i>Mitostoma chrysomelas</i> -0.8
Ecology	Trident orientation	<i>Paroligolophus agrestis</i> 0.8	<i>Nemastomella bacilifera</i> -0.8
Body	select option	<i>Paroligolophus meadii</i> 0.8	<i>Trogulus tricarinatus</i> -0.8
Trident	Trident member length	<i>Lacinius ephippiatus</i> 0.8	<i>Anelasmacephalus cambridgei</i> -0.8
Ocularium	Additional tubercles around trident	<i>Odiellus spinosus</i> 0.8	<i>Sabacon viscayanum ramblianum</i> -0.8
Palps	select option(s)	<i>Lophopilio palpinalis</i> 0.8	<i>Homalenotus quadridentatus</i> -0.8
Chelicerae	Other distinctive trident features		<i>Mitopus morio var morio</i> -0.8
Legs	select option(s)		

Screenshot from the two-column multi-access key on a laptop



Screenshots of a species account from the mobile-first multi-access key on a smartphone

Harvestmen of Britain and Ireland provides four multi-access keys which are actually different interfaces on the same back-end knowledge-base. Three of them are designed to be viewed on large format devices such as laptops and one is designed to be delivered on small format devices such as smartphones. The 'mobile-first' smartphone key also uses some technology (called Progressive Web Apps) which allows it to be used offline after downloading whilst in range of wifi. These online ID resources are not a replacement for existing paper-based resources, but rather they complement them. They are a great way of exploring harvestmen morphology without necessarily trying to identify one. For example, to quickly see which harvestmen have trident, simply enter the character's state 'conspicuous trident' and/or 'inconspicuous trident' for the character 'head projections/trident' and watch the taxa react to your input.

Harvestmen of Britain and Ireland benefits hugely from the inclusion of a large library of harvestmen images provided by Paul Richards and using the tool is a great way of exploring and comparing these pictures.

References

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Email: rich.burkmar@gmail.com

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