Spider Recording Scheme News
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My thanks to those who have contributed to this issue. S.R.S. News No. 86 will be published in Autumn 2016. Please send contributions by the beginning of October at the latest to Peter Harvey, 32 Lodge Lane, GRAYS, Essex, RM16 2YP; e-mail: srs@britishspiders.org.uk or grayspeterharvey@gmail.com. The newsletter depends on your contributions!

Editorial

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

Spider news

Changes to our fauna continue to happen and interesting discoveries continue to be made. More locations turn up in South Essex for *Philodromus rufus sens. str.* and *Philodromus buxi* is well established and apparently spreading in the South-East, see the article later in this newsletter.

Annette Binding gives us welcome news from Lincolnshire in two articles later in the newsletter, and following Andrew Bloomfield's discovery of a new Norfolk site for the Priority species *Arctosa fulvolineata* last year he has found another site at the end of May this year at Burnham Overy Saltmarsh, Norfolk TF857456, again part of Holkham NNR where Andy works as warden. Andy found a female and male on 28 May and then three different females (all with egg sacs) and another male on 29 May.

All were in the same area (total of 6 individuals over the two days) and all were found in holes in the salt marsh mud under stones on the surface of the marsh and all close to 'saltpans'. Andy tells me this habitat niche was pretty much identical to the spot at Warham where he found the one last year, and is exactly the kind of habitat in which to search for the species elsewhere in the country.

Figure 1. *Arctosa fulvolineata* female.
Photograph © Andrew Bloomfield

Figure 2. *Arctosa fulvolineata* male.
Photograph © Andrew Bloomfield

Figure 3. *Arctosa fulvolineata* with egg sac.
Photograph © Andrew Bloomfield

Tone Killick has provided a fascinating article of observations on ***Ero aphana*** in his Gloucestershire garden, illustrated with excellent photographs. This demonstrates the extraordinarily valuable work which can be done by careful observation and recording, something which the Victorians were so good at, but which tends to get lost in today's modern World!

It is worth remembering that the Spider Recording Scheme is about far more than just recording the geographical distribution of species, with extending our knowledge of the biology, behaviour and ecology of spiders one of the primary objectives.

Ero aphana in a Gloucestershire garden

by Tone Killick

I've been observing *Ero aphana* for a couple of years now after recording the only record for the county of Gloucestershire, though this is obviously due to the species being under-recorded. Before I ever got my first glimpse of the elusive little spider, I would find several of her egg sacs, an absolute marvel of nature, make no mistake. Hanging from a single strengthened strand of silk, pear drop in shape and drizzled with golden silk (see Fig. 1), it wouldn't be out of place at one of Gordon Ramsey's restaurants.

Figure 1. *Ero aphana* egg sac.
Photograph © Tone Killick

It would be a couple of months before I first encountered the architect of this wonderful egg sac and purely by accident as is usually the case. I was in the garden photographing *Dicranopalpus ramosus* on my garden fence and noticed, what at first I thought was detritus hanging under the cross bar of the fence. I ran indoors, yes, ran and got my hand lens, and to be fair, I was slightly excited, being fairly new to arachnology and this being a new species for me. So there she was, hanging upside down by one leg on a single strand of silk, like a tiny little vampire with an ominous cloak of leg spines (see Fig. 2). After taking several photos of this tiny spider, I left her in peace.

Figure 2. *Ero aphana* female.
Photograph © Tone Killick

About a week later, after returning from work, I was parking my bike in the garage. As I went to close the door from the inside, I noticed something dangling from the cord (yep, eagle eyes) On inspection, lo and behold, another *Ero aphana* but this one was slightly special as it had a prey item in its jaws. It is common knowledge that the Mimetidae family are araneophagic so I was over the moon to be able to witness and photograph an *Ero aphana* with spider prey (see Fig. 3), though it would be many months before I got to witness an actual hunt.

Figure 3. *Ero aphana* with prey.
Photograph © Tone Killick

Going back now to the egg sacs and the occupants, I decided to collect a couple for observation and hopefully to photograph the moment the spiderlings emerged, which at the time I thought was wishful thinking. I collected two, one from under the barbecue and one that was hanging on a grape vine. The barbecue egg sac failed, so all my hopes were on the egg sac artistically hanging from the grape vine (see Fig. 4).

Figure 4. *Ero aphana* egg sac hanging from grape vine. Photograph © Tone Killick

It was nearly a month to the day of me collecting it, that one evening casually looking into the jar where I kept the egg sac, I noticed a spiderling emerging from the top of the sac. I was mesmerised for a few moments before coming to my wits and rushing off to get my camera (see Figs. 5 & 6). In all, seven spiderlings emerged and five survived to be released back into the garden a month later.

So coming to early April this year, I went out into the garden to specifically look for *Ero aphana* and came up trumps within minutes, finding not one but two immature males hanging next to each other (see Fig. 7). The British

Figures 5 & 6. *Ero aphana* egg sac with emerging spiderlings. Photographs © Tone Killick

arachnologist, Bristowe (1901 – 1979), noted that "*Ero* species show little hostility towards one another" and the German arachnologist Ulrich Gerhardt (1875-1950), noted that females do not attack the males, so it was good to get a photo of this behaviour, so to speak.

Figure 7. Two immature male *Ero aphana* hanging next to each other. Photograph © Tone Killick

Finally I want to return to the hunting behaviour of *Ero aphana*, something I witnessed 3 nights ago in the garden. I was originally looking to collect a male and female specimen but instead chanced on a female *Ero aphana* stalking a *Platnickina tincta*. Unfortunately I didn't have my camera to hand, far to engrossed with what was going on. The *P. tincta* was attached to the fence, legs tucked in, minding its own business, little realizing danger lucked nearby. The *Ero aphana*, slowly and methodically worked its way along its prey's web, plucking the web and waving its front legs like it was floating in space. All the while *P. tincta* was motionless. After what seemed a lifetime, *Ero aphana* closed with its prey and then I got a shock; do not be fooled by the ever so slow gait of this cunning spider, because these can put the pedal to the metal when they want, and off it shot at speed! I can't say that I witnessed the bite but am assuming that is what happened and so began the laborious journey back to the still motionless *P. tincta*. The *Ero* wrapped very few strands of silk over the *P. tincta* and began to feed. At this time, after spending nigh on a hour and 25 minutes in the garden, I decided to retreat to the warmth of my house.

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Argiope bruennichi in Lincolnshire a new site

by Annette Binding

In October 2015 I received an email and a photograph of a female *Argiope bruennichi* spider from Charlie Barnes at the Greater Lincolnshire Nature Partnership Records Centre at Horncastle, Lincolnshire. He had received the photo and several records from Gibraltar Point NNR. The first sighting was from the Buckinghamshire Bird Club who found the spider during their visit to the reserve on the 27th September. Jim Shaw photographed one on the 30th September and Mr B Wilkinson reported it on the 4th October. It is not known if these sightings were the same spider or several.

Argiope bruennichi is known from Norfolk which is directly across The Wash from Lincolnshire so it is possible that the spiderlings have 'ballooned' across from there.

This is only the second confirmed sighting of *Argiope bruennichi* in Lincolnshire. The first was from a sugar beet field at Navenby Heath when an adult female was found by Paul Skelton on the 25th August 2004 and identified by myself.

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Nigma walckenaeri, an early spring record

by Annette Binding

Nigma walckenaeri was new to Lincolnshire in 2011 when Ian Dawson found it in Stamford. There were no further records until 2014 when the species was discovered in Washingborough by Allan Binding and in Lincoln by Richard Davidson. In late December 2014 heavy snow brought down much of the ivy bush in Washingborough on which *Nigma walckenaeri* had been seen. As a result of this the ivy had to be severely cut back. We hoped that some of the spiders had survived but it was not until late August 2015 after weeks of checking the ivy, that the first one was seen. We went on to find several more over the next few weeks. As far as I am aware there were no other records from anywhere else in Lincolnshire.

This year we did not expect to find *Nigma walckenaeri* until the summer. However, on a warm sunny day in late March we were pleased and surprised to find one on an ivy leaf inside its web. The web appeared to be thicker than usual and so it was not possible to determine the sex of the spider inside without disturbing it. Almost a fortnight later, on 8th of April, a second web was found and this time it was possible to see that the spider inside was a female. The first specimen was still hiding under its web a few feet away. The National maps on the BAS website show a few *Nigma walckenaeri* have been recorded in January and February although most of the records are from late summer and autumn. Our spiders appear to be the first to be recorded in March and April.

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Philodromus buxi and its occurrence in South Essex

by Peter Harvey

Philodromus buxi Simon, 1884 was recorded as British on the basis of a single female taken by O. Pickard-Cambridge at Bloxworth, Dorset in the nineteenth century, recorded by Pickard-Cambridge in the *Spiders of Dorset* (1881) as *Philodromus constellatus* Sim., *Arachn. de France*, tom II., p. 298. Simon (1875) describes *Philodromus constellatus* as a sp. nov. on the basis of a male and Simon (1884) describes *Philodromus buxi* as a sp. nov. on the basis of a female. Subsequently *Philodromus buxi* Simon, 1884 was added to the British list by Locket (1967). Locket states that *Philodromus buxi* Simon 1884, (as "*constellatus* Simon") must be added to the British list, being represented by a single female in the Pickard-Cambridge collection labelled "*Philodromus constellatus* Sim.". Locket also suggests *P. buxi* may well be found mixed with *aureolus* in other collections. The figure of the epigyne is labelled as the specimen in the Pickard-Cambridge collection, so there is no doubt that our current understanding of *P. buxi* is the species collected by Pickard-Cambridge. The species is included in British Spiders Vol. 3 by Locket, Millidge & Merrett (1974) as *Philodromus buxi* E. Simon, 1884, p.115; R. Braun, 1965, p.399; G.H. Locket, 1967, p.1; *Philodromus constellatus* E. Simon, 1874-84 (1875), p298; O. P.-Cambridge, 1879-81, p.333, also stating that Braun, 1965, p.397 regards *P. constellatus* Simon as a variety of *P. buxi buxi* Simon. This remained the situation until *P. buxi* was deleted from the British list by Merrett & Murphy (2000) on the basis that only one specimen had ever been recorded from Britain, by Pickard-Cambridge before 1879, and the possibility that the source of the specimen could have been confused.

The taxonomy of the *aureolus* group has long been confused and complex, with enormous difficulties in the naming and understanding of the species to be found both in Britain and Europe, and this has been no exception with *Philodromus buxi*. However Braun (1965) p.397 & 399 regards *P. buxi buxi* Simon, 1884 as a synonym of *P. constellatus* Simon, 1875 (part male) and *P. buxi* Simon, 1884 (female) and figures the modern understanding of *P. buxi* for this taxon. To complicate matters in Britain, Hull (1948) records *Philodromus albovittatus* Bos. and *Philodromus constellatus* Sim. from the neighbourhood of Elmstead and females of *Philodromus constellatus* Sim. (fide Roewer) from Pelgate Wood, both in Essex. The World Catalogue gives *Philodromus albovittatus* in Hull (1948) as a lapsus for *P. albomaculatus* and refers the taxon to *Philodromus buxi.* Hull's epigyne figure for *Philodromus albovittatus* does not appear to the current author to have much to suggest *P. buxi*, although his figure for *Philodromus constellatus* Sim. (fide Roewer) could conceivably refer to *P. buxi*, bearing some relationship to several figures of *buxi* given on the Spiders of Europe website. As is often the case with figures in old publications, the drawings are so vague and unclear that no real conclusions can be drawn. The World Catalogue however gives *Philodromus constellatus* Hull, 1948: 59, f. 17 (f) and *Philodromus constellatus* Simon, 1875: 298 as synonyms of *Philodromus fuscolimbatus* Lucas, 1846, which is a Mediterranean spider seemingly unlikely to be recorded in Britain, so confusion reigns, a common situation with older literature on *Philodromus*. Many of Hull's most interesting or surprising records have been shown to be wrong, especially those from later in his life when his eyesight was failing, but several have subsequently been confirmed, so there is always the chance that these records have some validity.

No further specimens of *P. buxi* were recorded in Britain until two males were identified from material collected on two separate dates in July 2014 in a Malaise trap located on the TfL greenroof adjacent to the Millennium Dome on the Greenwich Peninsula on the south side of the River Thames in Kent (Wilson, 2015). Richard Wilson surmises that records over two separate dates suggest an established population within the vicinity of the TfL's greenroof, a situation which can now be confirmed.

On 24 May 2016 the author was undertaking his first field survey visit to two adjacent sites in the Queen Elizabeth Olympic Park in the Lee Valley just on the Essex side of the River Lea for the Lee Valley Regional Authority, the Lee Valley Hockey and Tennis Centre and the Lee Valley VeloPark. Both sites have deliberately created brownfield habitat areas with variable amounts of

Figures 1-4. Four *Philodromus buxi* females from the Lee Valley in South Essex. Photograph © Peter Harvey

rubble, together with landscaping ranging from some mature trees and areas with scrub. At the Hockey and Tennis Centre several *Philodromus buxi* females and a number of juveniles (later reared through to adults) were beaten off hawthorn and hazel scrub, later confirmed through microscopical examination of adults. At the Lee Valley VeloPark numerous *Philodromus buxi* females and juveniles were swept from herbage on a brownfield area, and the spider was present in such large numbers that it seems likely it occurs throughout the site and local area at many locations not investigated. It also seems the spider must occur just across the river on the Middlesex side of the Lee Valley.

It is interesting that no males or juvenile males were found, indeed no male *Philodromus* were found other than *P. albidus*, nowadays a frequent spider in Essex and much of the south-east. Normally we expect to find male *Philodromus* earlier than females, but perhaps further visits will clarify the situation for *P. buxi*.

The author was then undertaking fieldwork on 21 June 2016 at a site adjacent to Lakeside in Thurrock, S. Essex, and one female *Philodromus buxi* was collected off scrub/young trees. It seems therefore that the species is already spreading quickly in the region, and may turn up in other locations in South Essex, north Kent and the London area. A further indication that this is likely to be the case comes from an Essex Field Club Facebook post in March 2016 when Rosemary Stephens posted photographs of a juvenile *Philodromus* from the Wanstead Park area at the southern end the Epping Forest, which she had suggested might be *Philodromus margaritatus*, a spider with no Essex records since the late 19th/early 20th century. She noted that she sees the spider in most places around this area, which is only 2-3 km east of the Olympic Park site. I had not realised previously just how much alike the outward appearance of *Philodromus buxi*, *emarginatus* and some *margaritatus* are, albeit *margaritatus* and *emarginatus* are not closely related to *buxi.* I am now pretty sure that Rosemary's *Philodromus* will turn out to be *P. buxi* as well, so this suggests the spider is already frequent from at least the Greenwich Peninsula in Kent, opposite where the River Lee enters the Thames, north along the Lee Valley and its environs and now further east along the East Thames Corridor. Interestingly the Spiders of Europe website states that the species is rarely found, a situation apparently no longer true in parts of South Essex.

However not only are *Philodromus buxi*, some *margaritatus* and *emarginatus* very similar in outward appearance but of course some forms of the very variable *P. cespitum* might come close to resembling *P. buxi*. As is often the case then, reliable identification to species from photographs will simply not be adequate for this species, or any *Philodromus* in the '*aureolus*' group.

The origin of the new population of *Philodromus buxi* in the Greenwich Peninsula, Lee Valley and South Essex Thames corridor will probably always be uncertain. Presumably the spider could have been brought into the area with landscape plantings undertaken during the development of the Olympic Park, it may have moved into the Thames Gateway region on its own in recent years and is now expanding due to favourable conditions, or just possibly it may have been present at very low population levels in Britain all the time and climatic

Figure 5. *Philodromus buxi* habitat at the Olympic Park in the Lee Valley in South Essex. Photograph © Peter Harvey

conditions now favour its expansion. In this case, it would certainly be worth looking for the spider in the south coast area near its original 19th century discovery.

The situation is further complicated by an email sent to the author in March 2012 by Dr Michelle Fountain about a male *Philodromus* which had been identified as *P. buxi* by an East Malling Research student from a pear orchard in Kent. Unfortunately the specimen has never been located, so cannot be confirmed. What did seem then extraordinarily unlikely now seems possible.

The author is in little doubt that there remains the need for a major overhaul of the *aureolus* group in Europe, and that it is likely that a considerable number of new species will eventually be recognised, especially from southern Europe. Nevertheless, we are in a far better position today than were the workers in the past. We now have six good species in the *aureolus* group which definitely occur in Britain, *aureolus, buxi, cespitum, collinus, longipalpis* and *praedatus*, but could there be more awaiting recognition?

Acknowledgements

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References

Braun, R. 1965. Beitrag zu einer Revision der paläarktischen Arten der *Philodromus aureolus*-Gruppe (Arach., Araneae). 1. Morphologisch-systematischer Teil. *Senck. biol*. **46**: 369-428.

Hull, J. E. 1948. The spiders of Essex: Recent additional records. *Essex Naturalist* **28**: 58-64.

Locket, G.H. 1967. Recent work on the *Philodromus aureolus* group. *Bulletin of the British Spider Study Group* **36**: 1

Merrett, P. & Murphy, J.A. 2000. A revised check list of British spiders. *Bull. Br. arachnol. Soc*. **11** (9): 345-358.

Roberts, M. J. 1985. *The spiders of Great Britain and Ireland*, Volume 1: Atypidae to Theridiosomatidae. Harley Books, Colchester, England.

Simon, E. 1875. *Les Arachnides de France*. **2**: 1-356. Paris: Encyclopédie Roret.

Simon, E. 1884. Arachnides observés a Miranda-de-Ebro au mois d'Aout 1883. *Anales de la Sociedad Espanola de Historia Natural* **13**: 113-129.

Spiders of Europe website http://www.araneae.unibe.ch/data/166/Philodromus_buxi accessed June 2016.

Wilson, R. 2015. *Philodromus buxi and Anyphaena sabina*: two new species records for the UK. S.R.S. News No 81. In *Newsl. Br. arachnol. Soc*. **132**: 17-19.

World Spider Catalog Version 17.0. http://www.wsc.nmbe.ch/ accessed June 2016.

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