British Arachnological Society

The Newsletter
July 2009, No. 115

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History of the British Arachnological Society and Arachnology in Britain (A talk given at the 50th Anniversary meeting of the society at Preston Montford Field Centre on 6th June 2008) Part 2

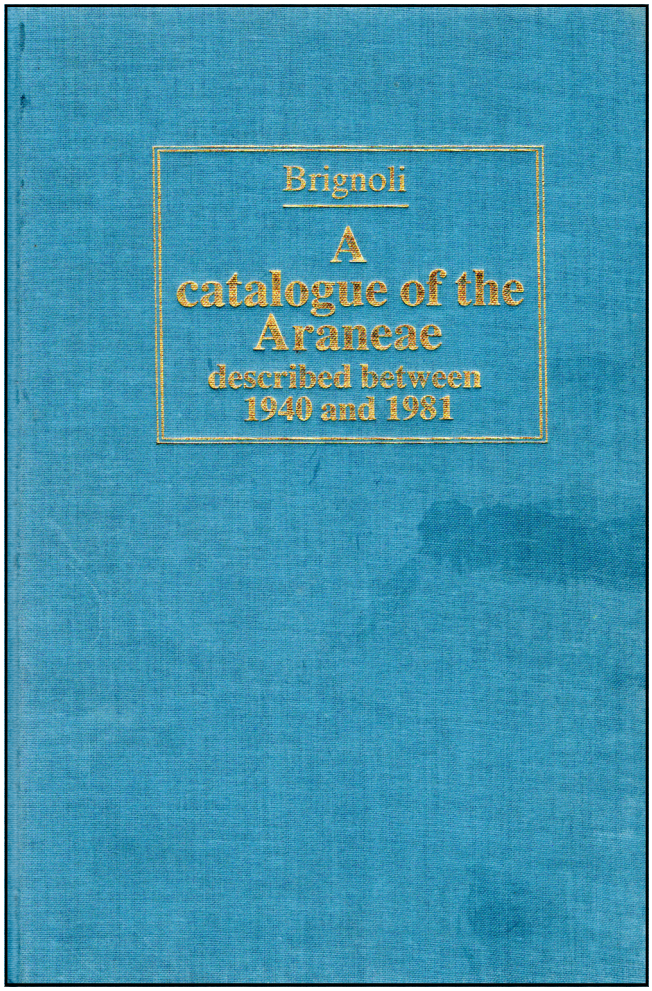
by Peter Merrett

[*continuation from Newsletter 114: 3*] As a result of that meeting, Bulletin number 21 in January 1964 became the first Bulletin of the British Spider Study Group, and an ad hoc committee was formed, which held its first meeting in February 1964 at the hotel in Stratford-on-Avon which John Parker managed. Ted Locket became the first President, and David Mackie retained his many roles as Secretary and Treasurer. The other committee members present at that first meeting were Eric Duffey, John Cooke, John Parker, John Crocker and myself. Other committee members who did not attend the first meeting were Frank Millidge, Doug Clark, and Ian Evans as reprint librarian. The idea of a reprint library had been first suggested in October 1962, and it was started by Ian Evans in 1963 with 23 reprints. It grew to 500 reprints by 1970 and 875 by 1972.

A second committee meeting was held at Stratford in February 1965, and in February 1966 the first of 22 committee and council meetings was held at Monks Wood Experimental Station, by invitation of Eric Duffey.

Following the successful field meeting held at Preston Montford in 1963, Eric Duffey led similar survey meetings for more experienced members at Whiteford Burrows on the Gower in 1964, 65, and 67, at Tentsmuir in Fife in 1966 and Winterton in Norfolk in 1968. During this period David Mackie also ran several courses for less experienced members in various parts of the country, and Frances Murphy led one-day field meetings at Box Hill and Chobham in Surrey. These were the forerunners of many courses held throughout the country over many years by John Parker, Mike Roberts, Stan Dobson, and others. During this time the Bulletin also increased in size to 12 or 14 pages by 1968, and the first paper by an overseas author (Jacques Denis) appeared in January 1965. This was a very active period in the development of the group.

At the committee meeting held at Monks Wood in March 1968 it was decided to change the name of the group to the British Arachnological Society from the start of 1969, and adopt a formal constitution with a properly elected council, instead of the previous self-appointed committee. Ted Locket retired as President at the end of 1968, and Eric Duffey became the first President of the B.A.S. David Mackie continued as Secretary and



Treasurer until March 1969, when he was succeeded by John Parker. John Crocker became the editor of the new B.A.S. Bulletin, which in 1969 and 1970 continued to be published quarterly to complete volume 1. This new Bulletin was produced in a new greatly improved format by offset-litho printing, and saw the introduction of the society's crab spider logo, which was designed by John Crocker.

Although the B.A.S. had begun in 1969, the first A.G.M. was not held until March 1970, at the Natural History Museum. The officers elected at that first A.G.M. were President Eric Duffey, Vice President Ted Locket, Secretary and Treasurer John Parker, Bulletin editor John Crocker, and Librarian Ian Evans. Ordinary council members were Peter Gabbutt, Frank Millidge, Mike Usher, Doug Clark, David Nellist, Fred Wanless and myself. Also Rod Allison was elected as Honorary auditor, beginning a long association with the financial affairs of the society which has continued on and off (mainly on) to this day.

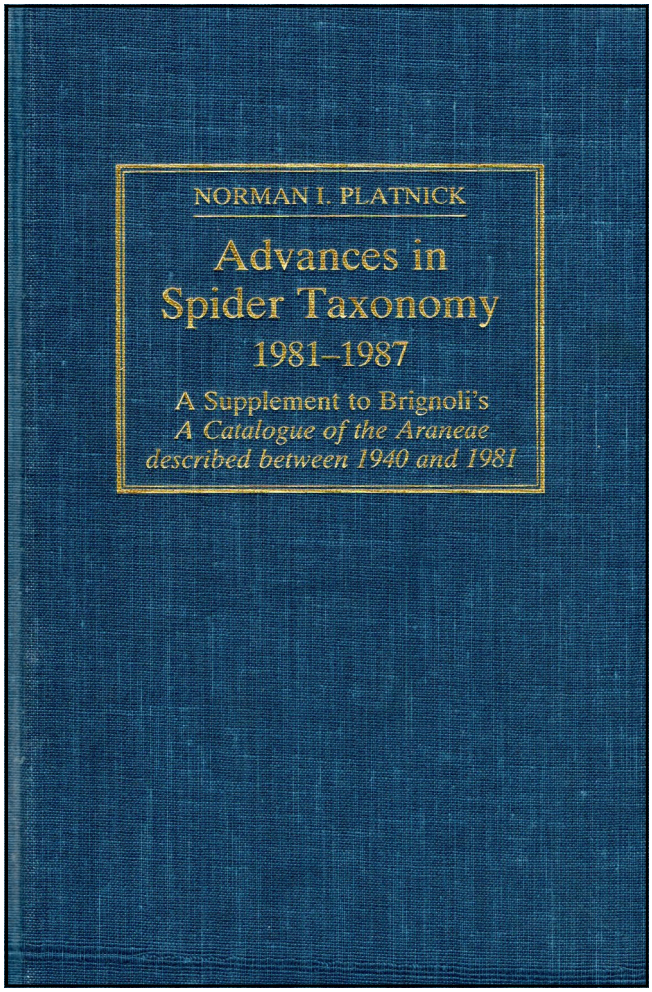
Volume 2 of the Bulletin, which started in 1971, saw a marked improvement in standard of presentation with the

introduction of a different typeface and computer typesetting, and other minor changes such as printing the volume numbers on the front cover, contents list on back cover, and the list of officers and council members inside the front cover. At the same time, as the editor had experienced some difficulty with producing quarterly issues, and to help control costs, the frequency of publication was reduced to three issues per year, which has remained the same ever since. Volume 1 of the B.A.S. Bulletin had contained some items of society news in addition to arachnological papers, but at the first council meeting in 1971 it was decided to introduce a separate newsletter for society news and short notes. The first newsletter (with John Parker as editor) was issued in July 1971 to coincide with volume 2 part 2 of the Bulletin. The A.G.M. in 1971 was notable for the election of Peter Gabbutt as the first Treasurer of the society, as distinct from the combined roles of secretary and treasurer, previously occupied by David Mackie and John Parker. The change in name of the society and marked improvement in the quality of the Bulletin, were probably responsible for a substantial increase in membership, from about 85 in 1968 to about 250 in 1972.

John Crocker resigned as editor of the Bulletin at the end of 1973 with the completion of volume 2. He was succeeded by Eric Duffey for the start of volume 3, but after editing the first two parts he resigned when he became editor of the much larger journal *Biological Conservation*. I then took over the editorship in July 1974, producing my first issue as editor in November 1974. Coincidentally, this was the first issue to be produced on glossy paper, but that was largely the result of John Crocker's influence, as he continued to liaise with the printers in Loughborough.

An important event in the early history of the society was the Seventh International Congress of Arachnology at Exeter in 1977, which was organised jointly by the B.A.S. and the Zoological Society of London. This resulted in increased international awareness of the society, and gave a considerable boost to the number of members and the supply of material for the Bulletin, which increased by about 50% in the following years. The profits from organising the Congress also formed the foundation of the society's special purposes fund, which has been used largely to finance special publications. In this regard it was perhaps fortunate that Rod Allison had become Treasurer in 1976, a year before the Congress was held. Discussions held at the Congress also led to our publishing Brignoli's spider catalogue with Manchester University Press in 1983, which in turn led to Platnick producing his catalogues after Brignoli's death in 1986. Only the first of Platnick's catalogues was published by the B.A.S. and M.U.P., but the society played a marginal role in his later catalogues in so far as I edited them up to the year 2000. Mark Harvey's pseudoscorpion catalogue, edited by Volker Mahnert, was also produced in a similar style by the B.A.S. and M.U.P. in 1990.

This period also saw a marked improvement in the size and quality of the Newsletter. Initially this was duplicated from typed stencils, as the old Flatford Mill and B.S.S.G. Bulletins had been, but by 1980 its increasing size and number of copies were becoming too much for Fred Wanless who was responsible for producing the copies. Therefore in 1981 the Newsletter changed to a printed format, initially being produced by the Bulletin printers in



Loughborough, but in 1985 production was moved to Manchester, after John Dalingwater had become involved in producing the index for Newsletters 1–30 and in helping John Parker with the editing. John Parker resigned as secretary at the A.G.M. in 1984, when he was succeeded by David Nellist, and John Parker finally retired as Newsletter editor at the end of 1987, with issue number 50, when John Dalingwater took over as editor from issue 51 until number 100 in 2004. Since then, when Richard Gallon became editor, the most important change has been the introduction of colour in the Newsletter.

The next major change in the Bulletin occurred in 1986, when the format was changed to the larger A4 size, with a newly designed front cover. The larger page size allowed more flexibility in the arrangement of figures and tables, and made more efficient use of paper. From 1992 the printing was switched from Loughborough to Henry Ling in Dorchester, at which point John Crocker ended his long and invaluable association with production in liaising with the printers. Printing of the Newsletter was also switched to Henry Ling in 1994.

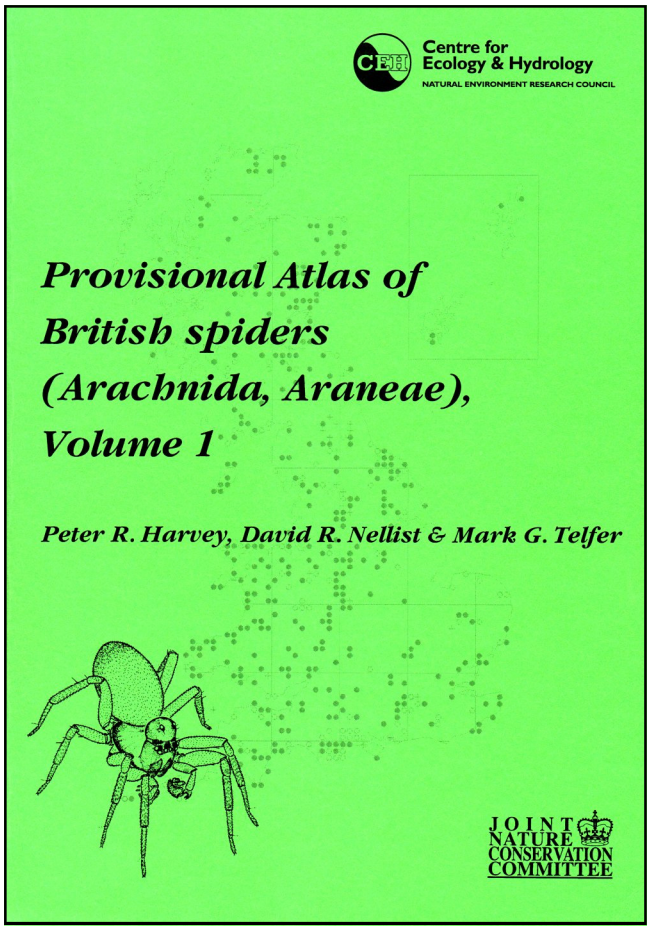
Twenty years after the International Congress at Exeter in 1977, the society organised the 17th European Colloquium of Arachnology at Edinburgh in 1997. This was also a great success, but coming at a later stage in the society's development, it inevitably did not have as great an impact on the society as the congress in 1977. The proceedings were edited by Paul Selden, assisted by John Dalingwater. Paul Selden has also been responsible for the editing or production of a number of other special publications for the society, notably the memorial volume for Gary Polis on scorpions, and John Murphy's recent

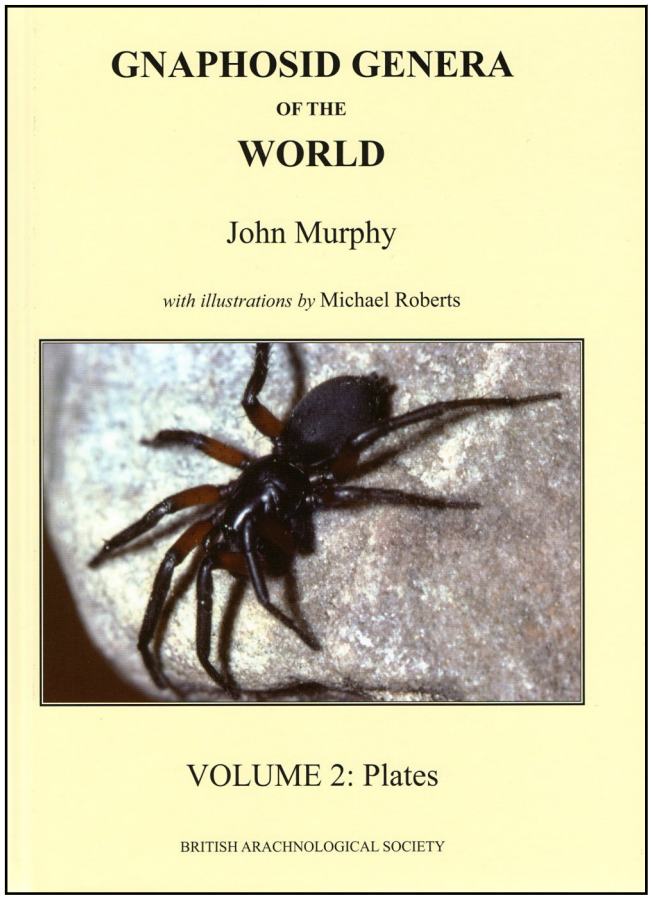
impressive work on the gnaphosid genera of the world.

Finally, I must say something about the spider recording scheme. The history of spider recording in Britain could easily be made the subject of a separate talk, and I have not mentioned it before as it did not seem to fit easily into my largely chronological description of events in the history of the society.

Spider recording on a national scale can be said to have begun with the publication of county lists for each species by Bristowe in 1939 in *The Comity of Spiders*. My involvement with records began in 1961, when I was looking for something to do to fill in the time after I had finished my PhD and before I started work at Furzebrook. I initially transferred the records from Bristowe onto punched cards, and then made them into county maps. I then added all published and unpublished records that I could find for the period 1939–61, and continued adding records as they came in. In the early 1960s Bristowe considered producing a revised edition of the *Comity*, which would have included the maps, but that idea fell through, and it was decided instead to include them in volume 3 of Locket & Millidge.

The maps were originally produced for publication in volume 3 in 1969, but owing to editorial delays it was not published until 1974, after the maps had been brought up to date. County maps were used in volume 3 because Bristowe used counties, and it was not possible to trace the sources of all Bristowe's records for the common species. Spots were however used to show localities for rare species, where locality records were known. However, the first record cards for recording on a 10 km square basis had been produced by the Biological Records Centre in 1964, and David Mackie wrote an article in the July 1964 Bulletin explaining how to use grid references.





Although records with grid references then started to come in, the number of collectors was far too small at that time to produce any sort of reasonable national coverage. Therefore I continued to accumulate new county records in addition to 10 km square records.

In the mid 1980s the publication of Dick Jones' photographic guide and Mike Roberts' 3 volume work probably led to an increase in the general level of interest in spiders and encouraged more people to identify them, so that more potential spider recorders became available. As far as I was concerned, collecting spider records had always been very much a peripheral activity, and it became clear that spider recording needed a leader who could devote all their energy to it. Such a person became available in Clifford Smith, who became the National Organiser of the new spider recording scheme in April 1987. Clifford had previously produced the first published county atlas of spiders for Yorkshire in 1982. The only other published county atlas is that by Crocker & Daws for Leicestershire, published in 1996, though several other people have produced county atlases for their personal use. Clifford put a tremendous amount of effort into collecting records until ill health forced him to retire in 1993. David Nellist then took over as National Organiser until he in turn retired in 1999, to be succeeded by Peter Harvey. During this time the total number of records increased enormously, from about 150,000 in 1987 when Clifford Smith started as National Organiser, to about 500,000 in 2000, and over 800,000 today. This all represents a quite phenomenal amount of work, which has been aided by increased levels of computerisation of the processes of handling the data in recent years.

In conclusion, the main emphasis of this talk has been upon events that occurred in the early years of the society. This is largely because inevitably the pace of change was

much greater in the first 10 or 20 years, and also because most of you will already know about our more recent history. There has also probably been some degree of bias toward those things that interest me most.

I think I should also say that there are some people I have not mentioned who have done an enormous amount of work for the society, but there are some posts, such as membership treasurer, distribution manager and meetings secretary, which are vitally important for the efficient running of the society, but whose work does not really change the course of history. My apologies to anyone who might feel left out. Here's to the next 50 years, and I wonder if there is anyone here who is young enough to give a talk on our history for our centenary.

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The Rehydration of Dried-up Specimens

by David R. Nellist

I was interested to see the recent note by Rudy Jocqué on the technique of rehydrating dried-up specimens by soaking them in a solution of tri-sodium phosphate with the addition of a small amount of the wetting agent Agepon (Jocqué, 2008). This reminded me of the first time I saw reference to the use of tri-sodium phosphate in this way when, over 50 years ago, Ted Locket published a short note in the very first Bulletin of the Flatford Mill Spider Group (Locket, 1959). He recommended soaking the dry specimens in 2% tri-sodium phosphate for as long as necessary, washing in water, and then returning the specimens to alcohol.

In his recent note Jocqué also mentioned the paper published by Van Cleave and Ross (1947) and I believe it was the work of these authors that first established the value of tri-sodium phosphate solution. They had examined other chemicals and found, for example, that sodium hydroxide and lactic acid had some limited use, but the former tended to destroy tissues, whereas tri-sodium phosphate was effective at low concentrations and the reclaimed specimens would show restoration of general body form and reveal details of diagnostic characters not visible in the dried specimens or those treated with water or alcohol alone. They successfully applied the technique to leeches, insect nymphs, delicate crustaceans, centipedes, millipedes and, particularly successfully, to samples of nematode worms which had been dry for many years. Also in 1947, in the other paper mentioned by Jocqué, Benninghof (1947) applied the technique to botanical specimens and used tri-sodium phosphate to reclaim dried herbarium material, and microfossils in peat. More recently its use was supported by Cooke (1969) who provided a brief description of the procedure to be used when rehydrating spiders. One dissenting voice is that of Vogt (1991) who proposes the use of acetic acid rather than tri-sodium phosphate. He claims that acetic acid disrupts the cross-linkages between proteins and the phospholipid complex found in cell membranes, and this aids rapid penetration of the solution into the specimen. Apparently it also inhibits microbial growth and decay, thus allowing larger specimens to be kept in the solution for longer periods than is possible using tri-sodium phosphate. Overall the use of tri-sodium phosphate seems to be the preferred option and I have recently applied it successfully to a large collection of spiders from Wheatfen Broad in Norfolk. I was told that the collection had been made in 1938, very probably by A. R. Jackson. The tubes had originally been closed with corks, but these had largely disintegrated, and so the specimens had been stored in a desiccated state for a good proportion of 70-odd years.

It should be pointed out that Agepon, the wetting agent recommended by Jocqué, was manufactured by Agfa to aid the even drying of conventionally processed film, until the explosive growth of digital photography led to its demise. However I expect any wetting agent to perform as well. Of course, after treatment, specimens are never as "good as new" but nevertheless, in most cases, and with care, adults can be identified to species with confidence.

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The Widow Spiders (*Latrodectus* Walckenaer, 1805) of Guanajuato, Central Mexico Part I

by Mark Pointer

Between late December 2008 and mid April 2009, whilst on my travels in Mexico, I resided for a while in Guanajuato City, capital of Guanajuato State, Central Mexico. The city itself is surrounded by vast hills and sierras, offering stunning views and plenty of excellent opportunities for investigating the local arachnofauna.

It was during these investigations that I frequently encountered individuals of *Latrodectus* Walckenaer, 1805 known locally as "Viuda Negra", "Araña Capulina" or "Chintatlahua" (the last being a phonetic degeneration of the original word in Nahuatl, tzintlatlauhqui (Hoffman, 1993)), which have subsequently become the subject of ongoing studies.

The genus *Latrodectus* is relatively common in Guanajuato, occurring in the surrounding hills and sierras where it can be found under large rocks, boulders, old logs and piles of dried vegetation, especially at the base of cacti and acacia trees. In addition, *Latrodectus* also occurs amongst the ruins of abandoned buildings, along roadsides, walls, along riverbanks and in some cases amongst piles of discarded rubbish.

The vast majority of the specimens observed and

Figure 1. “La Quinta” ruins © Mark Pointer.

collected came from in and around some ruins lying on the outskirts of Guanajuato City possibly dating from the 18th century, known locally as La Quinta (Fig. 1). In addition, a number of other specimens were observed and collected from sierra near the main road going in and out of the city of Guanajuato, as well as the nearby districts of Marfil and Ex-Hacienda Santa Teresa.

With the exception of three males, all the other individuals observed and collected were adult females that were either gravid or had just produced egg-sacs, which in most cases were pear-shaped and of a pale creamy yellow colour. However, in a few individuals, the egg-sacs produced were almost spherical in shape and either pale creamy yellow or whitish in colour. Incidentally, the breeding season of *Latrodectus* in Guanajuato occurs from late January onwards into early April, with individual females producing between two to five egg-sacs (two or three being the more usual number), that hatch some five or six weeks later.

As far as the adult females are concerned, there is a considerable amount of variation amongst individuals, in terms of coloration and pattern on the dorsum of the abdominal region (Figs. 2 a–e) which can be placed into one of the four following categories:

1) Dorsal abdominal surface completely black or dark brownish black.
2) Dorsal abdominal surface black with a small red patch at its posterior end, just above the spinnerets.
3) Those individuals whose dorsum bears pale whitish, cream, or occasionally reddish white coloured band (rather reminiscent of certain species of the closely related genus *Steatoda* Sundevall, 1833), usually followed by smaller white markings occurring centrally at the anterior end of dorsum. Occasionally in some specimens these extend towards the posterior region of the dorsum.
4) As No. 3 but with the addition of the red patch at the posterior end of dorsum.

Despite these variations, nearly all the individual adult females observed and collected, possessed a complete red hour glass mark on the venter of the abdomen. In a few individuals however, the classic red hour glass mark is broken, forming instead two small triangular patches.

Figures 2a-d. *Latrodectus* abdominal patterns © Mark Pointer.

Figure 2e. *Latrodectus* abdominal pattern. Same specimen as in figure 2d from another angle. © Mark Pointer.

Most of the individuals encountered so far are most likely to be of the species *Latrodectus hesperus* Chamberlin & Ivie, 1935, although this still needs to be confirmed at present. Whilst *L. hesperus* together with *L. mactans* (Fabricius, 1775), and the nearly cosmopolitan *L. geometricus* C. L. Koch, 1841 are known to occur in Mexico (Rojas *et al*., 1995), along with at least one other undescribed species (J. Miller 2009, pers. comm.), the actual *Latrodectus* fauna of Mexico as such is not well worked out at present (Odell *et al*. 2001; J. Miller 2009, pers. comm.). This is largely due to the taxonomic difficulties associated with the genus *Latrodectus* itself, most notably the large amount of variation and overlap of morphological characters within individuals of certain species, coupled with the small amount of differences between actual species themselves, a problem that has for a long time confounded systematists (Abalos, 1962; Levi, 1959, 1983; J. Miller 2009, pers. comm.), resulting in a group whose taxonomy is unstable, despite containing 31 currently valid species, as well as a number of undescribed species (Miller, 2007). Hopefully, the recent use of DNA sequencing and phylogenetic analysis utilising DNA sequences of the mitochondrial gene Cytochrome C oxidase subunit one as employed by Garb *et al*., 2004 (which produced a generally well supported tree comprising two monophyletic clades within the genus: the Geometricus clade and the Mactans clade with *L. mactans* and *L. hesperus* as sister species), along with further investigations and morphological studies will help to resolve such problems in the future, particularly with regards to a better understanding of the *Latrodectus* fauna of Mexico.

Figure 3. Araneid orb web. © Mark Pointer.

Finally, it is worth mentioning that whilst wandering along a river bank in Marfil, I encountered by a bridge, a *Latrodectus* web occupied by a large adult female that contained between some support threads attached to the substrate, the almost complete remains of an araneid orb web (Fig. 3), minus its occupant. It would be interesting to know if this phenomenon has been observed and/or recorded in the webs of other *Latrodectus* individuals and species.

I would like to thank Jeremy Miller, Department of Terrestrial Zoology, Nationaal Natuurhistorisch Museum Naturalis, Netherlands, for answering queries relating to distribution and identification of *Latrodectus* in Mexico.

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Pitfall Trap Catches from Bowness Common SSSI: Correlations of Abundance with Environmental Variables

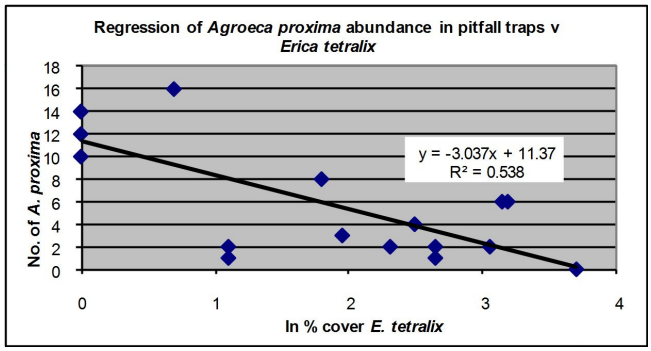
by Dave Blackledge

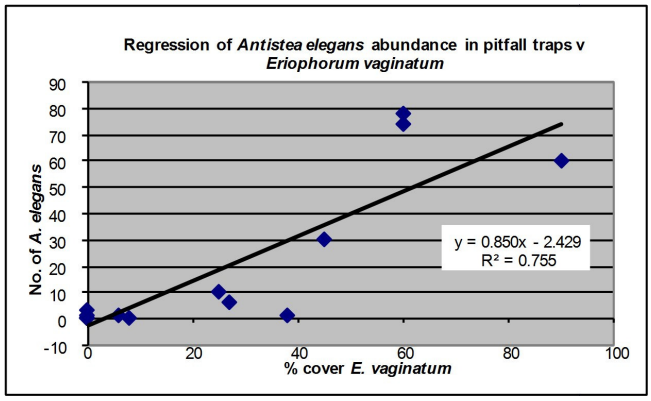
Pitfall trapping began on Bowness Common in 2002, initially as a means of compiling a species list in conjunction with sweep-netting and grubbing. Looking at the results from the pitfall traps it became evident there were strong patterns in species' abundance correlating to the variation in vegetation on the mire (Blackledge, 2007).

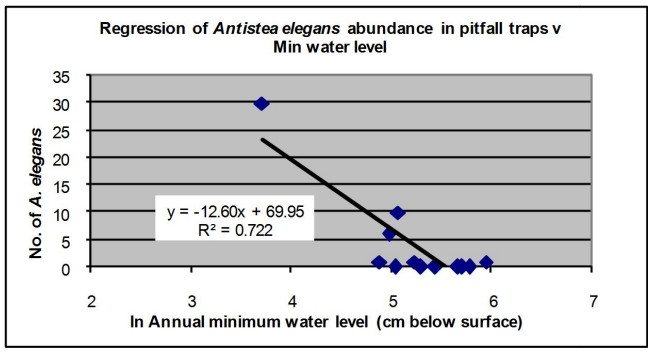
Other studies in the UK and in Europe had shown similar species distribution on raised mires, giving some confidence that the results were not merely artefacts of trapping, but bore some resemblance to the distribution of species on the ground.

The measurement of water table height throughout the year and vegetation cover around the trap site allowed for closer investigation of the correlation between the abundance of a species trapped and the environmental variables measured. Water table height and percentage cover of plant species surrounding the trap were chosen as the most likely environmental factors to affect spider distribution on the damp open habitat of the raised mire. Water table was measured at each trap site by a dipwell, and readings taken each month as the trap was emptied. All traps were run for 12 months. The minimum, maximum, mean and standard deviation of the monthly water table readings were calculated for the year for each of 12 trap sites. In July a 1m² quadrat divided into one-hundred 10 cm squares was used to estimate percentage cover of all plant species falling within the square.

For each spider species, where at least nine individuals were trapped, a series of regressions were calculated against the environmental variables measured. Both $\log_e$ and linear regressions were calculated. This highlighted any species with a statistically significant correlation (95% level) of abundance in traps v measured environmental variable, though would fail to pick out any with a strong preference for intermediate values (a unimodal response). However, investigation of the scatterplots suggested only *Neon reticulatus* showed such a response with any of the variables measured here. This unimodal response along the dry / *Calluna* to wet / *Eriophorum* gradient is probably related to *Neon*'s preference for mossy sites as moss cover was highest at intermediate levels of *Calluna* and *Eriophorum*.







Results

As expected, the water level greatly influenced the vegetation characteristics on the mire and there were many interrelations between the variables measured. Sites trended from low water table with high heather (*Calluna vulgaris*) cover, to high water table with high Hare's tail cottongrass (*Eriophorum vaginatum*) cover.

Agroeca proxima

The strongest significant relationship found was a negative $\log_e$ correlation with *Erica tetralix* cover.

It also has a strong negative association with moss cover, both relationships indicative of a preference for the drier areas of the mire. Although it has a positive correlation directly with lower min, mean and max water levels none of these reach significance. This could be an indication that *A. proxima* is responding to the vegetation type/structure itself, rather than water levels per se. The log relationship suggests the response curve is strongest at low levels of *E. tetralix* cover with few *A. proxima* occurring where *Erica* gets a hold.

From the regression equation, it would seem that *A. proxima* is not trapped when the cover of *E. tetralix* gets above around 40%.

Antistea elegans

Antistea elegans shows perhaps the strongest responses across a range of variables for all the species found on the mire. Its strongest correlation is a positive linear relationship with *Eriophorum vaginatum* cover.

Eriophorum vaginatum itself shows strong positive relationships with high min, mean and max water levels and moss cover, and a strong negative relationship with *Calluna* cover showing the preference of it and *A. elegans* for the wet areas of the mire. *A. elegans* also shows significant negative relationships directly with *Calluna* cover and *Eriophorum angustifolium* cover, and significant positive relationships with high min and mean water levels.

From the regression equations above it is evident that the pitfall catch of *A. elegans* drops rapidly as the minimum water level drops from around 50 to 150 mm below surface, and *A. elegans* is not found where minimum water levels have receded to around 250 mm below surface.

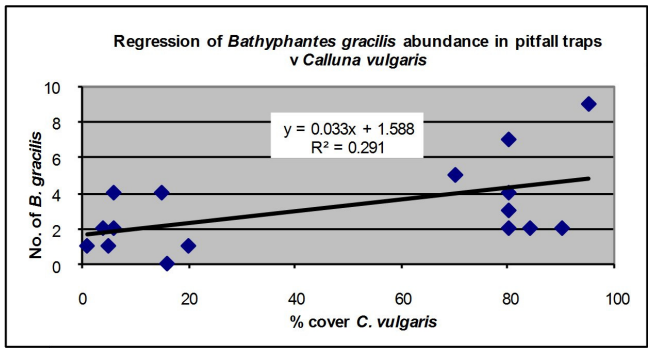
Araeoncus crassiceps

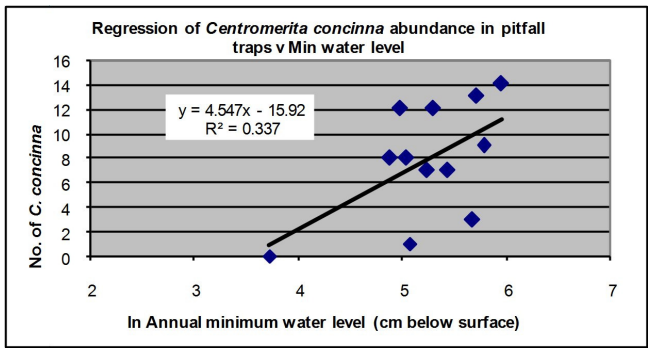
A. crassiceps shows a significant positive linear relationship with *Eriophorum vaginatum* though only nine specimens were caught in three locations and results should be treated with caution. Data available here would indicate a preference for wet mire sites.

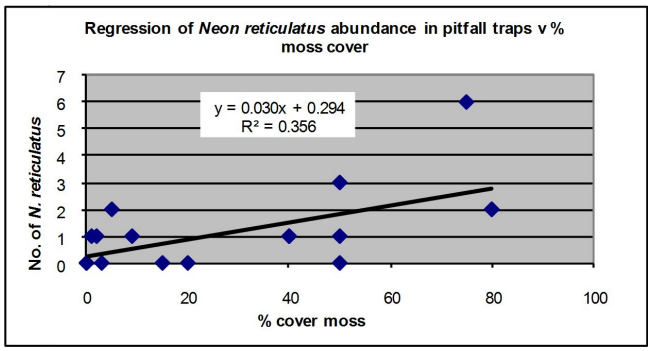
Bathyphantes gracilis

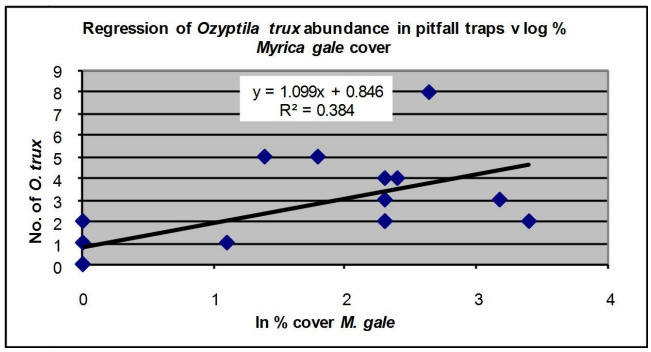
There is a modest significant linear correlation with *Calluna* cover and similarly a significant negative relationship with moss cover.

This would indicate a preference for the drier mire edges with higher *Calluna* cover, though this species is









somewhat of a generalist, occurring also in wetter areas where *Calluna* is much reduced.

Centromerita concinna

An abundant spider of the winter months, *C. concinna* shows a significant $\log_e$ relationship with minimum water table height, occurring more frequently in sites which dry out to a greater depth.

From the equation, the pitfall catch of *C. concinna* drops to zero when the water level remains within about 30mm of the surface at its lowest point of the year.

Neon reticulatus

Neon reticulatus shows a weak but statistically significant positive relationship with cover of moss, though numbers trapped at each site were quite low. Some individuals were found at sites with a minimum of moss cover.

Ozyptila trux

A weak but significant relationship was found between *O. trux* abundance and $\log_e$ of percentage *Myrica gale* cover. *Myrica* itself tends to show preference for somewhat drier areas of the mire, but not as strongly as *Calluna vulgaris*. Interestingly, the crab spider *Xysticus cristatus* which is found in abundance by sweep-netting in the area, was only captured six times during pitfall trapping, compared with the 42 specimens of *Ozyptila trux*, in-keeping with *O. trux*'s suggested more ground based lifestyle. 75% of the specimens where sex was recorded were males, perhaps showing a preponderance of wandering individuals more likely to fall into traps than more sedentary females.

Pirata uliginosus

One of the most abundantly trapped species on the mire, *P. uliginosus* shows a modest and significant relationship with percentage cover of *Myrica gale*. This shows a preference for somewhat drier areas of the mire. Indeed there is also a significant relationship with minimum water level, the spider tending to occur more abundantly in traps where water levels draw down to a greater level in the summer.

The equation suggests that *P. uliginosus* tends not to occur where the minimum water level fails to recede over *c*.60 mm below the ground surface. It also shows a significant positive correlation with standard deviation of the monthly water levels throughout the year, i.e. it tends to occur more frequently on those sites with a highly fluctuating water table.

Trochosa spinipalpis

T. spinipalpis shows a close resemblance to *Antistea elegans* in its habitat preferences, occurring with any frequency only in the wettest areas of the mire. As with *A. elegans*, its strongest correlation is a positive linear relationship with *Eriophorum vaginatum* cover.

There are also significant positive relationships with minimum water level, mean water level, and with *Rhyncospora alba* cover. Significant negative relationships exist with *Calluna* cover, *Eriophorum angustifolium* cover and deviation in water level throughout the year.

Water levels were measured as negative values below ground surface. These were converted to positive values to enable log transformation, thus converting the positive relationship into a graphed negative one.

The regression equation suggests that *T. spinipalpis* is not trapped when the annual minimum water level drops below *c*.320 mm from the surface.

Trochosa terricola

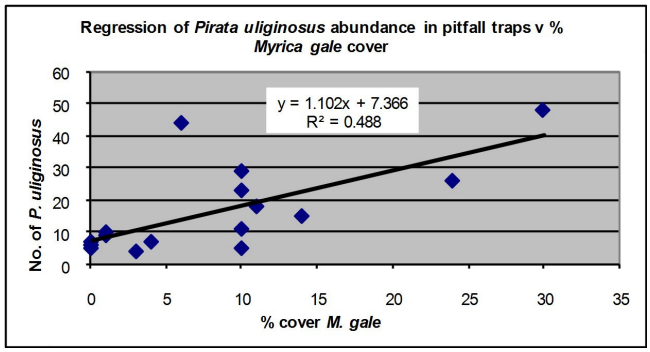
An abundant and widespread species on the mire, *T. terricola*'s only significant relationship is a modest positive correlation with percentage cover of *Eriophorum angustifolium*. This species appears quite catholic in its environmental preferences within the mire with a slight predilection for drier areas.

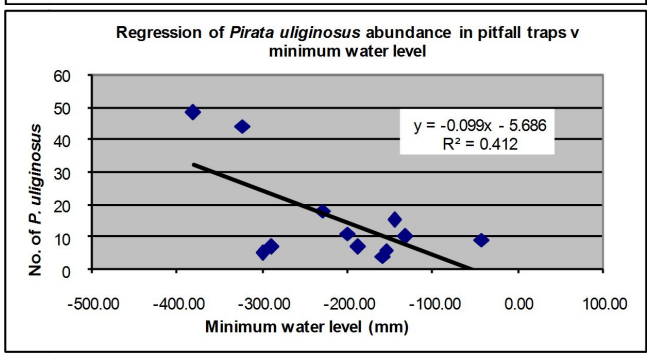
Walckenaeria acuminata

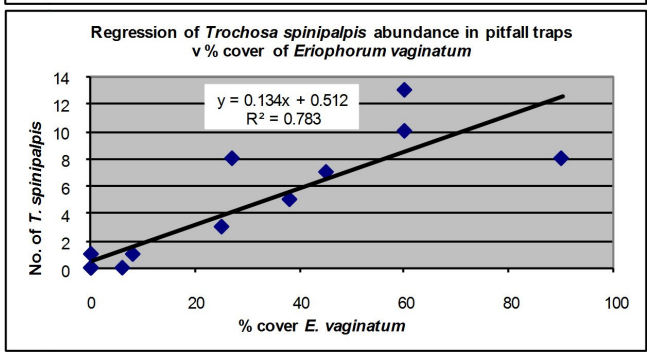
W. acuminata showed a significant positive relationship with *Myrica gale* cover though numbers caught at each trap site were small.

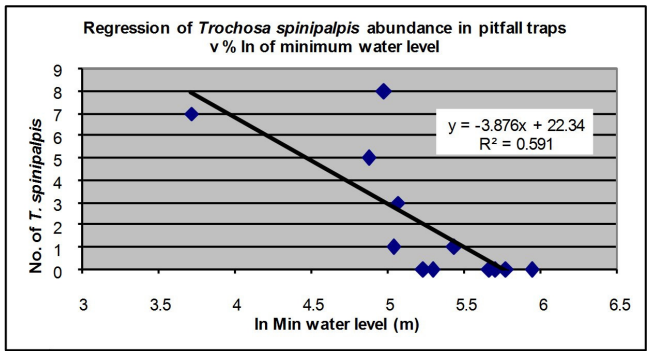
Walckenaeria atrotibialis

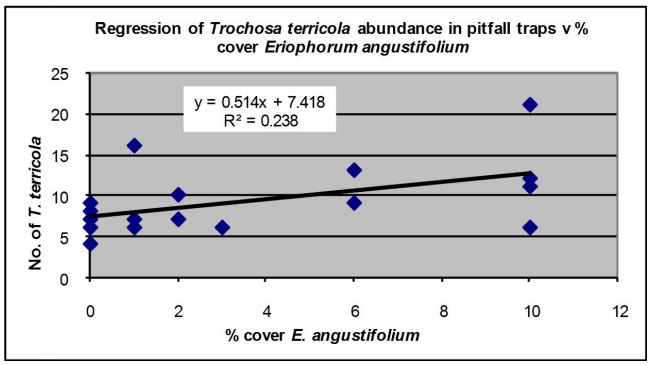
W. atrotibialis shows a strong negative correlation with minimum water level, the equation showing that it tends not to occur in wetter areas where the water level remains within 100 mm of surface throughout the year. However, numbers caught at each trap site were low. *W. atrotibialis*

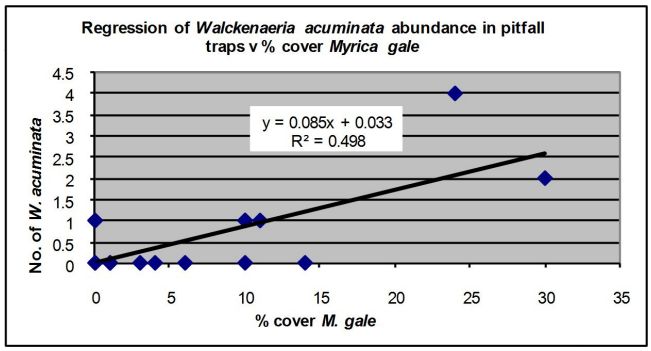


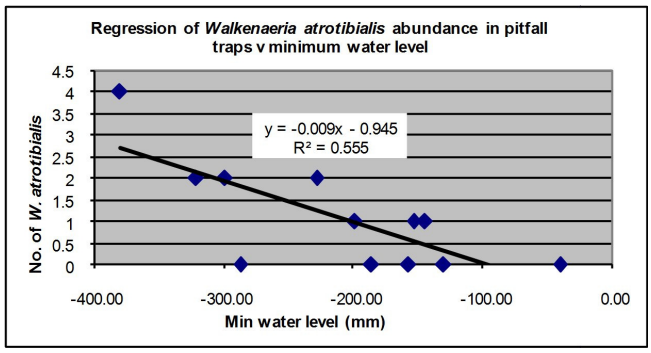


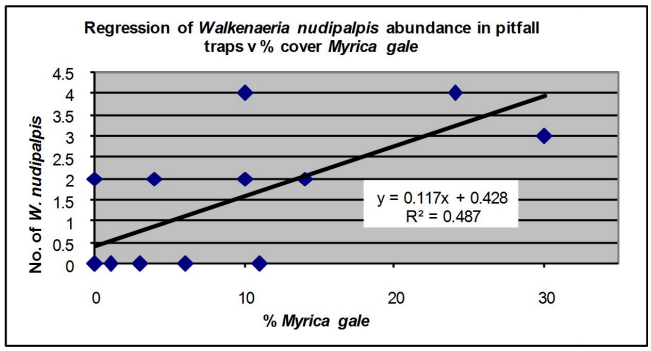


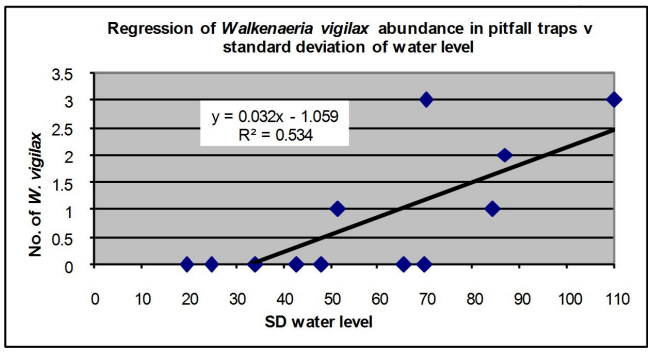












also showed a positive correlation with standard deviation of monthly water levels and a positive association with percentage cover of *Myrica gale*.

Walckenaeria nudipalpis

W. nudipalpis shows a significant positive relationship with *Myrica* cover, though numbers at each trap site were small.

Walckenaeria vigilax

W. vigilax shows a strong positive relationship with standard deviation in monthly water levels though again numbers at each trap site were small. This species also showed a positive relationship with *Eriophorum angustifolium* cover and a weaker negative correlation with moss cover, showing a preference for drier areas of the mire.

Ceratinella brevis, *Haplodrassus signifier*, *Lepthyphantes ericaeus*, *Lepthyphantes mengei*, *Pardosa nigriceps*, *Pardosa pullata*, *Pirata piraticus*, *Pocadicnemis pumila*, *Saaristoa abnormis* and *Zelotes latreillei* were all trapped in double figures but showed no relationships significant to the 95% level.

Discussion

The main question to be answered about the data presented above is do any of the statistically significant

relationships reported represent the species' natural preferences? To what extent are they influenced by sampling method?

By using the data to investigate the habitat preferences of individual species, some of the objections to pitfall trapping are avoided. Here, there is no attempt to build a picture of the community from pitfalls alone, and species abundances are not compared together directly. The trap sites used here were scattered over Bowness Common with areas of similar characteristics separated by dissimilar patches. The regressions will therefore serve to test against the randomness or aggregation of distributions by matching catch abundance directly with the variables found at the trap site.

The possibility exists that trapping abundance is influenced by the surrounding vegetation type, i.e. what we are recording is how the vegetation is affecting the 'catchability' of a species, rather than its real level of abundance. It has been suggested that larger numbers will be trapped in low, open vegetation than in tall rank vegetation. However, species have here responded differently, with some trapped in high numbers in more open vegetation (e.g. *Antistea elegans*) while others are trapped in greater abundance in rank heather (e.g. *Bathyphantes gracilis*). For some of the abundant species e.g. *Antistea elegans*, hand collecting supports pitfall results in outlining the habitat preferences. Similar investigations using different methods e.g. D-vac, sticky traps or hand collecting would need to be carried out at Bowness Common and elsewhere to check against the preferences found here.

References

Blackledge, D. (2006) An initial description of the spider communities of Bowness Common SSSI. *Newsl. Br. Arachnol. Soc.* **108**: 8–12.

Duffey, E. (2006) East Anglian fens and measuring faunal change over time. *Newsl. Br. Arachnol. Soc.* **106**: 10–11.

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OPILIONES RECORDING SCHEME

At the recent October 2008 B.A.S. Council meeting the 'Opiliones Recoding Scheme' (O.R.S.) was discussed. John Partridge our Secretary drew attention to correspondence raised over the future of recording British Harvestmen. It appears that Paul Hillyard, both an author on British Harvestmen and recognised as the National Organiser for Harvestmen during his role with the Biological Recording Centre (B.R.C.), has now retired and does not wish to continue as National Recorder. It was considered by the B.A.S. that the recording scheme was part of their remit and in order to support this aim I have volunteered to help re-launch the scheme.

It is my intention to gather a number of keen professionals and amateurs with knowledge of British Opiliones to support this project in any way they feel able. This could be an article for inclusion in the B.A.S. Newsletter or S.R.S. newsletter to raise the profile of the O.R.S., or answering identification or other issues arising from queries. So if you can or wish to support the O.R.S. please get in touch.

Peter Nicholson; e-mail: petenich@btinternet.com

ARTICLE SUBMISSION

Please send B.A.S. Newsletter articles to the Editor: Richard Gallon, 23A Roumania Crescent, Llandudno, North Wales, LL30 1UP, United Kingdom; e-mail: newsletter@britishspiders.org.uk

Whenever possible, please submit articles by e-mail.

REQUEST FOR MATERIAL

We aim to revise the taxonomy, phylogeny and biology of the spiders belonging to the intermediate clades between Araneidae and Nephilidae as part of a collaborative research project between the laboratories of Matjaž Kuntner (Slovenian Academy of Sciences, Ljubljana), Ingi Agnarsson (University of Puerto Rico, Rio Piedras), and Todd Blackledge (University of Akron, Ohio). This project is sponsored, in part, by the Slovenian Research Agency and the National Geographic Society. We request live or preserved material of the following genera, all currently catalogued in the family Araneidae:

Zygiella sens. lat., including the recently split genera *Leviellus*, *Parazygiella*, *Stroemiellus* – Holarctic.
Deliochus – Australasian.
Phonognatha – Australasian.
Caerostris – Old World Tropics.

Although material for morphological research is very welcome (and will be deposited at the institutions specified by the sender), we would especially appreciate any recently collected material suitable for DNA extraction, and live animals, which would be used for web biology and sexual behaviour research. Please contact us if you can help (kuntner@gmail.com).

Any help will be fully acknowledged, and we are also open to scientific collaboration within particular fields of research. You can find out more about our ongoing projects and past research online: www.nephilidae.com; http://theridiidae.com/Agnarsson%20lab.html; www3.uakron.edu/biology/blackledge/index.htm.

Matjaž Kuntner, Ingi Agnarsson, Todd Blackledge

MEETINGS SECRETARY

Having served something like 10 years in the post, it's now time for me to step down and let someone else have a go. So, is there anybody out there who would like a post on the Council…?

The main purpose of the office is the organisation and minuting of all council meetings and the A.G.M. Two Council meetings are held per year, one in the spring the other in the autumn. The A.G.M. weekend is generally held in May or June. The Meetings Secretary has to book the location and make other arrangements for the smooth running of the A.G.M. This includes notifying members of place and time, arranging (or ensuring others arrange) field visits and speakers and providing necessary papers for the meetings.

If you'd like to give it a go or want further details, contact the Meetings Secretary, Martin Askins or the President, Chris Spilling.

B.A.S. Meetings Secretary, Martin Askins, 69 Savill Crescent, Wroughton, SWINDON, Wiltshire, SN4 9JG; e-mail: martin@askins.fsnet.co.uk