British Myriapod and Isopod Group

NEWSLETTER

Number 28

Spring 2014

AGM notice

All BMIG members are invited to attend the AGM to be held at 8pm on Friday, 25 April 2014. The venue will be Saughy Rigg Farm, Haltwhistle, Northumberland.

The present committee welcomes nominations for officers and ordinary committee members from any BMIG member. Ideally nominations would be communicated to the secretary beforehand but they can also be made from the floor at the AGM.

Editorial

Response to the Haltwhistle meeting has been good and all rooms at the Saughy Rigg venue are now booked. Anyone who still wishes to attend would be welcome but would need to make their own arrangements for accommodation at one of the local B&Bs. It may be possible to arrange for people staying in B&B accommodation to have their evening meal at Saughy Rigg but if you want to take this option please let me know as soon as possible. I have invited members of the Natural History Society of Northumbria to join us on the field visits and one of their members, Dr Angus Lunn, will be speaking on the geology and nature of the area after dinner on Thursday. We have permissions to visit a range of Wildlife Trust sites in both Cumbria and Northumberland and an officer of the NWT has offered to guide a group around sites on the Friday.

A mix of old and new faces as well as a wide range of ages will be attending the meeting but unfortunately one of our longest serving members will not be able to join us. It is a great pity that Des Kime is not well enough to travel. He knows the area quite well, having spent five years at Durham University, the last of which was ecological research in the Pennines. He tells me he is in much better health than last year but still not fully recovered and is following an intensive course of physiology until at least the late spring. The specialists do not know the exact nature of his illness. Despite testing for almost if not everything they have not found anything positive. Sadly, Des has been strongly advised to give up research work entirely.

I am sure that everyone in BMIG send our best wishes to Des and his wife, Kathleen.

Paul Lee, 33, Lawford Place, Lawford, Manningtree CO11 2PT

An introduction to Woodlice: a course to be held at the JG Graves Woodland Discovery Centre, Ecclesall Woods, Sheffield. 10am – 3pm, 29th March 2014.

Through a morning lab-based session we will learn about woodlouse natural history and focus on their identification. They are a very straightforward group to get to grips with and offer an easy introduction to general invertebrate study techniques. We will hopefully be undertaking some brief fieldwork to look for local specimens and have a chance to look more closely at our finds under microscopes in the afternoon. By the end of the day you should be able to recognise a good proportion of the British fauna, especially those species occurring around Sheffield.

We will have several microscopes available, but some will need to be shared. A few local specimens will be provided, but you may wish to collect a few of your own prior to the event, for study. There will be opportunity to collect in the woods on the day. Please bring suitable outdoor clothing and any pots, trowels, hand-lenses or any other field gear that you might need. Some will be available on the day. The venue is not handy for shops, so please provide your own lunch.

The event has been organised and subsidised by the Sorby Natural History Society, University of Sheffield Conservation Volunteers and Natural History Society, so the cost is only £3 but advance booking is essential.
Contact: paul.richards@sheffield.ac.uk
or **millipederecords@sorby.org.uk**
The Woodland Discovery Centre is located off Abbey Lane, adjacent to the sawmill. Postcode: S7 2QZ Grid ref: SK322824 Buses that run nearby are; 4, 70, 214 & 272 Ecclesall Road to Whirlow and 97, 98 & 218 along Abbeydale Road south. There is a small car park at the WDC.

The primary source material for the course, "An Introduction to Millipedes, Centipedes & Woodlice" will be available as a CD for £10 on the day or can be downloaded directly from http://www.naturebureau.co.uk/introduction-centipedes-millipedes-woodlice for £12 but is not essential for the course.

Paul Richards, BESS project, Animal & Plant Sciences, University of Sheffield (Sorby Natural History Society Myriapod & Isopod recorder)

The first "British" record of *Scutigera coleoptrata*.

The first British record of the so-called House Centipede, *Scutigera coleoptrata* has generally been considered to be the 1883 report by T.D.Gibson-Carmichael who comments that "Mr MacPherson of Haddon Street, Aberdeen, has kindly supplied me with specimens of *Scutigera* (*Cermatia*) *coleoptrata* from Stoneywood paper works, near Aberdeen. They have been established in these works for more than 25 years and breed there freely. They are found principally in those rooms which are warm and somewhat moist; they have been introduced in bundles of rags from the South of Europe".

For the Channel Islands, the earliest report usually quoted is that by W.A.Luff (Luff, 1897) from Guernsey where in October 1896 a workman captured a specimen of *Scutigera* in the Pollet in St.Peter Port and took it to the Guille-Allès Library. Subsequently it was demonstrated it to a meeting of the Guernsey Society of Natural Science. Reports from Jersey are from the beginning of the twentieth century (Sinclair, 1904) and subsequently in a bath at St.Helier in 1946 (Turk, 1947).

Re-reading the Guernsey account in the journal concerned and the report of the meeting (Anon, 1897; Luff, 1897), there is reference to "Mr Sinel, in the recent edition of "Ansted`s Channel Islands" says that specimens of *Scutigera coleoptrata* have been taken in Jersey, but seem confined to the vicinity of the harbours, and is not common". The reference concerned is to the third edition of D.T.Ansted & R.G.Latham`s book *The Channel Islands* (Ansted & Latham, 1893) and reference to the work in question confirms this comment but does not seem to specifically refer to it as being in Jersey, commenting that it is "probably an importation".

It is interesting to go back to earlier editions of their book (Ansted & Latham, 1862, 1865) where they list, without detail, amongst the Myriapoda recorded from Jersey, four centipedes *Scutigera coleoptrata*, *Geophilus electricus*, *Geophilus longicornis* (*G.flavus*) and *Lithobius forficatus* so it seems that, introduced or not, our *Scutigera* has been know from Jersey since at least the eighteen sixties.

References

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Tony Barber, Rathgar, Ivybridge, Devon PL21 0BD

***Chordeuma proximum* in Yorkshire**

On 16th May 2013 I visited the Cliff Rigg area near Great Ayton, North-East Yorkshire (VC62). This site is a former quarry on the Whinstone Ridge from where tholeiite was extracted up to about 1970, mainly for use as road stone. The ridge, also known as the Cleveland Dyke, is a 58 million year old volcanic intrusion into Jurassic strata, chiefly sandstone, and is flanked by acidic oak woodland (*Quercus x rosacea*) to the north-east and south-west. I collected a leaf litter sample from amid boulders at the south-west margin of the quarry site (NZ5685611827) and hand searched it for invertebrates. The litter was made up very largely of sycamore with some oak together with a little moss and was moderately moist. Along with a number of other invertebrates four millipede species were found in the sample these being *Nanogona polydesmoides*, *Cylindroiulus punctatus*, *Tachypodoiulus niger* and surprisingly *Chordeuma proximum* (one moribund male and five fairly small juveniles). This finding is of note because *C. proximum* has a marked southern and westerly distribution in Britain with a few scattered records from more north-westerly sites (Lee, 2006), the nearest to the present locality being Overton, Cheshire (SJ5177) and Mallsburn Woods, north-west of Carlisle, Cumberland (NY4973) (NBN Gateway website).

Subsequently I have found *Chordeuma* at the following sites in North-East Yorkshire. The first was in East Arnecliff Wood near Glaisdale, on 18th August 2013. Various invertebrates were recorded from moderately moist sycamore litter and moss at a long abandoned small quarry site (NZ789047). These included the millipedes *Brachydesmus superus*, *Polydesmus angustus*, *Archiboreoiulus pallidus*, *Julus scandinavius*, *Allajulus nitidus* and *Chordeuma* sp. Of the last, one female and a few small juveniles were found but no male, rendering certain identification to species level not possible. The centipede *Lithobius macilentus* was also recorded at the site. On 9th November 2013 I found a male *C. proximum* close to the original site, in Cliff Ridge Wood (NZ572116) under a piece of sandstone. Another male was found in Roxby Wood (NZ755167) in a litter sample (chiefly ash with some sycamore, hazel and pendulous sedge) on 13th November 2013. On the same date a female *Chordeuma* sp. was found nearby in Easington Wood (NZ752169) beneath a sawn section of sycamore by a footpath.

All the sites described above are in ancient semi-natural woodland consistent with the known habitat preference of *Chordeuma proximum* in Britain where it has a strong association with woodland (Lee, 2006). Further, this suggests that it may be native to North-East Yorkshire rather than introduced. In Britain this species also has a strong

association with sites less than 15km from the sea, something that is true of all the localities described above.

Of the other millipedes recorded at East Arnecliff Wood, *Allajulus nitidus* is of interest being a new record for North-East Yorkshire (VC62). Subsequently it was found at a second woodland site, by Stoupe Beck, near Robin Hood's Bay (NZ95250315) on 1st September 2013.

I am most grateful to Paul Lee for confirming the identification of *Chordeuma proximum* from Cliff Rigg.

Reference

Lee, P., (2006) *Atlas of the Millipedes (Diplopoda) of Britain and Ireland.* Pensoft, Sofia-Moscow.

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iSpot

Have you ever visited iSpot.org.uk, a website under the auspices of Opal and the Open University which helps people to learn about wildlife observation, using social networking technology to link novices and experts? Well, no, I had not until Steve Gregory pointed out to me some useful observations regarding centipedes that were on it. It does, of course, cover all groups of animals & plants and includes links to recording schemes and societies.

Once involved, you can put on to the site information, including hopefully a photo, suggest what you think the animal (or plant) might be and see what other people think and the degree of confidence they have in their comments. This way, it gives you (hopefully) the opportunity to put a name to that interesting or unusual (or common) animal you have never quite been sure of.

How good is it? Well it obviously depends upon the quality of the picture / description (and maybe whether your photo shows a distinctive feature or two), how recognizable the species is and its ease of identification and the expertise of those looking at it. For instance, a reasonable photo of *Lithobius variegatus* or *Ommatoiulus sabulosus* will be fairly easy for many people to recognize whilst a small brown *Lithobius*, like other LBJs might be a bit more of a problem. Have a look and see what you think!

Can it be used for obtaining records for recording schemes? Well certainly if the record contains adequate data which can be used i.e. means of identification, date, identifiable locality. A scan through the centipede records which have been going in since 2009 allowed me to come up with almost a hundred potentially new records. A few were records put in by "experts" such as Andy Keay or Steve Gregory but most were by a wide range of people across Britain & Northern Ireland (with a few non-British records of *Scutigera*).

Problems with using the data in particular cases depend upon the recognisability of the species on photographs of insufficient clarity or not showing critical features (along with the usual difficulty of separating particular species). The other big problem is being able to tie down the locality to at least the 10km grid square – a site that simply says "garden, 23 London Road" is not helpful if one thinks of the number of London Roads there might be in Britain whereas a village name (assuming not more than one of the same name) or an area of a city can usually be at least located to within 10km or less.

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In the journals

Akkari, N., Cheung, DK-B., Enghoff, H. & Stoev, P. (2013) Revolving SEM images visualising 3D taxonomic characters: application to six species of the millipede genus *Ommatoiulus* Latzel, 1884, with description of seven new species and an interactive key to the Tunisian members of the genus (Diplopoda, Julida, Julidae). *ZooKeys* **328**: 5–45. doi:10.3897/zookeys.328.5763

Revolving (or rotational) scanning electron microscopy is used to create illustrations enhancing the taxonomic descriptions of seven new species of *Ommatoiulus* collected in Tunisia. Each illustration is a compilation of a number of SEM images of the male gonopods taken consecutively while rotating the SEM stage 360°, which allows the structure in question to be seen from all angles of view in one plane. A dichotomous interactive key to the 12 *Ommatoiulus* species so far known from Tunisia is presented.

Akkari, N., Enghoff, H. & Minelli, AP. (2014) Segmentation of the millipede trunk as suggested by a homeotic mutant with six extra pairs of gonopods. *Frontiers in Zoology* **11**:6 doi:10.1186/1742-9994-11-6

This paper describes a unique specimen of *Ommatoiulus moreleti* found in the collections of the Museo Nacional de Ciencias Naturales, Madrid and originally taken near Puerto de la Morcuera, Madrid in 1975. The specimen has 6 extra pairs of gonopods replacing walking legs. The position of these structures is used in discussion of segmentation models in millipedes and arthropods more generally.

Yang, S., Xiao, Y., Kang, D., Y., Liu, J., Li, Y., Undheim, E.A.B., Klint, J.K., Rong, M., Lai, R. and King. G.F. (2013) Discovery of a selective NaV1.7 inhibitor from centipede venom with analgesic efficacy exceeding morphine in rodent pain models. *Proceedings of the National Academy of Sciences***110**: 43 doi: 10.1073/pnas.1306285110

This paper describes the discovery of peptide molecules in the venom of the "Chinese red headed centipede" that within two years could be used in the treatment of chronic pain in humans. Very few treatments currently exist for chronic pain.

Simaiakis, SM., Djursvoll, P. & Bergersen, R. (2013) Influence of climate on segment number in *Geophilus flavus*, a centipede species inhabiting Sjonefjord in Western Norway. *Ann. Zool. Fennici* **50**: 247-255.

Changes in segment number of *Geophilus flavus* with variations in local climate (air temperature and rainfall) were investigated at eight sites along more than 300km of the east-west oriented Sjonefjord. Segment number was found to be significantly higher in both male and female specimens

at the westernmost sites where air temperature was highest and rainfall was lowest. These results support previous findings of laboratory experiments demonstrating the effect of temperature on segment number in *Strigamia maritima*.

Doug Richardson 1919 - 2013

Doug 'Compo' Richardson was a familiar figure at meetings of the Yorkshire Naturalists Union and the BMG/BISG in the 1980s and 1990s. His enthusiasm for natural history rubbed off on many of BMIG's current members and as national scheme organiser he played an important role in developing the millipede recording scheme and initiating the forerunner of this newsletter. A full obituary will appear in the next BMIG Bulletin.

Michael R. Warburg 1931 - 2014

Prof. Warburg was an honoured member of the terrestrial isopodology and myriapodology community. His post-graduate studies were completed at Hebrew University, Jerusalem followed by Yale University, USA. He spent his last 40 years including his retirement in Haifa. His research interests were broad and included water relations of desert millipedes and reproductive strategies of isopods and millipedes. He also worked on other invertebrate taxa and even amphibians. An obituary will appear in the next BMIG Bulletin.

Robert George 1921 - 2013

Bob George was an eminent entomologist specialising in fleas and had little interest in Myriapods or Isopods. However, he was a very familiar figure within the world of biological recording and his single-handed effort to run a recording scheme was legendary. He amassed tens of thousands of records of fleas mainly by his own efforts but also by encouraging others to send him specimens. A full obituary is being prepared for the BMIG Bulletin.

John Cloudsley-Thompson 1921 - 2013

Prof. Cloudsley-Thompson was a respected and internationally renowned zoologist with a particular interest in desert animals. Born in British India, he fought in North Africa in WWII before returning to Cambridge to complete his post-graduate studies. In 1960 he was appointed Professor of Zoology at the University of Khartoum and the adaptations of scorpions, centipedes, spiders and woodlice to desert conditions featured heavily in his research. He returned to Britain as Professor of Zoology at Birkbeck College in 1972. A full obituary is being prepared for the BMIG Bulletin.

9th International Symposium on Terrestrial Isopod Biology, Poitiers, France, 26-30 June 2014.

The 9th International Symposium on Terrestrial Isopod Biology will be held at the University Campus of Poitiers, France, from Thursday 26 June to Monday, 30 June 2014. The Symposium is dedicated to the memory of Professor Michael R. Warburg for his contributions to our understanding of Isopod biology. The meeting will deal with four main topics sessions: Systematics and Biogeography; Morphology and Physiology; Evolutionary Biology; Ecology and Ecotoxicology. Further details including registration, fees and program can be found on the conference website at www.istib9.conference.univ-poitiers.fr

16th International Congress of Myriapodology Olomouc, Czech Republic, 20 - 25 July 2014

The 16th International Congress of Myriapodology (16ICM) will be held at the Faculty of Science, Palacký University, Olomouc, the Czech Republic, from Sunday, 20 July to Friday, 25 July 2014. All BMIG members are invited to participate in this scientific conference devoted to centipedes, millipedes, velvet worms, pauropods and symphylans! Further details including registration form, fees and program can be found on the conference website at www.myriapoda.upol.cz

NEXT NEWSLETTER: Autumn 2014
Please send your contributions to reach the editor by 30 September 2014

Supplies of record cards and additional copies of the British Myriapod and Isopod Group Newsletter can be obtained from the Biological Records Centre.

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