British Myriapod and Isopod Group

www.bmig.org.uk

Newsletter 32

Spring 2016

Editorial

Hello folks and welcome to the first of the 2016 newsletters, this is also the first of our new online pdf editions and we hope you enjoy the new format and design. In this issue you will find articles from our committee including records of two millipede species new to the UK. The distribution of the woodlice *Trichoniscoides* is extended to include three new counties and we take a look at a study of the central European centipede *Cryptops* to see what it can tell us about British species. As always we're keen to hear about any records from our membership and ask that you send any data to the relevant committee member, contact details can be found at the end of the newsletter. Tony Barber has specifically asked for records of centipedes.

If you would like your own findings featured in the next copy of the newsletter then please send me a short article describing your find with a few photos to share with other members. The picture of *Lithobius melanops* by J.P. Richards in the newsletter's header is from the BMIG website. In future editions I would like to use this space to exhibit member's photos, so any keen photographers who would like to share their pictures with other members please send them to me along with a few words about its identification and where you collected it.

Richard Kelly, Newsletter Editor
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AGM notice

All BMIG members are invited to attend the AGM to be held at 8pm on Friday 1st April 2016. The venue will be Juniper Hall Field Studies Centre, Surrey.

The present committee welcomes nominations for vacant officer roles from any BMIG member. Please contact the chairman to discuss any of these roles. Nominations can be made from the floor at the AGM.

2016 BMIG AGM and Field Weekend

Booking for accommodation at Juniper Hall Field Studies Centre for the weekend is now closed but it is still possible to make your own B&B arrangements. It is still possible to arrange to have a three course evening meal at the Centre for £17.50 per meal. This includes use of laboratory facilities, the bar and attendance at talks and meetings. We also welcome local naturalists to join us for the field visits and evening sessions.

I have been arranging access to a range of Wildlife Trust, National Trust and other sites across Surrey, Sussex and Hampshire. This area is a stronghold of *Lithobius piceus* but the area has not been well recorded in recent years and a key aim is to revisit sites such as The Mens where the centipede was previously known. Ornamental gardens such as those at RHS Wisley are sure to provide interesting finds, possibly *Anamastigona pulchella* and maybe even some of the most recent additions to the British list including *Brachyiulus lusitanus* and *Cylindroiulus appeninorum*. Also it will be interesting to see if *Haplopodoiulus spathifer* has spread from Wakehurst Place to Winkworth Arboretum, Sheffield Park Gardens or even Wisley. Amongst the other sites we are likely to visit include ancient woodland at Surrey Wildlife Trust's Farncombe Wood, chalk grassland at Noar Hill near Selbourne, Hampshire, sweet chestnut coppice and heathland at the Sussex Wildlife Trust reserve at Selwyns Wood.

Officer Elections

Officers to be elected during the AGM are:

Secretary Vicky Burton and Imogen Wilde are currently sharing this role but we need someone to either take on the whole role or at least pick up those aspects of the role not currently covered by Vicky and Imogen, mainly dealing with enquiries.

Resources Officer Following the 2015 meeting Graham Proudlove was co-opted to this role. Graham has been nominated for formal election at the 2016 AGM but other nominations can be made.

Training Officer This person would help develop a course that could be 'hawked' around the country. There are currently occasional FSC courses, BENHS workshops and Sorby workshops but a series of coordinated courses perhaps at different levels could be produced. The officer would be responsible for finding places to run courses and co-ordinating the running of these.

Projects Officer This role is to organize and promote small investigations on behalf of BMIG such as the *Polyzonium* project we ran during the Kent 2011 meeting. Projects could be individual or meeting focused and possibly involving citizen science). The role would make a valuable addition to someone's CV.

Exhibition and Events Coordinator Following the 2015 meeting Dafydd Lewis was co-opted to this role. Dafyd has been nominated for formal election at the 2016 AGM but other nominations can be made.

Conservation Officer This person would be the BMIG liaison with conservation bodies like Invertebrate Link, Buglife etc. There would be close links between this role and that of the Project Officer.

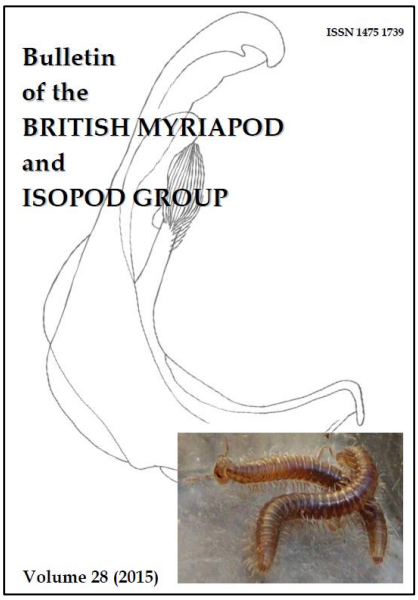
BMIG Bulletin Vol 28 (2015)

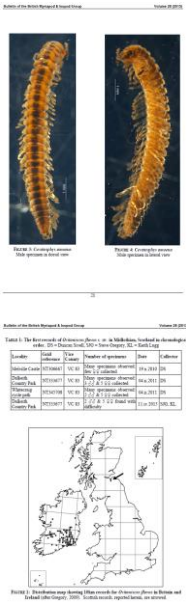
At the BMIG AGM in 2015 it was agreed that in future the *Bulletin* would be made available free of charge, to read on-line or for download as a pdf.

BMIG Bulletin Vol 28 (2015) is now available FREE to read on-line at the BMIG website or to download as a pdf. Go to http://www.bmig.org.uk/view/resource/bmig-bulletin

However, if for some reason it is **impossible** for a former subscriber to access the Bulletin in this way, they should contact BMIG Treasurer Paul Harding (pha@ceh.ac.uk) **before the end of May**. It may be possible to get a few copies photocopied (no colour, unbound), at cost, plus postage. **But be warned** the cost is likely to be double that of recent Volumes, so it would always be much cheaper to print off your own copy from a pdf.

Paul T. Harding





Simple ID resources

My atlas of Myriapods & Isopods for the Sorby Natural History Society has long been out of print (Richards 1995, *Millipedes, Centipedes and Woodlice of the Sheffield Area*). It contained simple keys and distribution maps for all species found around Sheffield and the Peak District. This publication was the original basis for the BMIG CD e-books and is still available for only £12 at: http://www.naturebureau.co.uk/bookshop/a-introduction-to-centipedes-millipedes-and-woodlice-detail.

Although many new records have subsequently been added and a few new species discovered, the book still offers some insight into species recording in Yorkshire and the north Midlands and the original publication is now available for free as a download from the Sorby website at: http://www.sorby.org.uk/v2/wp-content/uploads/2016/02/SS10_1995_Millipedes_OCRc.pdf.

Paul Richards

Surrey Myriapods

With the Juniper Hall meeting in mind, it might be useful to list older records of species of centipedes & millipedes recorded from VC 17 (including that part of Surrey now in Greater London). Early records from the county included those reported by R.I. Pocock. Other observations were made during the 1950s by D.R. Arthur, J.L. Cloudsley-Thompson & J.H.P. Sankey. In more recent years collections have been made by Adrian Rundle, Andy Keay and others.

Centipedes

Recorded by Barber, 1969, including some older records (Number of 10km grid squares in brackets,)

Haplophilus subterraneus (7), *Schendyla nemorensis* (7), *Henia brevis* (1), *Strigamia crassipes* (6), *Strigamia acuminata* (4), *Stenotaenia linearis* (1), *Geophilus carpophagus* sl (13✶), *Geophilus electricus* (3), *Geophilus alpinus* (6), *Geophilus flavus* (12), *Geophilus truncorum* (11) *Cryptops anomalans* (2), *Cryptops hortensis* (10) *Lithobius variegatus* (17), *Lithobius forficatus* (16), *Lithobius piceus piceus* (9), *Lithobius melanops* (10), *Lithobius borealis* (5), *Lithobius muticus* (9), *Lithobius calcaratus* (2), *Lithobius crassipes* (5), *Lithobius curtipes* (2), *Lithobius microps* (14), *Lamyctes emarginatus* (1)

✶ Both *G. carpophagus* ss and *G. easoni* have been recorded from VC 17

Species subsequently recorded for Surrey (Keay, 1989)

Schendyla dentata, *Henia vesuviana*, (*Tygarrup javanicus* – hothouse, Kew) *Cryptops parisi*, *Lithobius macilentus*

Millipedes

Listed by Kime, 1978 (Number of 1km grid squares in brackets)

Polyxenus lagurus (1), *Glomeris marginata* (54), *Craspedosoma rawlinsii* (2), *Nanogona polydesmoides* (10), *Melogona scutellaris* (3), *Chordeuma proximum* (8), *Brachychaeteuma melanops* (3) *Stosatea italica* (2), *Brachydesmus superus* (20), *Polydesmus angustus* (64), *Polydesmus coriaceus* (15), *Polydesmus inconstans*, (7), *Polydesmus denticulatus* (6), *Macrosternodesmus palicola* (1), *Ophiodesmus albonanus* (1) *Nemasoma variecorne* (9), *Proteroiulus fuscus* (31), *Blaniulus guttulatus* (10), *Archiboreoiulus pallidus* (1) *Ophyiulus pilosus* (11), *Julus scandinavius* (2), *Cylindroiulus punctatus* (78), *Cylindroiulus caeruleocinctus* (24), *Cylindroiulus britannicus* (10), *Cylindroiulus nitidus* (1), *Cylindroiulus latestriatus* (1), *Brachiulus pusillus* (1), *Ommatoiulus sabulosus* (2), *Tachypodoiulus niger* (47).

Other millipede species recorded for Surrey:

Arthur et al, 1951. Based on section of moulted cuticle: *Polyzonium germanicum.*
Included in vice-county list by Jones, 1993: *Melogona scutellare, Propolydesmus testaceus, Boreoiulus tenuis, Choneiulus palmatus, Cylindroiulus londinensis, Cylindroiulus vulnerarius, and Leptoiulus kervillei.*

Corbet & Jones, 1996: *Haplopodoiulus spathifer* RBG Kew.

Greenhouse species from Royal Botanic Gardens Kew

Blower & Rundle (1980, 1986): *Prosopodesmus panporus, Poratia digitate.*
Read, 2008 *Oxidus gracilis, Cylindrodesmus hirsutus, Nopoiulus kochii, Cylindroiulus truncorum.*

Haplopodoiulus spathifer in Birmingham – a correction.

In the last Newsletter I reported identifying a specimen of *Haplopodoiulus spathifer* from the Birmingham Botanical Gardens. It now appears that this was incorrect and that the specimen concerned was, in fact, a female *Allajulus nitidus*. *H. spathifer* is quite a dark animal whilst *A. nitidus* is paler. Also present were *Cylindroiulus punctatus* and *C. britannicus/latestriatus* immatures. My thanks to Paul Lee for checking these.

The records of *H. spathifer* and *Cylindroiulus appeninorum* from Ventnor Botanic Gardens on the Isle of Wight also referred to were confirmed by Henrik Enghoff. An account of the latter will be the basis of a separate report.

Tony Barber

Cylindroiulus appeninorum (photo by Paul Richards).

A possible 17th century needlepoint woodlouse

Arthur Chater's review "Woodlice in the Cultural Consciousness of Modern Europe" (*Isopoda*, 2, 1988, 21-30) is remarkably comprehensive, so to find any additional information is unusual. However, on a visit to Parham House in Sussex in 2015, I was surprised to find what looked like a woodlouse depicted in a needlepoint picture dating from 1639. Parham is (apparently) famous for its collection of needlepoint. Among the collection of Stuart needlepoint in the White Room at Parham, is "The Five Senses" by Elizabeth Cornwalleys, which includes a small

woodlouse (indet.) among other rather naively depicted fauna.

Paul T. Harding

Yet another millipede new to Britain from south Wales

By now most of you will be aware of Mark Telfer's and Christian Owen's discovery last September of the millipedes *Ceratosphys amoena confusa* and *Hylebainosoma nontronensis* from the Bargoed area of south Wales (see BMIG Bulletin 28 - www.bmig.org.uk/view/resource/bmig-bulletin). A year later and I receive an email from Christian with images attached of another millipede from South Wales that he thought could be new to Britain. This one was pure white, about 10mm long, with well-developed paranota and armoured with curved stout setae. Superficially it was rather like an overgrown *Brachychaeteuma melanops,* but I agreed that it was new to Britain.

Christian sent me a few male specimens and after dissecting the various gonopod structures I sent images to Jörg Spelda in Munich and Desmond Kime for advice. Jörg considers that Christian's millipede belongs to the Iberian family Vandelumatidae, and on the basis of the structure of the posterior gonopods, probably a species of *Typhlopsychrosoma*. Jörg also adds that it doesn't seem to match any of the four known species. Thus, I sent him some intact male specimens for his deliberation. Currently, its identity remains unknown, but hopefully Christian will receive an answer before the next edition of the BMIG Newsletter. Watch this space!

Steve Gregory

Typhlopsychrosoma sp. (photo by Paul Richards more at: https://www.facebook.com/BritishMyriapodandIsopodGroup/posts/1661576834086192.

Oxford tales and an *Ophyiulus* new to Britain

In November 2015 I visited Trap Grounds in Oxford City (SP50-08-) with Keith Lugg hoping to find some male specimens of *Anamastigona pulchella* to confirm the presence of this species at its second reported British site (see BMIG Bulletin 28 - www.bmig.org.uk/view/resource/bmig-bulletin). To cut a long story short, we did find males and Keith took the photograph to prove it (see below). Keith also picked up the rare earthworm *Dendrobaena pygmaea*, the second modern British record and the 6th all-time. I guess I can overlook this taxonomic indiscretion.

At some point I collected some pale '*Tachypodoiulus niger*', as they looked a 'bit odd'. Subsequently, on looking down the microscope I noticed they were about the size of *T. niger*, but uniformly grey/brown and lacking the characteristic pattern of body striae. In addition, the sharp pointed telson and the male's *hooked 2nd pair of legs* were the wrong shape for *T. niger*. The specimens were far too large to be *Allajulus nitidus*, so I plumbed for the next most likely candidate; *Haplopodoiulus spathifer. Wrong again! The male gonopods simply didn't match. I*n desperation I flicked through the gonopod figures in Les *Mille-pattes* (Demange, 1981) and decided that *Ophyiulus* was a good bet – but why so many *Ophyiulus* species in France! We have just the one, *O. pilosus*, in Britain. An email with attached images was sent to Des Kime, who forwarded it to Henrik Enghoff who promptly replied "definitely an *Ophyiulus* and definitely not *O. pilosus*" (my grateful thanks to both). The actual species has yet to be determined, but it is confirmed as new to Britain. It is almost certainly an introduced species, as is *A. pulchella*, and therefore of no conservation significance, but an interesting find all the same.

Steve Gregory

Anamastigona pulchella (photo by Keith Lugg: http://www.bmig.org.uk/species/anamastigona-pulchella

The distribution of *Melogona gallica* in Oxfordshire

During the inaugural meeting of the BENHS special interest group on saproxylic insects, held at Shotover Country Park on September 20th, I got side tracked by a fallen rotting branch that was lying, half buried in silt, at the edge of a stream (SP55- 05-). On the underside

was an abundance of the tiny woodlouse (mostly *Haplophthalmus danicus,* but the few *H. mengii* and *Trichoniscoides albidus* were new to Shotover CP) and a *Melogona* millipede. I assumed this to be *M. scutellaris*, a frequent species in Oxfordshire and previously collected from Shotover, but collected it just in case. Upon examination under a microscope it was apparent that it was female (so no easy identification from gonopods!), but it had 30 body rings and too many ocelli to be *M. scutellaris*. Paul Lee kindly confirmed that the specimen was *not M. scutellaris*, and based on current distribution patterns, was probably *M. gallica* (rather than the Scottish *M. voigtii*).

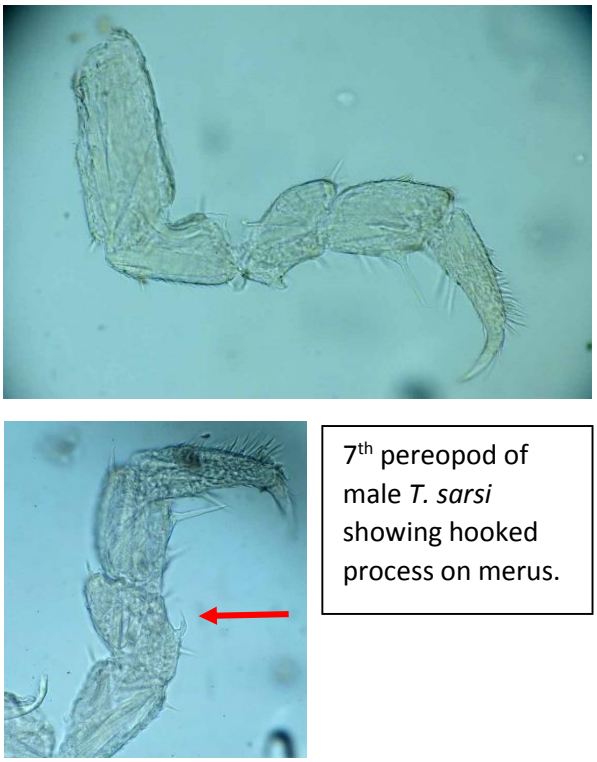
According to my records (held at TVERC) this is the first Oxfordshire record (vc23) of *M. gallica*. This is in stark contrast to the distribution map given in Paul Lee's (2006) Millipede Atlas (and thus, on the NBN gateway) which shows a healthy scatter of records across the county. On closer inspection it is apparent that all records of *M. gallica* mapped in Oxfordshire (on page 65) are duplicates of my own records of *M. scutellaris* (see page 67). The pattern of 10km 'dots' is identical in both cases. It is not certain how this error arose, but I intend to contact BRC to see if their dataset can be amended.

Steve Gregory

New records for Trichoniscoides species (Isopoda: Oniscoidea) from Bedfordshire, Derbyshire & Nottinghamshire

Due to their very small size and need for male specimens to confirm species, valid records for woodlice of the genus *Trichoniscoides* are quite scarce. In recent weeks a number of specimens have been examined and identified as new county records. Several specimens of the minute, *Trichoniscoides sarsi* Patience, 1908 were identified by Paul Richards from samples taken for the F_3UES project at the University of Sheffield (Fragments, Functions, Flows & Urban Ecosystem Services http://bess-urban.group.shef.ac.uk/). During this project, over 550,000 invertebrates were collected from Bedford, Luton & Milton Keynes and were identified to varying levels of taxonomy. The woodlice and myriapods have been named to species.

Among the samples there were a few sites with tiny woodlice of the Family Trichoniscidae, including *Haplophthalmus*, *Androniscus* and *Trichoniscus* species. Fortunately, at one site in Bedford, multiple individuals were extracted which proved to contain at least four adult male *Trichoniscoides* specimens. These are barely larger than 2mm in length and colourless in alcohol. The pleopods were dissected and showed all the males to be *Trichoniscoides sarsi*. These also clearly showed the characteristic hooked projection on the merus (middle segment) of the 7th pereopods. This species is designated as 'Nationally scarce' in the recent status review (Lee, 2015) and this is the first record of *T. sarsi* for Bedfordshire.



7th pereopod of male *T. sarsi* showing hooked process on merus.

During February 2016, a brief opportunity was taken to investigate a churchyard on limestone in Great Longstone in the Derbyshire Peak District. Four *Trichoniscoides* specimens were found under stones around the edge of the graveyard. These were all cream coloured and clearly infused with orange-pink, with eyes of a single red ocellus. Three were female, but one male specimen was also present. Unfortunately, this specimen rapidly died and dried up in the collecting tube, which made dissection and examination difficult. However the 7th pereopods did not show the hooked spine on the merus and the long tapering shape of endopod 2 was much more like that of *Trichoniscoides saeroeensis*. In addition, the form of exopod 2 also suggested *Trichoniscoides saeroeensis*. A return visit a week later, revealed a further 6 female specimens and two males. The latter clearly showed the process on the merus and dissection confirmed the more usual endopod structures for *Trichoniscoides sarsi*. There is a single female record for *Trichoniscoides sarsi/helveticus* agg. in Derbyshire, but the Great Longstone specimens are the first confirmed *Trichoniscoides sarsi* for the county. The inconclusive potential *saeroeensis* remains dubious, due to this species' very coastal distribution. However, the original report of

Trichoniscoides saeroeensis in Britain (Sheppard 1968) was from limestone cave systems, which are extensive in the white peak area of Derbyshire. It has also been recorded from limestone hilltops in Cumbria and Ireland, so this species should perhaps not be ruled out and any further males examined very closely.

In addition to these records of the orange-pink Trichoniscoides species, two new sites have also recently been located for the slightly larger and darker, *Trichoniscoides albidus*. Derek Whiteley found specimens at two riverside sites in Farndon, near Newark during January 2016. These represent the first records for Nottinghamshire.

Female *T. sarsi*.

Paul Richards

Lee, P. (2015). *A review of the millipedes (Diplopoda), centipedes (Chilopoda) and woodlice (Isopoda) of Great Britain.* Natural England Commissioned Report NECR186 Species Status No.23.

Sheppard, E.M. 1968. *Trichoniscoides saeroeensis* Lohmander, an isopod new to the British fauna. *Transactions of the Cave Research Group of Great Britain*, **10**, 135-137.

Vincent Köllar: A Treatise on Insects Injurious to Gardeners, Foresters, & Farmers. Translated from the German by J. and M. Loudon (London, 1860)

I came upon this little book in a charity shop in Faversham just before Christmas. The author was curator of the Royal Cabinet of Natural History at Vienna and it was translated by Jane & Mary Loudon with notes by J.O. Westwood, Secretary to the Entomological Society. The following extract is from pages 41-43.

"The order of *Myriapoda* contains in the genus *Scolopendra* some species, the bite of which, when enraged, causes pain, inflammation and swelling. The largest European species of this genus is the *Scolopendra morsitans*, Linn. – This insect is only a native of the southern countries of Europe. In the Austrian dominions of Italy and Dalmatia only, it lives under stones, decayed wood, foliage, in the earth and particularly in dark and damp places. Its body is flat, composed of twenty-one rings without reckoning the head; each of these has a pair of feet. On the head are two long antennae, with twenty-two articulations and a pair of thick, very pointed *chelae* or mandibles bent inwards, which are hollow, and have an opening at the top. Through this opening they inject into the wound which their bite occasions, an acrid poisonous juice. According to their age they are four, five, or six inches, and more in length; their breadth is half-an-inch and more; their colour is brown, sometimes lighter and sometimes darker. Their bite is followed by considerable swelling, accompanied by inflammation and fever.

To obviate the bad effects of the bite, good Venetian turpentine is recommended to be laid on the place; in the absence of this, cold poultices and rubbing with oil are of great service. A species of *Scolopendra*, resembling the *S. morsitans*, but much smaller, lives in the neighbourhood of Vienna, it is the garden Scolopendra: *S. hortensis*, Linn. (*Cryptops*, *Leach*) – It lives in gardens and woods, under fallen, decaying leaves, and in dung. It is only two inches long and one to one and a half lines broad, with twenty-one pairs of feet of a rusty yellow colour. It puts itself in an attitude of defence on being touched, and I have several times felt, after its bite, very violent pain on my fingers, but unaccompanied by any inflammation, and which disappeared after a short time without any remedy being applied. The commonest Austrian species is the

S. forficata, Linn. – It is chestnut brown, an inch and upwards in length, from one to one and a half lines broad, and has only fifteen pairs of feet. Although it also defends itself on being caught, and bites with its chelae, yet the bite causes no great pain. There are yet other species belonging to this family, which live in damp earth, are very long, having sometimes 112 to 120 feet and upwards; with their weak mandibles they can cause no pain to the external parts of the body; but it is said that they crawl sometimes through the nose into the temples and cause violent headache. These accidents, if they really ever do occur, must be very rare, for these creatures are extremely shy, and do not readily leave their lurking places."

Tony Barber

Barcoding of central European *Cryptops* species – or how 3 expected species became eight (or ten).

Wesener *et al.* (2016) is published as part of the German Barcode of Life (GBOL) project – Myriapoda and looks at the results of the analysis of 61 cytochrome *c* oxidase 1 sequences in specimens of *Cryptops* species from Germany, Austria, etc. It is interesting to compare their findings with the situation in Britain and Ireland.

The authors anticipated the presence of 3 species: *Cryptops parisi* Brolemann 1920, *Cryptops anomalans* Newport 1844 and *Cryptops hortensis* (Donovan 1810) of which *C. parisi* and *C. hortensis* are naturally occurring and widespread. *C. anomalans*, more recently recorded from Germany, was most likely introduced from the Mediterranean, being mostly confined to parks and gardens. All specimens of this show a single haplotype which is present in western, eastern & southern Germany suggesting either human introductions from a homogenous source population or a rapid spread of the species in that country.

C. croaticus Verhoeff, 1931 is here recorded from Austria for the first time, whilst barcoding had identified it as an outlier, a presumed *C. anomalans* from Solnhofen, Germany was re-examined and found to be *C. umbricus* Verhoeff, 1931. The authors remark that "This finding shows the usefulness of the barcoding method in detecting previously unrecorded species". In addition to these five species, further specimens from Germany, Austria, Slovenia and Croatia remain undetermined. These are referred to as *C. sp*.1 (Slovenia - damaged & difficult to determine), *C. sp*. 2 (two specimens, one each from Austria - badly damaged - and Croatia, not necessarily conspecific, similar to *C. hortensis* but missing the ventral furrow on the prefemur of the last legs - an available name for one of these might be *C. rucneri* Matic, 1966) and *C. sp*.3 (from a large tropical greenhouse in Leipzig Zoo, previously determined as *C.* cf *doriae* Pocock, 1891 but apparently comparison of sequences with those for Pacific specimens on GenBank revealed a large genetic distance).

In central Europe, *C. hortensis* and *C. parisi* seem to exclude each other either geographically or ecologically with the former usually present in the lowland areas of NW Germany and the Upper Rhine Valley. The latter is usually in the lower mountain ranges although avoiding higher altitudes. In the eastern part of Germany *C. parisi* dominates. *C. parisi* is generally classified as a mesophilous woodland species but may occur outside forests, especially in northern Germany where more anthropogenic influenced places are inhabited.

What is interesting is that although *C. hortensis* specimens were found to be monophyletic, the *C. parisi* material grouped itself in three distinct clades in which the intra-lineage genetic distance is very much less than that between these clades and which are also geographically separate, possibly representing distinct species. One lineage clearly represents the *C. parisi sensu stricto* showing a western distribution, a single specimen from southern Germany and material from Wales (Aberbargoed, collected by Christian Owen). A second lineage contains the topotypic specimen of the subspecies *C. parisi sebini* Verhoeff, 1934, recently synonymised under *C. parisi* as no morphological difference could be found, but the authors feel that the distinctiveness of this subspecies should be re-evaluated. This lineage shows a more easterly distribution with localities in eastern northern Italy and the eastern half as well as the south of Germany. Specimens of a third group, referred to as *C. parisi* lineage 3, come mainly from alpine habitats in Austria and Germany.

Tony Barber

Wesener, T., Voigtländer, K., Decker, P., Oeyen, J.P., Spelda, J. (2016). Barcoding of Central European *Cryptops* centipedes reveals large interspecific distances with ghost lineages and new species records from Germany and Austria (Chilopoda, Scolopendromorpha). *ZooKeys* **564**, 21–46.

doi: 10.3897/zookeys.564.7535, http://zookeys.pensoft.net

Left: *C. anomalans*

Middle: *C. parisi*

Right: *C. hortensis*

These 3 species are very similar, see the BMIG website: http://www.bmig.org.uk/checklist/centipede-checklist for details regarding their different characteristic features.

Upcoming events of interest

7th International Conference on Fossil Insects, Arthropods and Amber

To be held the last week of April at the National Museum of Scotland this conference is concerned with research regarding fossil arthropods. Although the content is mostly insects there are also researchers working on other fossil arthropods speaking. I will be presenting the first paper in a series of studies investigating insect diversity across a mass extinction. I will be reporting on this conference in the Royal Entomological Society's *Antenna* journal later in the year for those interested but unable to attend. For more information see: http://fossilinsects.net/node/56170.

Wheatfen BioBlitz and Open Day

A bioblitz is to be held at the Wheatfen Nature Reserve in Norwich on Sunday 15th May 2016 to bring together people of all abilities and levels of experience to record the biodiversity in the nature reserve. For more information see: http://www.nnns.org.uk/event/list.

Interesting Reading

As mentioned in Paul Richards article above Paul Lee working with Natural England published "A review of the millipedes (Diplopoda), centipedes (Chilopoda) and woodlice (Isopoda) of Great Britain" in November 2015. The report was compiled to assess the threat status of British species for conservation decisions, download at: http://publications.naturalengland.org.uk/publication/4924476719366144.

The New Centipede Atlas

As I mentioned briefly in the editorial Tony Barber, the centipede recording scheme organiser, is urgently in need of records of British centipedes for the new Centipede Atlas which will be produced as soon as enough data has been collected. Please send any contributions you have to Tony on the email address at the bottom of this page.

Next issue – Autumn 2016

The next instalment of the newsletter will be available in the autumn. If you have any news, interesting findings or photos that you would like featured please send them to the newsletter editor at the email address below by the 30th September 2016. Please also let us know of any relevant upcoming meetings that may be of interest to other members.

The British Myriapod and Isopod Group Newsletter is distributed for the British Myriapod and Isopod Group by the Biological Records Centre, supported by funding from the NERC Centre for Ecology and Hydrology and the Joint Nature Conservation Committee.

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www.bmig.org.uk
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Centipedes:
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