British Myriapod and Isopod Group

Newsletter

No 41 Autumn 2020

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BMIG news

AGM 2020—the AGM postponed from the spring will be held by Zoom on Saturday 5 December at 2pm. All welcome to attend. Please contact Helen for joining details. The agenda, minutes of last AGM and reports are on the website here.

Committee members—we have several vacancies on the Committee. Do please consider if you might be able to help out. We are looking for a new Newsletter Editor as well as Project Officer, Meetings organiser and Conservation Officer. Please contact Helen if you are interested.

Field meeting spring 2021—Due to the ongoing uncertainties of the COVID situation we have decided not to hold a field meeting next spring. Instead we hope to have a mini conference on line, probably on Saturday 10 April. More details nearer the time.

BMIG expands to include a new recording scheme—Intertidal marine isopods

Back in the late 1960s, the British Isopod Study Group ran the Isopod Recording Scheme which covered not only terrestrial and freshwater isopods, but also marine species. Ultimately the Marine Recording Scheme separated from the Non-marine Isopod Recording Scheme, but it was short-lived due to a lack of records and difficulties with verification.

Fast forward to 2020, and we feel that the time is right to launch a new BMIG-led intertidal marine isopod recording scheme (the sub-littoral species remaining beyond the reach of most observers). Around 70 species of this fascinating group may be encountered intertidally, but they are very poorly recorded. Their identification, which is greatly aided by Naylor & Brandt's 2015 *Intertidal Marine Isopods* (Synopsis of the British Fauna, New Series, No. 3), is of a difficulty similar to that of woodlice, centipedes and millipedes, so that most species can be identified by a suitably informed fieldworker (though some require examination under higher magnification). The

Idotea neglecta (left) and *Idotea emarginata* (right) (Warren Maguire)

technology available to us today means that many of the difficulties encountered by the original scheme can be overcome: records can be gathered online, and good quality photographs of whole animals and key characteristics are in most cases sufficient to confirm identification.

To this end, a list of intertidal marine isopods on the BMIG website with details on identification and distribution is being compiled, and verification of intertidal marine isopods records will shortly commence. This new BMIG intertidal marine isopod recording scheme will use the Biological Records Centre's iRecord website as the primary means for gathering records, though more traditional avenues will also be available. Fieldworkers are encouraged to visit the BMIG website for further details and to submit marine isopod records to iRecord, including photographs and as much other information as possible.

Warren Maguire

Centipede atlas update

Work on the Centipede Atlas for Britain and Ireland continues in conjunction with Biological Records Centre (UKCEH. No new species have been reported but the "long form" of *Pachymerium ferrugineum* has been noted and included for the Channel Islands.

Much recent work has involved the tidying up of issues revealed during processing and also in trying to use as much as reasonably possible of the RA14 (pre-1988) data. BRC uses "start" and "end" dates and, as the records were processed for the purposes of showing year periods for "dots" on maps, it emerged that there were a relatively small number of records without usable start dates. These were consequential on either incomplete data being used or data entry issues and necessitated trying to sort out correct or adequately correct dates by comparing records from the same site, checking original sources and checking through such things as vice-county records. Ultimately, the number of records that had to be rejected was very small.

Cryptops parisi (J.Paul Richards)

Another "late stage issue" was that of what appeared to be some remaining possible duplicate records without exactly the same site names and potentially complicated by the fact that two or more people working at a particular site might record the same species there These would make no difference to mapping but might impact on processing of habitat data and a hectad by hectad (10km grid square) comparison followed by manual sorting, allowed decisions to be made.

The original version of the centipede record card, RA14, like that for millipedes (and woodlice) had habitat categories but when redesigned (RA58, RA85) after the Provisional Atlas the arrangement was not exactly the same. This later set of categories continued to be used with spreadsheet entry. It seemed, however, to be desirable to see how much of the old data could be used. Clearly grid reference, altitude (converted to metres), urban: suburban/ village: rural, vice-county and date were compatible

along with some other categories such as soil (calcareous/non-calcareous). However, the major habitat categories were not and although some data in that field could, potentially be used, it would not be possible to merge completely and so be unbalanced. Various attempts were also made, unsuccessfully, to produce unification of the coastal/inland records. iRecord data, collected in recent years, has also been added in subject to compatibility.

Photographs of living animals from Britain or elsewhere have been obtained for most of our species, in a few cases of only preserved ones and for some (*A.peregrinus*, *N.turki*, *G.pusillifrater*) none at all. If anyone has good pictures of live *Henia brevis* or *Schendyla dentata* we could use, they would be most welcome.

Many thanks are due to Steph Rorke and Kath Turvey at BRC in relation to data entry and processing, to all who gave permission for the use of their pictures and to Paul Richards & Steve Gregory for their help. *Tony Barber*

Darwin Tree of Life— What is it?

The Darwin Tree of Life project (darwintreeoflife.org) aims to barcode all British and Irish eukaryotic (multi-celled) organisms and sequence their full genomes. Obviously, this includes the terrestrial woodlice and aquatic waterlice (but alas marine species are not included). There is an online form available where you can make your suggestions as to which species should be prioritised, and why. So, if you have any ideas please do post them here.

Britain and Ireland constitute what is probably the best known and most deeply studied biota in the world, explored during centuries of observation and research. There are many UK centipedes, millipedes and woodlice that seem to have 'odd' distributions compared to their continental siblings. Such genomic data can be used to help understand the biogeography of our fauna. For example, is the population of *Philoscia affinis* in western Scotland really of the same genetic stock as that of southern Europe? However, the list of possible species, to me, seems endless, so please do offer your suggestion. *Steve Gregory*

Darwin Tree of Life—Can you help?

The Natural History Museum is a partner in the Darwin Tree of Life project. Duncan Sivell and Greg Edgecombe have been identifying and contributing myriapods and isopods for the project. While many of the common southeastern UK species have been collected and processed, rarer species from other parts of the UK are of interest for adding to the coverage.

Polyxenus lagurus (J. Paul Richards)

Because of the restrictions on access to the Museum and labs due to Covid-19 we don't ask that specimens be sent to the NHM unless we can arrange that we will be onsite and DToL staff will be available on the same day. Live animals are required so getting the timing lined up at all ends is a challenge. However, should your collecting turn

up myriapods or isopods that could potentially be transported or shipped to London we'd be keen to hear what you've found. In the first instance, please contact Duncan or Greg by email and we can try and work out the logistics. For more information see here. ***Greg Edgecombe & Duncan Sivell***

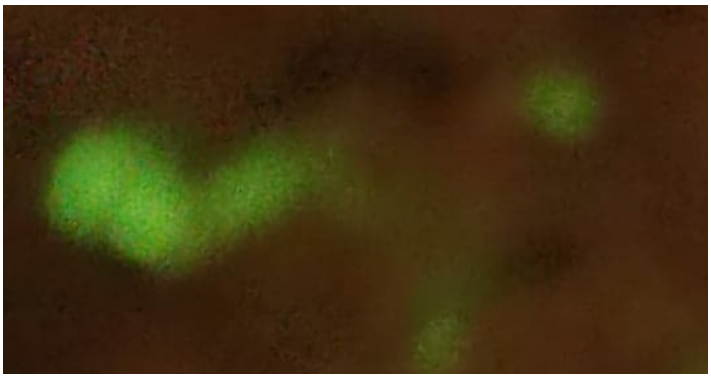
Lockdown recording

Interest in woodlice, millipedes and centipedes seems to have been stimulated by the coronavirus lockdown as people began recording the wildlife occurring in their homes, gardens and allotments. Since March BMIG's Isopods and Myriapods of Britain and Ireland group Facebook page) has seen a dramatic rise in the number of membership requests and there are now over 700 members. Applicants included a name familiar to anyone who's been active with woodlouse recording over the last few decades; Graham Oliver. Then based at the National Museum of Wales, Cardiff, Graham is noted for his discovery in 1979 of *Metatrichoniscoides celticus* new to science from the south Wales coast, *Buddelundiella cateractae* new to Britain in 1981 from a Cardiff garden and as author of the Linnean Synopsis *Woodlice* (Oliver & Meechan, 1991). Highlights of his 'lockdown' venture into millipedes include observations of *Cylindroiulus vulnerarius*, *Choneiulus palmatus* and an immature that seems to be the south Wales speciality *Hylebainosoma nontronensis*. There were also some impressive *Cryptops anomalans* and a new site for *B. cateractae* for good measure. Other recorders have also added many 'lockdown' records to the BMIG recording schemes. This includes important extensions in known range for the elusive pygmy woodlouse *Trichoniscoides albidus* and the pill woodlouse *Armadillidium depressum* – as reported elsewhere in this newsletter. I thank all for posting their findings and submitting their records via iRecord. *Steve Gregory*

Luminous centipedes

There is a long history in the literature relating to luminous centipedes and mention in this Newsletter (No.25, Autumn 2012) even though, *Geophilus electricus* (*Scolopendra electrica* of Linnaeus), despite its name, is said probably not to have reliable records of this.

Following my 2012 note which originated from comments of Robin Scagell of the Glow-worm Survey, I was e-mailed by Rachel O'Hara who wrote, "Many years ago (probably 1992/3) I went with a group of friends to Avebury for the winter solstice. After a pint (or two....) in the pub, we went for a walk around the stones, despite it being foggy and jolly chilly. When the torches were turned off, I remember seeing several glowing "worms with legs" on the bare chalk of the path. My friends also saw them, but I've still often wondered if it was just a beer too many....



A glowing centipede? (Photograph Robin Scagell)

I probably saw 10 or 15 in total and they were around 2cm in length. Looking back, I find it rather surprising that they were out in December.."

I have now heard again from Robin with some photos taken by a friend of a friend of one of his fellow glow-worm verifiers, Jim Alder. This friend had stepped on it and noticed the glow, somewhere in Derbyshire. The pictures are very fuzzy but there seem to be very few actual photos of centipedes

(which these are likely to be – they are not beetle-type glow worms, it seems) glowing in the dark.

Luminous centipede? (Robin Scargill)

In a further e-mail, he writes of a subsequent message, "About 5 or 6 worm like creatures covering an area of a typical pub beer mat. The largest worm was just short of one inch in length. They were on the edge of a gravel soil farm track, adjacent to grass. A flat surface, not sloping.

The glow was steady. I watched for some minutes. Once the phone light was turned on them they ceased their glow. I continued to observe the area for some time in case it was my own loss of night vision which caused their disappearance. They did not repeat their glow."

It seems that the location was at Clay Cross, Derbyshire, approximately SK393642.

There are several species which show bioluminescence including such common forms as *Geophilus easoni*, which this could be and it would be interesting to have more records of them. Although I don't expect readers to go rushing off to Derbyshire or spend the night at Avebury (with or without a few beers first), it might be worth looking out for these animals and, if possible, collecting an example, if you see them, for identification. *Tony Barber*

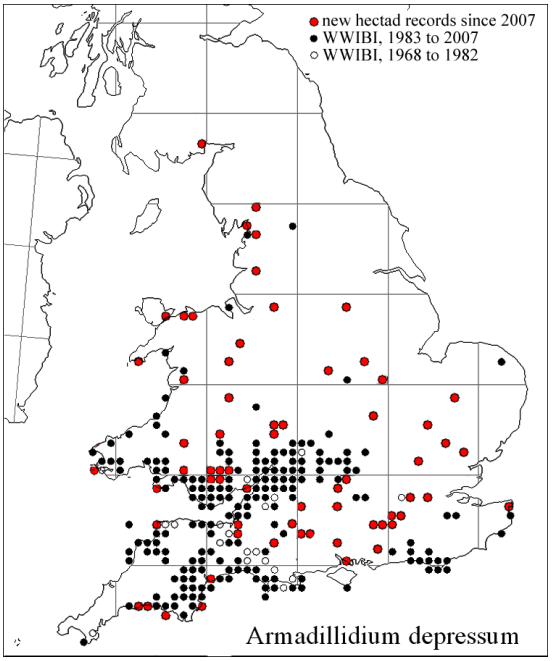
The not so southern Pill Woodlouse

Armadillidium depressum, aka Southern Pill Woodlouse, is known to be locally frequent in parts of south west England, south Wales and along parts of the south coast, but isolated sites mapped in WWIBI (Gregory, 2009) occur as far north as Yorkshire and as far east as Norfolk (see black dots in map overleaf). In recent years it has become apparent that its distribution has been creeping slowly further afield with a wide scatter of records across much of England and Wales. This includes numerous new county records; including Hertfordshire, Cambridgeshire and Essex in the south-east; Caernarvonshire and Flintshire in North Wales; and Nottinghamshire and Yorkshire in northern England (see red dots in map, based on BMIG verified records downloaded from iRecord).

This April whilst verifying woodlouse records that had been submitted via iRecord I noticed one for '*Armadillidium vulgare*' in south west Scotland (Glencaple, NX99-68-); not a common species that far north. I checked the attached images and to my surprise they seemed to show characters more akin of *A. depressum* (rather than *A. vulgare*), and the habitat "*In our house*" also sounded more typical of *A. depressum*. Since this would be the first record for Scotland I emailed the recorder, Alison Robertson, to ask if she had more images as a double check. I received a prompt reply saying "*I've just found another one. It was walking across the living room carpet just now*". The attached photos of the wee beastie were unambiguously *A. depressum*. This is the first Scottish record, and about 75 km north of previous English records.

Although *A. depressum* genuinely does appear to be expanding its range, the increase in popularity of online recording from photographs has undoubtedly helped with its detection. It is perhaps fortunate

that this species, as many woodlice, is readily identifiable from a half decent image. In many cases



records have been mis-identified by the recorder as *A. vulgare* (as with the Scottish record), but correctly re-determined to *A. depressum* following examination of supporting images during the record verification process. Although there remains a distinct southern and western bias to the distribution map, on current evidence *A. depressum* could be expected to occur anywhere throughout England and Wales and it will be interesting to see how far it penetrates into Scotland. *Steve Gregory*

Porcellionides sexfasciatus new to Britain and some rainforest goodies

Back in 2018 Keith Lugg photographed two woodlice encountered inside the Eden Project Mediterranean biome, Cornwall (SX 04-55-, VC1). Frank Noël (a prolific woodlouse recorder in France) alerted us to the possibility that they may be *Porcellionides sexfasciatus* (Budde-lund, 1885). A re-visit needed! This March, pre-lockdown, James Harding-Morris obtained permission to survey Eden Project, needless to say keenly accompanied by Keith and myself. We started in the Mediterranean biome and some possible specimens were soon encountered. They were fast, rapidly evading capture, but the two female specimens collected were confirmed as *P. sexfasciatus*, a species new for the UK. This species has a characteristic grey bloom, as seen in *Porcellionides pruinosus*, but the body bears a series of six dark longitudinal stripes (hence '*sexfasiatus*'), which are most obvious in females. Keith's images can be seen here. Also of note were a single specimen of the woodlouse *Lucasius pallidus* and a few of the millipede *Brachyiulus lusitanus* (both previously recorded here).

P. sexfasciatus is very widespread in the western Mediterranean and occurs along the Atlantic coastline north to Brittany. Although predominantly littoral it is able to colonise synanthropic habitats inland, such as gardens, and has been widely spread by human activity. Thus its occurrence within Eden Project is not unexpected. It favours relatively dry stony or sandy places; the Eden specimens being found on low stone walls. This is very different from

Porcellionides sexfaciatus (Keith Lugg)

the damp compost/manure habitat favoured by *P. pruinosus*.

So what did we find in the Tropical Rainforest biome? The highlight for me was the rediscovery of the large and impressive centipede *Mecistocephalus guildingii*, a species first found there by Tony Barber in 2005 and 2009. Keith's images of this specimen can be seen here. Although centipedes were thin on the ground, we also found *Tygarrup javanicus*, which can run backwards as quickly as forwards, *Cryptops doriae* and the tiny yellow *Lamyctes caeculus*; all previously recorded. Among an abundance of the tiny ball-rolling woodlouse *Reductoniscus costulatus* (see James' image of this species on a 5p coin on page 8). We also encountered *Pseudotyphloscia cf alba*, *Nagurus cristatus*, *Trichorhina tomentosa*, *Venezillo parvus*, and a small number of the yet undescribed *Gabunillo sp. nov.*. Of the millipedes *Oxidus gracilis* and *Paraspirobolus lucifugus* were very numerous, but several *Cylindrodesmus hirsutus* and the ball-rolling flat-back *Amphitomeus attemsii* were also seen.

Keith and I are very grateful to James for organising this trip, and to staff at Eden Project for allowing unrestrained access to the Biomes. *Steve Gregory*

Trichoniscoides albidus in eastern Yorkshire

The pygmy woodlouse *Trichoniscoides albidus* is notoriously elusive, but has proved to be widespread in southern and eastern Britain, where it is often associated with damp alluvial soils (such as the Thames Valley in Oxfordshire). A few outlying populations, often in wooded valleys, are known along the eastern coast as far north as Durham. Being of similar size, shape and colour to the ubiquitous *Trichoniscus pusillus* agg. it is possibly under-recorded, but does seem to be genuinely rare north-west of a line from Dorset to Lincolnshire.

Back in April, during the 'lockdown', Jane Thomas began recording the invertebrates inhabiting her garden near York (hectad SE54, VC64) and images were posted BMIG's Isopods & Myriapods of Britain & Ireland group for species confirmation. One image of a dead 'pygmy woodlouse' immediately caught my eye; a rough tuberculate body surface, reddish colour and it seemed to have a single ocellus. Surely, *Trichoniscoides albidus*! Subsequently, this was

Trichoniscoides albidus (J. Paul Richards)

confirmed by Jane's discovery live specimens. I checked the grid reference and Jane's garden is about 60 km north of the block of Lincolnshire records. However, it lies in the valley of the River Ouse, about 1km from the river itself, albeit about 60 km from the east coast. Although this is within the expected range for this species it fills in a void in the known distribution . Surely, it must be awaiting discovery at other sites along the north-eastern fringe of England, perhaps even southern Scotland.

Steve Gregory

Online survey of common names for terrestrial isopods

Do you know what a *Granny-grey* is? What about a *Parson's-pig*? Or a *Cheese-log*? Or a *Billy-baker*? Maybe you call them *Slatericks*, *Fat-pigs*, *Grammer-sows*, or *Monkey-peas* instead? There is a massive diversity of

common names for woodlice, and although there have been efforts to record some of these names in the past, no large-scale survey of them across Britain and Ireland has ever been conducted.

Together with the 'Tweetolectology' team at Cambridge University, I'm currently running a short online survey of common names for terrestrial isopods which precisely maps the distribution of the many different terms. We've had loads of responses from all over Britain and Ireland already, but we need many more to better identify geographical patterns as there is such a diversity of names (over 250 different names so far!). So please do take our short survey (no Twitter account is needed) here.

Every answer (including good old *Woodlouse*) is welcome. Results of the survey will be advertised on the Tweetolectology (@tweetolectology) and BMIG (@britishmigroup) Twitter accounts and we hope to share some of our findings in the BMIG Bulletin too. Thanks! *Warren Maguire*

First UK record of *Clypeoniscus cantacuzenei*

The marine isopod *Clypeoniscus cantacuzenei* Bourdon, 1967, a member of the family Cabiropidae (superfamily Cryptoniscoidea), is a small parasite of the isopod *Cleantis prismatica* (Risso, 1826). It was first discovered in Roscoff, north-west France, and this has remained the only known site for the species. But in 2017, during the Porcupine Marine Natural History Society field meeting, several *C. prismatica* were collected at Creswell Sands in Northumberland, and one male had a small (0.5 mm), bright red isopod attached to its pereon. On examination, this turned out to be the male cryptoniscus stage of *C. cantacuzenei*, making it the first UK and second ever record of this species (Jenkins & Griffin 2020). This is the second *Clypeoniscus* species recorded in the British Isles, *C. hanseni* Giard & Bonnier, 1895, a parasite of isopods in the genus *Idotea*, having previously been recorded at Glasgow and Cullercoats.

Jenkins & Griffin (2020) note that although the male cryptoniscus stage is small, it offers the best chances of detecting and identifying this species, as it is visible on its host externally and, unlike the internally situated female, retains obvious isopod characteristics. It differs from other members of the genus *Clypeoniscus* in having two rather than three teeth on the coxal plates, as well as in its choice of host. However, Jenkins & Griffin (2020) note that rates of infestation of the host are low. Nevertheless, it is highly unlikely that Roscoff and Cresswell are the only places the species occurs and, given that its host is widespread around the coasts of Britain and Ireland, fieldworkers should look out for it in the hope that we can add to our knowledge of the distribution of this little-known species.

Jenkins, A. & R. Griffin. 2020. First record of the isopod parasite *Clypeoniscus cantacuzenei* (Crustacea: Isopoda) in the UK and the introduction of a key to the cryptoniscus stage of genus *Clypeoniscus* of UK Waters. *Cahiers de Biologie Marine* 61, 501-5.

Reductoniscus costulatus on 5p piece (James Harding-Morris)

Back page snippets

Watch Paul Richards giving an introduction to millipedes for the Tanyptera Trust based on his CD here.

Read about Hebridean fossil millipedes in the Times.

Spring newsletter items to Helen Read by 1st March 2021.

Bulletin items to Helen Read by 1st February 2021.

The 19th International congress of Myriapodology has been postponed from summer 2021 and will now be held in Colombia in August 2022. See here for official website or here for Myriapod congresses in general and proceedings of the 2019 congress in Hungary.

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